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Decision 93433 August 18, 1981 ORIGINAL

BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

Application of Pacific Gas and Electric Company to become a participant in the Integrated Coal Gasification Combined Cycle Demonstration Program at Cool Water and to authorize concurrent recovery of its expenditures resulting from such participation.

Application 60412
(Filed March 31, 1981)

Daniel E. Gibson, Charles W. Thissel, and Roger J. Peters, Attorneys at Law, for Pacific Gas and Electric Company, applicant.
Peter S. Reis, Attorney at Law, and Nancy Hayward, for Texaco Oil Company, interested party.
Randolph L. Wu, Attorney at Law, for the Commission Staff.

O P I N I O N

On March 31, 1981, Pacific Gas and Electric Company (PG&E) filed this application to:

1. Execute a Participation Agreement with Southern California Edison Company (Edison), Texaco, Inc. (Texaco), and other unnamed entities and thereby financially contribute to and otherwise participate in the Cool Water Coal Gasification Program (Cool Water), and

2. Include in its electric service tariff provisions which would enable it to recover on a concurrent basis its expenditures resulting from participation in Cool Water.

PG&E is requesting concurrent recovery of a $25 million capital contribution, with no rate of return. It states in its application that if it is awarded the same rate recovery as that granted to Edison in Decision (D.) 92115 or as that requested by Edison in Application (A.) 60156, PG&E would not participate in Cool Water since neither mechanism provides it with the concurrent recovery of its expenditures which it feels are necessary for its participation.

In support of its request for different rate treatment than Edison received, PG&E's application states that the roles of Edison and PG&E in Cool Water are dramatically different and therefore warrant independent rate treatment. PG&E, for example, will not obtain any electricity from Cool Water and therefore the rate recovery granted by D.92115 and clarified by D.93203 relating to the avoided cost of purchased electricity is irrelevant. Further, Edison sought recovery in excess of $500 million, representing fuel processing fees, coal costs, and a return on contributed capital. PG&E asks only to recover a $25 million capital contribution with no rate of return. Lastly, PG&E points out that Edison will sponsor and operate the Cool Water program while PG&E will only be a participant. Edison is in a control position. Accordingly, PG&E believes that the requested rate treatment will not interfere with the financial and operational incentives D.92115 imposes on Edison to minimize Cool Water costs.

Public hearings were held on July 1 and 2, 1981 before Administrative Law Judge Mary Carlos. Testimony was presented by PG&E, Texaco, and the Commission staff (staff). In addition to the sworn testimony numerous letters were received from ratepayers in PG&E's service territory. While some requested further information about time and place of hearings in A.60412, most expressed opposition to approval of PG&E's application on the grounds that the ratepayers were already paying extraordinarily high bills and should not be asked to assume costs such as those associated with Cool Water. These letters are a part of the correspondence file in this matter.

Testimony of PG&E

PG&E presented two witnesses as part of its direct showing, Nolan H. Daines, Vice President, Planning and Research and William Fairchild, Director of Rate Analysis, Rate Department. Fairchild also testified in rebuttal to testimony presented by staff.

Daines testified that the funding and structure of Cool Water make it particularly attractive, since the financial cooperation of several public utilities, industrial corporations, and a prospective government grant allows PG&E to participate in the project for a small capital cost relative to the overall capital requirements for such a project. Cool Water will also provide PG&E with royalty discounts, the opportunity to be reimbursed for its capital contributions, and the possibility of sharing in prospective royalty payments.

Daines testified that Cool Water provides for hands-on training and experience in the design, construction, and operational shakedown of this technology and this experience would provide PG&E a substantial gain in technology. Experience gained by PG&E engineers with the Texaco gasification process would have application with other gasifiers in an integrated combined cycle configuration or for production of medium Btu coal gas on a stand-alone basis.

