

Decision 84-09-078 September 6, 1984

**ORIGINAL**

BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

Investigation on the Commission's  
own motion to determine whether  
the ratepayer-supported explora-  
tion and development programs  
of respondent utilities should  
be continued, modified or  
terminated.

OII 82-07-01  
(Filed July 7, 1982)

John R. Bury, David N. Barry, III, Richard K.  
Durant, and James M. Lehrer, Attorneys at  
Law, for Southern California Edison Company;  
John R. Asmus, Jr., Attorney at Law; for  
San Diego Gas & Electric Company; Daniel E.  
Gibson and Steven F. Greenwald, Attorneys at  
Law, for Pacific Gas and Electric Company,  
respondents.

Allen R. Crown and Antone S. Bulich, Jr.,  
Attorneys at Law, for California Farm Bureau  
Federation, interested party.

Richard Rosenberg and Timothy E. Treacy,  
Attorneys at Law, for the Commission staff.

I N D E X

<u>Subject</u>	<u>Page</u>
OPINION . . . . .	2
Introduction . . . . .	2
Background . . . . .	3
Operation of the EEDA Mechanism . . . . .	3
EEDA Projects . . . . .	5
Staff Analysis . . . . .	19
Utility Rebuttal . . . . .	32
Contentions of the Parties . . . . .	35
Comments on Proposed Report of Administrative Law Judge Patrick J. Power . . . . .	41
Discussion . . . . .	41a
Termination . . . . .	45
Pending Projects . . . . .	48b
Findings of Fact . . . . .	49
Conclusions of Law . . . . .	50
ORDER . . . . .	50

CONFIDENTIAL

# OPINION

## Introduction

By order dated July 7, 1982, the Commission instituted this investigation to consider whether the ratepayer-supported exploration and development programs of Southern California Edison Company (Edison), Pacific Gas and Electric Company (PG&E), and San Diego Gas and Electric Company (SDG&E) should be continued, modified, or terminated. By motion filed October 3, 1982, PG&E asked to be dismissed as a respondent on the basis that it had never had such a program and had no intention to have such programs in the future. PG&E's motion was granted by Decision (D.) 82-12-009, dated December 1, 1982.

Following a prehearing conference this matter was the subject of seven days of hearing. The Commission staff (staff) offered the testimony of two witnesses: J. Archie Johnson, Public Utility Financial Examiner in the Revenue Requirements Division, Financial Analysis, and Kenneth D'Antonio, Regulatory Program Specialist in the Planning and Policy Division. Edison offered the testimony of eight witnesses: Robert E. Bridenbecker, Vice President of Fuel Supply and President of Mono Power Company (Mono), a wholly owned energy resource subsidiary of Edison; Bernard J. Perry, Energy Resources Consultant and Vice President of Mono; Basil V. Savoy, Resource Projects Manager for Oil and Gas of Mono; Don R. DeHalas, President of Colorado Nuclear Corporation; Fred T. Clisby, Manager, Energy Resource Projects for Mono; Barry Olsen, Energy Resources Engineer for Mono; Dorothy M. Whalen, Supervisor of the Regulatory Finance Section of Edison's Treasurer's Department; and Letitia D. Davis, Manager of Finance, Accounting and Administration for Mono. SDG&E offered the testimony of James M. Nugent, its Supervisor-Fuel Planning, who is also General Manager of New Albion Resources Co. (NARCO), SDG&E's exploration and development subsidiary. This matter was submitted upon opening briefs filed on March 29, 1983, and reply briefs filed April 13, 1983. Briefs were filed by staff, Edison, and SDG&E.

## Background

The ratepayer-supported exploration and development programs are funded by the Energy Exploration and Development Adjustment Mechanism (EEDA) by which the costs and benefits of such programs are flowed-through to ratepayers. EEDA was first adopted for Edison in D.85170, dated July 23, 1974. SDG&E was authorized to establish an EEDA procedure by D.88121, dated November 22, 1977, in Case (C.) 10056.

In C.10056 the Commission considered whether exploration and development programs of the utilities should be maintained, expanded, reduced or eliminated, and whether ratepayers should continue to support existing or future projects. In D.88121 we concluded that ratepayer-supported exploration and development programs should be authorized if they secure additional supplies of energy which would not otherwise be available to California, or to obtain needed supplies of energy at an earlier date than such supplies would otherwise become available, or to obtain additional needed supplies of energy at an advantageous price. In the order instituting this investigation we stated that we would examine closely whether the EEDA programs have met the criteria specified in D.88121 and also consider whether there is any justification for ratepayer-supported exploration and development programs in the current energy market. Depending on the conclusions, we directed the respondent utilities and staff to submit proposals for winding down existing EEDA investments.

## Operation of the EEDA Mechanism

EEEDA is implemented by way of wholly owned subsidiaries, Mono in the case of Edison and NARCO in the case of SDG&E. The basic objective and concept of the mechanism is illustrated by the relationship between Edison and Mono. Pursuant to a contract with Edison, Mono is obligated to seek, find, develop, process, and deliver such kinds of energy as may be needed by Edison, while Edison

is obligated to compensate Mono for such fuel supply service at the cost to Mono of conducting such activities.

In accordance with the fuel service agreement, Mono prepares a Fuel Service Budget each quarter. The budget includes: (1) the forecasted annual cost of providing fuel supply services to Edison for the subsequent 12-month period; and (2) the difference between the forecasted and recorded cost of providing such services for the prior calendar year. The cost of providing fuel supply services includes: (a) administrative and general costs for the year; (b) the annual cost of funds provided by Edison or third parties; (c) the amortization of the investment in abandoned or suspended projects on a five-year straight-line basis; (d) Mono's share of income in joint projects (after operating expenses) from product sold to Edison and from product sold to third parties from projects expected to supply fuel to Edison during their life; (e) the depreciation and depletion of the investment in successful projects over the estimated useful life; (f) and the over- or undercollection of the difference between the forecasted and recorded cost of providing fuel supply services for the prior calendar year. Edison pays monthly to Mono the fuel service charge which is one-half of the fuel service budget.

The fuel service charge is billed monthly to Edison to cover Mono's cost of conducting fuel supply services. The fuel service charge was authorized to be a reimbursable charge under the Energy Cost Adjustment Clause (ECAC). The fuel service charge is the revenue requirement included in ECAC and represents the benefit (or cost) to the ratepayer resulting from Edison's participation via Mono, in EEDA projects approved by the Commission.

In operation, Edison advances funds to Mono and/or Mono obtains funds from third parties to finance EEDA projects. Funds invested in exploration and development are accounted for (capitalized) by a project. When the project begins producing, the

total costs invested (capitalized) in the project are amortized and are depleted over the estimated useful life of the project. If the life of a project is determined to be uneconomic or unsuccessful, it is abandoned and disposed of, and written off over five years. Projects which are not expected to be in development within the next five to ten years and for which annual expenditures are limited to holding costs are suspended and written off over five years or until such an earlier time that development begins.

The cost of funds is calculated on the total unrecovered investment in approved projects, net of cumulative tax benefits and net income from production or project properties sold to third parties, at Edison's most recently approved rate of return plus associated income taxes as authorized by the Commission. For funds provided by third parties the cost of funds is the actual cost, but not to exceed Edison's most recently approved rate of return, plus associated income taxes.

The relationship between SDG&E and NARCO is similar to that between Edison, through Mono, and EEDA Projects. Edison, through Mono, has been the more active in its use of the EEDA mechanism. The following summarizes Mono's total investment in all approved projects and the sources of funds to finance the investments, as of September 30, 1982:

#### Project Investment

(\$ Million)

Gross Investment	\$178.8
Less: investment recovered through the EEDA procedure	60.3
Less: profit on sales to third parties	2.2
Remaining Investment	\$116.3

#### Sources of Invested Funds

Accumulated Tax Benefits	\$61.0
Outside Projects Financing	16.6
Advances from Edison	38.7
Total	\$116.3

There are four additional projects for which Edison has sought EEDA recovery. The total expenditures for these four projects through the end of 1981 amounted to \$4.48 million.

Mono's long-range goals have been relatively unchanged since the inception of EEDA. However, the implementing objective and the relative emphasis given certain of Mono's activities have been modified in response to changing internal and external factors, such as (1) competing fuel economics, (2) governmental energy objectives, associated statutes, and implementing regulations, (3) changing fuel requirements, and (4) emphasis on alternate and renewable energy resources. Mono's stated current goals are as follows:

1. To provide Edison a reliable, long-term and cost-effective energy resource alternative to traditional sources of supply.
2. To secure an energy resource reserve position to hedge against uncertainties in future fuel availability and cost.
3. To expand understanding of prevailing market conditions through active participation.

Mono's associated implementing objectives are as follows:

1. Oil and Gas, Tar Sand, and Geothermal
  - a. Selective participation in gas development wells in the Southwest Rangely and Southeast Flank Uintah Basin located in Utah and Colorado.
  - b. Participation in exploratory drilling to acquire domestic oil and gas reserves and calls on reserves.
  - c. Continued exploratory efforts to increase Mono's geothermal resource position.
  - d. Development of Mono's geothermal resources as warranted by market conditions.
  - e. Evaluation of the tar sand potential of Mono's properties in Utah for development as an alternative to conventional fuels for Edison's existing oil- and gas-fired generation.

- f. Satisfaction of federal requirements to convert Mono's oil and gas leases to combined hydrogen leases to include tar sand.

## 2. Uranium

- a. Combine budgetary limitations on exploration for uranium and concentrate exploration in those areas of the United States which have a potential for low-cost deposits.
- b. Pursue Farm-Out Agreements and third party participation.
- c. Undertake development of low-cost deposits to satisfy a portion of the requirements of Edison's nuclear program.

## 3. Coal

- a. Continue to evaluate prospects for development and/or disposition of the Kaiparowits reserves.
- b. Minimize holding costs pending market resolution.

Edison claims beneficial results from its activities in regard to each of these resources.

With respect to gas, Edison contends that its demand for gas will not be met by the efforts of its traditional suppliers. Thus, Edison argues that to the extent Mono's EEDA efforts provide any supplemental supplies of gas to the southern California market, additional supplies of energy will have been provided that would not be otherwise available to California.

Edison characterizes Mono's gas acquisition effort as a long-term program, involving development over 20 years or more. Edison warns that the Commission should not be lulled by the present gas surplus into believing that the long-term gas supply picture has changed so substantially as to negate the benefits to California electric customers that will accrue from Mono's program.



Specifically, Mono is developing gas resources in the Rocky Mountain area in Utah and Colorado. Edison estimates Mono's share of developed and undeveloped gas reserves as about 80 billion cubic feet (equivalent to about 14 million barrels of fuel oil), with calls on the gas production of others, amounting to an additional 50 billion cubic feet of gas. Edison claims that this gas can be developed and delivered to Edison at a cost below the price Edison currently pays for gas furnished by Edison's California suppliers, with the cooperation and support of California regulatory agencies in arranging transportation.

Even if Mono's gas reserves are not used by Edison directly, Edison maintains that the gas can still be produced and sold at a profit. Edison calculates the present worth benefit from third party sales of Mono's share of the Rocky Mountain projects is in the range of \$49 to \$97 million.

With regard to tar sand, approximately 16,000 net acres of the leases that Mono acquired in Utah for gas exploration purposes overlie tar sand accumulations. Edison claims that Mono's leases may support development of the equivalent of 30,000 barrels of crude oil per day for at least 20 years, at a cost below today's price of crude oil. Edison contends that, contingent on the results of Mono's ongoing core drilling program, evaluation of various processing methods, and future trends in fuel oil and gas prices, Mono may control an important resource in the tar sand area. If production of the tar sand is determined to be warranted, associated benefits could begin to be realized by the late 1980s.

With regard to geothermal, Mono holds a 25% interest in about 33,000 acres in the Salton Sea area. Edison states that the Salton Sea field has the estimated potential to produce 3,400 megawatts (MW) of electric power for 30 years.

A research program has been on-going to solve problems resulting from high salinity and dissolved solids in the hot liquid

brine. Edison claims that this effort is on the verge of demonstrating that these technical difficulties can be overcome. Edison states that further refinements to the technology are being investigated in an effort to make costs competitive with the use of oil and gas fuels in existing generation.

Geothermal development is a significant element in Edison's program for expanding its generation mix to include renewable and alternative resources. Edison includes in the program 275 MW of geothermal generation to be in operation by 1992, with Mono's reserves expected to contribute to satisfying this goal.

Edison contends that Mono's participation in geothermal exploration and development is helping to commercialize the resource at an earlier date than otherwise would be possible. Further, Edison asserts that Mono's ownership interest in the resource will result in the cost of associated electric generation being lower than if all of the geothermal fluid were sold by traditional energy suppliers. Edison states that these benefits could begin to be realized in this decade.

