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Decs. 73263-73274

Minimum Charge:

For $\frac{1}{2}$ x $\frac{1}{2}$ -inch meter	2.50
For $\frac{1}{2}$ -inch meter	3.50
For 1-inch meter	5.00
For 1 $\frac{1}{2}$ -inch meter	7.50
For 2-inch meter	10.00

The Minimum Charge will entitle the customer to the quantity of water which that minimum charge will purchase at the Quantity Rates.

Schedule No. 2
FLAT RATE SERVICE

APPLICABILITY

Applicable to all flat rate water service.

TERRITORY

Lane Acres Tract, and vicinity, located four miles west of Ridgecrest, Kern County.

RATES

	Per Service Connection Per Month
For a single-family residential unit, or trailer unit, including premises	\$5.00
For each additional single-family residential unit, or trailer unit, on the same premises and served from the same service connection	3.00

SPECIAL CONDITIONS

- The above flat rates apply to a service connection not larger than one inch in diameter.
- If the utility so elects, a meter shall be installed and service provided under Schedule No. 1, Metered Service.

- D 73264, A 49432 (Oct. 27, 1967). Anderson Cottage and 13 other warehouses authorized to increase rates in central valley, Sacramento to Fresno, inclusive.
- D 73265, A 49700 (Oct. 27, 1967). Donald and Raymond Bae granted relief from the bonding requirements of General Order No. 84-F on C.O.D. shipments transported for Wickes Lumber & Building Supplies.
- D 73266, C 5441 (Pet. Mod. 128) (Oct. 27, 1967). The provisions of MRT No. 1-B amended relating to description of zones from and to which rates apply.
- D 73267, C 7979 (Oct. 27, 1967). Petition of So. Pac. Co. for rehearing of D 68345 denied.
- D 73268, A 49734 (Oct. 27, 1967). P.G. & E. Co. authorized to issue and sell \$80,000,000 of First Mortgage Bonds.
- D 73269, A 49620 (Oct. 27, 1967). Transfer authorized of Shasta Retreat Water System in Dunsuir from a partnership to one of the partners.
- D 73270, C 8613 (Oct. 27, 1967). In Desert Hot Springs, California, Chamber of Commerce v. John C. Hastie (Twenty-nine Palm Stages), relief denied.
- D 73271, C 5437 (Pet. Mod. 149) (Oct. 27, 1967). Zone rates established in MRT No. 17 for transportation of air-cooled slag from plant of Fontana Slag.
- D 73272, C 5436 (Pet. Mod. 82) (Oct. 27, 1967). Acme Transportation, Inc., authorized to publish a rate less than minimum for another year for transportation of fuel oil.
- D 73273, A 49627 (Oct. 27, 1967). Greyhound Lines, Inc., authorized to change routes in City of Los Angeles to provide service from new terminal.
- D 73274, C 5437 (Pet. Mod. 48, 65, 80, 90) (Oct. 27, 1967). Effective date fixed for Supplement No. 23 to be incorporated in MRT No. 7.

67 CPUC 639

Decs. 73275-73278

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- D 73275, C 5437 (Pet. Mod. 48, 65, 80, 90) (Oct. 27, 1967). Effective date fixed for Supplement No. 5 to be incorporated in MRT No. 17.
- D 73276, A 49735 (Nov. 6, 1967). Palm Springs Water Co. authorized to transfer assets to Desert Water Agency.
- D 73277, A 47216 (Nov. 7, 1967). Commission Resolution No. 13885 amended by deleting Sub. No. 59, Union Terminal Warehouse Permit 19-42229 and Permit 19-57, from page 23 of Schedule "A" thereof; Union Terminal Warehouse's radial highway common carrier and highway contract carrier permits restricted to transportation of property for its warehouse customers where its warehouse locations are the point of destination or point of origin.

DECISION NO. 73278, APPLICATION NO. 49051
(November 7, 1967)

P.G. & E. Co. granted certificate to construct and operate a nuclear generating unit of approximately 1,000,000 kilowatts at Diablo Canyon, San Luis Obispo County, subject to granting of certificate from Atomic Energy Commission.

- COMMISSION—JURISDICTIONAL LIMITATIONS—FEDERAL BOARDS—ATOMIC ENERGY COMMISSION. Radiation hazards are subject to the exclusive jurisdiction of the United States Atomic Energy Commission. (*Northern California Association to Preserve Bodega Head and Harbor Inc. v. Public Utilities Commission; Pacific Gas and Electric Company*, 61 C 2d 126 [1964]; Section 274 of Atomic Energy Act of 1964.)
- CERTIFICATES—CONVENIENCE AND NECESSITY—IN GENERAL—AESTHETIC CONSIDERATION. In authorizing the installation of a nuclear power plant the Commission recognizes its responsibility to insure that the impact on the environment will be held to a minimum and that aesthetics will receive adequate consideration.

(Appearances are listed in Appendix A)

INTERIM OPINION

Applicant's Request

Pacific Gas and Electric Company requests a certificate of public convenience and necessity under Section 1001 of the Public Utilities Code to construct, operate and maintain a nuclear fueled power plant at a site in Diablo Canyon, San Luis Obispo County, together with transmission lines and related facilities.

Public Hearing

After due notice public hearing was held before Commissioner Gatov and Examiner Patterson at San Luis Obispo on February 16, 17 and 28, March 1, 2, 29 30 and 31, at San Francisco on April 12, 13 and 14 and again at San Luis Obispo on April 26, 27, and 28, May 10, 11, 12, 24, 25 and 26, 1967.

The matter was submitted subject to the receipt of concurrent opening briefs and concurrent reply briefs which have been received and it is now ready for decision.

Applicant presented evidence in support of the application through 17 witnesses and 41 exhibits. Four other witnesses testified in favor of the proposal, 18 additional supporting exhibits were received, and supporting statements were made by approximately 60 individuals most of whom represented governmental, civic or other organizations.

Those in opposition to a part or the whole of the project presented 32 exhibits, the testimony of 12 witnesses and statements by three individuals.

The Commission staff did not present any evidence but it took an active part through extensive cross-examination of witnesses.

Proposed Power Plant

The power plant, as proposed, would be located upon a 685 to 785-acre site near the mouth of Diablo Canyon in San Luis Obispo County. The site is on the coast approximately 7 miles northwest of Avila Beach and 12 miles southwest of the City of San Luis Obispo. The 585 acres south of and adjoining Diablo Creek has been leased from the private landowner for a term of 99 years with an option to renew for an additional 99 years.¹ The 100 to 200 acres required on the north side of the creek is in the process of being acquired from another private owner.

The power production facilities will be situated on a sloping terrace set back several hundred feet from the ocean and 70 to 100 feet above sea level. The San Luis Mountains rise sharply in back of the plant site and it is planned that the 500 kv switchyard will be located in Diablo Canyon more than one-half mile from the ocean and at an elevation higher than the generating unit. It appears the switchyard will not be visible from ground level at the site of the power production facilities.

