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ORIGINAL

BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

In the matter of the application of PACIFIC GAS AND ELECTRIC COMPANY for a certificate of public convenience and necessity to construct, install, operate, maintain, and use Unit 16 at The Geysers Power Plant together with related facilities and a 230 kV transmission line from Castle Rock Junction to Lakeville Substation. (Electric)	Application 59781 (Filed June 30, 1980; amended July 28, 1980 and November 6, 1980)

O P I N I O N

In this application Pacific Gas and Electric Company (PG&E) seeks a certificate of public convenience and necessity (CPCN) under Public Utilities (PU) Code Section 1001 and the Commission's General Order 131-B declaring that present and future public convenience and necessity require or will require the construction, installation, operation, maintenance, and use of Unit 16 at The Geysers Power Plant (Geysers) together with transmission lines and related facilities.

Unit 16 is subject to the jurisdiction of the California Energy Resources Conservation and Development Commission (CEC). A Notice of Intent (NOI) for Unit 16 was filed with the CEC on August 30, 1978 and approved in amended form on September 20, 1979. An Application for Certification (AFC) was submitted to the CEC on December 12, 1979 and rejected. A revised AFC was submitted on February 21, 1980. Six copies of the revised AFC and the CEC Final Report on the NOI were forwarded to the Commission under cover letter dated May 30, 1980.

On March 3, 1980, the CEC ordered that the AFC for Unit 16 be deemed accepted for further processing as of February 21, 1980.

California Environmental Quality Act (CEQA) Requirements

The CEC is the designated State lead agency for purposes of preparation and approval of the environmental impact report under Public Resources Code Section 25519(c) and the CEQA. Rule 17.1 of the Commission's Rules of Practice and Procedure is therefore not applicable.

On September 30, 1981, the CEC issued its decision granting the AFC for Geysers Unit 16, and so PG&E must obtain from the Commission a CPCN to allow construction of the proposed project.

Geysers presently consists of 15 operating units with a total net capability of approximately 908,000 kW. The units are located in a portion of the Geysers Known Geothermal Resources Area in Lake and Sonoma Counties, about 75 miles north of San Francisco, and are the only commercially operating geothermal units in the United States using dry steam. Unit 14, which began operation in 1980, was the last Geysers Unit completed. PG&E's Geysers Unit 17, a 110,000 kW plant, is scheduled for operation in December 1982.

PG&E's Proposal

Proposed Unit 16 is located in southwestern Lake County in Section 35, Township 11 North, Range 8 West, Mt. Diablo Base and Meridian on a lateral ridge branching from the dominant ridgeline separating Lake and Sonoma Counties. The final plant site elevation will be approximately 2,350 feet above sea level. A map showing the location of the proposed power plant, fill disposal area, and transmission tap line was attached to the application as Exhibit A.

Unit 16 will have a net normal operating capacity of approximately 110,000 kW. It will consist of a two-cylinder, four-flow steam turbine with a normal gross rating of 120,000 kW at a steam flow of about 2,000,000 pounds per hour, a steam pressure of 100 pounds per square inch (gauge), a steam temperature of 337 degrees Fahrenheit, and a turbine back-pressure of approximately 3 inches of mercury (absolute). The generator will be a 137,800 kVa, 13,800 volt, hydrogen-cooled, three-phase, synchronous unit. Other major components include a surface condenser with steam jet ejectors, condensate pumps, a mechanically induced draft, cross-flow cooling tower, noncondensable gas removal equipment, a Stretford hydrogen sulfide abatement system, and other appurtenant and related facilities. If necessary to meet applicable air quality standards, PG&E will install secondary H_2S abatement equipment. Transformation will consist of one 137,000 kVa, 13.8-230 kV, three-phase oil and air-cooled main transformer.

Unit 16 is to be connected to Geysers transmission system by a tap line approximately 1.4 miles in length. The proposed route of this line runs northwesterly from the Unit 16 site and joins an existing 230 kV transmission line at Unit 13. The line will be a single circuit, 230 kV tower line strung with 1,113 kcmil non-specular aluminum conductors. The eight towers for the line will be of lattice design, averaging about 80 feet in height.

Contracts for major equipment have been or will be awarded on the basis of competitive bids. Field installation of equipment and construction work will be performed by contractors also selected after

competitive bidding. PG&E will be responsible for the project design and will supervise construction activities. Construction was scheduled to begin in March 1981 to bring the unit on-line by November 1983. The plant is now scheduled to be completed and on-line by June 1985.