With regard to uranium, Edison states that its Bear Creek project was available to be developed in the mid-1970s, at a time when Edison was unable to obtain any reasonable offers for supply needed at San Onofre. Edison claims that Mono's ownership interest in Bear Creek has saved the ratepayers over \$30 million through 1981. Edison estimates that it will require 14 million additional pounds of uranium through the year 2000 that are not currently under contract in order to provide its share of fuel for San Onofre and Palo Verde. Edison asserts that Mono's ownership of reserves discovered through participation in the Rocky Mountain Energy Company/Mono uranium exploration program are available for development to meet a portion of this requirement beginning as early as 1986. Edison claims that the cost of developing uranium from at least two of the properties in which Mono has an ownership position would be significantly below prices projected for supply under

conventional contracts in the timeframe needed by Edison. Edison estimates the present value benefit to Edison's customers from the development and production of these properties as exceeding \$20 million in 1982 dollars.

Edison warns that the Commission should recognize that today's uranium marketplace is no more certain as to price than was the market in the 1970s, when there was well-founded concern that adequate supplies of uranium would not be available in a timely manner. Edison predicts the current depressed uranium spot market will soon reverse, with rising prices expected later in the decade, with the potential for increased dependence upon imported uranium if the domestic uranium industry does not expand.

With regard to coal, Mono has an undivided 1/3 interest in federal and state coal leases, consisting of 47,768 acres or approximately 75 square miles in the Kaiparowits coal field in south-central Utah. Although Edison admits many uncertainties surround the development potential of the Kaiparowits area, it points out that the Kaiparowits region represents the largest single undeveloped coal resource in the continental US and is geographically closer to California than any other major coal resource. The coal itself is good quality, low in both ash and sulfur content, and has been successfully tested as a feedstock for the Texaco Coal Gasification Process. Mono and its partners control 600 million tons of this resource, equivalent in heat content to more than 2 billion barrels of oil.

Edison states that development of Kaiparowits has been hindered by stringent federal regulations but that a recent 10-year extension of federal government "diligent development requirements" enhances the potential for Mono's development and/or disposition of this resource in the future. Mono's investment in Kaiparowits is currently being written off through the Fuel Service Charge and no development expenditures are planned at this time. Mono can retain

its ownership interest in this resource by payment of lease rentals and minimal administrative costs.

Edison contends that Mono has been able to obtain and retain this resource at an advantageous price, with the possibility that other benefits will be realized if Kaiparowits coal is eventually used as powerplant fuel or as a feedstock for conversion into medium-Btu gas.

Edison claims that Mono's approximate resource position, as of January 1, 1982, is as follows:

Resource	Quantity
Oil	20,000 Bbls. (Proven and Indicated)
Gas	80,000 MMcf (Developed and Undeveloped Ownership)
	50,000 MMcf (Developed and Undeveloped Calls)
Geothermal	425 MW for 30 years
Coal	325,000,000 tons (Measured and Indicated)
Uranium	38,000,000 Lbs. (Measured, Indicated, and Inferred)
Total	2.55 billion Bbls. oil equivalent

Based upon Edison's projected development of those projects for which it considers quantification possible, Edison estimates the aggregate net cash benefits available to Edison's electric customers through the operation of the fuel service charge as nearly \$100 million over the next 10 years, or about \$30 million discounted to 1982. Over the remaining life of the projects, Edison calculates the discounted present value as about \$64 million. These calculations exclude the effects of charges prior to 1982, and are necessarily based on many assumptions regarding future production and prices, and are derived as follows.

The Mono witnesses presented projections of activity for the various EEDA-approved projects. They classified as producing projects those projects that are expected to produce energy, within

service

- 
- Figure 1 is a line graph showing the percentage of total protein in the supernatant versus time (min) for various proteins. The y-axis ranges from 0 to 100. The x-axis ranges from 0 to 120 minutes. The legend indicates: 1.0% (solid line), 0.5% (dashed line), 0.1% (dotted line), and 0.05% (dash-dot line). The curves show that higher concentrations of protein lead to a faster and higher percentage of protein remaining in the supernatant over time.

the individual  
in question

Table 1

## Mono Power Company

California Public Utilities Commission Recognized Projects  
Projected Fuel Service Charge by Product Line  
1983 - 1992

(\$000)

	Cost of Funds	Depreciation & Depletion of Successful Projects	Amortization of Abandoned/ Suspended Projects	Income From Product Sales	Administrative and General	Fuel Service Charge
Oil & Gas	\$70,759	\$41,031	\$ 9,777	\$(163,592)	\$ -	\$(42,025)
Geothermal	3,962	-	-	-	-	3,962
Coal	929	-	3,860	-	-	4,789
Uranium	20,249	42,772	25,922	(155,194)	-	(66,251)
Administrative & General	-	-	-	-	838	838
Total	\$95,899	\$83,803	\$39,559	\$(318,786)	\$838	\$(98,687)



Table 2  
 Mono Power Company

California Public Utilities Commission - Approved Projects  
 (Active Projects as of July 1, 1982)

<u>Project Number</u>	<u>Project Name</u>	<u>Project Operator</u>
<u>OIL AND GAS/TAR SAND</u>		
71-04A	Southwest Rangely	Coseka Resources (USA) Ltd.
71-05A	Stone Cabin	Pacific Transmission Supply C
71-07A	Southeast Flank Uinta Basin	Various
73-02A	Caliente Mountain	ARCO
73-04A	Sunnyside	Mono Power Company
74-01A1	Block 31	Oxy Petroleum Inc.
74-01A2	Block 115	Oxy Petroleum Inc.
74-01A3	Block 146	Mesa Petroleum Inc.
<u>URANIUM</u>		
71-01B	Exploration	Rocky Mountain Energy Co.
71-01B2	Bear Creek	Bear Creek Uranium Co.
71-01B4&5	Reno Creek & Nine Mile	Rocky Mountain Energy Co.
<u>GEOTHERMAL</u>		
71-02D	Eastern California	Getty Oil Company
72-02D	Salton Sea	Union Oil Company
<u>COAL</u>		
63-01C	Kaiparowits	Malapai Resources Co.



TABLE 3

## Mono Power Company

## Commission-Approved Projects Currently Being Abandoned and/or Suspended

(\$000)

Project No.	Project	Status	Amortization Completed	Remaining Investment To be Recovered At 9/30/82	Annual Amortization
71-03A	East Rangeley	Suspended	03/86	\$ 450	\$ 128
71-06A	Hart Point	Suspended	12/84	104	46
73-02A	Caliente				
	Mountain	Suspended	06/87	8,087	1,685
73-03A	Paradox Basin	Suspended	06/87	442	93
74-01A4	OCS-Block 55	Abandoned	12/83	617	493
74-03A	Tejon Ranch	Abandoned	03/84	170	113
74-04A1	Italy	Abandoned	06/84	162	93
74-04A2	Thornwell	Abandoned	06/85	259	97
75-01A	New Guinea	Abandoned	12/82	69	278
78-01A	Racetrack	Abandoned	09/83	160	160
63-01C	Kaiparowits	Suspended	09/84	1,214	535
75-02C	Beluga	Abandoned	03/84	66	44
71-01B0	RMEC-	Abandoned/			
	Exploration	Suspended	*	10,995	1,250
71-01B1	Red Desert	Suspended	03/86	2,786	796
71-01B3	Copper				
	Mountain	Suspended	06/87	8,238	1,733
77-01B	Green				
	Mountain	Abandoned	06/87	3,406	717
Total				\$37,225	\$8,261

\* Various projects within the exploration program, write-off based on Bear Creek Uranium Company unit of production.

5. A "competitive leverage" is afforded Edison and its customers because of Mono's ownership in energy resources, and by way of the information base available through participation in exploration and development programs, studies, and decisions.

Edison concludes that the EEDA program is a beneficial aspect of Edison's utility operations, is in the public interest, and should continue.

SDG&E's EEDA activities have been conducted on a more modest scale which it characterizes as a small, carefully controlled program based on the criterion that over the life of a resource or plant, a resource should provide fuel on a secure basis at a price roughly comparable to or better than what could have been obtained elsewhere. SDG&E claims the following tangible and intangible benefits for its ratepayers:

1. An equal share with Mono in Kaiparowits coal (200,000,000 tons of low sulfur subbituminous for each).
2. A right of first refusal to Magma Power Company's (Magma) East Mesa geothermal project, about 150 MWe.
3. A right of first refusal to 200 MWe from the Heber geothermal reservoir owned by Union Oil Company and Chevron Resources.
4. Outright ownership of geothermal leases at the Salton Sea which may support more than 200 MWe of electric power production and right of first refusal on a like amount from NARCO's partner in that venture, Magma.
5. Ownership with Magma of patent rights and patent applications for the utilization of high temperature, high salinity geothermal fluids.
6. Overriding royalties on certain power production at East Mesa and on sales of geothermal heat from the 9% ownership in the Heber reservoir sold by NARCO in 1982.
7. The staff of SDG&E's Fuel and Power Contracts Department, some of whom directly support

NARCO's efforts, has gained a better understanding of coal, geothermal, and uranium resources by viewing these fuels from the producer's point of view.

SDG&E calculates that the cost to its ratepayers of the EEDA procedure since its approval in 1977 through September 30, 1982 is about \$6.5 million.

#### Staff Analysis

Staff witness Johnson performed a financial audit of Mono covering the years 1980 and 1981. The examination included the following audit procedures:

1. Review of the cost of service calculation.
2. A testing of carrying costs for advances made by Edison to Mono.
3. A review and limited testing of exploration and development expenses.
4. A review of related audits by Edison's independent auditors and internal audit staff.
5. A review of total cost from July 1974 through August 31, 1981 and related revenue.
6. Discussions with Mono's management.

His review of the EEDA procedure covered the years from its inception in July 1974 through September 30, 1982. He did not conduct a financial audit of NARCO.

Johnson evaluated EEDA projects in terms of the benefits to the ratepayers anticipated in D.88121:

1. Securing additional supplies of energy that would not be otherwise available to California.
2. Obtaining needed supplies of energy at an earlier date than such supplies would become available otherwise.
3. Obtaining additional needed supplies of energy at an advantageous price.

In order to conduct this analysis he calculated a "present value" for the various projects. For this calculation he made the following assumptions:

1. That the data supplied by Mono on estimated reserves and production were free of bias.
2. That 10% would be a fair discount rate for the present value calculations.
3. That future investments and net operating revenue were in equal yearly increments.
4. That properties still under exploration would be worth at least the present investments net of related taxes.
5. That the present value should include the "interest" lost by the ratepayer due to his investment in the EEDA projects.
6. That the uncertainties surrounding Kaiparowits make it impossible to place any value on the coal reserve.
7. That tax credits on estimated capital requirements will be at the same ratio as at present.

He calculated that Edison's EEDA projects had a present value of negative \$102 million. He calculated that SDG&E's EEDA projects had a present value of negative \$5.5 million.

He states that the present value calculation indicates that the ratepayers will benefit from the oil and gas exploration based on Edison's reserve and production estimates, not considering prior abandonment costs. He observes that this net benefit is highly sensitive to the degree of accuracy of the estimated capital costs and reserve estimates. Further, if one burdens the calculation with the present value of prior oil and gas abandonments, the overall present value for oil and gas projects is negative. He asserts that it is Edison's total track record that should be the basis for a meaningful evaluation, and concludes that there are not sufficient assurances for the ratepayers for Edison to be allowed to stay in the oil and gas exploration business.

Regarding uranium exploration and development, Johnson observes that the worldwide collapse of the uranium market has

diminished Edison's recent performance, once the bright spot of its EEDA program. He states that supply conditions have caused Edison to rethink the economics of developing its reserves and cast doubts on the need for a ratepayer-supported program to assure needed uranium for Edison's nuclear plants.

Regarding coal, Johnson characterizes Edison's involvement as burdened by environmental issues, logistics, and increasing related capital costs. Disposition of the Kaiparowits reserve has been a problem since the termination of the power project in 1976. If the coal reserves are ever developed, the economics of the project have to be more favorable. However, Johnson indicates that development of the project appears unlikely, and concludes that Edison's involvement with coal does not support continuing EEDA.

Regarding geothermal, Johnson assumed that the present value of Edison's geothermal projects was equal to the investment, plus service charges. Although Edison's projects are not developed, Johnson observes that Edison's resource plan indicates that geothermal energy will be very expensive. However, since geothermal is a new technology and a "renewable" energy source, he suggests that future ratepayer support should be considered prudent.

Based on his evaluation, Johnson concludes that Edison's EEDA projects have neither met, nor have the potential of meeting, the criteria established in D.88124. He reaches the same conclusion regarding SDG&E's EEDA program. Therefore, he recommends that, for Edison,

1. The EEDA procedure for new projects should be terminated.
2. Edison should wind down its existing EEDA projects in a manner that would be most beneficial to the ratepayers. Edison should file with the Commission a plan for winding down.

