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Decision No. 88121 NOV 22 1977

BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

Investigation on the Commission's own motion regarding exploration and development programs of PACIFIC GAS AND ELECTRIC COMPANY, SOUTHERN CALIFORNIA GAS COMPANY, SOUTHERN CALIFORNIA EDISON COMPANY, AND SAN DIEGO GAS & ELECTRIC COMPANY.	Case No. 10056 (Filed March 2, 1976)
In the matter of the joint application of SOUTHERN CALIFORNIA GAS COMPANY and PACIFIC LIGHTING SERVICE COMPANY for authorization to continue to submit new and/or revised gas exploration and development projects for an additional three year period as authorized in the gas exploration and development (GEDA) procedure approved by the Commission in Decision No. 81898, Application No. 53625 issued September 25, 1973.	Application No. 56471 (Filed May 7, 1976)
Application of PACIFIC GAS AND ELECTRIC COMPANY for authority to establish a procedure to adjust its gas rates periodically to provide funds for gas exploration and development activities. (Gas)	Application No. 56709 (Filed August 25, 1976)
In the matter of the application of SAN DIEGO GAS & ELECTRIC COMPANY for authority to revise its energy cost adjustment clause for electric service to reflect the benefits and costs of energy exploration and development programs of New Albion Resources Company.	Application No. 56877 (Filed November 16, 1976)

(Appearances are listed in Appendix A)

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O P I N I O N

I. INTRODUCTION

On March 2, 1976 in C.10056 the Commission issued an order instituting investigation of exploration and development (E&D) programs of respondent utilities. The investigation included a consideration of whether E&D programs should be maintained, expanded, reduced, or eliminated, whether existing types of financing should be continued, and whether the ratepayers should continue to support, in part or in whole, existing or future projects. Pacific Gas and Electric Company (PG&E), Southern California Gas Company (SoCal), Southern California Edison Company (Edison), and San Diego Gas & Electric Company (SDG&E) were named respondents.

Three applications were subsequently filed by respondents SoCal, PG&E, and SDG&E requesting authorization for certain E&D programs. Pacific Lighting Service Company (PLS) was added as a respondent on request of counsel appearing for SoCal and PLS, applicants in A.56471. This joint appearance will be identified as SoCal in the text of this decision. Consolidated hearings were held on the Commission's investigation and the three application matters from January 4, 1977 through February 17, 1977. Evidence was received during 11 days of public hearings held at San Francisco, Los Angeles, and San Diego. The transcript corrections requested by letters dated March 4, 1977 by Edison, PG&E, and SoCal are authorized. Concurrent opening briefs were mailed April 25, 1977 and concurrent reply briefs were mailed May 9, 1977. Briefs were filed on behalf of the Commission's staff, SDG&E, Edison, PG&E, SoCal and PLS, California Gas Producers Association, the city of San Diego (San Diego), and the city of Los Angeles (Los Angeles).

This proceeding is a review of existing and proposed E&D programs of respondents. Gas exploration and development adjustments (GEDA) for gas utilities and energy exploration and development adjustments (EEDA) for electrical utilities authorize utility companies to recover through rates the costs of E&D programs carried out by affiliates. The basic premise is that such ratepayer-supported E&D programs directed toward the acquisition of additional gas supplies and energy sources required for electrical generation are in the public interest.

Our investigation is an examination of one small part of what has become known as the energy problem. The questions we consider are whether or not there is a public need for the existing and proposed E&D programs, whether such programs should be continued, modified, or eliminated, and whether ratepayers should continue to support such programs.

II. THE NEED FOR E&D PROGRAMS

The case for the existing and proposed GEDA and EEDA programs is grounded on two propositions: (a) there is a need for additional energy supplies for California utilities; and (b) the proposed programs are necessary to meet that need.

The need for new sources of gas supplies in order to meet the requirements of California gas consumers is undisputed. The staff's estimates of gas supply and customer demand for southern California through 1985 are set forth in Exhibit 1, Figure 4. The estimates show that based upon average daily gas requirements, assuming normal temperature conditions, in 1977 there will be no gas available for steam electric generation (Priority 5), and very little gas available for industrial boiler fuel requirements (Priority 4). Without deliveries from new and supplemental supply projects, the staff projects high priority curtailment (gas requirements of residential and small commercial and industrial customers) in the 1980-1981 winter season.

The gas supply situation in northern California, as estimated by the staff, is much better than in southern California (Exhibit 1, Figure 3). The staff estimate is based on the assumption that 45 percent of PG&E's total gas supplies represented by gas deliveries from Canada will be available without curtailment through 1985. This portion of PG&E's gas supply is secured by existing Canadian gas export permits which begin to expire in 1985. PG&E is less dependent upon the declining interstate gas pipeline supply than southern California. Absent curtailment of Canadian deliveries and given sufficient load equating capacity, the staff does not expect curtailment of high priority service on the PG&E system through 1985.

The Commission staff concluded that the adequacy of fuel and energy supplies available to the electric utilities from traditional sources in the future is a matter of concern. As natural gas becomes unavailable for electric steam generation, the electric utilities become more dependent upon low sulfur fuel oil deliveries from OPEC countries. There is a decrease in new sources of uranium supplies. The staff views the declining supplies and recent escalation of fuel prices as demonstrating a necessity for electric utilities to have some competitive leverage in dealing with the traditional fuel and energy suppliers.

The GEDA and EEDA procedures burden utility ratepayers with all costs associated with approved E&D projects. These E&D projects are intended to secure needed additional energy supplies. The need for additional energy supplies is clear. Moreover, we can accept the utilities' representations that they will not engage extensively in new high risk E&D projects without authorized GEDA or EEDA procedures. However, the need for E&D projects does not, by itself, establish that it is reasonable that utility ratepayers should assume the risk of such projects.

The utilities urge that ratepayers must assume the burdens of E&D projects if they are to receive the benefits. We can accept that general proposition, but the approved projects must have the potential to secure benefits to ratepayers that would not otherwise be available. Ratepayer-supported E&D 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. If we cannot reasonably anticipate some benefit to the ratepayers, no reason exists to require them to assume the burden of E&D costs.

For the reasons set forth below we conclude that authorized programs have resulted in benefits. Moreover, the potential benefits of certain projects support their authorization under GEDA and EEDA programs. In our review of present and proposed procedures we specifically recognize that basic differences exist between GEDA and EEDA programs. A gas distribution utility is seeking to obtain a single specific energy supply. Moreover, the supply obtained will, in most instances, be subject to regulatory control by the Federal Power Commission (FPC). An electrical utility is attempting to secure energy resources in unregulated markets and the resource may take a variety of forms.

We must also distinguish between approved projects already authorized and projects proposed for inclusion in new EEDA or GEDA programs. The EEDA program of Edison does not require prior approval before funds are committed. As a consequence, a project presented for Commission approval could be known to be unsuccessful. Our review and approval may be obtained after the facts are known. Whatever our resolution of the questions raised by this procedure, Edison's prior commitments pursuant to its EEDA procedure must be distinguished from existing projects presented by SDG&E for inclusion in a new EEDA procedure. The latter projects are, in effect, offered to the ratepayers on the grounds that the known risks, costs, and potential benefits justify their funding under EEDA. PG&E's requested GEDA program involves the problem of the proper treatment of the limited E&D program authorized by D.80878 dated December 19, 1972.

III. A.56471 - SO CAL AND PLS (GEDA)

A. Present Procedures

By A.56471 filed May 7, 1976, SoCal and PLS request authorization to continue to submit new or revised gas E&D projects for an additional three-year period as authorized in the GEDA procedure approved by the Commission by D.81898 dated September 25, 1973 in A.53625. On May 18, 1976 the Commission extended the SoCal and PLS authorization to commit funds to GEDA projects until April 15, 1977. The Commission by order issued March 29, 1977 granted a further extension until the Commission's final order in the instant application.

D.81898 authorized SoCal and PLS to incorporate in their tariffs rates and charges to reflect GEDA costs. The GEDA procedure authorizes SoCal to recover in rates costs incurred in gas E&D projects approved by the Commission. The Commission found that an energy crisis justified the adoption of a GEDA procedure designed to bring natural gas supplies to consumers in southern California. Simply stated, projected gas supplies for SoCal were inadequate to meet projected customer requirements.

The GEDA procedure provided for a case-by-case method of approving project letter filings and advice letter filings. The maximum GEDA amounts were limited to 10 percent of the total cost of gas to the PLS system or to 0.5¢ per therm, whichever was lower. The authority to commit funds to new or revised projects was limited to a period of not more than three years. The Commission's decision provided for full cost recovery, including amortization of unrecoverable advances in unsuccessful projects over a period of five years. The procedure provided for a return to the ratepayers of net revenues generated as well as charges to the ratepayers for the full costs of GEDA projects.

The utility is required to supply information by filing a letter request for project approval. The information must enable the Commission to make findings that there is a reasonable prospect that a requested investment will produce gas deliverable to California in sufficient quantity to justify an investment risk, that the potential cost of developed gas will be reasonable in relation to possible alternatives, and that the proposed gas supply would not be made available without GEDA financing.

Staff Exhibits 1 and 3 (and SoCal's Exhibits 15 and 16) set forth in detail the approved projects under SoCal's GEDA authorization. Pacific Lighting Gas Development Corporation (PLGD) undertakes all projects authorized under the GEDA procedure. Funds are advanced by PLS to PLGD. PLGD operates as a nonprofit, non-loss company and returns all net revenues, tax credits, and other recovery of costs to PLS. PLS' cost of service is recovered from SoCal's customers, including a utility rate of return on PLGD's net investment, recovery of carrying costs of advances obtained from other sources, recovery of expenses related to approved projects, and amortization of unsuccessful investments. Under this procedure California ratepayers support the cost of capital advanced to PLGD for GEDA projects. Moreover, the GEDA procedure provides that ratepayers would amortize the amount invested in unsuccessful projects over a five-year period.

