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BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

Application of Pacific Gas & Electric Company for adoption of authorized rate of return for 1988 pursuant to Attrition Rate Adjustment Mechanism (U39M).	Application 87-08-006 (Filed August 4, 1987)
In the Matter of the Application of San Diego Gas & Electric Company, for Authority to Revise its Rate of Return in Accordance with the Existing Attrition Rate Adjustments (ARA) Mechanism and to Utilize the Revised Rate of Return in its 1988 Attrition Filing (U902-M).	Application 87-07-050 (Filed July 31, 1987)
In the Matter of the Application of Southern California Gas Company (U904G) to Implement its Attrition Allowance and to Establish a Return on Equity for 1988.	Application 87-07-048 (Filed July 31, 1987)
In the Matter of Application of Southwest Gas Corporation for a Review and Revision of its Required Return on Equity, and for Authority to Utilize the Revised Return on Equity in a 1988 Operational Attrition Filing (U905G).	Application 87-08-025 (Filed August 14, 1987)
In the Matter of the Application of SIERRA PACIFIC POWER COMPANY to Authorize a Return on Equity for Calendar Year 1988 (U903E).	Application 87-09-013 (Filed September 8, 1987)

(See Appendix A for appearances.)

OPINION

I. Background

These consolidated proceedings involve rate of return reviews in connection with the 1988 attrition filings of Southern California Gas Company (SoCal Gas), San Diego Gas and Electric (SDG&E), Pacific Gas & Electric Company (PG&E), Southwest Gas Corporation (Southwest Gas), and Sierra Pacific Power Company (Sierra Pacific).

In Decision (D.) 85-12-076, issued December 18, 1985, this Commission established the current framework of the Attrition Rate Adjustment Mechanism (ARA). In connection with financial attrition issues, the Commission requires a review of the return on common equity for each utility which files an ARA advice letter. However, given the need to address factual issues in connection with adopting a rate of return, the Commission has determined that the best procedural course is to require each utility to file separate companion applications addressing return on equity (ROE) issues for the attrition year.

The applications treated in today's decision were filed in compliance with the above guidelines. The particulars of each application are addressed in subsequent sections of this decision.

On August 21, 1987, the Division of Ratepayer Advocates (DRA) filed a motion requesting consolidation of the rate of return reviews for the several energy utilities who are seeking attrition adjustments for the 1988 attrition year. A prehearing conference (PHC) was held before assigned Administrative Law Judges (ALJs) Stalder and Carew on September 8, 1987, in the four then pending applications (i.e., those of PG&E, SDG&E, Southwest Gas, and SoCal Gas). The ALJs heard argument on DRA's Motion to Consolidate from the parties, and from Sierra Pacific, which appeared voluntarily at the PHC, despite the fact that, as of September 8, 1987, its attrition application had not been filed. At the conclusion of this oral argument, the four pending applications were consolidated

for purposes of conducting rate of return reviews (PHC TR. 18). By ALJ Ruling dated October 9, 1987, Sierra Pacific's A.87-09-013 was also consolidated with these matters. Hearings on the five consolidated rate of return reviews were held October 21-23, and 26-27, 1987, before ALJ Carew in San Francisco. This decision disposes of all issues raised in these consolidated reviews for SDG&E, PG&E, Southwest Gas, and Sierra Pacific. A separate companion decision disposes of the operational and financial attrition issues raised in SoCal Gas' attrition application.

II. SDG&E's Application

A. Procedural Background

On July 31, 1987, SDG&E filed its application for authority to revise its rate of return in accordance with the ARA mechanism for attrition year 1988. SDG&E requested an 11.4% rate of return for that year, and a 13.75% return on common equity. This represented a reduction from current authorized 1987 levels (11.61% rate of return based on a 13.9% return on common equity). Three parties actively participated in SDG&E's portion of the consolidated proceeding: SDG&E, DRA, and the City of San Diego (San Diego).

SDG&E presented the testimony of two witnesses. Its Vice President-Finance and Chief Financial Officer R. Lee Haney testified on SDG&E's business risks and financial policies as they impact on the 1988 attrition year request. SDG&E's Manager-Financial Analysis & Forecasting, Richard A. Krumvieda testified on the technical analysis underlying SDG&E's rate of return request for the attrition year. Edwin Quan presented the DRA recommendations relative to SDG&E's request. San Diego presented no affirmative case, but participated through cross-examination of the witnesses. San Diego presented oral argument on October 27,1987, in lieu of filing a brief. SDG&E, DRA, and Toward Utility Rate Normalization (TURN) filed concurrent briefs by November 5, 1987, and the matter was submitted on that date. The parties'

positions are summarized in the table below, and are subsequently discussed in our disposition of the issues.

B. Rate of Return Recommendations For Attrition Year 1988

SDG&E's presently authorized rate of return is depicted in the following table:

SDG&E (Present Authorization)

Component	Capital Ratio	Cost Factor	Weighted Cost
Long-term Debt	42.00%	9.54%	4.01%
Preferred Stock	8.50	8.52	0.72
Common Equity	49.50	13.90	6.88
Total	100.00%		11.61%

This present authorization contrasts with the recommendations of the active parties for the 1988 attrition year, depicted in the following tables:

SDG&E (Recommendation)

Component	Capital Ratio	Cost Factor	Weighted Cost
Long-term Debt	40.50%	9.24%	3.74%
Preferred Stock	8.50	7.28	0.62
Common Equity	51.00	13.75	7.01
Total	100.00%		11.37%

DRA (Recommendation)

Component	Capital Ratio	Cost Factor	Weighted Cost
Long-term Debt	42.50%	9.24%	3.93%
Preferred Stock	6.50	7.28	0.47
Common Equity	51.00	12.25*	6.25
Total	100.00%		10.65%

* Midpoint of 11.75%-12.75% range.

"A review of these recommendations demonstrates that there is agreement between SDG&E and DRA on the cost factors for preferred stock and long-term debt, and disagreement as to the

appropriate capital ratios, and return on common equity for the attrition year. We will adopt the agreed-upon cost factor for preferred stock (7.28%) and the 9.24% cost factor for embedded long-term debt. Our adopted incremental cost of debt is based on the November DRI forecast figure for AA utility bonds (9.68%), plus the 0.25% increment recommended for SDG&E by DRA (DRA brief, p. 7). The adopted figure for 1988 is thus 9.93%. We proceed now to discuss the disputed issues.

C. Capital Structure

The capital structures to be used by SDG&E for 1986, 1987, and 1988 were determined in its last general rate case (D.85-12-065). For 1988, the Commission established a debt/preferred ratio of 40.5%/8.5%. SDG&E has used these adopted figures in its 1988 attrition year showing. In contrast, DRA has recommended changing the debt/preferred ratio to 42.5%/6.5%. DRA's rationale is that since the capital structure for 1988 was determined during the last general rate case (based on estimates of SDG&E's capital requirements and financing plan made in 1985), changes in SDG&E's financing plans, (specifically the amount of preferred stock refundings) have caused the actual capital structure to change from that previously adopted. PSD is recommending recognition of the decrease in the preferred stock ratio from 8.5% to 6.5%. This has a corresponding impact on the debt ratio, increasing it from 40.5% to 42.5% , as previously noted.

SDG&E opposes DRA's recommendation, asserting that DRA is only concerned that this change has the operative effect of decreasing SDG&E's revenue requirement; SDG&E asserts the change has nothing whatever to do with determining the proper return on equity for the attrition year. In addition, SDG&E opposes the recommendation, asserting that it runs counter to the Commission's determination to adopt capital structures for the test year and succeeding attrition years. SDG&E questions why the Commission

would want to specifically adopt a capital structure for future attrition years, if it were subject to later change.

DRA acknowledges that the Commission adopted a 1988 capital structure in the general rate case decision issued in December of 1985. However, it believes that its recommendation is within the scope of the permissible updating of financing plans recognized by the Commission to be a legitimate function of these attrition reviews. It believes that its recommendation merely captures a decrease in the preferred stock ratio that has actually occurred since the issuance of the general rate case decision.

We decline to adopt DRA's recommendation, preferring to adhere to the adopted capital ratios emanating from the last general rate case. At the time we issued D.85-12-065, we certainly contemplated that actual reality would not match test year projections. Nonetheless, we opted to adopt a capital structure for the two attrition years beyond the test year, and we will not change that determination at this point. We believe this decision is consistent with our determination that the updating of financing plans is permissible during attrition years, since we believe the DRA recommended recognition of a change in the actual ratios between long-term debt and preferred stock goes beyond such permissible updating.

D. Return on Common Equity

The other major contested issue is the appropriate return on common equity for 1988. The following table summarizes the positions of the parties:

Summary of ROE Recommendations

Party	ROE
SDG&E	13.75%
DRA	11.75%-12.75%
San Diego	12.25%-12.75%
TURN	12.00%

SDG&E and DRA submitted testimony showing the results of various financial models as the starting point for establishing ROE, but they cautioned that model results are an analytical guide, whose results must be tempered by judgment. SDG&E presented a discounted cash flow (DCF) analysis and a risk premium analysis. DRA relied on three financial models, DCF, Risk Premium, and the Capital Asset Pricing Model (CAPM), in its review of SDG&E's attrition year request. San Diego and TURN did not present independent analyses, but made arguments in support of their recommended ranges. The following table summarizes the results of the models presented by Witnesses Krumvieda and Quan.

ROE Model Results

Party	Model	ROE
SDG&E	DCF	13.25%-14.65%
	Risk Premium	14.1%- 14.8%
DRA	DCF	11.65%-12.73%
	Risk Premium	13.33%-13.73%
	CAPM	12.28%

Because these models are used only to establish a range for ROE, we do not repeat the detailed descriptions of each model contained in this record. Additionally, the parties have advanced arguments in support of their analyses and in criticism of the input assumptions used by other parties. These arguments are not

extensively addressed in this decision, given our assessment that they do not alter the model results shown above. These models provide a reasonable range from which to choose, and we will use them as a rough guidepost in selecting SDG&E's 1988 ROE. Nonetheless, in the final analysis, it is the application of judgment, not the precision of these models, which is the key to our decision.

In applying this judgment, we assess the arguments presented by SDG&E that it faces increased business and financial risk during 1988. SDG&E asserts that our consideration of the market cost of equity capital must reflect an analysis of many factors, including the current status of certain business risks, and an assessment of their probable direction during the period for which the rate is being set. SDG&E's Haney testified that the utility faces additional business risk from increased competition and from regulatory decisions "retroactively reallocating risk" of prior utility actions.

SDG&E asserts that it faces higher risk levels from competition than it did during its last test year review, primarily from cogenerators who are depriving it of a portion of its electric market. When cogeneration is viewed as a source of capacity to SDG&E, it poses an additional risk because of SDG&E's relatively low reserve margin (15%), which means that any significant variance between promised and delivered third party power endangers SDG&E's ability to perform its franchise obligations.

More importantly, SDG&E points to DRA-recommended disallowances of costs associated with the Southwest Power Link (SWPL). It asserts that DRA is arguing for disallowances totalling $285 million, exclusive of an additional $35 million in lost interest expense recovery associated with DRA's five-year amortization proposal.

SDG&E also points to other ratemaking risks, including the Commission's actions to eliminate the supply adjustment

mechanism (SAM) and the purchased gas adjustment (PGA) mechanism for SDG&E's noncore gas customers. SDG&E recovers about 40% of its gas revenues from this market. On the electric side, the Commission is considering the elimination of the electric revenue adjustment mechanism (ERAM) and has already established a program to eliminate ERAM and the annual attrition adjustment for the large light and power class beginning April 1, 1988. SDG&E has not assessed what percent of its electric sales or revenues it believes it will lose as a result of this Commission action. SDG&E believes that DRA witness Quan failed to focus on specific risks facing SDG&E, relying instead on a generic risk discussion. In contrast, SDG&E believes the Commission must recognize the substantial specific business risks which SDG&E faces in the attrition year.

SDG&E also asserts that its financial risk has increased due to cash flow decreases of approximately $40 million attributable to the 1986 Tax Reform Act. Further, it asserts that any refinancings it has conducted have already been reflected in its proposed embedded debt cost for 1988. Therefore it asserts that its financial condition is not improving as DRA implies.

DRA acknowledges that risk, in terms of earnings variability, may increase as a result of the Commission's SAM and ERAM-related decisions. However, it urges the Commission not to lose sight of the underlying intent of these decisions, which was to enable the utilities to respond to changes in the marketplace keyed to competition and bypass concerns. In such an environment, according to DRA, the SAM and ERAM mechanisms operate to reduce the utility's incentive to compete and to penalize them when they compete successfully. This was explicitly recognized by the Commission when it acted to eliminate these mechanisms.

Further, DRA notes that the Commission has taken care, when making any changes to the existing regulatory framework, to implement measures either to limit additional risk or to reduce risks in other areas. Thus, in the case of SAM, the Commission

opted for a two-year transitional period and retained the mechanism for core customers, as well as implementing the negotiated revenues stability account (NRSA), as a safety net. In short, DRA believes that SDG&E and the other utility applicants have painted an overly bleak picture of the impact of the Commission's actions, which were designed to instill confidence, rather than produce uncertainty, in the marketplace. Further, DRA points to Exhibit 10 in these consolidated proceedings, which is PG&E's 1987 second quarter letter to shareholders. In that letter, the Chairman of the Board provides an account of the positive side of competition. This demonstrates, in DRA's view, that the utility applicants (presumably including SDG&E) often present somewhat varying views of the competition issue to shareholders and regulators.

We acknowledge that SDG&E may indeed be experiencing some additional risk in connection with the restructuring of the natural gas industry and the current transition in the electric industry. These risks are associated with changes stemming from competition in markets which have traditionally been treated as monopolies. It may well be that our risk limiting measures do not exactly counterbalance the additional risks created by changes to the ERAM and SAM mechanisms. But whether that increased increment of risk requires an increase in the return on equity is another matter, especially given our attempts to reduce the risks associated with these changes.

DRA notes that SDG&E is among three of the current applicants who are requesting rates of return for 1988 based on a higher common equity ratio than previously authorized for 1987. DRA concludes that this translates to a diminution in the degree of financial risk for SDG&E, or at the very least no change in that risk. In addition, cash-flow positions have improved as SDG&E's external financing requirements have been reduced due to refinancing of high-cost debt issues. This is reflected in the lower-than-1987 levels of embedded cost of debt.

We are also keenly aware that SDG&E no longer faces uncertainty with regard to the final disposition of SONGS and that today's market reflects an investor perception that risks are lower than in the past, at least with regard to this major issue.

SDG&E has not requested an increased ROE for the 1988 attrition year, but rather a reduction from 13.90 to 13.75%. DRA argues, persuasively in our view, that this implies SDG&E's recognition of the reality of lower required equity allowances (DRA brief, p. 18). San Diego's ROE recommendation, premised on a similar analysis, is below the requested 13.75% as well (12.25%-12.75%). TURN's 12% recommendation is keyed principally to the November DRI forecast, which it believes warrants a downward adjustment of 25 basis points across-the-board to all DRA recommendations.

DRA's recommended range of 11.75 to 12.75% is premised on the argument that current authorizations have not been fully adjusted to reflect the downward trend in interest rates since 1982 (Exhibit 14, p. 52). For support, it points to the quantitative model results, and to the fact that recent returns for comparable gas utilities, at least, clearly evidence that downward trend (Exhibit 14, Table 5; Exhibit 15).

Thus, while we agree with SDG&E that increased risks associated with regulatory changes (specifically the restructuring of the natural gas industry and fundamental changes in the electric industry in response to competitive pressures) will be considered by investors to some extent, this consideration is counter-balanced by evidence that the cost of money has diminished and that the financial models and the economic indicators (Exhibit 14, Table 1, "Trends In Interest Rates") support a reduction in SDG&E's authorized ROE.

After considering all the evidence of the market conditions, trends, and the quantitative models presented by the parties, we believe that an ROE of 12.75% is just and reasonable

for SDG&E in attrition year 1988. This adopted ROE produces an overall rate of return of 10.86% for the attrition year, as shown in the following table depicting the adopted cost of capital.

SDG&E: Adopted Cost of Capital

Component	Capital Ratio	Cost Factor	Weighted Cost
Long-term Debt	40.50%	9.24%	3.74%
Preferred Stock	8.50	7.28	.62
Common Equity	51.00	12.75	6.50
Total	100.00%		10.86%

III. PG&E's Application

A. Procedural Background

On August 4, 1987, PG&E filed its application seeking adoption of a common equity return of 13.8% for the attrition year 1988. As noted, hearings on this application were heard on a consolidated record. During these hearings, PG&E presented the testimony of two witnesses, Gordon R. Smith, its Vice-President-Finance and Treasurer, and Jack F. Jenkins-Stark, Manager of Financial Planning and Analysis. Mr. Smith testified on rate of return policy issues, and Mr. Jenkins-Stark addressed rate of return methodology. DRA presented the testimony of Edwin Quan. The City of San Francisco (San Francisco) presented no affirmative case, but participated through cross-examination of various witnesses. San Francisco opted to present oral argument on October 27, in lieu of filing a brief; PG&E, DRA, and TURN filed concurrent briefs by November 5, 1987, and the matter was submitted on that date.

