ALJ/ems/bw

ORIGINAL

Decision No. 92166 AUG 19 1980

BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

In the Matter of the Application of SOUTHERN CALIFORNIA EDISON COMPANY for authority to modify its Conservation Load Management Adjustment Clause to include a balancing account and to increase its Conservation Load Management Adjustment Billing Factors to recover increased expenditures made towards the development and testing of conservation and load management programs.	Application No. 59564 (Filed March 31, 1980)

John R. Bury, William E. Marx, Richard K. Durant, by Robert W. Kendall, Attorney at Law, for applicant.
Philip A. Stohr, Attorney at Law, for General Motors Corporation, interested party.
Jasper Williams, Attorney at Law, John Quinley, and Mark Proffer, for the Commission staff.

OPINION

Southern California Edison Company (Edison) requests authority to increase its electric rates to produce a revenue increase of $6.5 million for the calendar year 1980 to offset, on a dollar-for-dollar basis, expenses incurred for additional load management programs designed to reduce the 1980 and 1981 summer peak loads. This increase constitutes less than one percent of Edison's annual revenues.

Edison also requests (1) a balancing account to cover the load management programs authorized in this proceeding and (2) authority to implement three new experimental electric rate schedules for domestic customers as part of the Demand Subscription Service program.

The following tabulation sets forth the proposed programs along with Edison's and staff's estimates of expenditures. The programs are discussed later in this decision.

Estimated 1980 Expenditures

Program	Edison	Staff	Edison Exceeds Staff
	(Dollars in Thousands)		
1. Demand Subscription Service	$1,552.0	$1,552.0	$ 0
2. Accl. Secondary Refrigerator Reduction	943.7	592.7	351.0
3. Accl. Swimming Pool Pump	509.5	509.5	0
4. Commercial/Industrial Energy Audit	1,100.0	1,100.0	0
5. Electric Bill Increase/Conservation Information	1,465.0	0	1,465.0
6. Commercial/Industrial Conservation Hardware (Small Customer)	227.5	227.5	0
7. Residential Cogeneration	600.0	600.0	0
	6,397.7	4,581.7	1,816.0
Additional Program Recommended by Staff			
8. Agricultural Load Management	0	330.0	(330.0)
Total	$6,397.7	$4,911.7	$1,486.0
Revenue Requirement	$6.5 million		$5.0 million

(Red Figure)

Two days of hearings were held in Los Angeles on May 19 and 20, 1980 before Administrative Law Judge Bertram D. Patrick with Edison and the Commission staff each presenting two witnesses. The matter was submitted on June 11, 1980 upon receipt of concurrent briefs.

Summary of Decision

Edison is authorized to increase its revenues by $4.36 million to pay for new programs designed to cut electricity demand during peak use periods. This increase will offset Edison's costs on a dollar-for-dollar basis and will not increase its profit. The objective of these programs is to cut demand for electric power during peak periods in order to reduce the need to build costly new power plants.

The rate increase will allow Edison to set up new programs:

(1) $1.5 million to install devices that will disconnect service if the customer's demand exceeds the level selected by him. The device is to be activated only when Edison is experiencing a capacity shortage. The customer could restore service immediately by reducing load below his limit.

(2) $0.5 million to contact pool owners and encourage them to run their filter pumps only when the demand for electricity is low.

(3) $1.1 million to show large commercial customers how to improve their energy efficiency.

(4) $228,000 to encourage small commercial customers to install more efficient fluorescent lamps and electrical equipment.

(5) $600,000 to establish a demonstration residential cogeneration project for a high density medium size residential complex to test the concept and feasibility of residential cogeneration.

(6) $330,000 to enable SCE to order time-of-use meters for an agricultural load management program.

The increase will allow Edison to recover no more than its costs and is not an increase to its authorized rate of return. All customer classes will have the same average increase of .023 cents per kilowatt-hour; however, for residential usage, the load management adjustment billing factor will reflect the present differential between lifeline and nonlifeline rates. Accordingly, the billing factors for residential lifeline and nonlifeline consumption will be .021 and .028 cents per kilowatt-hour, respectively. The cost of these load management programs will increase a typical residential customer bill for 500 kilowatt-hours by 12 cents per month.

Background

Edison filed this application to offset costs of these additional load management programs for two basic reasons: (1) To attain 1980 and 1981 peak load reductions consistent with overall state energy requirements in furtherance of the objectives recently expressed by this Commission in D.91751 dated May 6, 1980 in OII 43; and (2) to respond to concerns expressed by Commission President Bryson in his January 9, 1980 letter to Edison's President William R. Gould, which in part stated:

> "I am particularly concerned that a maximum emphasis be placed on accelerated load management programs that can impact the 1980 summer peak as well as programs that should be started in 1980 to provide maximum impact on the 1981 peak. I am also aware that acceleration could result in several million dollars of additional expenditures in 1980 by your company. It would appear reasonable for the Commission to consider an offset rate increase to cover these 1980 expenditures."

In order to have the greatest impact upon the 1980 peak load, Edison, relying on President Bryson's letter, initiated some of the programs and funded them through base rates.

Edison's base rates include $20 million for test year 1979 conservation and load management expenditures (D.89711 dated December 12, 1978). The following tabulation shows the 1980 programs funded from base rates and the seven additional programs proposed by Edison in this proceeding.

1980 Conservation/Load Management Program Expenses
Base Level and Accelerated Load Management

Programs	1980 Base Level (12/1/79 Report) Programs	1980 Accelerated Load/Management Programs
Nonresidential Conservation	$ 4,062,254	$
Nonresidential Load Management	298,500	
Cogeneration	241,500	
Residential Conservation	5,150,433	
Residential Load Management	3,219,767	
Solar	157,600	
Public Awareness	2,102,180	
Advertising	1,001,500	
Measurement	935,341	
Management	830,925	
Streetlighting	2,000,000	
Subtotal	20,000,000	
Programs Requested in this Proceeding		
Demand Subscription Service		$ 1,552,000
Accelerated Secondary Refrigerator Reduction		943,700
Accelerated Swimming Pool Pump		509,500
Commercial Expanded Energy Audit		1,100,000
Electric Bill Increase/Conservation-Load Management Information		1,465,000
Commercial/Industrial Conservation-Load Management Hardware (Small Customer)		227,500
Residential Cogeneration		600,000
Total	$20,000,000	$ 6,397,700

Edison estimates that approximately $2.5 million will be spent by July 1, 1980 on the new programs proposed in this application. It states that if no rate relief is authorized in this proceeding to cover the amount spent on the new programs, expenditures on the programs previously authorized will be reduced by a corresponding amount.