The nuclear power unit for which authorization is sought under this application is expected to have a net electrical output of 1,060,000 kilowatts. The unit will include a nuclear fueled steam generating system, a turbine-generator and the necessary reactor and turbine auxiliaries together with related steam plant equipment, including high voltage step-up transformers and switching equipment.

The reactor system will be a pressurized-water, closed cycle, forced circulation type, fueled with slightly enriched uranium dioxide enclosed in zirconium alloy tubes. Water circulated through the reactor will act as a coolant and moderator. Control will be effected through neutron absorbing control rods and a soluble chemical neutron absorber. Steam from the steam generator will be supplied to the turbine at approximately 506° Fahrenheit and 710 pounds per square inch pressure. Ocean water will be circulated in the condenser cooling system at a rate of approximately 820,000 gallons per minute. Looking ahead to expected future expansion the intake structure is being designed to handle sufficient cooling water for three units, and the record shows that applicant contemplates the eventual installation of a total of six units.

¹ By Decision No. 71441, dated October 18, 1966, in Application No. 48306, P.G. and E. was authorized to guarantee loans by other parties to San Luis Obispo Bay Properties, Inc., an affiliate of the property owner.

The switchyard area as shown in Exhibit No. 5 is sized to accommodate switchgear for six units but the initial installation of equipment will be only that necessary for one or two units.

The reactor containment structure will consist of a reinforced concrete vertical cylinder with a flat base and a hemispherical dome. A welded steel liner attached to the inside face of the concrete shell will assure a high degree of leak tightness.

Load Growth and Resources

The peak load growth in applicant's gross service area has been 8.54% compounded annually over the last eight years. Applicant has conservatively estimated future growth at rates which average 6.52% compounded annually through the year 1972 when it is contemplated the Diablo Canyon nuclear unit will be required. Estimates have also been carried forward from that year to 1980 at an annual compounded rate of 6.95%. The historical peak loads and estimates as set forth in Exhibit No. 3 may be summarized as follows:

Year	Actual	Estimated		Annual growth MW
		Average year	Adverse year	
1958	4,154	---	---	---
1959	4,769	---	---	615
1960	5,310	---	---	541
1961	5,698	---	---	388
1962	5,830	---	---	132
1963	6,300	---	---	470
1964	6,769	---	---	469
1965	7,357	---	---	588
1966	7,994	---	---	637
1967	---	8,360	8,440	306
1968	---	8,980	9,060	620
1969	---	9,540	9,620	560
1970	---	10,250	10,330	710
1971	---	10,900	10,980	650
1972	---	11,680	11,760	780
1973	---	12,500	12,580	820
1974	---	13,380	13,460	880
1975	---	14,310	14,390	930
1976	---	15,300	15,380	990
1977	---	16,360	16,440	1,060
1978	---	17,490	17,570	1,130
1979	---	18,700	18,780	1,210
1980	---	19,990	20,070	1,290

To help meet the growth in power needs as illustrated by the above figures applicant has planned the following additions to its generating capacity:

Moss Landing Unit No. 6	735 MW in Summer 1967
Moss Landing Unit 7	735 MW in Spring 1968
Geysers Unit 4	23.7 MW in Winter 1968
Geysers Unit 5	50 MW in Winter 1971
Belden Hydro Plant	117 MW in Winter 1969
Nuclear Unit—Diablo	1060 MW in Spring 1972

These additions plus firm power available from others will result in 1972 in a firm power capacity of 13,621 megawatts to meet an estimated 1972 total peak demand of 11,600 megawatts² leaving a margin in a dry year of 2,021 megawatts or 17.4% after allowance for overhaul. Without the proposed Diablo Canyon unit the margin would drop to 8.3%. These figures compare with recorded margins of 17.3%, 11.1%, 17.7%, 19.7%, 25.7% and 15.3% for each of the years 1961 through 1966.

In order to meet a reliable operation date for the spring of 1972 applicant presented a construction schedule which calls for the start of work on the access roads and utilities in the fall of 1967.

Site Selection

In selecting the general location for the proposed generating plant applicant gave considerable weight to the relationship which will exist between loads and generating resources by 1972 in the various geographical regions of its service area. Exhibit No. 4 shows that without the Diablo Canyon unit the southern-most area designated as Bakersfield and which includes all or portions of Kern, Santa Barbara, San Luis Obispo, Kings and Tulare counties will have a deficiency of about 1300 megawatts by 1972, the largest deficiency of the eleven areas into which the system is divided. By locating the proposed plant in the southern part of the system this deficiency will be reduced and a witness for applicant testified that improved system reliability and reduced transmission losses will result.

In selecting a specific site applicant was virtually constrained to look only at the coastal region because of the enormous quantity of cooling water which is required for a plant of the proposed size. Exhibit No. 19 shows a comparison of eleven south coastal area sites which were considered, ranging from Pt. Sierra Nevada on the north to Jalama on the south. The exhibit shows comparisons on the basis of circulating water, topography, land availability, transmission right of way, physical features, community acceptance, and transportation. The extent of investigation of each site varied depending upon preliminary evaluation of the various factors.

The record shows that after several possible sites had been considered interest centered by the year 1962 on a site of 1121 acres in the sand dunes near Nipomo which had been zoned for heavy industrial use. After applicant announced it had acquired this acreage in late 1963 a strong movement by the Sierra Club and others developed to preserve the Nipomo Dunes as a scientific and recreational area. This was about the time the State Resources Agency and the Health and Welfare Agency—Department of Public Health and Coordinator of Atomic

²This differs from the estimated peak demand in the preceding tabulation due to exclusion of loads of interruptible customers.

Energy Development and Radiation Protection began collaboration with those state entities that had particular interests in conservation or protection of the natural environment from the effects of power plant installations. Those entities include the Department of Fish and Game, Department of Conservation, Department of Parks and Recreation, Department of Water Resources, Department of Harbors and Watercraft and the Water Quality Control Board. Members from each of these entities comprise the Resources Agency Task Force on Power Plant Siting in California, which together with members from Public Health and Coordinator have been active with applicant and other utilities in considering possible plant sites.

It was indicated to applicant by the Sierra Club, the State Resources Agency and others that a power plant at Nipomo would not be acceptable unless located well back from the shore line and off the sand dunes. The setback discussed varied from 4000 feet to one and one-eighth miles. Such a setback would increase costs considerably and in applicant's opinion make the plant economically unacceptable.

Applicant with the assistance of the State Resources Agency, County Planning Commission, Sierra Club and other organizations turned its attention to other possible sites along the South Coastal Region and finally in the summer of 1966 it appears that agreement was reached on Diablo Canyon as being a satisfactory alternative to the Nipomo Site.