B. Rate of Return Recommendations For Attrition Year 1988

PG&E's presently authorized rate of return is depicted in the following table:

PG&E (Present Authorization)

Component	Capital Ratio	Cost Factor	Weighted Cost
Long-Term Debt	46.50%	9.65%	4.49%
Preferred Stock	9.00	9.02	0.81
Common Equity	44.50	13.80	6.14
Total	100.00%		11.44%

This present authorization contrasts with the recommendation of the active parties for the 1988 attrition year, depicted in the following two tables:

PG&E (Recommendation)

Component	Capital Ratio	Cost Factor	Weighted Cost
Long-Term Debt	45.50%	9.48%	4.31%
Preferred Stock	8.50	8.80	0.75
Common Equity	46.00	13.80	6.35
Total	100.00%		11.41%

DRA (Recommendation)

Component	Capital Ratio	Cost Factor	Weighted Cost
Long-Term Debt	47.00%	9.34%	4.39%
Preferred Stock	7.00	8.78	0.61
Common Equity	46.00	12.75	5.87
Total	100.00%		10.87

A review of these recommendations demonstrates that there is disagreement between the two parties as to the ratio of d[illegible]/preferred stock to be used in the capital structure for the 1988 attrition year, as well as a dispute over the cost factor for common equity. The cost factor for preferred stock recommendations

of the two parties are virtually identical, and thus, we adopt PG&E's recommended 8.80% preferred stock cost factor.

The embedded long-term debt cost factors of PG&E and DRA are also very close, although we believe that DRA's recommendation has been modified to reflect the November 1987 DRI control forecast and PG&E's 9.48% figure has not. We will adopt the more current 9.34% figure, since it is based upon use of the November 1987 DRI forecast and is also adjusted to reflect DRA corrected costs for PG&E's variable embedded debt (TR. 526). This correction remedies one major difference between the two parties' original recommendations and was made subsequent to the close of the record pursuant to DRA's agreement to take a second look at the issue of variable embedded debt.

The parties have also agreed that 50 basis points should be added to the 9.68% November 1987 DRI control forecast figure for AA-rated utility bonds, to derive PG&E's incremental cost of debt for the 1988 attrition year. The resulting 10.18% is adopted in this decision.

C. Capital Structure

As in the case of SDG&E's attrition year showing, there is a dispute between PG&E and DRA about PG&E's attrition year capital structure. PG&E's recommended capital ratios are premised on the capital structure for 1988 adopted by the Commission in its last rate case decision (D.86-12-095) for use in the 1988 attrition year. DRA has proposed, again based upon its review of updated financial data, that PG&E's debt ratio for attrition year 1988 be increased from the 45.50% authorized in D.86-12-095 for use in 1988, to 47%. This adjustment would correspondingly lower the percentage of preferred stock in the capital structure from 8.50% to 7.00%.

PG&E asserts that DRA's attempt to increase the debt leverage for ratemaking purposes during the 1988 attrition year should be rejected based upon the prior Commission decision.

Consistent with our disposition of this issue in the case of SDG&E, we agree with PG&E's argument, and we will adopt PG&E's recommended capital structure for the attrition year 1988. Thus, the adopted capital structure is comprised of 45.50% long-term debt, 8.50% preferred stock, and 46.00% common equity.

D. Return on Equity

The following table summarizes the positions of the parties.

Summary of ROE Recommendations

Party	ROE
PG&E	13.80%
DRA	11.75-12.75
San Francisco	Middle to low 12% range
TURN	12.50%

PG&E and DRA submitted testimony showing the results of various financial models as the starting point for establishing ROE, but they cautioned that the model results are an analytical guide, whose results must be tempered by judgment. As PG&E notes, while such models are useful, they are not a substitute for informed and reasoned judgment of risks the utility is facing and the return which is necessary to fairly compensate investors for those risks. PG&E followed its practice in past rate of return proceedings and employed three models: DCF, Risk Premium, and CAPM. DRA relied on the same three financial models. Both parties appear to have placed primary reliance on the DCF model, however. San Francisco and TURN did not present independent analyses, but made arguments in support of their recommended ranges. The following table summarizes the results of the models presented by Witnesses Jenkins-Stark and Quan.

ROE Model Results

Party	Model	ROE
PG&E*	DCF	12.98-15.63%
	RP	14.94-15.00
	CAPM	15.72%
DRA	DCF	11.96-13.05%
	RP	14.70-15.10
	CAPM	13.11%

*Based on October 1987 DRI Information

Because these models are only used to establish a range for ROE, we will not repeat the detailed descriptions of each model contained in this record. Additionally, PG&E and DRA have advanced arguments in support of their analyses and in criticism of opposing input assumptions. These arguments are not extensively addressed in this decision, given our assessment that they do not alter the model results shown above. However, we do note in passing that there is much dispute over the dividend growth rates used in the DCF model, given PG&E's announced policy that its dividend will be static until the Diablo rate case is resolved (at which time it will reconsider its dividend policy). PG&E argues that DRA's constant growth rate assumption does not coincide with the utility's announced intentions in this regard. DRA used a much lower constant growth rate for PG&E than it applied to other utility applicants on a long-term basis. PG&E argues that DRA's action thus artificially assumes that after the Diablo Canyon reasonableness decision is rendered, PG&E will adopt a dividend growth rate considerably lower than that assumed by financial analysts in their published forecasts applicable to these other utilities. PG&E notes that the DCF model, like all models, is heavily influenced by the assumptions employed. It notes however, that in PSD's application, the model is also influenced by the form employed. PG&E argues that if a more accurate variable growth rate

model had been employed, and the yields associated with the lower current prices incorporated, the results of the model would be closer to the range suggested by PG&E.

Despite the above controversy, we believe these models provide a reasonable range from which to choose, and we will use them as a rough guidepost in selecting PG&E's 1988 ROE. Nonetheless, as PG&E clearly states above, in the final analysis it is the application of judgment, not the precision of these models, which is the key to our decision.

In applying this judgment, we assess the arguments presented by PG&E that it faces increased business and financial risk during 1988. PG&E's ultimate argument is that it is more risky today than it was ten months ago when the Commission adopted the present 13.80% return on equity. It cites several factors. First, there are the competitive pressures presented by bypass, including uneconomic bypass. There are also competitive pressures associated with the restructuring of the gas industry, and, in PG&E's view, in connection with the Commission's QF program. Specifically, PG&E asserts that the competitive pressures it already faces are exacerbated by the need to face the continuing problem of excess payments to QFs for services allegedly not needed.

Second, PG&E focuses on the new gas regulatory structure, and more specifically the default provision included in D.87-03-044. Under that provision, PG&E asserts that it is authorized to discount gas rates to customers with competitive options, but is not allowed to price to any customer in excess of the embedded cost of service. The utility submits that any system which allows it to discount rates for some customers to keep them on line but which does not allow recovery through other rates, including market base rates, from those who value the service at a much higher level incrementally and are willing to pay for it, is a system which almost certainly will operate in a manner which will

preclude full cost recovery. This in turn should be viewed as increasing corporate risks, in PG&E's view.

PG&E also cites changes to the traditional regulatory compact, including restructuring of the natural gas industry, although it acknowledges that the Commission has attempted to minimize increased risks by imposing the safety net discussed earlier in this decision. Like the other applicants who address the safety net issue, however, PG&E does not believe the Commission has done enough in this area. On the electric side, it notes there is uncertainty and risk created by the Commission's announcements in connection with ERAM, as previously discussed, and it points out that there is no corresponding "safety net" on the electric side.

Finally, PG&E cites the regulatory delays associated with the reasonableness review of the Diablo Canyon Nuclear Power Plant (Diablo Canyon). There are three chief concerns here. The first, is the Commission's denial of further interim relief in D.87-10-041, which means, to PG&E, that absent extraordinary circumstances, no further cash flow will be authorized for Diablo Canyon until the Commission completes the reasonableness phase of these proceedings. PG&E also asserts that it is not recoverying the full operations and maintenance expenses it is incurring in connection with operating Diablo Canyon. PG&E's second concern relates to what it views as the uncertainty caused by delay in resolving the reasonableness issue. That expected resolution has now been pushed back to April of 1989, and PG&E notes that persistent delay in this proceeding is a factor specifically noted in the comments of rating agencies which address the risk factors to be considered by investors evaluating an investment in PG&E. Finally, there is DRA's disallowance recommendation. PG&E asserts that this recommendation has an undeniable effect on the capital markets' perception of PG&E's securities, notwithstanding the fact that the merits of the recommendation have yet to be tested in the hearing room or embraced in any fashion by the Commission.

PG&E also notes that objective market indicators of risk confirm that it is a higher risk investment at this time than just ten months ago. This argument is based upon testimony that PG&E's Beta has risen, that its bond and preferred stock ratings have been lowered by several rating agencies in 1987, and that its market-to-book ratio has declined to the extent that its common stock was, at the time of these hearings, selling at a price below stated book value.

As stated previously in connection with other applications, DRA acknowledges that risk may have increased as a result of the Commission's actions in the area of restructuring the gas and electric industries. However, again, it urges the Commission not to lose sight of the underlying intent of these decisions, which sought to enable the utilities to more effectively compete in the marketplace. We will not repeat further DRA's arguments on this score; it suffices to say that DRA believes that PG&E and the other applicants have painted an overly bleak picture of the impacts of the Commission's actions in these areas--actions which were designed to instill confidence, rather than produce uncertainty in the marketplace. We have also pointed to DRA's citation to Exhibit 10, PG&E's 1987 Second Quarter Letter to Shareholders, which presents a positive side of the competition issue (see also, San Francisco's argument about the utility's "optimism department" and "pessimism department", TR. 616: 1-28).

The issue which overshadows the others, however, is the impact of the still pending status of our reasonableness review of Diablo Canyon costs. It is difficult to say how much impact on an individual investor the denial of further interim relief or the O&M issue have, because, as always there are several ways of viewing the situation. The fact that some interim relief has been granted, for example, is doubtless a positive sign. The delay issue is more problematical, for it is difficult to pinpoint with accuracy how that investor views the delay in resolution of the issue or the DRA

recommended disallowance, assuming the investor is even aware of many of these issues at the same level of detail the parties possess.

PG&E asserts that it is more risky today than it was ten months ago when the Commission adopted the 13.8% recommendation. However, another way of looking at the issue is that at the time the Commission adopted the 13.8% return, PG&E was one of three major utilities in this state with pending reasonableness reviews associated with major nuclear power plant additions. That uncertainty has now been resolved for SDG&E and Southern California Edison (Edison). Thus, it might be said that the Edison and SDG&E risk positions have improved relative to PG&E, since the latter still faces the unknown outcome of the outstanding reasonableness review. However, in our view, the mere pendency of that unknown outcome does not make PG&E, standing alone, more risky today than ten months ago.

Nonetheless there is some risk associated with the outstanding nature of the reasonableness review. DRA believes that PG&E faces the highest level of risk among the other electric utilities, apparently for this reason, and recommends that it be authorized a return on equity of 12.75% - the top of the DRA-recommended range.

San Francisco argues that the mid to low 12% range is apropos, given the current financial indicators and the fact that current authorizations have not yet fully reflected the downward trend in interest rates which has occurred since the early 1980s. ("The Lag" issue). In San Francisco's view, returns in the low to mid 12% range are very fair returns in today's economic conditions (TR. 618).

Further, San Francisco raises an equitable argument in connection with Diablo Canyon. It acknowledges that "PG&E has a Diablo problem", but believes that problem is before the Commission and will be decided by the Commission in that proceeding (TR. 613).

San Francisco opposes the notion that current ratepayers should pay in the form of a higher return on common equity, for the risk associated with the fact that the Diablo Canyon decision has not yet been rendered. PG&E on the other hand counters that the effect of the uncertainty associated with resolution of the Diablo Canyon proceeding is a regulatory risk which ratepayers should bear, since uncertainty has a price which the markets demand be compensated if the risk is to be assumed. We do not reach this equity issue in our decision today, preferring to place more significance on the risk analysis and quantitative models in the record.

TURN's 12% recommendation is keyed principally to the November 1987 DRI forecast, which it believes warrants a downward adjustment of 25 basis points to all DRA recommendations.

As we have discussed earlier in connection with other applications, we agree that there may be some increased risk associated with the structural changes in gas and electric industries which may not have been fully counter-balanced by the protections we have put in place as we have rendered these decisions. As posed earlier, the question is whether these increased risks support an increase in the return on equity.

DRA's recommendation recognizes the risk issue in our view, as well as the fact that interest rates may have reversed their mid-1987 downward trend. That, coupled with the fact that PG&E is requesting maintenance of its 1987 authorized ROE of 13.80 and no increase, argues that PG&E itself recognizes that the markets are requiring lower equity allowances at this time, as DRA maintains.

Thus, while we agree with PG&E that increased risks associated with regulatory changes, specifically the restructuring of the natural gas industry and the electric industry, will be considered by investors to some extent, we believe this consideration is counter-balanced by the evidence that the cost of money continues to decline (e.g., Exhibit 14, Table 1, "Trends and

Interest Rates"). The financial models and the economic indicators support some reduction in PG&E's authorized ROE of 13.80%, because we tend to agree with the DRA and San Francisco that there has been some delay in the reflection of the downward trend in interest rates in actual returns in the last several years. However, we are inclined to proceed cautiously here because the record indicates that there is investor uncertainty, given the fact that the Commission has yet to pass on the reasonableness of Diablo Canyon. As stated previously, in this major respect, PG&E's position is much different from that of SDG&E and Edison which have finally put SONGS behind them.

When we test DRA's 12.75 recommendation against the quantitative models, particularly PG&E's application of the DCF model (DCF is the model on which we place the most importance) that recommendation appears somewhat low. All things considered, we believe a 13.10% ROE is reasonable for the 1988 attrition year, as balancing increased risk with otherwise improved financial indicators. This adopted ROE produces an overall rate of return of 11.02% for the attrition year, as shown in the following table depicting the adopted cost of capital.

PG&E: Adopted Cost of Capital

Component	Capital Ratio	Cost Factor	Weighted Cost
Long-Term Debt	45.50%	9.34%	4.25%
Preferred Stock	8.50	8.80	.75
Common Equity	46.00	13.10	6.03
Total	100.00%		11.02%

IV. Southwest Gas' Application

A. Procedural Background

On August 14, 1987, Southwest Gas filed its application for authority to revise its required return on equity for use in its 1988 operational attrition filing (Advice Letter No. 390).

Southwest Gas requests a 14% return on common equity and an overall rate of return of 12.29% for the 1988 attrition year. This represents a reduction from current authorized levels (13.05% rate of return based on a 15.25% return on common equity). Two parties actively participated in Southwest Gas' portion of the consolidated proceeding: Southwest Gas and DRA.

Southwest Gas presented the testimony of Andrew B. Laub, its Treasurer. Edwin Quan presented DRA's recommendation. Southwest Gas, DRA, and TURN filed concurrent briefs by November 5, 1987, and the matter was submitted on that date. The active parties' positions are summarized in the table below.

B. Rate of Return Recommendations for Attrition Year 1988

Southwest Gas' presently authorized rate of return is depicted in the following table:

Southwest Gas (Present Authorization)

Component	Capital Ratio	Cost Factor	Weighted Cost
Long-Term Debt	50.00%	11.36%	5.68%
Preferred Stock	5.00	10.21	0.51
Common Equity	45.00	15.25	6.86
Total	100.00%		13.05%.

This present authorization contrasts with the recommendations of Southwest Gas and DRA for the 1988 attrition year, as shown in the following tables:

Southwest Gas (Recommendation)

Component	Capital Ratio	Cost Factor	Weighted Cost
Long-Term Debt	50.00%	11.00%	5.50%
Preferred Stock	5.00	9.78	0.49
Common Equity	45.00	14.00	6.30
Total	100.00%		12.29%

DRA (Recommendation)

Component	Capital Ratio	Cost Factor	Weighted Cost
Long-Term Debt	50.00%	11.16%	5.58%
Preferred Stock	5.00	9.57	0.48
Common Equity	45.00	12.35*	5.56
Total	100.00%		11.62%

*Range is 11.75% - 12.75%

A review of these recommendations demonstrates that there is agreement between Southwest Gas and DRA on the appropriate capital ratios to be used for the 1988 attrition year. As DRA notes in its brief, Southwest Gas' capital ratios for the 1988 attrition year have not been predetermined in a prior rate case decision. Thus, in the case of Southwest Gas, DRA reviewed the last authorized capital structure as well as current updated financing plans to determine the appropriate capital structure for the attrition year. Based on this review and Southwest Gas' own proposal to use the target capital structure of 50% debt, 5% preferred equity, and 45% common equity for the attrition year, there is apparently concurrence that this is appropriate. Therefore we will adopt this target capital structure.

On the issue of embedded long-term debt costs, Southwest Gas agrees with the DRA's proposal to use the November 1987 DRI projected cost of debt in connection with this decision. Since the DRA recommendation, with its cost factor of 11.16% for embedded long-term debt, has been updated to reflect the November forecast, we believe there is agreement that this is the appropriate figure for adoption for the attrition year. We will adopt that figure.

Southwest Gas notes that it is in accord with the methodology used by DRA to determine the incremental 1988 cost of debt to be attributed to Southwest Gas, namely, the addition of 100 basis points to the cost of debt for AA-graded securities as projected by DRI. This result leads to a incremental debt cost for

the attrition year of 10.68% which is adopted as consistent with recommendations of Southwest Gas and DRA in this proceeding.

There is a slight difference in the preferred stock cost factor's contained in the recommendations of Southwest Gas and DRA, but given the closeness of the recommendations, we will adopt the 9.78% cost figure contained in Southwest Gas' recommendation.