The possibility of substituting the new load management programs for some of the programs previously authorized was considered. It is Edison's position, and the staff agrees, that the previously authorized 1980 conservation/load management programs are of higher priority and should not be replaced by any of the new programs proposed in this application.

Edison does not anticipate any unspent funds becoming available in 1980 from the previously authorized programs. It points to 1979 where Edison spent almost $20.5 million as compared to the $20 million allowed for ratemaking purposes.

Edison believes its 1979 conservation/load management program was extremely successful and instrumental in getting through the potential capacity shortage situation during the summer of 1979. Edison estimates 1979 annualized savings of 1.4 billion kilowatt-hours and an annualized peak demand reduction of 334 megawatts.

Mandatory Load Management Standards

On July 8, 1979, the State of California Energy Resources Conservation and Development Commission (CEC) promulgated certain Load Management Standards (standards) applicable to California utilities pursuant to Section 25403.5 of the Public Resources Code. These mandatory standards were enacted to establish cost-effective utility programs to reshape utility load duration curves and to require the utilities to submit a plan for implementation of certain load management programs to the CEC for approval. The standards do not require the utility to implement the programs until the utility's rate-approving body (which in this case is the PUC) authorizes recovery of program costs.

The CEC mandatory standards require Edison to develop the following load management programs:

1. Residential Load Cycling (appliance control of central air conditioners and residential water heaters)
2. Swimming Pool Pumps (swimming pool tripper program)
3. Commercial Audits (periodic energy audits of commercial customers)
4. Load Management Tariffs (marginal cost pricing project)

The 1980 expenses associated with programs 1, 2, and 3, above, are included in base rates except for the required "expansion of the large customer" portion of the Commercial Audit Load Management Standard and the "commercial conservation/load management hardware" program that was included in Edison's July 8, 1980 filing with the CEC in compliance with the small customer portion of the Commercial Audit Standard.

We emphasize that close scrutiny must be given to these programs for cost-effectiveness before we authorize recovery of the costs in rates. Given the current high level of energy bills, we cannot in good conscience ask the ratepayer to bear the expense of programs which are not cost-effective.

CEC Approved Programs Included
In This Rate Offset Proceeding

The Commercial Industrial Energy Audit Program Expansion (Prog. 4) included in this offset proceeding is a direct requirement of the CEC standards. In addition, there are three programs which supplement Edison's existing programs that are direct requirements of the CEC standards. The three programs are:

(Prog. 1) Demand Subscription Service

(Prog. 3) Accelerated Swimming Pool Pump Program

(Prog. 6) Commercial/Industrial Conservation-Load Management Hardware (small customers)

The latter program (Prog. 6) is currently being reviewed by the CEC as part of Edison's small commercial audit plan and, if approved, will become a direct requirement of the CEC standards.

Based on the above, the programs that are not directly related to the CEC standards are:

(Prog. 2) Accelerated Secondary Refrigerator Reduction

(Prog. 5) Electric Bill Increase/Conservation-Load Management Information Program

(Prog. 7) Residential Cogeneration

(Prog. 8) Staff-recommended program - Agricultural Load Management

The record is clear that the staff of this Commission has urged SCE to accelerate its load management, conservation and cogeneration efforts, both as to existing and new programs. SCE's response, with the support of our staff, has been the efforts described in this application under programs 1,2,3,4,6,7 and 8.

1. <u>Demand Subscription Service</u>

Demand Subscription Service will allow the customer to choose the level of service which will satisfy his comfort needs during critical system peak periods. The level selected will determine the customer monthly billing reduction. A demand-limiting device will be installed at the customer's service point that will disconnect the customer's service if two conditions are satisfied simultaneously. First, the preselected demand limit which is built into the device will have to be exceeded by the customer and, second, Edison will also have to activate the device during a capacity shortage condition. Once disconnected, the customer can reduce his load below his limit and manually reset the device. This would restore his service, even though the capacity shortage still existed.

This program is designed to test and evaluate factors relating to the limiting of demand during specific time frames (normally during system peak periods) for individual residential customers. The areas to be analyzed include: (1) customer acceptance of this type of load management, (2) demand reduction, (3) equipment reliability, and (4) the cost/benefits to Edison and to the customer. These aspects will be evaluated through stratification of the sample group by weather zones. Further refinement within these areas will include evaluating the customer response to frequency of device activation, duration of each period of activation, and rate incentive levels.

In order to test the effectiveness of this concept, Edison proposes to provide demand subscription service to 2,000 new domestic customers. These customers will receive a price incentive under proposed experimental Schedules Nos. DSS-1, DSS-2, and DSS-3, Experimental Demand Subscription Service Test, Domestic Service, contained in Appendix A.

Edison is currently beginning implementation of this new test program so that at least some test results can be obtained during the summer of 1980.

Staff recommends approval of the demand subscription as proposed.

Staff witness David H. Weiss recommends that Edison conduct a simple study to determine the customer acceptance and technical feasibility of a nonradio-controlled Demand Subscription Service program with the use of controls to shut off appliances before disconnecting service. Edison witness David Ned Smith estimated that the manual Demand Subscription Service program would be 20 percent cheaper than the radio-controlled program. He agreed that the fact that the manual program would not require transmitters would further reduce the cost of the manual program. Under staff's proposal, the limit would be in operation all year rather than for the limited time when Edison would operate the device during a capacity shortage. However, Mr. Smith suggested that because of this factor participants might subscribe to a higher maximum limit than under the radio-controlled program, thereby reducing the demand reduction. Edison should examine staff's proposal further.