The timing of Cool Water would directly benefit a gasification-cogeneration project at Texaco's San Ardo oil fields in Monterey County, which PG&E and Texaco are investigating as a joint venture. The Cool Water gasifier is scheduled to be operating before construction begins at San Ardo and the experience at Cool Water will enable PG&E to incorporate any necessary change into the ultimate San Ardo design. This in turn will minimize San Ardo costs and maximize PG&E's ability to obtain the San Ardo cogenerated electricity and thereby expedite the annual displacement of 2.6 million barrels of oil.

On January 12, 1981, PG&E sent Edison and Texaco a Letter of Intent indicating its intention to participate in the Cool Water program, subject to certain conditions, including obtaining appropriate rate recovery of PG&E's Cool Water expenditures. A copy of the Letter of Intent is attached to the application.

PG&E is currently negotiating the final terms and conditions of its Participation Agreement. The proposed PG&E Participation Agreement incorporates as its basic terms and conditions the provisions of the Texaco/Edison Participation Agreement which was reviewed in D.92115. In addition, the PG&E Participation Agreement provides PG&E the right to approve any amendments to the existing participation agreements and to consent to the addition of participants. PG&E is also authorized to station two observers at the site of any Cool Water activity. They will be provided offices, support services, and may be given Cool Water program assignments. PG&E may be reimbursed for these services if given. Additionally, the PG&E Participation Agreement provides that PG&E will be granted a 12-1/2% royalty discount to use the Texaco Coal Gasification Process (TCGP) for medium or high Btu gas applications and a 12-1/2% royalty discount to use TCGP for combined cycle electric operations. The PG&E Participation Agreement provides that it will be governed by and construed in accordance with California law. A copy of the draft Participation Agreement is also attached to the application. PG&E has also discussed with Edison the possibility of executing an additional agreement whereby PG&E would obtain an option, subject to certain conditions, to purchase a portion of the Cool Water Plant at the conclusion of the demonstration but no agreement has yet been reached on this.

PG&E believes that if it is unable to participate in Cool Water that the program may be substantially deferred or possibly abandoned for lack of funding. Conversely, PG&E believes that if it does participate, it will encourage other utilities to decide to participate in the Cool Water program. Funding of the entire program is discussed in the testimony of Texaco's witness.

PG&E describes the benefits to the ratepayers of its participation in Cool Water as direct economic benefits (reimbursement of capital and royalty discounts) and indirect benefits (potential reduction in the cost of new generating facilities by making more informed and timely decisions regarding resource selection, and increased system reliability resulting from the more diverse fuel mix made possible by conversion from oil- and natural-gas-fired units to coal gasification-combined cycle units). Lastly, if coal gasification as a commercial technology is expedited, ratepayers would benefit through greater energy independence and a more environmentally compatible generation source.

Lastly, Daines testified that if the Cool Water and San Ardo projects are successful, this technology could be applied to other oil field cogeneration projects which may initially use natural gas as a fuel and later be converted to gasify coal or petroleum coke as a fuel. Successful commercial demonstration of Cool Water will also expedite other synthetic natural gas (SNG) projects such as the WyCoal Gas SNG project located in Wyoming in which PG&E has signed a letter of intent to participate. Daines testified that by 1993, WyCoal could be producing 300 million cubic feet a day of SNG for use in California.

PG&E's second witness, Fairchild, described the proposed Cool Water Program Adjustment (CPA) tariff provision and the initial rates under it which PG&E proposed to become effective July 1, 1981.

The proposed CPA procedure is similar to the Energy Resources Development Adjustment Project (ERDA) proposed by PG&E in A.60330 filed March 6, 1981. Fairchild testified that if ERDA were presently in place a separate application and proposal for a Cool Water adjustment would not be necessary. At the beginning of the program, and periodically thereafter, estimates of Cool Water expenditures and jurisdictional sales will be made for each forecast period. Since actual expenditures and sales will differ from the estimates, the CPA rates are proposed to be adjusted periodically to match expenditures and revenues as closely as possible. To the extent that they do not match for a period, the difference plus interest at the commercial paper rate will be included in a balancing account to be amortized through the rates for the following period. The CPA is designed so that only the net cost of the program is chargeable to revenue requirements and any reimbursement of capital or other income received by PG&E reduces the revenue requirements accordingly. PG&E proposes that adjustments to the CPA become effective April 1 of each year effective concurrently with but separately from its ECAC rate revisions for that date.

