

ORIGINALDecision 93541 SEP 15 1981

BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

In the Matter of the Application)
of Southern California Edison)
Company for authority to redirect)
certain conservation/load)
management program costs in)
accordance with Decision)
No. 92549.)

Application 60545
(Filed May 12, 1981)

O P I N I O N

By Decision (D.) 92549 dated December 30, 1980 in Application (A.) 59351 Southern California Edison Company (Edison) was authorized to expend \$39,000,000 for its 1981 conservation/load management (C/LM) program as follows:

	<u>Conservation</u>	<u>Load Management</u>
Nonresidential	\$ 5,251,500	\$ 1,756,600
Cogeneration	275,000	817,600
Residential Conservation	14,864,900	
Residential Load Management	235,000 ^{1/}	7,888,400
Solar	1,140,500	
Public Awareness	1,578,100	
Advertising (general)	1,500,000	
Measurement	1,044,600	
Management	780,900	
Conservation Contingency Fund	<u>1,866,900</u>	
	<u>\$28,537,400</u>	<u>\$10,462,600</u>
	Total	\$39,000,000

^{1/} Swimming Pool Pump Program.

Ordering Paragraph 15 of D.92549 provides that Edison shall:

"...obtain prior Commission concurrence or approval for any redirection of conservation and/or load management funds over \$300,000 in a single year, and written staff approval signed by the Executive Director for any lesser amount exceeding either \$100,000 or 10 percent of the authorized level of the program from which such funds would be taken."

By letter dated April 20, 1981, Edison requested written staff approval for redirection of funding (either increasing or decreasing) for the following specific programs:

Summary^{1/}

Nonresidential Conservation	\$ 889,900
Nonresidential Load Management	1,033,100
Cogeneration	298,200
Residential Conservation	(999,500)
Residential Load Management	682,500
Solar	229,400
Public Awareness	-
Advertising	(127,500)
Measurement	397,200
Management/Adm Support	-
Contingency Fund	\$(2,403,300)

(Decrease)

^{1/} The summary for each category may exceed the \$300,000 limitation; however, the individual programs were less than \$300,000.

By letter dated May 18, 1981, Edison was advised by the Executive Director that the Commission's Energy Conservation and

Electric Branches had reviewed the proposed program changes and concurred in the changes except for the proposed \$158,400 increase in the Energy Economizer II program. In approving only \$7,900 for this program, it was pointed out that this program had proven unsuccessful and that the 1981 expenditures should be limited to the cost of removal of meters already in place.

By this application Edison seeks Commission approval for redirection of funding levels of 14 program areas and the contingency fund as shown below. However, all these changes and redirections are still within the \$39,000,000 authorized by D.92549.

<u>Program Description</u>	<u>Proposed Redirection</u>
1. Nonresidential Conservation	
Energy Audits Large	\$ 1,035,400
C/l Hardware Program	534,900
Conservation Means Business	460,300
2. Nonresidential Load Management	
C/l Air Conditioning Cycling	362,100
Dupont Energy Cost Monitor	403,000
3. Residential Conservation Programs	
Wrap Up Conservation	(705,400)
Conservation Workshops	(302,400)
Appliance Retrofit Research	(540,200)
4. Residential Load Management	
Give Your Appliances the Afternoon Off	(396,700)
Residential Load Cycling Test	(3,823,700)
5. Solar	
Solar Retrofit	(342,000)
Solar New Construction (Supplemental)	(643,000)
6. Measurement	667,200
7. Management/Administrative Support	525,300
8. Contingency Fund	<u>2,765,200</u>
Total	\$ -0-

(Decrease)

As justification for the proposed changes Edison asserts that except for the seven items shown as footnotes on Table V-A of D.92549^{1/}, the original estimated program costs were based on information prepared in early 1979 for A.59351. It states that two years has elapsed since the elements of the programs were designed and the anticipated level of funding necessary to achieve the 1981 conservation/load management goal was developed and that significant changes have occurred in virtually all individual programs. It states that the reasons for such changes include the receipt of additional data, technical information, regulatory direction, and a variety of other inputs incorporated into the planning process.

1/ The seven items appearing in the footnote are:

- "1/ Staff recommended additional funding for all nonresidential conservation energy audit programs.
- "2/ Staff recommended additional funding to implement the agricultural time-of-use rate program.
- "3/ Total cost of four residential conservation base programs recommended for deletion by the staff. These programs are: Conservation Information Line, National Energy Watch, Mobile Conservation/Load Management Show, and Home Insulation.
- "4/ Cost of the solar retrofit base program recommended for deletion by the staff.
- "5/ Staff recommended reduction from the total level of funding requested by Edison for public awareness programs.
- "6/ Staff recommended reduction from the total level of funding requested by Edison for general advertising.
- "7/ The residual dollars in Edison's program after staff recommended program deletions and reductions. The staff would have Edison use the money in this 'fund' to initiate new programs and/or accelerate existing or proposed programs."

