Decision No. 92854 APR 1 1981

BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

ORIGINAL

In the Matter of the Application of the SOUTHERN CALIFORNIA GAS COMPANY for Authorization to Implement a Conservation Cost Adjustment (CCA) procedure for adjusting its Tariffs covering Commission Approved Conservation Programs and for Authorization to Implement a financing program for financing solar water heaters to be included in the Proposed CCA Procedure in its tariffs.	Application No. 59869 (Filed August 8, 1980; amended October 31, 1980)

Thomas D. Clark, Eddie R. Island, and Douglas Porter, Attorneys at Law, for Southern California Gas Company, applicant.

Gordon Pearce, Leslie R. Kalin, and William Reed, Attorneys at Law, for San Diego Gas & Electric Company; Richard A. Alesso, Deputy City Attorney, Robert W. Parkin, City Attorney, and Vernon E. Cullum, for City of Long Beach; Sarah Shirley, Attorney at Law (Texas), and Stephen Shane Stark, Acting City Attorney, for City of Santa Monica; Emma A. Busch, for Los Angeles County Senior Citizens Legislative Committee, Hollywood-Wilshire Commission on Aging; Harry Phelan, for California Asphalt Pavement Association; and Constance Hathaway, for Golden State Mobilehome League; interested parties.

Edward Duncan, for himself, protestant.

Alvin S. Pak, Attorney at Law, and Mark Proffer, for the Commission staff.

OPINION

Introduction

In Decision No. 92251, in OII No. 42, issued September 16, 1980 Southern California Gas Company (SoCal) was ordered to implement a demonstration solar financing program to reach 165,300 of its water heater customers within three years.

By this application SoCal seeks a rate increase of $9.054 million annually to offset the program costs.

A duly noticed public hearing was held before Administrative Law Judge Orville I. Wright in Los Angeles on November 10 and December 2, 3, 4, and 9, 1980. Briefs were filed by the staff on January 12, 1981, and by SoCal on January 20, 1981, at which time the matter was submitted.

SoCal interpreted Decision No. 92251 to require it to offer incentives for only 78,000 residences, and the suggested programs in its application is predicated upon that number. On October 15, 1980, SoCal petitioned the Commission to modify the number of customers to receive solar incentives from SoCal, and on December 5, 1980 Decision No. 92501 denied the requested modification. Hence, we must bear in mind that SoCal's case here is geared to a solar retrofit goal of 78,000 residences while the actual goal is 165,300 residences.

Testimony against any rate increase for SoCal was given by Emma A. Busch and by Edward Duncan. Ying-Nien Yu, president of Ying Manufacturing Corporation, testified on issues relevant to OII 42. Warren I. Mitchell, Marvin J. Douglas and Leo E. Denlea, Jr. gave evidence for SoCal. Alton T. Davis, Robert W. Ladner and Douglas P. Hansen testified for San Diego Gas & Electric Company (SDG&E). Vernon E. Cullum testified for the city of Long Beach (Long Beach). Richard Tom, John M. Peeples and Mark Proffer gave evidence for the Commission staff. Additionally, approximately 40 letters were received from SoCal customers who protested any rate increase.

Summary of Decision

SoCal is granted an offset rate increase of $ 5.2 million for first year costs of its solar demonstration program. Of the 165,300 residences which SoCal was directed to retrofit to solar during the three-year program, it is estimated that 15,500 will be served by solar during the first year.

Proceed
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The authorized rate increase to cover first year costs is 0.082 cents per therm for all classes of retail customers except those served by Schedule GN-5 and wholesale customers. ✓

Balancing account treatment is authorized for solar demonstration costs and revenues.

SoCal's proposal for creation of a solar financing affiliate (SFA) to raise capital for the loan segment of its program is not approved in this proceeding.

SoCal will be permitted to file for further rate relief before January 1, 1982 should it choose to do so as SoCal misinterpreted Decision No. 92251 establishing a goal to solarize only 78,000 residences whereas the correct number is 165,300.

Program Description

Table I shows SoCal's planned implementation of the solar demonstration program if its assumed 78,000 goal had received Commission approval.