Fairchild reiterated Daines testimony that PG&E could not participate in Cool Water unless it received definite and timely rate relief. He testified that PG&E's financial straits and cash flow problems preclude it from making an expenditure of this size for energy development unless it is assured definite and timely recovery of the expenditures. He noted that if the program does achieve an annual 77% average capacity factor over its seven-year

demonstration period, it is presently projected that PG&E would ultimately be reimbursed for its capital contribution; however, the timing of that recovery is uncertain. Further, an Edison witness testified in A.59268 that there was less than a 10% probability that the program would achieve the 77% average annual capacity factor. Thus there is also an uncertainty regarding the amount of recovery PG&E would ultimately obtain.

PG&E's estimated expenditures for the Cool Water program are as follows:

7/1/81 to 6/30/82	$10,238,000
7/1/82 to 6/30/83	8,953,000
7/1/83 to 6/30/84	5,401,000
7/1/84 to 6/30/85	408,000
Total	$25,000,000

For the forecast period July 1, 1981 to June 30, 1982 the CPA is expected to look like this:

Program Cost	$10,238,000
Estimated Income Tax	10,735,000
Net excess of cost over revenues or net excess of revenues over cost	-
Franchise & Uncollectibles (Lines 1 and 2 x .00781)	164,000
Total	$21,137,000

The effective CPA rates for the forecast period, based on total sales of 57,938,000,000 kilowatt-hours would be:

	$ per kWH
Residential	
Lifeline	0.00030
Tier II	0.00041
Tier III	0.00057
Nonresidential	0.00038

PG&E proposes that the rate adjustments be applied to each class of service under CPUC jurisdiction, except for sales made under contract to the Department of Water Resources, on a uniform basis. The rate changes within the residential class for lifeline and nonlifeline sales will retain, as far as possible, the existing relationship between lifeline and nonlifeline rates.

The item for tax expense is included since there is no offsetting tax deduction to the revenue and if PG&E is to be made whole it would have to recover the associated taxes in the year it received the revenue from the ratepayer. It is PG&E's position, relying on the opinion of its Tax Department, that for tax purposes Cool Water expenditures would have to be capitalized and therefore a current deduction from revenue would not be allowed. PG&E expects to accrue some investment tax credits associated with the Cool Water program and possibly some energy tax credits, but it is not known the amount or the timing of these credits. When they are realized, PG&E proposes to flow them through to the ratepayer under the CPA procedure by showing a reduction in the income tax expense.

If there were cost overruns (discussed more fully under the testimony of Texaco's witness), PG&E would include them in the annual filing for the rates to be in effect for the following year. To the extent that there are cost overruns of course, PG&E would ask to recover an amount greater than $25 million, although it does not contemplate a separate application for approval of recovery of the cost overruns.

Testimony of Texaco

Texaco presented one witness, James L. Dunlap, Vice President of the Alternate Energy Department, Texaco Inc. Dunlap is also Chairman of the Board of Control of the Cool Water program. Texaco appeared as an interested party and strongly supported the application of PG&E.

Dunlap described the current status of Cool Water as having the following participants, with their contribution shown at the right:

Participants - Committed	
Texaco Inc.	$ 25,000,000
Edison	25,000,000
Bechtel Power Corporation (Bechtel)	25,000,000
Electric Power Research Institute	50,000,000
General Electric	25,000,000
Participants - Letters of Intent	
PG&E	25,000,000
Japanese Consortium	25,000,000
Possible Sponsors	
Empire State Electric Energy Research Corporation (ESEERCO)	5,000,000 (not firm)
Other	
Airco (furnishing the oxygen plant thereby reducing the funding requirement equivalent to a participant)	20,000,000 (in kind)
United States Synthetic Fuels Corporation (SFC) joint venture participation applied for	75,000,000
Total	$300,000,000

D.92115 indicated that the projected capital cost of Cool Water was $292 million and that that figure was reasonable. Bechtel has recently reviewed the estimates and found them current. Thus, even if the contingent participation, such as PG&E, the Japanese Consortium, and SFC, comes to fruition, the funding will still be slightly short of that stated as necessary and found reasonable by this Commission.