While we note that demand subscription service is still in the experimental stage, we agree with Edison's witness that this is an extremely important concept and it should be tested.

We will adopt $1,552,000 as a reasonable level for 1980 expenditures for the Demand Subscription Service program.

2. Accelerated Secondary Refrigerator Reduction

The Accelerated Secondary Refrigerator Reduction program is designed to remove second refrigerator/freezer equipment from homes and provide that only energy efficient equipment is returned to the marketplace, and then only as primary units. The objective of this program is to reduce annual energy consumption by approximately 4 million kWh and permanently remove load from Edison's system included at the time of the system peak. Under this program, Edison's domestic metered customers will be offered, through a direct mailer or bill insert, a cash incentive to give up operable second and third refrigerators that are a minimum of 10 cubic feet in size. Acquisition of 6,000 qualifying units will be subcontracted to appliance dealers who will pick up the units, pay the customer incentive, and report details to Edison. The contractors will dismantle frost-free units and recycle manual defrost units. Upon completion of the transaction, the contractor will forward to Edison copies of the signed certification and recycle forms that indicate utilization of recycled units.

Staff witness Barnhardt recommends that this program be reduced from $943,700 to $592,700; Edison witness Smith recommends that it be reduced to $612,700.

Witness Smith's prepared testimony states that preliminary results from a limited pretest indicate that the program could become marginally cost-effective only if the fixed costs could be spread over a large number of units. Under cross-examination he stated that there is also a possibility that, if the program were expanded to handle more than the 6,000 units proposed, "these would be some reduction of cost, but it would be very, very minor."

We note that the reductions in program expense proposed by Edison and staff were made in order to present the program as favorably as possible from the cost-effectiveness viewpoint. While we concede that this program is innovative and we certainly do not intend to stifle Edison and our staff in the development of new ideas, we believe that the capacity shortage situation has not yet reached the point that we must embark on programs, experimental or otherwise, when there is no clear prospect of the program being cost-effective. Accordingly, expenses for this program should not be authorized.

3. Accelerated Swimming Pool Pump Program

Edison's Accelerated Swimming Pool Pump program is designed to shift pool pumping to off-peak times and to reduce pumping hours. This is accomplished by resetting pump/cleaner time clocks so that the pump is activated during off-peak periods and operates for fewer hours.

This program will entail personal contacts in 1980 with 86,240 identified pool owners who have not responded to previous contacts. If 50 percent of these individuals become participants in 1980, it would shift about 90 megawatts off peak and reduce pumping by approximately 39 million kilowatt-hours annualized.

Both Edison and staff agree that this program is cost-effective. Staff also agrees with Edison's cost estimate for this program. Direct contact with pool owners who have not responded to mailers is necessary. Accordingly, we will adopt $509,500 as a reasonable level for 1980 expenditures for this program.

4. Commercial/Industrial Energy Audit Program Expansion

The objective of this program is to augment Edison's existing energy audit program which covers large commercial customers (as defined by CEC) in order to achieve a 10 percent improvement in energy efficiency. The anticipated improvement would result in an annual reduction of 500 million kilowatt-hours and shift some load to off peak for the approximate 850 commercial customers. To accomplish this, Edison will establish technical audit teams in each of its five Customer Service Divisions. The technical audit teams will work together with the Edison field representative presently assigned the responsibility of providing energy conservation suggestions to the customer. The technical audit teams will be responsible for reviewing customer end use equipment, preparing an in-depth energy survey report for each of the 850 customers, and providing an estimate of the potential dollars and energy savings resulting from customer actions. Additionally, Edison will contract with licensed professional engineers to provide feasibility studies where appropriate. These studies will assess the costs and savings to the customer.

Edison witness Smith testified that this program is cost-effective. Staff witness Barnhardt recommended approval of the program as proposed with the proviso that Edison make monthly reports on the progress and acceptance of the $600,000 incentive part of the program. We will require Edison and staff to work out a suitable reporting arrangement.

We note this program is necessary in order to meet the requirements outlined by the CEC in its Load Management Nonresidential Standard. Specifically, this accelerated program is required to achieve the 10 percent improvement goal by 1982 with a base year of 1979 established by the CEC for customers covered by the standard. Accordingly, we will adopt $1,100,000 as a reasonable level for 1980 expenditures for this program.

5. Electric Bill Increase/Conservation-Load Management Information Program

During the early part of 1980, Edison commenced an Electric Bill Increase/Conservation-Load Management Information program directed at informing customers of circumstances which affect their electric service, including the potential summer capacity situation investigated in OII 43, and advising them of ways to minimize the impact through implementing various conservation/load management actions.

This program forewarns customers that rising OPEC oil prices will definitely and sharply increase their 1980 electric bills. The customers are urged to "join the conservation generation" and shift their time of use to nonpeak hours by "giving their appliances the afternoon off." During the summer months, particular emphasis is placed on the potential capacity shortage situation and actions which customers are requested and expected to take. Sound application of conservation and load management concepts and budgeting of energy dollars are emphasized as two of the most effective ways of fighting rising costs. Customers are urged to take advantage of Edison's 70 conservation and load management programs. By June 1, 1980, the full amount of $1.465 million requested for this program had been expended and the program was completed.

Both staff witnesses recommend disallowance of the $1,465,000 request for the Electric Bill Increase/Conservation-Load Management Information program.

The staff witnesses explained that the advertising is rate related and therefore should be treated in the general rate case. While agreeing that parts of the advertisements refer to conservation, Mr. Barnhardt stressed that the major thrust of the campaign is the rate-related message--"because of OPEC, utility rates will increase"--and since this proceeding involves a conservation increase, this rate item should not be allowed.

Edison's position is that the need for the information program was pointed out to Edison as well as to the other major utilities in California in the fall of 1979 by various Commissioners following the large oil price increases and the even larger projected Energy Cost Adjustment Clause (ECAC) increases. In this regard, President Bryson issued several press releases warning of the expected price increases and all California utilities were urged to advise their customers of impending price increases. It was shortly after this time when Edison embarked on its information program to forewarn its customers of the expected increases.