Applicant then conducted an intensive investigation to establish the suitability of the site from all aspects of safety, and acceptability from the standpoint of minimal effects on the environment. This investigation included detailed studies and reports from consulting experts in the fields of geology, seismology, marine biology, oceanography and structural engineering.

Transmission Lines

To connect the proposed power plant to its interconnected system applicant proposes to construct two 500 kv single circuit-transmission lines and a single 230 kv double-circuit line. One 500 kv line would extend eastward from the plant for some 84 miles, and south of the City of San Luis Obispo to Midway substation; the other 500 kv line would extend generally northeastward from the plant some 79 miles to Gates substation. Both of these lines would connect at these substations to applicant's 500 kv intertie system. The physical separation of these two lines would insure greater reliability of service than would be the case if they were to follow a single route. The two lines would handle somewhat more than the output of the proposed unit but an additional circuit would be required upon construction of a second generating unit at the site. The single 230 kv line would be only about 10 miles long and would connect the plant to the existing Morro Bay-Mesa 230 kv

line and would be used for plant start-up and emergency station service power.

Estimated Plant Costs

The estimated cost of constructing the facilities based on price levels as of September, 1966 and including firm manufacturers' bids for the turbine-generator and nuclear steam-supply system may be summarized as follows:

Item	Cost	
Production facilities	\$153,033,000	
Step-up substation	8,910,000	
Total plant		\$162,543,000
Terminal substation	3,277,000	
Transmission	19,593,000	
Subtotal		25,870,000
Total investment		\$188,413,000

If a conventional thermal unit of the same capacity were to be constructed at the Diablo Canyon site its estimated cost including transmission and substation facilities would be \$149,153,000. It is estimated that fuel costs for such a unit would be higher, however, and the total cost of energy would also be higher than for the nuclear unit.

Estimated Cost of Power

Because of the large investment and because of the low incremental heat rate the nuclear unit would be operated at the highest capacity factor possible. The estimates supporting the economic feasibility of the project are shown on both an 80 percent and 90 percent capacity factor basis. The testimony shows, however, that applicant expects to attain a 90 percent capacity factor operation. At 90 percent capacity factor it is estimated the Diablo Canyon nuclear unit will produce power at 4.04 mills per kw/hr. A second unit at that site would produce power at 3.88 mills per kw/hr or 3.96 mills per kw/hr for the two units. These figures are for cost of power at the generating plant.

To deliver the power into the system requires use of the project's step-up, transmission and terminal substation facilities. With these costs included the delivered costs into the system at 90 percent capacity factor become 4.61 mills per kw/hr for one unit and 4.39 mills kw/hr for two units.

These costs were testified to be lower than the costs of power from any of applicant's existing thermal power plants or from Units 6 and 7 at Moss Landing and were compared with a 1965 average system cost of 6.97 mills per kw/hr (5.2 for hydro and 8.17 for thermal production).

Applicant also presented estimated costs for power delivered into its system from comparable units if they could be located on the beach at

the Nipomo site, at a 4000-foot setback at the Nipomo site and at the South Moss Landing site, the latter a site which applicant owns and plans to develop ultimately. These estimated costs at 90 percent capacity factor may be summarized as follows:

	One Unit	Two Units
	Mills per kw/hr	
Diablo Canyon—Nuclear	4.61	4.39
Diablo Canyon—Conventional	5.47	--
Nipomo Beach—Nuclear	4.53	4.38
Nipomo 4000-foot setback—Nuclear	4.68	4.53
South Moss Landing—Nuclear	4.59	4.46
South Moss Landing—Conventional	5.03	--

Safety

Applicant presented considerable testimony as to the design features and steps which will be taken to insure that there will be no undue hazard to the public. The design features include in addition to the inherent safety of this type of reactor, the reactor containment structure, multiple barriers to limit the release of radioactivity, a safety injection system for emergency core cooling, air recirculation coolers, containment spray in the safety injection system, multiple sets of protective controls, and backup and emergency power supplies.

Applicant's consulting geologist after making an extensive study of the site including the deep exploratory trenches, testified that the site has a good bedrock foundation with only insignificant faults that have shown no movement for at least 100,000 and possibly millions of years.

A consulting seismologist testified as to the maximum size earthquakes that can be expected to occur on active faults located some 20 to 50 miles from the site and a consulting structural design engineer testified and presented a study showing that the plant can be designed and constructed to operate safely during and after such earthquakes.

An oceanographer presented a study and testimony which indicated that seismic sea waves or tsunamis would present no design or operating problems for the plant.

Ecological Effect of Plant on Marine Life

Witnesses for applicant testified that the ocean in the vicinity of Diablo Canyon is turbulent and that adequate mixing of the warm water discharge will occur. A marine biologist studied the marine life in the vicinity and concluded that although some cold water species might be displaced they would be replaced by warm water species but with no net decrease in fauna and flora.

With respect to the low level radioactive waste products which will be released into the cooling water discharge from time to time, the record shows that the amount of such releases will be fixed by the Atomic Energy Commission. On the assumption the releases would be similar to the limits allowed at applicant's Humboldt Bay nuclear unit

at Eureka, an expert in radiation biology testified for applicant that there would be no detectable effect on the marine population in Diablo Cove or surrounding waters.

Licenses and Permits

The status of licenses and permits which applicant must secure in order to construct and operate the proposed plant and associated facilities are set forth in Exhibit No. 25. Applicant has obtained from the County of San Luis Obispo a use permit for the plant at the proposed site provided it is constructed with approval of this Commission; also use permits or equivalents for the proposed transmission lines from the Counties of San Luis Obispo, Fresno, Monterey, Kern and Kings. It has also executed an agreement with the Resources Agency State of California, Exhibit No. 26, which, in effect, indicates that all matters relative to the plant which would affect conservation of the natural resources have been or will be resolved to the satisfaction of the agency.

In addition to the authority being sought herein the two other major items of authorization applicant must secure are from the United States Atomic Energy Commission, first a construction permit, application for which was filed January 17, 1967, and second an operating license for the plant. It is anticipated that hearings will soon be held in connection with the application for the construction permit but the operating license would not be applied for nor acted upon until the plant has been virtually completed.

Opposing Testimony

Some nine individuals testified in opposition to the proposed plant being located at Diablo Canyon on the basis that it would be an unnecessary encroachment upon a unique coastal area which has been virtually untouched by the inroads of man. Two of these witnesses were sponsored by the Scenic Shoreline Preservation Conference Inc. (Conference) and three were employees of the State Division of Beaches and Parks who were subpoenaed by the Conference. The others while assisted by counsel for Conference in varying degrees, appeared as individual conservationists who were interested in preserving Diablo Canyon in its natural state. All of these individuals spoke with great sincerity and some most eloquently of the desirability of preserving more of the public domain for public use as parks, recreational areas or simply open spaces.