It also states that a combination of the specifics of D.92549 and the realities of the marketplace are expected to cause continued redirection of funds throughout 1981 as more experience is gained during program implementation. Edison emphasizes that there is no need for additional funding beyond the \$39 million level approved in D.92549.

Summary of Program Affected Areas

Nonresidential Conservation

In the nonresidential conservation area Edison proposes to increase the large energy audits program by \$1,035,400, the commercial industrial (C/I) hardware program by \$534,900, and the conservation means business program by \$460,000.

Edison states that energy audit activities have been the backbone of its conservation efforts for many years. In preparing A.59351, past experience in energy audits was utilized and it was planned that it would be an ongoing activity. In early 1980 it was realized that the large audit should be augmented to increase its effectiveness. It was determined that technical audit teams were needed to quantify and identify the energy potential of the large commercial customers.

By D.92166 dated August 19, 1980 in A.59546 Edison was authorized to expand the scope of the large commercial energy audits by hiring and training technical audit teams. Training for the technical auditors comprised of eight weeks of intensive instruction on heating, ventilating, air-conditioning, and lighting systems. Auditors completed their training in December 1980 and are currently performing field audits. The requested increased budget will be used for the continued utilization of the technical audit teams to realize more energy savings and demand reductions. Edison states that when the life cycle program cost is amortized, including the time value of money, and compared to the estimated kWh savings, the cost per kWh conserved is 2 mills.

For the C/l hardware program, Edison states that due to the increased emphasis on attaining peak-load reduction, it further developed the concept and received \$227,500 in offset funding by D.92166. Through analysis of the experimental program it has refined and expanded the parameters of the program and will encourage more C/l customers to install hardware devices that will reduce consumption or shift peak demand.

Edison states that when the "conservation means business" program was introduced it was accompanied by a minimal budget to develop and "kick off" the program. The program consists of a series of campaigns to encourage the support of various trade organizations in promoting and installing conservation hardware. Under the program participating dealers, contractors, and repair technicians provide conservation hardware information to C/l customers at the time of equipment failure or maintenance. As a reward, participants earn points for their promotional efforts which are redeemable for catalog merchandise. The requested increase will allow the program to be expanded system-wide. It is anticipated that it will effectively complement rebate items offered through the C/l hardware program and enhance conservation and L/M actions among customers.

Nonresidential Load Management

Edison proposes to increase its spending in this area by \$765,100. This money would fund a new program designated as the Dupont Energy Cost Monitor program and the acceleration of the C/l air-conditioning cycling program.

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An additional \$362,100 is requested for acceleration of the 1981 C/l cycling program. A two-year test began in 1980 to determine customer acceptance, hardware reliability, and cost-effectiveness of cycling package air-conditioning systems of C/l customers. The budget approved for this project is \$1.1 million. The program began in 1981 and involved the voluntary participation of 300 customers, with demand levels of 30 to 500 kW. Edison proposes to solicit participation of an additional 300 C/l customers in all five weather zones. A customer would have the option of selecting 30, 40, or 50 percent air-conditioning cycling for different incentive credits. This requested increase is needed to determine customer acceptance, reliability of equipment, and cost-effectiveness of C/l cycling. ✓

The Dupont Energy Cost Monitor program, unbudgeted in D.92549, is an extension of Edison's residential monitoring program. To institute this program, it is requesting \$403,000. The program will evaluate the effectiveness of a microcomputer device while monitoring 400 C/l customers' electricity usage. The device provides a visual display to induce C/l customers to effect load management decisions and provides dollar and cents accounting of the customers energy costs as they are occurring. Edison proposes to purchase the devices from the Dupont Energy Management Corporation with special instrumentation to evaluate each monitor. Performance testing is slated to continue into the summer of 1982 with data analysis in 1983.

Residential Conservation

In the residential conservation area Edison proposes to reduce the Wrap-Up II program by \$705,400, Conservation Workshop by \$302,400, and the Appliance Retrofit Research by \$540,200.

For the Wrap-Up II program, experience for the prior three years shows that: (1) penetration rates for apartments, condominiums, and townhouses are lower than for single-family homes, (2) the acceleration of wrap-up in the fourth quarter 1979 and mid-1980 reduced the wrap-up potential for 1981, (3) a certain number of water heaters are inaccessible, and (4) attempted identification of the estimated 270,000 electric water heaters resulted in 247,000 names and addresses. This information necessitated the following three changes:

1. Continue targeting toward apartments, condominiums, and townhouses rather than implement Wrap-Up II,
2. Encourage participation in the Wrap-Up program through residential conservation services (RCS) audits, and
3. Reduce the goal from 42,500 units to 22,500 for 1981.

