ALJ/bg *

Decision 83 12 037 DEC 20 1983

ORIGINAL

BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

In the Matter of the Application of CALIFORNIA WATER SERVICE COMPANY, a corporation, for an order authorizing it to increase rates charged for water service in the Stockton District.	Application 83-03-70 (Filed March 25, 1983)

McCutchen, Doyle, Brown & Enersen, by A. Crawford Greene, Attorney at Law, for California Water Service Company, applicant.
Nick Tibbetts and Robert Innes, for Congressman Douglas H. Bosco; Robert Edward Green, Attorney at Law, for Community Forward; and Thomas Dalzell, Attorney at Law, for Utility Workers Union of America, AFL-CIO and Coalition of California Utility Workers; interested parties.
Alberto Guerrero, Attorney at Law, and Mehdi Raqpour, for the Commission staff.

O P I N I O N

On March 25, 1983, California Water Service (CWS) filed applications for increased rates for water service in seven of its districts, Bakersfield (Application (A.) 83-03-65), Chico-Hamilton (A.83-03-66), Salinas (A.83-03-67), San Mateo (A.83-03-68), Selma (A.83-03-69), Stockton (A.83-03-70), and Visalia (A.83-03-71). This decision addresses those issues raised in Stockton, the lead district, as well as all disputed issues in all seven districts. By separate opinion we address the balance of the matters required for decision making in the remaining six districts.

On August 16, 17, 18, 19, 22, 23, and 24, 1983, hearings were held in San Francisco, California, before Administrative Law Judge (ALJ) Orville I. Wright. Testimony was presented by Donald L. Houck, David Heninger, and Harold C. Ulrich for the applicant, and by Chew Low, Linda Gori, Robert Mark Pocta, Thomas Thompson, Gregory A. Wilson, and Mehdi Radpour for the Commission staff.

Testimony was also presented by Robert Innes, appearing for Congressman Douglas H. Bosco; Barry Meyers, appearing for himself; Douglas B. Flett and Jeff Walker, appearing for Community Forward of San Joaquin (Community Forward); and William H. Miller, called as a witness by Utility Workers Union of America, AFL-CIO and Coalition of California Utility Workers (Utility Workers).

On August 16, 1983, a transcribed evening public hearing was held in Stockton, California. Commissioner Donald Vial was present, as well as members of the Commission staff, representatives of CWS, and ratepayers.

Summary of Decision

Applicant's request for rate increases and our adopted increases are as follows:

	Additional Revenues Requested	Percent Rate Increase	Additional Revenues Adopted	Percent Rate Increase
1984	$1,505,300	15.4	$670,300	6.8
1985	403,400	3.6	253,100	2.4
1986	406,300	3.5	252,400	2.3

Table I shows the adopted summary of earnings at present rates and at authorized rates for 1984 and 1985. An attrition allowance of 0.65% is allowed for 1986.

Table II shows applicant's requested rate of return and adopted rate of return for 1984, 1985, and 1986. A return on equity of 14.50% is allowed producing a rate of return of 12.36% for 1984, 12.40% for 1985, and 12.46% for 1986.

TABLE I

California Water Service Company
Stockton District

ADOPTED SUMMARY OF EARNINGS

Item	Test Year 1984	Test Year 1985
	(Dollars in Thousands)	
Present Rates		
Operating Revenues	$ 9,799.4	$ 9,862.7
Operating Expenses:		
Purchased Power	212.2	214.9
Purchased Water	3,362.1	3,362.1
Groundwater Charge	14.3	14.4
Purchased Chemicals	5.7	5.7
Payroll - District	1,146.7	1,209.4
Other O&M	492.2	519.3
Other A&G & Miscellaneous	78.8	83.8
Ad Valorem Taxes - District	202.1	209.0
Payroll Taxes - District	84.6	92.8
Depreciation	557.7	580.9
Ad Valorem Taxes - G.O.	4.0	4.1
Payroll Taxes - G.O.	18.2	19.7
Other Prorates - G.O.	806.7	859.6
Subtotal	6,985.3	7,175.7
Reimbursement Fee	0.0	0.0
Uncollectibles	35.2	35.4
Local Franchise Tax & Business License	48.4	48.7
Income Taxes before ITC	777.4	724.6
Investment Tax Credit	(3.1)	(2.7)
Total Operating Expenses	7,843.2	7,981.7
Net Operating Revenues	1,956.2	1,881.0
Rate Base	18,451.4	18,790.3
Rate of Return	10.60%	10.01%
Authorized Rates		
Operating Revenues	$10,469.7	$10,790.4
Operating Expenses:		
Subtotal	6,985.3	7,175.7
Uncollectibles	37.6	38.7
Local Franchise Tax & Business License	51.7	53.3
Income Taxes before ITC	1,117.6	1,195.4
Investment Tax Credit	(3.1)	(2.7)
Total Operating Expenses	8,189.1	8,460.4
Net Operating Revenues	2,280.6	2,345.4
Rate Base	18,451.4	18,790.3
Rate of Return	12.36%	12.40%

(Red Figure)

TABLE II

California Water Service Company
Stockton District

RATE OF RETURN COMPARISON

1984 - 1986

	Applicant's Request			Adopted		
	Capital Ratios	Effective Rate	Rate of Return	Capital Ratios	Effective Rate	Rate of Return
1984						
Long-Term Debt	51.5%	10.98%	5.65%	51.5%	10.95%	5.64%
Preferred Stock	3.8	6.36	0.24	3.8	6.36	0.24
Common Equity	44.7	16.50	7.38	44.7	14.50	6.48
Total	100.0		13.27	100.0		12.36
After-Tax Interest Coverage			2.35x			2.19x
1985						
Long-Term Debt	49.8%	10.94%	5.45%	49.8%	10.91%	5.43%
Preferred Stock	3.7	6.31	0.23	3.7	6.31	0.23
Common Equity	46.5	16.50	7.67	46.5	14.50	6.74
Total	100.0		13.35	100.0		12.40
After-Tax Interest Coverage			2.45x			2.28x
1986						
Long-Term Debt	48.3%	10.91%	5.27%	48.3%	10.87%	5.25%
Preferred Stock	3.5	6.26	0.22	3.5	6.25	0.22
Common Equity	48.2	16.50	7.95	48.2	14.50	6.99
Total	100.0		13.44	100.0		12.46
After-Tax Interest Coverage			2.55x			2.37x

Issues

Stockton District is the lead decision for the seven CWS district applications heard on a consolidated record in 1983. The other districts are Bakersfield, Chico-Hamilton, Salinas, San Mateo, Selma, and Visalia. In order to expedite processing of these rate cases and to contribute to the reader's better understanding of the total proceedings, we address all disputed issues in all seven districts in this opinion. As noted previously, we will address the balance of the matters required for decision making in the other six districts by separate opinion.

Table II shows our adopted rate of return as compared to applicant's request and is applicable to all districts. Table I shows our adopted summary of earnings for test years 1984 and 1985 for the Stockton District.

The issues are: operating revenues - all districts except Chico-Hamilton and Selma; computer system labor cost reduction - San Mateo; number of employees - Visalia; Bay Area Water Users Association assessment - San Mateo; amortization of tax deduction - all districts; nonlabor escalation factors - all districts; wage forecast - all districts; Salinas well; Bakersfield and Stockton meter replacement costs; and Selma commercial office.

Set forth below are the amounts of operating revenue differences between staff and applicant for each of the test years at present rates as forecast by CWS for each affected district. These differences are also expressed as percentages of total estimated revenues at present rates.

Operating Revenue Differences
(Dollars in Thousands)

	1984	Percent Above CWS	1985	Percent Above CWS
Stockton	$ 89.1	9.2	$115.1	11.8
San Mateo	202.3	3.7	216.6	3.9
Salinas	16.2	.5	17.7	.6
Bakersfield	10.9	.1	17.4	.2
Visalia	4.2	.2	4.4	.2

Number of Customers - Stockton

CWS originally estimated 45 and 55 new customers in the Stockton District for 1984 and 1985, respectively. It revised its estimate upward to 150 customers for each of the test years as being more realistic in consequence of the recent upturn in the economy.

Staff's estimate is 200 additional customers annually, based upon an extrapolation of growth for the years 1976 through 1980 and in recognition that there are, at present, 2,000 inactive services in Stockton which, staff suggests, are very likely unoccupied properties awaiting sale or rental. There is no requirement, therefore, that one need perceive any substantial amount of new construction in 1984 and 1985 to give credence to the staff estimate.

Applicant points out that had staff included 1975 in its base, the result would be 186 customers rather than the 200 estimated, and noted that in only two of the five years relied upon by staff did Stockton's growth rate reach 200 customers.

We find staff to be more persuasive on this issue and adopt its estimate of future customer growth in Stockton.