Construction of Unit 16 will involve site preparation activities, foundation construction, structure erection, and electrical and mechanical equipment installation. Approximately four acres of level fenced area will be established by excavating soil and rock material and disposing of this material at a fill site about one-half mile southwest of the plant site, Big Injun Mine. The final plant site elevation will be approximately 2,350 feet above sea level. The major structures to be built are the turbine building, cooling tower, electrical switchyard, and the hydrogen sulfide abatement facility.

Safety Considerations

Safety considerations are an integral part of plant design requirements. Unit 16 will incorporate appropriate seismic design requirements and will have an adequate fire-fighting water supply system. The unit is designed to operate unattended and will be provided with control devices to shut down the plant in the event of emergency or abnormal operating conditions.

Standby power will be supplied by a 21 kV distribution line installed on wood poles which will start from an existing line near Unit 13.

Because the unit will be part of the integrated PG&E area system, electric loads to be served by the unit will be met from other system power sources during periods when Unit 16 is on a forced or scheduled outage.

Steam Supply

Geothermal steam to be used in Unit 16 will come from a proven geothermal steam field developed by Aminoil USA, Inc. (Aminoil) on certain of its Castle Rock Springs leasehold properties in Lake and Sonoma Counties. PG&E will purchase this steam in accordance with the terms of an agreement between PG&E and Aminoil (formerly Signal Oil and Gas) dated March 23, 1973. This agreement has previously been filed with the Commission as part of the Unit 13 proceeding in Application 86661.

Based on experience with existing wells and test data from four wells already drilled by Aminoil for Unit 16, PG&E's reservoir engineering consultants advised that Aminoil's steam reserves are sufficient to supply Unit 16 over its expected minimum life of 35 years.

Transmission Line

The Castle Rock Junction - Lakeville transmission line will transmit power generated at Geysers to the interconnected transmission system at Lakeville substation in southern Sonoma County. A map of the transmission line route is attached to the application as Exhibit B. The 38-mile line will be a double-circuit, 230 kV tower line with two bundled circuits of 2,300 kcmil all aluminum non-specular conductor. All towers, except the 18 towers across the Valley of the Moon, Oakmont, Wild Oak, and Annadel State Park will be double-circuit, galvanized lattice steel towers. The remaining 18 towers will be four-circuit structures supporting both the new line and the existing Fulton-Ignacio 230 kV line. The structures crossing Valley of the Moon and Oakmont will be tubular while those in the more mountainous and heavily vegetated areas of Wild Oak and Annadel will be lattice towers. The transmission line will be designed with strengths and clearances equal to or greater than the requirements and safety factors specified by the Commission's General Order Series 95.

Cost of the Proposed Project

The estimated cost of the generating unit and step-up transformers is $89,158,000.[1/] Cost of the transmission tap line is estimated to be $280,000. These estimates reflect projected material and labor price escalation through the completion date of the project. A detailed breakdown of the project cost is shown in Exhibit F-1 attached to the application.

Exhibit F-2 shows the estimated unit cost of power from Unit 1(based on the capital cost estimate and the projected levelized steam payment over the unit's 35-year life. At an 80% capacity factor, the levelized cost of power, including both the capacity and energy component is estimated to be 70.40[1/] mills per kilowatt-hour at the bus-bar.

Exhibit F-3 shows, as required by General Order 131-B, Appendix B, Paragraph VI, estimated year-by-year cost of Geysers Unit 16 for a 20-year period.

Exhibit F-4 shows the estimated cost of gas turbines considered as a possib alternative to Geysers Unit 16. There are no other sources of firm generation that can be installed within the time frame of Geysers Unit 16 considering the time required for normal regulatory review and construction period. Gas turbine units have the shortest lead time of any commercially available generating technology and could, if normal licensing requirements were shortened, be installed by November 1983. The cost of power from such units, however, is significantly higher than the estimated cost of power from Geysers Unit 16. A comparison of the year-by-year costs of the gas turbine alternative to Geysers Unit 16 for a 20-year period is shown in Exhibit F-3.

Exhibit F-5 shows the estimated line construction and right-of-way cost of the Castle Rock Junction-Lakeville transmission line to be $31,641,000. The estimate includes the cost for right-of-way acquisition, line construction, and substation work.