This information program was implemented early in 1980 and scheduled for completion by July 1, 1980, so that Edison's customers would receive the vast majority of these messages prior to the large ECAC increase which was effective on May 20, 1980. Edison has already made the expenditures for this program and completed the program, prior to our authorization of a load management balancing account. Consistent with our conclusions in Decision No. 92025 in San Diego Gas & Electric Company's Application No. 59350, we conclude in this decision that a balancing account cannot be established retroactively and we will not permit expenditures incurred prior to our authorization of a balancing account to be included in it. Accordingly, we will not authorize recovery of the $1,465,000 requested for this program.

6. Commercial/Industrial Conservation-Load Management Hardware (Small Customers)

This program is designed to accelerate the acceptance and installation of conservation/load management devices such as: "reduced wattage" fluorescent lamps, time clocks, photocells, demand defrost controllers, HVAC microprocessors, and insulation in the commercial/industrial marketplace.

In order to accomplish this objective, Edison's Energy Services personnel will offer dollar incentives to help offset the cost of conservation/load management hardware to these customers. Each offer will be limited to a percentage of the device and installation or a predetermined dollar rebate per device. Additionally, a 45-day limit will be placed on the time in which the hardware can be installed. This time limitation will encourage the customer to take immediate action. An incentive limit from $100 to $400 per metered facility will be established. The actual maximum dollar value up to $400 will be determined based upon kilowatt demand reduction/shift, kilowatt-hour savings, and the types of hardware purchased and installed.

Edison witness Smith testified that this program will supplement its Commercial Industrial and Public Authority Energy Audit-Small (20-200 kilowatts) program which does not contain monetary incentives. He estimates that an annualized energy reduction of 13,000,000 kilowatt-hours and a demand reduction of 3,645 kilowatts will be realized. He stated that while this program is less cost-effective than Edison's base program due to the cost of the incentives being offered, nevertheless, when compared to the cost of a kilowatt-hour produced from oil-fired generation, the program is cost-effective.

We agree that this is a worthwhile experimental program since it will increase the ability of the small commercial customer to actively participate in energy conservation efforts and facilitate measurement of consumer response to various types of conservation and load-management devices. Accordingly, we adopt, as reasonable, expenditures of $227,500 for the 1980 program.

7. Residential Cogeneration

The objective of this program is to gain experience and operating knowledge about the economics of installing a cogeneration system in a high density residential complex. The project will involve the installation of a cogeneration system designed to provide domestic hot water and space conditioning for a medium size (approximately 100 units) apartment complex. The domestic hot water and space conditioning is achieved by recovering heat energy from the exhaust gases of multiple natural gasfired internal combustion engine-generator sets. The electrical energy produced will be fed into Edison's distribution system.

Although the staff presented no testimony on this program, the Conservation Branch recommends approval. Edison's current total estimated hardware costs are $900,000. Edison witness Smith testified that, in addition to the $800,000 of costs detailed in Exhibit 12, the utility will spend $50,000 for the cogeneration equipment room and $50,000 for modifications to the apartment complex. Applicant requests $600,000 in funding to implement this program. This additional amount, together with the funds requested in the 1981 test year proceeding ($275,000) should be sufficient to implement this project on a timely basis.

Staff recommends that the utility take stringent measures to monitor and control project expenses. It recommends that Edison closely supervise and monitor the program's progress and expenses to insure that expenses do not get out of hand. Further, to meet this goal, it recommends that the utility make quarterly reports on the program's progress and expenses to the Commission; the staff will supplement these reports with periodic field investigations. Finally, staff recommends continuance of the Edison and staff monitoring and reporting after the project is completed in order to insure the reasonableness of maintenance and operation expenses.

Staff believes cost control measures are necessary since some of Edison's cost estimates are not firm. For example, the utility will be responsible for the plant's operating and maintenance expenses for the 20-to 30-year projected life of the plant; but it has no estimates of what these costs will be. Edison witness Smith testified that the utility expects to determine over the next several months what these costs will be. Also, over the next few months, the contractor and Edison will negotiate the utility's liability in the event that the project causes construction delays or that the project is unsuccessful and must be removed and replaced with conventional facilities. Staff's monitoring recommendations are designed to prevent the incurrence of unreasonable expenses and cost overruns.

When this project was evaluated in 1978,[1/] Edison's consultant concluded:

> "The economic attractiveness of residential co-generation systems greatly depends on the value assumed for the electric power generated. Co-generation systems which generate the greatest amount of electric energy have the highest return on investment and pay back the initial investment in the shortest time period."

In this proceeding, Edison witness Smith testified that, "... since then, however, the cost of electricity has increased more rapidly than was anticipated over two years ago at the time the study was done, and I would now say that I think there is a much better chance that this project will be cost-effective... I would say that whether it's cost-effective or not is one of the things the study is going to determine."

1/ TERA Corporation - Evaluation of Residential Cogeneration Systems, dated December 15, 1978, page I-3.

The staff believes that this test program is a viable project worthy of implementation and capable of proving a concept which may well benefit consumers in terms of providing heat and power with the substantial side benefit of not requiring the utility to add new generating capacity. Additionally, power can be provided to Edison's grid from this project when needed to help relieve peak demand on its system.

Accordingly, we will authorize $600,000 to cover the calendar year 1980 expenditures for the Residential Cogeneration demonstration project. However, we concur with the reservations raised in the staff brief concerning the necessity of cost control measures. Therefore, we will require Edison to report quarterly on the status of the program's progress and expenses. We also expect that our staff will make periodic field investigation to monitor the program's progress and to reduce as much as possible any delays in implementing this test program.

8. <u>Staff Recommended Program - Agricultural Load Management</u>

As part of the general rate case covering test years 1981 and 1982, staff is recommending that Edison offer an alternate rate schedule based on Pacific Gas and Electric Company's PA-2x rate schedule for agricultural customers. The total cost of the program is $2.5 million. In this proceeding staff is requesting that expenditures of $330,000 be allowed in 1980 so that Edison can order the necessary meters. Staff cites long delays in delivery of the meters from the manufacturers and states that, if the meters are not ordered in 1980, they may not be installed in time for the 1981 peak.