The tax savings in the initial years of a project reduce the net investment and are an apparent benefit; the subsequent payback of such benefits in later years becomes a burden to ratepayers. The total costs of projects appears to be a measure of the amount at risk and subject to recovery from ratepayers. The estimated 1976 GEDA costs, before adjustment for prior overcollections or undercollections, is approximately $10.8 million with outstanding expenditures on all projects of $55,705,000 on December 31, 1975 (Exhibit 3, pages 2-2a, 2-4).

The projects present a variety of different acquired interests and financial arrangements. Working interest projects are ventures where PLGD acquires rights to an ownership interest if gas is found. The risk is high for if gas is not discovered, the investment in exploration is lost. Funding projects are arrangements where PLGD advances payments to project operators without acquiring an ownership interest. PLGD acquires a right to purchase from the reserves if gas is found. The money advanced is usually subject to refund if gas is not found and made available for purchase. Agreements may vary as to interests acquired, obligations to advance funds, payback provisions, and provisions regarding the future price of gas. In addition to the general categories of working interests and funding agreements, two GEDA projects involve pipeline study groups.

The different projects are described in detail in Exhibits 1, 3, 15, and 16. Certain projects are failures; others may represent attractive ventures. None are without risk.

SoCal argues that the overall success of the GEDA program cannot be seriously questioned. A more realistic view is expressed by our staff's Finance Division report (Exhibit 3, page 2-6, paragraph 26): Without estimates of proven reserves and the cost of recovery associated with those reserves, net benefits from such projects cannot be determined.

B. Transwestern Joint Venture

One project, the Transwestern Joint Venture (GEDA Project No. 73-B-2) is clearly successful. The staff's Utilities Division report (Exhibit 1, pages 4-12, paragraphs 20 and 21) states that additional gas has been made available to Transwestern Pipeline Company and 75 percent of this gas is delivered to PLS. PLGD's share of reserves is 74.7 Bcf and the estimated out-of-pocket, wellhead unit cost of this gas is 58.3¢/Mcf. Moreover, Monsanto Company's share of the gas is lost to the unregulated intrastate market (Monsanto is a participant in the drilling ventures). We can also conclude that the gas reserves involved became available at an earlier date as a result of the GEDA program and may never have become available without it.

C. Terminated Projects

A number of GEDA projects have been unsuccessful. Such projects reflect the high risks and substantial costs of E&D projects. Four foreign projects have been terminated and are presently being amortized. The estimated total cost of amortization through 1979 for the four projects is $4.5 million (Exhibit 1, page 4-13, paragraph 22). SoCal argues that ratepayers do not invest in GEDA projects and that ratepayers are covering through rates the cost of utility investment capital. This argument overlooks the fact that under GEDA procedures ratepayers are also obligated to amortize the costs of failed projects in rates over five years, a burden distinctly greater and substantially different than the usual utility recovery of invested capital through depreciation of rate base plant.

The concept of "cost" as applied to particular GEDA projects is somewhat elusive. The return on a project investment is computed on net project costs: Income tax reductions are available as a result of consolidated tax returns and the utility, in effect, reflects such tax savings as a reduction in project advances. The remaining balance, net of tax, for the four abandoned projects was $1,442,414 on December 31, 1975 (Exhibit 3, page 2-6, paragraph 20). The estimated revenue collections from ratepayers through 1979 to amortize this balance appears to be approximately $2.5 million (see Exhibit 1, page 4-13, paragraph 22). The tax credits in the initial years are apparently amortized as deferred taxes (see Exhibit 38, attachment Exhibit B, EEDA).

D. Canadian Projects

Two Canadian projects (Gulf Canada and Arctic Islands) are advance payment arrangements for exploration and subsequent development. PLGD acquires a right to call on gas reserves if export gas becomes available. Gulf Canada (the McKenzie River Delta area) failed to establish sufficient gas reserves for export. The cost-of-service exposure to PLGD was estimated as $10 million. The Arctic Islands project involves funding a share of costs of operations in the Canadian Arctic Islands. If PLGD does not contract for gas reserves in the future, payback of investment is to begin if and when production starts.

Two pipeline study projects have been approved for GEDA financing. The Polar Gas project involves participation in a pipeline study group to develop a transportation system for gas from the Arctic Islands. The Gas Arctic project is the other pipeline study group presently approved as a GEDA project. PLGD's investment through 1976 was $774,000 to be repaid in cash or stock, with interest, if the Gas Arctic project is successful. Gas Arctic was one of three competing proposals for transportation of northern Alaskan and Canadian gas. SoCal argued that its participation in Gas Arctic would influence the routing and design of the pipeline so that such pipeline would include delivery to California.

The Canadian projects will not secure gas at an advantageous price since Canada will fix the cost of exported gas. There is no evidence that PLGD's participation is necessary to supply capital needed for the projects. SoCal argues that the advance payments are justified on the basis that such participation secures a call on gas Canada may export in the future.

The Gulf Canada project might have secured 3 Tcf of gas reserves for PLGD but it failed because the gas reserves were inadequate. The Arctic Islands project presents a similar prospect -- large gas reserves (in excess of 13 Tcf) and the right to purchase Canadian export gas. A gas transportation system (Polar Gas) is necessary before gas could become available to the Canadian market. PLGD has an agreement with TransCanada Pipelines to exchange Alberta gas with Arctic Islands gas. If available gas reserves exceed Canadian needs in the future, gas will be available for export.

No estimates of a probable or possible schedule for a transportation system are available from our record. The gas reserves are north of the Arctic Circle and the proposed pipeline routes intersect existing Canadian pipelines in south Ontario. The Arctic Islands' obligation to provide funds commenced March 5, 1972 and terminated March 4, 1977, with yearly options to renew for five additional years. As of December 31, 1975 PLGD had advanced $4,761,000. Repayment is to be made from a percentage of production revenues and PLGD has a right to purchase gas production attributable to seven companies' various interests. The right of first refusal runs for five years from the termination of the funding agreement. Funding could possibly continue to March 4, 1982 and the right of first refusal would then continue to March 4, 1987.

No one suggests that such Canadian Arctic gas will be inexpensive. When the gas will be available is not ascertainable. Ultimate total capital investment to achieve availability is unknown. The right to purchase Canadian export gas is a right to buy gas surplus to Canadian requirements at a price to be set by the Canadian authorities. The project is supported by the claim that development of Canadian reserves will assure continued gas exports to the United States. Canadian export gas is an important source of gas supply but the question is whether or not it is reasonable for SoCal ratepayers to engage in these particular projects.

The staff's Finance Division report points out that Alberta Natural Gas Company, Ltd. (ANG), a PG&E subsidiary participates in the Gas Arctic pipeline project without funding its costs through GEDA procedures. PG&E, through a subsidiary, also participated in the Gulf Canada project. PG&E ratepayers did not fund PG&E's investment in Gulf Canada through GEDA.

E. Alaskan North Slope Projects

Two projects involve advance payments for drilling operations in the North Slope area of Alaska (Kavik and Beli). PLGD obtained a call on gas. Payback of advances are to be made from net revenues from production. One prospect did develop gas reserves (the Kavik prospect) and PLGD has a call on 110 Bcf of gas reserves. The other drilling was unproductive. The Beli project was a dry hole.

F. South Alaska - Cook Inlet LNG

The most promising projects involve the South Alaska-Cook Inlet area. Six GEDA projects were involved at the time of hearings and a seventh has been approved. Most of the projects involve advance payments. The objective of SoCal is to secure sufficient committed reserves to support the South Alaska LNG project. Committed reserves were approximately 1 Tcf (trillion cubic feet). The project requires reserves of approximately 1.6 Tcf for the first phase, involving deliveries of 200 MMcfd (million cubic feet per day), and reserves of 3 Tcf to support ultimate deliveries of 400 MMcfd.

At the time of hearings SoCal and PG&E had agreed to participate equally in the Pacific Alaska LNG Company's Cook Inlet liquefied natural gas project and PLS' Indonesian LNG project (Item P, Memorandum of Understanding; Item Q, Pacific Alaska LNG Associates Partnership Agreement).

No party to this proceeding opposes the Pac-Alaska LNG projects. If sufficient gas reserves are obtained, SoCal intends to add Cook Inlet LNG supplies to its traditional (and declining) sources in order to meet its customers' requirements in the early 1980's. Pac-Alaska is not justified on the basis of future cost-of-gas advantages. The FPC regulates interstate gas rates. FPC approval will be required before California can receive interstate gas.

Without the efforts of the California gas distributors at this time, it appears that a south Alaskan LNG project might not be going forward. Gas may become available at an earlier time as a result of the Pac-Alaska LNG project. We do not intend to approve advance payment arrangements for GEDA projects, but to stop the Pac-Alaska project at this time could only delay the possibility of securing additional gas supplies. As with other future events, there is no certainty that California ratepayers will obtain a benefit. Based on our record, it appears that in the near future gas customer requirements in California and the United States will not be met with available gas supplies. Under the circumstances, the Pac-Alaska project should be supported by our GEDA program.

IV. A.56709 - PG&E (GEDA)

On August 25, 1976 PG&E filed A.56709 requesting authorization to establish a GEDA procedure to provide funds for gas E&D activities. The GEDA procedure requested by PG&E is essentially the same as that previously authorized SoCal by D.81898.