C. Return on Equity

The major disputed issue between Southwest Gas and DRA concerns the appropriate return on common equity for attrition year 1988. The following table summarizes the positions of the parties:

Summary of ROE Recommendation

Party	ROE
Southwest Gas	14.00%
DRA	12.35%
TURN	12.10%

Southwest Gas and DRA submitted testimony showing the results of various financial models as the starting point for establishing ROE. As noted previously in this decision, these models themselves are not dispositive of the issue, but are used as an analytical tool in conjunction with reasoned judgment of the risks a particular utility faces. Southwest Gas presented three analytical approaches: comparative analysis, an optimum payment ratio analysis, and a risk premium analysis. DRA relied on DCF, risk premium and CAPM, but does not recommend use of Southwest Gas specific inputs to the DCF and CAPM models, favoring instead, the use of comparable gas group data, in view of recent Southwest Gas acquisitions outside the sphere of gas utility operations.

TURN did not present an independent analysis, instead making arguments in support of its recommendation. The following table summarizes the results of the models presented by witnesses Laub and Quan:

ROE Model Results

Payment	Model	ROE
Southwest Gas	Comparative Analysis	11.8%
	Optimum Payout Ratio	14.97%
	Risk Premium	14.20%
DRA	DCF	11.54%-12.60%
	Risk Premium	9.07%- 9.68%
	CAPM	11.61%

A brief discussion of Southwest Gas' models is in order. These models have been used consistently on its other jurisdictions to arrive at the cost of common equity.

First, Southwest Gas used a comparative analysis of its business/financial risks in relation to a 41-company composite of natural gas distribution companies. The goal was to compare the degree of Southwest Gas' riskiness to that of the group. Southwest Gas' Laub identified six areas of greater-than-normal risk specific to Southwest Gas. (See Exhibit 8, pp. 12-13.)

Second, Southwest Gas used an optimum payment ratio analysis, combining consideration of Southwest Gas' dividend maintenance objective with additional cash requirements due to growth. Third, Southwest Gas used a risk premium analysis. Southwest Gas' analysis also included assessment of specific business/financial risks, and their impact on ROE.

Southwest Gas has several specific criticisms of DRA's approach, mostly keyed to DRA's use of generic data associated with the nine-company comparable group. Southwest Gas asserts that the group is too limited, and that DRA has not properly accounted for the degree of risk differential between Southwest Gas, which carries a debt rating of Baa and other utilities in the group (Southwest Gas Brief, pp. 8-10).

In sum, Southwest Gas asserts:

> "...[I]t simply is not possible to provide adequate and meaningful recognition to the lesser quality security status of a Southwest

> common equity shareholder by (i) establishing a single range of returns on common equity based exclusively on an analysis of data applicable to 'A' rated companies, (ii) referring to an 'A' rated company (i.e., Southern California Gas Company) which has been assigned a recommended return at the midpoint <u>within</u> that range, and (iii) adding 10 basis points to the return on equity assigned to that purported surrogate company." (Southwest Gas Brief, p. 11.)

Southwest Gas argues that we must give effective recognition to the lesser quality of its securities, using a return level outside of and above the single range developed by DRA using "A" rated data. It argues that, at the very least, we must authorize it the maximum return on equity level authorized the other applicants in these proceedings, plus additional basis points to recognize its particular risks.

DRA opposes Southwest Gas' single-minded focus on the significance of its Baa3 bond rating, in contrast to the bond ratings of the other applicants. DRA's Quan maintains that bond ratings are only one measurement of risk; Quan also asserts that PSD's recommendation <u>does</u> reflect the higher risk implied by Southwest Gas' low bond rating.

DRA also reminds us that, despite the applicant's rating spreads (Southwest Gas at Baa3 vs. SDG&E at Aa3), the requested common equity returns vary by only a 25 basis point spread. DRA maintains that its own recommended 100 basis point spread will sustain the existing bond ratings.

Finally, DRA stresses the need to remember that bond ratings often reflect nonregulated operations of some of the applicants, and are not primarily driven by this Commission's decisions.

TURN recommends a 12.10% return on equity for Southwest Gas, based on its arguments previously cited in these consolidated matters, relating to the November DRI forecast.

Given the evidence in this record of substantial decreases in the cost of money since Southwest Gas' 15.25% return on common equity was set in 1985 by D.85-12-103, we believe there is ample justification for a reduction at this time. Even Southwest Gas agrees, since its 14% request represents a 125 basis point drop from presently authorized levels.

We tend to agree with DRA that Southwest Gas has placed too much emphasis on the issue of its debt rating, and not enough on the actual specific business/financial risks it faces on a day-to-day level. Its discussion of such risks at pp. 12-13 of Exhibit 8 is much more general than the specific business/financial risk analyses provided by other applicants in their direct showings. We conclude that Southwest Gas has not justified its 14% request. We conclude that a reasonable ROE, which will recognize the additional risk represented by Southwest Gas' rating, while taking account of improved financial conditions occurring since Southwest Gas' last adjustment, is 12.90% (rate of return is 11.87%.), as shown on the following table, depicting the adopted cost of capital for attrition year 1988:

Southwest Gas: Adopted Cost of Capital

Component	Capital Ratio	Cost Factor	Weighted Cost
Long-term Debt	50.00%	11.16%	5.58%
Preferred Stock	5.00	9.78	.49
Common Equity	45.00	12.90	5.80
Total	100.00%		11.87%

V. Sierra Pacific's Application

A. Procedural Background

On September 8, 1987, Sierra Pacific filed its application for authorization for a return on equity for attrition year 1988. Hearing were conducted on a consolidated record with four other attrition reviews. During these hearings Sierra Pacific

presented the testimony of Charles E. Olson, an economist and president of H. Zinder and Associates, who presented a study of the required return on common equity. DRA presented the testimony of Edwin Quan.

Sierra Pacific, DRA, and TURN filed concurrent briefs by November 5, 1987, and the matter was submitted at that point.

B. Rate of Return Recommendations For Attrition Year 1988

Sierra Pacific's presently authorized rate of return is depicted in the following table:

Sierra Pacific (Present Authorization)

Component	Capital Ratio	Cost Factor	Weighted Cost
Long-Term Debt	49.09%	9.24%	4.54%
Preferred Stock	7.46	9.84	.73
Common Equity	43.45	13.90	6.04
Total	100.00%		11.31%

In contrast, the recommendations of the active parties for the 1988 attrition year are depicted below:

Sierra Pacific (Recommendation)

Component	Capital Ratio	Cost Factor	Weighted Cost
Long-Term Debt	49.09%	8.74%	4.29%
Preferred Stock	7.46	7.24	.54
Common Equity	43.45	13.75	5.97
Total	100.00%		10.80%

DRA (Recommendation)

Component	Capital Ratio	Cost Factor	Weighted Cost
Long-Term Debt	49.09%	8.71%	4.28%
Preferred Stock	7.46	7.35	.55
Common Equity	43.45	12.35	5.37
Total	100.00%		10.20%

There is no disagreement between the two parties on the capital structure to be used for the 1988 attrition year, and we will adopt it, in accordance with our specification in Sierra Pacific's last general rate case.

DRA notes that Sierra Pacific is the only applicant in these consolidated proceedings which plans to issue new preferred stock during 1988. DRA indicates, after review, that it finds Sierra Pacific's basis for estimating the associated costs to be reasonable, and has incorporated this data in developing its effective cost of preferred stock for 1988. We will adopt DRA's cost factor of 7.35%, since it is the most up-to-date figure available, premised on the November DRI forecast. There is very little difference between the two parties on embedded debt cost figures, and we will adopt DRA's 8.71% figure.

Sierra Pacific requests us not to update incremental debt cost to account for the November DRI forecast, since the number, if used at all (Sierra Pacific does not forecast a long-term taxable bond issuance during 1988) would be applied to tax exempt debt, bearing a much lower actual cost. Sierra Pacific indicates it is comfortable using its recent historic cost level of 5% for such debt and does not request that a higher cost be incorporated in its capital structure. We accede to Sierra Pacific's request.

C. Return on Equity

As with the consolidated proceedings, return on common equity for Sierra Pacific in attrition year 1988 is the chief contested issue in this proceeding, as the following table demonstrates:

Summary of ROE Recommendations

Party	ROE
Sierra Pacific	13.75%
DRA	11.75%-12.75%*
TURN	12.10%

*Recommends 12.35%

Sierra Pacific and DRA presented testimony showing the results of various financial models. Sierra Pacific presented a primary DCF analysis, cross-checked by a risk premium analysis and a second DCF analysis of 10 electric companies. DRA conducted DCF, risk premium, and CAPM analyses. The following table summarizes the results of the models presented by witnesses Olson and Quan:

ROE Model Results

Party	Model	ROE
Sierra Pacific	DCF	12.4%-13.4%*
	Risk Premium	14.5%
	DCF (10 elecs)	12.5%-13.0%
DRA	DCF	11.08%-12.15%
	Risk Premium	13.90%-14.58%
	CAPM	11.86%

*When increased for financing costs, etc.
Range is 13.4%-14.5%

As noted previously in this decision, these models are used to establish a range for ROE, but we do not repeat a detailed description of each model, or the arguments of the parties with respect to the various inputs, since we use the models as rough guideposts, in conjunction with informed judgment.

However, Sierra Pacific notes that both Quan and Olson used analysts' forecasts of dividend and earning growth rates in their DCF analyses, but believes Quan's analysis was flawed because it was too generic and not specifically focused on Sierra Pacific or electric utilities sharing comparable characteristics (Sierra Pacific Brief, p. 6). The essence of the critique is that DRA made no reasonable effort to locate and identify other electric utilities which could be reasonably categorized as comparable to Sierra Pacific.

DRA, on the other hand, concludes in its report that Sierra Pacific's relative risk is below PG&E and somewhat higher than that of SDG&E. It concludes this, while noting that the financial models in isolation point to a lower equity return for Sierra Pacific than for SDG&E; however, DRA has gone behind the models to review bond ratings, equity ratios, and other impacts specific to Sierra Pacific, bearing on relative risks. We cannot say then that DRA's analysis has been insensitive to specific information bearing on Sierra Pacific's riskiness.

For its part, TURN supports its 12.10% recommendation with reference to the November DRI forecast, as with other applicants.

We conclude that DRA's approach is not any more flawed than others presented to us. Given the record evidence of financial indicators (Exhibit 14, Table 1) and the range provided on the various models, we conclude that the return on common equity for attrition year 1988 should be 12.90%, for an overall rate of return of 10.43%. The adopted cost of capital is shown below:

Sierra Pacific: Adopted Cost of Capital

Component	Capital Ratio	Cost Factor	Weighted Cost
Long-Term Debt	49.09%	8.71%	4.28%
Preferred Stock	7.46	7.35	.55
Common Equity	43.45	12.90	5.60
Total	100.00%		10.43%

Comments

Comments on the proposed decision were filed by DRA, PG&E, and SDG&E. DRA noted two typographical errors in the rate of return figures for Sierra Pacific and PG&E. These errors have been corrected. With this exception, the comments of all three parties were largely reargument of the positions taken at hearing and briefed subsequently. We have considered them and are of the opinion that the proposed decision need not be changed except with respect to PG&E's return on equity. The proposed decision recommended a return on equity of 13.0, we have adopted a return on equity of 13.1 as set forth in the discussion in the PG&E section.

Findings of Fact

1. On July 31, 1987 SDG&E filed its application for authority to revise its rate of return in accordance with the ARA mechanism for attrition year 1988, requesting an 11.4% rate of return and a 13.75% return on common equity, a change from the 11.61% rate of return and 13.9% return on common equity presently authorized.

2. SDG&E's application was heard on a consolidated record with four other related 1988 attrition year rate of return reviews.

3. Prior to the conclusion of evidentiary hearings, the applicants and DRA agreed to use the November 1987 DRI control forecast to update debt costs for purposes of this decision. The November DRI forecast shows a decline in the forecasted level of interests rates for AA rated utility bonds to 9.68%.

4. There is no variance in the SDG&E/DRA recommended cost figures for SDG&E's preferred stock and embedded long-term debt for the 1988 attrition years. These figures are 7.28% and 9.24%, respectively.

5. Based on the November 1987 DRI control forecast for AA rated utility bonds, 9.68%, and DRA's recommended 0.25% increment, SDG&E's incremental cost of debt for the 1988 attrition year is 9.93%.

6. In D.85-12-065 the Commission established the capital structure to be used by SDG&E for the 1988 attrition year, including a debt/preferred ratio of 40.5%/8.5%. DRA's proposal to alter the adopted debt/preferred ratio for the attrition year goes beyond a review of the updating of financial plans, of the type which is permissible for an attrition year review.

7. There is no disagreement between SDG&E and DRA as to the appropriate equity ratio for the attrition year: 51.00%.

8. Investors can be expected to consider increased risk associated with regulatory changes, specifically the restructuring of the natural gas industry and transitional events in the electric industry. But such consideration is counterbalanced by evidence that SONGS-related uncertainty is resolved in that the reasonableness review is complete; the cost of money has diminished; these factors militate against SDG&E's requested 13.75% ROE, in favor of a 12.75% ROE, which is more consistent with current economic indicators and the results of the financial models reviewed during this proceeding.

9. On August 4, 1987, PG&E filed its application for adoption of an authorized rate of return for 1988 pursuant to the Attrition Rate Adjustment mechanism, requesting an 11.41% rate of return and a 13.80% return on common equity as compared to its currently authorized 11.44% rate of return and 13.80% return on common equity.

10. PG&E's application was heard on a consolidated record with four other related 1988 attrition year rate of return reviews.

11. There is no significant disagreement between PG&E and DRA over the cost factor for preferred stock; the figure is 8.80%.

12. DRA's 9.34% embedded debt cost figure is based on the November 1987 DRI control forecast, and is also adjusted to reflect PG&E's variable embedded debt. The 9.34% figure is thus more current from PG&E's earlier requested 9.48% figure.

13. DRA and PG&E have also agreed that 50 basis points should be added to the 9.68% November DRI control forecast figure for AA-rated utility bonds, to derive PG&E's incremental cost of debt figure of 10.18% for the 1988 attrition year.

14. In D.86-12-095 the Commission established the capital structure to be used by PG&E for the 1988 attrition year, including a debt/preferred ratio of 45.50%/8.50%. DRA's proposal to alter this adopted ratio for the attrition year goes beyond a review of the updating of financial plans, of the type which is permissible for an attrition year review.

15. There is no disagreement between PG&E and DRA as to the appropriate equity ratio for the attrition year: 46.00%.

16. Investors can be expected to consider increased risk associated with regulatory changes, specifically the restructuring of the natural gas industry and transitional events in the electric industry; they can also be expected to consider increased risk associated with the fact that costs of Diablo Canyon have not yet been reviewed for reasonableness. To some extent these risks are counterbalanced by regulatory actions designed to limit risk, including the granting of some interim relief in the case of Diablo Canyon. These factors militate against retention of PG&E's current 13.80% ROE for attrition year 1988, in favor of a 13.10% ROE which is consistent with current economic indicators, and the results of the financial models reviewed during this proceeding.

17. On August 14, 1987, Southwest Gas filed its application for a review and revision of its required return on equity for attrition year 1988, requesting a 12.29% rate of return and a 14.00% return on common equity, representing a change from the 13.05% rate of return and 15.25% return on common equity presently authorized.

18. Southwest Gas' application was heard on a consolidated record with four other 1988 attrition year rate of return reviews.

19. There is no significant difference between Southwest Gas and DRA over the cost factor for preferred stock; we will use Southwest Gas' figure of 9.78% given the proximity of the figures.

20. DRA's 11.16% embedded debt cost figure is based on the November 1987 DRI control forecast, and is therefore more current than Southwest Gas' 11.00% figure.

21. DRA and Southwest Gas have agreed that 100 basis points should be added to the 9.68% November DRI control forecast figure for AA-rated utility bonds, to derive Southwest Gas' incremental cost of debt figure of 10.86% for the 1988 attrition year.

22. This Commission has not previously established a capital structure to be used by Southwest Gas for the 1988 attrition year, and Southwest Gas and DRA have agreed that a target capital structure of 50% debt, 5% preferred equity, and 45% common equity, is appropriate.

23. The determination of a 12.90% cost of equity for Southwest Gas during the 1988 attrition year is based on substantial decreases in the cost of money since Southwest Gas' last ROE was determined in December 1985, our analysis of economic indicators, Southwest Gas' showing, and the results of the models reviewed during this proceeding.

24. On September 9, 1987, Sierra Pacific filed its application for an authorized return on equity for attrition year

1988, requesting a 10.80% rate of return and a 13.75% return on common equity, a change from the 11.31% rate of return and 13.9% return on common equity presently authorized.

25. Sierra Pacific's application was heard on a consolidated record with four other 1988 attrition year rate of return reviews.

26. There is no disagreement between Sierra Pacific and DRA that a target capital structure of 49.09% long-term debt, 7.46% preferred stock and 43.45% common equity should be adopted for the 1988 attrition year.

27. DRA's cost factor, 7.35% for preferred stock is premised on Sierra Pacific's costing approach, but updated to reflect the November 1987 DRI forecast.

28. There is very little difference between Sierra Pacific and DRA embedded debt cost figures, but DRA's figure, 8.71% has been updated to reflect the November 1987 DRI forecast.

29. Sierra Pacific plans no long-term debt issuances during 1988, but if they should occur, they would involve tax exempt debt issuance, bearing a much lower cost. Sierra Pacific accepts 5% as a reasonable figure for 1988 incremental debt.