Because of the need to achieve peak load reduction in the summer of 1981, the purchase of $330,000 worth of meters is approved. While we recognize Edison's concern that final approval of this agricultural load management program will occur in its general rate case, the Commission's commitment to the reduction of agricultural summer peak loads is clear.

A similar program was authorized PG&E in its last general rate case. The Commission is a recipient of a grant from the U. S. Department of Energy to implement agricultural load management with PG&E and SCE at the level proposed in this application. SCE is an active member of the Agricultural Committee established by the staff to oversee load management activities.

The staff witness indicated that $300,000 of the $330,000 authorized herein would be in lieu of the $1,000,000 in expenses recommended over two years in general rate case - the sum of $150,000 would therefore be deducted from the $500,000 recommended for Test Year 1981.

Balancing Account

Edison requests authority to establish a balancing account effective June 1, 1980 in conjunction with the offset relief requested in this proceeding.

A balancing account will provide a mechanism whereby Edison is compensated for its expenditures, but no more or no less than actual program costs. Accordingly, we will approve Edison's request for a balancing account.

In D.92024 dated July 15, 1980 covering San Diego Gas & Electric Company's accelerated load management programs, we stated that a balancing account cannot be established retroactively, since it would constitute retroactive rate-making. Accordingly, the balancing account should be established the date the following order is effective.

A final accounting of the balancing account should be furnished the staff by June 30, 1981 following termination of the load management adjustment rate authorized in this proceeding, which is to remain in effect through December 31, 1980. The balancing account will cover the rate offset granted in this proceeding only and will not be applicable to programs authorized in base rates. There will be a ceiling on the balancing account and Edison will not be allowed to recover any more than the total dollars authorized in the following order. Expenses for load management programs incurred prior to the effective date of this order may not be included in the balancing account.

Edison will be required to include in its final accounting report covering 1980 expenditures an analysis of amounts expended on these programs prior to the establishment of the balancing account and an analysis of all other conservation and load management expenditures for the year 1980. ~~Edison is not authorized to divert funds from other conservation programs to offset the costs of these programs.~~ MJD

Conservation Load Management Adjustment Clause (CLMAC)

The CLMAC factor authorized by this decision will be additive to the factor previously authorized for the Energy Economizer program.

The current CLMAC factor of 0.003 cents per kilowatt-hour for nonlifeline sales was authorized by D.91126 dated December 18, 1979. It covers the cost of one experimental program--development of the Energy Economizer. The Energy Economizer is a meter which gives a direct readout of the amount of the customer's bill in dollars and cents. Revenues generated by this CLMAC factor offset the cost of purchasing meters, engineering, installation, testing, and evaluation. Edison is required to separately account for the revenues collected and expenditures for this program.

D.92029 dated July 15, 1980 authorized Edison to continue charging .003 cents per kilowatt-hour on nonlifeline sales until it collects an additional $500,000 for the Energy Economizer program. In no event is this collection to continue past December 31, 1980.

The new CLMAC factor authorized by this decision will remain in effect through December 31, 1980 and is intended to cover 1980 expenditures for the programs authorized. Rates for 1981 and 1982 expenditures for the programs authorized will be determined in Edison's general rate case proceeding, which is currently in progress.

Edison is placed on notice that it will be held accountable for the expenditures authorized in this proceeding. This increase will be made subject to refund so that if Edison spends less than the amount allowed or if Edison collects more than the amount allowed, the difference will be refunded to Edison's ratepayers. Edison will not be granted additional funds if it exceeds the total expenditures allowed for base rate programs and those authorized herein.

Position of General Motors

The issue is whether this increase in rates should be spread uniformly among all customer classes.

During his opening argument, Philip Stohr, counsel for General Motors, expressed a concern that the benefits and burdens of the programs contained in Edison's application should be addressed. He further stated that the burden of making a showing on this question should rest with the applicant and that the determination should consider the unique characteristics of each of the conservation programs instead of forming a simple conclusion that all ratepayers benefit.

Edison points out that there are two different types of benefits that result from the programs contained in the application. First, there are the direct benefits of the individual programs which are stated in terms of kilowatt-hour and megawatt savings that are reflected on the electric bill. In Reference Item E, Edison calculated the anticipated savings in kilowatt-hours and megawatts that each of the programs are expected to produce during 1980 where such savings can be calculated. Even though these savings are not broken down by customer groups, the data presented does demonstrate that all customer groups can potentially receive some benefits from these programs.

The second and more important benefit of these programs was well stated by Edison witness Lester as follows:

> "I believe that yesterday, as well as today, Mr. Smith has indicated that for each of the seven programs that we're requesting authorization for in this proceeding, there are both energy and capacity savings associated with those programs. And that the capacity savings and energy savings through the rate-making process are in fact passed on to all of our various customer groups, namely, the savings in energy costs are passed through to our various customer groups through the operation of the company's energy cost adjustment clause by a reduction in total oil requirements.
>
> "With respect to the capacity savings that may ultimately occur as a result of these programs, those savings will be reflected to the ratepayers through our general rate proceedings in that the company will not have to construct the capacity associated with those savings, therefore, the ratepayers will not be in a position to have to pay for any such capacity."

Edison concludes from the foregoing discussion that since the benefits of these programs are shared by all customer classes, the burdens of these programs should also be shared by all customer classes. Consequently, Edison recommends that the revenue increase approved by the Commission should be spread among all customer classes. We agree.

Conservation Load Management
Adjustment Billing Factor Rate

We believe all customer classes should share equally in the cost of load management programs since the objective is to reduce the need to construct expensive new power plants. Therefore, load management expenditures should be recovered on a uniform cents per kilowatt-hour basis. However, in order to maintain the present differential between lifeline and nonlifeline rates within the residential class, we will provide for a lower lifeline and a higher nonlifeline load management adjustment factor. The authorized factors for the residential class should provide a revenue increase which will assign to the residential class the same cents per kilowatt-hour increase as authorized for all other customer classes.