D.80878 dated December 19, 1972 authorized PG&E to advance $3 million yearly for a period of five years to its wholly owned subsidiary Natural Gas Corporation of California (NGC). This authorization allowed PG&E to charge $1.5 million to exploration expense and add $1.5 million to rate base. NGC has participated in projects in Alaska and in the Rocky Mountains area in the United States. PG&E's existing authorization expires at the end of 1977.

PG&E requests that its present projects be merged into its proposed GEDA program. The staff estimates are that PG&E will have collected $8,951,000 from its ratepayers under this program to support E&D programs of NGC by the end of December 1977 when the five-year authorization terminates.

PG&E also has a wholly owned Canadian subsidiary, Alberta and Southern Gas Company, Ltd. (A&S), that funds gas E&D in Alberta, British Columbia, and Canada's Northwest Territories. The staff reports that the Canadian Government sets the border price of gas and that A&S' cost-of-service associated with E&D funding does not flow through to the California consumer.

PG&E owns 51 percent of the stock of Pacific Gas Transmission Company (PGT). PGT has a wholly owned subsidiary, Pacific Transmission Supply Company (PTS). PTS conducts gas exploration projects in the Rocky Mountains. The staff report (Exhibit 19) states that through 1975 PTS has expended over $34 million in the Rocky Mountains and has increased the available supply of gas to PG&E as a result of those projects. PTS projects are not supported by cost-of-service charges to the California consumer.

Our decision funding NGC did not provide a method of terminating the authorization granted. One staff recommendation was that the existing exploration program be terminated and that PG&E be granted a GEDA procedure similar to that authorized for SoCal. Under the staff proposal, rates would be reduced on January 1, 1978 by the unit increase embedded in rates as a result of the expense and rate base amounts authorized in present rates. Under this recommendation no provision would be made for the amounts accumulated in rate base during the five-year span of the present authorization. PG&E objects to this disposition.

PG&E, at the end of the five-year period, will have recovered $7.5 million in expenses. The staff witness from the Finance Division did not recommend termination and removal of all investment in the present program from rate base at the end of the five-year period. The Finance Division witness indicated that investments in successful projects would remain in rate base and investments in abandoned projects or unsuccessful projects should be amortized.

The staff brief sets forth an alternate termination procedure designed to roll unrecovered investment of present programs into the new GEDA procedure. Since PG&E was authorized to accumulate $7.5 million in rate base, we will adopt this alternative method. PG&E shall file project letters for NGC projects as listed in the staff's Exhibit 47, paragraph 1. GEDA rates to be established for these projects will commence January 1, 1978 upon termination of the five-year period authorized for the existing E&D program. Past project investment for these filings shall be the net investment derived from a gross investment not to exceed $7.5 million, adjusted for all tax credits from investment during the five-year program, plus any return of investment resulting from an assignment of NGC's interest to others. This is essentially the alternate staff procedure set forth in Exhibit 47.

PG&E does not disagree with the proposition that gross investment of $7.5 million should be adjusted for tax credits or any return of investment when incorporating past projects into the GEDA program. However, PG&E argues that tax credits should not be utilized to reduce the $7.5 million maximum gross investment until such tax credits or other returns have met the deficiencies in revenues as calculated by PG&E over the life of the program. We can accept PG&E's argument but not its method of calculation.

Upon termination of the existing program on January 1, 1978, PG&E's filing should include a statement of the actual expenses incurred for the five-year period. PG&E's calculation of the revenue deficiency was based upon the assumption that actual revenues received from the five-year program (in rates) should be reduced by $7.5 million in incurred expense. The revenue deficiency was then calculated as the balance remaining contrasted to the return on rate base additions for the five-year period. As the staff's cross-examination disclosed, PG&E's calculation did not recognize that a $1.5 million addition to rate base annually will not normally occur on January 1 of each year. Accordingly, PG&E is authorized to file a revised calculation of revenue deficiencies, based upon actual expenses and actual rate base additions for the five-year period, not to exceed the authorized amounts of $1.5 million annually. If the calculation establishes a deficiency in revenues over the five-year period, any tax credits which arise as the result of the NGC projects should be used to offset such deficiency. Any remaining balance of tax credits should be utilized to reduce NGC gross investments of up to $7.5 million. In all other respects, PG&E should be authorized to establish a GEDA program with restrictions similar to those imposed upon SoCal.

An additional problem incurred in the GEDA program to be established by PG&E is the conflict between PTS stockholder-funded exploration in the Rocky Mountains and presently existing and potential NGC projects in the Rocky Mountains. The existing NGC exploration programs on behalf of ratepayers as contrasted to PTS exploration supported by stockholders' capital presents a potential conflict situation.

An additional requirement of PG&E is its undertaking to become a partner in the Cook Inlet (south Alaska) LNG program. SoCal has invested substantial amounts of GEDA charges in efforts to develop a viable LNG project in Cook Inlet-south Alaska. We will not order a specific treatment of future GEDA charges by PG&E since the utility should structure the arrangement for the minimum cost to ratepayers. However, any joint venture participation by PG&E with SoCal should ultimately provide that total costs under GEDA for each utility should be in proportion to their respective rights in the project.

V. EDISON'S E&D PROGRAM (EEDA)

A. Existing Procedures

Commission D.83170 dated July 23, 1974 in A.53488 approved in principal and concept the Edison fuel service agreement with its wholly owned subsidiary Mono Power Company (Mono) in order to implement an EEDA program. Edison's EEDA program is conducted through Mono. Pursuant to a contract with Edison, Mono is obligated to seek, find, develop, process, and deliver such kinds of energy resources as may be needed by Edison. Edison is obligated to compensate Mono for such fuel supply service at the cost to Mono of conducting such activities. The fuel service charge by Mono to Edison includes Administrative and General (A&G) service costs of Mono, annual costs of funds provided by Edison or third parties to Mono (reduced by income tax reductions attributable to operations of Mono), annual amortization of unsuccessful projects on a five-year life basis, and all of the annual operating and maintenance expenses and appropriate annual costs of investments (including costs for development, drilling, and testing) in producing projects. The carrying charges on advances by Edison to Mono are no higher than the rate of return most recently approved for Edison by the Commission plus associated income taxes.

The Commission, by D.83838 dated December 17, 1974 in A.53488, found the Edison-Mono fuel service agreement reasonable (as modified). Exploration costs were to be incorporated into the fuel cost adjustment billing factor (FCABF). The decision stated that a proper E&D charge based on the record was .006¢ per kwhr. The decision limited exploration costs to .08¢ per kwhr or five percent of Edison's fuel budget, whichever was lower. The decision did not limit the program to three years (as in the case of GEDA) and did not impose a requirement of prior Commission approval before commitment to a project.

By December 1974 Edison's rates included a .002¢ charge per kwhr to cover an E&D program. The .006¢ per kwhr charge was not incorporated in rates. The Commission did not approve fuel cost adjustments after December 1974 until D.86760 dated December 21, 1976 in A.56822. The energy cost adjustment billing factor in that decision included a Mono fuel service charge of approximately 0.016¢ per kwhr, an annual charge of $7.7 million.

The procedure contemplated an annual report by Mono to be filed as an advice letter on or before April 1 of each year. This annual filing would include all new projects and would require a Commission resolution to effect E&D billing adjustments. Once projects were recognized, Edison was to make quarterly advice letter filings in its FCABF to reflect project costs.

Edison subsequently made a series of advice letter filings. The FCABF procedure was replaced by the Energy Cost Adjustment Clause (ECAC) tariff (Resolution No. E-1604 issued

October 13, 1976 making effective the ECAC tariff filed as Advice Letter No. 429-E [Supplemental]). Edison has continued to request recognition of additional projects by advice letter filings (Nos. 404-E in April 1975, 420-E in April 1976, and 436-E in April 1977). A total of five new projects have not received Commission recognition. Edison's claim that the lack of Commission recognition of new projects deprives it of ratepayer funding of E&D projects is correct.

The inclusion of EEDA charges in fuel cost adjustments resulted in suspension of EEDA rate charges when fuel cost adjustments were not approved after December 1974. The problem arose after revenues exceeded expenses actually incurred for increased fuel expense. The present ECAC procedures incorporate Mono's service charges and ECAC rates are adjusted to reflect overcollections or undercollections by application of a balancing account with 7 percent interest. (See D.85731 dated April 27, 1976 in C.9886.) Any projects approved by this decision should be incorporated into future ECAC rates in accordance with authorized EEDA procedures, including adjustment for the balancing account for EEDA costs and revenues.

B. EEDA Projects

The EEDA procedure differs from the gas utilities' GEDA procedure. Edison's search for fuel is not limited to gas but includes all energy sources which can be used for electric generation, including oil, coal, nuclear, and geothermal. Edison has engaged in "grassroots" exploration for such resources. Edison has been seeking an ownership interest in energy supplies and has acquired working interests in its exploration projects. The staff's report (Exhibit 19, Table 1) lists Edison's EEDA projects.

The staff is concerned over the status of the Kaiparowits coal mine development. The costs associated with the Kaiparowits coal E&D project were recognized when the Edison E&D program was authorized by this Commission. In April 1976 the proposed

Kaiparowits electric generating plant was removed from Edison's financial and resource planning schedules. Edison still retains, through its subsidiary Mono, rights in extensive low sulfur coal reserves at Kaiparowits. The staff correctly points out that to merely own coal reserves for which no specific use is planned is not warranted. However, the Kaiparowits coal reserves were acquired for a specific planned use. Edison's one-third share in Kaiparowits coal reserves is estimated at 200 million tons.

If the Kaiparowits coal reserves are part of an unsuccessful project, Edison's costs will be amortized over a five-year period. Edison's annual report will set forth the current status of the Kaiparowits coal reserves and the intended or possible use of such reserves. However, we will not preclude Edison from including the Kaiparowits coal project in its EEDA program. We conclude on our record that definite plans for the disposition of the Kaiparowits coal reserves cannot be made at this time.