The funding gap presently facing the program is about $125 million according to Dunlap. If the Japanese Consortium and PG&E come in, then the only real question is whether the remaining $75 million can be furnished by the SFC. This is a total unknown at the present time since this body is not duly constituted under the law today with a complete board of directors and has not been declared operational by the President of the United States.

Notwithstanding this uncertainty in funding, Dunlap testified that if PG&E were unable to participate in the program due to the Commission's response to this application, this would have a serious impact on the program. Texaco feels that PG&E's participation is very important to the ultimate success of the program from a financial funding standpoint. Existing agreements among the participants in Cool Water require full funding of the program prior to initiation of construction.

Dunlap testified that it was important that Cool Water not be substantially delayed for many reasons including substantial increased costs, reassignment of key engineering and construction personnel, loss of service contracts, and penalty costs in existing contracts, to name just a few. More importantly, delay in receiving operating, environmental, and economic data from the program will force California utilities to commit to known technologies for base-load power generating capacity without the benefit of information which would allow an alternative choice. Thus, California rate-payers will lose the economic and environmental benefits Texaco believes are associated with the gasification process to be demonstrated at Cool Water. The effect of locking the resource planning choices into conventional technologies would be to inflate the cost to California ratepayers of electricity production beyond what technology would require and could result in more significant environmental impacts.

Texaco points out that there are also direct negative consequences to PG&E if its official participation is delayed, namely that it will not have full involvement with the design, the operations planning, and the management decisions which will continue to go forward but in which PG&E will not be able to participate on an equal basis unless its commitment has been secured. Texaco echoed Daines' statements about the benefits of working on a day-to-day basis in the program itself gaining the hands-on experience which is essential to efficiently and effectively use the technology in future electric generating plants.

Texaco also discussed the relationship between Cool Water and the San Ardo program at some length. Cool Water will demonstrate the technology to be used at San Ardo. Cool Water would be the first scale up of the gasifier module that will be one of three used at San Ardo. San Ardo does not require completion of the entire Cool Water demonstration according to Texaco; however, it does require completion of the Cool Water design and initial operation to ensure incorporation of design improvements in San Ardo. When asked on cross-examination what would be the effect on San Ardo if PG&E were not to participate in Cool Water and the program therefore did not go forward, Dunlap replied that in all probability San Ardo would never be built. This is because the timing is critical on San Ardo - if there is a three- to four-year delay in Cool Water, then there is no longer adequate reserve life left in the San Ardo field to make the investment and write it off properly.

In discussing cost overruns, Dunlap testified that each participant in the program has an opportunity to participate in a cost overrun on a pro rata basis and the individual can elect to do that. If the individual participant does not elect to do that, then that participant gives notice to the program to that effect

and drops out of the program. Then the remaining participants must unanimously agree on what course of action to take relative to continuing the program. Under the current participation agreements, a participant is entitled to reimbursement of its share contributed toward cost overruns through the normal capital recovery formula being applied against the cost of the program. Dunlap did note that there would be a greater risk of underrecovery being assumed by the participants for escalated costs. It is Dunlap's understanding of the current participation agreements that net recoverable capital includes any contributions to cover cost overruns and modification of the agreement would not be required in order to flow back to the participants their share of any cost overruns.