Commercial Sales - San Mateo and Visalia

Of all the individual differences between staff and applicant as to revenue and expense estimates, the difference in

estimates of commercial sales in the San Mateo District has the greatest effect on applicant's earnings, being a difference in estimated revenues of approximately $150,000 to $170,000 a year.

Commercial sales per customer are presented in graph form in Exhibit 15, page 2, showing the following recorded data:

Year	Ccf per Customer
1972	223.6
1973	226.4
1974	218.1
1975	219.3
1976	228.1
1977 (drought)	149.8
1978	177.8
1979	193.5
1980	203.4
1981	204.9
1982	197.1
1983 (6 months)	196.3

Applicant's estimate for 1984 and 1985 is 201.8 Ccf per customer, and staff's estimate for these years is 209.5 Ccf. The difference results from the methodology in forecasting utilized by the parties.

In 1977 staff and representatives of water utilities agreed upon an approach to forecasting consumption termed the Committee Method, embodying a procedure for using computers to perform the computations of the Modified Bean Method of forecasting normalized water consumption. It is agreed that this Committee Method should be utilized in those cases where there are five years of reliable post-drought data available, which was the case in all CWS districts except San Mateo and Visalia.

Generally, the data from 1972 to 1976 will show slight deviations in consumption, up or down, from year to year. Excluding the drought year of 1977, data for 1978 through 1982 will show a similar flattening pattern which suggests a new level of consumption to which the Modified Bean Method can be applied.

While the San Mateo District data shows the expected pre-drought pattern, post-drought consumption shows no predictable

pattern. From a low drought year consumption of 149.8 Ccf, consumption leaps upward to 177.8 Ccf in 1978, 193.5 Ccf in 1979, and to 203.4 Ccf in 1980. After a modest rise to 204.9 Ccf in 1981, recorded consumption falls to 197.1 Ccf in 1982. Half-year recorded consumption in 1983 tends to support a full year level of 196.3 Ccf.

Observing these data, applicant elected to make first-time use of a three-year average of the unadjusted recorded consumption figures for the years 1980 through 1982, contending that it had no choice but to make a separate estimate as the Modified Bean Method cannot be used where five years of recorded data at the new post-drought consumption levels do not exist. Applicant believes that 1980 through 1982 are representative of new post-drought consumption levels.

Staff, observing these same data, commenced by applying the Modified Bean Method to five years of data which included three pre-drought years. This exercise yielded the staff estimate of 209.5 Ccf, but is unfairly weighted on the high side if 1981 or 1982, or both years, truly reflects a new level of consumption, as applicant believes to be the case.

Staff then tested its indicated Bean result for residual conservation by determining that San Mateo consumption was affected by both temperature and rainfall. Eliminating this effect and applying the Bean method again for three only post-drought years yielded results which confirmed the staff estimate.

It is true, as applicant argues, that the use of only three post-drought years is not approved by the Committee Method. It is, likewise true, as staff argues, that a three-year average of unadjusted consumption has not been employed before by CWS. However, we agree with staff that a new level of consumption at approximately 20 Ccf per customer less than pre-drought is not apparent from the raw data available to date. The staff persuades us that the staff estimates, both in San Mateo and Visalia, are the more reasonable. We adopt the staff estimates.

Industrial and Public Authority Sales - All Districts

Applicant has taken exception to six separate staff estimates of industrial and public authority sales for the seven districts involved in these proceedings. Applicant and staff are in agreement on the other eight estimates for these two classes of service.

The revenue effect of all of the differences between the parties in these sales categories is $147,500 for 1984 and $182,900 for 1985 at present rates. These amounts are approximately equal to the large single commercial metered sales difference we discussed in some detail for the San Mateo District. The authors of the estimates in dispute are the same witnesses as for sales in the San Mateo District, and the differences arise as a direct result of the forecasting methods adopted by each witness.

Applicant's estimates were made by trending total sales for a given class of customers, subject to a few exceptions involving individual large customers. Of 13 sales estimates, applicant used a least square trend on 12 occasions in making its sales estimates; the results were sales levels based on 5 increasing trends, 5 declining trends, and 2 flat trends. The staff, on the other hand, used 5 increasing and 1 flat least square trend, 2 average sales levels, 3 average use per-customer sales levels, and 2 recorded sales figures as a basis for their estimates.

Applicant contends that, while each of the staff's estimates might be defended if standing alone, the staff approach constitutes a helter-skelter pattern of selection with an aim to producing higher sales estimates than might reasonably be expected.

Staff believes that its approach of individual determination produces better results because of the isolation of variables which can affect sales, such as weather, price, and general economic conditions. These variables are then incorporated in a multiple regression technique which estimates sales as a function of these variables.

Applicant's contention that the staff selectively adopted forecasting methods to achieve higher sales estimates is virtually put to rest in the record of cross-examination of the staff witness. In every instance of questioning, the staff witness fully and persuasively explained both the deficiencies he perceived in the company estimate and the facts and reasons which he considered in his own analysis. Little would be gained in reviewing the copious record in this opinion.

We find the staff methodology of individual review of the CWS sales estimates, together with staff alternative estimates, to be the more reasonable. We adopt the staff estimates.

Computer System Labor Cost Reduction - San Mateo

Applicant's 1984 construction budget for its San Mateo District includes a computer system (SCADA) for monitoring water flows and automatic control of pump stations. Staff agreed with installation of SCADA as proposed by CWS and requested preparation of a cost-benefit analysis of the project.

Staff review of applicant's cost-benefit figures led to a recommendation of a labor cost reduction of $13,000 for 1985. Applicant's workpapers showed a two and one-half hour reduction in time required to routinely check pump stations as a result of installation of the computer system, according to staff. The staff envisions that CWS will enjoy a reduction in part-time labor hours required for system operation, but no reduction in permanent personnel.

Applicant argues that such savings would appear as delays in hiring new employees because part-time employees are not pump operators whose time was affected by SCADA. Further, staff's proposed adjustment is too early in time, according to CWS, as the San Mateo District employees require experience before projected savings can be realized.

Staff suggests that applicant's experience since 1981 with computers in others of its districts should enable CWS to garner the anticipated labor hour savings by 1985 and therefore that it is reasonable to believe that the saved pump operators' time may be utilized to reduce the need for hiring part-time workers in 1985.

We approve the staff adjustment for anticipated labor hour savings by reason of the initiation of computer operation.

Number of Employees - Visalia

In the last rate proceeding for the Visalia District, CWS estimated a customer count of 17,613 for 1982 which necessitated the hiring of one additional operation and maintenance worker. The additional employment was approved, but, in fact, CWS hired two employees instead of the projected one.

In the instant case, CWS reluctantly agrees with staff estimates of customer growth in Visalia, but suggests that an additional employee will be required to service that growth by July 1984, and perhaps two new employees will be required by 1986 when the rates determined in this proceeding will expire.

Staff states that its estimate of customers for 1985 is 18,483, only 870 services above the CWS estimate of 17,613 for 1982, and argues that the present work force should suffice to service the anticipated number of customers.

Applicant contends that staff is penalizing it for a faulty or overconservative estimate of the number of employees needed in Visalia in the last rate proceeding. It notes that staff has increased estimates of water production and power costs to accommodate customer growth and should likewise increase the number of employees required.

It may be true that CWS erred in its estimate of number of employees in the last proceeding. However, CWS is here requesting that we simply assume it erred on the strength of the fact that an additional employee was hired. We think the burden of proof requires more of applicant. There should be some new showing of the actual number of employees required for customer count projections.

On the limited record before us, we find the staff adjustment more reasonable and we adopt it.

Bay Area Water Users
Association Assessment - San Mateo

Applicant belongs to the Bay Area Water Users Association (BAWUA), an organization whose members, other than applicant, are municipalities and public agencies which buy water from the City of San Francisco (City) for distribution to the ultimate consumers. Assessments are levied periodically on the members to cover any costs incurred by the organization. Assessments levied on applicant cover the San Mateo, South San Francisco, Bear Gulch, and San Carlos Districts.

In an effort to prevent City from increasing its rates to a larger degree for suburban customers than for City residents, members of BAWUA other than applicant brougnt suit against City in the early 1970's to enjoin imposition of the proposed manner of increase. The initial success of that action prompted attempts by BAWUA to negotiate an agreement with City under which new long-term supply contracts between City and individual BAWUA members would be executed and binding ground rules established for future setting of rates by City. Applicant, as City's largest water customer, was vitally interested in such negotiations and an active participant, as a member of BAWUA's Executive Committee, in conducting deliberations along with other BAWUA members, as well as BAWUA's legal counsel, accountants, and engineers, aimed at ultimately reaching a binding agreement with City. While not yet reached, applicant believes that agreement is near, to take the form of a contract more than 110 pages in length with exhibits aggregating an additional 150 pages.