The staff witnesses recommended the continuation of the Edison EEDA program. The staff concluded that it is too soon to expect any significant results from the exploration programs that have been undertaken thus far. However, the staff was of the opinion that Edison's program will be a successful financial investment for its ratepayers, based upon present results. Mono has secured an ownership interest in substantial coal reserves and substantial uranium reserves. An electric utility seeks fuel and energy supplies in unregulated markets, and electrical utilities have been faced with price and supply problems in dealing with fuel and energy suppliers. Low sulfur fuel oil supplies have been and may again be subject to OPEC embargo. The staff supports the EEDA program as one that is necessary in order for Edison to have some competitive leverage in dealing with fuel and energy suppliers.

C. Staff Recommendations

Staff recommendations are discussed in detail in Section VII of this decision. However, we agree with the position of Edison that the EEDA program of a particular utility is necessarily tailored to the energy requirements of that utility and there is no reason to anticipate that charges for EEDA programs could be uniform as between different electrical utilities. For the same reason compulsory joint ventures in E&D for energy resources should not be required of separate electrical utilities. There is no reason to assume that the energy resource requirements of separate electric utilities will be similar.

There are substantial differences between the EEDA programs of electric utilities and the GEDA programs of gas utilities. No one anticipates that natural gas will be available as a substantial energy resource for the generation of electricity in the future. Natural gas for electrical generation is assigned the lowest priority under both state and federal regulation. Natural gas resources will, in most cases, be subject to extensive federal regulation. Edison has attempted to obtain ownership interests in largely unregulated energy supplies by means of its EEDA projects.

Edison and the staff disagree over the significance of these differences between GEDA and EEDA. The staff argues that there is no reason similar conditions should not be applied to both programs regarding prior approval requirements, exclusion of foreign projects, and the requirement that working interests be obtained. Our conclusions on this dispute are set forth in detail in our discussion of these separate issues.

The staff and Edison are in agreement that the present ceiling of five percent of Edison's annual fuel expense is an appropriate limitation in exploration activities. However, the staff recommended that under EEDA procedures electric utilities should be required to file project letters for the development phase of previously recognized exploration projects. Edison has no objection to the filing of such letters for informational purposes but contends that if such filing is a prerequisite to funding of the development stage of a project it would inhibit the flexibility of the existing E&D program and should be rejected. We shall require the filing of project letters for informational purposes for the development phase of previously recognized exploration projects.

The current procedure involves the filing by Edison of an annual report on or before April 1 of each year. Since EEDA charges are incorporated in Edison's ECAC rate, we will authorize the filing of project letters with the Commission in advance of the scheduled review of Edison's ECAC so that Edison will be able to incorporate new projects into its ECAC adjustment. Since EEDA also involves the incorporation of a balancing account, including seven percent interest applied monthly to overcollections or undercollections in the balancing account, the EEDA procedure should result in no unfairness to the ratepayers or to Edison. Project letters should be filed at the earliest possible time on new projects so that necessary approvals can be obtained prior to the semiannual ECAC adjustments. Approved projects will be incorporated in ECAC adjustments. However, we will retain the E&D annual report requirement in order to obtain a thorough review of the entire EEDA program.

VI. A.56877 - SDG&E (EEDA)

By A.56877 SDG&E requests authority to establish an EEDA procedure based on the procedure previously authorized Edison in connection with its fuel service contract with Mono in D.83838 dated December 17, 1974. In the past, SDG&E's E&D projects have been conducted by its subsidiary NARCO. NARCO's projects have been conducted without recourse to SDG&E's ratepayers. NARCO and SDG&E now have a fuel service agreement and SDG&E seeks approval of an EEDA procedure, with inclusion of certain outstanding projects.

NARCO projects which SDG&E seeks to include are the Buttonwillow oil endeavor, the Kaiparowits coal project, and geothermal efforts in the Imperial Valley. SDG&E alleges the cost figures of these projects are set forth in Exhibit 45, where the estimated annual fuel service charge is $770,000. From the standpoint of exposure to the ratepayers, the total project expenditures would appear to be the amount that would be amortized over a five-year period unless the projects are successful. Exhibit 48 indicates that the estimated total project expenditures will exceed $8.8 million by the end of 1977.

The calculation of EEDA charges includes a carrying charge of 14.73 percent applied to net project expenditures. The 14.73 percent was based on an authorized utility return of 8.75 percent plus the taxes associated with the portion of return on capital attributed to common equity and preferred stock. The net project expenditures are project expenditures reduced by the accumulated income tax reductions associated with the projects. The income tax reductions arise from the fact that SDG&E has included NARCO's operations in consolidated tax returns. The estimated EEDA cost calculated in Exhibit 48 is $577,000, exclusive of NARCO's estimated A&G costs of $200,000.

SDG&E does not seek to include all of NARCO's projects in the new EEDA procedure. The staff's Exhibit 51, page 4, sets forth three NARCO projects not included. SDG&E argues that the projects to be included are successful projects and since ratepayers are to receive the benefits of such projects, they should pay the associated costs. The ratepayer assumes the risks of both successful and unsuccessful projects under approved GEDA and EEDA projects. The present NARCO projects were commenced without benefit of EEDA procedures. The city of San Diego argues that only ongoing or new projects should be included in EEDA, not abandoned ones. We agree with the city that projects which are no longer viable and were never approved by the Commission should not now be charged to SDG&E ratepayers. The question is what is a "viable" E&D project. The question regarding ongoing NARCO projects is not whether such projects would be approved if presented as NARCO projects under an EEDA procedure which authorized commitment of funds prior to project approval, but whether ratepayers should be committed to ongoing projects, based on all presently known facts. In the future, new NARCO projects may be approved if the projects are reasonable E&D undertakings.

The Kaiparowits coal development project will be approved as an EEDA project. The one-third interest in the underground coal mine represents 200 million tons of coal reserves. San Diego argues that any future development at Kaiparowits is really a "long shot", a description supplied by SDG&E's own witnesses in earlier hearings (see San Diego's opening brief, pages 4-6).

We can accept San Diego's basic assumption. However, we must weigh the potential value of the coal reserve against the present costs of retaining the coal reserves as an energy source. The present 1977 year-end estimated expenditures totaled $2,407,000. The energy resource is 200 million tons of proven underground coal reserves. Mono holds an additional one-third interest and Mono's costs are includable in Edison's EEDA procedures. Either the California electrical utilities should retain the coal reserves at this time or we should exclude NARCO's Kaiparowits project and direct Edison to terminate its interests in the coal reserve. We recognize that no immediate beneficial use of the coal reserve is available. Given the uncertainties of future energy resources, we will authorize SDG&E to retain this energy resource at this time.

The Buttonwillow North project appears to be an unacceptable risk. Well No. 31X-10 was abandoned in 1975. The outstanding benefit from a dry hole appears to be that one knows that it did not pay to drill the well. If the benefits in the Buttonwillow North project outweigh anticipated costs, NARCO can recover its investment without regard to EEDA charges to ratepayers. Based on the record, we do not see potential benefits to SDG&E ratepayers which can support an assumption of costs for this project. Edison has already classified Buttonwillow North as an abandoned project.

The geothermal projects present a different question. The other Imperial Valley project is an abandoned project. SDG&E's position is that it has acquired interests in valuable geothermal reservoirs in the Imperial Valley and that ratepayers should pay carrying costs on accumulated project expenditures (calculated at 14.73 percent at hearings, the charge would now appear to be 15 percent based on a 9.5 percent utility return). In our view, development of geothermal resources are clearly in the public interest. But the question regarding the Imperial Valley geothermal projects is whether the ratepayers of SDG&E should commence paying substantial carrying costs and assume the risks of the projects. There is no evidence that the available energy in the Imperial Valley is, at this time, an energy source which is economically useful for electric energy generation. The ongoing work in the Imperial Valley appears to involve demonstration projects.

The geothermal demonstration projects are a necessary attempt to establish a practical use for the available energy. However, the ratepayers of SDG&E are burdened with EEDA charges on the grounds that such charges are necessary to secure needed energy resources. We do not intend to incorporate basic research projects into the EEDA procedures. Geothermal reservoirs have been found in the Imperial Valley. It has not yet been established that the energy sources can economically supply electricity to SDG&E ratepayers. Had the Kaiparowits coal project discovered unusuable low-grade coal, the SDG&E ratepayers would not be expected to assume the "benefits" and finance efforts to find an economical use for such coal. SDG&E can always request approval of an Imperial Valley geothermal project based on a showing that it is a usable energy resource for electric generation.

VII. STAFF PROPOSALS FOR GEDA AND EEDA

The staff and all parties appear to agree that the GEDA and EEDA procedures are required at this time. California utilities require new and additional energy resources in the near future. Based on an evaluation of our experience to date, GEDA projects have secured additional gas supplies for SoCal. We can reasonably conclude that SoCal's participation in the Transwestern joint venture obtained gas supplies for the interstate market and a portion of such gas became available to California. In the absence of the GEDA project such additional gas supplies would, in all probability, have been lost to the intrastate market. (In fact, Monsanto's share of the gas goes into the intrastate market.)

The energy resources required by Edison are obtained in an unregulated market characterized in recent years by embargoes, cutbacks of deliveries by OPEC countries, and decreasing supplies of low sulfur fuel oil. In the face of increasing demand and controlled supply, fuel prices have been escalating sharply for electrical utilities. The staff position is that the California electric utilities need to have some competitive leverage in dealing with traditional suppliers and the EEDA procedure should be continued.