The canyon and surrounding Point Buchon area was described as the only significant coastal area south of San Francisco without either an improved road or railroad passing nearby. The stand of live oak in the canyon which will be largely obliterated by the switchyard was described as one of unusual density with individual trees of great size. Other trees are big leaf maple, laurel and the relatively rare Bishop

pine. The watershed was stated to be particularly unusual for California as it supports a perennial stream whose flow varies but little as the seasons change.

No specific idea or plan was advanced as to how the Diablo Canyon area could and would be preserved in its natural state but the hope was expressed repeatedly that ways might be found if applicant's proposal were to be denied. The record clearly shows that neither the State Department of Parks and Recreation nor any other agency have any plans for developing the Diablo Canyon area as a park site.

The testimony of three individuals was directed solely at the proposed transmission line routings. One was a property owner located transmission line routings. One was a property owner located some three miles from the proposed route of the line to Gates substation and the other two expressed concern as to the possible hazard to aviation the proposed line to Midway substation could create south of the City of San Luis Obispo.

The Sierra Club played an important role prior to this proceeding in urging applicant to seek a site other than the one at Nipomo, and although individuals who stated they were members of the club presented their own views, no testimony or evidence was presented in this proceeding on behalf of the club nor did the Sierra Club make a formal appearance.

Discussion

The evidence has clearly established the need for the power plant by the year 1972, the economics of the project as being reasonable, the overwhelming support for the project by the local community, the safety of the project aside from radiation hazard considerations,³ and the ability of applicant to finance and construct the project.

The only issues which remain for consideration are:

- (1) possibilities of using an alternative site, and
- (2) the impact of the proposed plant on the environment.

Turning our attention to the first issue, the record shows that none of the alternative sites in the South Coastal area are as suitable as Diablo Canyon. Whereas the Nipomo Beach site ranks high in efficiency, a location on the beach is clearly unacceptable and, in any event, the Division of Beaches and Parks is wisely planning to develop that area for park use. In addition to several other shortcomings, a setback location at Nipomo would not be economical, particularly when it becomes necessary to add additional generating units.

³ Radiation hazards are subject to the exclusive jurisdiction of the United States Atomic Energy Commission. *Northern California Association to Preserve Biologic Head and Harbor Inc. v. Public Utilities Commission; Pacific Gas and Electric Company*, 61 C 2d 126 (1964), also Section 274 of the Atomic Energy Act of 1964.

The possibility of an inland site (closer to load center) using cooling water from the proposed State-Federal San Joaquin Valley Master Drain was considered by applicant and was advanced by the Conference in argument as a realistic possibility. The record shows, however, that there is too much uncertainty of the time of completion and of the quantity of water available from that project to make it feasible to plan an electric generating facility of the magnitude needed, which would be dependent upon water from that project.

Another alternative which was explored in depth on the record and which was strongly supported by the Conference in argument was the South Moss Landing site. Applicant did not consider this as a suitable alternative as its considerably greater distance from Midway substation, 195 miles as compared with 84 miles from Diablo Canyon, would require longer transmission lines with greater exposure to line outages and an adverse effect on system stability. The record shows that although a first unit at South Moss Landing would be comparable economically with one at Diablo Canyon, the cost with succeeding units favors the Diablo Canyon site. Of perhaps even more significance is the fact that with the projected continued growth of electrical load, applicant will soon need to develop additional sites such as South Moss Landing as well as Diablo Canyon and others.

With respect to the second issue the record shows that the plant will have a minimal effect on the marine fauna and flora, there will be no pollution of the atmosphere such as from a conventional thermal plant, and the release of radioactive materials into the atmosphere will be subject to limitations imposed by the Atomic Energy Commission. The location of the switchyard in the canyon will destroy a large portion of the live oak stand but will permit that facility to be well concealed from coastal or offshore viewing. The power plant itself will be situated on the marine terrace in full view from points along the coast or offshore.

From the extensive and often eloquent testimony of the conservationists we recognize that the Diablo Canyon site is one of unusual natural beauty. We also recognize from the testimony of the engineers and other expert consultants that the site possesses that rare combination of physical and geographical features which makes it suitable as a location for a major nuclear power plant.

After weighing these opposing factors we find that the public interest requires the use of the Diablo Canyon site by applicant for a nuclear power plant despite the impact it will have on the environment.

In our recent interim opinion⁴ concerning the undergrounding of electric and communications services and facilities we stated "... the time had long passed when we could continue to ignore the need

⁴ Decision No. 73078 dated September 19, 1967, in Case No. 8209.

for more emphasis on aesthetic values in those new areas where natural beauty has remained relatively unspoiled"

[2] The same philosophy holds true in locating a power plant in an area of natural beauty such as we have here and we recognize our responsibility to insure that the impact on the environment will be held to a minimum and that aesthetics will receive adequate consideration.

Findings

We find that:

1. Applicant has need for a 1,060,000 kw generating unit in the southern portion of its system by the year 1972.
2. The economics of the project as supported by the estimates presented are not unreasonable.
3. The project has the overwhelming support of the local community.
4. There is no evidence in the record concerning safety within our jurisdiction which would cause us to reject the proposed project as being unsafe.
5. Applicant has the ability to finance and construct the project.
6. There is no alternative project which will better meet the needs of applicant and the public.
7. The proposed project will not create irreconcilable conflicts with conservation, ecology and aesthetics provided the plant, switchyard and attendant facilities are designed in an aesthetically pleasing manner.
8. Present and future public convenience and necessity will require the construction and operation by applicant of a nuclear power unit rated at approximately 1,060,000 kilowatts at the Diablo Canyon site, together with transmission lines and other appurtenances generally as described by applicant in this proceeding but subject to the conditions that the certificate is interim in form and may be made final by further order of the Commission upon issuance by the United States Atomic Energy Commission of final authorization to construct and operate the nuclear energy plant.

The certificate hereinafter granted shall be subject to the following provision of law:

The Commission shall have no power to authorize the capitalization of this certificate of public convenience and necessity or the right to own, operate, or enjoy such certificate of public convenience and necessity in excess of the amount (exclusive of any tax or annual charge) actually paid to the State as the consideration for the issuance of such certificate of public convenience and necessity or right.

The action taken herein is for the issuance of a certificate of public convenience and necessity only and is not to be considered as indicative of amounts to be included in future proceedings for the purpose of determining just and reasonable rates.

It is concluded that the application should be granted to the extent set forth in the order which follows.

INTERIM ORDER

IT IS ORDERED that:

1. A certificate of public convenience and necessity is granted to Pacific Gas and Electric Company to construct, operate and maintain a nuclear fueled power generating unit of approximately 1,060,000 kilowatts capacity together with appurtenant facilities and transmission lines generally as described by applicant in this proceeding, but subject to the condition that the certificate is interim in form and may be made final by further order of the Commission on the establishment by evidence in the record that final authority has been obtained from the Atomic Energy Commission to construct and operate the nuclear energy plant.