Beginning in 1982, the BAWUA assessments have increased dramatically because of the extended negotiations with City in developing a mecnanism for establishing the price City will charge BAWUA agencies for water. Applicant's estimate of the San Mateo District's annual assessment for the test period of $21,200 was

developed by totaling the 1979 through 1982 recorded expenses plus an estimated amount for 1983 and taking one-third of the total. The staff annual estimate of $8,500 is based on taking one-fourth of the total recorded costs for 1979 through 1981 plus 1983 estimated expense as estimated by applicant. The staff excluded the only year in which a large assessment was incurred, $29,500 in 1982.

Staff defends its exclusion of 1982 dues as being reflective of the facts that the contractual negotiations are unusual, will have been concluded in 1983, and are not expected to reoccur through 1986. Thus, staff suggests that recorded data excluding the admitted atypical year 1982 will produce estimates of the normal fees to be assessed in the foreseeable future.

We are persuaded that the staff estimates for BAWUA assessments are the more reasonable, and we adopt them.

Amortization of Tax Deduction - All Districts

Early in 1983 applicant's request to be allowed to expense for income tax purposes certain employee benefit costs theretofore capitalized was granted by the Internal Revenue Service (IRS). Because these costs, beginning in 1982, may now be deducted directly from taxable income during the year incurred rather than spread over the tax life of the property, current deductions for tax purposes will be increased, and income tax liabilities reduced. Applicant, under the IRS authorization, will receive one-fifth of the total 1982 deduction each year beginning with 1982 and running through 1986. As the years 1982 and 1983 are governed by existing rates, this requested treatment of the tax reduction results in retention of the first two years of benefits by CWS.

Staff suggests that the appropriate treatment is that the decrease in the utility's taxes for the years 1982 and 1983 as a result of this tax change be refunded to customers over the three-year period, 1984-1986. It is pointed out by staff that 1982 and 1983 depreciable plant additions have been reduced by the amount of capitalized overhead which the utility is able to depreciate as a

deduction from its taxable income. The federal tax depreciation in future years will be lowered by this amount. It is urged that fairness requires that the higher deduction resulting from the capitalized benefits which the applicant did not deduct in 1982 and 1983 be refunded to customers since that amount would have been included in the rate case if the company had previously received it.

Staff equates the subject reduction in tax expense with a change in tax rates which are subject to offset treatment.

CWS objects to the staff's procedure because it fails to follow the IRS authorization and because it selects one item of cost that is lower than adopted in the last rate proceedings and passes the savings back to the customers over the next three years while ignoring all those expenses which were higher than adopted or those revenues which were lower than adopted. CWS points out that the record shows that its rates of return in the seven districts which the subject of the pending proceedings are below the 1982 and 1983 authorized returns of 11.08% and 11.50%, respectively. To require applicant to refund to its customers the savings on one item of expense in years where it is earning far below its authorized return is unreasonable concludes the CWS argument.

We adopt the staff adjustment for the tax savings realized by applicant by reason of the IRS approved allowance. Of course, there is no obligation upon the Commission to track the tax adjustment for ratemaking purposes in the manner it is authorized for income tax reporting purposes.

Nonlabor Escalation Factors - All Districts

The parties estimate CWS's nonlabor-related expenses through the use of inflation factors thought by each to be

reasonable. These factors are applied to 1982 recorded costs to develop estimates for 1983 through 1985 as follows:

Year	Inflation Factor	
	Applicant	Staff
1983	7.7%	1.7%
1984	5.5	5.5
1985	6.4	6.4
Total	19.6%	13.6%

Applicant originally trended nonlabor costs but found it could accept staff's projections for the years 1984 and 1985, which are based upon the Economic Section of the Revenue Requirements Division's composite of 11 forecasted indexes designed to apply to utility operations. CWS objects to staff's 1.7% factor for 1983, however, contending for a factor of 7.7%.

Applicant compared recorded expenses for the first six months of 1983 with the same categories of expense incurred during the first six months of 1982 and found that the 1983 expenses were 7.7% above the 1982 level. Using the staff's methodology but substituting a 7.7% inflaton factor for 1983 in place of the 1.7% used by the staff, applicant developed 1984 and 1985 revised estimates of expenses and resulting differences with the staff in each district.

It is applicant's position that an estimate based on a calculated inflation factor reflecting a number of nationwide indexes is inferior to an estimate based on actual increases in costs for the specific utility under investigation. CWS states that it is aware of no instance in which the Commission has rejected recorded information in favor of a forecast, and it asserts that the staff, however, has done so in making its estimate. Further, argues applicant, it is the staff witness' position that an estimate based entirely on a forecast reflecting numerous nationwide indexes is better than an estimate based on recorded costs for half the period (six months) for the specific utility under study. Applicant trusts that the Commission, like applicant, will find the staff position without merit.

We think applicant's argument has a surface soundness only. Staff is not offering a varied menu of methodologies to estimate nonlabor costs for each year involved in these proceedings. Rather, staff offers but one - the objectively determined composite inflation factor regularly produced by Revenue Requirements Division. In our view, it is entirely inappropriate for CWS to "agree" with the factor for two years and reject it for one year. To consider only the base year, as applicant urges that we do, is, in effect, to reject the staff methodology entirely.

Taking a prospective view forward from the time of this writing, we think a 13.6% nonlabor inflation factor to the end of 1985 is quite reasonable. It is, in our judgment, more reasonable that the 19.6% obtained by CWS in its suggested hybrid methodology.

We find the staff's nonlabor inflation factors more reasonable and we adopt them.

Wage Forecast - All Districts

In arriving at payroll expense for the seven districts in these proceedings, applicant began with its estimated 1982 total payroll expense, added the 9.5% negotiated union contract increase for 1983, and for the two test years 1984 and 1985 included additional payroll increases of 7.5% a year. Applicant's estimate, made in late 1982, was based primarily on judgment and a labor contract negotiated by San Jose Water Works and its union in late 1982.

Staff agreed with the 9.5% 1983 payroll increase over 1982 recorded payroll expense and estimated additional increases in 1984 of 4.0% and in 1985 of 4.8%.

Data Resources, Inc. (DRI) and UCLA national inflation rate forecasts are at the foundation of the staff estimates for 1984 and 1985. For 1983, staff accepted the actual labor contract increase as being reasonable, but this contract terminates at December 31, 1983.

The staff recommendations are stoutly contested by CWS and by the Utility Workers Union of America, AFL-CIO and Coalition of California Utility Workers, which intervened in these proceedings on this single issue. Applicant and utility workers take the position that the Commission ought to defer adopting a wage escalation factor for union-represented employees until the conclusion of collective bargaining between CWS and utility workers.

A suggested method of deferral of the wage escalation factor issue was offered by CWS and supported by utility workers. It is that interim orders would be issued under the regulatory lag plan incorporating the level of wage increases the Commission finds appropriate at the time. By the middle of January 1984, when contract negotiations are completed, the results would be furnished the staff. After staff review or after additional hearings on the matter if the staff concludes they are necessary, a final order would be issued adopting rates reflecting either the payroll expense for the two test years based on the contract or some other amount found reasonable by the Commission.

Applicant argues that, considering the necessary sensitivity of the Commission stemming from federal law against giving any appearance of inserting itself in any way into union contract negotiations, and further given the basic principle that reasonable expenses, including reasonable wages and benefits, are a legitimate ratemaking expense, its recommendation to leave these proceedings open in order to establish the appropriate wage levels for ratemaking purposes after contract negotiations are completed should be adopted by the Commission. Applicant further argues the suggested procedure is very similar to that recommended by the staff and adopted by the Commission in D.82-11-058 in applicant's East Los Angeles District to set rates for 1984 and later years based on a rate of return which reflects the actual cost of refinancing applicant's Series T bonds, a cost which we also have reflected in this decision.

The union and coalition also urge a method of Commission adoption of the collective bargaining result through the updating of exhibits as provided for in the regulatory lag plan for Pacific Gas and Electric Company (PG&E), for example. They assert that if the Commission is to comply with the mandate created by the extension of the doctrine of federal preemption to labor relations, it must permit the parties to negotiate to conclusion prior to adoption of a wage escalation factor. To do less would be to encroach impermissibly in the collective bargaining process, in the view of these parties.

Staff examined the situation of San Jose Water Works which bargained with its union for a 7% wage increase in 1984, a fact relied upon in part by applicant to support its requested 7.5% factor for that year. Staff argues that a comparison of the two companies' cumulative increases from 1978 through 1983 shows that San Jose Water Works is actually 5% behind applicant. Furthermore, San Jose Water Works' union contract was negotiated back in November 1982, and, since then, the economic outlook has changed. In November 1982 DRI's forecasted inflation rate for 1983 was 5.6%. In June of this year the forecast for 1983 was 3.3%. Thus, staff argues, the company's methodology in wage escalation is faulty for ignoring differences in company wage situations and in time frame. In addition, the company's 7.5% wage escalation for 1984 and 1985 is unreasonable, in staff's view, because it is much more than what is needed to keep up with the increases in cost of living as shown by forecasts in the record.