Testimony of Staff

The staff presented one witness, Ray Czahar, Principal Financial Examiner. Bearing in mind that PG&E had stated that it would not participate in Cool Water unless rate recovery were both definite and timely, Czahar prepared four possible regulatory options available to the Commission regarding PG&E's possible participation. The list does not purport to be exhaustive and Czahar noted that there may be variants possible within each option. In his opinion they cover a broad enough spectrum of possible ratemaking treatments and short-term financial implications for PG&E, ratepayers, and the Cool Water project itself. The four options are set forth in the matrix below (see p. 14).

Czahar testified that PG&E's current financial position should preclude Option A in that adding the additional risk attendant to participation in Cool Water under Option A would only exacerbate any earning and cash flow problems PG&E has. Czahar notes that PG&E shareholders would bear free market risks under this option with only the expectation of regulated returns should Cool Water prove commercially viable.

Under Option B, PG&E would only have to generate $5 million to come in as a sponsor versus the $25 million necessary to be a participant. However, PG&E would give up the "hands-on" experience gained as a sponsor and Czahar testified that the three- to four-year time advantage gained in use of this technology is probably worth the extra $20 million. He stated that if PG&E is to alter its current resource plan to substitute an alternative such as coal gasification for the present direct fired coal plants, then the experience as a program participant will enhance the possibility of making the change should the coal gasification technology prove economically and environmentally appropriate.

Option C, in Czahar's opinion is a realistic alternative to PG&E's proposal and assures PG&E of both definite and timely recovery. Option C requires establishing a balancing account. PG&E would earn a return (using the last authorized rate of return on rate base) on the funds invested in Cool Water and over the seven-year demonstration period one-seventh of PG&E's investment in Cool Water would be amortized against rates. The annual revenue requirement to be credited to the balancing account during the demonstration period would consist of a return on any unamortized balance in the balancing account plus one-seventh of the total investment by PG&E in Cool Water as of the end of construction and start of demonstration. The annual amortization would be adjusted to reflect any capital recovered from the program.

The return element recognizes the fact that PG&E is not building a plant for its own use, will not have any ongoing capital investment to concern itself with, and is really buying information that can be used in the future for the ratepayer's benefit.

Comparison of PG&E's Financial and Ratemaking Proposal
For Cool Water Participation to Other Ratemaking Options

	Impact of PG&E	Impact on Ratepayers	Impact on Cool Water
PG&E's Proposed Ratemaking Treatment: Expense capital construction as incurred against rates.	Allows PG&E to participate in Cool Water without raising capital.	Must supply $25 million in capital and $25 million in income taxes during 1982-1984 period.	Reduces by $25 million the total additional capital necessary to fund total project and therefore enhances financial feasibility of project.
Other Ratemaking Options			
A. Only allow PG&E to participate on the same basis as other project participants (except SCE).	Forces PG&E to raise $25 million of capital and assume the risks of nonrecovery of its investment plus assuming loss of return during the construction and demonstration of Cool Water.	Are relieved of $50 million in revenue requirement during demonstration period and risk of nonrecovery of capital during demonstration period.	No impact.
B. Allow PG&E to participate in Cool Water only as a project sponsor ($5 mil.) and expense $5 million against rates currently.	No effect, i.e. does not raise any capital for Cool Water.	Revenue requirement is reduced by $40 million during construction period. Could only lose maximum of $2.5 million vs. $25 million during demonstration.	Negative impact in that the project must seek an additional participant to replace PG&E.
C. Allow PG&E to participate on the basis that PG&E fund the $25 million investment and recoup 1/7th of its investment during each year of the 7-year demonstration period. In addition, PG&E is allowed to collect a return on cumulative amounts in the CPA balancing account.	Forces PG&E to fund $25 million investment but assures recovery of and cash return on investment in a definite and timely manner.	Spreads out revenue requirement over a period of years. Does not require income tax payments during construction period. If project attains 77% capacity factor during demonstration period rates only reflect payment to PG&E of carrying cost of capital investment.	No impact.
D. Divert funding from PG&E Research and Development Program to fund investment in Cool Water.	No impact.	Rates would be $50 million lower during construction period.	No impact.