TABLE I

	Year 1	Year 2	Year 3	Totals
Single-family Dwellings				
Loans	2,300	3,975	5,125	11,400
Credits	2,300	3,975	5,125	11,400
Grants	300	450	450	1,200
Multifamily Dwelling Units				
Credits	10,600	19,000	24,400	54,000
Totals	15,500	27,400	35,100	78,000

Table II shows SoCal's actual goals, which are .8 percent of its single-family dwellings and 27 percent of its multifamily dwellings.

TABLE II

Single-family Dwellings	
Loans	9,500
Credits	9,500
Grants	800
Multifamily Dwelling Units	
Credits	145,500
Total	165,300

Since SoCal has not petitioned to adjust its first year penetration goals upward in the light of Decision No. 92501, we assume that it chooses to study the matter further and to revise its penetration and cost estimates on or before the first revision date.

Under SoCal's approved solar program, single-family homeowners will be offered the choice of utility credits or a subsidized utility loan for solar water heater retrofits. Utility credits will be offered at $20 per month payable quarterly for 48 months or until sale of the home, whichever comes first. Utility loans will be offered to single-family homeowners at 6 percent interest to be repaid with monthly payments over 20 years or upon sale of the residence, whichever comes first. SoCal will cease making loans when one-half of the targeted number of single-family participants have received a utility loan.

Utility credits will be made available by SoCal for solar water heater retrofits in multi-family buildings served by a centrally located hot water heater as defined in Decision No. 92769. These credits will be $8 per month per unit and will be payable quarterly. The payments will continue for 36 months or until sale of the building, whichever comes first.

In addition to utility credits and utility loans, SoCal will set aside 10 percent of the total funds authorized by the Commission in this proceeding for low-income single-family installations. These installations will be made as a grant by SoCal with no repayment obligation on the part of the recipient.

SoCal will initiate the low interest loan program in SoCal's Inland and Eastern Divisions for a brief start-up period before offering the Program systemwide. During this preliminary period utility credits will be made available by SoCal to those individuals in other divisions who have installed qualified solar systems after January 29, 1980.

Solar Program Costs

Table III shows the projected first-year program costs, authorized by this decision, segregated by program function totalling $5,227,000 SoCal's comparable revenue increase request amount was $9.054 million. SoCal's first-year grants estimate of $900,000 is adopted to facilitate acceleration of the low income single-family program. This table also shows second and third year costs together with total costs by classes of expenditure for three years.

Table IV shows the development of "other cost" categories in the total amount of $3,126,000 for the first year.

Table III shows that SoCal will have paid out multi-family incentives of $6,193,000 during the first three years of the program, leaving approximately $35,711,000 unpaid, based upon the appropriate market penetration of 145,500 customers receiving solar installations in multi-family buildings.

We recognize that the costs and revenues required for the solar demonstration program will be under constant scrutiny by SoCal and by our staff, and substantial changes in the programs may occur as our experience with solar programs increases.

The staff questions the relatively high percentage of marketing costs included in SoCal's projected program. It points out that $454 per unit overhead for the first year is in excess of the programs submitted by other utilities. It recommends reduction of overhead to $100 per unit in the first year.

We concur with staff on this issue for two reasons and believe an even more substantial reduction is called for.

First, the SoCal proposal was received as a compliance filing in OII 42. Addressing it, we said (D.92251, p. 79, mimeo.):

> "The SoCal gas marketing proposals are undeniably the most aggressive before the Commission. There is no evidence in our record on which we could base a decision to limit or prohibit implementation of any of the proposed marketing activities. Each of the other utilities has proposed marketing efforts which are less ambitious in varying degrees. To the extent that any of the proposed marketing activities proves either overly aggressive or inadequate, adjustments can be made during the demonstration. It would be premature to pass judgment on any of these proposals until more experience is gained."

We have already gained substantial experience with the demonstration which indicates that no marketing or promotional effort will be required for the single family gas market. All promotional effort can be focused on the much smaller universe of multi-family building owners.

Second, we are not convinced that SoCal states the matter correctly in its brief filed January 20, 1981 (p. 187):

> "SoCal is attempting an extremely difficult, if not impossible task, in its Demonstration Solar Financing Program. By Commission Decisions Nos. 92251 and 92501, SoCal is required to retrofit within a three-year period almost 27 percent of the multifamily dwellings with four or more units and which have centrally located hot water heaters. Penetration of solar hot water heaters for multifamily dwellings in SoCal's service territory is virtually 0 percent at present. SoCal anticipates an extremely difficult task in convincing owners of existing multi-family dwellings to install expensive solar hot water heating systems in buildings where no economic need for the systems exists. Even with a 55 percent tax credit and utility credits, apartment owners must be educated as to the economic benefits of solar and the potential energy savings which solar can provide."