Staff approached the problem of wage escalation by comparing applicant's cumulative wage increases to increases in the cost of living. This comparison revealed that applicant's cumulative wage increase was behind as of 1982, but, after the 9.5% increase in 1983, CWS's cumulative wage increase (1978 through 1983) is now 1.5 percentage points ahead of the cumulative change in cost of living for the same time span. To use 7.5% wage escalation for 1984 and

1985 as applicant suggests would push CWS's wages further ahead to the point that the company's cumulative wage increase by 1985 would be 10 percentage points above the cumulative increase in cost of living, according to the staff evidence.

Staff believes that Commission adoption of its recommendations of 4.0% for 1984 and 4.8% for 1985 would maintain the company's cumulative wage increase approximately the same level as the cumulative increase in cost of living.

Staff further testified that, in addition to the increases in wages, CWS's employees are also getting substantial increases in benefit payments. The average annual increase for 1983, 1984, and 1985 is 13.1% whereas cost of living is expected to increase at an average annual rate of less than 5% for the same period, according to the witness.

Staff asserts that it is its duty to recommend reasonable wage escalation figures for applicant in this proceeding just as it makes recommendations for all other items of revenue or expense. It sees no precedent in Commission decisions to reopen rate cases to accommodate the results of labor contract negotiations. It offers its wage escalation rate of 4.0% for 1984 and 4.8% for 1985 as the most reasonable estimates in the record.

Of necessity, we must decline the requests to defer rate setting orders, as suggested by utility workers, or to reopen existing tariffs, as suggested by CWS, in order to reflect actual wage settlements as they come into being. The Commission is charged with the responsibility of determining just and reasonable rates on a forward-looking basis, a process which necessarily involves using judgment in determining all of the elements comprising test year revenue requirements. While staff's reliance on cumulative cost-of-living increases for determining allowances for wage and salary adjustment falls short of reflecting the flexibility of the regulatory policy options available to us in this area, we do not

feel comfortable with the idea of deferring rate setting orders, as suggested by utility workers, or of reopening existing tariffs, as suggested by applicant, in order to reflect actual wage settlements. Nor do we consider the adjustments in costs made in this decision (pursuant to D.82-12-058) for the refinancing of applicant's Series T bonds to be a precedent for handling the wage and salary question. This issue is far different from the difficult Series T issue addressed in D.82-12-058, where we considered the financial impacts of the refinancing of 32% of applicant's total outstanding debt.

We note that applicant is on a three-year rate case cycle, a fact which is common knowledge to all the participants in this proceeding. We recognize the advantage of meshing the timing of contract negotiations with this three-year rate case cycle. We encourage the applicant and union to mesh their negotiations with the rate application cycle, rather than the other way around.

In this proceeding we find the staff's methodology, despite its overreliance on cost-of-living adjustments, produces a more reasonable wage escalation forecast for all employees than that of applicant. However, we hope that our staff will reassess its current methodology. To that end, we quote from our recent decision on this topic (San Gabriel Valley Water Company, D.83-10-002, October 2, 1983, mimeo., pp. 13-14):

> "In this rate setting process, the Commission's obligation to ratepayers to maintain reasonable utility rates and high quality service is fundamental. This obligation, however, cannot be met or sustained if a utility is placed at a competitive disadvantage in skilled labor markets by allowances for forecasted wage adjustments that limit wages and salary increases to cost-of-living escalators while denying employees the opportunity to participate in productivity advances in the utility or in the economy. Our basic policy in this respect is to give maximum

> latitude to utility management to establish or negotiate wage and salary adjustments which are consistent with efficient management of operations, including access to skilled labor markets and the maintenance of a qualified utility workforce.
>
> * * *
>
> "We will adopt staff's labor escalation rate as a more reasonable reflection of required labor costs for ratesetting purposes. Adoption of the Staff's estimate, however, is by no means meant to be a ceiling that precludes or limits SGVWC from addressing its skill requirements in the context of actually establishing or negotiating wage adjustments. The adopted results of operation do not operate as an absolute limit on wage adjustment. Actual wages may be higher or lower than our adopted escalation factors imply. For example, even if a revenue requirement is set using an inflation index for wages, real wage gains could accrue out of unexpected reductions in other cost categories or productivity gains by the company as a whole. Management retains the responsibility for setting actual wages."

On October 31, 1983 the Revenue Requirements Division issued new recommendations of inflation factors, based on a September updated DRI, which show a significant difference in wage factors. For 1984 and 1985, staff currently recommends 4.24% and 5.46% as compared with the previous estimates of 4.% and 4.80%, respectively. We will adopt staff's updated forecast of labor costs for these proceedings.

In closing this issue at this time, we wish to make clear that we are not adopting a formula to estimate future wages in rate cases by reference to a cost-of-living index alone. Cost of living indexes are not acceptable surrogates for anticipated wage levels, in our opinion. We will, of course, accept cost of living evidence in the future, but we invite the parties to produce expanded showings on labor costs in future applications.

Construction Budgets

Three staff-recommended exclusions from CWS's proposed construction budgets are at issue in these proceedings:

a. Salinas well.

b. Bakersfield and Stockton meter replacement costs.

c. Selma commercial office.

a. Salinas Well

In its application, CWS proposed drilling a new well in 1984 to meet anticipated growth in an industrial park near the Salinas Airport. During its field investigation of the Salinas District, staff toured this industrial park and discovered that only one building existed, a commercial office that has not been occupied for several years. The staff investigated further and was informed by a senior urban planner in the Salinas Department of Community Development that no additional growth in the park was planned at this time. Based on the lack of any evidence indicating that growth was anticipated in that area, the staff recommends removal of the $171,000 cost of the well from the 1984 budget.

No other well site was proposed in applicant's budget. However, at the hearing CWS urged inclusion of the cost of the well because customer growth of 947 between the time the last well was drilled in 1981 and the time the next rate application may be filed in 1986 demonstrates a definite need for the new source. Applicant states that its rule of thumb is that a new well is required for every 400 to 600 new customers.

Staff protests that it had not received any prior notice of the newly proposed well and thus had not been provided with an opportunity to investigate whether such a well was needed. Staff points out that applicant was not prepared at the hearing to respond to such essential questions as the status of the water system during peak hour demands, how many wells are in operation during the peak hours, whether the company can resolve the problems with the water

table encountered by the previous supplier in the northern area of Salinas, or whether alternative water sources existed.

Staff asserts that applicant's rule of thumb justification for drilling a new well is inadequate and that it must establish beforehand that the present system is not capable of meeting the water demands of the increased services.

We agree with staff that applicant has not carried its burden of proof with respect to the proposed new well in Salinas and we adopt the staff adjustment.

b. Bakersfield and Stockton Meter Replacement Costs

Applicant seeks approval of a separate item of cost to be added to its estimated ordinary nonspecific expenditures budget for Bakersfield and Stockton. It asserts that the costs associated with the meter replacement programs for these two districts are unusually high and should be treated by a separate estimate instead of being trended as in the case of the meter programs for its other districts.

Staff states that there are always projects which are expensive and which could be considered unusual. As an example of this, the staff produced an exhibit that showed that in the last three years, there were six unusual projects in the Bakersfield district. The staff did not remove these large, unusual projects when it projected the recorded data into the test years. Therefore, the staff's estimates anticipated the occurrence of unusual projects such as the bakersfield and Stockton meter replacement programs; no additional increases are necessary in staff's view. Staff further notes that there is no evidence in the record indicating that the meter replacement program should be treated differently than other nonspecific expenditures.

We adopt the staff estimate of nonspecific expenditures for Bakersfield and Stockton as being the more reasonable approach to a cost item which applicant has not shown to be uncommon to all of its districts.

c. Selma Commercial Office

Applicant has proposed the construction of a new commercial office on property it currently owns at its field yard and warehouse installation in Selma. Applicant presently leases office space in Selma which has been subject to recent increases in rent. The cost of the proposed structure is $85,000 in 1984.

Staff opposes this proposed expenditure on the grounds that it is economically unjustified at the present time and would result in some customer inconvenience as the new structure would be on the outskirts of Selma.

Applicant's cost analysis shows the building to be cost-effective in 10 years if the 10% rent increases that CWS has received for the last two years continue each year into the future. The staff witness suggests that 5% would be more realistic, and the cost-effectiveness threshold would not then be met until the year 2000.