1/ On January 18, 1982 PG&E filed an amended cost estimate as requested by the Administrative Law Judge. Total production step-up and switchyard cost in 1985 dollars is $114,055,000. The tap line estimate was revised to $351,000. The Castle Rock Junction-Lakeville 230 KV transmission line cost estimate was revised in 1984 dollars to $55,947,000. This included $10,424,000 for undergrounding across the Valley of the Moon and Oakmont as ordered by the CEC. The levelized cost of power increases to 84.4 mills per kilowatt-hour due to these updated plant costs.

Financial Considerations

The financial ability of PG&E to construct and operate the proposed unit and the transmission line is shown in PG&E's Annual Report to the Commission for the year ended December 31, 1979, filed with the Commission. PG&E proposes to finance the construction of Unit 16 by using, to the extent available, moneys in reserve, funds not required for immediate use, and the proceeds of the issue and sale of such stocks, bonds, notes, or other evidence of indebtedness as the Commission shall, by proper application, authorize for that purpose.

Rates to be charged for electric service to be rendered by the proposed unit are the PG&E system electric rates now in effect or as may be authorized by the Commission in the future.

Matters Determined by the CEC

PU Code Section 1001 requires the Commission as part of its certification process to consider the following factors: (1) community values, (2) recreational and park areas, (3) historical and esthetic values, and (4) influence on environment. In 1974 Section 1001 was amended to provide that:

> "With respect to any thermal powerplant or electrical transmission line for which a certificate is required pursuant to the provisions of Division 15 (commencing with Section 25000) of the Public Resources Code, no certificate shall be granted pursuant to this section without such other certificate having been obtained first, and the decision granting such other certificate shall be conclusive as to all matters determined thereby and shall take the place of the requirement for consideration by the commission of factors (a), (b), (c), and (d) specified in this section."

The CEC issued its decision granting PG&E's AFC for Geysers Unit 16 subject to certain conditions on September 30, 1981. The decision, a 217-page document, is received in evidence as Exhibit 1.

On page 8 of the decision the CEC found:

"4. The additional capacity to be added by Geysers Unit 16 is needed to meet anticipated growth in demand for electricity, retirement of older facilities, potential losses from the expiration of contracts for power from the Pacific Northwest, and oil and gas reduction policies shown in the forecast of service area electric power demands adopted pursuant to Public Resources Code section 25309(b).

"5. As a facility related to Geysers Unit 16 and necessary for the transmission of electrical energy therefrom to the PG&E service area, the proposed 230 kV Castle Rock Junction-Lakeville transmission line conforms to the Commission-adopted forecast."

With regard to the power plant the CEC made findings on the following matters:

Environmental Resources

The CEC found that Unit 16 will conform to the applicable air quality laws and regulations and that construction activity will not adversely affect any identified archeological, ethnographic, paleontological, or historic resources.

Economics

"47. Geysers Unit 16, as part of the overall PG&E geothermal development at the Geysers, has a positive impact on rates, because of the favorable economics of this energy source relative to other sources of electric energy (RT 10,957)."

Public Health and Safety

The CEC found that certain materials used during operation of power plant pose a potential threat to the safety of the general public. It then found as follows:

"63. The hazardous wastes will be disposed of at an approved site located in Lake County near Middletown or Kelseyville."

* * *

"65. The provision of adequate on-site storage and containment facilities, together with the use of proper handling procedures for the materials listed above, in accordance with the condition below, will minimize to an acceptable level the risk to safety posed by these chemicals and compounds."

* * *

"67. The provision of adequate on-site storage and containment facilities, together with the use of proper handling procedures for the materials listed above, in accordance with the Condition below, will minimize to an acceptable level the risk to safety posed by those chemicals and compounds."

Engineering

Geotechnical

"71. The nature of the site geology is adequately described in 'Detailed Geotechnical Investigation Geysers Power Plant Unit 16', Harlan and Associates (1978). The geologic conditions at the power plant site and fill disposal site are complex, not completely known, and potentially more adverse or more favorable than represented in the foregoing Harlan Report.

"72. About 450,000 cubic yards of excess materials will be generated by the site development.

"73. The Big Injun Mine site, located about 1,200 feet west of the plant site, has been proposed as the disposal site for the excess material.

"74. A large, potentially unstable, active to dormant landslide exists on the south side of the power plant site. PG&E proposes to remove the material at the top of the landslide down to competent bedrock, then construct a 70-foot high retaining wall with an exposed height of about 45 feet and backfill behind it up to plant grade to obtain the necessary space for plant facilities. Part of the cooling tower structure will rest on this backfill.