2. Prior to construction applicant shall submit an artist's rendition of the project based on the architect's design.

3. Applicant shall file with this Commission a detailed statement of the capital costs of the project including transmission lines and other appurtenances within one year following the date on which the unit is placed in commercial operation.

4. The authorization herein granted shall expire if not exercised within five years from the date hereof.

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

Dated at San Francisco, California, this 7th day of November, 1967.

PETER E. MITCHELL
President

WILLIAM M. BENNETT
A. W. GATOV

WILLIAM SYMONS, JR.
FRED P. MORRISSEY
Commissioners

APPENDIX A
List of Appearances

For Applicant: F. T. Searles, by John C. Morrissey, Philip A. Crane, Jr., and Ron Workman.

Protestants: Andrew Renetzky, Arch E. Skidale, Harry G. Murphy, Thomas H. Adams, by Andrew Renetzky and Thomas B. Adams, for O. C. Field and Roby Hale Field; Lyders & McKaskle, by Paul L. McKaskle, for Scenic Shoreline Preservation Conference, and Fred Bissler, for self.

Interested Parties: Chickering & Gregory, Sherman Chickering, Donald J. Richardson, Leslie P. Jay and C. Hayden Ames, by C. Hayden Ames and Leslie P. Jay, and Stanley Jewell, for San Diego Gas and Electric Company; Stanley J. McKinnaw, for Labor and General Construction Local 1222, Santa Maria, Gene A. Blane, for State Office of Atomic Energy Development and Radiation Protection, Lyle Carpenter, for County of San Luis Obispo, Irving J. Hagan, for self; M. A. Walters, for International Brotherhood of Electrical Workers; William L. Kuecht, for San Luis Obispo County Farm Bureau and California Farm Bureau Federation; Harold Johnson and Mayor Cliff W. Whetzel, for City of San Luis Obispo; Muller, Woolpert & McWhinney, by Wickson R. Woolpert, for Nationwide Development Company, San Luis Obispo; Reany L. Hudson, for San Luis Obispo County Development Association; W. H. Ahrendt, Sr., for Pacific Coast Development and Recreation Association; Hal Straube and Crossman & Weaver, by Bernard S. Crossman, for Robert B. Marra and San Luis Obispo Bay Properties, Inc.; Donald Campbell, for San Luis Obispo County Farm Bureau; James W. Powell, District Attorney, by Scott F. Hubbard, Deputy District Attorney, for County of San Luis Obispo; Jan I. McMillan, for self; Paul N. McCloskey, Jr., for Committee for Green Foothills; Brian R. Van Camp, for The Resources Agency, The Transportation Agency, The Department of Public Health, The Co-ordinator of Atomic Energy Development & Radiation Protection, all of the State of California; Paul McKeekin, for California Wildlife Federation; Frank H. King, for San Leandro Chamber of Commerce; and David C. Hansen, for Hayward Chamber of Commerce.

For Commission Staff: Vincent V. MacKenzie, Counsel, and Meleyn E. Mezok.

WILLIAM M. BENNETT, CONCURRING OPINION

While I concur—reluctantly—in today's order, I am compelled to point out that little has been learned from the series of mistakes which led to the rejection of a nuclear plant at Bodega Bay. The record makes it abundantly clear that the initiative here as to the selection of nuclear sites—precious coast line—is clearly in the hands of the utility. This comes about because of its power of condemnation of property given to it by the people and secondly but more importantly because the State of California has no plan or comprehensive program for the preservation of beach land as against nuclear plants. It is plain to me that the recreational needs of man are just as important as the energy requirements, indeed perhaps more so. And yet aware of the fact that nuclear plants are going to dot the California landscape in increasing numbers, the public utilities are left to themselves to pick and choose desirable beach properties for utility construction purposes. What is called for is attention by the Legislature—if no one else—to the concept of zoning an entire coast line. Nuclear plants of all public utilities should be considered with the possibility of placing all of them whether separately owned or not in a common setting which would insure a minimum of interference with recreational areas. And this is a function which should be undertaken by this Commission in a broad investigation to determine how many nuclear plants are to be constructed for all reasonable time and where located. Absent a broad development program for location of these plants, the precious dwindling beach area is going to go as has much of the other natural beauty of California.

I regret the failure of the Sierra Club to participate in these proceedings. It occurs to me that they could have made a significant contribution to the record herein so far as the issue of aesthetics is concerned. The Sierra Club has a great responsibility in proceedings such as this and that responsibility will grow and will play a vital part in other proceedings involving other beach sites and other nuclear plant proposals.

It may be coincidence, it may be lack of planning or it may be an insensitivity upon the part of utility management to the need of man for an environment which retains the purity of the natural scene which somehow has heretofore always led to the selection of a beach site which is a thing of great and untouched beauty. Whether at Bodega Bay or at the splendid beach at Camp Onofre or at San Luis Obispo, as here, the public utility and Pacific Gas & Electric now on a second occasion has selected a location which is the ideal of conservationists who have a broader outlook for the true and the beautiful than cold engineering judgment. This is why it is imperative that the public utilities be directed in the selection of a site by the undertaking of an investigation as to their future plans for nuclear plants. This is why the State of California through this agency should select those least desirable beach locations whose destruction will have a minimal impact upon the ecology. Utility management is not infallible indeed utility planners have an almost inescapable attraction to the true and beautiful as construction sites. The use of such areas for recreation is at best a secondary consideration with Pacific Gas & Electric in this case and at worst is not even considered.

There are areas along the coast line and in the inland waters of this state some of which are singularly unattractive and contain no great recreational realities or potentialities. These are the places where the public utility industry of California should be told to place its nuclear plants.

I would remind the electric utilities of this state—Pacific Gas & Electric, Southern California Edison, San Diego Gas & Electric, at present that Californians are deeply concerned about the dwindling natural landscape and public utilities because of the public trust they have must consider questions involving more than a cold engineering judgment. In the future our children are going to look to us in amazement and anger at the State of California which this generation is readying to hand over to it.

I should also point out that this Commission is the last agency other than the Atomic Energy Commission to scrutinize a utility as here. There is presently no single agency nor common hearing place where a local agency, another state division or agency, this Commission and most importantly of all the public may know of such proposals and

effectively participate in the decision making process. And because of this dichotomy of authority a steam roller operation is created, counsels are secured on a local basis involving a statewide question and then this Commission is confronted with other decisions of lesser bodies in which it did not participate nor did any significant portion of the public. California is long overdue for a statewide approach to the preservation of beauty and because beauty is the concern of all of us, natural settings such as beaches and other areas should not be left at mere local judgments or utility initiative.

I should also point out that this is the third proceeding involving the hard choice between energy and beauty and again the staff of this Commission has made no showing on behalf of the public—it has left the selection of a site entirely to the public utility and has left the attempt to preserve the area such as here to those individual conservationists with individual resources as are available to them to make the case for the preservation of another stretch of beach. Such a one sided battle is never going to be won by the conservationist which again makes it highly important that the Sierra Club whether it agrees or disagrees with the selection of a utility site must participate in the proceeding.