The staff also recognizes that energy exploration involves speculative investment. GEDA and EEDA programs authorize utilities to require ratepayers to support speculative undertakings. The staff recommendations are designed to attempt to control or reduce the risk to the ratepayers in these programs.

The staff has raised a number of recommendations in an effort to reduce ratepayer risk. Our decision adopts certain of the staff recommendations, as well as recommendations of interested parties, as set forth below. Our conclusions on such recommendations are as follows:

A. Prior Approval of Proposed Projects

Under present GEDA procedures the utility is required to seek prior Commission approval before committing funds to a proposed project. SoCal and PG&E do not oppose this requirement in the GEDA procedure. Edison opposes such a requirement in its EEDA procedure.

The requirement of prior approval for GEDA projects has not been strictly construed. SoCal has obtained approval of projects initiated prior to the filing of a project letter. The Commission approval did exclude costs of service for the period of time prior to the filing of the project letter. The difficulty of a strict requirement (no GEDA adjustment unless a project letter filing precedes the utility commitment) is that such a requirement cannot always be met. The staff witness pointed out that until the utility negotiations with an operator are complete, the utility does not know the amount of expenditures to be included in a project letter. The staff expects the project letter filing to precede a commitment of funds.

We will continue the staff's present treatment. No costs incurred prior to Commission's approval will be included in GEDA charges. Moreover, if a utility is committed to a GEDA project prior to approval, it does so at the risk that such project may not be approved for GEDA funding. Our determination to authorize a particular GEDA project will be based on the facts applicable to the particular project presented for consideration.

The staff in its brief argues that there should be no difference between the approval process for gas and electric utilities. However, the staff witness reviewing the Edison program recommended that the present approval process be retained. The Commission has approved projects after Edison has already committed funds. The staff witness supported this procedure on the grounds that it provides the utility with the flexibility to respond quickly to new projects. There is a fundamental difference between the E&D projects for electrical utilities and the GEDA projects. The electrical utilities are searching for a variety of energy sources. These energy sources are in high demand and the search is highly competitive. Our review of Edison's past projects indicates that in each case Edison, or its subsidiary Mono, has secured a working interest in the energy resource involved. The risk of losing funds committed to this type of E&D are high but the advantages of obtaining a working interest, as contrasted to a mere option to purchase from a developer or producer, are obvious. Under the circumstances we will follow the recommendation of the staff witness that prior approval not be required in the EEDA procedure.

B. Financial Limits

The staff has recommended that the maximum GEDA amounts allowed in annual cost of service should be limited to $50 million. This limitation would be applicable to each GEDA program authorized for a particular utility. This annual cost-of-service limitation will be adopted. The staff's recommendation substitutes a fixed amount for the variable limits available under the present rule (ten percent of the total cost of gas or 0.5¢ per therm, whichever is lower) without a substantial change in the limit. At ten percent of the total cost of gas to the PLS system the present limitation would be approximately $80 million annually while under the 0.5¢ per therm limitation, charges would be limited to $40 million annually. The present cost of service is estimated to be about $13 million annually for PLS, or 0.15¢ per therm. The $50 million annual cost-of-service limitation will be adopted.

Under the GEDA programs the cost-of-service charges to ratepayers are supporting ongoing expenses and the carrying charges on the amount invested in the program. Since the annual GEDA charge may be a combination of carrying charges on amounts invested (net of tax credits), current ongoing administrative and other expenses, and amortization of unsuccessful projects, it is impossible to calculate the exact amount of investment which may be supported under the $50 million annual limitation. The best rough estimates in our record indicate that $300 million in PLGD investment in E&D programs could be supported at this annual rate.

The existing EEDA program of Edison provides for a limitation of funds devoted to exploration of five percent of the annual fuel budget or 0.08¢ per kwhr, whichever is lower. The five percent amount is approximately $40 million and the 0.80¢ per kwhr amount is approximately $38 million. The present fuel service charge included in rates is approximately 0.016¢ per kwhr. The staff recommends no change in the present formula limiting funds for exploration. This limitation of funds for exploration is an annual charge to ratepayers. The actual amount invested may be substantially in excess of the annual limitation contained in the present formula. Moreover, there is no limitation for the expenditure of funds for development of an energy source.

We will follow the staff recommendation and not change the present formula for Edison. It is possible in the future that large sums would be required to actually develop an energy source acquired by Edison through its EEDA projects. It is conceivable that a significant amount of Edison's annual fuel budget would pay for energy acquired by its subsidiary Mono and supported by EEDA. To the extent that the utility acquires and develops its own energy supply, ratepayers may be charged for fuel costs under the EEDA procedure. Clearly, Edison should not undertake the development phase of a project unless the development of an energy source is beneficial to the utility and its ratepayers when contrasted with the costs and availability of energy from traditional energy suppliers.

C. Foreign Investments

The staff recommends that participation in projects under the GEDA procedure be limited to prospects within United States territories, including Alaska and the federal offshore areas. The staff is not recommending that foreign projects never be eligible for funding under a procedure similar to the existing GEDA provisions. The concern of the staff is that the present GEDA procedures have expedited review provisions and the staff would require that foreign projects be presented by separate applications. The staff witness on the GEDA projects stated that issues become enlarged when foreign investment is involved, large amounts of reserves have to be committed before you can support a transportation system, and international implications may be present.

The Finance Division and the Utilities Division (Electric Branch) recommended that GEDA and EEDA not be limited geographically. This recommendation was based on the contention that most of the unknown energy reserves lie outside of the United States and Alaska and it would be unwise to limit E&D to an area like the United States that has been substantially explored and developed.

We agree with the views of the staff witness regarding the desirability of limiting GEDA procedures to United States territories, including Alaska and federal offshore areas. Consideration should be given to gas projects within the State of California. The basic justification for the charges to ratepayers under GEDA and EEDA is that such programs will either secure energy supplies that would not otherwise be available to California utilities or such energy resources will be secured at an advantageous price. We have no reason to believe that substantial foreign energy resources will become available to California utilities at substantially less than world market prices in the future. Common sense and the history of energy prices from foreign markets is to the contrary.

The remaining argument in support of GEDA and EEDA projects in foreign countries is that such procedures are essential to securing the supply of energy available for California utilities. We recognize that this may be a possibility but we conclude that the scope of the issues involved in foreign investment do not lend themselves to an expedited review procedure under GEDA or EEDA. In the future foreign projects should be the subject of separate application before they will be included in the GEDA or EEDA charges of California utilities.

D. Research and Demonstration Projects

An additional problem developed on our record involves the question of what particular type of project should be considered for GEDA or EEDA treatment. A staff witness was concerned with the inclusion of projects which were in the nature of basic research. The NARCO/SDG&E agreement states that NARCO is engaged in research and development of energy resources in the form of fossil, nuclear, geothermal, and all synthetic fuels. A witness on behalf of PG&E indicated that they would include under the GEDA procedure the conversion of municipal wastes to gas. The staff recommendation is that such projects should be included in general rate cases or under separate application proceedings before allowing recovery of costs for such projects.

We agree with the staff's position. It appears that there may be any number of potential projects in the nature of basic research which would not immediately deal with the problem for which GEDA and EEDA programs are designed. GEDA and EEDA charges to ratepayers are based on the necessity to secure energy resources for California utilities in the near future. Research and development (R&D) into new energy resources is a necessary and important activity. However, such projects are not within the scope of our GEDA and EEDA procedures.

It is difficult to justify projects which do not and will not supply energy at a reasonable cost to California utilities under the existing GEDA and EEDA charges. Absent a showing that the energy needs of California ratepayers may reasonably be met in the near future by projects like the conversion of municipal waste to gas, demonstration projects attempting to devise a method of using geothermal brine in the Imperial Valley for the generation of electricity, or the use of solar energy for the generation of electricity, we regard such projects to be basic research or demonstration projects outside the scope of GEDA and EEDA procedures. Such projects should be the subject of separate application proceedings before this Commission, or may be included in general rate increase applications.

E. Projects Involving Advance Payments

The Finance Division recommends that future exploration projects be limited to prospects where a working interest is obtained. The staff Utilities Division makes the same recommendation with the exception that other types of funding should be allowed where extenuating circumstances exist. The respondent utilities oppose the requirement.

The dispute involves GEDA projects. SoCal has obtained GEDA approval for the use of advance payments and interest-free loans to gas producers who hold the rights to gas reserves. The evidence is that the utilities cannot obtain working interests at a reasonable cost, but they can obtain a commitment of reserves by advancing funds for development. As available gas supplies fell below customer requirements, interstate pipeline and intrastate distributors have attempted to obtain additional gas supply by means of advance payments to producers.

A basic difficulty with the advance payment arrangements is that if the contractual right acquired is a right to purchase gas at a price to be negotiated in the future, it is difficult to see any advantage to the ultimate consumer. The argument based on necessity fails when the natural gas reserves are ultimately subject to Federal Power Commission (FPC)[1/] jurisdiction and necessary exploration, development, and production will proceed without advance payments. This Commission has recommended that the FPC terminate its advance payment program, and the FPC adopted this recommendation by order issued December 31, 1975 in Dockets Nos. R-411 and RM 74-4 (9 PUR 4th 664, 776). The FPC decision clearly states that state regulatory approval of advance payment transactions does not and will not obligate the FPC to certify any proposed sales or transportation arrangements of Alaska gas under Section 7 of the Natural Gas Act to the advancing distributor. Moreover, the FPC has reduced the sales price of natural gas committed under advance payments by the cost of the advances borne by the consumers (Opinion No. 770-A, Docket No. RM 75-14, November 5, 1976; 17 PUR 4th 317, 394).

1/ Now part of the Federal Energy Regulatory Commission.