Czahar included Option D, which requires a transfer of funds from an approved level of research, development, and demonstration expenses in the 1982 test year currently under consideration in A.60153 to allow the Commission to reprioritize PG&E's research and development program in light of the proposed participation in Cool Water and at the same time limit total PG&E ratepayer support of research, development, and demonstration. Obviously, other research and development programs currently contemplated as part of the 1982-83 test period would have to be deferred if Option D were to be selected.

Of the four ratemaking options outlined, Option C would be Czahar's recommendation to the Commission.

Discussion

PG&E has examined all four of the staff-suggested options and finds them all unacceptable; Options A and C for lack of definite and timely rate relief, Option B for lack of benefit to the utility, and Option D because there are not sufficient funds in the current research, development, and demonstration program budget proposed for 1982-83 available for diversion.

PG&E took further exception to the cost to the ratepayer of Option C. It presented an exhibit showing that the total revenue requirement of Option C over the period 1981-1991 would actually be $61,382,000. While not disputing the mathematical accuracy of the computation, Czahar responded that by discounting the revenue stream shown in Exhibit 4 at 15-1/2%, the net present value of that revenue requirement is about $25 million, which is the initial investment by PG&E in the Cool Water project. He made the same calculation for PG&E's proposed ratemaking treatment, and found the net present value of that revenue requirement expressed in 1981 dollars to be about $31.33 million, leaving Option C the preferred choice from the ratepayer's standpoint. Czahar used the utility's weighted cost of capital as a substitute for a consumer discount rate in making the calculation.

PG&E also presented Fairchild in rebuttal. He testified that he prepared Exhibit 7, which shows the present worth of the PG&E proposal and the staff Option C proposal under varying interest (discount) rates ranging from 0% to 20%. The two proposals have identical present worths at an assumed discount rate of 12.23%. These varying discount rates purport to reflect the average ratepayer's cost of money rather than using PG&E's after tax incremental cost of money. From the viewpoint of the ratepayer, according to Fairchild, the discount could vary from 0%, if you looked at it on a straight cash basis, to 5% if you use a passbook savings account, 9% if the investment alternative is a credit union account, 12% if the investment is in money market accounts, and 18% if the financial alternative were consumer credit. PG&E continues to reject Option C as an alternative method of rate recovery for participation in Cool Water.

As our prior decisions with respect to Edison's participation show, we are very much in favor of the Cool Water project and wish to encourage PG&E to participate if at all possible. However, PG&E has presented us with a "take it or leave it" proposition that makes it difficult to balance the interests of the utility and its shareholders with the interests of the ratepayers as we have traditionally done. The all or nothing position on rate recovery taken by PG&E as a condition for its participation in Cool Water also makes it difficult to fashion alternative rate relief which might not burden the ratepayer so heavily as PG&E's proposal yet which would be both definite and timely, thereby meeting PG&E's basic need.

On the balance, we are convinced that there will be benefits to PG&E and its ratepayers from PG&E's participation in the Cool Water project. We have not been convinced, however, by PG&E's showing in this proceeding that there must be concurrent rate recovery for this project granted in addition to PG&E's substantial rate request for RD&D expenditures in its pending general rate case, nor by the argument that this participation should involve no possible risk for PG&E's stockholders. Rather we believe that PG&E's participation in Cool Water should be seen as a part of its entire RD&D program and assigned an appropriate priority amongst the other projects in that program.

In its general rate case testimony (A.60153) PG&E's witness Cayot said that the Company expects to spend more than $151,000,000 on RD&D in the 1982 test year, of which $38,210,000 would be recovered as expense. This would result in an expansion of programs at a rate considerably in excess of the rate of general inflation. Although PG&E's witness Daines stated that the funds in the PG&E RD&D budget submitted in the pending general rate case are needed where they are currently allocated, the Commission staff in its testimony on that budget has raised serious questions regarding the utility's proferred justification of both the level and the program direction of its RD&D budget. Based on the record in the general rate case, we share the staff's concern and do not feel that PG&E in its showing in this case has provided sufficient information regarding the relative merits or priority of participation in Cool Water vis a vis support of its other RD&D projects. We conclude that there will be room within PG&E's projected RD&D budget for some support of the Cool Water project without disruption of a viable, justifiable RD&D program for PG&E. We will therefore authorize PG&E to support its $25 million participation in Cool Water out of

its RD&D budget over the next several years. This can be taken out of expense or capital expenditures but should not exceed the final level of expenditures authorized in the pending general rate case decision. In this way PG&E's contribution to Cool Water will not have an additional impact on the ratepayer over regularly authorized base rates.