WILLIAM M. BENNETT
Commissioner

Dated: November 7, 1967
San Francisco, California

D73279, A 49467 (Nov. 7, 1967). Application of AT&SF Ry. Co. to close its agency station at Encinitas denied.

DISCONTINUANCE OF SERVICE—REASONS FOR DISCONTINUANCE. In denying a request to close a railroad agency the Commission will consider the fact that applicant underestimated (1) the contribution the agency is making to its operations, (2) the time spent in productive activity by the station agent, and (3) the public need for retention of the agency.

DISCONTINUANCE OF SERVICE—GROUNDS FOR DENIAL. In a proceeding where discontinuance of service is sought the principal issue is whether public convenience and necessity require the continuation of the service sought to be abandoned or reduced. In order that the sought authority be granted, the carrier must show by clear and convincing evidence that public convenience and necessity no longer require the services involved.

DECISION NO. 73280, CASE NO. 7096
(November 7, 1967)

Investigation into the matter of unauthorized discontinuance of service by *So. Pac. Co.* terminated.

[1] COMMISSION—JURISDICTION—INTERSTATE COMMERCE. Limitations on state's powers over interstate commerce do not limit state's authority to inquire into carrier's operations to extent reasonably necessary to exercise state's authority over intrastate commerce, and where interstate and intrastate operations are commingled it is inescapable that inquiry into one service should touch upon the other.

[2] DISCONTINUANCE—FACTORS IN DISCONTINUANCE PROCEEDINGS—OPERATION AT A LOSS. The fact that trains operate at a loss does not necessarily mean the remedy is discontinuance; other factors which are to be considered are

Society of Palo Alto, Inc.; *Michael S. Zola*, for San Francisco Neighborhood Legal Assistance Foundation; *Henry J. Fritz*, County Counsel, for County of Santa Cruz; *Captain Ford M. Robbins*, for the United States Government; *P. Dennis Keenan*, for Pacific Lighting Service and Supply Company; and *Jennifer Cross Gans*, for Berkeley Consumers Coop Association of California Consumers.

COMMISSION STAFF: *David R. Larroug*, Counsel, *Colin Garvey* and *Kenji Tomita*, for the Commission staff.

(Appendix B omitted in printing)

- D 75461, C 7521, C 7735** (Mar. 25, 1969). Time for City of La Verne and AT&SF Ry. Co. to complete installation of crossing protection as required by D 67887 extended to Aug. 26, 1969.
- D 75462, A 49796** (Mar. 25, 1969). Time for City of La Verne to construct Wheeler Avenue crossing of AT&SF Ry. Co. right-of-way, as authorized in D 73684, extended to Aug. 26, 1969.
- D 75463, A 49525** (Mar. 25, 1969). Time of County of Ventura extended within which to reconstruct Katherine Road over So. Pac. Co. tracks as authorized in D 73635.
- D 75464, A 49519** (Mar. 25, 1969). Time of County of Ventura extended within which to reconstruct Spring Street over So. Pac. Co. tracks as authorized in D 73983.
- D 75465, A 50887** (Mar. 25, 1969). Dominguez Water Corp. authorized to acquire outstanding capital stock of Uehling Water Co., Inc.
- D 75466, A 50893** (Mar. 25, 1969). B & L Truck & Transfer Co. authorized to issue stock in exchange for outstanding shares and as a stock dividend.
- D 75467, A 50913** (Mar. 25, 1969). Estate of Clair E. Campbell (Camall Service) authorized to sell operative rights to Camall Trucking, Inc., and the latter to issue stock.
- D 75468, A 50925** (Mar. 25, 1969). P.C. & E. Co. authorized to issue and sell \$80,000,000 of First Mortgage Bonds at competitive bidding.
- D 75469, A 50524** (Mar. 25, 1969). County of Yolo authorized to widen crossing of County Road 105 over So. Pac. Co. right-of-way.
- D 75470, A 50224** (Mar. 25, 1969). Application of Railway Express Agency, Inc., for certificate to operate between certain points dismissed at applicant's request.

DECISION NO. 75471, APPLICATION NO. 50028
(March 25, 1969)

P.C. & E. Co. authorized to construct a second nuclear power plant in Diablo Canyon, San Luis Obispo County, subject to conditions.

F. T. Searls, John C. Morrissey, Philip A. Crane, Jr., and Ross Workman, by *John C. Morrissey, Philip A. Crane, Jr., and Ross Workman*, for applicant.

Ian I. McMillan, for Scenic Shoreline Preservation Conference; *Ernest C. Porter*, for Abalone Industry; *A. E. Andreati* and *B. P. Fessig*, protestants.

William L. Knecht and Ralph O. Hubbard, for California Farm Bureau Federation; *F. W. Boone*, for Office of Atomic Energy Development, State of California; *James W. Powell*, District Attorney; *Robert J. Schum* and *Scott F. Hubbard*, for the County of San Luis Obispo; *M. A. Walters*, for Local 1245, International Brotherhood of Electrical Workers; *Stanley Jewell*, *Sherman Chickering*, *C. Hayden James*, *Donald J. Richardson, Jr.*, and *Leslie P. Jay*, by *Leslie P. Jay*, for San Diego Gas and Electric Company; *Paul McKeenan*, for California Wildlife Federation; *Hal Stroube*, for Marre Land and Cattle Company and San Luis Obispo Bay Properties, Inc., and *John S. Whelan*, interested parties.

Vincent MacKenzie, Counsel, and *Melvin E. Mezek*, for the Commission staff.

INTERIM OPINION

Pacific Gas and Electric Company requests a certificate of public convenience and necessity under Section 1001 of the Public Utilities Code to construct, operate and maintain a second nuclear fueled power plant in Diablo Canyon, San Luis Obispo County, together with

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transmission lines and related facilities.

Unit No. 1

The Commission, by Decision No. 73278, dated November 7, 1967, in Application No. 49051, granted applicant an interim certificate of public convenience and necessity to construct the first nuclear fueled power plant at Diablo Canyon subject to the condition that the certificate may be made final by further order of the Commission on the establishment in the record that final authority has been obtained from the Atomic Energy Commission to construct and operate the nuclear power plant. During the hearings relative to Unit No. 1, applicant presented evidence in support of the project through 17 witnesses and 41 exhibits. Four other witnesses testified in favor of the proposal; 18 supporting exhibits were received; and supporting statements by approximately 60 individuals most of whom represented governmental, civic or other organizations.

Those in opposition to a part or the whole of the project presented 32 exhibits; the testimony of 12 witnesses and statements by three individuals. Among those individuals or groups which presented evidence were the Scenic Shoreline Preservation Conference and Fred Eissler.