30. Based on the ranges in the financial models, and despite the fact that DRA and Sierra Pacific have employed varying inputs, we believe the record, including evidence of the prevailing financial indicators, supports a reduction in Sierra Pacific's presently authorized ROE from 13.90% to 12.90% for the 1988 attrition year.

Conclusions of Law

1. Consistent with the preceding findings, the following capital structure should be adopted for SDG&E during the 1988 attrition year: long-term debt, 40.50%; preferred stock, 8.50%; and common equity, 51.00%.

2. The cost figure of 9.24% for embedded long-term debt should be adopted for SDG&E during the 1988 attrition year, consistent with the preceding findings.

3. The agreed-upon cost figure of 7.28% for preferred stock should be adopted for SDG&E during the 1988 attrition year.

4. A 9.93% figure should be adopted as SDG&E's incremental cost of debt for the 1988 attrition year.

5. A 12.75% ROE, resulting in an overall rate of return of 10.86%, should be adopted as just and reasonable for SDG&E for attrition year 1988, based upon all of the evidence considered in this proceeding.

6. Consistent with the preceding findings, the following capital structure should be adopted for PG&E during the 1988 attrition year: long-term debt, 45.50%; preferred stock, 8.50%; and common equity, 46.00%.

7. The cost figure of 9.34% for embedded long-term debt should be adopted for PG&E during the 1988 attrition year, consistent with the preceding findings.

8. The cost figure of 8.80% for preferred stock should be adopted for PG&E during the 1988 attrition year, consistent with the preceding findings.

9. A 10.18% figure should be adopted as PG&E's incremental cost of debt for the 1988 attrition year.

10. A 13.10% ROE, resulting in an overall rate of return of 11.02%, should be adopted for PG&E as just and reasonable for attrition year 1988, based upon all of the evidence considred in this proceeding.

11. Consistent with the preceding findings, the following capital structure should be adopted for Southwest Gas during the 1988 attrition year: long-term debt, 50%; preferred stock, 5%; and common equity, 45%.

12. The cost figure of 11.16% for embedded long-term debt should be adopted for Southwest Gas during the 1988 attrition year, consistent with the preceding findings.

13. The cost figure of 9.78% for preferred stock should be adopted for Southwest Gas during the 1988 attrition year, consistent with the preceding findings.

14. A 10.86% figure should be adopted as Southwest Gas' incremental cost of debt for the 1988 attrition year.

15. A 12.90% ROE, resulting in an overall rate of return of 11.87%, should be adopted as just and reasonable for Southwest Gas during the 1988 attrition year, based upon all of the evidence considered in this proceeding.

16. Consistent with the preceding findings, the following capital structure should be adopted for Sierra Pacific during the 1988 attrition year; long-term debt, 49.09%; preferred stock, 7.46%; and common equity, 43.45%.

17. The cost figure of 8.71% for embedded long-term debt should be adopted for Sierra Pacific during the 1988 attrition year, consistent with the preceding findings.

18. The cost figure of 7.35% for preferred stock should be adopted for Sierra Pacific during the 1988 attrition year, consistent with the preceding findings.

19. A 5% figure should be adopted as Sierra Pacific's incremental cost of debt for the 1988 attrition year.

20. A 12.90% ROE, resulting in an overall rate of return of 10.43%, should be adopted as just and reasonable for Sierra Pacific during the 1988 attrition year, based upon all of the evidence considered in this proceeding.

ORDER

IT IS ORDERED that:

1. The following cost of capital is adopted for SDG&E for attrition year 1988:

SDG&E: Adopted Cost of Capital

Component	Capital Ratio	Cost Factor	Weighted Cost
Long-term Debt	40.50%	9.24%	3.74%
Preferred Stock	8.50	7.28	.62
Common Equity	51.00	12.75	6.50
Total	100.00%		10.86%

2. 9.93% is adopted as SDG&E's incremental cost of debt for the 1988 attrition year.

3. SDG&E's adopted 1988 attrition year rate of return, reflected in Ordering Paragraph 1, shall be used in conjunction with SDG&E's pending 1988 attrition year advice letter filing for the purpose of calculating revised rates for the 1988 attrition year.

4. The following cost of capital is adopted for PG&E for attrition year 1988:

PG&E: Adopted Cost of Capital

Component	Capital Ratio	Cost Factor	Weighted Cost
Long-term Debt	45.50%	9.34%	4.25
Preferred Stock	8.50	8.80	.75
Common Equity	46.00	13.10	6.03
Total	100.00%		11.02%

5. 10.18% is adopted as PG&E's incremental cost of debt for the 1988 attrition year.

6. PG&E's adopted 1988 attrition year rate of return, reflected in Ordering Paragraph 4, shall be used in conjunction with PG&E's pending 1988 attrition year advice letter filing for the purpose of calculating revised rates for the 1988 attrition year.

7. The following cost of capital is adopted for Southwest Gas for attrition year 1988:

Southwest Gas: Adopted Cost of Capital

Component	Capital Ratio	Cost Factor	Weighted Cost
Long-term Debt	50.00%	11.16%	5.58%
Preferred Stock	5.00	9.78	.49
Common Equity	45.00	12.90	5.80
Total	100.00%		11.87%

8. 10.86% is adopted as Southwest Gas' incremental cost of debt for the 1988 attrition year.

9. Southwest Gas' adopted 1988 attrition year rate of return, reflected in Ordering Paragraph 7, shall be used in conjunction with its pending 1988 attrition year advice letter filing (Advice Letter No. 390), for the purpose of calculating revised rates for the 1988 attrition year.

10. The following cost of capital is adopted for Sierra Pacific for attrition year 1988:

Sierra Pacific: Adopted Cost of Capital

Component	Capital Ratio	Cost Factor	Weighted Cost
Long-term Debt	49.09%	8.71%	4.28%
Preferred Stock	7.46	7.35	.55
Common Equity	43.45	12.90	5.60
Total	100.00%		10.43%

11. 5% is adopted as Sierra Pacific's incremental cost of debt for the 1988 attrition year.

12. Sierra Pacific's adopted 1988 attrition year rate of return, reflected in Ordering Paragraph 10, shall be used in conjunction with its pending 1988 attrition year advice letter filing, for the purpose of calculating revised rates for the 1988 attrition year.

13. PG&E is authorized to file within 7 days after the effective date of this order, revised tariff schedules for electric rates. The new rates will reflect: (1) The revenue increase authorized in D.87-11-019 covering PG&E's Phase 1 revenue increase related to its Energy Cost Adjustment Clause, Annual Energy Rate and Electric Revenue Adjustment Mechanism; and (2) The revenue increase related to its attrition filing which will reflect the return on equity authorized by this decision. PG&E's attrition filing is separately covered by Commission Resolution E-3061 which is concurrently under consideration along with this decision.

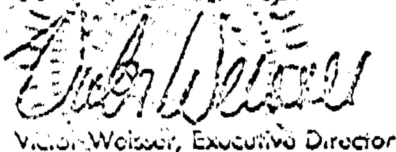
The rates filed shall reflect the total revenue requirement set forth in Appendix B to this decision and shall be in accordance with the rate design adopted in D.87-12-033. The adopted rate design is set forth in Appendix C to this decision. The new rates shall not be effective before January 1, 1988 and will apply to service rendered on or after that date. The filing shall be in accordance with General Order 96-A.

This order is effective today.

Dated DEC 22 1987, at San Francisco, California.

STANLEY W. HULETT
President
DONALD VIAL
FREDERICK R. DUDA
G. MITCHELL WILK
JOHN B. OHANIAN
Commissioners

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



Victor Weisser, Executive Director

AB

APPENDIX A

LIST OF APPEARANCES

Applicants: Barton M. Myerson and Thomas G. Hankley, Attorneys at Law, for San Diego Gas & Electric Company; Peter Nathan Osborn and Roy M. Rawlings, Attorneys at Law, for Southern California Gas Company; Roger J. Peters and Richard H. Moss, Attorneys at Law, for Pacific Gas and Electric Company; Lawrence V. Robertson, Jr., Attorney at Law, for Southwest Gas Corporation; and James D. Salo and Boris Lakusta, Attorneys at Law, for Sierra Pacific Power Company.

Interested Parties: Matthew V. Brady and Marcia Preston, Attorneys at Law, for the California Department of General Services; Eric Eisenman and Andrew Packard, for Transwestern Pipeline Company; Carol B. Henningson and James M. Lehrer, by John P. Hughes, Attorney at Law, for Southern California Edison Company; Reed V. Schmidt, for the California Street Light Association; William Shaffran and Leslie J. Girard, Attorneys at Law, for the City of San Diego; Michel Peter Florio, Mark Barmore, and Jon Elliott, Attorneys at Law, and Sylvia M. Siegel, for Toward Utility Rate Normalization (TURN); Gary D. Simon, for El Paso Natural Gas Company; Messrs. Skaff & Anderson, by Andrew J. Skaff, Attorney at Law, for Mojave Pipeline Company; Louise Renne, City Attorney, by Leonard Snaider, Attorney at Law, for the City and County of San Francisco; Messrs. Chickering & Gregory, by C. Hayden Ames, Attorney at Law, for Chickering & Gregory; Shelley Ilene Rosenfield, Attorney at Law, for City of Los Angeles; and Manuel Kroman, for himself.

Commission Staff: James S. Rood and Timothy E. Treacy, Attorneys at Law, Terry R. Mowrey, and Gregory A. Wilson.

(END OF APPENDIX A)

APPENDIX B

PACIFIC GAS AND ELECTRIC COMPANY
Attrition Year 1988 - California Jurisdiction
Revenue Changes Adopted for Revenue Allocation and Rate Design

LINE	REVENUE ELEMENT	PRESENT RATE REVENUE 1/ 2/ ($ million)	ADOPTED REVENUE 3/ ($ million)	REVENUE CHANGE ($ million)
		(a)	(b)	(c)
1	Base Energy Rate	2,883.437	3,028.338	144.901
2	Annual Energy Rate (AER)	129.530	133.722	4.192
3	Conservation Financing Adjustment (CFA)	10.757	10.757	0.000
4	Diablo Canyon Adjustment Clause (DCAC)	382.517	391.003	8.486
5	Energy Cost Adjustment Clause (ECAC)	1,445.891	1,445.891	0.000
6	CPUC fees	7.593	7.593	0.000
7	Subtotal	4,859.725	5,017.304	157.579
8	Other revenues	22.177	22.177	0.000
9	Total	4,881.902	5,039.481	157.579

1/ Based on adopted ECAC sales of 63,273.843 GWH, including adjustment for employee discounts. Base Energy Rate revenues include large light power contract revenue shortfall, per Decision 87-12-033, at page 31.

2/ Present rates using current tariffs, which were made effective 7/1/87. Revenue changes may differ from those adopted in D.87-11-019, because present rates in that decision were those effective 4/1/87.

3/ Assumes full recovery of $388.0 million in DCAC rate, and attrition per Resolution E-3061 at 13.1 % return on equity.

(END APPENDIX B)

Pacific Gas and Electric Company
ADOPTED REVENUE ALLOCATION
Based on Capped EPMC Revenue Allocation from
Decision 87-12-033 (A.87-04-035) 1/

	Sales 2/	Present Revenues		MC Revenue	Percent Change	Adopted Revenues 1,3/		
Class of Service	kWh (000s)	Effective (000s)	Ave. Rate c/kWh	Responsibility from PSD/TURN Stipulatn(000s)	From Present Rev. Assuming EPMC Allocation	Effective (000s)	Ave. Rate c/kWh	Percent Change From Present Revenues
Residential	22,083,000	$1,742,009	7.89	$1,562,367	11.75%	$1,889,232	8.56	8.45%
Small Light & Power	7,171,756	$685,356	9.56	$529,425	-3.92%	$685,356	9.56	.00%
Med. Light & Power	10,890,673	$934,025	8.58	$705,079	-6.10%	$934,025	8.58	.00%
Large Light & Power	20,023,321	$1,267,909	6.33	$971,816	-4.65%	$1,267,909	6.33	.00%
Agriculture	2,637,372	$176,326	6.69	$220,827	55.75%	$186,682	7.08	5.87%
Railway	249,000	$17,727	7.12	$12,370	-13.19%	$17,727	7.12	.00%
Streetlight	280,880	$36,374	12.95	$32,117	-.82%	$36,374	12.95	.00%
Total	63,336,002	$4,859,725	7.67	$4,034,002	3.23%	$5,017,304	7.92	3.24%

1/ This table reflects increase in system revenues due to ERAM, AER, and attrition adjustments identified in Appendix B. No changes are assumed in revenue from meter charges for optional TOU schedules, submeter discounts, streetlight facilities charges, load management adjustments, or other operating revenues. Revenues from meter charges, submeter discounts, streetlight facilities charges, and load management adjustments are included in customer class revenues shown in this table.

2/ Based on unadjusted residential sales; adjusted residential sales are 22,020,841 MKWh.

3/ The proposed revenues reflect the 5% cap over system average percentage change (SAPC) for residential and 2.5% cap over SAPC for agriculture, and SAPC adjustments necessary to produce system revenues.

ADOPTED
INTRA-CLASS REVENUE ALLOCATION
TO TARIFF SCHEDULES
Pacific Gas and Electric Company

Based on Capped EPMC Revenue Allocation
Adopted in Decision 87-12-033 (A.87-04-035)

CUSTOMER CLASS	AVG. RATE	TARIFF SCHEDULE	SALES (MKWh)	ADOPTED REVENUE($000s)	ADOPTED AVG. RATE/kWh	CHANGE FROM PRESENT RATES	FACILITIES CHARGES ETC (000's)
Residential	$.08555	Schedule E-1	21,711,462	$1,881,560	$.08666	8.33%	$-13,553,732
		Schedule E-7	309,379	$21,401	$.06917	13.39%	$1,145,700
		Load Mgmt.					$-1,320,000
Small Light & Power	$.09556	Schedule A-1	6,977,282	$667,327	$.09564	.00%	
		Schedule A-6	100,870	$9,387	$.09306	.00%	$91,700
		Schedule A-15	2,064	$262	$.12704	.00%	$71,784
		Schedule TC-1	91,540	$8,216	$.08975	.00%	
Medium Light & Power	$.08576	Schedule A-10	9,525,673	$822,187	$.08631	.00%	
		Schedule A-11	1,365,000	$111,628	$.08178	.00%	$126,000
		Schedule S		$84	n/a	.00%	
Large Light & Power	$.06332	Schedule E-20-T	1,559,414	$73,390	$.04706	.00%	$14,400
		Schedule E-20-P	9,177,936	$544,426	$.05932	.00%	$205,680
		Schedule E-20-S	8,998,436	$633,545	$.07041	.00%	$130,440
		Schedule A-RTP	184,372	$10,123	$.05491	.00%	
		Schedule S		$120	n/a	.00%	
		Specl Contracts	103,163	$6,550	$.06349	.00%	
		Load Mgmt.					$-595,000
Agriculture	$.07078	Schedule PA-1	1,022,030	$88,795	$.08688	5.88%	
		Schedule AG-1A	21,300	$2,753	$.12925	5.88%	
		Schedule AG-RA	11,420	$947	$.08293	5.88%	$32,533
		Schedule AG-VA	11,420	$891	$.07799	5.88%	$16,807
		Schedule AG-4A	25,340	$1,920	$.07576	5.88%	$60,900
		Schedule AG-5A	36,420	$2,313	$.06351	5.88%	$47,446
		Schedule AG-6A	181,640	$11,719	$.06452	5.88%	
		Schedule AG-1B	37,660	$4,089	$.10858	5.88%	
		Schedule AG-RB	25,690	$2,290	$.08913	5.88%	$40,564
		Schedule AG-VB	25,340	$2,088	$.08242	5.88%	$11,538
		Schedule AG-4B	37,110	$2,930	$.07894	5.88%	$23,238
		Schedule AG-5B	224,692	$11,269	$.05015	5.88%	$38,760
		Schedule AG-6B	977,310	$54,406	$.05567	5.88%	
Railway	$.07119						
Streetlight Energy	$.07296						

1/ Revenue excludes optional TOU meter charges, submeter discounts, and streetlight facilities charges identified in right-hand column.

ADOPTED RATES FOR
PACIFIC GAS & ELECTRIC COMPANY
Effective 1/1/88

Based on Capped EPMC Revenue Allocation
Adopted in Decision 87-12-033 (A.87-04-035)

Rate Component	PRESENT RATES SUMMER	PRESENT RATES WINTER	ADOPTED RATES SUMMER	ADOPTED RATES WINTER
	($/KWH, $/KW, $/CUSTOMER MONTH)			
RESIDENTIAL				
E-1				
Tier 1 Energy /1/	$.06465	$.06465	$.06700	$.06700
Tier 2 Energy	$.10396	$.10396	$.11754	$.11754
Minimum Charge	$5.00	$5.00	$5.00	$5.00
E-7				
On-Peak Energy	$.21992	$.10119	$.15824	$.12046
Off-Peak Energy	$.05278	$.06577	$.07772	$.07887
Baseline Credit	$.03930	$.03930	$.05054	$.05054
Minimum Energy Charge	$5.00	$5.00	$5.00	$5.00
Meter Charge	$4.50	$4.50	$4.50	$4.50
AGRICULTURAL /2/				
AG-1-A				
Energy Charge	$.08925	$.08925	$.09537	$.09537
Demand Charge	$1.25	$1.25	$1.30	$1.30
Customer Charge	$7.50	$7.50	$7.50	$7.50
AG-R-A				
On-Peak Energy	$.12122		$.12865	
Partial-Peak Energy		$.04994		$.05300
Off-Peak Energy	$.04849	$.03830	$.05146	$.04065
Demand Charge	$2.50	$2.50	$2.65	$2.65
Customer Charge	$7.50	$7.50	$7.50	$7.50
Meter Charge	$11.30	$11.30	$11.30	$11.30

1/ The residential baseline rate equals first tier sales (13,291,258 billed MWh plus 61,812 MWh not billed due to minimum bills = 13,353,070 MWh) times 85% of the system average rate shown in Appendix C, Page 1, (.85 * $.0792/kWh = $.06733/kWh) (i.e., a total first tier revenue of 13,353,020 MWh * $.06733/kWh = $889,124,558), minus the revenue from residential minimum bills ($8,664,135), divided by billed first tier sales (($889,124,558-$8,664,135) / 13,291,258 kWh = $.06700/kWh).