These changes result in a decrease in the required level of funding.

Edison tested the Conservation Workshop program in two of its divisions in 1979 and early 1980 and found it to be a viable approach to tenants of apartments and mobilehome parks and tenants/owners of condominiums. Though valuable information was obtained through the workshops, implementation during 1981 was deemed inappropriate since implementation of RCS audits to meet the Department of Energy (DOE) rules and the State RCS plan have taken precedence. Edison plans to use data from the test program and data gathered during the implementation of RCS audits in 1981 to develop a systemwide conservation workshop program in 1982.

With respect to the Appliance Retrofit Research program, funding would be decreased by \$540,200. Edison's plan for this program was to develop a retrofit kit that would increase the efficiency of old appliances and then offer it to residential customers through direct sales and other means. An in-house review of literature on appliance research projects failed to reveal any suitable projects for retrofit kits. Edison also sent a request for proposals to this project to six universities but no response was received. Without the necessary design information it was concluded that the concept was premature and the program should be canceled.

Residential Load Management

Edison proposes to reduce its residential load management programs by \$4,220,400. This program consists of the Residential Load Cycling test and Give Your Appliances the Afternoon Off.

The load cycling test program would be reduced by \$3,823,700. This program requires the utility to carry out a large scale cycling experiment directed toward installing remote control switches on 8 percent of the residential air conditioners in its service area or a valid statistical sample approved by the CEC. Edison believes that a 4.5 percent sample would be sufficient statistically to determine the cost-effectiveness of a systemwide implementation of residential cycling. This approach was approved by the CEC which reduces the estimated 1981 budget significantly.

The "Give Your Appliance The Afternoon Off" is an all-media program to gain customer understanding and acceptance of the need to reduce electricity use during peak summer hours. In budgeting for 1981 it was determined that the advertising materials used in 1980 could be reused in 1981 on a reduced schedule and still accomplish the anticipated objective. The savings in expenses reduces this budget by \$396,700. If a summer outage occurs, Edison will use its L/M messages prepared for the 1980 summer emergency situation to alert customers of the need to reduce energy consumption during peak hours.

Solar

In the solar program Edison proposes to reduce funding by \$985,000.

The solar retrofit program was proposed in anticipation that the decision in OII 42^{2/} would provide installation guidance. Since

2/ OII 42 is the Commission's investigation into the feasibility of establishing various methods of providing low interest, long-term financing of solar energy systems for utility customers.

that decision required substantially more funding and the timing was not sequenced to the 1981 test year, Edison requested funds in an offset (A.59596). These funds were approved in D.92853 dated April 1, 1981. Thus, this program is no longer needed.

The new solar construction program was begun in anticipation that this Commission and the CEC would mandate additional activity in the solar new construction area. It was based on the assumption that utilities would be required to stimulate a substantial portion of the new construction market to include solar installations. As a result of regulatory encouragement in the retrofit market rather than the new construction market, no large-scale new construction program was developed.

Measurement

In C/LM measurement, augmentation in the amount of \$667,200 is requested. The original measurement activities included market research, econometric analysis, technical support studies, and rate design. In response to the increased emphasis by the Commission and the CEC on these activities, measurement activities were augmented and reclassified into the following seven categories:

1. Direct activity reports.
2. Recorded sales/hardware.
3. Behavioral tests.
4. Surveys.
5. Potential assessment.
6. Econometrics.
7. Regulatory and cost support studies.

Augmentation is needed in order to meet the mandated measurement requirements of D.92549. It represents an increase in manpower involved in carrying out these studies, outside consultants to carry out specific studies, and related expenses for analytical tools.

Management/Administrative Support

Edison proposes to increase its management/administrative support activity by \$525,300. This additional funding is required to provide sufficient management direction for the total C/LM effort to preclude fragmented and nonproductive activity. Original budgets for the ongoing programs were developed in detail, including allocations for management and overhead, but budgets for mandated programs were not as detailed since much of the mandated program information was lacking. In the two years planning since the development of A.59351 additional regulatory interface and statutory reporting has been mandated for program activities and budgets, many costs of which are allocated to management/administrative support.