As it appears that other rental quarters are available to CWS should it encounter unreasonable rent demands in the next three years, we concur with staff that this project is best deferred to the future. We adopt the staff adjustment.

Rate of Return

Although rates are determined separately for each of applicant's 20 operating districts, the Commission has historically authorized a reasonable rate of return based on applicant's total company projected capitalization.

Applicant requests a rate of return of 13.27% for 1984, 13.35% for 1985, and 13.44% for 1986. The corresponding requested return on equity is a constant 16.5% in each of the three test years.

Staff recommends rates of return within the following ranges: 11.96% to 12.18% for 1984, 12.00% to 12.23% for 1985, and 12.05% to 12.29% for 1986. The corresponding earnings allowance on common stock equity is in the range of 14.00% to 14.50%.

Innes recommends rates of return on rate base of 10.88% for 1983, 11.18% for 1984, 11.19% for 1985, and 11.22% for 1986. The recommended return on equity for all years is 12.5%.

Community Forward supports the methodology and return on equity testified to by Innes but urges that Stockton be considered separately from applicant's other districts. Local conditions there, according to Community Forward, indicate that a fair rate to ratepayers would be in the vicinity of 7% to 8%. Balancing investor and ratepayer interests would result in a range of return on equity in the Stockton District of 10.0% to 10.5%.

The difference in applicant's requested and staff's recommended rate of return is partly due to the estimated cost of refinancing $25,045,000 8-3/4% Series T bonds maturing November 1, 1983. Applicant estimated an effective rate of 13½% for its new Series AA bonds, while the staff financial witness used a rate of 12½%. We believe this area of disagreement can be resolved as applicant has marketed its new bonds since the close of hearings at an effective cost of 13.26% which we incorporate into our rate of return determination in harmony with D.82-11-058, dated November 17, 1982, covering applicant's East Los Angeles District and the San Carlos, Livermore, Los Altos-Suburban, and Palos Verdes Districts. As the parties request, we here allow an updating of financial showings on rate of return to include the actual cost of CWS's new Series AA bonds.

Cost of long-term debt, as shown on the staff's exhibit, increases from 10.60% to 10.95% and, at the upper end of the range of staff's recommendation of 14.5% return on equity, long-term debt cost increases from 5.46% to 5.64%. Indicated rate of return rises from 12.18% to 12.36% while times-interest-coverage decreases from 2.23 to 2.19.

The greater difference between applicant's requested and staff's recommended return is in the requested and recommended return for common equity - 16½% as opposed to 14½%. This 200-basis point difference equates to approximately a 90-basis point lower rate of return.

Further, CWS states that of more serious concern than the lower rate of return recommended by the staff financial witness is the failure by applicant to realize in the past the returns allowed by the Commission. Applicant's chief financial officer testified to the consistent deficiencies in realized rate of return over the past six years. For 1982, applicant's evidence shows a deficiency in realized return on rate base of 13% and a deficiency in realized return on common equity of 23%.

While acknowledging that virtually no California utilities are earning authorized returns, CWS asserts that its situation is singularly bad, showing an 8-year average shortfall in realized return of .68%. For 1982 alone, CWS was authorized a composite rate of return of 10.98% but earned only 9.85%, a difference of 1.13%.

Applicant's 1.13% underrealization of its authorized rate of return on rate base in 1982 compares to .45% underrealization for San Jose Water Company and .68% underrealization for Southern California Water Company. It is also a greater percentage shortfall than for any of the major energy utilities shown. PG&E was .21% below its authorized return in 1982; San Diego Gas & Electric Company was .06% below; Southern California Edison Company was .81% below; and Southern California Gas Company was .99% below.

It is apparent, according to CWS, that the regulating policies and procedures followed by this Commission place the earnings of water utilities at a much greater risk than those of energy utilities under our jurisdiction. Specifically, CWS points out that interest is credited on energy utility balancing accounts while water company balancing accounts, almost always in an

uncollected position, are not interest bearing. Second, water companies have a three-year cycle of rate applications while energy utilities have a two-year cycle. Third, the establishment of revenue adjustment mechanisms for energy utilities and the failure to create similar mechanisms for water utilities have put water utilities at a significantly greater risk than those of energy utilities.

Accordingly, applicant believes that all of the other major water, gas, and electric utilities regulated by the Commission offer the most reasonable examples of enterprises having similar risk. It points out that in its preliminary rating of applicant's proposed new Series AA bond issue, Moody's Bond Survey, August 29, 1983 issue, comments on the major risks faced by CWS as follows:

> "The risks this water company faces, then, are regulatory risks, and those related to weather. The latter cannot be controlled. The former is becoming less of an uncertainty as the California Public Utilities Commission formalizes most functions. However, water companies historically have been allowed lower returns on equity than electric and gas companies. They also do not receive the benefits of the revenue adjustment mechanism the electric companies have, which adjusts rates for changes in revenues above or below those used to determine base rates. The effects of the weather on revenues could be mitigated by such an adjustment mechanism. At present, however, the company must deal with whatever the weather brings and its effect on revenue and earnings."

As CWS bonds are rated the same as those of PG&E, applicant sees no justification for staff financial witnesses to recommend a range of 15.5-16% return on equity for the energy supplier and only 14.0-14.5% for CWS.

Staff states that it has used a recommended range of return on equity based on analysis of risk and its judgment concerning the financial requirements of CWS. Staff has excluded energy utilities in the discounted cash flow (DCF) and risk premium analysis it

employs in this case. It asserts that it employed market data pertaining solely to water utilities because business and financial risks for energy companies are dissimilar to those of water utilities. Staff's reasons are set forth as follows:

"(1) Energy companies have a much greater need to raise external capital than water companies to meet plant construction. In contrast, the construction programs of water utilities are financed by a greater percentage of internally generated funds as well as advances for construction and contributions in aid of construction. The cash to construction ratios presented below reflect the greater financial flexibility of the major water utilities compared to the energy utilities in California (T.498-9).

	1980	1981	1982
Cal-Wtr. Service	58.63%	74.75%	71.30%
San Jose Wtr.	88.25	97.53	97.81
Socal Wtr.	37.02	38.64	45.29
Average	61.30%	70.31%	71.47%
Pacific G&E	16.11%	12.39%	36.30%
San Diego G&E	(5.17)	17.22	37.03
SoCal Edison	15.92	18.20	17.68
Average	8.95	15.94	30.34

"(2) Water utilities do not capitalize interest on construction projects (AFUDC) as do energy utilities. Construction work in progress is included in rate base which provides a better quality of earnings and improved cash flow (T.497-8).

"(3) Due to the greater external financing needs, energy utilities find it necessary to sell common stock to maintain balanced capital structures. For example, in California, during a ten-year period (1973-1982), there were three authorizations to issue common stock by one water utility - Southern California Water Company. During this same period, there were over 50

authorizations to issue common stock by energy utilities.

"(4) In California, water utilities are on a three-year rate increase cycle, with attrition allowances made in each of the two years subsequent to the test year. For the multi-district water utilities, one-third of their total systems are reviewed annually for general rate relief unlike energy utilities which file for rate relief every two years.

"Further, water utilities are allowed offset rate increases concurrently with major cost increases such as purchased water, purchased power, property taxes, etc. These ratemaking procedures help to insulate water utilities from inflationary forces as well as mitigate earnings fluctuations. Energy utilities are similarly insulated by attrition allowances and various balancing account procedures."

With respect to actual versus authorized returns, staff suggests that data over the last eight years is preferable, and that data shows less volatility in the earnings of water companies than of energy utilities.

Accordingly, staff's DCF analysis is predicated upon a group of 10 water companies operating in different parts of the country rather than upon the energy utilities.

The staff witness testified that she relied on the group of water utilities because it included all water utilities which have market data available and because estimates of cost of equity for a single company such as CWS are less precise than for a sample of companies having similar risks. Further, since relatively less market activity is observed in the common stock of water utilities, in the view of staff, it is the witness' opinion that the cost of equity determined from market data of the selected group of water companies minimizes the influence of error on the results.

Staff's DCF analysis was performed using deflated historical data to adjust for past inflation levels that differ from the expected inflation levels projected for the test years. The results of staff's "real" DCF analysis were then explicitly inflated using both a 5% and a 6% inflation factor for the test years.

The expected dividend yield, derived from the average of the group of water utilities, ranged from 8.36% to 8.51%. The various average inflated growth estimates ranged from 4.66% to 6.65%.Combining those inflated real growth rates in dividends and earnings with the respective inflated expected dividend yields results in discount rates as follows:

5-year dividend growth	13.03% - 14.10%
10-year dividend growth	13.14% - 14.22%
5-year earnings growth	13.30% - 14.38%
10-year earnings growth	14.07% - 15.16%

Extracting from the above results, staff believes a return on common equity of 14.00% to 14.50% would fairly compensate CWS investors.