2/ The rate limiter applicable to the "AG" series will be $.71509/kWh. [illegible]s amount equals the existing rate limiter ($.67542/kWh) times the ratio of the adopted agricultural revenue allocation to the revenues at present agricultural rates (1.05873).

ADOPTED RATES FOR
PACIFIC GAS & ELECTRIC COMPANY
Effective 1/1/88

Based on Capped EPMC Revenue Allocation
Adopted in Decision 87-12-033 (A.87-04-035)

Rate Component	PRESENT RATES SUMMER	PRESENT RATES WINTER	ADOPTED RATES SUMMER	ADOPTED RATES WINTER
	($/KWH, $/KW, $/CUSTOMER MONTH)			
AG-V-A				
On-Peak Energy	$.11919		$.12635	
Partial-Peak Energy		$.04911		$.05206
Off-Peak Energy	$.04768	$.03767	$.05054	$.03993
Demand Charge	$2.50	$2.50	$2.65	$2.65
Customer Charge	$7.50	$7.50	$7.50	$7.50
Meter Charge	$7.00	$7.00	$7.00	$7.00
AG-4-A				
On-Peak Energy	$.11827		$.12499	
Partial-Peak Energy		$.04873		$.05150
Off-Peak Energy	$.04731	$.03737	$.05000	$.03949
Demand Charge	$2.50	$2.50	$2.65	$2.65
Customer Charge	$7.50	$7.50	$7.50	$7.50
Meter Charge	$7.00	$7.00	$7.00	$7.00
AG-5-A				
On-Peak Energy	$.10411		$.11033	
Partial-Peak Energy		$.04289		$.04545
Off-Peak Energy	$.04164	$.03290	$.04413	$.03487
Demand Charge	$3.25	$3.25	$3.45	$3.45
Customer Charge	$7.50	$7.50	$7.50	$7.50
Meter Charge	$7.00	$7.00	$7.00	$7.00
AG-6-A				
Energy Charge	$.05398	$.03689	$.05723	$.03911
Demand Charge	$3.25	$3.25	$3.45	$3.45
Customer Charge	$7.50	$7.50	$7.50	$7.50
AG-1-B				
Energy Charge	$.07804	$.07804	$.08262	$.08262
Demand Charge	$1.50	$1.00	$1.60	$1.05
Customer Charge	$7.50	$7.50	$7.50	$7.50

ADOPTED RATES FOR
PACIFIC GAS & ELECTRIC COMPANY
Effective 1/1/88

Based on Capped EPMC Revenue Allocation
Adopted in Decision 87-12-033 (A.87-04-035)

Rate Component	PRESENT RATES SUMMER	PRESENT RATES WINTER	ADOPTED RATES SUMMER	ADOPTED RATES WINTER
	($/KWH, $/KW, $/CUSTOMER MONTH)			
AG-R-B				
On-Peak Energy	$.06908		$.07420	
On-Peak Demand	$1.20		$1.25	
Partial-Peak Energy		$.05693		$.06026
Off-Peak Energy	$.05527	$.04366	$.05850	$.04621
Maximum Demand	$3.00	$2.00	$3.20	$2.10
Customer Charge	$7.50	$7.50	$7.50	$7.50
Meter Charge	$8.40	$8.40	$8.40	$8.40
G-V-B				
On-Peak Energy	$.06638		$.07136	
On-Peak Demand	$1.20		$1.25	
Partial-Peak Energy		$.05469		$.05797
Off-Peak Energy	$.05310	$.04195	$.05629	$.04447
Maximum Demand	$3.00	$2.00	$3.20	$2.10
Customer Charge	$7.50	$7.50	$7.50	$7.50
Meter Charge	$6.00	$6.00	$6.00	$6.00
AG-4-B				
On-Peak Energy	$.06512		$.06944	
On-Peak Demand	$1.20		$1.25	
Partial-Peak Energy		$.05366		$.05681
Off-Peak Energy	$.05210	$.04116	$.05516	$.04358
Maximum Demand	$3.00	$2.00	$3.20	$2.10
Customer Charge	$7.50	$7.50	$7.50	$7.50
Meter Charge	$6.00	$6.00	$6.00	$6.00
AG-4-C				
On-Peak Energy	$.06512		$.06944	
On-Peak Demand	$1.20		$1.25	
Partial-Peak Energy	$.06380	$.05366	$.06755	$.05681
Off-Peak Energy	$.04785	$.04116	$.05066	$.04358
Maximum Demand	$3.00	$2.00	$3.20	$2.10
Customer Charge	$7.50	$7.50	$7.50	$7.50
Meter Charge	$6.00	$6.00	$6.00	$6.00

ADOPTED RATES FOR
PACIFIC GAS & ELECTRIC COMPANY
Effective 1/1/88

Based on Capped EPMC Revenue Allocation
Adopted in Decision 87-12-033 (A.87-04-035)

Rate Component	PRESENT RATES SUMMER	PRESENT RATES WINTER	ADOPTED RATES SUMMER	ADOPTED RATES WINTER
	($/KWH, $/KW, $/CUSTOMER MONTH)			
AG-5-B				
On-Peak Energy	$.04035		$.04196	
On-Peak Demand	$2.20		$2.30	
Partial-Peak Energy		$.03325		$.03466
Off-Peak Energy	$.03228	$.02937	$.03364	$.03061
Maximum Demand	$4.50	$3.00	$4.50	$3.00
Customer Charge	$7.50	$7.50	$7.50	$7.50
Meter Charge	$6.00	$6.00	$6.00	$6.00
AG-5-C				
On-Peak Energy	$.04035		$.04196	
On-Peak Demand	$2.20		$2.30	
Partial-Peak Energy	$.03949	$.03325	$.04116	$.03466
Off-Peak Energy	$.02962	$.02937	$.03087	$.03061
Maximum Demand	$4.50	$3.00	$4.50	$3.00
Customer Charge	$7.50	$7.50	$7.50	$7.50
Meter Charge	$6.00	$6.00	$6.00	$6.00
AG-6-B				
Energy Charge	$.03779	$.03091	$.04102	$.03355
Demand Charge	$4.50	$3.00	$4.50	$3.00
Customer Charge	$7.50	$7.50	$7.50	$7.50
PA-1				
Energy Charge	$.07635	$.07635	$.08084	$.08084
Demand Charge	$.60	$.60	$.64	$.64
PA-2				
On-Peak Energy	$.12701	$.10346	$.13448	$.10955
Partial-Peak Energy	$.07617	$.07617	$.08065	$.08065
Off-Peak Energy	$.06552	$.06552	$.06937	$.06937
Demand Charge	$.80	$.80	$.85	$.85
Meter Charge	$10.00	$10.00	$10.00	$10.00

ADOPTED RATES FOR
PACIFIC GAS & ELECTRIC COMPANY
Effective 1/1/88

Based on Capped EPMC Revenue Allocation
Adopted in Decision 87-12-033 (A.87-04-035)

Rate Component	PRESENT RATES SUMMER	PRESENT RATES WINTER	ADOPTED RATES SUMMER	ADOPTED RATES WINTER
	($/KWH, $/KW, $/CUSTOMER MONTH)			
PA-3				
On-Peak Energy	$.12171	$.12171	$.12887	$.12887
Off-Peak Energy	$.07091	$.07091	$.07508	$.07508
Meter Charge	$3.75	$3.75	$3.75	$3.75
PA-4A				
On-Peak Energy	$.21485	$.18885	$.22749	$.19996
Off-Peak Energy	$.04595	$.04595	$.04865	$.04865
Demand Charge	$.60	$.60	$.64	$.64
Meter Charge	$6.50	$6.50	$6.50	$6.50
PA-4B				
On-Peak Energy	$.25759	$.24323	$.27274	$.25754
On-Peak Demand	$.80	$.80	$.85	$.85
Partial-Peak Energy	$.05908	$.05908	$.06256	$.06256
Off-Peak Energy	$.04022	$.04022	$.04259	$.04259
Maximum Demand	$.60	$.60	$.64	$.64
Meter Charge	$6.79	$6.79	$6.79	$6.79
PA-R				
Restricted-Peak Energy	$.18728	$.17075	$.19830	$.18079
On-Peak Energy	$.10605	$.09391	$.11229	$.09943
Off-Peak Energy	$.06386	$.06385	$.06762	$.06761
Meter Charge	$10.00	$10.00	$10.00	$10.00

(END OF APPENDIX C)

ALJ/LTC/rsr

Decision 87-12-068

BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

Application of Pacific Gas & Electric Company for adoption of authorized rate of return for 1988 pursuant to Attrition Rate Adjustment Mechanism (U39M).	Application 87-08-006 (Filed August 4, 1987)
In the Matter of the Application of San Diego Gas & Electric Company, for Authority to Revise its Rate of Return in Accordance with the Existing Attrition Rate Adjustments (ARA) Mechanism and to Utilize the Revised Rate of Return in its 1988 Attrition Filing (U902-M).	Application 87-07-050 (Filed July 31, 1987)
In the Matter of the Application of Southern California Gas Company (U904G) to Implement its Attrition Allowance and to Establish a Return on Equity for 1988.	Application 87-07-048 (Filed July 31, 1987)
In the Matter of Application of Southwest Gas Corporation for a Review and Revision of its Required Return on Equity, and for Authority to Utilize the Revised Return on Equity in a 1988 Operational Attrition Filing (U905G).	Application 87-08-025 (Filed August 14, 1987)
In the Matter of the Application of SIERRA PACIFIC POWER COMPANY to Authorize a Return on Equity for Calendar Year 1988 (U903E).	Application 87-09-013 (Filed September 8, 1987)

(See Appendix A for appearances.)

OPINION

I. Background

These consolidated proceedings involve rate of return reviews in connection with the 1988 attrition filings of Southern California Gas Company (SoCal Gas), San Diego Gas and Electric (SDG&E), Pacific Gas & Electric Company (PG&E), Southwest Gas Corporation (Southwest Gas), and Sierra Pacific Power Company (Sierra Pacific).

In Decision (D.) 85-12-076, issued December 18, 1985, this Commission established the current framework of the Attrition Rate Adjustment Mechanism (ARA). In connection with financial attrition issues, the Commission requires a review of the return on common equity for each utility which files an ARA advice letter. However, given the need to address factual issues in connection with adopting a rate of return, the Commission has determined that the best procedural course is to require each utility to file separate companion applications addressing return on equity (ROE) issues for the attrition year.

The applications treated in today's decision were filed in compliance with the above guidelines. The particulars of each application are addressed in subsequent sections of this decision.

On August 21, 1987, the Division of Ratepayer Advocates (DRA) filed a motion requesting consolidation of the rate of return reviews for the several energy utilities who are seeking attrition adjustments for the 1988 attrition year. A prehearing conference (PHC) was held before assigned Administrative Law Judges (ALJs) Stalder and Carew on September 8, 1987, in the four then pending applications (i.e., those of PG&E, SDG&E, Southwest Gas, and SoCal Gas). The ALJs heard argument on DRA's Motion to Consolidate from the parties, and from Sierra Pacific, which appeared voluntarily at the PHC, despite the fact that, as of September 8, 1987, its attrition application had not been filed. At the conclusion of this oral argument, the four pending applications were consolidated

for purposes of conducting rate of return reviews (PHC TR. 18). By ALJ Ruling dated October 9, 1987, Sierra Pacific's A.87-09-013 was also consolidated with these matters. Hearings on the five consolidated rate of return reviews were held October 21, 23, and 26-27, 1987, before ALJ Carew in San Francisco. This decision disposes of all issues raised in these consolidated reviews for SDG&E, PG&E, Southwest Gas, and Sierra Pacific. A separate companion decision disposes of the operational and financial attrition issues raised in SoCal Gas' attrition application.

II. SDG&E's Application

A. Procedural Background

On July 31, 1987, SDG&E filed its application for authority to revise its rate of return in accordance with the ARA mechanism for attrition year 1988. SDG&E requested an 11.4% rate of return for that year, and a 13.75% return on common equity. This represented a reduction from current authorized 1987 levels (11.61% rate of return based on a 13.9% return on common equity). Three parties actively participated in SDG&E's portion of the consolidated proceeding: SDG&E, DRA, and the City of San Diego (San Diego).

SDG&E presented the testimony of two witnesses. Its Vice President-Finance and Chief Financial Officer R. Lee Haney testified on SDG&E's business risks and financial policies as they impact on the 1988 attrition year request. SDG&E's Manager-Financial Analysis & Forecasting, Richard A. Krumvieda testified on the technical analysis underlying SDG&E's rate of return request for the attrition year. Edwin Quan presented the DRA recommendations relative to SDG&E's request. San Diego presented no affirmative case, but participated through cross-examination of the witnesses. San Diego presented oral argument on October 27,1987, in lieu of filing a brief. SDG&E, DRA, and Toward Utility Rate Normalization (TURN) filed concurrent briefs by November 5, 1987, and the matter was submitted on that date. The parties'

positions are summarized in the table below, and are subsequently discussed in our disposition of the issues.

B. Rate of Return Recommendations For Attrition Year 1988

SDG&E's presently authorized rate of return is depicted in the following table:

SDG&E (Present Authorization)

Component	Capital Ratio	Cost Factor	Weighted Cost
Long-term Debt	42.00%	9.54%	4.01%
Preferred Stock	8.50	8.52	0.72
Common Equity	49.50	13.90	6.88
Total	100.00%		11.61%

This present authorization contrasts with the recommendations of the active parties for the 1988 attrition year, depicted in the following tables:

SDG&E (Recommendation)

Component	Capital Ratio	Cost Factor	Weighted Cost
Long-term Debt	40.50%	9.24%	3.74%
Preferred Stock	8.50	7.28	0.62
Common Equity	51.00	13.75	7.01
Total	100.00%		11.37%

DRA (Recommendation)

Component	Capital Ratio	Cost Factor	Weighted Cost
Long-term Debt	42.50%	9.24%	3.93%
Preferred Stock	6.50	7.28	0.47
Common Equity	51.00	12.25*	6.25
Total	100.00%		10.65%

* Midpoint of 11.75%-12.75% range.

A review of these recommendations demonstrates that there is agreement between SDG&E and DRA on the cost factors for

preferred stock and long-term debt,[1] and disagreement as to the appropriate capital ratios, and return on common equity for the attrition year. We will adopt the agreed-upon cost factor for preferred stock (7.28%) and the 9.24% cost factor for embedded long-term debt. Our adopted incremental cost of debt is based on the November DRI forecast figure for AA utility bonds (9.68%, plus the 0.25% increment recommended for SDG&E by DRA (DRA brief, p. 7). The adopted figure for 1988 is thus 9.93%. We proceed now to discuss the disputed issues.

C. Capital Structure

The capital structures to be used by SDG&E for 1986, 1987, and 1988 were determined in its last general rate case (D.85-12-065). For 1988, the Commission established a debt/preferred ratio of 40.5%/8.5%. SDG&E has used these adopted figures in its 1988 attrition year showing. In contrast, DRA has recommended changing the debt/preferred ratio to 42.5%/6.5%. DRA's rationale is that since the capital structure for 1988 was determined during the last general rate case (based on estimates of SDG&E's capital requirements and financing plan made in 1985), during the last general rate case, changes in SDG&E's financing plans, (specifically the amount of preferred stock refundings) have caused the actual capital structure to change from that previously adopted. PSD is recommending recognition of the decrease in the preferred stock ratio from 8.5% to 6.5%. This has a corresponding impact on the debt ratio, increasing it from 40.5% to 42.5% , as previously noted.

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1 The cost of long-term debt is the same in both parties' recommendations: 9.24%. However, DRA's 9.24% includes the impacts of the November DRA control forecast (which the parties agreed to use to update debt cost figures on the last day of hearings), and SDG&E's figure presumably does not include these impacts, since it is unchanged from the figure appearing in the application.

SDG&E opposes DRA's recommendation, asserting that DRA is only concerned that this change has the operative effect of decreasing SDG&E's revenue requirement; SDG&e asserts the change has nothing whatever to do with determining the proper return on equity for the attrition year. In addition, SDG&E opposes the recommendation, asserting that it runs counter to the Commission's determination to adopt capital structures for the test year and succeeding attrition years. SDG&E questions why the Commission would want to specifically adopt a capital structure for future attrition years, if it were subject to later change.