Discussion

The Commission's Energy Conservation Branch is responsible for analyzing and evaluating any redirection of funding for all conservation programs. It reports that before this application was filed some six conferences were held with Edison to resolve numerous concerns with Edison's redirection proposals. These concerns and differences were resolved at the conferences and are reflected in the application. Because the application contains the changes agreed on at these conferences, the Conservation Branch recommends that the application be granted.

The Commission's Electric Branch Load Management Section is responsible for redirection of funding for all load management programs. It reports that with the exception of the Dupont Energy Cost Monitor program, it concurs with Edison's request.

In regard to the Dupont Energy Cost Monitor program, the staff states that because of delays in seeking Commission approval for this program coupled with its inability to expend funds in advance of authorization, Edison could not acquire, test, and install the devices in time to capture energy usage data for the summer of 1981. It states Edison can effectively expend only \$100,000 for contract negotiation, purchase, and delivery of 400 of the monitor units (400 @ \$250 = \$100,000). It recommends that the 1981 program be limited to the \$100,000 and that the balance of \$303,000 be allocated to a 1981 contingency reserve for carryover spending in 1982 for monitor testing, customer contact, installation, and test analysis. The effect of the staff's proposal would increase the contingency fund to \$1,682,300. Edison concurs in this recommendation.

Our staff has made a comprehensive review of the requested redirection of funds and recommends approval of the application in order for Edison to have the opportunity to achieve its 1981 goal of 2.022 billion kWh of annualized energy savings. Review of the application and the staff's reports convince us that the application should be granted. A public hearing is not necessary.

Because of the timing necessary to carry out the conservation/load management program for the balance of 1981 the order should be made effective today.

Findings of Fact

1. By D.92549 dated December 30, 1980 Edison was authorized to expend \$39,000,000 for its 1981 conservation/load management programs.

2. D.92549 required that Edison obtain Commission concurrence or approval for any redirection of funds over \$300,000 in a single year and written staff approval signed by the Executive Director for any lesser amount exceeding either \$100,000 or 10% of the authorized level of the program from which such funds would be taken.

3. By letter dated May 18, 1981 the Executive Director approved the redirection of funds for eight program areas which were less than \$300,000.

4. By this application Edison seeks Commission approval for redirection of funding levels for 14 of its 1981 conservation/load management program levels and the contingency fund which are more than \$300,000.

5. The proposed redirections will not result in a change in the \$39 million overall level of funding authorized by D.92549 for Edison's 1981 conservation/load management programs.

6. The proposed redirection of funding for the individual conservation/load management programs, as explained in the body of this decision, is reasonable.

Conclusion of Law


The application should be granted as provided in the following order.

O R D E R


IT IS ORDERED that Southern California Edison Company is authorized to redirect funding of its 1981 conservation/load management programs as provided in Appendix A, and the total expenditure for each category as shown on the Summary Table in Appendix B.

This order is effective today.

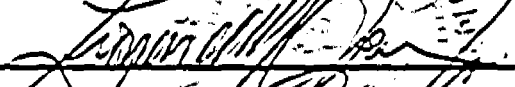
Dated SEP 15 1981, at San Francisco, California.




President




Commissioner



Commissioner



Commissioner



Commissioners

APPENDIX A

<u>Program Description</u>	<u>Authorized Redirection</u>
1. Nonresidential Conservation	
Energy Audits Large	\$ 1,035,400
C/l Hardware Program	534,900
Conservation Means Business	460,300
2. Nonresidential Load Management	
C/l Air Conditioning Cycling	362,100
Dupont Energy Cost Monitor	100,000
3. Residential Conservation Programs	
Wrap Up II	(705,400)
Conservation Workshops	(302,400)
Appliance Retrofit Research	(540,200)
4. Residential Load Management	
Give Your Appliances the Afternoon Off	(396,700)
Residential Load Cycling Test	(3,823,700)
5. Solar	
Solar Retrofit	(342,000)
Solar New Construction (Supplemental)	(643,000)
6. Measurement	667,200
7. Management/Administrative Support	525,300
8. Contingency Fund	<u>\$ 3,068,200</u>
 Total	 \$ -0-
	(Decrease)

(END OF APPENDIX A)

APPENDIX B

Summary Table

<u>Program Areas</u>	<u>Authorized Expenditure</u>
1. Nonresidential Conservation	\$ 8,172,000
2. Nonresidential Load Management	3,251,800
3. Cogeneration	1,390,800
4. Residential Conservation	13,317,400
5. Residential Load Management	4,435,000
6. Solar	384,900
7. Public Awareness	1,578,100
8. Advertising (General)	1,372,500
9. Measurement	2,109,000
10. Management/Administrative Support	1,306,200
11. Contingency Fund	<u>1,682,300</u>
Total	\$39,000,000

(END OF APPENDIX B)