"75. Zones of weaker fractured rock occur in the proposed 150-foot high cut slopes on the west end of the power plant site. Failure of any rock material in the cut slope could result in encroachment of landslide debris onto the site and facilities.

"76. A final determination of site geologic conditions and the necessary protection measures cannot be made until completion of site excavation.

"77. If geologic conditions do not differ substantially from those conditions represented by the Harlan Report, adverse conditions can be acceptably mitigated by the recommendations in the Harlan Report.

"78. If the conditions at the fill site are not substantially different from those reported in the Harlan Report and if the recommendations for the fill site in the Harlan Report are implemented, the site is satisfactory for the disposal of excavated material."

Structural Engineering

"79. The design of Unit 16 for critical structures and components will be adequate to achieve performance criteria requiring that structures and components withstand a seismic event having a 10 percent probability of being exceeded during the plant design life using the combined sources response spectrum set forth in Keith Feibusch Associates, Engineer's Report No. 01-3170-1067, (design life of 40 years for structures and 30 years for equipment components) with minor damage and no structural collapse. The H_2S Stretford abatement system will be included in the list of critical structures and components for Unit 16. (Critical facility structures and components are essential to continued power generation, or are those whose replacement cost or time is excessive).

"80. The design of Unit 16 for structures and components not designated 'critical' will be adequate to achieve the Applicant's performance criteria.

"81. Although a final determination of compliance with applicable laws and standards cannot be made until after the preparation of final design plans and calculations, which occurs after the AFC, the Applicant's design of Unit 16 appears to comply with applicable laws and standards with respect to structural engineering."

Reliability

"82. The Operating Availability Factor of Geysers Units 1-11 was 90.6 percent in 1976, 91.2 percent in 1977.

"83. The average Capacity Factor of Geysers Unit 1-11 was 81.8 percent in 1976, 81.3 percent in 1977.

"84. Major generating equipment and most other equipment for Unit 16, with the exception of the hydrogen sulfide abatement system, will be similar in design principles as the equipment at Units 1-11, and have been improved where possible.

"85. Design and construction of the facility as specified in the Structural Engineering section will reasonably ensure facility reliability with respect to potential seismic events.

"86. Complete operating data on the H_2S abatement system that will be employed at Unit 16 is currently unavailable.

"87. To ensure a high degree of operability, the Stretford system will employ equipment redundancies as appropriate for components necessary for abatement operation and all active components (valves and pumps) will be redundant on the secondary abatement system.

"88. Based on historical operating experience in the Geysers, Geysers Unit 16 could reasonably be expected to operate at a 90 percent or greater Availability Factor and have the capability to operate at an 80 percent or greater Capacity Factor at plant maturity."

Because the CEC determined that the PG&E proposed transmission line did not conform to local land use plans and that the nonconformities could not be corrected or eliminated within the meaning of Public Resources Code Section 25523(d), PG&E sought relief under Section 25525 to certify its proposed transmission line. In its decision the CEC made the following findings:

"160. Given the state's energy policy preferences for geothermal energy expressed in the 1981 Biennial Report, geothermal energy's relative cost advantage, the cost of excess transmission energy losses and the potential for curtailment

of geothermal generation, the construction and operation of a transmission facility to provide an outlet for Geysers geothermal energy is required for the public convenience and necessity. Failure to construct and operate an additional Geysers transmission outlet, or a protracted delay thereof, is contrary to the public interest financially, environmentally and from an energy planning perspective.

"161. Generation from Geysers Unit 16 could be carried on the existing transmission line only during the non-occurrence of summer normal conditions and with some other generation facilities not operating."

After considering the available alternatives the CEC made the following finding under the Public Resources Code Section 25525:

"281. There are not more prudent and feasible means to achieve the public convenience and necessity than the PG&E proposed Castle Rock Junction to Lakeville transmission line, except the partial modification thereof by undergrounding across the Valley of the Moon and Oakmont."

As noted in Finding 281 above, except for the undergrounding across the Valley of the Moon and Oakmont, PG&E's proposed Castle Rock Junction to Lakeville transmission line route is the most feasible and prudent.[2/] As a condition for certification, the CEC ordered this 1.2 miles (approximately towers 103-107) undergrounded.