Johnson also recommends that Edison should be required to

and certain measures should be required to be taken

For SDG&E Johnson recommends:

1. The EEDA procedures should be terminated for new projects.
2. SDG&E should continue its effort to sell its Kaiparowits coal reserve and limit its activity to geothermal.

However, Johnson does not dismiss EEDA entirely. He suggests that the Commission should explore the feasibility of applying the EEDA concept to renewable and alternative energy resources while phasing out the present nonrenewable energy EEDA projects. He refers to the Commission's expressed policy supporting conservation and alternate energy sources.

Staff witness D'Antonio offered an entirely independent analysis of Edison's EEDA programs and the EEDA concept. He performed a discounted cash flow analysis, discounting past and projected future cash flows to 1982 present values, using ratepayer risk adjusted discount rates. His analysis can be divided into two parts: past and future.

Data on past cash flows were obtained from the Edison-Mono Fuel Service Agreement Annual Reports. The future cash flow analysis was based on data obtained from Edison in response to a staff data request which asked for the following:

1. Which EEDA-approved projects are expected to produce energy in the next 15 years.
2. How much energy will each produce in each of the next 15 years.
3. The current delivered price of each type of energy.
4. Estimated transportation cost to Edison's power plants.
5. The estimated cost of production per unit of energy and fuel.

The estimates were to be made in 1982 real dollars under the assumptions that real energy prices increase by 1.5% annually and

real production costs are constant. In calculating present values, D'Antonio adjusted the data provided by Edison as discussed below.

The results of D'Antonio's analysis are shown in the following table, using discount rates of 4.7% and 9.4%.

	4.7%	9.4%
1974-1981 PV	\$268,908	\$348,209
1982-1996 PV	93,682	45,198
Kaiparowits	9,000	9,000
Total (before tax credits)	\$166,226	\$294,011
Tax credits	90,786	110,581
Total (after tax credits)	-\$75,440	-\$183,430

(000's omitted)

The "1974-1981 PV" figures represent the summed 1982 present values of 1974-1981 cash flows under the two discount rates. The "1982-1996 PV" figures are the summed 1982 present values of 1982-1996 cash flows under each discount rate. The figure given for Kaiparowits is SDG&E's most likely sales price. The "Tax Credits" figures are the summed 1982 present values of tax credits. D'Antonio considers the total in the 9.4% column (-\$183,430) to be an approximation of the net present value of Mono's EEDA program. However, he adjusts that result slightly downward as discussed below.

D'Antonio states that the purpose of the financial analysis is to evaluate how well Mono has performed as the manager of a ratepayer-funded exploration and development program. He characterizes the goal of EEDA as funding energy for California ratepayers at minimum cost. In his terms, the program is successful if the value of the energy produced is greater than the costs incurred.

In developing appropriate discount rates D'Antonio states that Mono can be considered an investment by Edison's ratepayers, in

which ratepayers incur negative cash flow in early years in anticipation of future positive cash flows manifested as lower utility bills. Since ratepayers pay all the costs and receive all the benefits of energy production, he considers that Mono is an equity investment by ratepayers. Since Edison receives only a fixed return on its investment in Mono, he considers Edison a debt holder in Mono. Thus ratepayers are stockholders in a new, upstart, small energy exploration and development company. For his purposes it was necessary that he calculate the cost of equity for a company similar to Mono.

However, since Mono has never made a profit, D'Antonio suggests that Mono could not attract capital because no rational investor would invest in a company that has lost money every year since 1974. Therefore, he bases his calculation on Edison's real cost of equity.

He observes that staff had recommended that Edison be authorized a return on equity of 17-17.5% for 1983-84 (which Edison considered too low). Assuming that Edison's cost of equity is 17.5% and 1983-84 inflation projections range from 7.5% to 12.5%, then Edison's real cost of equity is between 5% and 10%. The midpoint of this range is 7.5%. D'Antonio characterizes this number as a function of the real time value of money in the economy and Edison's risk, neither of which fluctuates as much as inflation, the major cause of fluctuations in nominal discount rates. Thus he concluded that 7.5% is a reasonable number to use as Edison's real cost of equity.

He then compares the risk of investing in Edison with the risk of investing in petroleum and natural gas producing companies and concludes that Edison is much less risky, while Mono is extremely risky. In recognition of that risk he states that Mono's real cost of equity should be at least a couple of percentage points above



Edison's. This analysis accounts for the 9.4% discount rate that he applied.

In addition to using 9.4%, he also presented the analysis using a 4.7% real rate. D'Antonio explained that the purpose of this comparison was to show sensitivity of the variable. Although he considers even the 9.4% rate conservative, he states that Mono's performance has been extremely poor if the 4.7% discount rate is used.

D'Antonio assigns to Mono's share of Kaiparowits a value of \$9 million. In doing so he rejects Edison's projection as unreliable for the following reasons:

1. It is uncertain that coal will ever be mined from Kaiparowits.
2. Edison wrongly assumes the Ivanpah power plant will be operating by 1984.
3. The projections use an "FOB Mine" price rather than a delivered price.
4. Edison's transportation costs are unrealistic.
5. The analysis doesn't include environmental cleanup costs.

Consequently, he required an alternate method of assigning value to Kaiparowits.

He observed that SDG&E, which owns an equal interest in Kaiparowits, was currently negotiating to sell its share. According to data provided by SDG&E, \$9 million was considered the value most likely to be received for its share. D'Antonio considers market price the correct measure of present value because, by definition, the market price of an asset is the market's estimate of present value, as the market price incorporates all relevant factors: cash flows, transportation cost, risk, etc. Thus, he used the \$9 million figure in his analysis.

Forecasts of future oil, natural gas, and uranium prices are critical variables in D'Antonio's and Edison's analyses.

D'Antonio is critical of Edison's price assumptions which he characterizes as "implausible."

Regarding natural gas prices, D'Antonio claims that Edison's forecasts demonstrate a basic ignorance of microeconomics and/or the natural gas market. He states that when the natural gas market becomes deregulated, the price of all categories of gas will converge toward a market clearing price, since under deregulation gas will be a homogenous commodity valued on the basis of its energy content.

D'Antonio states that Edison's forecasts don't show any convergence toward a market clearing price. Instead they show gas escalating at a constant 9% annually between 1985 and 1995. He contends that Edison's estimates show no understanding of supply and demand, since if gas prices increase as Edison predicts, demand for natural gas should fall rapidly toward zero because gas would be selling at such a large premium to its substitutes.

For his own analysis D'Antonio assumed that real gas prices would rise by 1.5% annually, after comparing the results with independent estimates prepared by the Department of Energy (DOE) and the American Gas Association (AGA). He states that if the AGA estimates are good estimates, then even the 1.5% scenario that he used is significantly biased in Edison's favor.

Regarding uranium prices, D'Antonio analyzed three forecasts and compared their results with the 1.5% annual real price increase scenario. The three forecasts are identified as "Industry," DOE, and the California Energy Commission (CEC). D'Antonio states that he does not have confidence in any of these forecasts.

The "Industry" estimates were provided by Edison. D'Antonio states that these estimates seem reasonable until 1994 when the price is forecasted to increase by \$20 per pound, a 38.5% real price increase in one year. He knows of no events that are expected to occur during 1993 that might cause such a large increase.

D'Antonio finds the DOE estimates unreliable because they are in nominal, rather than real, dollars. He states that Edison was specifically requested to provide all numbers in real dollars. He contends that these estimates cannot be converted to real dollars because we don't know what inflation will be for the next 15 years.

D'Antonio finds that the CEC estimates are unreliable because they are based on demand assumptions that are very unlikely. He provides an analysis of demand and supply, and observes that the adequacy of uranium supply through the mid-1990s is not an issue. He states that if optimistic demand estimates are correct, the price of uranium will probably rise from the current depressed price. However, because of lack of demand, spot prices have declined in real terms every year since 1976. He characterizes the current state of the nuclear industry as collapsing and asserts that if the trend continues, the real price of uranium might continue falling. Since the price of uranium may continue in its depressed state, he states that even the 1.5% annual real price increase may seem too high.

D'Antonio's financial analysis stops at the end of 1996, so that projects that produce energy after 1996 are not counted at their full value. In order to account for this revenue, he developed an estimate of expected cash flow after 1996, based on estimated cash flows in 1996 and remaining lives. The result of this calculation was a total present value of \$46 million. He then adjusted this result in recognition of two factors:

1. The method assumes that 1996 cash flows continue for the entire economic life of each project. However, at the end of a project's economic life it has zero or negative cash flow by definition, because of slowed production and/or cost escalation. Thus, using 1996 cash flows may substantially overstate those that are likely to exist near the end of a project's life.

2. Edison gives no estimate of the costs associated with project completion, such as clean-up, plugging wells, and moving equipment.

Because of these factors he considers \$46 million too high. He estimates the present value of post-1996 cash flow as approximately \$30 million (plus or minus \$10 million).

As shown above, D'Antonio calculates the 1982 present value of Mono's EEDA program from 1974 to 1996, before tax credits, as negative \$294 million, using the 9.4% discount rate. Although Mono has a \$110.6 million present value of tax credits from past losses, D'Antonio asserts that it is not correct to include 100% of all past tax credits without considering the taxes Mono will pay on forecasted positive future cash flow. Using certain assumptions explained in his exhibit, D'Antonio estimates \$40 million as the present value of future taxes.

D'Antonio's adjusted estimated present value of Mono's EEDA program is as follows:

(\$000)	
Item	Discounted Cash Flow
1974-1981	-\$348,209
1982-1996	45,198
Kaiparowits	9,000
Post-1996	30,000
Tax Credits (1974-1981)	110,581
Taxes (Post-1981)	40,000
Net Present Value	-\$193,430

In his terms this means that if Edison's ratepayers possessed knowledge of Mono's past and expected future performance, they would be willing to pay approximately \$193.43 million to have completely avoided EEDA. Since Mono's losses have occurred during a period of rapidly increasing energy prices and high profits for most energy companies, he claims that Mono's performance is worse in relative terms than in absolute terms.

D'Antonio also examines the EEDA concept, and finds it wanting. He states that the purpose of EEDA is twofold:

1. To secure additional supplies of energy that otherwise would not be available to California.
2. To obtain needed energy at an advantageous price.

He argues that there are reasons to expect EEDA would fail.

D'Antonio contends that EEDA is a cost-plus program in which the utility invests its money and receives a guaranteed rate of return from ratepayers. The utility's return is equal to the most recent authorized return on rate base. It is not a function of performance. Thus, the utility has no current profit incentive to minimize costs, or even to find energy. Even the regulatory lag incentive of base rates is absent. D'Antonio claims that profits cannot be maximized by investing in as many projects and spending as much money as possible.

Furthermore, D'Antonio observes that the performance of the EEDA participant is seldom evaluated, compared with other corporations whose performance is evaluated every day by the stock market. He claims that his is the first comprehensive financial analysis ever performed on an EEDA participant. With no incentive to obtain low-cost energy, there is no reason to believe that EEDA participants will produce energy at lower cost than can other energy companies.

D'Antonio contends that whether energy markets are themselves inherently competitive is irrelevant. He states that if energy markets are not competitive, there exist barriers to entry which raise potential entrant's costs above the level of the dominant firms. If such barriers do not exist, the markets are competitive. If energy markets are uncompetitive, EEDA participants will face barriers to entry that raise their costs above those of the oligopolists, preventing the EEDA participants from producing energy at competitive prices.

in 1978 the EEDA was established as a public utility

and is now a public utility and is subject to the same rules as other public utilities.

D'Antonio does agree that EEDA can potentially yield a stable supply of energy if participants are given enough money. However, he argues that California can obtain stable supplies at lower prices by way of long-term contracts with reliable suppliers. He states that the EEDA program is very risky by contrast. Before authorizing funds for EEDA, we have no idea of how much the energy will cost - we don't even know if energy will be found. He states that we don't even know the capability of EEDA managers. Energy exploration is a risky business, made even riskier when you don't know who will manage your money. With long-term contracts there is no comparable risk - prices are either fixed or can be based on known escalation factors.

As an independent consideration, D'Antonio observes that there is no mechanism in EEDA to match the timing of costs and benefits so that one group of ratepayers may subsidize another. He states that with Edison's EEDA program it seems likely that the 1975-1985 ratepayers will pay most of the costs of abandoned projects, and the 1985-2000 ratepayers will receive most of the benefits from energy production.

As a further criticism of the EEDA procedure, D'Antonio contends that the rate of return allowed on EEDA investments is too high. He reaches this conclusion based on an analysis of relative risks.

By D.88121 participating utilities are authorized a rate of return on approved EEDA projects equal to the most recent rate of return authorized to the utility. The authorized rate of return is composed of returns on common equity, preferred stock, and debt, each multiplied by its percentage of the capital structure. These returns are to compensate investors for the risk they face in holding the securities of a utility corporation.