As noted above, in authorizing Edison's participation in Cool Water we indicated that we believe that the project has merit for California. If PG&E chooses to participate in Cool Water, we will keep this commitment clearly in mind in our approval of an appropriate level of funding for RD&D in the general rate case. We believe there is enough flexibility inherent in the various proposals made on the record in the rate case to support this project should PG&E make a commitment to it.

However, we do not believe we should order PG&E to re-direct this portion of its RD&D budget to Cool Water. PG&E has made the case in this proceeding that the Cool Water project will have great benefit for its ratepayers by allowing for the development of a new means of utilizing coal that may be acceptable for California and by aiding and accelerating the San Ardo project and possibly other non-oil or gas fueled cogeneration projects. We expect PG&E to have its own internal priorities for its RD&D projects. In years of concern here, which are largely the years covered by PG&E's pending general rate case, we believe PG&E should determine how important Cool Water is to its long-term resource planning options when compared with other projects.

PG&E may support its Cool Water contribution by whatever mix of expense treatment and capitalization it determines it can sustain and considers appropriate in the context of the pending general rate case decision. We recognize that maximizing expense treatment will allow for the most timely rate relief for PG&E, as the Company desires. However, PG&E in its RD&D report demonstrated substantial capital budget in the RD&D area and some of this

may be deferred for Cool Water. Thus, although the question did arise in the proceeding as to whether PG&E would be able to capitalize part or all of its Cool Water contribution with borrowed funds, to the extent that PG&E substitutes Cool Water for other capital projects in its RD&D budget we conclude that capital acquisition should not be a constraint under Option D.

Since the capitalized Cool Water costs would not go into rate base (since as in Edison's case the project is not utility plant), PG&E may request (in future rate proceedings) that they be amortized during the demonstration period, including an allowance for AFUDC.

We also note there that if the project attains a 77% capacity factor during the demonstration period, PG&E will be recompensed for its $25 million contribution. Under this admittedly optimistic circumstance, we will allow PG&E to use the dollars received to amortize any capital expenditures made on the plant, the remainder, if any, of the funds to flow back into PG&E's RD&D budget to support projects that were deferred because of Cool Water.

In authorizing PG&E to contribute up to $25 million to the Cool Water project, we are concerned about possible cost overruns. As with Edison, we wish to make it clear that we expect such cost overruns to be shared among all project participants and will only allow for recovery from ratepayers in the future upon a showing that these costs were reasonably and prudently incurred and shared. Furthermore, as with Edison, we will require PG&E to make application for such recovery, together with this showing of prudency, prior to authorizing recovery at the end of the demonstration period.

We further note that PG&E's estimated contribution to EPRI in 1982 is between $10 and 12.3 million, some of which will

end up supporting EPRI's participation in Cool Water. As PG&E is one of the largest contributors to EPRI in the nation, it therefore is a major contributor to Cool Water through that organization.

Lastly, we note that we did approve SCE's direct participation in Cool Water. However, SCE's ratepayers (as opposed to PG&E's) will receive the benefit of the power produced by the facility and SCE will have the first option to purchase the facility should it be a commercial success. We expect PG&E and SCE to be in communication regarding the project and that the special knowledge about the technology purchased by southern California ratepayers will be made available to all California utilities to benefit all their ratepayers.

Findings of Fact

1. PG&E has applied for authorization to execute a Participation Agreement with Edison and Texaco and to financially contribute to and otherwise participate in the Cool Water Coal Gasification Program and to recover on a concurrent basis in rates its expenditures resulting from participation in the program.