Findings of Fact

1. The new conservation/load management programs authorized herein are necessary to help reduce the summer 1980 and future peaks.

2. The revenue increase authorized herein is intended to cover the costs incurred in 1980 on these programs.

3. These programs are currently being charged to Edison's conservation/load management account funded through base rates. Such accounting treatment is reasonable.

4. The revenue increase authorized herein for new programs is additive to the amount allowed in base rates.

5. Reasonable levels of expenditure for the approved load management programs for the year 1980 are:

Program	Amount (Dollars in Thousands)
Demand Subscription Service	$1,552.0
Accelerated Swimming Pool Pump	509.5
Commercial Expanded Energy Audit	1,100.0
Commercial/Industrial Conservation-Load Management Hardware (Small Customer)	227.5
Residential Cogeneration	600.0
Agricultural Load Management	330.0
Total	$4,319.0

6. The objective of these load management programs is to reduce system peak loads and thereby reduce the need to construct expensive new power plants. Since these objectives benefit all customer classes, costs of the programs should be shared on a uniform cents per kilowatt-hour basis for all classes.

7. In order to maintain the present relationship between lifeline and nonlifeline residential customer rates, separate load management billing factors for lifeline and nonlifeline usage should be applied, which in effect should assign to the residential class the same cents per kilowatt-hour increase as authorized for all other customer classes.

8. The revenue requirement to recover the authorized expenditures for 1980 is $4.36 million and the load management adjustment billing factors to recover these revenues during the remainder of the 1980 calendar year (four months) are:

Residential Lifeline	0.019 cents per kilowatt-hour
Residential Nonlifeline	0.028 cents per kilowatt-hour
Other Classes	0.023 cents per kilowatt-hour

9. The above load management adjustment billing factors should be effective through December 31, 1980 and will terminate after that date.

10. Edison should be authorized to establish a load management balancing account, effective the date of this order, to record expenditures on and after that date. Such an account will protect the ratepayer by ensuring that authorized funds are spent on the programs and will allow full reimbursement to the company for reasonable expenditures made after the effective date of this order.

11. The increase should be made subject to refund so that if Edison actually expends less than the revenue increase authorized, for the stated purposes, or if Edison collects more than this amount, the difference can be refunded to Edison's ratepayers.

12. Edison should furnish the staff with a full accounting by June 30, 1981 of the balancing account and of all other conservation and load management expenditures during 1980.

13. Edison should be allowed to file new rate Schedules Nos. DSS-1, DSS-2, and DSS-3 contained in Appendix A, attached hereto.

Conclusions of Law

1. The application should be granted to the extent provided by the following order; the adopted rates are just, reasonable, and nondiscriminatory.

2. The following order should be effective the date of signature because Edison is now incurring the expenditures which the revised rates are to cover.

O R D E R

IT IS ORDERED that:

1. Within five days after the effective date of this order, Southern California Edison Company (Edison) is authorized to file revised tariffs and preliminary statement to reflect the load management adjustment factors listed in Finding 8, and to file new rate Schedules Nos. DSS-1, DSS-2, and DSS-3 contained in Appendix A, attached hereto. The revised tariffs shall be filed in conformance with General Order No. 96-A, to be effective three days after filing. Based on estimated sales for the four months September through December 1980, the factors listed in Finding 8 will permit recovery of $4.36 million in revenues. The rates authorized by this order shall be collected subject to refund.

2. The load management adjustment billing factors are authorized herein to record expenditures made after the date of this order and shall be effective through December 31, 1980. These billing factors shall terminate after that date.

3. Edison is hereby directed to file quarterly reports on the progress of and expenses for the implementation of its residential cogeneration project. These quarterly reports shall be filed within 30 days after the end of each calendar quarter. The first such progress report will be due on or before October 31, 1980 for the quarter ending September 30, 1980.

4. Edison shall furnish the staff with a full accounting of the balancing account by June 30, 1981 and show amounts spent for all conservation and load management programs during 1980 in relation to amounts allowed in ratemaking for these programs. Unspent allowances authorized by this order are refundable to Edison's customers. Appropriate reductions shall be made in any future rate relief to offset unspent allowances for these programs.

The effective date of this order is the date hereof.

Dated AUG 19 1980, at San Francisco, California.

President

I abstain
Vernon L. Sturgeon

Commissioners

Commissioner Richard D. Gravelle, being necessarily absent, did not participate in the disposition of this proceeding.

SOUTHERN CALIFORNIA EDISON COMPANY
2244 Walnut Grove Avenue
Rosemead, California 91770

Cal. P.U.C. Sheet No.

Cancelling Cal. P.U.C. Sheet No.

Experimental Schedule No. DSS-1

DEMAND SUBSCRIPTION SERVICE TEST
DOMESTIC SERVICE

APPLICABILITY

Applicable to single-family domestic service where the customer has been selected by the Company to participate in the Demand Subscription Service (DSS) Test. This schedule is limited to 666 customers in newly-constructed residences which are separately metered by the Company, and who accept service other than nonrestricted service.

TERRITORY

Within portions of Company's Covina, Fullerton, Ontario and San Joaquin Valley Districts, as defined on the effective date of this schedule.

RATES

The rates, as applicable under a regularly-filed schedule for the type of service provided and customer location, shall prevail during the Period of Test. Where customer elects Schedule No. DSS-1, the customer's bills shall be reduced by an amount based upon the kW Level and Customer Type shown below:

kW Level	Customer Type A	Customer Type B	Customer Type C
*	None	None	None
12	$ 1.00	None	None
8	2.00	$ 1.00	None
6	4.00	2.00	$1.00
4	6.00	4.00	2.00
2	8.00	6.00	4.00
1	10.00	8.00	6.00
0	12.00	10.00	8.00

* Nonrestricted Service

Minimum Charge: The monthly minimum charge shall be the monthly Customer Charge under the regularly filed schedule for the type of service provided and customer location. The amount of DSS credit shall not be greater than the total charges for kWh usage on customer's bill.