The Record in the Present Application

After notice to interested parties, a prehearing conference was held before Examiner Rogers in San Francisco on September 10, 1968. The parties agreed that the staff counsel would present interrogatories to applicant and applicant would file written answers thereto. The staff counsel served 31 interrogatories on applicant. Answers to these interrogatories (Exhibits Nos. 12, 13 and 14) were submitted by applicant and served on all appearing parties.

After due notice, public hearing was held before Examiner Rogers in San Luis Obispo, on December 10, 11 and 12, 1968. The matter was submitted subject to the receipt of concurrent briefs which have been received. The matter is ready for decision.

Motion for Continuance

The Scenic Shoreline Preservation Conference, which appeared at the hearing relative to Unit No. 1 as a protestant (Decision No. 73278, supra), appeared as a protestant in this matter and moved for a continuance to enable it to present studies relative to the dangers to the marine environment from the heated water discharge of nuclear power plants and studies relative to the geology and hydrology of the Diablo Canyon area. The motion was directed to earthquake danger, sea cliff retreat, mud flows, radiation and tides. Each of these matters was considered by this Commission in its decision relative to Unit No. 1. Notice of the hearing was mailed to all known interested parties,

including Fred Eissler, President of Scenic Shoreline Preservation Conference, on October 14, 1968. Also notice of a prehearing conference held September 10, 1968 was sent to all interested parties and no appearance was made by petitioner at that time. The motion was denied by the examiner. We concur in this ruling.¹

Proposed Power Plant Site

The locations of the plant site and switchyard, and a description of the area are set forth in Decision No. 73278, in Application No. 49051, supra. At the hearing thereon, results of investigations of several possible sites for the plant showing comparisons on the basis of circulating water, topography, land availability, transmission right-of-way, physical features, community acceptance and transportation were presented for consideration. Results of an intensive investigation to establish the suitability of the site from all aspects of safety and acceptability from the standpoint of minimal effects on the environment were considered. This investigation included detailed studies and reports from consulting experts in the fields of geology, seismology, marine biology, oceanography and general engineering.²

In selecting the general location for the Diablo Canyon power plant, the relationship which will exist between the loads and generating resources of the various geographical regions of the service were weighed. The record in the first application shows that the applicant was looking ahead to future expansion of Diablo Canyon with a possible total of six units.

Unit No. 2

Applicant proposes to construct Unit No. 2 to be located adjacent to Unit No. 1, to be virtually a duplicate of Unit No. 1 with respect to capacity and operation. It is expected to have a net electrical output of 1,060,000 kilowatts. The unit will include a nuclear fueled steam generating system, a turbine-generator and the necessary reactor and turbine auxiliaries, together with related steam plant equipment, high voltage step-up transformers, and switching equipment.

The estimated cost to install Unit No. 2, together with the related transmission facilities, based on current labor and material prices, is shown on Exhibit No. 9. This cost is summarized as follows:

<i>Unit No. 2</i>	
Production Plant	\$166,170,000
Substation	
Diablo Canyon	6,930,000
Midway	690,000
Total Substation	7,620,000

¹ The Scenic Shoreline Preservation Conference raised the same points in its petition to set aside the submission. This petition was denied (Dec. No. 75283, dated Feb. 4, 1969, in Application No. 50028).

² The suitability of the site from geological (Exhibit No. 18) and seismological (Exhibit No. 19) standpoints was affirmed at the hearing herein. The same earthquake resistant design recommended for Unit No. 1 was recommended for Unit No. 2 (Exhibit No. 20).

Transmission.....	9,407,000
Total Project.....	183,197,000

Applicant proposes to finance the cost of constructing these additions by using to the extent available, its working capital, 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 hereafter upon application, authorize.

The development of annual fuel costs and the costs of power for Unit No. 2 are shown in Exhibits Nos. 10 and 11. The total annual fuel cost is estimated to be \$16,730,000 and \$18,280,000 for operation at 80 and 90 percent capacity factors, respectively.

Applicant estimates the average delivered cost of power for operation at various capacity factors as follows:

<i>Capacity Factor</i>	<i>Average Delivered Cost Mills/Kwhr</i>
90%	4.42
80%	4.78

Exhibit No. 4 shows the historical average annual growth of peak load within applicant's gross service area to be 550 plus megawatts for the period 1963 through 1967. Applicant predicts the rate of growth in peak load of 800, 876 and 932 megawatts in 1972, 1973 and 1974, respectively. The historical and estimated area peak loads set forth in said exhibit are summarized as follows:

<i>Year</i>	AREA PEAK LOADS (Megawatts)		<i>Annual Growth</i>	
	<i>Actual</i>	<i>Estimated</i>		
		<i>Average Year</i>		<i>Adverse Year</i>
1953	4,154			
1959	4,769		615	
1960	5,310		541	
1961	5,698		388	
1962	5,830		132	
1963	6,300		470	
1964	6,769		469	
1965	7,357		588	
1966	7,994		637	
1967	8,514		520	
1968		8,999	9,079	485
1969		9,597	9,667	598
1970		10,361	10,431	764
1971		11,020	11,090	659
1972		11,820	11,880	800
1973		12,696	12,756	876
1974		13,628	13,678	932

In order to meet future load growth and to maintain reasonable reserve capacity, applicant has planned the following additions to its generating capacity (Exhibit No. 5):

Moss Landing Unit 7	735 mw	Summer 1968
Geyser Unit 4	27 mw	Winter 1968

Belden Hydro Plant	117 mw	Winter 1969
Geysers Unit 5	53 mw	Summer 1971
Diablo Canyon Unit 1	1060 mw	Spring 1972
Pittsburg Unit 7	735 mw	Fall 1972
Geysers Unit 6	53 mw	Fall 1972
Geysers Unit 7	53 mw	Fall 1973
Diablo Canyon Unit 2	1060 mw	Summer 1974
Geysers Unit 8	53 mw	Fall 1974

These additions, plus firm power available from others, will result in 1974 in a dry year firm power capacity of 16,242 megawatts to meet an estimated 1974 total peak demand of 13,508 megawatts (Exhibit No. 6) leaving a margin of 2,734 megawatts or 20.2 percent after allowance for over haul. Without the proposed Diablo Canyon Unit No. 2, the margin would drop to 12.4 percent. These figures compare with recorded margins of 17.7, 19.7, 25.7, 15.3 and 13.3 percent for each of the years 1963 through 1967, respectively.