A risk premium analysis was also computed by staff based upon the average premiums water utility common stockholders demanded as compensation for the added risk over 10-year and 20-year U.S. Government treasury bond yields during the 9-year period from 1974-1982.

The staff witness added the 5-year and 9-year average equity risk premiums over 10-year T-bond yields to a forecasted 10-year T-bond rate of 9.47%, resulting in an investor required return in the range of 13.87% to 14.68%. Similarly, combining the average 5-year and 9-year premiums over 20-year T-bond yields with a projected 20-year T-bond rate of 9.70% results in a range of 14.18% to 14.82%. This analysis serves as an additional check on the reasonableness of the staff recommendations, according to the witness.

Innes presented rate of return evidence in which he utilized the discounted DCF method and the single period Capital Asset Pricing Model (CAPM). Using average CWS stock prices for December 1982 and for June 1983, this witness observed an indicated return on common equity of 15.1% for the 1982 month and 13.4% for the 1983 month. The average of the two indicators is 14.24%.

However, Innes contends that the indicated DCF returns on equity should be reduced because they are simple interest returns whereas in reality utility earnings are continuously compounded; i.e. if a utility is allowed a 12% return on equity, the company will receive 1% in January and can reinvest this 1% for the balance of the year to earn compound profits. While acknowledging that in some cases the lead-lag studies of working capital will negate continuous compounding, Innes believes that the cost method of computing working capital goes only part of the way in this regard.

As the evidence shows that CWS common equity balances do not increase until August of a given year, and because the witness apparently did not account for any tax effect on the assumed continuous earnings, we are not persuaded to accept Innes' concept of continuous compounding at this time. As the witness' CAPM is also subject to a substantial discount, in effect, to reflect continuous compounding, we likewise find it unsupported by sufficient evidence in these proceedings.

Community Forward presented a certified public accountant who endorsed the Innes showing but did not add to it or present any independent evidence on rate of return. In its brief, however, this intervenor queries what is a fair rate to be paid by ratepayers.

All parties agree that the primary guidelines for determining an appropriate rate of return are as follows:

1. The return to the equity holders should be commensurate with returns on investment in other enterprises having similar risk and offering comparable quality of service.
2. The return should be sufficient to enable the utility to attract capital at reasonable rates and to assure confidence in the utility's financial integrity.
3. The return should balance the interests of both the investors and ratepayers.

Intervenor points that determination of a reasonable return on equity, i.e. a reasonable return to investors, performs only half the task that lies before the Commission. Still remaining to be determined is the issue of what is a fair and reasonable rate to be paid by ratepayers. That determination, in turn, requires an application of consumer-concerned criteria to the specific local situation involved in this particular application, according to Community Forward.

In the absence of existing guidelines issued by the Commission, intervenor proposes the following criteria as significant ratepayer considerations to balance against the company's needs:

1. Economic conditions in the service area affecting overall business net incomes;
2. Unemployment rate in the service area measured against state and national unemployment rates;
3. Average incomes of ratepayers in the service area relative to average incomes statewide and nationwide;
4. Effects of proposed increase on the community's business activity and employment potential; and
5. Water rates in comparable communities (considering similarities in economic enterprise, location, population, etc.).

The issue Community Forward has raised is a real one. Prices for commodities such as water may indeed have some effect on the level of industrial growth in economically depressed areas. This is the real point Community Forward raises in arguing for a lower rate of return in the Stockton district. On the other hand, we recognize there are economic advantages to ratepayers of a multidistrict company, such as applicant, since the strengths and weaknesses of its individual districts are subsumed in the capital markets' assessments of the total company. Such advantages would be

lost if any one district were to seek access to the capital markets on its own. In our view, these advantages, which accrue to Stockton district ratepayers, outweigh any advantages these same ratepayers would attain via a lower return on equity assessment in their particular district. Obviously such considerations are not present in the case of solo district utilities, where adjustments such as those proposed by Community Forward may, in theory, be feasible. We are concerned about this issue and place the parties on notice that we intend to address fully on this utility's next series of cases whether such adjustments are feasible in the context of a multidistrict utility.

Our review of the entire record of these proceedings convinces us that the staff analysis of the group of water utilities presents the more reliable range of returns on equity. The high point of staff's recommendation is 14.5% which we adopt in these proceedings.

Attrition

Rates for 1986 are calculated using an operational attrition allowance of 0.59% and a financial attrition allowance of 0.06%. Total attrition of 0.65% produces $252,400 or 2.3% increase in gross revenues in 1986 based on the adopted 1985 rate base and a net-to-gross multiplier of 2.06615.

Rate Design

Applicant's rate design proposal is as follows:

1. For the three fully metered districts (Salinas, San Mateo, and Stockton), service charge rates be increased by a greater percentage than commodity rates;
2. For the four flat rate districts (Bakersfield, Chico-Hamilton City, Selma, and Visalia), the individual rates for the four different lot sizes for which rates are established under the residential flat rate

service schedules be increased by different percentages in order to develop a standard relationship between the four lot size rates;

3. The 3/4-inch meter service charge for all general metered schedules be eliminated and the 3/4-inch meters billed at the 5/8 x 3/4-inch meter rate in the future; and

4. Private fire protection charges be doubled in 1984.

Staff opposes the disproportionate increase in service charge rates as proposed by CWS, and suggests that Commission policy dictates that service charges and commodity charges be increased by the same percentage.

We reviewed this matter in the last decision for CWS and concluded that we should adhere to uniform percentage increases until such time as better evidence was available to show us that some other course in rate design was more in the public interest (D.82-11-058, November 17, 1982). As no new evidence has been offered in these proceedings, we adopt the staff recommendation of proportionate increases.

Applicant's requests set forth as 2. and 3. above are unopposed and we adopt them.

We concur with staff that private fire protection charges not be doubled in the single year 1984, but will be increased to the level sought by CWS over a span of two years. This is in furtherance of our policy not to increase rates more than 50% in any one year except in extraordinary situations.

Community Forward sponsored an expert witness on rate design who offered some suggestions which he illustrated with an exhibit.

This witness believes that a study should be undertaken to determine demand, customer, and commodity costs in the Stockton

District. A ratio between demand and customer costs to total cost should be established, and the readiness to serve charge should be set so as to recover all costs except commodity costs. The readiness to serve costs should then be allocated to customer classes in proportion to the rated capacity of meters with at least one exception.

Community Forward's witness states that generally accepted standard practice for a normal residence is a 5/8 x 3/4-inch meter capable of delivering approximately 20 gallons a minute at its rated capacity. The witness believes that CWS uses a 5/8 x 3/4-inch meter in the Stockton District with a capacity of 30 gallons per minute, or 10 gallons per minute more than the normal household requires. In allocating the readiness to serve charge by the rated capacities of the several CWS meter sizes, this alleged overcapacity can be accounted for by using 20 gallons per minute rather than rated capcity for the 5/8 x 3/4-inch meters and the 3/4-inch meters. If it is true that CWS rates are currently set in proportion to the rated capacity of meters, if it is true that CWS residential meters have excess capacity which is not justified by pressure requirements or otherwise, and if there is not excess capacity in the meter sizes of other customer classes, the idea offered would result in a lower rate to residential users and a correspondingly higher rate to larger meter users. An even greater saving would inure to residential customers if all or a large portion of demand and customer costs are included in the readiness to serve costs.

CWS supports Community Forward in its proposal as it states that only about 3% of total costs of both present and proposed rates vary with meter sales. Revenues from fixed charges at present rates are estimated to amount to only 39% of total revenues in 1984, and applicant seeks to narrow this alleged wide discrepancy in these proceedings by urging a rate design which will garner 42% of fixed costs in revenues in the test years.

In its brief, Community Forward asks that we take rate design action in the manner suggested by its witness, but we must decline to do so. It was admitted by the witness that he did not have enough time or information to make more than a cursory cost allocation study, although he generally agreed with CWS that its fixed costs are higher than are now being collected in the readiness-to-serve charge. Further, the expert is necessarily uncertain as to rated capacity of the larger meters and other material aspects of the study that he suggests be undertaken.

As neither staff nor CWS has provided a study incorporating the ideas Community Forward advances, the record is incomplete and does not support the action that intervenor asks of us.

Findings of Fact

1. The adopted estimates of operating revenues, operating expenses, rate base, and rate of return for test years 1984 and 1985 are reasonable.

2. A rate of return of 12.36% on the adopted rate base of $18,451,400 for test year 1984 is reasonable.

3. A rate of return of 12.40% on the adopted rate base of $18,790,300 for test year 1985 is reasonable.

4. CWS's earnings under present rates for test year 1984 would produce net operating revenues of $1,956,200 on a rate base of $18,451,400 based on the adopted results of operations, resulting in a rate of return of 10.60%.