SoCal is not required to retrofit 27% of the multi-family dwellings in its service territory. We have established goals which are also serving as maximum market penetration levels for the demonstration. It is up to the solar industry, with the assistance of SoCal, to convince owners of multi-family buildings to convert to solar water heating. The solar industry will benefit greatly by a successful demonstration and it should actively promote SoCal's program. In Decision No. 92769, we have asked SoCal to file a plan within 45 days on how best to assist the solar industry to penetrate this market.

Staff objects to SoCal's inclusion of a labor rate escalation factor in its estimates which is higher than that last allowed by the Commission in the general rate case. We are, however, approving no escalation factor as costs will be charged to the balancing account only as incurred and paid. Thereafter, the reasonableness of labor expense charged to the balancing account will be the subject of subsequent proceedings following our staff's audit and analysis of balancing account entries.

As staff witness Proffer testified, the purpose of balancing account treatment is to recover expenditures on a dollar-for-dollar basis through the provision that over- or undercollections will be adjusted when accurate data are obtained and analyzed for reasonableness. Thus, in the final analysis, overhead burden rates and estimated depreciation expenses in the balancing account will be displaced by actual costs when and if incurred. SoCal's direct and indirect costs are tentatively approved as modified subject to later showing that the charges to the balancing account represent reasonably spent actual dollars of outlay directly attributable to the solar demonstration program.

TABLE III

SOUTHERN CALIFORNIA GAS COMPANY

SOLAR DEMONSTRATION FINANCING PROGRAM

	Estimated Program Costs for First Three Years ($000)			
	(Adopted) 1st Year	2nd Year	3rd Year	Total for 3 Years
Incentives				
Loan (Capital Costs)	$ 340	$ 1,293	$ 2,702	$ 4,335
Util. Credits (Single)	274	1,002	2,012	3,288
Grants	900	1,485	1,634	4,019
Util. Credits (Multi)	505	1,879	3,809	6,193
Total	$2,019	$5,659	$10,157	$17,835
Other Costs				
Account Administration	$ 208	$ 373	$ 565	$ 1,146
Inspection, Serv., Diagn.	848	1,491	2,102	4,441
Instal. of Metering Equipmt	850	0	0	850
Program Monitoring & Eval.	220	220	220	660
Advert., Marketing	1,000	1,000	1,000	3,000
Total	$3,126	$3,084	$3,887	$10,097
Subtotal	$5,145	$8,743	$14,044	$27,932
Franchise Fees & Uncoll. (1.585%)	82	139	223	444
Total Cost	$5,227	$8,882	$14,267	$28,376

TABLE IV

FIRST YEAR*

ADOPTED SOLAR PROGRAM COSTS
(Excluding Incentive Costs)

Function	$000	
Advertising	$	
Public Affairs		
Marketing & Communication		
Labor, Rent, Telephone, Auto, and Misc.		
Cooperative Advertising		
Direct Mail Option I&II		
Special Promotions		
Point-of-Sale Displays		$1,000**
Solar Mobile Centers		
Solar Computer Analysis Program		
Solar Training		
Bill Inserts Program		
Research		
Total	1,000	
Account Administration	208	
Inst. of Metering Equipment	850	
Program Monitoring and Evaluation	220	
Inspection, Servicing & Diagnostic***	848	
Total	$3,126	

*Includes preparatory costs subsequent to October 13, 1980 as well as all solar program costs subsequent to a Decision in this Application No. 59869 to and including December 31, 1981.

**To be allocated by SoCal as needed and to be targeted exclusively to the multi-family market. SoCal's estimate for the amount requested totalled $5,833,000 to be directed to both the single-family and multi-family market.

***Expenses for diagnostic inspections shall not exceed those necessary to adhere to policies to be established in OII 42. See discussion at page 12.