Staff counsel recommends that the Commission follow the recommendation of the Utilities Division that advance payments and interest-free loans utilized to secure a commitment of reserves to California utilities should be the matter of independent application proceedings. The adoption of this recommendation, as staff counsel points out, does not preclude California utilities from participating in such projects unless extenuating circumstances exist. The staff Gas Branch would find the extenuating circumstances exception application to the South Alaska LNG projects.

In determining whether extenuating circumstances exist consideration will be given to projects which will increase gas reserves dedicated to the interstate market or which will accelerate the development of available reserves.

For the reasons set forth above, we find extenuating circumstances exist for the LNG project. We shall include such projects in the GEDA procedure authorized by this decision. If we were to withhold GEDA support, the South Alaska-Cook Inlet LNG project might be substantially delayed and such gas supplies might not be available in the near future.

The EEDA procedure presents a different situation. Edison has obtained working interests in its EEDA projects. However, it is possible that Edison might obtain rights to an energy resource under attractive terms without obtaining a working interest. Contractual rights to an unregulated energy source could involve advance payments or other financial commitments. An EEDA project letter involving advance payments or other arrangement that does not provide a substantial working interest to Edison should set forth the fact that Edison will not acquire a working interest. The project letter should set forth the rights Edison will acquire in the energy resource, including the pricing arrangements which will apply in the future.

F. Potential Conflicts of Interest

Certain problems exist regarding potential conflicts of interest in exploration programs. Both PG&E and SoCal's parent, Pacific Lighting Corporation (PLC), have stockholder-financed exploration companies.

Pacific Lighting Exploration Company (PLEC) is a subsidiary of PLC engaged in exploration activity which is funded by stockholders. GEDA funds support PLGD's projects. SoCal, PLS, and PLGD are all subsidiaries of PLC.

SoCal has sought to avoid the problem of possible preferential treatment. PLEC's primary objective is the development of oil prospects. PLGD is engaged in natural gas projects. The evidence is that PLS avoids potential conflict by not engaging in PLEC exploration activities within PLGD's geographical area. The staff recommends that to avoid a suggestion of conflict, that PLEC should be limited to projects funded from its own internally generated funds. SoCal's policy witness indicated that this would be the case in the future. This limitation should be no problem.

Should PLEC at any time begin to engage in E&D activities within a geographical area in which PLGD operates or has prospects, SoCal is notified that such activity should be explained by project letter filed with this Commission. It is our intent that SoCal's present policies be followed and any departure from thosepolicies should be called to the attention of the parties to the existing GEDA procedures.

Pacific Transmission Supply Company (PTS), a wholly owned subsidiary of Pacific Gas Transmission (PGT), is involved in stockholder E&D programs in the Rocky Mountains area. PGT is an interstate pipeline and is 51 percent owned by PG&E. NGC, a subsidiary of PG&E, undertakes ratepayer-financed programs in the Rocky Mountains area. A variety of suggestions have been made to deal with the potential preferential selection in favor of PTS, the stockholder-financed company.

The staff accountant recommends that all future exploration activities be performed by NGC. A suggestion of the staff engineer is that NGC and PTS become equal participants in future projects in the Rocky Mountains or that information be supplied the Commission to assure that preference is not being given to stockholder interests when a project letter is filed on a new project.

PG&E's witness stated that due to limited funding PGT would be unable to participate equally with NGC in new projects. The utility suggests that NGC and PGT become joint participants in all new projects. Each company would have the right to refuse to participate and the other could then proceed with the entire prospect. PG&E states that if NGC does not participate and PGT takes the entire project, sufficient information could be given the Commission to demonstrate that there is no shareholder preference.

No available solution can meet all the objections raised. We will allow PGT to develop its existing holdings. The two exploration companies will participate jointly in new projects or advise the Commission by project letter on all such projects why they are not both participating. A major area of concern would appear to be a new project in which NGC refused to participate. The staff will initially review such projects and will be able to observe the two corporations' efforts and results on an ongoing basis. The staff's review and report on PG&E's subsidiaries will be of record in future rate proceedings. Under such circumstances, it would appear to be in PG&E's interest to avoid the appearance of preferential treatment.

G. Miscellaneous Proposals

1. Investment of Equity Capital

The Finance Division recommends that utilities should be required to invest equity capital in approved ratepayer-financed E&D projects. The witness, in behalf of the Finance Division, noted that the success rate of the exploration projects has been less than overwhelming. Moreover, the Commission staff does not employ geologists. Projects are evaluated by the utilities and submitted to the Commission for approval. The staff recommendation is based upon the probability that if the utility is required to invest equity capital in a project, that proposed project would more likely be in the stockholders' and ratepayers' best interests as opposed to the existing situation where the ratepayers are bearing the entire risk.

The position of the staff Gas Branch witness on the GEDA projects was that stockholder participation should not be required nor encouraged. One difficulty is that the interests of ratepayers would conflict with the interests of stockholders. The GEDA program is supported by ratepayers in order to develop gas supplies to be used by ratepayers, thereby increasing their level of service. The stockholder participation goal would be to maximize profits from the program. As applied to the Transwestern joint venture, the staff calculated the unit cost of service at 58.3¢/Mcf. The stockholders seeking the highest price available would sell at higher FPC rates (or to the intrastate market). Increasing costs also can create conflicts. Ratepayers may find higher costs acceptable if gas costs are still below the price of alternate available gas. Stockholders may find that such higher costs reduce profits and remove any economic incentive to develop the gas reserves.

The utilities object to stockholder participation in GEDA projects. A witness on behalf of SoCal argued that utility investors do not intend to support high risk exploration ventures. PG&E agrees that their utility stockholders do not expect to invest in exploration ventures. The utilities also argue that efforts to obtain energy at the lowest cost under GEDA would conflict with a duty to obtain maximum returns for stockholders in high risk E&D ventures. The utilities also contend that without GEDA and EEDA funding they could not continue to supply the necessary capital for E&D efforts and meet the large capital requirements of their utility operations.

A requirement of some utility equity investment in E&D projects could assure a more careful or conservative evaluation of the risks involved in particular projects. However, stockholder participation would introduce additional problems in the GEDA and EEDA procedures. At this time we will not adopt the Finance Division recommendation. Even without equity participation, a utility should be motivated to secure the best prospects at the lowest risk. The funds that may be invested in projects are not unlimited. Failure to secure energy reserves has potentially adverse consequences to the utility and its equity investors. The customers' interest in continuing service and the stockholders' interest in a financially sound utility may both be served by a continued supply of energy at the best possible price.

2. Mandatory Joint Ventures

A staff witness recommended that new exploration projects should be conducted as joint ventures. One group would consist of the three major electric utilities; the two major gas utilities would form a second group. The staff witnesses were not in complete agreement on this recommendation. The staff recommendation, after review of the record, is that joint venture participation not be mandated. The staff does recommend that in all project filings where there is no joint participation the filing should include a signed statement from the nonparticipating utilities indicating their reasons for not joining in the proposed project.

Joint venture participation may, in particular cases, have substantial benefits. If two California utilities have a common energy requirement, it would be contrary to the public interest if they were to compete (at the ratepayer's ultimate cost) for the same energy resource. By combining their expertise and financial resources in a joint venture they could participate equally in such an E&D project. The utilities do not object to joint ventures. They do object to mandated joint ventures since they may have different requirements and there is no reason to assume that they would have a common interest in each prospect. SoCal and PG&E point out that in south Alaska and Indonesia they have formed a partnership to develop LNG.

The city of Los Angeles recommends that in each project filing that is not a joint venture the utility proposing the project should explain why it is not a joint venture. This recommendation will be adopted. Joint venture participation will not be a mandated requirement. However, in all project filings where there is no joint participation the filing shall set forth the reasons why other California utilities with similar ratepayer-supported projects (GEDA or EEDA) are not participating on a joint venture basis.

We will not require a review and a signed statement by the nonparticipating utility because we recognize that such requirement could inhibit utilities from acting swiftly on proposed new prospects to the detriment of the utility and the ratepayers. We previously expressed our concern over ratepayer-supported E&D projects in areas where stockholder-supported E&D is being conducted. The possibility that two different California utilities could compete for a common energy resource, each using ratepayer-funded E&D projects, presents a similar problem. In the development of energy prospects in an area where another California utility could reasonably be expected to participate, we will expect a project filing to clearly explain why a project is not a joint venture. We anticipate that the staff will be able to verify that the nonparticipating utility does not desire to join in such a project.

3. Uniform Charges

A staff witness recommended that E&D charges to ratepayers of all utilities should be uniform, based on kwhr or therms. The staff witness noted that the exploration charges to ratepayers vary sharply among California utilities, raising the problem that some California ratepayers are bearing a heavier burden than others in supporting such programs.

However, the staff is not in agreement on this recommendation. The utility position is that the energy needs of the respective utilities are not identical and thus, the charges for E&D of new sources cannot be uniform. The utility position is accepted by staff counsel as an accurate statement of the situation. We agree. Existing fuel costs and requirements vary among the major utilities in the State of California and there is no reason to assume that E&D expenses should, or can be, uniform.

4. Balancing Accounts (Including Interest)

The Finance Division recommends that each utility be required to maintain a balancing account to record the differences between revenues collected from customers and actual amounts expended. In addition, the Finance Division recommends that a seven percent annual interest rate should be applied on a monthly basis to the overcollection or undercollection on approved projects. These recommendations will be adopted. A balancing account, with accumulated interest, should be incorporated into each ECAC or GEDA filing.