The Transmission Line

The transmission route will run southeasterly from the Diablo Canyon plant along the south slopes of the Irish Hills crossing U.S. Highway 101 north of Squire Canyon and about five miles south of San Luis Obispo; thence southeasterly to the south of Indian Knob and crossing Price Canyon approximately 2.3 miles southwest of Edna; thence easterly and northeasterly crossing the Arroyo Grande Valley at the junction of the upper Arroyo Grande Road and the Biddle Ranch Road; thence southwesterly and easterly crossing Tar Spring Ridge approximately 1.5 miles south of the proposed Lopez Reservoir; thence easterly and northeasterly passing approximately one-half mile south of Aqua Escondida Spring; thence northeasterly through the Los Padres National Forest and crossing the easterly forest boundary southeast of the Scott Ranch; thence northeasterly to approximately 1½ miles northwest of the Goodwin Ranch; thence easterly across the north edge of Soda Lake adjacent to the south boundary of the California Valley Subdivision; thence northeasterly across the Temblor Hills to east of Highway Route 58 (also known as State Highway 178). From Diablo Canyon to this point, a distance of 65.6 miles, the line is proposed to be parallel and adjacent to and on the north side of the transmission line to be built for Unit No. 1.

From a point in the vicinity of Highway Route 58, the proposed route will deviate to the north of the Unit No. 1 line route and run northeasterly to a junction with the existing Morro Bay-Midway 230 kv line approximately ½ mile west of Highway 33 and ¼ mile south of Lokern Road; thence east parallel to and immediately north of the Midway substation at Buttonwillow. The latter section is 19.1 miles in length.

The proposed 500 kv transmission line will be of the same design as the line for Unit No. 1. It will be supported on single circuit steel

towers. The average span will be approximately 1300 feet. The line will meet the requirements of the Commission's General Order No. 95.

Rights-of-way for 6.8 miles of the 84.7 miles have been acquired. All of the property owners have been contacted and negotiations have started for the remainder of the rights-of-way.

The proposed route deviates from the Unit No. 1 route as the applicant could not find a single corridor wide enough to contain the lines for four proposed units at Diablo Canyon through oil fields north of McKittrick, there not being sufficient space between the oil wells.

Applicant's reasons for a separate route for lines from Unit No. 1 and Unit No. 2 are:

1. With the lines on separate rights-of-way there is less chance of simultaneous outage of both lines due to aircraft, landslides, fire, sabotage, etc.
2. The rights-of-way for both routes in the 19.1 mile sections east of Highway Route 58 are being secured in order to provide for the ultimate transmission lines from Diablo Canyon to the Midway substation. With a line constructed on the right-of-way, it is less likely that impediments or interfering land use will be placed within the right-of-way and later have to be removed.

The transmission lines were the subject of discussion by the public witnesses.

One protestant has 80 acres located approximately 10 miles from Morro Bay and seven miles from Atascadero. His property is now crossed by an existing 230 kv line from applicant's Morro Bay power plant, and applicant's proposed northern 500 kv line from Diablo Canyon Unit No. 1 is to cross his property parallel to the 230 kv line. This man wants the property owners notified of the definite plans for the transmission lines.

The second protestant owns 12 acres approximately 10 miles east of Diablo Canyon and along the proposed southern transmission line from Unit No. 1 and the proposed parallel line from Unit No. 2. This witness objected to what he called the indiscriminate routing of power lines all over the County of San Luis Obispo.

The third protestant resides in Atascadero but has unimproved land in See Canyon slightly north of the proposed route of the southern transmission line from Unit No. 1 and the proposed line from Unit No. 2. He stated that the transmission lines will ruin the aesthetics of the area and it will no longer be a pretty place to live.

The approximate locations of the properties of the protestants are marked respectively 1, 2 and 3, on the map attached to Interrogatory No. 15 on Exhibit No. 12.

No proposals for a general revision of the route were made.

A question was asked regarding the possibility of placing the trans-

mission lines underground. The applicant stated that if the lines could be installed underground, an 84-mile, 500-kv transmission line installed underground and having the same capacity as the proposed overhead line would cost in the order of 400 to 500 million dollars.

Licenses and Permits

The status of licenses and permits which applicant must secure in order to construct and operate the proposed plant and related facilities is set forth in Exhibit No. 23. Planning Commission approval has been received from both Kern and San Luis Obispo Counties. Applicant has executed agreements with the Resources Agency of the State of California relative to the conservation resources (Exhibits Nos. 15 and 16).

Findings

The Commission finds that:

1. Applicant has need for a second 1,060,000 kw generating unit in the southern portion of its system by the year 1974.
2. The economics of the project as supported by the estimates presented are not unreasonable.
3. Applicant has the ability to finance and construct the project.
4. Present and future public convenience and necessity will require the construction and operation by applicant of a second nuclear power unit rated at approximately 1,060,000 kw at the Diablo Canyon site, together with the transmission and other appurtenances generally as described by applicant in this proceeding, but subject to the conditions that the certificate is interim in form and may be made final by further order of the Commission upon issuance by the United States Atomic Energy Commission of final authorization to construct and operate the nuclear energy plant.
5. Applicant plans to design and construct its plant, switchyards, transmission lines, and attendant facilities with full consideration given to aesthetic values and conservation of as much of the natural resources of the region as possible.

The certificate herein granted shall be subject to the following provision of law:

The Commission shall have no power to authorize the capitalization of the certificate of public convenience and necessity, or the right to own, operate or enjoy such certificate of public convenience and necessity in excess of the amount (exclusive of any tax or annual charge) actually paid to the State or to a political subdivision thereof as the consideration for the issuance of such certificate of public convenience and necessity or right.

The action taken herein is for the issuance of a certificate of public convenience only, and is not to be considered as indicative of amounts to be included in future proceedings for the purpose of determining

just and reasonable rates.

We conclude that the application should be granted to the extent set forth in the order which follows.

INTERIM ORDER

IT IS ORDERED that:

1. A certificate of public convenience and necessity is granted to Pacific Gas and Electric Company to construct, operate and maintain a nuclear fueled power generating unit of approximately 1,060,000 kilowatts capacity, together with appurtenant facilities and transmission lines generally as described by applicant in this proceeding, but subject to the condition that the certificate is interim in form and may be made final by further order of the Commission on the establishment by evidence in the record that final authority has been obtained from the Atomic Energy Commission to construct and operate the nuclear energy plant.
2. Applicant shall file with this Commission a detailed statement of the capital costs of the project, including transmission lines and other appurtenances, within one year following the date on which the unit is placed in commercial operation.
3. Within one month after the effective date hereof applicant shall advise all affected parties of the exact route of the transmission line for Units Nos. 1 and 2, and shall file a statement with the Commission that all parties have been advised.
4. In designing its plant, switchyards, and attendant facilities, applicant shall give full consideration to aesthetic values and conservation of the natural resources of the area. Applicant shall submit to the Commission artists' renditions of the major aspect of the project, based on the architect's design, within six months from the date hereof.
5. The authorization herein granted will expire if not exercised within five years from the date hereof.

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

Dated at San Francisco, California, this 25th day of March, 1969.

WILLIAM SYMONS, JR.
President
 A. W. GATOV
 J. P. VUKASIN, JR.
 THOMAS MORAN
Commissioners

Commissioner Fred P. Morrissey, being necessarily absent, did not participate in the disposition of this proceeding.