2. PG&E's capital contribution to the program is $25 million. PG&E does not seek a return on these funds but is asking to establish a Cool Water program balancing account to recover through electric rates its capital costs, the associated income tax expenses, and the franchise and uncollectible expenses.

3. PG&E will not obtain any electricity from the program.

4. PG&E will receive "hands-on" experience in the design, construction, and operation of the Cool Water plant which will be advantageous in the operation of the San Ardo project.

5. Experience gained as a participant in Cool Water will provide PG&E with a coal gasification and integrated coal gasification-combined cycle option for resource planning purposes.

6. PG&E will be granted a 12-1/2% royalty discount to use the Texaco coal gasification process for medium or high Btu gas applications and a 12-1/2% royalty discount to use the process for combined cycle electric operations.

7. The rate treatment applied for by PG&E to recover its capital costs requires recovery in the 1981-1984 time frame, including the recovery of the income tax expense.

8. PG&E made no specific showing that it was unable to fund its participation in Cool Water with borrowed funds.

9. PG&E proposes to establish a balancing account for recovery of its Cool Water expenditures and for return to the ratepayer of any capital costs recovered from the program, plus any investment tax credits and/or energy credits.

10. PG&E's proposed rate recovery places the entire risk on he ratepayer.

11. PG&E's participation in Cool Water is strongly supported by Texaco, one of the program sponsors.

12. Staff has proposed four alternative options for rate recovery for the Commission's consideration and suggests adoption of Option C which provides that PG&E fund its Cool Water participation with borrowed funds, on which it would earn a return during the construction period and begin recovery during the demonstration period with a return being earned on the cumulative balance in the balancing account.

13. Staff Option D directs PG&E to fund it contribution to the Cool Water project out of its future RD&D budget.

14. Under Option D there would be no net increase in rates to offset project costs since Cool Water would displace other projects deemed by the Company to be of lower priority.

15. PG&E may, as a participant in Cool Water, become liable for cost overruns on a pro rata basis with other project participants or be required to drop out of participation in the program.

16. The Cool Water program presently has a funding gap of approximately $125 million, which PG&E's participation would reduce to $100 million.

Conclusions of Law

1. PG&E should be authorized to execute a Participation Agreement with Edison, Texaco, and other entities, financially contribute to and otherwise participate in Cool Water.

2. PG&E's application to recover its Cool Water expenditures on a concurrent basis through a supplemental electric rate increase should be denied.

3. PG&E should be authorized to recover its Cool Water expenditures as set forth below which is basically as set forth in the staff's Option D, slightly modified.

ORDER

IT IS ORDERED that:

1. Pacific Gas and Electric Company (PG&E) is authorized to execute a Participation Agreement with Southern California Edison Company Texaco, Inc., and other entities and to financially contribute to and otherwise participate in the Cool Water Gasification Program.

2. PG&E's proposal to recover its Cool Water program expenditures on a concurrent basis from its ratepayers ~~is denied~~ by collecting supplemental funds in excess of those to be authorized in its pending general rate case is denied.

3. PG&E is authorized to reallocate up to $25 million from its future RD&D budgets, as authorized in its pending and future general rate cases to the Cool Water project. This reallocation may come from either the expense or the capital portion of PG&E's RD&D budgets. PG&E may request recovery of capital invested in the project, including AFUDC, in future rate proceedings through amortization over the demonstration period. Any cost overruns must be justified by formal application as prudently and reasonably incurred and shared among project participants.

4. PG&E shall credit any recompense from the project resulting from its operation at 77% or greater capacity factor to any outstanding project costs up to the $25 million limit (or higher if the Commission upon review determines those costs to have been prudently and reasonably incurred). Any excess funds shall be made available to support other RD&D projects consistent with any applicable general rate case guidlines or orders.

This order becomes effective 30 days from today.

Dated AUG 18 1981, at San Francisco, California.