(Continued)

SOUTHERN CALIFORNIA EDISON COMPANY
2244 Walnut Grove Avenue
Rosemead, California 91770

Cal. P.U.C. Sheet No. ______

Cancelling ______ Cal. P.U.C. Sheet No. ______

Experimental Schedule No. DSS-1

DEMAND SUBSCRIPTION SERVICE TEST
DOMESTIC SERVICE
(Continued)

SPECIAL CONDITIONS

1. Nature of Test: The test to be performed under this schedule shall involve the installation of a Company activated control device at the customer's residence which shall disconnect the customer's entire electric service if the customer's demand, measured in units of kilowatts, exceeds the customer's pre-selected Demand Subscription Service (DSS) level during a demand limiting period. The Company shall activate the device by remote control at various times for test purposes or when electric system conditions necessitate load limitations. At such times, customer shall have responsibility to maintain demand below DSS level in order to return electric service. Reclosure of DSS device to restore service shall be done manually by customer or remotely by Company at the end of such demand limiting periods.

2. Period of Test: The test period at an individual residence shall be limited to three years from date of installation of control device to date of removal or July 1, 1983, whichever is earlier.

3. Customer Selection: Customers shall be selected only when the Company and customer agree that the customer's electric load shall be subject to disconnection from the Company's service by Company through load limiting automatic control devices.

4. Customer Types:

Customer Type A: A customer having electric central air conditioning and electric cooking (range and oven).

Customer Type B: A customer having electric central air conditioning.

Customer Type C: All other customers.

5. Control Device: The Company, at its own expense, shall furnish, install, own, operate, and maintain the DSS control device at each residence.

(Continued)

(To be inserted by utility) | Issued by | (To be inserted by Cal. P.U.C.)

Advice Letter No. ______

Edward A. Myers, Jr.
Name

Date Filed ______

Decision No. ______

Effective ______

Vice President

Resolution No. ______

SOUTHERN CALIFORNIA EDISON COMPANY
2244 Walnut Grove Avenue
Rosemead, California 91770

Cal. P.U.C. Sheet No.

Cancelling Cal. P.U.C. Sheet No.

Experimental Schedule No. DSS-1

DEMAND SUBSCRIPTION SERVICE TEST
DOMESTIC SERVICE
(Continued)

SPECIAL CONDITIONS (Continued)

6. Control Device Change: At customer request, Company shall change the DSS level as follows:

a. Change to less restrictive DSS level. Customer shall be charged a service fee of $5.00 and a penalty fee equal to the differential between the credit at the former level and the credit at the new level, times the number of months at the former level. This penalty provision shall not apply if customer was at former level for twelve (12) consecutive months or longer.

b. Change to more restrictive DSS level. No charge to customer.

(To be inserted by utility) | Issued by | (To be inserted by Cal. P.U.C.)

Advice Letter No. | Edward A. Myers, Jr. Name | Date Filed

Decision No. | | Effective

| Vice President Title | Resolution No.

SOUTHERN CALIFORNIA EDISON COMPANY
2244 Walnut Grove Avenue
Rosemead, California 91770

Cal. P.U.C. Sheet No.

Cancelling Cal. P.U.C. Sheet No.

Experimental Schedule No. DSS-2

DEMAND SUBSCRIPTION SERVICE TEST
DOMESTIC SERVICE

APPLICABILITY

Applicable to single-family domestic service where the customer has been selected by the Company to participate in the Demand Subscription Service (DSS) Test. This schedule is limited to 666 customers in newly-constructed residences which are separately metered by the Company, and who accept service other than nonrestricted service.

TERRITORY

Within portions of Company's Covina, Fullerton, Ontario and San Joaquin Valley Districts,as defined on the effective date of this schedule.

RATES

The rates, as applicable under a regularly filed schedule for the type of service provided and customer location, shall prevail during the Period of Test. Where customer elects Schedule No. DSS-2, the customer's bills shall be reduced by an amount based upon the kW Level and Customer Type shown below:

kW Level	Customer Type A	Customer Type B	Customer Type C
*	None	None	None
12	$ 1.50	None	None
8	3.00	$ 1.50	None
6	6.00	3.00	$ 1.50
4	9.00	6.00	3.00
2	12.00	9.00	6.00
1	15.00	12.00	9.00
0	18.00	15.00	12.00

* Nonrestricted Service

Minimum Charge: The monthly minimum charge shall be the monthly Customer Charge under the regularly filed schedule for the type of service provided and customer location. The amount of DSS credit shall not be greater than the total charges for kWh usage on customer's bill.

(Continued)

SOUTHERN CALIFORNIA EDISON COMPANY
2244 Walnut Grove Avenue
Rosemead, California 91770

Cal. P.U.C. Sheet No.

Cancelling Cal. P.U.C. Sheet No.

Experimental Schedule No. DSS-2

DEMAND SUBSCRIPTION SERVICE TEST
DOMESTIC SERVICE
(Continued)

SPECIAL CONDITIONS

1. Nature of Test: The test to be performed under this schedule shall involve the installation of a Company activated control device at the customer's residence which shall disconnect the customer's entire electric service if the customer's demand, measured in units of kilowatts, exceeds the customer's preselected Demand Subscription Service (DSS) level during a demand limiting period. The Company shall activate the device by remote control at various times for test purposes or when electric system conditions necessitate load limitations. At such times, customer shall have responsibility to maintain demand below DSS level in order to return electric service. Reclosure of DSS device to restore service shall be done manually by customer or remotely by Company at the end of such demand limiting periods.

2. Period of Test: The test period at an individual residence shall be limited to three years from date of installation of control device to date of removal or July 1, 1983, whichever is earlier.

3. Customer Selection: Customers shall be selected only when the Company and customer agree that the customer's electric load shall be subject to disconnection from the Company's service by Company through load limiting automatic control devices.

4. Customer Types:

Customer Type A: A customer having electric central air conditioning and electric cooking (range and oven).