D'Antonio points out that Edison is itself an investor in EEDA. Thus it is appropriate for Edison to receive a return that is commensurate with the risk it incurs in making this investment.

D'Antonio states that Edison receives a guaranteed rate of return on its Mono investment since Edison is compensated dollar for dollar. He distinguishes this practice from the general rate case procedure where revenues and expenses are subject to forecast error. He asserts that the risk on this investment is less than the risk of a long-term debt investment, because Edison's return on Mono is adjusted for changes in market conditions every two years when the Commission adjusts Edison's rate of return. Thus, unlike long-term debt, there is no risk of having money tied up in old low-yielding securities while yields have increased due to changing market conditions. Thus the risk of investment is comparable to an investment in a two-year bond that also yields a fixed return for two years.

D'Antonio contends that in no way is Edison's investment in Mono comparable to an equity investment. He observes that returns on an equity investment are not fixed even for a day, fluctuating constantly with the fortunes of the corporation. He describes this as the essence of equity risk - a constant fluctuation in the value of the investment based on the company's performance. He argues that Edison takes no such risk. Its return is not a function of Mono's performance and does not constantly change.

D'Antonio concludes that Edison should not receive equity returns on its EEDA investment, because the risk is not comparable to an equity investment. To more fairly compensate Edison for its risk, it should receive a return no greater than the yield on new issues of its long-term debt.

Based on his analysis D'Antonio draws two major conclusions:

1. The greater majority of California experience with EEDA is Mono's EEDA program. Mono's program has been a big loser, with an expected net present value of -\$193 million.
2. EEDA is a classic case of bad economics. Our economic system is based on monetary compensation as a reward for providing a useful service or product. Under EEDA the participants receive monetary rewards even without providing a useful product. They have little incentive to find and produce energy at minimum cost. Thus, cost-plus programs should be avoided whenever possible, and they can be easily avoided in the case of energy used to generate electricity.

Based on his conclusions he offers four recommendations:

1. Immediately abolish the EEDA mechanism.
2. Require Edison and SDG&E to justify that continued EEDA funding for approved projects is clearly, beyond any reasonable doubt, in their ratepayers interest. Projects that can't be justified should be either sold or written off in accordance with existing EEDA accounting procedures.
3. Order Edison and SDG&E to keep expenditures on existing projects at the practical minimum during the justification phase.
4. Change the rate of return authorized on approved EEDA investments to no greater than the participant's yield on new issues of long-term debt.

#### Utility Rebuttal

Edison offered two rebuttal exhibits. The testimony of L. D. Davis was directed to Johnson's testimony. The testimony of Dorothy Whelan was directed to both Johnson's and D'Antonio's testimony.

The purpose of Davis' testimony was to correct certain substantive errors allegedly made by Johnson in the preparation of



his report. The exhibit does not examine Johnson's analytical methods; rather, the witness intended only to correct mathematical calculations, uses of data (such as incorrectly taking a number from the wrong column or line of a data request response), and misinterpretation of data. For purposes of this testimony Davis limited herself to errors that are equal to or greater than \$10 million.

The difference in present value between Johnson's calculations and Davis' using the same data and the same methodology is \$136.4 million. Thus Davis shows a positive present value of \$34.4 million although she does not agree with or accept Johnson's approach.

The purpose of Whelan's testimony was to address on a conceptual level the analyses that were performed by Johnson and D'Antonio and to respond to D'Antonio's recommendation that the rate of return authorized on approved EEDA investments should be limited to the yield on new issues of long-term debt. She concludes that their financial analyses are inappropriate and D'Antonio's rate of return adjustment should be disregarded.

Whelan asserts that both Johnson and D'Antonio have attempted to address two separate and independent issues through a single financial analysis. The first issue to which she refers is whether Mono's investments have been financially beneficial to the ratepayers. The second is whether there is currently any financial justification for continuing with ratepayer exploration and development programs.

Whelan argues that the two issues should be considered separately and independently because: first, the basic objectives for examining the two issues are different, and second, except to the extent that new knowledge may be gained from past experiences, past performance is irrelevant to an analysis of future events. She

states that an analysis of historical performance is made for learning purposes only. The value of studying the past lies in the knowledge and understanding that can be gained and applied when making future decisions.

Whelan contends that an analysis of expected performance is made when there are mutually exclusive alternatives available for investing funds, such as continuing with the EEDA program, or terminating it and relying on others to develop required energy supplies. Regardless of the alternative action that is adopted, the past obviously remains the same. Thus she concludes the past is irrelevant when a decision regarding the future must be made.

Whelan further observes that Johnson and D'Antonio only analyzed the financial aspects of Mono's performance. She states that the decision to make an investment may be based on reasons other than financial gain. Also, by using historical cash flows that include all investment costs, the actual impact on the ratepayer is distorted. The cost to the ratepayer has been strictly that which has been paid through the fuel service charge. This is an amount considerably less than the amount that has been invested to date. She states that since exploration and development projects are generally long-term investments, there may be substantial upfront costs that must be incurred before financial benefits will start to accrue. She complains that by present valuing historical data as D'Antonio did, historical events are distorted by the application of uncertain factors. She argues that the type of financial input that the Commission needs when deciding whether the EEDA program should be continued or terminated is the total cost to the ratepayer of each of the alternatives. Whelan states that neither Johnson nor D'Antonio provided that information.

Regarding the rate of return question, Whelan asserts that the money Edison advances to Mono comes from Edison's bondholders and

shareholders. Edison generally does not raise external funds for specific projects - the cost of money to Edison is the same whether the money is invested in Mono or in a generating plant. She argues that it is this cost of money to Edison that is correctly being recovered on EEDA investments. Limiting the return to the yield on new long-term debt would deny Edison's equity investors their opportunity to earn a fair and reasonable return on that portion of their funds invested in Mono.

Contentions of the Parties

We will first examine the contentions of the parties regarding the major policy question whether the EEDA mechanism should be terminated. If the mechanism is retained, we will address whether it should be modified, including the rate of return issue. If the mechanism is terminated, we will address the various proposals for termination.

Edison contends that EEDA continues to be a sound concept that should be supported by the ratepayers. Edison observes that "perturbations" in energy markets have been the rule rather than the exception since the Commission's earlier review of Edison's EEDA projects. Edison warns that a Commission decision regarding the validity of EEDA should not give undue weight to the short-term environment of today's energy market, characterized by transient and extreme fluctuations that are difficult to forecast and prove to mislead. Edison states that when its EEDA program was approved in 1977, its projects were oriented toward a future that was uncertain in many respects, not the least of which were energy resource availability and price. Edison claims that those energy market conditions are no less significant today than when Edison's EEDA program was approved.

Consequently Edison argues that supervening events and conditions have not altered the common sense, prudence, and foresight reflected in the Commission's original EEDA decision, D.88121. Edison refers to the criteria for EEDA funding stated in that decision:

1. secure additional supplies of energy that would not be otherwise available to California;
2. obtain needed supplies of energy at an earlier date than such supplies would become otherwise available;
3. obtain additional needed supplies of energy at an advantageous price;

and argues that its EEDA program has satisfied these. Edison proposes that EEDA continue essentially unchanged with the same criteria.

The only change that Edison proposes is that closer communication should be developed with the staff. Edison suggests that closer coordination with the staff, perhaps through regularly scheduled quarterly or semiannual meetings to review ongoing activities, results, and new project submittals, would be beneficial to all parties and give a better understanding of Mono's efforts.

SDG&E states that the Commission must be careful so that it does not allow short-term market swings to distort its overall evaluation of the EEDA concept. SDG&E warns that even though the energy scare of the mid-70s seems far off and unreal when viewed in the context of today's energy markets, tremendous energy uncertainty remains. SDG&E argues that in today's "unsettled" energy markets entry into selective EEDA investments offers the best opportunity to obtain energy resources at advantageous prices as well as secure long-term fuel supplies. Further, SDG&E claims that EEDA offers a method of diversifying resources, one of the most important goals for California utilities.

Staff states that the policy question that the Commission must answer is whether ratepayer-supported exploration and development programs remain prudent investments in light of changes that have occurred in the energy markets since EEDA was authorized. Referring to the criteria announced in D.88121, staff states that the

issue in this proceeding is whether the same criteria are applicable today, or whether there remains any justification whatsoever for the EEDA program. Staff argues that EEDA has failed and is likely to continue to fail to provide any significant ratepayer benefits. Staff concludes that EEDA should be terminated immediately.

Staff relies on its financial analysis that includes Edison's past performance. Staff criticizes Edison's forward-looking only approach as asking the Commission to blind itself from observing the truth of Edison's EEDA program by ignoring the failures.

Staff argues that if the Commission were interested only in knowing whether to continue funding EEDA pursuant to Edison's proposed exploration and development program it might be appropriate to dismiss the past simply as sunk costs. However, the Commission should also be interested in knowing how well EEDA has performed for the ratepayers. Staff observes that regardless of how many years the EEDA program failed to produce benefits for the ratepayers, Edison or would still have the Commission look only at future costs and revenues to determine whether to finance EEDA.

Staff argues that Edison is not even consistent to its own methodology. Staff notes that Edison suggested that the type of financial input that the Commission needed is the total cost to the ratepayer of each alternative. Staff contends that Edison should have presented various alternatives to proceeding with the program. Staff complains that Edison presented no present value financial analysis of alternatives to going forward other than complete abandonment of all the properties.

In support of its own financial analysis staff argues that D'Antonio's use of historical cash flows is appropriate because ratepayers are responsible for all program costs even though they may have paid only the costs billed through the fuel service charge.

Thus staff asserts that in analyzing EEDA all cash expenditures should be considered in order to determine the present value of future benefits. Staff contends that looking at the fuel service charge alone distorts the analysis because the fuel service charge contains a cost of funds component that is not related to ratepayer risk.

Staff also argues that the concept of EEDA is itself flawed. Staff states that Mono's poor financial performance is just what one should expect from an essentially cost-plus program in which the company has no profit incentive and where the performance of the company is not evaluated in financial markets.

Staff states that even if EEDA were to generate economic benefits for the ratepayers and if its apparent defects could be cured, there would still remain the question whether there is any justification for making ratepayers invest in an energy exploration and development company. Staff contends that the rationale that previously supported having ratepayers invest in EEDA was that the marketplace would not meet energy demands because of Federal regulation since there were not sufficient incentives for private industry or regulated utilities to invest in oil and gas exploration. However, since EEDA was last examined staff observes that oil and gas have been completely or partially deregulated. Since in nearly every EEDA project Edison is participating along with major oil and gas producers, staff argues that there is no longer any need to force ratepayers to make these risky energy investments.

Edison contends that staff's financial analyses are conceptually unsound. Edison claims that a proper financial analysis from the ratepayer perspective should be based on the fuel service charge which represents cash flow as actually incurred by the ratepayer. This is an amount that is substantially less than the amount that has been invested to date. Edison states that measuring these costs by including with the present value of past cost flows all investment costs vastly overstates the actual impact on Edison's

ratepayers. Edison claims that its own financial analysis has taken into account Mono's past performance by including the write off of past investments as they are recovered through rates. Edison argues that staff has incorrectly included sunk costs in its analyses since such costs should not be considered when making a decision whether or not to proceed from a given point in time.

Edison complains that staff has unrealistically interpreted the order instituting this investigation. Edison argues that a fair reading of the order suggests the Commission is interested in knowing how well EEDA has performed in a broad sense. Edison contends that abundant evidence was introduced with respect to benefits other than purely economic that staff ignored. Edison argues that staff has expanded the criteria by which the performance of EEDA may be evaluated by focusing on prudence and economics. Edison states that it does not take exception to a requirement that management of EEDA project be prudent, however, Edison does object to staff's interpretation of prudence as solely economic.

SDG&E warns that the Commission should consider the economic price signal that would be given if the Commission does adopt the staff recommendation to terminate EEDA. SDG&E states that the staff position is that in times of supply crises the EEDA concept and high-priced investments are appropriate, while when there is no supply crisis EEDA participation is not appropriate in low-priced investments so that the assets should be sold. SDG&E states that based on staff's position it would conclude that EEDA investment policy would ignore conventional investment logic to buy low and sell high, and instead would buy high and sell low. SDG&E states that today, when market conditions allow utilities to obtain energy resources such as uranium in a depressed market, a long-term outlook dictates that EEDA continue and that cost-effective investments be pursued. SDG&E argues that the test of projects must be over the

life of each project, not based simply on market conditions that exist at one isolated time in a project's life.