Program Monitoring and Evaluation

While we have made significant reductions in first year program expenses for advertising, public affairs, and marketing costs from $5,838,000 to $1,000,000 as setforth in Tables III and IV, we recognize the serious need for allowing sufficient expenses for a thorough monitoring and evaluation effort to reach meaningful conclusions regarding the effectiveness and cost-effectiveness of the demonstration solar program. We will therefore include a sum of $850,000 for the costs of metering equipment to monitor 1,100 systems. This level of cost is comparable on a per unit basis to that authorized Southern California Edison Company today for a similar metering program.

We anticipate the need to instrument some 2,500 systems on a statewide basis in order to generate a data base sufficient for effective program evaluation. An additional $220,000 will be authorized for first program year labor and other costs to undertake the monitoring studies and general program evaluation in SoCal's service area which are detailed on pages 67 and 68 of Decision No. 92251 (printed copy).

SoCal will be expected to maintain accurate cost records and fully support and justify all expenditures and revisions to the basic evaluation program. SoCal is also expected to install instrumentation and commence monitoring of the 1,100 systems during the first year of program implementation. SoCal shall consult with the Commission's Energy Conservation Branch staff in determining the selection criteria for the instrumentation necessary to assure a representative and reliable monitoring sample for reasonable evaluation of the sytems to be installed throughout SoCal's service area.

Solar Financing Affiliate

SoCal proposes the formation of a solar financing affiliate (SFA) to finance the loan segment of the subsidy program. SoCal's first year cost estimates include $340,000 for this purpose, as follows:

Interest differential	$207,000
Return on equity (20%)	65,000
Income taxes	68,000
Total	$340,000

It is suggested that a subsidiary be formed by Pacific Lighting Corporation (PLC) which would be funded on a 90/10 debt/equity ratio. The subsidiary would enter into a cost of service contract with SoCal to advance funds on the security of the promissory notes and homes of the ratepayer borrowers. SFA would receive twenty percent (20%) on equity, justified by SoCal as being the incremental cost of capital.

The staff opposes SFA and proposes instead that the administrative costs of forming, organizing, and operating a separate affiliate, together with the return on equity, be saved for the ratepayers. Staff suggests that SoCal borrow from PLC on open account to fund the loans. Alternatively, staff recommends limiting PLC's return on equity investment in the SFA to SoCal's authorized return on equity—14.6 percent in Decision No. 92497. SoCal's uncontradicted evidence is that its incremental cost of equity capital today is 20 percent.

We accept neither plan, being of the view that loan capital costs, like cash subsidy costs, should be expensed during the demonstration program.

We have not heretofore authorized any 20 percent returns on equity, nor have we determined rates of return by adherence solely to the sparse data utilized in SoCal's testimony on cost of capital.

Further, the loan segment of the program is only $9,120,000, as compared to SoCal's total incentives of $62,544,000. Loan capital will thus account for only 13 percent of total incentives, an insufficient fraction, we think, to justify creating an entirely new and untried financing vehicle.

Additionally, it seems clear that the 6 percent, 20-year loan program will be by far the easiest to persuade participants to accept. A loan for $3,000 will be fully amortized at the rate of $21.48 per month. When it is considered that the solar purchaser will receive $1,650.00 cash by way of tax credits in the first year, the incentive to purchase may well be enhanced. Thus, placement of loans may be better managed over the three-year term of the demonstration program to ameliorate the time differential between the granting of the loans and the four-year credit payments.

While not approving SFA, we do not reduce the $340,000 costs for it, but, rather, allow this sum for initiation of the direct loan program by SoCal in the first year for interest differential in lieu of SoCal's proposed amount of $207,000.

Consumer Protection Measures

In order to facilitate quality installations, SoCal proposes special training programs be held for SoCal field inspectors, contractors, installers, building inspectors, and do-it-yourselfers. SoCal must fund this activity out of the adopted marketing and communication budget set out in Table IV. SoCal will inspect each solar system in the incentive program to determine that it meets the qualifying standards.

D.92251 called for utilities to conduct diagnostic inspections of all installations after one and five years of service. These inspections were envisioned as both consumer protection and evaluations tools. It may be more appropriate to use them for evaluation only and to conduct diagnostic inspections only on a sampling basis.

The role of diagnostic inspections will be considered in upcoming hearings on consumer protection measures in OII 42. Pending resolution of this issue, funds should not be expended to prepare for or conduct diagnostic inspections. After resolution of this issue, new cost estimates for diagnostic inspections should be filed.