5. Annual GEDA Status Reports

The Utilities Division recommends that GEDA status reports should be made annually to the staff instead of semi-annually as at present. Staff meetings have been held on five semiannual reports and these meetings have required a substantial amount of staff time. Exploration progress is relatively slow and the staff is of the opinion an annual status report would suffice. Additional meetings are held in connection with the annual GEDA rate adjustment and at other times if significant changes in individual projects occur. We will adopt this staff recommendation.

6. Pipeline Study Projects - GEDA

The city of Los Angeles objects to the inclusion of the Arctic pipeline study project in the GEDA procedure. The city argues that there is no lack of available investors and promoters for transportation systems for natural gas from the North Slope of Alaska. In fact, there have been three competing proposals for such a transportation system.

SoCal's basic claim is that its participation in the Gas Arctic Project is necessary to protect California's interest in obtaining gas from the North Slope of Alaska and the McKenzie Valley of Canada. SoCal argues, in effect, that its participation in initial study groups results in the promotion of systems which will be able to deliver available natural gas to California.

This Commission recognizes that the interests of California in access to natural gas supplies must be represented and protected. The ultimate decision regarding the transportation of natural gas from northern Alaska will be made by the United States government and the Canadian authorities. This Commission and major California utilities participate in FPC proceedings affecting future gas supply in order to protect California's interests.

The advantage of hindsight convinces us that initial participation in Alaskan pipeline projects, with potential acquisition of working interests, should not be included in the GEDA procedure. The ratepayers will, under GEDA, pay for existing approved participation. The claim that participation in a pipeline project is necessary to assure access to the gas reserves involved overlooks the fact of FPC jurisdiction. The federal agency's decision will be based upon the national interest. Acquisition of a working interest in a transportation system has no apparent relationship to the question of how gas supplies should be delivered in the United States.

We recognize that a similar problem exists in the Cook Inlet LNG advance payment projects. However, we are convinced that without present authorizations under GEDA, the south Alaskan gas would not be available in the near future. On our record, there is a need for such additional gas supply. Pipeline projects do not appear to present the same immediate need for GEDA funding.

7. Below the Line Expenses

The Finance Division's investigation on an individual project's cost disclosed that charges usually considered "below the line" for ratemaking purposes have been included in project costs. These costs at this time were found to be de minimis but such costs should be absorbed by the stockholder rather than by the ratepayer. The staff position is that the utility should not be allowed to collect charges under E&D programs that it cannot collect under normal ratemaking procedures. We agree with the staff position. However, the problem arose in reviewing a pipeline study project and should not occur in the future.

8. Utility Policy Statements

The Finance Division recommended that each utility file with the Commission a statement of the exploration goals of its company with estimated timetables and standards that can be applied in measuring the success or failure of its E&D program. The recommendation was that each approved exploration project contain a statement of the objectives, a timetable for completion, and sufficient detail to enable a reader to assess the progress of a project and its degree of success. Such reports can set forth the particular energy source sought in particular exploration (for example, oil or uranium) and the amounts of energy that would have to be discovered in relation to budget expenditures to make the project financially attractive.

Such a policy statement can set forth the existing programs and anticipated total financial expenditures. The present reports set forth annual costs and total recorded investment but do not set forth anticipated and estimated future commitments on particular projects in sufficient detail to enable a reviewer to estimate the actual anticipated investment in particular projects. There is no reason not to include such detail in the annual reports.

9. EEDA Development Programs

The Utilities Division recommends that all electric utilities be required to file a project letter for the development phase of exploration projects which have been previously recognized. In addition, a project letter should be filed to advise the staff on proposed product pricing prior to sales arrangements to be made between the exploration subsidiary and a parent utility. The staff recognizes that there may be instances where it would be beneficial for ratepayers to price the product at market rather than cost due to tax considerations.

Another consideration is a situation where one utility's rate-payers have secured a supply of energy which will benefit rate-payers of another utility if the energy is provided at cost to the nonparticipating utility.

These recommendations will be adopted. Separate project letter approval will not be required. The annual report should set forth sufficient detail (see VII. G.8. above) to enable the staff and interested parties to evaluate the development program.

VIII. EEDA PROCEDURE AUTHORIZATION - PG&E

Our order instituting investiation in C.10056 provided that our investigation would include a consideration of whether E&D programs of PG&E (and other respondents) should be maintained, expanded, reduced, or eliminated. We have determined that Edison's existing EEDA procedure should be continued, subject to the requirements set forth in this decision. SDG&E's request for an EEDA procedure will be granted. We conclude that PG&E's E&D program should be expanded to include an EEDA procedure.

As the staff witness stated, there is no reason why PG&E should not have an arrangement similar to the other major electric utilities regulated by the Commission. Edison and SDG&E must give consideration to joint ventures with other California electric utilities on new EEDA projects.

Consideration of joint participation by PG&E requires that PG&E must have an available EEDA procedure.

Authorization of an EEDA procedure for PG&E does not involve consideration of particular EEDA projects at this time. No proposed projects have been presented. PG&E shall establish an EEDA procedure similar to the EEDA procedures authorized SDG&E and Edison. PG&E shall file and serve on all parties to this proceeding a request for Commission approval of a fuel-service agreement or similar arrangements setting forth its proposed EEDA program arrangement.

Subsequent to Commission approval of a specific EEDA program, PG&E will be authorized to request approval of specific EEDA projects by project letters. Our established procedures provide that such project letters should be served on all parties to this proceeding, and to all persons who request copies of such project letter filings by written request to PG&E.

IX. REVIEW PROCEDURE OF PROJECT LETTERS

The receipt of a project letter filing is notice to interested parties that the Commission will expeditiously act by resolution to grant or deny the project. The Commission action may be within one month. The city of Los Angeles has requested a change in the advice letter procedure. Los Angeles requests copies of the Commission staff's recommendations and an opportunity to comment on such recommendations.

Under present procedures the utility, after prior consultation with the staff, files a project letter. The staff reviews the request and makes its recommendation to the Commission. Los Angeles alleges that staff recommendations are not made public and are provided only to the Commission. Los Angeles requests that the staff comments by interested divisions (including the Legal Division) be provided to all interested parties. Los Angeles states that interested parties may be given a short period of time (i.e., one week) within which to file comments. Final comments should then be permitted by the utility.

The request of Los Angeles is opposed by SoCal and PG&E. The utilities object to the procedural change, as applied to GEDA projects, on basically two grounds. The GEDA projects require prior approval. Accordingly, the utilities advise the Commission staff regarding the proposed project prior to filing and are seeking an expeditious determination in order to proceed. Additional procedural steps will delay Commission action. Moreover, the not-yet-approved project may involve information which is supplied to the Commission in confidence (as in federal off-shore lease sales).

We cannot establish a rigid procedure which will meet all the problems raised. In GEDA matters, the filing of the project letter must be taken as notice to interested parties that the Commission may act expeditiously and parties wishing to comment should do so promptly. In many cases, there may be no reason not to make the staff's technical divisions' reports and comments available. Advice from the Legal Division will not be made public.

Staff reports and recommendations to the Commission will be available in the Commission's public file and mailed to interested parties unless they contain confidential material. If a utility makes confidential material available to the staff, staff reports which would violate the request for confidentiality will not be made public. Interested parties should be advised when confidential staff reports are not made available. No fixed period of time will be mandated for comment on the staff report. It is even possible to imagine a GEDA matter where no written staff report is made. However, in the ordinary EEDA filing and in many GEDA filings, interested parties will have at least the one week suggested by Los Angeles in which to file comments.

The adoption of this policy is not intended to introduce an additional procedural step in GEDA filings. Our concern is that interested parties be advised, on a publicly available record, of the basis of Commission action. And although we do not provide additional procedural steps, in many cases interested parties may be able to file comments on a timely basis. In such cases the Commission will have the benefit of additional public comment.

Findings

1. On March 2, 1976 the Commission issued an order instituting investigation in C.10056. The investigation included consideration of whether exploration and development programs of Pacific Gas and Electric Company (PG&E), Southern California Gas Company (SoCal), and Southern California Edison Company (Edison) should be maintained, expanded, reduced, or eliminated. PG&E, SoCal, Edison, and San Diego Gas & Electric Company (SDG&E) were named respondents.

2. On May 7, 1976 SoCal and Pacific Lighting Service Company (PLS) filed A.56471. The application requests an additional three-year continuation of time to submit projects under the gas exploration and development adjustment (GEDA) procedure authorized by D.81898 dated September 25, 1973.

3. On August 25, 1976 PG&E filed A.56709 requesting authority to establish a GEDA procedure similar to the procedure authorized SoCal by D.81898.

4. On November 16, 1976 SDG&E filed A.56877 requesting authority to establish an energy exploration and development adjustment (EEDA) procedure similar to the EEDA procedure authorized for Edison by D.83838 dated December 17, 1974.

5. The current energy supply shortages justify the continuation and establishment of GEDA and EEDA procedures by respondent utilities.

6. GEDA projects of SoCal have obtained additional needed supplies of natural gas for SoCal's customers. Such additional supply was obtained at an advantageous price, and may not have been available at all without GEDA funding.

7. PG&E has entered into an agreement to participate with SoCal in GEDA projects designed to secure LNG supplies from South Alaska-Cook Inlet. Without GEDA projects, development of needed supplies of LNG may be delayed or unattainable.

8. PG&E requires a GEDA procedure in order to develop new gas supplies for its customers and to participate on an equal basis with SoCal on the LNG project.

9. Edison's EEDA program provides funding necessary to support exploration and development for energy supplies needed by Edison. Edison's traditional energy supplies are declining and unregulated energy supplies cannot be relied upon to meet Edison's energy requirements.

10. SDG&E requires an EEDA procedure in order to secure energy resources needed for electrical generation. SDG&E and Edison have, in substantial respects, a similar need for energy supplies.