DRA acknowledges that the Commission adopted a 1988 capital structure in the general rate case decision issued in December of 1985. However, it believes that its recommendation is within the scope of the permissible updating of financing plans recognized by the Commission to be a legitimate function of these attrition review. It believes that its recommendation merely captures a decrease in the preferred stock ratio that has actually occurred since the issuance of the general rate case decision.

We decline to adopt DRA's recommendation, preferring to adhere to the adopted capital ratios emanating from the last general rate case. At the time we issued D.85-12-065, we certainly contemplated that actual reality would not match test year projections. Nonetheless, we opted to adopt a capital structure for the two attrition years beyond the test year, and we will not change that determination at this point. We believe this decision is consistent with our determination that the updating of financing plans is permissible during attrition years, since we believe the DRA recommended recognition of a change in the actual ratios between long-term debt and preferred stock goes beyond such permissible updating.

D. Return on Common Equity

The other major contested issue is the appropriate return on common equity for 1988. The following table summarizes the positions of the parties:

Summary of ROE Recommendations

Party	ROE
SDG&E	13.75%
DRA	11.75%-12.75%
San Diego	12.25%-12.75%
TURN	12.00%

SDG&E and DRA submitted testimony showing the results of various financial models as the starting point for establishing ROE, but they cautioned that model results are an analytical guide, whose results must be tempered by judgment. SDG&E presented a discounted cash flow (DCF) analysis and a risk premium analysis. DRA relied on three financial models, DCF, Risk Premium, and the Capital Asset Pricing Model (CAPM), in its review of SDG&E's attrition year request. San Diego and TURN did not present independent analyses, but made arguments in support of their recommended ranges. The following table summarizes the results of the models presented by Witnesses Krumvieda and Quan.

ROE Model Results

Party	Model	ROE
SDG&E	DCF	13.25%-14.65%
	Risk Premium	14.1%- 14.8%
DRA	DCF	11.65%-12.73%
	Risk Premium	13.33%-13.73%
	CAPM	12.28%

Because these models are used only to establish a range for ROE, we do not repeat the detailed descriptions of each model contained in this record. Additionally, the parties have advanced arguments in support of their analyses and in criticism of the input assumptions used by other parties. These arguments are not

extensively addressed in this decision, given our assessment that they do not alter the model results shown above. These models provide a reasonable range from which to choose, and we will use them as a rough guidepost in selecting SDG&E's 1988 ROE. Nonetheless, in the final analysis, it is the application of judgment, not the precision of these models, which is the key to our decision.

In applying this judgment, we assess the arguments presented by SDG&E that it faces increased business and financial risk during 1988. SDG&E asserts that our consideration of the market cost of equity capital must reflect an analysis of many factors, including the current status of certain business risks, and an assessment of their probable direction during the period for which the rate is being set. SDG&E's Haney testified that the utility faces additional business risk from increased competition and from regulatory decisions "retroactively reallocating risk" of prior utility actions.

SDG&E asserts that it faces higher risk levels from competition than it did during its last test year review, primarily from cogenerators who are depriving it of a portion of its electric market. When cogeneration is viewed as a source of capacity to SDG&E, it poses an additional risk because of SDG&E's relatively low reserve margin (15%), which means that any significant variance between promised and delivered third party power endangers SDG&E's ability to perform its franchise obligations.

More importantly, SDG&E points to DRA-recommended disallowances of costs associated with the Southwest Power Link (SWPL). It asserts that DRA is arguing for disallowances totalling $285 million, exclusive of an additional $35 million in lost interest expense recovery associated with DRA's five-year amortization proposal.

SDG&E also points to other ratemaking risks, including the Commission's actions to eliminate the supply adjustment

mechanism (SAM) and the purchased gas adjustment (PGA) mechanism for SDG&E's noncore gas customers. SDG&E recovers about 40% of its gas revenues from this market. On the electric side, the Commission is considering the elimination of the electric revenue adjustment mechanism (ERAM) and has already established a program to eliminate ERAM and the annual attrition adjustment for the large light and power class beginning April 1, 1988. SDG&E has not assessed what percent of its electric sales or revenues it believes it will lose as a result of this Commission action. SDG&E believes that DRA witness Quan failed to focus on specific risks facing SDG&E, relying instead on a generic risk discussion. In contrast, SDG&E believes the Commission must recognize the substantial specific business risks which SDG&E faces in the attrition year.

SDG&E also asserts that its financial risk has increased due to cash flow decreases of approximately $40 million attributable to the 1986 Tax Reform Act. Further, it asserts that any refinancings it has conducted have already been reflected in its proposed debt embedded cost for 1988. Therefore it asserts that its financial condition is not improving as DRA implies.

DRA acknowledges that risk, in terms of earnings variability, may increase as a result of the Commission's SAM and ERAM-related decisions. However, it urges the Commission not to lose sight of the underlying intent of these decisions, which was to enable the utilities to respond to changes in the marketplace keyed to competition and bypass concerns. In such an environment, according to DRA, the SAM and ERAM mechanisms operate to reduce the utility's incentive to compete and to penalize them when they compete successfully. This was explicitly recognized by the Commission when it acted to eliminate these mechanisms.

Further, DRA notes that the Commission has taken care, when making any changes to the existing regulatory framework, to implement measures either to limit additional risk or to reduce risks in other areas. Thus, in the case of SAM, the Commission

opted for a two-year transitional period and retained the mechanism for core customers, as well as implementing the negotiated revenues stability account (NRSA), as a safety net. In short, DRA believes that SDG&E and the other utility applicants have painted an overly bleak picture of the impact of the Commission's actions, which were designed to instill confidence, rather than produce uncertainty, in the marketplace. Further, DRA points to Exhibit 10 in these consolidated proceedings, which is PG&E's 1987 second quarter letter to shareholders. In that letter, the Chairman of the Board provides an account of the positive side of competition. This demonstrates, in DRA's view, that the utility applicants (presumably including SDG&E) often present somewhat varying views of the competition issue to shareholders and regulators.

We acknowledge that SDG&E may indeed be experiencing some additional risk in connection with the restructuring of the natural gas industry and the current transition in the electric industry. These risks are associated with changes stemming from competition in markets which have traditionally been treated as monopolies. It may well be that our risk limiting measures do not exactly counterbalance the additional risks created by changes to the ERAM and SAM mechanisms. But whether that increased increment of risk requires an increase in the return on equity is another matter, especially given our attempts to reduce the risks associated with these changes.

DRA notes that SDG&E is among three of the current applicants who are requesting rates of return for 1988 based on a higher common equity ratio than previously authorized for 1987. DRA concludes that this translates to a diminution in the degree of financial risk for SDG&E, or at the very least no change in that risk. In addition, cash-flow positions have improved as SDG&E's external financing requirements have been reduced due to refinancing of high-cost debt issues. This is reflected in the lower-than-1987 levels of embedded cost of debt.

We are also keenly aware that SDG&E no longer faces uncertainty with regard to the final disposition of SONGS and that today's market reflects an investor perception that risks are lower than in the past, at least with regard to this major issue.

SDG&E has not requested an increased ROE for the 1988 attrition year, but rather a reduction from 3.90 to 13.75%. DRA argues, persuasively in our view, that this implies SDG&E's recognition of the reality of lower required equity allowances (DRA brief, p. 18). San Diego's ROE recommendation, premised on a similar analysis, is below the requested 13.75% as well (12.25%-12.75%). TURN's 12% recommendation is keyed principally to the November DRI forecast, which it believes warrants a downward adjustment of 25 basis points across-the-board to all DRA recommendations.

DRA's recommended range of 11.75 to 12.75% is premised on the argument that current authorizations have not been fully adjusted to reflect the downward trend in interest rates since 1982 (Exhibit 14, p. 52). For support, it points to the quantitative model results, and to the fact that recent returns for comparable gas utilities, at least, clearly evidence that downward trend (Exhibit 14, Table 5; Exhibit 15).

Thus, while we agree with SDG&E that increased risks associated with regulatory changes (specifically the restructuring of the natural gas industry and fundamental changes in the electric industry in response to competitive pressures) will be considered by investors to some extent, this consideration is counter-balanced by evidence that the cost of money has diminished and that the financial models and the economic indicators (Exhibit 14, Table 1, "Trends In Interest Rates") support a reduction in SDG&E's authorized ROE.

After considering all the evidence of the market conditions, trends, and the quantitative models presented by the parties, we believe that an ROE of 12.75% is just and reasonable

for SDG&E in attrition year 1988. This adopted ROE produces an overall rate of return of 10.86% for the attrition year, as shown in the following table depicting the adopted cost of capital.

SDG&E: Adopted Cost of Capital

Component	Capital Ratio	Cost Factor	Weighted Cost
Long-term Debt	40.50%	9.24%	3.74%
Preferred Stock	8.50	7.28	.62
Common Equity	51.00	12.75	6.50
Total	100.00%		10.86%

III. PG&E's Application

A. Procedural Background

On August 4, 1987, PG&E filed its application seeking adoption of a common equity return of 13.8% for the attrition year 1988. As noted, hearings on this application were heard on a consolidated record. During these hearings, PG&E presented the testimony of two witnesses, Gordon R. Smith, its Vice-President-Finance and Treasurer, and Jack F. Jenkins-Stark, Manager of Financial Planning and Analysis. Mr. Smith testified on rate of return policy issues, and Mr. Jenkins-Stark addressed rate of return methodology. DRA presented the testimony of Edwin Quan. The City of San Francisco (San Francisco) presented no affirmative case, but participated through cross-examination of various witnesses. San Francisco opted to present oral argument on October 27, in lieu of filing a brief; PG&E, DRA, and TURN filed concurrent briefs by November 5, 1987, and the matter was submitted on that date.

B. Rate of Return Recommendations For Attrition Year 1988

PG&E's presently authorized rate of return is depicted in the following table:

PG&E (Present Authorization)

Component	Capital Ratio	Cost Factor	Weighted Cost
Long-Term Debt	46.50%	9.65%	4.49%
Preferred Stock	9.00	9.02	0.81
Common Equity	44.50	13.80	6.14
Total	100.00%		11.44%

This present authorization contrasts with the recommendation of the active parties for the 1988 attrition year, depicted in the following two tables:

PG&E (Recommendation)

Component	Capital Ratio	Cost Factor	Weighted Cost
Long-Term Debt	45.50%	9.48%	4.31%
Preferred Stock	8.50	8.80	0.75
Common Equity	46.00	13.80	6.35
Total	100.00%		11.41%

DRA (Recommendation)

Component	Capital Ratio	Cost Factor	Weighted Cost
Long-Term Debt	47.00%	9.34%	4.39%
Preferred Stock	7.00	8.78	0.61
Common Equity	46.00	12.75	5.87
Total	100.00%		10.87

A review of these recommendations demonstrates that there is disagreement between the two parties as to the ratio of debt/preferred stock to be used in the capital structure for the 1988 attrition year, as well as a dispute over the cost factor for common equity. The cost factor for preferred stock recommendations

of the two parties are virtually identical, and thus, we adopt PG&E's recommended 8.80% preferred stock cost factor.

The embedded long-term debt cost factors of PG&E and DRA are also very close, although we believe that DRA's recommendation has been modified to reflect the November 1987 DRI control forecast and PG&E's 9.48% figure has not. We will adopt the more current 9.34% figure, since it is based upon use of the November 1987 DRI forecast and is also adjusted to reflect DRA corrected costs for PG&E's variable embedded debt (TR. 526). This correction remedies one major difference between the two parties' original recommendations and was made subsequent to the close of the record pursuant to DRA's agreement to take a second look at the issue of variable embedded debt.

The parties have also agreed that 50 basis points should be added to the 9.68% November 1987 DRI control forecast figure for AA-rated utility bonds, to derive PG&E's incremental cost of debt for the 1988 attrition year. The resulting 10.18% is adopted in this decision.

C. Capital Structure

As in the case of SDG&E's attrition year showing, there is a dispute between PG&E and DRA about PG&E's attrition year capital structure. PG&E's recommended capital ratios are premised on the capital structure for 1988 adopted by the Commission in its last rate case decision (D.86-12-095) for use in the 1988 attrition year. DRA has proposed, again based upon its review of updated financial data, that PG&E's debt ratio for attrition year 1988 be increased from the 45.50% authorized in D.86-12-095 for use in 1988, to 47%. This adjustment would correspondingly lower the percentage of preferred stock in the capital structure from 8.50% to 7.00%.

PG&E asserts that DRA's attempt to increase the debt leverage for ratemaking purposes during the 1988 attrition year should be rejected based upon the prior Commission decision.

Consistent with our disposition of this issue in the case of SDG&E, we agree with PG&E's argument, and we will adopt PG&E's recommended capital structure for the attrition year 1988. Thus, the adopted capital structure is comprised of 45.50% long-term debt, 8.50% preferred stock, and 46.00% common equity.

D. Return on Equity

The following table summarizes the positions of the parties.

Summary of ROE Recommendations

Party	ROE
PG&E	13.80%
DRA	11.75-12.75
San Francisco	Middle to low 12% range
TURN	12.50%

PG&E and DRA submitted testimony showing the results of various financial models as the starting point for establishing ROE, but they cautioned that the model results are an analytical guide, whose results must be tempered by judgment. As PG&E notes, while such models are useful, they are not a substitute for informed and reasoned judgment of risks the utility is facing and the return which is necessary to fairly compensate investors for those risks. PG&E followed its practice in past rate of return proceedings and employed three models: DCF, Risk Premium, and CAPM. DRA relied on the same three financial models. Both parties appear to have placed primary reliance on the DCF model, however. San Francisco and TURN did not present independent analyses, but made arguments in support of their recommended ranges. The following table summarizes the results of the models presented by Witnesses Jenkins-Stark and Quan.

ROE Model Results

Party	Model	ROE
PG&E*	DCF	12.98-15.63%
	RP	14.94-15.00
	CAPM	15.72%
DRA	DCF	11.96-13.05%
	RP	14.70-15.10
	CAPM	13.11%

*Based on October 1987 DRI Information

Because these models are only used to establish a range for ROE, we will not repeat the detailed descriptions of each model contained in this record. Additionally, PG&E and DRA have advanced arguments in support of their analyses and in criticism of opposing input assumptions. These arguments are not extensively addressed in this decision, given our assessment that they do not alter the model results shown above. However, we do note in passing that there is much dispute over the dividend growth rates used in the DCF model, given PG&E's announced policy that its dividend will be static until the Diablo rate case is resolved (at which time it will reconsider its dividend policy). PG&E argues that DRA's constant growth rate assumption does not coincide with the utility's announced intentions in this regard. DRA used a much lower constant growth rate for PG&E than it applied to other utility applicants on a long-term basis. PG&E argues that DRA's action thus artificially assumes that after the Diablo Canyon reasonableness decision is rendered, PG&E will adopt a dividend growth rate considerably lower than that assumed by financial analysts in their published forecasts applicable to these other utilities. PG&E notes that the DCF model, like all models, is heavily influenced by the assumptions employed. It notes however, that in PSD's application, the model is also influenced by the form employed. PG&E argues that if a more accurate variable growth rate

model had been employed, and the yields associated with the lower current prices incorporated, the results of the model would be closer to the range suggested by PG&E.

Despite the above controversy, we believe these models provide a reasonable range from which to choose, and we will use them as a rough guidepost in selecting PG&E's 1988 ROE. Nonetheless, as PG&E clearly states above, in the final analysis it is the application of judgment, not the precision of these models, which is the key to our decision.

In applying this judgment, we assess the arguments presented by PG&E that it faces increased business and financial risk during 1988. PG&E's ultimate argument is that it is more risky today than it was ten months ago when the Commission adopted the present 13.80% return on equity. It cites several factors. First, there are the competitive pressures presented by bypass, including uneconomic bypass. There are also competitive pressures associated with the restructuring of the gas industry, and, in PG&E's view, in connection with the Commission's QF program. Specifically, PG&E asserts that the competitive pressures it already faces are exacerbated by the need to face the continuing problem of excess payments to QFs for services allegedly not needed.

Second, PG&E focuses on the new gas regulatory structure, and more specifically the default provision included in D.87-03-044. Under that provision, PG&E asserts that it is authorized to discount gas rates to customers with competitive options, but is not allowed to price to any customer in excess of the embedded cost of service. The utility submits that any system which allows it to discount rates for some customers to keep them on line but which does not allow recovery through other rates, including market base rates, from those who value the service at a much higher level incrementally and are willing to pay for it, is a system which almost certainly will operate in a manner which will

preclude full cost recovery. This in turn should be viewed as increasing corporate risks, in PG&E's view.

PG&E also cites changes to the traditional regulatory compact, including restructuring of the natural gas industry, although it acknowledges that the Commission has attempted to minimize increased risks by imposing the safety net discussed earlier in this decision. Like the other applicants who address the safety net issue, however, PG&E does not believe the Commission has done enough in this area. On the electric side, it notes there is uncertainty and risk created by the Commission's announcements in connection with ERAM, as previously discussed, and it points out that there is no corresponding "safety net" on the electric side.

Finally, PG&E cites the regulatory delays associated with the reasonableness review of the Diablo Canyon nuclear power plant (Diablo Canyon). There are three chief concerns here. The first, is the Commission's denial of further interim relief in D.87-10-041, which means, to PG&E, that absent extraordinary circumstances, no further cash flow will be authorized for Diablo Canyon until the Commission completes the reasonableness phase of these proceedings. PG&E also asserts that it is not recoverying the full operations and maintenance expenses it is incurring in connection with operating Diablo Canyon. PG&E's second concern relates to what it views as the uncertainty caused by delay in resolving the reasonableness issue. That expected resolution has now been pushed back to April of 1989, and PG&E notes that persistent delay in this proceeding is a factor specifically noted in the comments of rating agencies which address the risk factors to be considered by investors evaluating an investment in PG&E. Finally, there is DRA's disallowance recommendation. PG&E asserts that this recommendation has an undeniable effect on the capital markets' perception of PG&E's securities, notwithstanding the fact that the merits of the recommendation have yet to be tested in the hearing room or embraced in any fashion by the Commission.