Rate Design and Billing Factor

As the solar demonstration program will equally benefit all ratepayers, the cost of this program will be spread on a uniform cents-per-therm basis to all classes of customers except GN-5 and wholesale customers. We have determined earlier that those classes of customers who would be doubly charged for solar programs should be excluded. (D.92501, p. 5, mimeo.)

The gross revenue requirement is applied to annual sales of 6,348,256 M therms to develop an increase in rates of 0.082 cents per therm.

SoCal's proposed establishment of a conservation cost adjustment (CCA) balancing account is reasonable and will be authorized. The preliminary statement portion of its tariff should be amended as required by this decision.

We find that January 1, 1982 is the appropriate first revision date, although SoCal may wish to file for additional rate relief at an earlier time for first year expenses.

Findings of Fact

1. SoCal is entitled to additional revenue as estimated for the year following the effective date of this decision of $5,227,000.

2. The CCA balancing account, as proposed by SoCal and as amended by this decision, is a reasonable balancing account treatment for solar demonstration costs and revenues.

3. Calculation of the solar demonstration programs adjustment billing factor on a uniform basis for all classes of customers, except GN-5 and wholesale, is reasonable as such treatment will reflect the benefit of the program to all customers while ensuring that no class of customers will be charged twice for solar programs.

4. The increased revenues will be credited to the established balancing account; and solar demonstration program expenses shall be debited to the balancing account as they are incurred.

5. Interest will be charged or credited on over- or undercollections in accordance with procedures in place for energy cost balancing accounts.

6. A tariff revision date of January of each year is reasonable.

7. Since SoCal is already incurring the cost offset, this order shall be effective on the date of signature.

Conclusions of Law

1. SoCal should be permitted to file an amended CCA clause in its tariff's preliminary statement conforming with this decision.

2. SoCal should be permitted to recover all reasonable and prudently incurred expenditures associated with the program ordered in OII 42 through its amended CCA clause. First year costs to be recovered should not exceed that adopted in Table III.

3. The increases in rates and charges authorized herein are just and reasonable.

4. SoCal should be authorized to file and place into effect the rates found reasonable by this decision.

ORDER

IT IS ORDERED that on or after the effective date of this order Southern California Gas Company is authorized to file an amended conservation cost adjustment clause, file the revised rate schedules attached as Appendix A, and revise and file its tariffs as provided therein. First year program costs to be recovered shall not exceed $5.227 million. Such filing shall comply with General Order No. 96-A. The effective date of the revised schedules shall be four days after the date of filing. The revised schedules shall apply only to service rendered on or after the effective date thereof.

The effective date of this order is the date hereof.

Dated APR 1 1981, at San Francisco, California.

John E. Bryson
President
Richard D. Gravelle
Leonard M. Grimes, Jr.
Victor Calvo

Commissioners

Commissioner Priscilla C. Grew, being necessarily absent, did not participate in the disposition of this proceeding.

APPENDIX A

Southern California Gas Company

Summary of Adopted Rates

Statement of Rates—Commodity Rates in ¢ per therm.

The rates in all filed Rate Schedules, except G-30, include adjustments listed below. Schedule G-30 rates are revised commensurate with Schedule GN-1.

Type of Service a/	Base Rates b/ Monthly Customer or Capacity Chg.	Commodity Rates	CAM	GEDA	CCA	Effective Commodity Rates
Residential	$ 3.10					
Lifeline		22.850¢	1.607¢	.214¢	.082¢	24.753¢
Non-Lifeline						
First Block		32.478	1.607	.214	.082	34.381
Tail Block		46.307	1.607	.214	.082	48.210
Non-Residential						
GN-1	$ 5.00	32.478	1.607	.214	.082	34.381
GN-2	10.00	32.478	1.607	.214	.082	34.381
GN-32, GN-42	15.00	36.227	1.607	.214	.082	38.130
GN-36, GN-46	15.00	33.227	1.607	.214	.082	35.130
GN-5	100.00	33.227	1.607	.214	-	35.048
Wholesale						
GN-60	$ 269,705	24.428	1.379	.214	-	26.021
GN-61	1,044,416	24.428	1.379	.214	-	26.021

a/ See special provisions in each Rate Schedule.

b/ As of January 1, 1981.

Note: The Gas Margin included in Base Rates is $706,497,000 (includes exchange revenue).