11. GEDA procedure requires Commission approval prior to commitment of funds to a project. The staff, SoCal, and PG&E agree that this requirement should be continued.

12. Edison is not required to obtain prior Commission approval for its EEDA projects. A requirement of prior Commission approval would inhibit electric utilities in their efforts to obtain ownership interests in scarce and unregulated energy resources.

13. The staff recommends that the annual cost-of-service charges of each GEDA program be limited to $50 million annually. The present (lowest) variable limitation is $40 million annually (based on 0.5¢ per therm), while the 10 percent of total cost-of-gas limitation is approximately $80 million. The fixed limit removes the risk that the variable cost-of-gas limitation may increase. The fixed limit also removes the problem which could arise if the variable limit moved below prior approved annual charges.

14. The EEDA program of Edison limits annual charges for exploration to five percent of the annual fuel budget or 0.08¢ per kwhr, whichever is lower. There is no limitation of funding for development costs. Edison may acquire and develop its own

energy resources by means of EEDA projects. No change in existing limitations is recommended by the staff.

15. GEDA and EEDA projects outside areas of United States control are subject to increased risks. Agreements regarding such projects are subject to control by a foreign nation. Large energy reserves are required to support transportation systems. Foreign projects may, in the future, be presented by separate applications.

16. The purpose of GEDA is to obtain gas for California. The gas utilities should consider entering into gas exploration and development projects within the state. At the time of each annual GEDA report and in the next request for GEDA renewal, such consideration should be carefully described.

17. GEDA and EEDA procedures provide funding for E&D to secure necessary energy resources required by California utilities. Such procedures do not include basic research or demonstration projects. Research and development (R&D) projects, as well as demonstration projects, may be the subject of separate applications.

18. Advance payment arrangements have been authorized in GEDA projects to obtain a call on proven gas reserves. In projects where the gas will be dedicated to the interstate market, the arrangement will be subject to FPC jurisdiction. The FPC has terminated its advance payments program and is not obligated to approve arrangements authorized by individual states.

19. The South Alaska-Cook Inlet LNG project may provide natural gas supplies needed to meet California requirements in the near future. GEDA projects will accelerate the development of natural gas reserves required for the LNG project.

20. Edison has acquired a working interest in all of its EEDA projects. An EEDA project could involve the acquisition of a right to purchase an unregulated energy resource under advantageous terms without acquiring a working interest in the resource.

21. SoCal and PG&E both have stockholder-financed exploration companies. Exploration by such companies has the potential to conflict with the exploration activity of GEDA and EEDA exploration. Such

potential conflict may be avoided by requiring geographical separation of operations and by requiring joint participation where operations are now in the same area. Conflict may be reduced if additional stockholder investment is not advanced to finance exploration activity.

22. GEDA and EEDA projects which meet the energy requirements of two or more California utilities may be undertaken as joint ventures. Joint venture participation, which combines the expertise and financial resources of two or more utilities, can make needed energy resources available to all areas of California.

23. GEDA funding is not required for pipeline transportation systems which are actively supported and promoted by investors with substantial available capital.

24. SDG&E's proposed EEDA projects should be authorized for project letter filing if the potential benefits justify the associated risks. The proven coal reserves at Kaiparowits are an energy resource which may be of substantial value.

25. PG&E's presently authorized E&D program will terminate at the end of 1977. Existing projects may be incorporated into a GEDA program by project letter filing as set forth in our decision.

26. Edison's projects 74-03A, 74-04A, 75-01A, and 75-02C have been recommended for approval by the Commission staff. Such projects are consistent with the EEDA program established prior to this decision and should be approved.

27. SDG&E has included accumulated interest charges on loans advanced to New Albion Resource Company in all project expenditures accumulated to date. Since these past interest charges are similar in nature to carrying costs, SDG&E is in effect asking the Commission to retroactively approve these projects since inception. SDG&E's request to capitalize prior interest expense is denied.

28. PG&E's E&D program should be expanded to include an EEDA procedure.

29. To protect the interests of the ratepayers, all GEDA and EEDA projects should be undertaken as joint ventures whenever two or more utilities have a common need for the energy resource involved, unless there are extenuating circumstances.

30. Utility equity investment in E&D projects should not be required at this time.

31. Existing fuel costs and requirements of the major utilities vary. Therefore, a uniform charge should not be required.

32. A balancing account, with accumulated interest, should be incorporated into each EEDA or GEDA finding.

The Commission concludes that GEDA and EEDA procedures should be authorized to the extent set forth in the order which follows.

ORDER

IT IS ORDERED that:

1. Southern California Gas Company and Pacific Lighting Service Company are authorized to continue to submit gas exploration and development projects for an additional period of three years after the effective date of this order.

2. On or after the date of this order, Pacific Gas and Electric Company is authorized to file with this Commission revised tariff schedules establishing a GEDA procedure as requested by A.56709. Such filing will comply with General Order No. 96-A. The effective date of such revised tariff schedules shall be four days after the date of filing.

3. On or after the date of this order, Pacific Gas and Electric Company is authorized to file with the Commission and serve on the parties to this proceeding proposed revised tariff schedules establishing an EEDA procedure similar to the procedure authorized Southern California Edison Company by D.83838 dated December 17, 1974. The proposed tariffs will comply with General Order No. 96-A. The effective date of such revised tariff schedules shall be twenty days after the date of filing unless the Commission by resolution, decision, or order suspends the effective date of such tariffs.

4. On or after the date of this order, San Diego Gas & Electric Company is authorized to file with this Commission revised tariff schedules establishing an EEDA procedure as requested by A.56877. Such filing will comply with General Order No. 96-A. The effective date of such revised tariff schedules shall be four days after the date of filing.

5. Projects 74-03A, 74-04A, 75-01A, and 75-02C filed by Southern California Edison Company are approved under Edison's EEDA procedures.

6. GEDA and EEDA rate adjustments shall take into account the difference between revenues collected from customers and actual amounts expended on approved projects. Interest at a seven percent annual rate shall be applied monthly to such balancing accounts.

7. Project letters requesting approval of new EEDA projects should be filed at the earliest possible date. Approved project costs should be included as part of the semiannual energy cost adjustment clause (ECAC) revision.

8. After the effective date of the revised tariffs authorized by Ordering Paragraph 4, SDG&E is authorized to file a project letter for the Kaiparowits coal project. Administrative and general expenses of New Albion Resources Company (NARCO) include necessary consultant fees incurred in exploration efforts, including uranium consultant fees.

9. New projects presented for Commission approval under GEDA or EEDA procedures shall be within United States territory, including Alaska and federal offshore areas.

10. The GEDA procedure shall not include new projects involving advance payments or similar funding arrangements unless the project letter sets forth extenuating circumstances. This restriction shall not apply to projects to develop gas reserves for the South Alaska-Cook Inlet LNG project.

11. The GEDA and EEDA procedures shall not be used for new research projects, demonstration projects, or pipeline transportation systems.

12. GEDA and EEDA projects should be undertaken as joint ventures whenever two or more utilities have a common need for the energy resource involved. Project letters for approval of new projects, which are not joint ventures, should set forth the reasons why the project is not presented as a joint venture.

13. Utilities with GEDA procedures shall file an annual report for Commission staff review. GEDA and EEDA annual reports shall contain a section setting forth exploration objectives, estimated completion dates, and best estimates of total investment and future GEDA and EEDA charges for each project.

14. Electric utilities shall file project letters setting forth details of the development phase of approved exploration projects. No Commission action shall be required on such project letter filings.

The effective date of this order shall be twenty days after the date hereof.

Dated at San Francisco, California, this 22nd day of NOVEMBER, 1977.

Robert Batinovich
President

William Symons Jr.

Vernon L. Sturgeon

Richard D. Gravelle

Claire T. Dedrick
Commissioners

APPENDIX A

APPEARANCES

Chickering & Gregory, by Sherman Chickering, C. Hayden Ames, and Allan J. Thompson, Attorneys at Law; Gordon Pearce, Attorney at Law; and John H. Woy, for San Diego Gas & Electric Company; W. M. Pfeiffer, T. D. Clarke, E. R. Island, and Priscilla M. Tamkin, by E. R. Island and Priscilla M. Tamkin, Attorneys at Law, for Southern California Gas Company and Pacific Lighting Service Company; Malcolm H. Furbush, Gilbert L. Harrick, Peter W. Hanschen and Kathy Graham, by Gilbert L. Harrick and Peter W. Hanschen, Attorneys at Law, for Pacific Gas and Electric Company; R. E. Woodbury, Robert J. Cahall, and Christian L. Hauck, by R. E. Woodbury, Attorney at Law; and William E. Marx and H. Robert Barnes, Jr., by H. Robert Barnes, Jr., Attorney at Law, for Southern California Edison Company; respondents.

John Witt, City Attorney, by William S. Shaffran, Deputy City Attorney, for City of San Diego, intervenor.

Burt Pines, City Attorney, by Leonard L. Snaider, Deputy City Attorney, for City of Los Angeles; Robert Russell and Manuel Kroman, by Manuel Kroman, for Department of Public Utilities & Transportation, City of Los Angeles; Henry F. Lippitt, 2nd, Attorney at Law, for California Gas Producers Association; Sylvia M. Siegel, for TURN; Frazer F. Hilder, General Counsel, and Julius J. Hollis; and Downey, Brand, Seymour & Rohwer, by Philip A. Stohr, Attorney at Law, for General Motors Corporation; and Allen R. Crown, Attorney at Law, for California Farm Bureau Federation; interested parties.

Janice E. Kerr and Lionel B. Wilson, Attorneys at Law, E. J. Texeira, J. J. Gibbons, and Page R. Golsan, Jr., for the Commission staff.