PG&E also notes that objective market indicators of risk confirm that it is a higher risk investment at this time than just ten months ago. This argument is based upon testimony that PG&E's Beta has risen, that its bond and preferred stock ratings have been lowered by several rating agencies in 1987, and that its market-to-book ratio has declined to the extent that its common stock was, at the time of these hearings, selling at a price below stated book value.

As stated previously in connection with other applications, DRA acknowledges that risk may have increased as a result of the Commission's actions in the area of restructuring the gas and electric industries. However, again, it urges the Commission not to lose sight of the underlying intent of these decisions, which sought to enable the utilities to more effectively compete in the marketplace. We will not repeat further DRA's arguments on this score; it suffices to say that DRA believes that PG&E and the other applicants have painted an overly bleak picture of the impacts of the Commission's actions in these areas--actions which were designed to instill confidence, rather than produce uncertainty in the marketplace. We have also pointed to DRA's citation to Exhibit 10, PG&E's 1987 Second Quarter Letter to Shareholders, which presents a positive side of the competition issue (see also, San Francisco's argument about the utility's "optimism department" and "pessimism department", TR. 616: 1-28).

The issue which overshadows the others, however, is the impact of the still pending status of our reasonableness review of Diablo Canyon costs. It is difficult to say how much impact on an individual investor the denial of further interim relief or the O&M issue have, because, as always there are several ways of viewing the situation. The fact that some interim relief has been granted, for example, is doubtless a positive sign. The delay issue is more problematical, for it is difficult to pinpoint with accuracy how that investor views the delay in resolution of the issue or the DRA

recommended disallowance, assuming the investor is even aware of many of these issues at the same level of detail the parties possess.

PG&E asserts that it is more risky today than it was ten months ago when the Commission adopted the 13.8% recommendation. However, another way of looking at the issue is that at the time the Commission adopted the 13.8% return, PG&E was one of three major utilities in this state with pending reasonableness reviews associated with major nuclear power plant additions. That uncertainty has now been resolved for SDG&E and Southern California Edison (Edison). Thus, it might be said that the Edison and SDG&E risk positions have improved relative to PG&E, since the latter still faces the unknown outcome of the outstanding reasonableness review. However, in our view, the mere pendency of that unknown outcome does not make PG&E, standing alone, more risky today than ten months ago.

Nonetheless there is some risk associated with the outstanding nature of the reasonableness review. DRA believes that PG&E faces the highest level of risk among the other electric utilities, apparently for this reason, and recommends that it be authorized a return on equity of 12.75% the top of the DRA-recommended range.

San Francisco argues that the mid to low 12% range is appropos, given the current financial indicators and the fact that current authorizations have not yet fully reflected the downward trend in interest rates which has occurred since the early 1980s. ("The Lag" issue). In San Francisco's view, returns in the low to mid 12% range are very fair returns in today's economic conditions (TR. 618).

Further, San Francisco raises an equitable argument in connection with Diablo Canyon. It acknowledges that "PG&E has a Diablo problem", but believes that problem is before the Commission and will be decided by the Commission in that proceeding (TR. 613).

San Francisco opposes the notion that current ratepayers should pay in the form of a higher return on common equity, for the risk associated with the fact that the Diablo Canyon decision has not yet been rendered. PG&E on the other hand counters that the effect of the uncertainty associated with resolution of the Diablo Canyon proceeding is a regulatory risk which ratepayers should bear, since uncertainty has a price which the markets demand be compensated if the risk is to be assumed. We do not reach this equity issue in our decision today, preferring to place more significance on the risk analysis and quantitative models in the record.

TURN's 12% recommendation is keyed principally to the November 1987 DRI forecast, which it believes warrants a downward adjustment of 25 basis points to all DRA recommendations.

As we have discussed earlier in connection with other applications, we agree that there may be some increased risk associated with the structural changes in gas and electric industries which may not have been fully counter-balanced by the protections we have put in place as we have rendered these decisions. As posed earlier, the qauestion is whether these increased risks support an increase on the return on equity.

DRA's recommendation recognizes the risk issue in our view, as well as the fact that interest rates may have reversed their mid-1987 downward trend. That, coupled with the fact that PG&E is requesting maintenance of its 1987 authorized ROE of 13.80 and no increase, argues that PG&E itself recognizes that the markets are requiring lower equity allowances at this time, as DRA maintains.

Thus, while we agree with PG&E that increased risks associated with regulatory changes, specifically the restructuring of the natural gas industry and the electric industry, will be considered by investors to some extent, we believe this consideration is counter-balanced by the evidence that the cost of money continues to decline (e.g., Exhibit 14, Table 1, "Trends and

Interest Rates"). The financial models and the economic indicators support some reduction in PG&E's authorized ROE of 13.80%, because we tend to agree with the DRA and San Francisco that there has been some delay in the reflection of the downward trend in interest rates in actual returns in the last several years. However, we are inclined to proceed cautiously here because the record indicates that there is investor uncertainty, given the fact that the Commission has yet to pass on the reasonableness of the Diablo Canyon Nuclear Power Plant. As stated previously, in this major respect, PG&E's position is much different from that of SDG&E and Edison which have finally put SONGS behind them.

When we test DRA's 12.75 recommendation against the quantitative models, particularly PG&E's application of the DCF model (DCF is the model on which we place the most importance) that recommendation appears somewhat low. All things considered, we believe a 13.00%, which is a figure within the DCF ranges presumably both PG&E and DRA, ROE is reasonable for the 1988 attrition year, as balancing increased risk with otherwise improved financial indicators. This adopted ROE produces an overall rate of return of 10.99% for the attrition year, as shown in the following table depicting the adopted cost of capital.

Adopted Cost of Capital

Component	Capital Ratio	Cost Factor	Weighted Cost
Long-Term Debt	45.50%	9.34%	4.25%
Preferred Stock	8.50	8.80	.75
Common Equity	46.00	13.00	5.99
Total	100.00%		10.99%

IV. Southwest Gas' Application

A. Procedural Background

On August 14, 1987, Southwest Gas filed its application for authority to revise its required return on equity for use in its 1988 operational attrition filing (Advice Letter No. 390).

Southwest Gas requests a 14% return on common equity and an overall rate of return of 12.29% for the 1988 attrition year. This represents a reduction from current authorized levels (13.05% rate of return based on a 15.25% return on common equity). Two parties actively participated in Southwest Gas' portion of the consolidated proceeding: Southwest Gas and DRA.

Southwest Gas presented the testimony of Andrew B. Laub, its Treasurer. Edwin Quan presented DRA's recommendation. Southwest Gas, DRA, and TURN filed concurrent briefs by November 5, 1987, and the matter was submitted on that date. The active parties' positions are summarized in the table below.

B. Rate of Return Recommendations for Attrition Year 1988

Southwest Gas' presently authorized rate of return is depicted in the following table:

Southwest Gas (Present Authorization)

Component	Capital Ratio	Cost Factor	Weighted Cost
Long-Term Debt	50.00%	11.36%	5.68%
Preferred Stock	5.00	10.21	0.51
Common Equity	45.00	15.25	6.86
Total	100.00%		13.05%

This present authorization contrasts with the recommendations of Southwest Gas and DRA for the 1988 attrition year, as shown in the following tables:

Southwest Gas (Recommendation)

Component	Capital Ratio	Cost Factor	Weighted Cost
Long-Term Debt	50.00%	11.00%	5.50%
Preferred Stock	5.00	9.78	0.49
Common Equity	45.00	14.00	6.30
Total	100.00%		12.29%

DRA (Recommendation)

Component	Capital Ratio	Cost Factor	Weighted Cost
Long-Term Debt	50.00%	11.16%	5.58%
Preferred Stock	5.00	9.57	0.48
Common Equity	45.00	12.35*	5.56
Total	100.00%		11.62%

*Range is 11.75% - 12.75%

A review of these recommendations demonstrates that there is agreement between Southwest Gas and DRA on the appropriate capital ratios to be used for the 1988 attrition year. As DRA notes in its brief, Southwest Gas' capital ratios for the 1988 attrition year have not been predetermined in a prior rate case decision. Thus, in the case of Southwest Gas, DRA reviewed the last authorized capital structure as well as current updated financing plans to determine the appropriate capital structure for the attrition year. Based on this review and Southwest Gas' own proposal to use the target capital structure of 50% debt, 5% preferred equity, and 45% common equity for the attrition year, there is apparently concurrence that this is appropriate. Therefore we will adopt this target capital structure.

On the issue of embedded long-term debt costs, Southwest Gas agrees with the DRA's proposal to use the November 1987 DRI projected cost of debt in connection with this decision. Since the DRA recommendation, with its cost factor of 11.16% for embedded long-term debt, has been updated to reflect the November forecast, we believe there is agreement that this is the appropriate figure for adoption for the attrition year. We will adopt that figure.

Southwest Gas notes that it is in accord with the methodology used by DRA to determine the incremental 1988 cost of debt to be attributed to Southwest Gas, namely, the addition of 100 basis points to the cost of debt for AA-graded securities as projected by DRI. This result leads to a incremental debt cost for

the attrition year of 10.86% which is adopted as consistent with recommendations of Southwest Gas and DRA in this proceeding.

There is a slight difference in the preferred stock cost factor's contained in the recommendations of Southwest Gas and DRA, but given the closeness of the recommendations, we will adopt the 9.78% cost figure contained in Southwest Gas' recommendation.

C. Return on Equity

The major disputed issue between Southwest Gas and DRA concerns the appropriate return on common equity for attrition year 1988. The following table summarizes the positions of the parties:

Summary of ROE Recommendation

Party	ROE
Southwest Gas	14.00%
DRA	12.35%
TURN	12.10%

Southwest Gas and DRA submitted testimony showing the results of various financial models as the starting point for establishing ROE. As noted previously in this decision, these models themselves are not dispositive of the issue, but are used as an analytical tool in conjunction with reasoned judgment of the risks a particular utility faces. Southwest Gas presented three analytical approaches: comparative analysis, an optimum payment ratio analysis, an optimum payment ratio analysis, and a risk premium analysis. DRA relied on DCF, risk premium and CAPM, but does not recommend use of Southwest Gas specific inputs to the DCF and CAPM models, favoring instead, the use of comparable gas group data, in view of recent Southwest Gas acquisitions outside the sphere of gas utility operations.

TURN did not present an independent analysis, instead making arguments in support of its recommendation. The following table summarizes the results of the models presented by witnesses Lamb and Quan:

ROE Model Results

Payment	Model	ROE
Southwest Gas	Comparative Analysis	11.8%
	Optimum Payout Ratio	14.97%
	Risk Premium	14.20%
DRA	DCF	11.54%-12.60%
	Risk Premium	9.07%- 9.68%
	CAPM	11.61%

A brief discussion of Southwest Gas' models is in order. These models have been used consistently on its other jurisdictions to arrive at the cost of common equity.

First, Southwest Gas used a comparative analysis of its business/financial risks in relation to a 41-company composite of natural gas distribution companies. The goal was to compare the degree of Southwest Gas' riskiness to that of the group. Southwest Gas' Lamb identified six areas of greater-than-normal risk specific to Southwest Gas. (See Exhibit 8, pp. 12-13.)

Second, Southwest Gas used an optimum payment ratio analysis, combining consideration of Southwest Gas' dividend maintenance objective with additional cash requirements due to growth. Third, Southwest Gas used a risk premium analysis. Southwest Gas' analysis also included assessment of specific business/financial risks, and their impact on ROE.

Southwest Gas has several specific criticisms of DRA's approach, mostly keyed to DRA's use of generic data associated with the nine-company comparable group. Southwest Gas asserts that the group is too limited, and that DRA has not properly accounted for the degree of risk differential between Southwest Gas, which carries a debt rating of Baa and other utilities in the group (Southwest Gas Brief, pp. 8-10).

In sum, Southwest Gas asserts:

> "...[I]t simply is not possible to provide adequate and meaningful recognition to the lesser quality security status of a Southwest

> common equity shareholder by (i) establishing a single range of returns on common equity based exclusively on an analysis of data applicable to 'A' rated companies, (ii) referring to an 'A' rated company (i.e., Southern California Gas Company) which has been assigned a recommended return at the midpoint within that range, and (iii) adding 10 basis points to the return on equity assigned to that purported surrogate company." (Southwest Gas Brief, p. 11.)

Southwest Gas argues that we must give effective recognition to the lesser quality of its securities, using a return level outside of and above the single range developed by DRA using "A" rated data. It argues that, at the very least, we must authorize it the maximum return on equity level authorized the other applicants in these proceedings, plus additional basis points to recognize its particular risks.

DRA opposes Southwest Gas' single-minded focus on the significance of its Baa3 bond rating, in contrast to the bond ratings of the other applicants. DRA's Quan maintains that bond ratings are only one measurement of risk; Quan also asserts that PSD's recommendation does reflect the higher risk implied by Southwest Gas' low bond rating.

DRA also reminds us that, despite the applicant's rating spreads (Southwest Gas at Baa3 vs. SDG&E at Aa3), the requested common equity returns vary by only a 25 basis point spread. PSD maintains that its own recommended 100 basis point spread will sustain the existing bond ratings.

Finally, DRA stresses the need to remember that bond ratings often reflect nonregulated operations of some of the applicants, and are not primarily driven by this Commission's decisions.

TURN recommends a 12.10% return on equity for Southwest Gas, based on its arguments previously cited in these consolidated matters, relating to the November DRI forecast.

Given the evidence in this record of substantial decreases in the cost of money since Southwest Gas' 15.25% return on common equity was set in 1985 by D.85-12-103, we believe there is ample justification for a reduction at this time. Even Southwest Gas agrees, since its 14% request represents a 125 basis point drop from presently authorized levels.

We tend to agree with DRA that Southwest Gas has placed too much emphasis on the issue of its debt rating, and not enough on the actual specific business/financial risks it faces on a day-to-day level. Its discussion of such risks at pp. 12-13 of Exhibit 8 is much more general than the specific business/financial risk analyses provided by other applicants in their direct showings. We conclude that Southwest Gas has not justified its 14% request. We conclude that a reasonable ROE, which will recognize the additional risk represented by Southwest Gas' rating, while taking account of improved financial conditions occurring since Southwest Gas' last adjustment, is 12.90% (rate of return is 11.88%.), as shown on the following table, depicting the adopted cost of capital for attrition year 1988:

Southwest Gas: Adopted Cost of Capital

Component	Capital Ratio	Cost Factor	Weighted Cost
Long-term Debt	50.00%	11.16%	5.58%
Preferred Stock	5.00	9.78	.49
Common Equity	45.00	12.90	5.81
Total	100.00%		11.88%

V. Sierra Pacific's Application

A. Procedural Background

On September 8, 1987, Sierra Pacific filed its application for authorization for a return on equity for attrition year 1988. Hearing were conducted on a consolidated record with four other attrition reviews. During these hearings Sierra Pacific

presented the testimony of Charles E. Olson, an economist and president of H. Zinder and Associates, who presented a study of the required return on common equity. DRA presented the testimony of Edwin Quan.

Sierra Pacific, DRA, and TURN filed concurrent briefs by November 5, 1987, and the matter was submitted at that point.

B. Rate of Return Recommendations For Attrition Year 1988

Sierra Pacific's presently authorized rate of return is depicted in the following table:

Sierra Pacific (Present Authorization)

Component	Capital Ratio	Cost Factor	Weighted Cost
Long-Term Debt	49.09%	9.24%	4.54%
Preferred Stock	7.46	9.84	.73
Common Equity	43.45	13.90	6.04
Total	100.00%		11.31%

In contrast, the recommendations of the active parties for the 1988 attrition year are depicted below:

Sierra Pacific (Recommendation)

Component	Capital Ratio	Cost Factor	Weighted Cost
Long-Term Debt	49.09%	8.74%	4.29%
Preferred Stock	7.46	7.24	.54
Common Equity	43.45	13.75	5.97
Total	100.00%		10.80%

DRA (Recommendation)

Component	Capital Ratio	Cost Factor	Weighted Cost
Long-Term Debt	49.09%	8.71%	4.28%
Preferred Stock	7.46	7.35	.55
Common Equity	43.45	12.35	5.37
Total	100.00%		10.20%

There is no disagreement between the two parties on the capital structure to be used for the 1988 attrition year, and we will adopt it, in accordance with our specification in Sierra Pacific's last general rate case.

DRA notes that Sierra Pacific is the only applicant in these consolidated proceedings which plans to issue new preferred stock during 1988. DRA indicates, after review, that it finds Sierra Pacific's basis for estimating the associated costs to be reasonable, and has incorporated this data in developing its effective cost of preferred stock for 1988. We will adopt DRA's cost factor of 7.35%, since it is the most up-to-date figure available, and is very close to Sierra Pacific's original 7.24% figure. Similarly, there is very little difference between the two parties on embedded debt cost figures. We will adopt DRA's 8.71% figure, since it is premised on the November DRI forecast.