Although during the CEC siting proceedings our staff, due primarily to economic considerations, opposed undergrounding at Oakmont, we recognize the CEC's authority under the Public Resources

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2/ Sonoma County and some landowners near the transmission line right-of-way have filed actions seeking judicial review of the CEC decision.

Code to order the undergrounding of the proposed line through Oakmont (cf. also Public Utilities Code Section 1001 and General Order 131-B).[3/] We accept the CEC order which is limited to such undergrounding of the proposed line.

With respect to the Environmental Impact Report, on page 215 of the decision the CEC stated:

Environmental Impact Report

"During the proceedings, changes or alternatives having been required in, or incorporated into, the proposed facility which mitigate or avoid the significant environmental effects of the facility identified in the Final Environmental Impact Report and confirmed to exist by this Decision. There are no specific economic, social, or other considerations which make infeasible the mitigation measures identified in the Final Environmental Impact Report and confirmed as warranted by this Decision. The conditions enumerated in this Decision mitigate all the identified and confirmed significant environmental impact."

3/ Although the CEC does not order the undergrounding of that portion of the existing Fulton to Ignacio 220 kV line which runs through Oakmont, the CEC in its final decision states that it has the jurisdiction to do so. This CEC statement on jurisdiction is not well-founded since the existing line extends from the Fulton Substation to the Ignacio Substation and is wholly within PG&E's interconnected transmission system. As such, the existing line is within the jurisdiction of the California Public Utilities Commission. (CPUC v CEC, S.F., Sup. Ct. #755555, Decision filed 5/28/80; PG&E v CEC, S.F., Sup. Ct. #755558, Decision filed 5/27.80.)

It then found as follows:

> "285. The project, by itself, will not result in significant adverse impacts if mitigated as provided herein.
>
> "286. The Final Environmental Impact Report is certified to have been prepared in compliance with the California Environmental Quality Act and all applicable state and Commission guidelines. The Final Environmental Impact Report has been considered in adopting this Decision."

The CEC granted PG&E's AFC for Geysers Unit 16, for a 230 kV tap line and the 230 kV double-circuit transmission line stating in, Ordering Paragraph 4:

> "4. The application for Certification is granted subject to the timely performance of all the conditions enumerated herein and expressly incorporated herein. The conditions herein and expressly incorporated herein constitute the entirety of conditions applicable hereto and are integrated and not severable. While PG&E may delegate the performance of any condition, PG&E's duty to perform all conditions is not delegable."

In granting the AFC, the CEC has conclusively resolved the issues of electric load, safety, reliability, and environmental impact which this Commission in the past has examined before granting a CPCN under PU Code Section 1001. Those issues as well as factors (a), (b), (c), and (d), cited above, will not be reconsidered by the Commission since the CEC has addressed those matters in granting a certificate under Division 15, Public Resources Code Section 25000, et seq.

Additional Support for Authorization

PG&E's operating experience with the existing units at Geysers has been and continues to be satisfactory. Aminoil has proven geothermal steam reserves in the area of the proposed unit and has indemnification obligations to PG&E if there is insufficient steam to supply Unit 16.

The installation of Unit 16 and the Castle Rock Junction - Lakeville transmission line will provide an additional economic source of power for PG&E's system, will promote the conservation of fossil fuels through use of geothermal steam consistent with both state and federal energy policy, and will comply with the terms of the geothermal steam purchase agreement with Aminoil.

The proposed project will not compete with any person, firm, or public or private corporation in the public utilities business for furnishing or supplying electric service to the public in or adjacent to the territory in which PG&E's geothermal steam electric generating plant operates. The construction and operation of Unit 16 and the Castle Rock Junction - Lakeville Transmission Line are required in order to meet projected area electric demands and energy requirements and simultaneously decrease the dependence on oil. In addition, they will not produce an unreasonable burden on natural resources, esthetics of the area, public health and safety, air and water quality, parks, recreational and scenic areas, historic sites and buildings, or archeological sites.

Findings of Fact

1. PG&E seeks for Geysers Unit 16, together with transmission lines and related facilities, a CPCN from the Commission under PU Code Section 1001 and General Order 131-B.

2. Unit 16 is proposed to have a net normal capability of 110,000 kW.

3. Transmission associated with Unit 16 for delivery of power to the interconnected transmission system will be a 38-mile double-circuit, 230 kV tower line with two hundred circuits of 2,300 kcmil all aluminum nonspecular conductor. All except 13 towers will be double-circuit, galvanized lattice steel. The 13 will be four-circuit structures supporting both the new line and the existing Fulton-Ignacio 230 kV line.