Customer Type B: A customer having electric central air conditioning.

Customer Type C: All other customers.

5. Control Device: The Company, at its own expense, shall furnish, install, own, operate, and maintain the DSS control device at each residence.

(Continued)

A.59564

SOUTHERN CALIFORNIA EDISON COMPANY
2244 Walnut Grove Avenue
Rosemead, California 91770

APPENDIX A

_______ Cal. P.U.C. Sheet No. _______

Cancelling _______ Cal. P.U.C. Sheet No. _______

Experimental Schedule No. DSS-2

DEMAND SUBSCRIPTION SERVICE TEST
DOMESTIC SERVICE
(Continued)

SPECIAL CONDITIONS (Continued)

6. Control Device Change: At customer request, Company shall change the DSS level as follows:

a. Change to less restrictive DSS level. Customer shall be charged a service fee of $5.00 and a penalty fee equal to the differential between the credit at the former level and the credit at the new level, times the number of months at the former level. This penalty provision shall not apply if customer was at former level for twelve (12) consecutive months or longer.

b. Change to more restrictive DSS level. No charge to customer.

(To be inserted by utility) Advice Letter No. _______

Decision No. _______

Issued by
Edward A. Myers, Jr.
Name

(To be inserted by Cal. P.U.C.) Date Filed _______

Effective _______

A.59564

SOUTHERN CALIFORNIA EDISON COMPANY
2244 Walnut Grove Avenue
Rosemead, California 91770

Cal. P.U.C. Sheet No.

Cancelling Cal. P.U.C. Sheet No.

Experimental Schedule No. DSS-3

DEMAND SUBSCRIPTION SERVICE TEST
DOMESTIC SERVICE

APPLICABILITY

Applicable to single-family domestic service where the customer has been selected by the Company to participate in the Demand Subscription Service (DSS) Test. This schedule is limited to 666 customers in newly-constructed residences which are separately metered by the Company, and who accept service other than nonrestricted service.

TERRITORY

Within portions of Company's Covina, Fullerton, Ontario and San Joaquin Valley Districts, as defined on the effective date of this schedule.

RATES

The rates, as applicable under a regularly filed schedule for the type of service provided and customer location, shall prevail during the Period of Test. Where customer elects Schedule No. DSS-3, the customer's bills shall be reduced by an amount based upon the kW Level and Customer Type shown below:

kW Level	Customer Type A	Customer Type B	Customer Type C
*	None	None	None
12	$ 2.00	None	None
8	4.00	$ 2.00	None
6	8.00	4.00	$ 2.00
4	12.00	8.00	4.00
2	16.00	12.00	8.00
1	20.00	16.00	12.00
0	24.00	20.00	16.00

* Nonrestricted Service

Minimum Charge: The monthly minimum charge shall be the monthly Customer Charge under the regularly filed schedule for the type of service provided and customer location. The amount of DSS credit shall not be greater than the total charges for kWh usage on customer's bill.

(Continued)

(To be inserted by utility)

Advice Letter No.

Decision No.

Issued by

Edward A. Myers, Jr.
Name

(To be inserted by Cal. P.U.C.)

Date Filed

Effective

A.59564

APPENDIX A

SOUTHERN CALIFORNIA EDISON COMPANY
2244 Walnut Grove Avenue
Rosemead, California 91770

Cal. P.U.C. Sheet No.

Cancelling Cal. P.U.C. Sheet No.

Experimental Schedule No. DSS-3

DEMAND SUBSCRIPTION SERVICE TEST
DOMESTIC SERVICE
(Continued)

SPECIAL CONDITIONS

1. Nature of Test: The test to be performed under this schedule shall involve the installation of a Company activated control device at the customer's residence which shall disconnect the customer's entire electric service if the customer's demand, measured in units of kilowatts, exceeds the customer's preselected Demand Subscription Service (DSS) level during a demand limiting period. The Company shall activate the device by remote control at various times for test purposes or when electric system conditions necessitate load limitations. At such times, customer shall have responsibility to maintain demand below DSS level in order to return electric service. Reclosure of DSS device to restore service shall be done manually by customer or remotely by Company at the end of such demand limiting periods.

2. Period of Test: The test period at an individual residence shall be limited to three years from date of installation of control device to date of removal or July 1, 1983, whichever is earlier.

3. Customer Selection: Customers shall be selected only when the Company and customer agree that the customer's electric load shall be subject to disconnection from the Company's service by Company through load limiting automatic control devices.

4. Customer Types:

Customer Type A: A customer having electric central air conditioning and electric cooking (range and oven).

Customer Type B: A customer having electric central air conditioning.

Customer Type C: All other customers.

5. Control Device: The Company, at its own expense, shall furnish, install, own, operate, and maintain the DSS control device at each residence.

(Continued)

(To be inserted by utility)
Advice Letter No.

Decision No.

Issued by
Edward A. Myers, Jr.
Name

(To be inserted by Cal. P.U.C.)
Date Filed

Effective

SOUTHERN CALIFORNIA EDISON COMPANY
2244 Walnut Grove Avenue
Rosemead, California 91770

Cal. P.U.C. Sheet No. ________

Cancelling ________ Cal. P.U.C. Sheet No. ________

Experimental Schedule No. DSS-3

DEMAND SUBSCRIPTION SERVICE TEST
DOMESTIC SERVICE
(Continued)

SPECIAL CONDITIONS (Continued)

6. Control Device Change: At customer request, Company shall change the DSS level as follows:

   a. Change to less restrictive DSS level. Customer shall be charged a service fee of $5.00 and a penalty fee equal to the differential between the credit at the former level and the credit at the new level, times the number of months at the former level. This penalty provision shall not apply if customer was at former level for twelve (12) consecutive months or longer.

   b. Change to more restrictive DSS level. No charge to customer.

(To be inserted by utility) Issued by (To be inserted by Cal. P.U.C.)

Advice Letter No. ________ Edward A. Myers, Jr. Date Filed ________

Name

Decision No. ________ Effective ________