Sierra Pacific requests us not to update incremental debt cost to account for the November DRI forecast, since the number, if used at all (Sierra Pacific does not forecast a long-term taxable bond issuance during 1988) would be applied to tax exempt debt, bearing a much lower actual cost. Sierra Pacific indicates it is comfortable using its recent historic cost level of 5% for such debt and does not request that a higher cost be incorporated in its capital structure. We accede to Sierra Pacific's request.

C. Return on Equity

As with the consolidated proceedings, return on common equity for Sierra Pacific in attrition year 1988 is the chief contested issue in this proceeding, as the following table demonstrates:

Summary of ROE Recommendations

Party	ROE
Sierra Pacific	13.75%
DRA	11.75%-12.75%*
TURN	12.10%

*Recommends 12.35%

Sierra Pacific and DRA presented testimony showing the results of various financial models. Sierra Pacific presented a primary DCF analysis, cross-checked by a risk premium analysis and a second DCF analysis of 10 electric companies. DRA conducted DCR, risk premium, and CAPM analyses. The following table summarizes the results of the models presented by witnesses Olson and Quan:

ROE Model Results

Party	Model	ROE
Sierra Pacific	DCF	12.4%-13.4%*
	Risk Premium	14.5%
	DCF (10 elecs)	12.5%-13.0%
DRA	DCR	11.08%-12.15%
	Risk Premium	13.90%-14.58%
	CAPM	11.86%

*When increased for financing costs, etc.
Range is 13.4%-14.5%

As noted previously in this decision, these models are used to establish a range for ROE, but we do not repeat a detailed description of each model, or the arguments of the parties with respect to the various inputs, since we use the models as rough guideposts, in conjunction with informed judgment.

However, Sierra Pacific notes that both Quan and Olson used analysts' forecasts of dividend and earning growth rates in their DCF analyses, but believes Quan's analysis was flawed because it was too generic and not specifically focused on Sierra Pacific or electric utilities sharing comparable characteristics (Sierra Pacific Brief, p. 6). The essence of the critique is that DRA made no reasonable effort to locate and identify other electric utilities which could be reasonably categorized as comparable to Sierra Pacific.

DRA, on the other hand, concludes in its report that Sierra Pacific's relative risk is below PG&E and somewhat higher than that of SDG&E. It concludes this, while noting that the financial models in isolation point to a lower equity return for Sierra Pacific than for SDG&E; however, DRA has gone behind the models to review bond ratings, equity ratios, and other impacts specific to Sierra Pacific, bearing on relative risks. We cannot say then that DRA's analysis has been insensitive to specific information bearing on Sierra Pacific's riskiness.

For its part, TURN supports its 12.10% recommendation with reference to the November DRI forecast, as with other applicants.

We conclude that DRA's approach is not any more flawed than others presented to us. Given the record evidence of financial indicators (Exhibit 14, Table 1) and the range provided on the various models, we conclude that the return on common equity for attrition year 1988 should be 12.90%, for an overall rate of return of 10.44%. The adopted cost of capital is shown below:

Sierra Pacific: Adopted Cost of Capital

Component	Capital Ratio	Cost Factor	Weighted Cost
Long-Term Debt	49.09%	8.71%	4.28%
Preferred Stock	7.46	7.35	.55
Common Equity	43.45	12.90	5.61
Total	100.00%		10.44%

Findings of Fact

1. On July 31, 1987 SDG&E filed its application for authority to revise its rate of return in accordance with the ARA mechanism for attrition year 1988, requesting an 11.4% rate of return and a 13.75% return on common equity, a change from the 11.61% rate of return and 13.9% return on common equity presently authorized.

2. SDG&E's application was heard on a consolidated record with four other related 1988 attrition year rate of return reviews.

3. Prior to the conclusion of evidentiary hearings, the applicants and DRA agreed to use the November 1987 DRI control forecast to update debt costs for purposes of this decision. The November DRI forecast shows a decline in the forecasted level of interests rates for AA rated utility bonds to 9.68%.

4. There is no variance in the SDG&E/DRA recommended cost figures for SDG&E's preferred stock and embedded long-term debt for the 1988 attrition years. These figures are 7.28% and 9.24%, respectively.

5. Based on the November 1987 DRI control forecast for AA rated utility bonds, 9.68%, and DRA's recommended 0.25% increment, SDG&E's incremental cost of debt for the 1988 attrition year is 9.93%.

6. In D.85-12-065 the Commission established the capital structure to be used by SDG&E for the 1988 attrition year, including a debt/preferred ratio of 40.5%/8.5%. DRA's proposal to

alter the dopted debt/preferred ratio for the attrition year goes beyond a review of the updating of financial plans, of the type which is permissible for an attrition year review.

7. There is no disagreement between SDG&E and DRA as to the appropriate equity ratio for the attrition year: 51.00%.

8. Investors can be expected to consider increased risk associated with regulatory changes, specifically the restructuring of the natural gas industry and transitional events in the electric industry. But such consideration is counterbalanced by evidence that SONGS-related uncertainty is resolved in that the reasonableness review is complete; the cost of money has diminished; these factors militate against SDG&E's requested 13.75% ROE, in favor of a 12.75% ROE, which is more consistent with current economic indicators and the results of the financial models reviewed during this proceeding.

9. On August 4, 1987, PG&E filed its application for adoption of an authorized rate of return for 1988 pursuant to the Attrition Rate Adjustment mechanism, requesting an 11.41% rate of return and a 13.80% return on common equity as compared to its currently authorized 11.44% rate of return and 13.80% return on common equity.

10. PG&E's application was heard on a consolidated record with four other related 1988 attrition year rate of return reviews.

11. There is no significant disagreement between PG&E and DRA over the cost factor for preferred stock; the figure is 8.80%.

12. DRA's 9.34% embedded debt cost figure is based on the November 1987 DRI control forecast, and is also adjusted to reflect PG&E's variable embedded debt. The 9.34% figure is thus more current from PG&E's earlier requested 9.48% figure.

13. DRA and PG&E have also agreed that 50 basis points should be added to the 9.68% November DRI control forecast figure for AA-rated utility bonds, to derive PG&E's incremental cost of debt figure of 10.18% for the 1988 attrition year.

14. In D.86-12-095 the Commission established the capital structure to be used by PG&E for the 1988 attrition year, including a debt/preferred ratio of 45.50%/8.50%. DRA's proposal to alter this adopted ratio for the attrition year goes beyond a review of the updating of financial plans, of the type which is permissible for an attrition year review.

15. There is no disagreement between PG&E and DRA as to the appropriate equity ratio for the attrition year: 46.00%.

16. Investors can be expected to consider increased risk associated with regulatory changes, specifically the restructuring of the natural gas industry and transitional events in the electric industry; they can also be expected to consider increased risk associated with the fact that costs of Diablo Canyon have not yet been reviewed for reasonableness. To some extent these risks are counterbalanced by regulatory actions designed to limit risk, including the granting of some interim relief in the case of Diablo Canyon. These factors militate against retention of PG&E's current 13.80% ROE for attrition year 1988, in favor of a 13.00% ROE which is consistent with current economic indicators, and the results of the financial models reviewed during this proceeding.

17. On August 14, 1987, Southwest Gas filed its application for a review and revision of its required return on equity for attrition year 1988, requesting a 12.29% rate of return and a 14.00% return on common equity, representing a change from the 13.05% rate of return and 15.25% return on common equity presently authorized.

18. Southwest Gas' application was heard on a consolidated record with four other 1988 attrition year rate of return reviews.

19. There is no significant difference between Southwest Gas and DRA over the cost factor for preferred stock; we will use Southwest Gas' figure of 9.78% given the proximity of the figures.

20. DRA's 11.16% embedded debt cost figure is based on the November 1987 DRI control forecast, and is therefore more current than Southwest Gas' 11.00% figure.

21. DRA and Southwest Gas have agreed that 100 basis points should be added to the 9.68% November DRI control forecast figure for AA-rated utility bonds, to derive Southwest Gas' incremental cost of debt figure of 10.86% for the 1988 attrition year.

22. This Commission has not previously established a capital structure to be used by Southwest Gas for the 1988 attrition year, and Southwest Gas and DRA have agreed that a target capital structure of 50% debt, 5% preferred equity, and 45% common equity, is appropriate.

23. The determination of a 12.90% cost of equity for Southwest Gas during the 1988 attrition year is based on substantial decreases in the cost of money since Southwest Gas' last ROE was determined in December 1985, our analysis of economic indicators, Southwest Gas' showing, and the results of the models reviewed during this proceeding.

24. On September 9, 1987, Sierra Pacific filed its application for an authorized return on equity for attrition year 1988, requesting a 10.80% rate of return and a 13.75% return on common equity, a change from the 11.31% rate of return and 13.9% return on common equity presently authorized.

25. Sierra Pacific's application was heard on a consolidated record with four other 1988 attrition year rate of return reviews.

26. There is no disagreement between Sierra Pacific and DRA that a target capital structure of 49.09% long-term debt, 7.46% preferred stock and 43.45% common equity should be adopted for the 1988 attrition year.

27. DRA's cost factor, 7.35% for preferred stock is premised on Sierra Pacific's costing approach, but updated to reflect the November 1987 DRI forecast.

28. There is very little difference between Sierra Pacific and DRA embedded debt cost figures, but DRA's figure, 8.71% has been updated to reflect the November 1987 DRI forecast.

29. Sierra Pacific plans no long-term debt issuances during 1988, but if they should occur, they would involve tax exempt debt issuance, bearing a much lower cost. Sierra Pacific accepts 5% as a reasonable figure for 1988 incremental debt.

30. Based on the ranges in the financial models, and despite the fact that DRA and Sierra Pacific have employed varying inputs, we believe the record, including evidence of the prevailing financial indicators, supports a reduction in Sierra Pacific's presently authorized ROE from 13.90% to 12.90% for the 1988 attrition year.

Conclusions of Law

1. Consistent with the preceding findings, the following capital structure should be adopted for SDG&E during the 1988 attrition year: long-term debt, 40.50%; preferred stock, 8.50%; and common equity, 51.00%.

2. The cost figure of 9.24% for embedded long-term debt should be adopted for SDG&E during the 1988 attrition year, consistent with the preceding findings.

3. The agreed-upon cost figure of 7.28% for preferred stock should be adopted for SDG&E during the 1988 attrition year.

4. A 9.93% figure should be adopted as SDG&E's incremental cost of debt for the 1988 attrition year.

5. A 12.75% ROE, resulting in an overall rate of return of 10.86%, should be adopted as just and reasonable for SDG&E for attrition year 1988, based upon all of the evidence considered in this proceeding.

6. Consistent with the preceding findings, the following capital structure should be adopted for PG&E during the 1988 attrition year: long-term debt, 45.50%; preferred stock, 8.50%; and common equity, 46.00%.

7. The cost figure of 9.34% for embedded long-term debt should be adopted for PG&E during the 1988 attrition year, consistent with the preceding findings.

8. The cost figure of 8.80% for preferred stock should be adopted for PG&E during the 1988 attrition year, consistent with the preceding findings.

9. A 10.18% figure should be adopted as PG&E's incremental cost of debt for the 1988 attrition year.

10. A 13.00% ROE, resulting in an overall rate of return of 10.99%, should be adopted as just and reasonable for attrition year 1988, based upon all of the evidence consîdred in this proceeding.

11. Consistent with the preceding findings, the following capital structure should be adopted for Southwest Gas during the 1988 attrition year: long-term debt, 50%; preferred stock, 5%; and common equity, 45%.

12. The cost figure of 11.16% for embedded long-term debt should be adopted for Southwest Gas during the 1988 attrition year, consistent with the preceding findings.

13. The cost figure of 9.78% for preferred stock should be adopted for Southwest Gas during the 1988 attrition year, consistent with the preceding findings.

14. A 10.86% figure should be adopted as Southwest Gas' incremental cost of debt for the 1988 attrition year.

15. A 12.90% ROE, resulting in an overall rate of return of 11.88%, should be adopted for Southwest Gas during the 1988 attrition year, based upon all of the evidence considered in this proceeding.

16. Consistent with the preceding findings, the following capital structure should be adopted for Sierra Pacific during the 1988 attrition year; long-term debt, 49.09%; preferred stock, 7.46%; and common equity, 43.45%.

17. The cost figure of 8.71% for embedded long-term debt should be adopted for Sierra Pacific during the 1988 attrition year, consistent with the preceding findings.

18. The cost figure of 7.35% for preferred stock should be adopted for Sierra Pacific during the 1988 attrition year, consistent with the preceding findings.

19. A 5% figure should be adopted as Sierra Pacific's incremental cost of debt for the 1988 attrition year.

20. A 12.90% ROE, resulting in an overall rate of return of 10.44%, should be adopted for Sierra Pacific during the 1988 attrition year, based upon all of the evidence considered in this proceeding.

O R D E R

IT IS ORDERED that:

1. The following cost of capital is adopted for SDG&E for attrition year 1988:

SDG&E: Adopted Cost of Capital

Component	Capital Ratio	Cost Factor	Weighted Cost
Long-term Debt	40.50%	9.24%	3.74%
Preferred Stock	8.50	7.28	.62
Common Equity	51.00	12.75	6.50
Total	100.00%		10.86%

2. 9.93% is adopted as SDG&E's incremental cost of debt for the 1988 attrition year.

3. SDG&E's adopted 1988 attrition year rate of return, reflected in Ordering Paragraph 1, shall be used in conjunction with SDG&E's pending 1988 attrition year advice letter filing for the purpose of calculating revised rates for the 1988 attrition year.

4. The following cost of capital is adopted for PG&E for attrition year 1988:

PG&E: Adopted Cost of Capital

Component	Capital Ratio	Cost Factor	Weighted Cost
Long-term Debt	45.50%	9.34%	4.25
Preferred Stock	8.50	8.80	.75
Common Equity	46.00	13.00	5.99
Total	100.00%		11.99%

5. 10.18% is adopted as PG&E's incremental cost of debt for the 1988 attrition year.

6. PG&E's adopted 1988 attrition year rate of return, reflected in Ordering Paragraph 4, shall be used in conjunction with PG&E's pending 1988 attrition year advice letter filing for the purpose of calculating revised rates for the 1988 attrition year.

7. The following cost of capital is adopted for Southwest Gas for attrition year 1988:

Southwest Gas: Adopted Cost of Capital

Component	Capital Ratio	Cost Factor	Weighted Cost
Long-term Debt	50.00%	11.16%	5.58%
Preferred Stock	5.00	9.78	.49
Common Equity	45.00	12.90	5.81
Total	100.00%		10.88%

8. 10.86% is adopted as Southwest Gas' incremental cost of debt for the 1988 attrition year.

9. Southwest Gas' adopted 1988 attrition year rate of return, reflected in Ordering Paragraph 7, shall be used in conjunction with its pending 1988 attrition year advice letter

filing (Advice Letter No. 390), for the purpose of calculating revised rates for the 1988 attrition year.

10. The following cost of capital is adopted for Sierra Pacific for attrition year 1988:

Sierra Pacific: Adopted Cost of Capital

Component	Capital Ratio	Cost Factor	Weighted Cost
Long-term Debt	49.09%	8.71%	4.28%
Preferred Stock	7.46	7.35	.55
Common Equity	43.45	12.90	5.61
Total	100.00%		10.44%

11. 5% is adopted as Sierra Pacific's incremental cost of debt for the 1988 attrition year.

12. Sierra Pacific's adopted 1988 attrition year rate of return, reflected in Ordering Paragraph 10, shall be used in conjunction with its pending 1988 attrition year advice letter filing, for the purpose of calculating revised rates for the 1988 attrition year.

This order is effective today.

Dated ____________________, at San Francisco, California.

APPENDIX A

LIST OF APPEARANCES

Applicants: Barton M. Myerson and Thomas G. Hankley, Attorneys at Law, for San Diego Gas & Electric Company; Peter Nathan Osborn and Roy M. Rawlings, Attorneys at Law, for Southern California Gas Company; Roger J. Peters and Richard H. Moss, Attorneys at Law, for Pacific Gas and Electric Company; Lawrence V. Robertson, Jr., Attorney at Law, for Southwest Gas Corporation; and James D. Salo and Boris Lakusta, Attorneys at Law, for Sierra Pacific Power Company.

Interested Parties: Matthew V. Brady and Marcia Preston, Attorneys at Law, for the California Department of General Services; Eric Eisenman and Andrew Packard, for Transwestern Pipeline Company; Carol B. Henningson and James M. Lehrer, by John P. Hughes, Attorney at Law, for Southern California Edison Company; Reed V. Schmidt, for the California Street Light Association; William Shaffran and Leslie J. Girard, Attorneys at Law, for the City of San Diego; Michel Peter Florio, Mark Barmore, and Jon Elliott, Attorneys at Law, and Sylvia M. Siegel, for Toward Utility Rate Normalization (TURN); Gary D. Simon, for El Paso Natural Gas Company; Messrs. Skaff & Anderson, by Andrew J. Skaff, Attorney at Law, for Mojave Pipeline Company; Louise Renne, City Attorney, by Leonard Snaider, Attorney at Law, for the City and County of San Francisco; Messrs. Chickering & Gregory, by C. Hayden Ames, Attorney at Law, for Chickering & Gregory; Shelley Ilene Rosenfield, Attorney at Law, for City of Los Angeles; and Manuel Kroman, for himself.

Commission Staff: James S. Rood and Timothy E. Treacy, Attorneys at Law, Terry R. Mowrey, and Gregory A. Wilson.

(END OF APPENDIX A)