4. A portion of the Castle Rock Junction to Lakeville transmission line across the Valley of the Moon and Oakmont has been ordered undergrounded by the CEC in Docket No. 79-AFC-5.

5. The CEC accepted PG&E's AFC for Unit 16 on March 3, 1980.

6. PG&E has a contract to purchase geothermal steam developed by Aminoil.

7. The CEC certified the final Environmental Impact Report on September 30, 1981.

8. The CEC, in granting PG&E's AFC for Unit 16, has addressed and conclusively resolved the issues of need, reliability, safety, and environmental impact.

9. The steam supply agreement between PG&E and Aminoil is substantially similar to PG&E's agreements with its other steam suppliers in the Geysers area which have previously been held by the Commission to be reasonable, not to be anticompetitive or monopolistic in the relevant market; it does not foreclose opportunities for other parties to develop geothermal steam resources at the Geysers steam field.

10. PG&E has the ability to finance Geysers Unit 16, and the related transmission lines.

11. The estimated cost of the generating unit and step-up transformers in 1985 dollars is $114,055,000. The estimated cost of the transmission tap line is $351,000. The Castle Rock Junction-Lakeville 230 kV transmission line cost estimate in 1984 dollars is $55,947,000 including undergrounding through the Valley of the Moon and Oakmont.

12. PG&E is responsible for obtaining all other legally required permits and approvals necessary for construction and operation of Unit 16.

13. Geysers Unit 16 will provide an additional economic source of baseload power for PG&E's system.

14. Geothermal generation is a preferred source of providing current generation needs.

15. A public hearing is not necessary.

Conclusions of Law

1. Public convenience and necessity require the operation of a 110,000 kW geothermal electric generating facility at Geysers Unit 16 together with appurtenant transmission lines.

2. PG&E's proposed Geysers Unit 16 together with transmission lines and related facilities should be granted a CPCN under PU Code Section 1001, subject to the conditions specified in the decision issued May 7, 1980 by the CEC in Docket No. 79-AFC-5 granting PG&E's AFC of Geysers Unit 16.

3. Because of the public need to place Geysers Unit 16 into operation as soon as possible, the effective date of the following order should be today.

O R D E R

IT IS ORDERED that:

1. A certificate of public convenience and necessity under Public Utilities Code Section 1001 is granted to Pacific Gas and Electric Company (PG&E) to construct and operate Unit 16 at The Geysers Power Plant together with transmission lines and related facilities as finally proposed by PG&E in this proceeding on the condition that the unit is constructed as described in PG&E's application to this Commission, and its Application for Certification (AFC) to the California Energy Resources Conservation and Development Commission (CEC), except where changes are required by competent authority, and subject to the conditions specified in the decision issued September 30, 1980, by the CEC in Docket No. 79-AFC-5, granting PG&E's AFC of Geysers Unit 16.

2. PG&E shall file with this Commission a detailed statement of the capital cost of The Geysers Power Plant Unit 16, together with transmission lines and related facilities, within six months following the date Unit 16 is placed in commercial operation.

3. Within 60 days, the Executive Director shall formulate and implement a procedure through which PG&E will provide detailed pre-construction cost estimates (including mitigation measures) for Geysers Unit 16, the 230 kV tap line, and the 230 kV double-circuit transmission line for evaluation by Commission staff.

4. The Executive Director shall design a reasonable construction cost-monitoring program prior to commencement of this project and shall implement such a program as he sees fit. The program shall include the explicit consideration of a goal-oriented "milestones" approach to cost monitoring, wherein estimates of costs for the various phases of the project are compared with actual costs as the project unfolds.

5. PG&E shall comply with all filing requirements for cost information and shall cooperate fully with the staff's subsequent evaluation efforts and with any cost-monitoring program that is developed.

6. The certificate issued in this application is subject to review and revision if the CEC final decision in Docket No. 79-AFC-5 is remanded for further hearing and revision on judicial review.

7. The authorization granted shall expire if not exercised within three years from the effective date of this order.

This order is effective today.

Dated March 17, 1982, at San Francisco, California.

JOHN E. BRYSON
President
RICHARD D. GRAVELLE
LEONARD M. GRIMES, JR.
VICTOR CALVO
PRISCILLA C. GREW
Commissioners

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

Joseph E. Bodovitz, Executive Director