5. CWS's earnings under present rates for test year 1985 would produce net operating revenues of $1,881,000 on a rate base of $18,790,300 based on the adopted results of operations, resulting in a rate of return of 10.01%.

6. The authorized increases in rates are expected to provide annual increases in revenues of $670,300 in 1984, $253,100 in 1985, and $252,400 in 1986.

7. Operational attrition on the basis of adopted rates is 0.59% and financial attrition is 0.06% for 1986.

8. CWS's level of water service is adequate.

9. Staff's estimate of additional customers in the Stockton District of 200 annually is more reasonable than applicant's estimate of 150 additional customers each year.

10. Staff's estimating techniques for commercial sales and for industrial authority sales based upon the Modified Bean Method are more reasonable than the estimates of applicant.

11. Staff's proposed method of amortizing the federal income tax reduction caused by expensing certain employee benefit costs is reasonable.

12. Staff's nonlabor escalation factors applied uniformly over the test years 1983, 1984, and 1985 is more reasonable than applicant's method.

13. Staff's wage forecast, as updated to October 31, 1983, for 1984, 1985, and 1986 is the most reasonable estimate produced upon this record.

14. Wage forecasts do not prevent applicant from bargaining with union personnel to produce a higher or lower wage than we estimate for the test years.

15. While the Commission does not directly or indirectly participate in contract negotiations between labor and management, the utility and interested parties should explore methods of meshing the timing of contract negotiations with the three-year rate case cycle.

16. The adopted rate design is nondiscriminatory and uniform.

17. There is insufficient evidence on the record to prove the reasonableness of alternative rate designs urged by other parties than staff.

18. The increases in rates and charges authorized in Appendix A and Appendix B are just and reasonable; and the present rates and

charges insofar as they differ from those prescribed are for the future unjust and unreasonable.

19. The actual cost of refinancing applicant's bonded indebtedness in October 1983 is reasonable, and this cost is included in determining applicant's authorized rate of return.

20. It is appropriate to analyze and address the issues raised by Community Forward in accordance with our prior discussion, in CWS's next series of rate cases.

Conclusion of Law

The application should be granted to the extent provided by the following order.

O R D E R

IT IS ORDERED that:

1. California Water Service company (CWS) is authorized to file the revised schedules attached to this order as Appendix A and to concurrently cancel its present schedules for such service. This filing shall comply with General Order (GO) Series 96. The effective date of the revised schedules shall be 4 days after the date of filing, but not earlier than January 1, 1984. The revised schedules shall apply only to service rendered on and after their effective date.

2. On or after November 15, 1984, CWS is authorized to file an advice letter, with appropriate workpapers, requesting the step rate increases attached to this order as Appendix B or to file a lesser increase which includes a uniform cents per hundred cubic feet of water adjustment from Appendix B in the event that the Stockton District rate of return on rate base, adjusted to reflect the rates then in effect and normal ratemaking adjustments for the 12 months ended September 30, 1984, exceeds the lower of (a) the rate of return found reasonable by the Commission for CWS during the corresponding period in the then most recent rate decision, or (b) 12.36%. Such

filing shall comply with GO 96-A. The requested step rates shall be reviewed by staff and shall go into effect upon staff's determination that they conform with this order. But staff shall inform the Commission if it finds that the proposed step rates are not in accord with this decision, and the Commission may then modify the increase. The effective date of the revised schedule shall be no earlier than January 1, 1985, or 30 days after the filing of the step rates, whichever is later.

4. On or after November 15, 1985, CWS is authorized to file an advice letter, with appropriate workpapers, requesting the step rate increases attached to this order as Appendix B or to file a lesser increase which includes a uniform cents per hundred cubic feet of water adjustment from Appendix B in the event that the Stockton District rate of return on rate base, adjusted to reflect the rates then in effect and normal ratemaking adjustments for the 12 months ended September 30, 1985, exceeds the lower of (a) the rate of return found reasonable by the Commission for CWS during the corresponding period in the then most recent rate decision, or (b) 12.40%. Such filing shall comply with GO 96-A. The requested step rates shall be reviewed by staff and shall go into effect upon staff's determination that they conform with this order. But staff shall inform the Commission if it finds that the proposed step rates are not in accord with this decision, and the Commission may then modify the increase.

The effective date of the revised schedule shall be no earlier than January 1, 1986, or 30 days after the filing of the step rates, whichever is later.

This order is effective today.

Dated DEC 20 1983, at San Francisco, California.

LEONARD M. GRIMES, JR.
President
VICTOR CALVO
PRISCILLA C. GREW
DONALD VIAL
WILLIAM T. BAGLEY
Commissioners

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

Joseph E. Bodovitz, Executive Director

APPENDIX A
Page 1

California Water Service Company
Stockton District

Schedule No. ST-1

GENERAL METERED SERVICE

APPLICABILITY

Applicable to all metered water service.

TERRITORY

Stockton and vicinity, San Joaquin County.

RATES

	Per Meter Per Month
Service Charge:	
For 5/8 x 3/4-inch meter	$ 7.15
For 1-inch meter	14.10
For 1-1/2-inch meter	19.10
For 2-inch meter	25.30
For 3-inch meter	47.00
For 4-inch meter	66.00
For 6-inch meter	109.00
For 8-inch meter	158.00
For 10-inch meter	194.00
Quantity Rates:	
For the first 300 cu.ft., per 100 cu.ft.	$0.422
For the next 29,000 cu.ft., per 100 cu.ft.	0.637
For all over 30,000 cu.ft., per 100 cu.ft.	0.497

The Service Charge is a readiness-to-serve charge which is applicable to all metered service and to which is to be added the monthly charge computed at the Quantity Rates.

California Water Service Company
Stockton District

Schedule No. ST-4

PRIVATE FIRE PROTECTION SERVICE

APPLICABILITY

Applicable to all water service furnished for privately owned fire protection systems.

TERRITORY

Stockton and vicinity, San Joaquin County.

RATES

	Per Month
For each 1½-inch connection	$ 3.40
For each 2-inch connection	4.50
For each 3-inch connection	6.75
For each 4-inch connection	9.00
For each 6-inch connection	13.50
For each 8-inch connection	18.00
For each 10-inch connection	22.50

SPECIAL CONDITIONS

1. The fire protection service facilities will be installed by the Utility at the cost of the applicant. Such cost shall not be subject to refund. The facilities paid for by the applicant shall be the sole property of the applicant.

2. If a distribution main of adequate size to serve a private fire protection system in addition to all other normal service does not exist in the street or alley adjacent to the premises to be served, then a service main from the nearest existing main of adequate capacity will be installed by the Utility at the cost of the applicant. Such cost shall not be subject to refund.

3. Service hereunder is for private fire protection systems to which no connections for other than fire protection purposes are allowed and which are regularly inspected by the underwriters having jurisdiction, are installed according to specifications of the Utility, and are maintained to the satisfaction of the Utility. The Utility may install the standard detector type meter approved by the Board of Fire Underwriters for protection against theft, leakage or waste of water.

4. For water delivered for other than fire protection purposes, charges will be made therefor under Schedule No. ST-1, General Metered Service.

5. The Utility will supply only such water at such pressure as may be available from time to time as a result of its normal operation of the system.

(END OF APPENDIX A)

APPENDIX B
Page 1

California Water Service Company
Stockton District

Each of the following increases in rates may be put into effect on the indicated date by filing a rate schedule which adds the appropriate increase to the rate which would otherwise be in effect on that date.