SDG&E argues that D'Antonio's analysis fails to address the impact of the EEDA mechanism on the ratepayer. SDG&E contends that by combining past investments by Mono with cash benefits to ratepayers in the future D'Antonio has incorrectly characterized the actual cash outflow pattern of the ratepayers under the EEDA mechanism. SDG&E states that actual ratepayer cash flows occur substantially later than Edison's and are in nominal, not present value, dollars. SDG&E concludes that since D'Antonio did not focus on ratepayer cash flow, it is impossible to estimate what his analysis would have yielded in the properly focused ratepayer benefit framework.

SDG&E observes that the staff analysis focuses on Edison, with minor effort applied to SDG&E. SDG&E states that in D.88121 the Commission noted that the energy resource requirements of the separate utilities are different. Further, since the EEDA program of a particular utility is tailored to the energy needs of that utility, there is no expectation that the EEDA programs will be uniform. SDG&E argues that since the EEDA programs differ, it is appropriate to separately consider for each utility what changes or modifications, if any, are required in that utility's EEDA mechanism. SDG&E argues that its EEDA program deserves far better treatment than to be analyzed by inferences raised by analysis of other programs.

SDG&E claims that it has developed a small, carefully controlled EEDA program based on the criteria that over the life of a resource or plant, a resource should provide fuel on a secure basis at a price roughly comparable to or better than what would have been obtained elsewhere. SDG&E admits that it has not attempted to quantify the benefits that its EEDA program has provided. However,



it contends that the market value of its geothermal assets clearly exceeds the cost to the ratepayers and that Kaiparowits has a positive value. Further, SDG&E complains that the staff position ignores the advantages and benefits of EEDA discussed in D.88121 that are not of a quantitative nature.

Comments on Proposed Report of Administrative Law Judge Patrick J. Power

On May 15, 1984 we served copies of the Administrative Law Judge's draft decision on all parties to receive comments on the reasonableness of Edison's \$64 million figure as a basis for Edison's acquisition of its EEDA projects from its ratepayers. Comments were received from Edison and SDG&E on May 30, 1984. According to Edison, the \$64 million figure is not representative of the market value of its ratepayers' interest in approved EEDA projects. Edison states that \$64 million is substantially greater than the price any third party would pay for Edison's EEDA properties. Edison claims that its EEDA properties have a much lower present value than \$64 million if analyzed from the perspective of Edison's shareholders or a third party investor primarily because of income tax effects which Edison estimated to be about \$50 million. Edison claims that the ALJ's wind down proposal for its EEDA programs is unfair and recommends that it file an advice letter specifying an appropriate wind down proposal.

SDG&E did not comment on the \$64 million acquisition price for Edison's EEDA programs. SDG&E did object to the draft decision's 90 day time schedule for the sale of its EEDA projects. It claims that such a "fire sale" would not be conducive to maximizing the potential gain from its existing projects. In addition, SDG&E objected to being treated differently than Edison with regard to its investment in the Kaiparowits Coal Project.

Discussion

We reject Edison's contention that the relevant financial analysis of EEDA is prospective only. The analysis performed by Edison is simply inadequate to support the continuation of EEDA. The more complete analysis provided by staff confirms what Edison's omissions imply: EEDA has failed.

Edison's analysis is limited to projects that are already included in EEDA. Such an analysis does not accurately portray an ongoing EEDA program because it excludes the effects of new projects that would be undertaken if EEDA were continued. The performance of an ongoing program would depend on the success of Edison's exploration and development efforts. There is no indication that Mono has changed either its management or its practices. Thus the best evidence of the likelihood that Mono will succeed is its past performance.

The thorough analysis provided by staff addresses this problem. Using the 9.4% discount rate that D'Antonio considers appropriate yields a negative present value of all historical cash flows of \$237.6 million. Both Edison and SDG&E criticize his method, but neither party ever attempted to offer an alternative computation. We can only construe their failure as a tacit admission that the results would not be materially more favorable to their position.

Nor are we offended by the conceptual constructs that underlie D'Antonio's analysis. His calculation of the appropriate discount factor is based on the principle that Mono is a riskier investment than Edison which is the basis for having EEDA in the first place. His characterization of the ratepayer as like equity investors and the utility as like a lender simply recognizes that the ratepayer bears the risks and receives the benefits of EEDA, the central theme of D.88121.

Staff and Edison disagree vigorously over projections of future cash flows. Staff is particularly critical of Edison's forecasts of natural gas and uranium prices, while Edison vigorously supports its estimates. The actual difference between D'Antonio and Edison is not as large as implied: D'Antonio calculates the present value of future cash flows as \$44.2 million (through 1996), while Edison calculates the present value of the future cash flows as \$64 million through the remaining life of the projects.

Obviously, neither of these calculations yields sufficient contribution to overcome the historical cash flow burdens. Thus we conclude that Edison's EEDA program has had a substantial negative financial impact on Edison's ratepayers.

Edison and SDG&E argue that EEDA was never intended to be judged in strictly economic terms. Although we agree, there is no evidence that EEDA is any more successful in noneconomic terms. We conclude that EEDA should be terminated.

Edison and SDG&E refer to the three criteria stated in D.88121, and contend that the staff analysis mistakenly focuses on only one - advantageous price. They claim that EEDA has secured additional supplies of energy that would not otherwise be available and obtained needed supplies at an earlier date. Their proof is not persuasive.

From its inception EEDA was an extreme reaction to an extreme problem: the disruption in energy market caused by the Arab oil embargo. There were serious doubts whether energy markets would respond to utility energy requirements. Thus these noneconomic considerations were recognized as necessary for electric utilities to fulfill their basic obligation of service to the public. Clearly, if the energy companies themselves were likely to satisfy utility needs there would be no need for EEDA except to the extent that it provides energy at a lower price. Their projects are expressly not subject to advance approval by the Commission and the utility is subject only to the risk of having been found imprudent. No EEDA expenditure has ever been disallowed.

Energy markets are among the riskiest of any. We suppose that one may well be prudent in energy exploration and development matters and still lose substantial dollars. The range of investment opportunities in energy resources is essentially infinite. The responsibility to review prudence in this context is simply overwhelming. Why did Edison drill for oil in Sicily?

The only evidence that Edison has been prudent is that in every resource that it is involved in, it is one of several joint venture partners. In most cases it is a minority participant. The other partners are established energy companies such as ARCO, Union Oil, and Southern Pacific Land Company. Edison states: "...it is not just Mono making judgments as to the viability of the resource play. It is experts in the energy development field." The reasoning seems to be that these other companies are risking their own money. Therefore they have an incentive to be prudent. By simply going along, Edison is also prudent.

This reasoning is sound but the implication is devastating to the EEDA concept. For if the energy companies are developing these resources, there is no need for the electric utility participation. EEDA was intended to allow the utilities to go where the energy companies wouldn't. Thus the only evidence that the utilities have been prudent is compelling evidence that EEDA was never necessary.

There is no evidence that these various resources would not be developed without EEDA. To the extent utility participation appears critical it seems more in the nature of a buyer-seller relationship. Obviously, EEDA is not a condition precedent to a buyer-seller relationship. Thus we cannot find that EEDA has secured additional supplies of energy that would not otherwise be available or that it has obtained needed supplies at an earlier date.

We don't mean to suggest that EEDA hasn't been useful to the utilities. Obviously, they have used it and would like to continue using it. However, their support for EEDA appears more firmly grounded in risk aversion than in any need for the EEDA procedure.

The underlying theme of the utility showing is that the limited risk is consistent with the limited opportunity to profit from its efforts, on account of the ECAC. The lack of incentives for the utilities to control costs is a matter of grave concern for this Commission and has been the subject of several proceedings.

Furthermore, the obligation to examine prudence does not end when projects are selected. It continues throughout the life of

each project through development or abandonment. Because of higher staffing priorities this Commission has not devoted scarce staff resources to review the prudence of utility EEDA programs. No prudent prudence review has ever been attempted. We cannot sanction the continued use of a mechanism that is based on a false assumption.

Another defect in the EEDA concept is its mismatching of risks and benefits between ratepayers themselves. As pointed out by D'Antonio, one generation of ratepayers bears the costs of exploration and development, while another enjoys the benefits of energy produced. Besides being unfair, this procedure is unsound, because it distorts the pricing signal that is essential to cost-effective conservation programs.

In summary we conclude that the central flaw in the EEDA concept is congenital. The results of the EEDA programs are disappointing but not surprising in view of the lack of incentives for more effective performance. We can think of no current market conditions to which EEDA would be an appropriate response. Therefore we terminate EEDA.

## Termination

Edison states that a number of factors must be considered in determining to terminate EEDA. The currently depressed economy, including many of the energy industries, is cited as not conducive to maximizing the return from a sale of Mono's holdings in the immediate future. Edison states that if liquidation of Mono's assets is ordered, time will be required to implement an orderly divestiture. Edison offers a wind down program predicated on minimizing holding costs for the next two to three years, while seeking to maximize future recovery of Mono's investments, but warns that in certain instances liquidation would not be warranted for a longer time. Further, Edison argues that a wind down should be limited to

exploration and development activities, not projects in the production phase. Edison suggests that details of a wind down program should be worked out with the staff.

SDG&E suggests that the Commission direct an orderly termination of the program consistent with the individual commitments of the utilities. SDG&E states that the order be structured to maximize potential gain from existing projects and to minimize losses, and proposing this be accomplished by maintaining the existing procedure intact and by simply not approving new projects.

Staff recommends that EEDA be terminated for new projects. Regarding existing projects, staff proposes that Edison and SDG&E be ordered to perform a present value analysis of all options for their projects. Staff would require Edison and SDG&E to justify, beyond any reasonable doubt, that continued funding of already approved projects is in their ratepayers' interest. Projects which can't be justified should either be sold or written off the books in accordance with existing EEDA accounting procedures.

Having already expressed our dissatisfaction with the EEDA procedure, we are not favorably disposed toward a lengthy winding down methodology that involves ongoing judgement on our part. However, we must develop a procedure for terminating the EEDA program that is fair to both the utilities involved and to ratepayers. Our major objective in developing this procedure is to maximize the return to ratepayers from their investment in EEDA and to allow SDG&E and Edison recovery of all reasonable expenses they incurred as part of our adoption of the EEDA mechanism. We would also like to develop a termination procedure that is expedient, easy to administer, and similar for both Edison and SDG&E.

There are two basic procedures which we may use to wind down Edison's and SDG&E's existing EEDA programs. The first would be to order Edison and SDG&E to purchase their EEDA properties from ratepayers at a fair market value and then leave the final disposition of these properties to their discretion. The second basic procedure

would be for us to approve a specific project by project wind down schedule whereby Edison and SDG&E would attempt to sell the majority of their properties, and possibly retain certain properties on a short-term basis if their current market value was significantly depressed or if they had a large potential value only to ratepayers. We will consider both of these options for terminating EEDA in future decisions.

Until we get more information, we will not require Edison to purchase its EEDA properties from its ratepayers. The ALJ's draft decision states that Edison's net present value estimate of \$64 million is a reasonable amount for Edison to pay to its ratepayers for the acquisition of its EEDA properties. In estimating this net ratepayer benefit at the time of hearing, December 9, 1982 through February 9, 1983, a variety of assumptions were made by Edison that no longer appear to be reasonable in today's energy market. In addition, as Edison points out, the value of its EEDA properties is affected by income taxes which are calculated differently from the perspective of ratepayers compared to Edison's shareholders or a third party investor. According to Edison, this income tax effect was not taken into account in their calculation of the \$64 million figure.

The record of this proceeding does not adequately explore or explain the magnitude of the income tax differential. Only the comments on the draft decision have begun to shed some light on the issue. Edison claims that a third party investor would pay about \$50 million more in income taxes than ratepayers would. The staff's original testimony states that \$40 million worth of income taxes would have to be paid on the future cash flow derived from Edison's EEDA properties. What is now clear is that the parties in this case have not demonstrated to our satisfaction that \$64 million is a fair acquisition price for Edison's EEDA projects. In fact, it was never the intent of the parties in this proceeding to determine a fair acquisition price for either Edison or SDG&E's EEDA properties.



We plan to terminate the entire EEDA process as quickly as possible while also attempting to maximize ratepayer benefits. Therefore, we intend to ultimately direct Edison and SDG&E to sell or terminate all funding for most of their existing EEDA projects within three years of the date of this order. This is a reasonable time period for the completion of wind down activities, and it is consistent with our usual time limit of three years for holding Plant Held for Future Use (PHFU) in rate base. We may allow Edison and SDG&E to retain certain projects for longer than three years if it can be shown beyond a reasonable doubt that doing so is in the interest of ratepayers. This might be the case for productive projects which can't be sold at a reasonable price, or projects with severely depressed market values. We may also allow MONO and NARCO to negotiate overriding royalty interest arrangements if such arrangements benefit ratepayers.

MONO and NARCO are allowed to continue billing Edison and SDG&E for existing EEDA programs through the fuel service charge until we have the information necessary to make a final determination.