	Effective Dates 1-1-85	1-1-86
SCHEDULE EL-1		
Service Charges:		
For 5/8 x 3/4-inch meter	$0.15	$0.15
For 1-inch meter	0.30	0.30
For 1½-inch meter	0.50	0.60
For 2-inch meter	0.70	0.80
For 3-inch meter	1.00	2.00
For 4-inch meter	1.00	2.00
For 6-inch meter	2.00	3.00
For 8-inch meter	3.00	4.00
For 10-inch meter	4.00	5.00
Quantity Rates:		
For the first 300 cu.ft., per 100 cu.ft.	0.010	0.010
For the next 29,700 cu.ft., per 100 cu.ft.	0.014	0.016
For all over 30,000 cu.ft., per 100 cu.ft.	0.012	0.011
SCHEDULE EL-4		
Rates:		
For each 1½-inch connection	1.10	0.00
For each 2-inch connection	1.50	0.00
For each 3-inch connection	2.25	0.00
For each 4-inch connection	3.00	0.00
For each 6-inch connection	4.50	0.00
For each 8-inch connection	6.00	0.00
For each 10-inch connection	7.50	0.00

(END OF APPENDIX B)

APPENDIX C
Page 1

California Water Service Company
Stockton District

ADOPTED QUANTITIES

Name of Company: California Water Service Company

District: Stockton

1. Net-to-Gross Multiplier: 2.06615
2. Federal Tax Rate: 46.0%
3. State Tax Rate: 9.6%
4. Local Franchise Tax Rate: 0.496%
5. Uncollectibles Rate: 0.3594%

Offset Items	Test Years 1984	1985
6. Water Production: KCcf	11,825.2	11,909.5
Wells:	1,733.6	1,745.9
Purchased Water:	10,091.6	10,163.6
A. Electric Power:	kWh per Ccf	PG&E rates effective 6/15/83
kWh:	1,895,900	1,919,500
Cost:	$ 212,200	$ 214,900
Cost per kWh:	$ 0.11194	$ 0.11194
B. Purchased Water Expenses:		
Purchased Water (SEWD)[1]:	$ 3,362,100	$ 3,362,100
Groundwater Charges (SEWD)[1]:	14,300	14,400
C. Ad Valorem Taxes:	$ 202,100	$ 209,000
Tax Rate:	1.006%	1.006%

1/ Stockton East Water District

APPENDIX C
Page 2

California Water Service Company
Stockton District

ADOPTED QUANTITIES

6. Number of Services - Meter Size	1984	1985
5/8 x 3/4	33,045	33,221
1	3,624	3,644
1½	480	483
2	583	587
3	127	129
4	52	52
6	32	32
8	12	12
10	1	1

7. Metered Water Sales Range Ccf		
0 - 3	1,282,600	1,289,400
4 - 300	7,000,000	7,041,100
Over 300	2,978,500	3,010,900
Total	11,261,100	11,341,400

APPENDIX C
Page 3

California Water Service Company
Stockton District

ADOPTED QUANTITIES

8. Number of Services:

	No. of Services		Usage-KCcf		Avg. Usage -Ccf/yr.	
	1984	1985	1984	1985	1984	1985
Commercial-Metered	37,552	37,752	8,558.1	8,603.7	227.9	227.9
Industrial	89	90	485.0	489.0	5,449.4	5,433.3
Industrial Large	11	11	1,029.0	1,044.0	93,545.5	94,909.1
Public Authority	301	305	1,184.1	1,199.8	3,933.8	3,933.8
Other	3	3	4.9	4.9	1,633.3	1,633.3
Subtotal	37,956	38,161	11,261.1	11,341.4		
Private Fire Prt.	378	386				
Public Fire Prt.	40	42				
Total	38,374	38,589				
Water Loss 4.77%			564.1	568.1		
Total Water Produced			11,825.2	11,909.5		

(END OF APPENDIX C)

APPENDIX D
Page 1

California Water Service Company
Stockton District

INCOME TAX CALCULATION

1984

Line No.	Item	Present Rates CCFT (A)	Present Rates FIT (B)	Adopted Rates CCFT (C)	Adopted Rates FIT (D)
		(Dollars in Thousands)			
1	Operating Revenues	$9,799.4	$9,799.4	$10,469.7	$10,469.7
2	O&M Expenses	6,224.5	6,224.5	6,230.2	6,230.2
3	Taxes Other Than Income	286.7	286.7	286.7	286.7
4	CCFT	.0	138.6	.0	202.4
5	Subtotal	6,511.2	6,649.8	6,516.9	6,719.3
6	Deductions from Taxable Income				
7	Tax Depreciation	852.1	695.1	852.1	695.1
8	Transportation Depr. Adj.	(33.7)	(33.7)	(33.7)	(33.7)
9	Soc. Sec. Taxes Capitalized	12.6	12.6	12.6	12.6
10	Capitalized Overhead	.0	41.3	.0	41.3
11	Interest	1,013.7	1,013.7	1,013.7	1,013.7
12	Preferred Stock Div. Credit	.0	5.3	0	5.3
13	Subtotal Deductions	1,844.7	1,734.3	1,844.7	1,734.3
14	Net Taxable Income for CCFT	1,443.5		2,108.1	
15	CCFT	138.6		202.4	
16	Total CCFT	138.6		202.4	
17	Net Taxable Income for FIT		1,415.3		2,016.1
18	Federal Income Tax		651.0		927.4
19	Graduated Tax Adjustment		(2.4)		(2.4)
20	Invol. Conversion Adjustment		(2.9)		(2.9)
21	Investment Tax Credit		(3.1)		(3.1)
22	Fed. Income Tax Before Adj.		642.6		919.0
23	Capitalized Overhead Adj.		(6.8)		(6.8)
24	Total FIT		635.8		912.2

(Red Figure)

APPENDIX D
Page 2

California Water Service Company
Stockton District

INCOME TAX CALCULATION

1985

Line No.	Item	Present Rates CCFT (A)	Present Rates FIT (B)	Adopted Rates CCFT (C)	Adopted Rates FIT (D)
		(Dollars in Thousands)			
1	Operating Revenues	$9,862.7	$9,862.7	$10,790.4	$10,790.4
2	O&M Expenses	6,377.1	6,362.5	6,385.0	6,385.0
3	Taxes Other Than Income	301.8	301.8	301.8	301.8
4	CCFT	.0	126.1	.0	214.5
5	Subtotal	6,678.9	6,805.0	6,686.8	6,901.3
6	Deductions from Taxable Income				
7	Tax Depreciation	888.3	699.4	888.3	699.4
8	Transportation Depr. Adj.	(37.3)	(37.3)	(37.3)	(37.3)
9	Soc. Sec. Taxes Capitalized	13.7	13.7	13.7	13.7
10	Capitalized Overhead	.0	44.6	.0	44.6
11	Interest	1,004.9	1,004.9	1,004.9	1,004.9
12	Preferred Stock Div. Credit	.0	5.3	.0	5.3
13	Subtotal Deductions	1,869.6	1,730.6	1,869.6	1,730.6
14	Net Taxable Income for CCFT	1,314.2		2,234.0	
15	CCFT	126.1		214.5	
16	Total CCFT	126.1		214.5	
17	Net Taxable Income for FIT		1,327.1		2,158.5
18	Federal Income Tax		610.5		992.9
19	Graduated Tax Adjustment		(2.4)		(2.4)
20	Invol. Conversion Adjustment		(2.8)		(2.8)
21	Investment Tax Credit		(2.7)		(2.7)
22	Fed. Income Tax Before Adj.		602.6		985.0
23	Capitalized Overhead Adj.		(6.8)		(6.8)
24	Total FIT		595.8		978.2

(Red Figure)

(END OF APPENDIX D)

APPENDIX E
Page 1

California Water Service Company
Stockton District

Comparison of typical bills for residential metered customers of various usage level and average usage level at present and authorized rates for the year 1984.

General Metered Service
(5/8 x 3/4-inch meters)

Monthly Usage (Cubic Feet)	At Present Rates	At Authorized Rates	Percent Increase
300	$ 7.87	$ 8.42	6.99%
500	9.06	9.69	6.95
1,000	12.04	12.88	6.98
1,900 (Average)	17.39	18.61	7.01
2,000	17.97	19.25	7.12
3,000	23.94	25.62	7.02
4,000	29.89	31.99	7.02
6,000	41.79	44.73	7.03
10,000	65.57	70.21	7.07

(END OF APPENDIX E)

authorizations to issue common stock by energy utilities.

"(4) In California, water utilities are on a three-year rate increase cycle, with attrition allowances made in each of the two years subsequent to the test year. For the multi-district water utilities, one-third of their total systems are reviewed annually for general rate relief unlike energy utilities which file for rate relief every two years.

"Further, water utilities are allowed offset rate increases concurrently with major cost increases such as purchased water, purchased power, property taxes, etc. These ratemaking procedures help to insulate water utilities from inflationary forces as well as mitigate earnings fluctuations. Energy utilities are similarly insulated by attrition allowances and various balancing account procedures."

With respect to actual versus authorized returns, staff suggests that data over the last eight years is preferable, and that data shows less volatility in the earnings of water companies than of energy utilities.

Accordingly, staff's DCF analysis is predicated upon a group of 10 water companies operating in different parts of the country rather than upon the energy utilities.

The staff witness testified tht she relied on the group of water utilities because it included all water utilities which have market data available and because estimates of cost of equity for a single company such as CWS are less precise than for a sample of companies having similar risks. Further, since relatively less market activity is observed in the common stock of water utilities, in the view of staff, it is the witness' opinion that the cost of equity determined from market data of the selected group of water companies minimizes the influence of error on the results.

Staff's DCF analysis was performed using deflated historical data to adjust for past inflation levels that differ from the expected inflation levels projected for the test years. The results of staff's "real" DCF analysis were then explicitly inflated using both a 5% and a 6% inflation factor for the test years.