OII 82-07-01 cg.\*\*

regarding the disposition of these programs. In the meantime, Edison and SDG&E should keep all expenditures on their existing EEDA programs to a practical minimum and proceed with the notion that we will ultimately order the sale of most EEDA properties within three years of the date of this order. Edison and SDG&E should realize that we will critically review major expenditures occurring after the date of this order. In addition, we will not decrease Edison's and SDG&E's rate of return on funds invested in approved EEDA projects to their respective yields on new issues of long-term debt as recommended by staff. Although this recommendation is well reasoned, it would not be appropriate for us to change the participants' rate of return at this late date. We prefer to protect ratepayers by terminating EEDA as quickly as possible.

We direct Edison and SDG&E to jointly hire a qualified consultant to develop a proposal and schedule for the eventual sale and phasing out of all EEDA programs. The proposal should specify when and how each project should be sold in order to maximize ratepayer benefits. The selection of the outside consultant shall be made with the involvement and approval of our staff. In addition, our staff should have the major role in defining the consultant's scope of work, managing the consultant, and assuring that the consultant's analysis and final report is consistent with the opinion we have set forth here today. We direct our Executive Director to coordinate the staff involvement with Edison and SDG&E in this matter. The consultant should keep in mind that if it's feasible and in the best interest of ratepayers, we hope to phase out most, if not all, EEDA programs within three years of the date of this order. The consultant should consider the significant factors affecting the value of EEDA properties to the ratepayers or a third party investor such as any recapture of income tax credits. At a minimum, the consultant should also:

1. Appraise the current market value for each of Edison's

and SDG&E's existing EEDA projects, relying upon current estimates of (a) anticipated rates of production and/or deliverability, (b) production life of the resource, (c) market price for the resource, (d) reasonable costs of production, and (e) taxes on a nonconsolidated basis (i.e., treating MONO, Edison and NAROC as separate companies engaged in the energy resource business); 2. Determine the holding cost associated with existing projects; 3. Determine which projects, if any, should be kept and funded through their useful life (e.g., producing projects); and 4. Develop an appropriate bidding procedure for Edison and SDG&E to sell their interest in their EEDA projects.

The consultant shall submit its final report to the offices of each Commissioner and the Executive Director within six months of the date of this order. At that time, the Executive Director should consult with the Assigned Commissioner and the ALJ Division to determine how to proceed with the termination of existing EEDA programs. Following these consultations, the Assigned Commissioner shall report to the other Commissioners regarding the procedural options available to us in terminating these EEDA programs, together with any recommendations he or she might have. We may then decide to require Edison and SDG&E to immediately purchase their respective EEDA programs from the ratepayers at a fair value, or we may choose to adopt a more gradual and scheduled phase out of EEDA where individual projects are sold by a bidding procedure and any net proceeds from the sale are credited to ratepayers. We will keep this proceeding open so that we can issue further decisions as required to accomplish this termination. This procedure will assure that all involved parties are treated fairly and that ratepayers' return on their EEDA investment is maximized.

#### Pending Projects

Edison has four project letters pending for approval. The total expenditures for these projects through the end of 1981 amounted to \$4.42 million. Edison claims these projects were undertaken with consideration to satisfying EEDA criteria and asks that they be approved.

The total expenditures for these projects through the end of 1981 amounted to \$4.42 million. Edison claims these projects were undertaken with consideration to satisfying EEDA criteria and asks that they be approved.

and SDG&E's existing EEDA projects, relying upon current estimates of (a) anticipated rates of production and/or deliverability, (b) production life of the resource, (c) market price for the resource, (d) reasonable costs of production, and (e) taxes on a nonconsolidated basis (i.e., treating MONO and NAROC as separate companies engaged in the energy resource business);

2. Determine the holding cost associated with existing projects;

3. Determine which projects, if any, should be kept and funded through their useful life (e.g., producing projects); and

4. Develop an appropriate bidding procedure for Edison and SDG&E to sell their interest in their EEDA projects.

The consultant shall submit its final report to the offices of each Commissioner and the Executive Director within six months of the date of this order. At that time, the Executive Director should consult with the Assigned Commissioner and the ALJ Division to determine how to proceed with the termination of existing EEDA programs. Following these consultations, the Assigned Commissioner shall report to the other Commissioners regarding the procedural options available to us in terminating these EEDA programs, together with any recommendations he or she might have. We may then decide to require Edison and SDG&E to immediately purchase their respective EEDA programs from the ratepayers at a fair value, or we may choose to adopt a more gradual and scheduled phase out of EEDA where individual projects are sold by a bidding procedure and any net proceeds from the sale are credited to ratepayers. We will keep this proceeding open so that we can issue further decisions as required to accomplish this termination. This procedure will assure that all involved parties are treated fairly and that ratepayers' return on their EEDA investment is maximized.

#### Pending Projects

Edison has four project letters pending for approval. The total expenditures for these projects through the end of 1981 amounted to \$4.42 million. Edison claims these projects were undertaken with consideration to satisfying EEDA criteria and asks that they be approved.

None of these projects is being undertaken by Edison. The projects are being undertaken by SDG&E. The projects are being undertaken by SDG&E. The projects are being undertaken by SDG&E.



Findings of Fact

1. EEDA was authorized for Edison in 1974 and for SDG&E in 1976.
2. Under the EEDA procedure utility investments are relatively risk-free.
3. An appropriate financial analysis of the EEDA programs takes into account past performance.
4. For analytical purposes the ratepayer is reasonably treated as the investor in EEDA projects and the utility is a lender.
5. A discount rate of 9.4% is reasonable for calculating the present value of Edison's EEDA historical cash flows.
6. From its inception through 1981, the present value of the historical cash flows of Edison's EEDA program was about negative \$237.6 million.
7. SDG&E is unable to quantify the impact of its EEDA program on its ratepayers.
8. The present value of future cash flows is uncertain.
9. Edison calculates the present value of its future cash flows for approved projects as \$64 million, based on year-end 1982.
10. Edison's EEDA has had a substantial negative financial impact on Edison's ratepayers.
11. Energy markets are among the riskiest of any.
12. In every EEDA resource Edison is a joint venture partner with an established energy company that is risking capital.
13. The participation by the established energy company is evidence that Edison's participation is prudent.
14. EEDA is not necessary to develop resources that are being developed by established energy companies.
15. EEDA has not secured additional supplies of energy that would not otherwise be available.
16. EEDA has not obtained needed supplies at an earlier date.

*CORRECTION*

# CORRECTION

THIS DOCUMENT  
HAS BEEN REPHOTOGRAPHED  
TO ASSURE LEGIBILITY

OII 82-07-01 cg.\*\*

regarding the disposition of these programs. In the meantime, Edison and SDG&E should keep all expenditures on their existing EEDA programs to a practical minimum and proceed with the notion that we will ultimately order the sale of most EEDA properties within three years of the date of this order. Edison and SDG&E should realize that we will critically review major expenditures occurring after the date of this order. In addition, we will not decrease Edison's and SDG&E's rate of return on funds invested in approved EEDA projects to their respective yields on new issues of long-term debt as recommended by staff. Although this recommendation is well reasoned, it would not be appropriate for us to change the participants' rate of return at this late date. We prefer to protect ratepayers by terminating EEDA as quickly as possible.

We direct Edison and SDG&E to jointly hire a qualified consultant to develop a proposal and schedule for the eventual sale and phasing out of all EEDA programs. The proposal should specify when and how each project should be sold in order to maximize ratepayer benefits. The selection of the outside consultant shall be made with the involvement and approval of our staff. In addition, our staff should have the major role in defining the consultant's scope of work, managing the consultant, and assuring that the consultant's analysis and final report is consistent with the opinion we have set forth here today. We direct our Executive Director to coordinate the staff involvement with Edison and SDG&E in this matter. The consultant should keep in mind that if it's feasible and in the best interest of ratepayers, we hope to phase out most, if not all, EEDA programs within three years of the date of this order. The consultant should consider the significant factors affecting the value of EEDA properties to the ratepayers or a third party investor such as any recapture of income tax credits. At a minimum, the consultant should also:

1. Appraise the current market value for each of Edison's



and SDG&E's existing EEDA projects, relying upon current estimates of (a) anticipated rates of production and/or deliverability, (b) production life of the resource, (c) market price for the resource, (d) reasonable costs of production, and (e) taxes on a nonconsolidated basis (i.e., treating MCNO and NAROC as separate companies engaged in the energy resource business); 2. Determine the holding cost associated with existing projects; 3. Determine which projects, if any, should be kept and funded through their useful life (e.g., producing projects); and 4. Develop an appropriate bidding procedure for Edison and SDG&E to sell their interest in their EEDA projects.

The consultant shall submit its final report to the offices of each Commissioner and the Executive Director within six months of the date of this order. At that time, the Executive Director should consult with the Assigned Commissioner and the ALJ Division to determine how to proceed with the termination of existing EEDA programs. Following these consultations, the Assigned Commissioner shall report to the other Commissioners regarding the procedural options available to us in terminating these EEDA programs, together with any recommendations he or she might have. We may then decide to require Edison and SDG&E to immediately purchase their respective EEDA programs from the ratepayers at a fair value, or we may choose to adopt a more gradual and scheduled phase out of EEDA where individual projects are sold by a bidding procedure and any net proceeds from the sale are credited to ratepayers. We will keep this proceeding open so that we can issue further decisions as required to accomplish this termination. This procedure will assure that all involved parties are treated fairly and that ratepayers' return on their EEDA investment is maximized.

#### Pending Projects

Edison has four project letters pending for approval. The total expenditures for these projects through the end of 1981 amounted to \$4.42 million. Edison claims these projects were undertaken with consideration to satisfying EEDA criteria and asks that they be approved.

The ALJ Division is currently reviewing the Edison projects and will issue a decision on them by the end of 1982. The ALJ Division is also reviewing the SDG&E projects and will issue a decision on them by the end of 1982.

Findings of Fact

1. EEDA was authorized for Edison in 1974 and for SDG&E in 1976.
2. Under the EEDA procedure utility investments are relatively risk-free.
3. An appropriate financial analysis of the EEDA programs at least takes into account past performance.
4. For analytical purposes the ratepayer is reasonably treated as the investor in EEDA projects and the utility is a lender.
5. A discount rate of 9.4% is reasonable for calculating the present value of Edison's EEDA historical cash flows.
6. From its inception through 1981, the present value of the historical cash flows of Edison's EEDA program was about negative \$237.6 million.
7. SDG&E is unable to quantify the impact of its EEDA program on its ratepayers.
8. The present value of future cash flows is uncertain.
9. Edison calculates the present value of its future cash flows for approved projects as \$64 million, based on year-end 1982.
10. Edison's EEDA has had a substantial negative financial impact on Edison's ratepayers.
11. Energy markets are among the riskiest of any.
12. In every EEDA resource Edison is a joint venture partner with an established energy company that is risking capital.
13. The participation by the established energy company is evidence that Edison's participation is prudent.
14. EEDA is not necessary to develop resources that are being developed by established energy companies.
15. EEDA has not secured additional supplies of energy that would not otherwise be available.
16. EEDA has not obtained needed supplies at an earlier date.

We are not willing to approve specific projects in an investigation proceeding. Edison is free to file an application proposing appropriate treatment of its costs. Of course, as the applicant, it will have the burden of proof. Some more substantial showing is required than its generalized statements regarding the need to do something to respond to energy supply conditions.

Edison's application should be based on a showing of need for the proposed project.

Edison's application should be based on a showing of need for the proposed project.

Edison's application should be based on a showing of need for the proposed project.

Edison's application should be based on a showing of need for the proposed project.

Edison's application should be based on a showing of need for the proposed project.

Edison's application should be based on a showing of need for the proposed project.

Edison's application should be based on a showing of need for the proposed project.

Edison's application should be based on a showing of need for the proposed project.

Edison's application should be based on a showing of need for the proposed project.

Edison's application should be based on a showing of need for the proposed project.

Edison's application should be based on a showing of need for the proposed project.

Edison's application should be based on a showing of need for the proposed project.

Edison's application should be based on a showing of need for the proposed project.

Edison's application should be based on a showing of need for the proposed project.

Edison's application should be based on a showing of need for the proposed project.

Edison's application should be based on a showing of need for the proposed project.

Edison's application should be based on a showing of need for the proposed project.

Edison's application should be based on a showing of need for the proposed project.

Edison's application should be based on a showing of need for the proposed project.

Edison's application should be based on a showing of need for the proposed project.

Edison's application should be based on a showing of need for the proposed project.

17. EEDA mismatches risks and benefits between generations of ratepayers.

18. Edison's calculation of the present value of the future cash flows of its approved EEDA projects, on a project life basis, is not a reasonable basis for Edison's acquisition of its EEDA projects from its ratepayers.

19. A sale procedure will develop maximum benefits for Edison and SDG&E ratepayers.

20. Three years is a reasonable time frame in which EEDA's wind down can be completed.

21. It is reasonable to hire a consultant to develop a proposal and schedule for the eventual sale and phasing out of all EEDA programs.

22. It is reasonable for Edison and SDG&E to keep their future expenditures on approved EEDA projects at a practical minimum.

23. This order should be effective on the date signed in order to avoid further negative impacts of the EEDA procedure.

#### Conclusions of Law

1. The EEDA programs have been unsuccessful.
2. All new EEDA programs should be prohibited.
3. The ratepayers' interest in existing EEDA projects should wind down in a way that maximizes ratepayer benefit.
4. This proceeding should remain open until further order of this Commission.

#### O R D E R

IT IS ORDERED that:

1. The Energy Exploration and Development Adjustment (EEDA) program of Southern California Edison Company (Edison) and San Diego Gas & Electric Company (SDG&E) is limited to essential expenditures until a final determination is made regarding the disposition of approved EEDA projects.

2. Edison and SDG&E shall jointly hire an outside consultant as described in this decision, to forward a proposal to the Commission regarding the termination of existing EEDA work programs.
3. The Executive Director shall coordinate staff involvement in hiring and managing the consultant referred to in Ordering Paragraph 2.

4. This proceeding remains open.

This order is effective today.

Dated September 16, 1984, at San Francisco, California.

LEONARD M. GRIMES, JR.  
President

VICTOR CALVO  
PRISCILLA C. GREW  
DONALD VIALVA  
WILLIAM T. BAGLEY -  
Commissioners

Commissioners

Commissioners

Commissioners

Commissioners

Commissioners

Commissioners

Commissioners

Commissioners

Commissioners

SECE

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

Joseph E. Bodovitz, Executive Director

I N D E X

<u>Subject</u>	<u>Page</u>
OPINION . . . . .	2
Introduction . . . . .	2
Background . . . . .	3
Operation of the EEDA Mechanism . . . . .	3
EEDA Projects . . . . .	5
Staff Analysis . . . . .	19
Utility Rebuttal . . . . .	32
Contentions of the Parties . . . . .	35
Discussion . . . . .	41
Termination . . . . .	45
Pending Projects . . . . .	48
Findings of Fact . . . . .	49
Conclusions of Law . . . . .	50
ORDER . . . . .	50

it contends that the market value of its geothermal assets clearly exceeds the cost to the ratepayers and that Kaiparowits has a positive value. Further, SDG&E complains that the staff position ignores the advantages and benefits of EEDA discussed in D.88121 that are not of a quantitative nature.

#### Discussion

We reject Edison's contention that the relevant financial analysis of EEDA is prospective only. The analysis performed by Edison is simply inadequate to support the continuation of EEDA. The more complete analysis provided by staff confirms what Edison's omissions imply: EEDA has failed.

Edison's analysis is limited to projects that are already included in EEDA. Such an analysis does not accurately portray an ongoing EEDA program because it excludes the effects of new projects that would be undertaken if EEDA were continued. The performance of an ongoing program would depend on the success of Edison's exploration and development efforts. There is no indication that Mono has changed either its management or its practices. Thus the best evidence of the likelihood that Mono will succeed is its past performance.

The thorough analysis provided by staff addresses this problem. Using the 9.4% discount rate that D'Antonio considers appropriate yields a negative present value of all historical cash flows of \$237.6 million. Both Edison and SDG&E criticize his method, but neither party ever attempted to offer an alternative computation. We can only construe their failure as a tacit admission that the results would not be materially more favorable to their position.

exploration and development activities, not projects in the production phase. Edison suggests that details of a wind down program should be worked out with the staff.

SDG&E suggests that the Commission direct an orderly termination of the program consistent with the individual commitments of the utilities. SDG&E states that the order be structured to maximize potential gain from existing projects and to minimize losses, and proposing this be accomplished by maintaining the existing procedure intact and by simply not approving new projects.

Staff recommends that EEDA be terminated for new projects. Regarding existing projects, staff proposes that Edison and SDG&E be ordered to perform a present value analysis of all options for their projects. Staff argues that unless Edison and SDG&E show clearly that it is in the ratepayers' interest to continue spending on those projects, instead of selling them or abandoning them, no additional funds should be authorized.

Having already expressed our dissatisfaction with the EEDA procedure, we are obviously not favorably disposed toward a lengthy winding down methodology that involves ongoing judgment on our part. We prefer a procedure that sharply severs the ratepayer-utility relationship, while allowing the utility the flexibility to manage the investments most economically. Fortunately such a vehicle is already available for Edison, and we are confident that one can be fashioned for SDG&E.

The key is Edison's calculation of the present value of future cash flows from operation of the EEDA procedure through the remaining life of approved projects. As explained by D'Antonio, price in the market is the expected net present value received from the investment. Edison's calculation is essentially Edison's estimate of the market value of its EEDA program. The simplest way to terminate EEDA is for Edison to pay its ratepayers the net present



value and for Edison to own the projects outright. Edison would then be free to sell, develop, or abandon the projects as market conditions determine. This procedure appears fair to all parties.

Ordinarily we would anticipate vigorous objections to the proposition that the utility would set the price that it would pay to its ratepayers. However, in this instance the utility's figures were prepared for a different purpose so that motive is not an issue. In fact the staff argued that Edison had overstated the present value, so staff is essentially estopped from asserting that Edison's calculation is too low. Edison itself indicated that it had been conservative in its estimates and that the true value may be higher. However we are satisfied that Edison's estimates were made in good faith. If the EEDA properties do have a greater value than estimated, that value is much more likely to be realized in the competitive market than in the shelter of the EEDA procedure.

As stated above, Edison calculates the net present value for the remaining life to be about \$64 million, based on year-end 1982. Based on year end 1983 the figure is about \$74 million. This is the reasonable amount for Edison to pay to its ratepayers.

Since EEDA charges are recovered through ECAC, the appropriate way to book this transaction is by an appropriate one-time entry to the ECAC balancing account. Thereafter the EEDA fuel service charge should simply be booked as part of the ECAC billing factor until a further rate change, so that no change in rates is required by this decision.

Edison's calculation assigns no value to Kaiparowits. Since it appears to have some value it would be unfair to allow Edison to acquire those coal reserves in this manner. Therefore the price should be adjusted to exclude Kaiparowits (less than \$1 million per year for 1983 and 1984) and the Kaiparowits costs should be recovered through ECAC. Hereafter Edison shall report on the status of Kaiparowits in its annual ECAC reasonableness review filings.

Edison will be free to manage its properties as it deems appropriate through Mono or otherwise. We recognize the potential for self-dealing issues, particularly with respect to uranium contracts. Whatever the burden of reviewing such matters, it is far more manageable than the prudence issues that were associated with EEDA.

A similar procedure is not so readily applied to SDG&E because it provided no calculation of the value of its properties. Therefore we direct SDG&E to file by advice letter a plan whereby it will offer for sale its EEDA properties, subject to its right to acquire the properties for itself by matching the highest bid, and subject to our final approval.

SDG&E did establish that it had an earlier offer of \$10-12 million for its Niland geothermal property. If this bidding procedure does not yield an equivalent or higher price for this property now, we will examine the prudence of its decision not to sell.

#### Pending Projects

Edison has four project letters pending for approval. The total expenditures for these projects through the end of 1981 amounted to \$4.48 million. Edison claims these projects were undertaken with consideration to satisfying EEDA criteria, and asks that they be approved.

We are not willing to approve specific projects in an investigation proceeding. Edison is free to file an application proposing appropriate treatment of its costs. Of course, as the applicant, it will have the burden of proof. Some more substantial showing is required than its generalized statements regarding the need to do something to respond to energy supply conditions.

tax credits. At a minimum, the consultant should also: 1. Appraise the current market value of Edison's and SDG&E's existing EEDA projects, 2. Determine the holding cost associated with existing projects, 3. Determine which projects, if any, should be kept and funded through their useful life (e.g., producing projects), and 4. Develop an appropriate bidding procedure for Edison and SDG&E to sell their interest in their EEDA projects.

The consultant should submit its final report to the Executive Director within six months of the date of this order. At that time, the Executive Director should consult with the Assigned Commissioner and the ALJ Division to determine how to proceed with the termination of existing EEDA programs. We will keep this proceeding open so that we can issue further decisions as required to accomplish this termination. This procedure will assure that all involved parties are treated fairly and that ratepayers' return on their EEDA investment is maximized.

#### Pending Projects

Edison has four project letters pending for approval. The total expenditures for these projects through the end of 1981 amounted to \$4.48 million. Edison claims these projects were undertaken with consideration to satisfying EEDA criteria, and asks that they be approved.

We are not willing to approve specific projects in an investigation proceeding. Edison is free to file an application proposing appropriate treatment of its costs. Of course, as the applicant, it will have the burden of proof. Some more substantial showing is required than its generalized statements regarding the need to do something to respond to energy supply conditions.

17. EEDA mismatches risks and benefits between generations of ratepayers.

18. The ratepayer-utility relationship should be sharply severed.

19. Price in the market is the expected net present value received from the investment.

20. Edison's calculation of the present value of the future cash flows of its approved EEDA projects is a reasonable basis for Edison's acquisition of its EEDA projects from its ratepayers.

21. A sale procedure will develop maximum benefits for SDG&E ratepayers.

22. This order should be effective on the date signed in order to avoid further negative impacts of the EEDA procedure.

Conclusions of Law

1. The EEDA programs have been unsuccessful.
2. EEDA should be terminated.
3. The ratepayers' interest in the EEDA projects should be terminated.

O R D E R

IT IS ORDERED that:

1. The Energy Exploration and Development Adjustment (EEDA) mechanism of Southern California Edison Company (Edison) is terminated.
2. Edison shall pay to its ratepayers by way of an appropriate entry to its Energy Cost Adjustment Clause (ECAC) balancing account an amount equal to the present value of its projected future cash flows from its approved EEDA projects, excluding Kaiparowits, based on its year ending 1983 estimates as used in Exhibit 11, and acquire all of its ratepayers' interests in the EEDA projects.
3. Edison's Kaiparowits costs shall be recovered through ECAC.
4. Edison shall report on the status of its Kaiparowits project in its ECAC annual reasonableness review filings.

5. The Mono Power Company Fuel Service Charge billing factor shall be merged with the ECAC billing factor. ✓

6. The EEDA program of San Diego Gas and Electric Company (SDG&E) is limited to essential expenditures.

7. Within 30 days of the effective date of this order SDG&E shall file an advice letter proposing the sale of its EEDA properties in accordance with this decision. Such sale shall occur within 90 days of the effective date of this order. Any such sale is subject to the approval of this Commission.

This order is effective today.

Dated \_\_\_\_\_ at San Francisco, California.

I N D E X

<u>Subject</u>	<u>Page</u>
Proposed Report of Administrative Law Judge Patrick J. Power . . . . .	2
Introduction . . . . .	2
Background . . . . .	3
Operation of the EEDA Mechanism . . . . .	3
EEDA Projects . . . . .	5
Staff Analysis . . . . .	19
Utility Rebuttal . . . . .	32
Contentions of the Parties . . . . .	35
Comments on Proposed Report of Administrative Law Judge Patrick J. Power . . . . .	41
Discussion . . . . .	41a
Termination . . . . .	45
Pending Projects . . . . .	48
Findings of Fact . . . . .	49
Conclusions of Law . . . . .	50
ORDER . . . . .	50

O P I N I O N

Introduction

By order dated July 7, 1982, the Commission instituted this investigation to consider whether the ratepayer-supported exploration and development programs of Southern California Edison Company (Edison), Pacific Gas and Electric Company (PG&E), and San Diego Gas and Electric Company (SDG&E) should be continued, modified, or terminated. By motion filed October 3, 1982, PG&E asked to be dismissed as a respondent on the basis that it had never had such a program and had no intention to have such programs in the future. PG&E's motion was granted by Decision (D.) 82-12-009, dated December 1, 1982.

Following a prehearing conference this matter was the subject of seven days of hearing. The Commission staff (staff) offered the testimony of two witnesses: J. Archie Johnson, Public Utility Financial Examiner in the Revenue Requirements Division, Financial Analysis, and Kenneth D'Antonio, Regulatory Program Specialist in the Planning and Policy Division. Edison offered the testimony of eight witnesses: Robert H. Bridenbecker, Vice President of Fuel Supply and President of Mono Power Company (Mono), a wholly owned energy resource subsidiary of Edison; Bernard J. Perry, Energy Resources Consultant and Vice President of Mono; Basil V. Savoy, Resource Projects Manager for Oil and Gas of Mono; Don R. DeHalas, President of Colorado Nuclear Corporation; Fred T. Clisby, Manager, Energy Resource Projects for Mono; Barry Olsen, Energy Resources Engineer for Mono; Dorothy M. Whalen, Supervisor of the Regulatory Finance Section of Edison's Treasurer's Department; and Letitia D. Davis, Manager of Finance, Accounting and Administration for Mono. SDG&E offered the testimony of James M. Nugent, its Supervisor-Fuel Planning, who is also General Manager of New Albion Resources Co. (NARCO), SDG&E's exploration and development subsidiary. This matter was submitted upon opening briefs filed on March 29, 1983, and reply briefs filed April 13, 1983. Briefs were filed by staff, Edison, and SDG&E.

it contends that the market value of its geothermal assets clearly exceeds the cost to the ratepayers and that Kaiparowits has a positive value. Further, SDG&E complains that the staff position ignores the advantages and benefits of EEDA discussed in D.88121 that are not of a quantitative nature.

Comments on Proposed Report of Administrative Law Judge Patrick J. Power

On May 15, 1984 we served copies of the Administrative Law Judge's draft decision on all parties to receive comments on the reasonableness of Edison's \$64 million figure as a basis for Edison's acquisition of its EEDA projects from its ratepayers. Comments were received from Edison and SDG&E on May 30, 1984. According to Edison, the \$64 million figure is not representative of the market value of its ratepayers' interest in approved EEDA projects. Edison states that \$64 million is substantially greater than the price any third party would pay for Edison's EEDA properties. Edison claims that its EEDA properties have a much lower present value than \$64 million if analyzed from the perspective of Edison's shareholders or a third party investor primarily because of income tax effects which Edison estimated to be about \$50 million. Edison claims that the ALJ's wind down proposal for its EEDA programs is unfair and recommends that it file an advice letter specifying an appropriate wind down proposal.

SDG&E did not comment on the \$64 million acquisition price for Edison's EEDA programs. SDG&E did object to the draft decision's 90 day time schedule for the sale of its EEDA projects. It claims that such a "fire sale" would not be conducive to maximizing the potential gain from its existing projects. In addition, SDG&E objected to being treated differently than Edison with regard to its investment in the Kaiparowits Coal Project.



Discussion -

We reject Edison's contention that the relevant financial analysis of EEDA is prospective only. The analysis performed by Edison is simply inadequate to support the continuation of EEDA. The more complete analysis provided by staff confirms what Edison's omissions imply: EEDA has failed.

Edison's analysis is limited to projects that are already included in EEDA. Such an analysis does not accurately portray an ongoing EEDA program because it excludes the effects of new projects that would be undertaken if EEDA were continued. The performance of an ongoing program would depend on the success of Edison's exploration and development efforts. There is no indication that Mono has changed either its management or its practices. Thus the best evidence of the likelihood that Mono will succeed is its past performance.

The thorough analysis provided by staff addresses this problem. Using the 9.4% discount rate that D'Antonio considers appropriate yields a negative present value of all historical cash flows of \$237.6 million. Both Edison and SDG&E criticize his method, but neither party ever attempted to offer an alternative computation. We can only construe their failure as a tacit admission that the results would not be materially more favorable to their position.

exploration and development activities, not projects in the production phase. Edison suggests that details of a wind down program should be worked out with the staff.

SDG&E suggests that the Commission direct an orderly termination of the program consistent with the individual commitments of the utilities. SDG&E states that the order be structured to maximize potential gain from existing projects and to minimize losses, and proposing this be accomplished by maintaining the existing procedure intact and by simply not approving new projects.

Staff recommends that EEDA be terminated for new projects. Regarding existing projects, staff proposes that Edison and SDG&E be ordered to perform a present value analysis of all options for their projects. Staff would require Edison and SDG&E to justify, beyond any reasonable doubt, that continued funding of already approved projects is in their ratepayers' interest. Projects which can't be justified should either be sold or written off the books in accordance with existing EEDA accounting procedures.

Having already expressed our dissatisfaction with the EEDA procedure, we are not favorably disposed toward a lengthy winding down methodology that involves ongoing judgement on our part. However, we must develop a procedure for terminating the EEDA program that is fair to both the utilities involved and to ratepayers. Our major objective in developing this procedure is to maximize the return to ratepayers from their investment in EEDA and to allow SDG&E and Edison recovery of all reasonable expenses they incurred as part of our adoption of the EEDA mechanism. We would also like to develop a termination procedure that is expedient, easy to administer, and similar for both Edison and SDG&E.

There are two basic procedures which we could use to wind down Edison's and SDG&E's existing EEDA programs. The first would be to order Edison and SDG&E to purchase their EEDA properties from ratepayers at a fair market value and then leave the final disposition of these properties to their discretion. The second basic procedure

would be for us to approve a specific wind down schedule or proposal whereby Edison and SDG&E would attempt to sell the majority of their properties, but possibly retain certain properties on a short-term basis if their current market value was significantly depressed or if they had a large potential value only to ratepayers. The difficulty with the first approach is determining the fair market value of the existing EEDA projects.

The ALJ's draft decision states that Edison's net present value estimate of \$64 million is a fair and reasonable estimate of the market value of its approved EEDA projects. We are not convinced that \$64 million is a reasonable amount for Edison to pay to its ratepayers for the acquisition of its EEDA properties. In estimating this net ratepayer benefit at the time of hearing, December 9, 1982 through February 9, 1983, a variety of assumptions were made by Edison that no longer appear to be reasonable in today's energy market. In addition, as Edison points out, the value of its EEDA properties is affected by income taxes which are calculated differently from the perspective of ratepayers compared to Edison's shareholders or a third party investor. According to Edison, this income tax effect was not taken into account in their calculation of the \$64 million figure.

The record of this proceeding does not adequately explore or explain the magnitude of the income tax differential. Only the comments on the draft decision have begun to shed some light on the issue. Edison claims that a third party investor would pay about \$50 million more in income taxes than ratepayers would. The staff estimates that \$40 million worth of income taxes would have to be paid on the future cash flow derived from Edison's EEDA properties. What is now clear is that the parties in this case have not demonstrated to our satisfaction that \$64 million is a fair acquisition price for Edison's EEDA projects. In fact, it was never the intent of the parties in this proceeding to determine a fair acquisition price for either Edison or SDG&E's EEDA properties. For these reasons and because

the value of energy resources can change so quickly in today's energy market, we prefer to let the real market determine the value of Edison's and SDG&E's EEDA projects.

One way to do this would be to require Edison and SDG&E to sell all of its EEDA properties immediately. While this wind down approach would be expedient and would allow the Commission to avoid having to make case by case judgements on the appropriate sale price of each EEDA property, we do not believe that it would meet our overall objective of maximizing the value of EEDA properties to the ratepayers. It may be that continued funding of certain existing projects is in the ratepayers' interest. On the other hand, we prefer not to allow Edison and SDG&E to carry out their development plans for existing projects in such an open ended manner. Such an arrangement could cause the EEDA program to expand and continue beyond a reasonable time period. We plan to terminate the entire EEDA process as quickly as possible while also attempting to maximize ratepayer benefits. Therefore, we intend to ultimately direct Edison and SDG&E to sell or terminate all funding for most of their existing EEDA projects within three years of the date of this order. This is a reasonable time period for the completion of wind down activities, and it is consistent with our usual time limit of three years for holding Plant Held for Future Use (PHFU) in rate base. We may allow Edison and SDG&E to retain certain projects for longer than three years if it can be shown beyond a reasonable doubt that doing so is in the interest of ratepayers. This might be the case for productive projects which can't be sold at a reasonable price, or projects with severely depressed market values. We may also allow MONO and NARCO to negotiate overriding royalty interest arrangements if such arrangements benefit ratepayers.

MONO and NARCO are allowed to continue billing Edison and SDG&E for existing EEDA programs through the fuel service charge until we have the information necessary to make a final determination

regarding the disposition of these programs. In the meantime, Edison and SDG&E should keep all expenditures on their existing EEDA programs to a practical minimum and proceed with the notion that we will ultimately order the sale of most EEDA properties within three years of the date of this order. Edison and SDG&E should realize that we will critically review major expenditures occurring after the date of this order. In addition, we will decrease Edison's and SDG&E's rate of return on all funds invested in approved EEDA projects to their respective yields on new issues of long-term debt as recommended by staff. This lower rate of return will apply to funds already invested in EEDA projects and any investments made subsequent to this order. A lower rate of return will give Edison and SDG&E a greater incentive to minimize further expenditures in EEDA projects, to terminate EEDA programs expeditiously, and it will provide utility shareholders with a rate of return that is commensurate with the low level of risk they bear on their investment in EEDA projects.

We direct Edison and SDG&E to jointly hire a qualified, objective consultant to develop a proposal and schedule for the eventual sale and phasing out of all EEDA programs. The selection of the outside consultant shall be made with the involvement and approval of our staff. In addition, our staff should have the major role in defining the consultant's scope of work, managing the consultant, and assuring that the consultant's analysis and final report is consistent with the opinion we have set forth here today. We direct our Executive Director to coordinate the staff involvement with Edison and SDG&E in this matter. The consultant should keep in mind that if it's feasible and in the best interest of ratepayers, we hope to phase out most, if not all, EEDA programs within three years of the date of this order. The consultant should consider the significant factors affecting the value of EEDA properties to the ratepayers or a third party investor such as the recapture of income

and SDG&E's existing EEDA projects, relying upon current estimates of (a) anticipated rates of production and/or deliverability, (b) production life of the resource, (c) market price for the resource, (d) reasonable costs of production, and (e) taxes on a nonconsolidated basis (i.e., treating MONO and NAROC as separate companies engaged in the energy resource business); 2. Determine the holding cost associated with existing projects; 3. Determine which projects, if any, should be kept and funded through their useful life (e.g., producing projects); and 4. Develop an appropriate bidding procedure for Edison and SDG&E to sell their interest in their EEDA projects.

The consultant shall submit its final report to the offices of each Commissioner and the Executive Director within six months of the date of this order. At that time, the Executive Director should consult with the Assigned Commissioner and the ALJ Division to determine how to proceed with the termination of existing EEDA programs. Following these consultations, the Assigned Commissioner shall report to the other Commissioners regarding the procedural options available to us in terminating these EEDA programs, together with any recommendations he or she might have. We may then decide to require Edison and SDG&E to immediately purchase their respective EEDA programs from the ratepayers at a fair value, or we may choose to adopt a more gradual scheduled phase out of EEDA where individual projects are sold by a bidding procedure and any net proceeds from the sale are credited to ratepayers. We will keep this proceeding open so that we can issue further decisions as required to accomplish this termination. This procedure will assure that all involved parties are treated fairly and that ratepayers' return on their EEDA investment is maximized.

#### Pending Projects

Edison has four project letters pending for approval. The total expenditures for these projects through the end of 1981 amounted to \$4.48 million. Edison claims these projects were undertaken with consideration to satisfying EEDA criteria, and asks that they be approved.

17. EEDA mismatches risks and benefits between generations of ratepayers.

18. Edison's calculation of the present value of the future cash flows of its approved EEDA projects, on a project life basis, is not a reasonable basis for Edison's acquisition of its EEDA projects from its ratepayers.

19. A sale procedure will develop maximum benefits for Edison and SDG&E ratepayers.

20. Three years is a reasonable time frame in which EEDA's wind down can be completed.

21. Edison's and SDG&E's respective yields on new issues of long-term debt are reasonable rates of return for all past and future investments in approved EEDA programs.

22. It is reasonable to hire a consultant to develop a proposal and schedule for the eventual sale and phasing out of all EEDA programs.

23. It is reasonable for Edison and SDG&E to keep their future expenditures on approved EEDA projects at a practical minimum.

24. This order should be effective on the date signed in order to avoid further negative impacts of the EEDA procedure.

#### Conclusions of Law

1. The EEDA programs have been unsuccessful.
2. All new EEDA programs should be prohibited.
3. The ratepayers' interest in existing EEDA projects should wind down in a way that maximizes ratepayer benefit.
4. This proceeding should remain open until further order of this Commission.

#### O R D E R

IT IS ORDERED that:

1. The Energy Exploration and Development Adjustment (EEDA) program of Southern California Edison Company (Edison) and San Diego Gas & Electric Company (SDG&E) is limited to essential expenditures until a final determination is made regarding the disposition of approved EEDA projects.

*Chen p. 100 added*

2. Edison and SDG&E shall jointly hire an outside consultant as described in this decision, to forward a proposal to the Commission regarding the termination of existing EEDA programs.

3. The Executive Director shall coordinate staff involvement in hiring and managing the consultant referred to in Ordering Paragraph 2.

This proceeding remains open.

This order is effective today.

Dated: SEP 6 1984, at San Francisco, California.

LEONARD M. GRIMES, JR.  
President

VICTOR CALVO  
PRISCILLA C. CREW  
DONALD VIAL  
WILLIAM T. BACLEY  
Commissioners