

**ORIGINAL**Decision No. 63489

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 at its  
 Contra Costa Power Plant Units No. 6  
 and No. 7, together with transmission  
 lines and related facilities.  
 (Electric)

Application No. 43983

O P I N I O N   A N D   O R D E R

Pacific Gas and Electric Company filed the above-entitled application on December 4, 1961, requesting a certificate of public convenience and necessity to construct, install, operate, maintain and use at its Contra Costa Power Plant Units No. 6 and No. 7, together with transmission lines and related facilities.

Prior Authorization

Pursuant to the authorization contained in Decision No. 42282, in the original Application No. 29522, applicant constructed the first three units of its Contra Costa Power Plant consisting of three tandem compound turbine-generator units having a total gross normal operating capacity of 366,000 kilowatts. These units were placed in commercial operation in 1951.

Subsequently, pursuant to the authorization contained in Decision No. 45861 in First Supplemental Application No. 29522, applicant constructed two additional units at its Contra Costa Power Plant consisting of two tandem compound, reheat type turbine-

generators having a gross normal operating capacity of 244,000 kilowatts. These latter two units were placed in commercial operation in 1953.

To connect the Contra Costa Power Plant to applicant's main transmission system applicant constructed transmission circuits and related facilities as authorized by the aforesaid decisions.

#### Supplemental Information

To provide supplemental information necessary for a thorough evaluation of this application and in response to staff requests, applicant submitted by two affidavits seventeen sheets of verified statements and data relating to area loads and resources, schedule of additions and retirements of generating capacity, evaluation of interconnections and proposed interconnections with other utilities, maintenance requirements of thermal units and estimated savings which will result from concurrent construction of the two generating units. This supplemental information is hereby made a part of the record.

#### Proposed Plant Additions

Units No. 6 and No. 7 will each consist of a cross-compound, reheat, turbine-generator with a nameplate rating of 300,000 kilowatts and a normal expected operating capacity of 330,000 kilowatts. Each unit will have a single boiler with a capacity of 2,160,000 pounds of steam per hour at a throttle pressure of 2,400 pounds per square inch gage and 1050 degrees Fahrenheit with reheat to 1000 degrees. The units will be of the outdoor type and each will be complete with auxiliaries and

related supporting steam plant equipment, including essential high voltage transforming and switching equipment.

The new units will utilize certain existing site facilities, such as shops, warehouse, fuel oil handling system, natural gas facilities, switchyard and offices.

With the installation of these two units the Contra Costa Power Plant is expected to have a normal operating capacity of 1,270,000 kilowatts.

In order to make the output of the two new units available to applicant's interconnected system, applicant proposes to install and place in operation a double-circuit 220 kv line on steel towers extending 23.6 miles from the end of the Pittsburg Corridor to Hayward Junction via San Ramon Substation.

Cost of Proposed Additions

The estimated cost to install Units No. 6 and No. 7, together with the transmission facilities as set forth in the application, based on current labor and material prices, is as follows:

Production and step-up substation facilities .....	\$74,100,000
Transmission and terminal substation facilities .....	<u>1,560,000</u>
Total	\$75,660,000

The above estimates reflect construction of the two units on a concurrent basis. Applicant alleges that this results in substantial savings and that if the units were to be constructed non-concurrently the above estimates would have to be increased by \$4,950,000.

Operating Costs

Applicant has estimated the cost of power from the new units at various capacity factors. At 80 percent capacity factor and using a fuel oil price of \$2.18 per barrel at the plant, the estimated cost of energy delivered into the integrated system is 5.8 mills per kilowatt hour. This compares with an estimated cost of 7.2 mills per kilowatt hour for energy produced by Unit Nos. 1 through 5 at the Contra Costa Power Plant and reflecting the same conditions of capacity factor and fuel oil price.

Need for Proposed Additions

Applicant represents that there will be a demand within the territory in which it operates for the additional power to be generated at Contra Costa Power Plant by Units Nos. 6 and 7.

Applicant states that the average annual growth of peak load within its gross service area exceeded 380 megawatts for the period from 1956 through 1961. On a percentage basis this load growth may be computed as 8.3 percent compounded annually. For the future applicant estimates under dry year conditions an increase in gross service area peak load of 418 megawatts for 1962, 470 megawatts for 1963 and 520 megawatts for 1964. For the period 1961 to 1964 this is equivalent to a load growth of 7.4 percent compounded annually.

To supply these future load requirements applicant has scheduled the following additions to its generating capacity:

<u>Unit</u>	<u>Capacity in Megawatts</u>	<u>Operating Date</u>
Kings River Power Plant	42	Spring 1962
Morro Bay - Unit 3	330	Summer 1962
Humboldt Bay - Unit 3	60	Fall 1962
New De Sabla	18	Winter 1962
New Stanislaus	80	Winter 1962
Geysers - Unit 2	13	June 1963
Morro Bay - Unit 4	330	July 1963
Contra Costa - Unit 6	330	June 1964
Contra Costa - Unit 7	330	September 1964

Other generating agencies whose loads and resources are included in the gross service area estimates presented by applicant have scheduled additions to their generating capacities which will contribute to the gross service area resources by August of each year, on a dry year basis in the amount of 47 megawatts in 1962, 426 megawatts in 1963 and 51 megawatts in 1964. Included in these figures are the Trinity River Project of the United States Bureau of Reclamation and the American River Project of the Sacramento Municipal Utility District.

Resource and load data together with turbine-generator overhaul requirements, margins and desirable reserves for contingencies as presented by applicant may be summarized for the critical peak load periods on a dry year basis as follows:

	<u>Summer Peaks</u>			<u>Winter Peak</u>
	<u>1962</u>	<u>1963</u>	<u>1964</u>	<u>1964</u>
	<u>Megawatts</u>			
Total Capability	7,126	8,016	8,397	8,727
Overhaul	190	344	99	500
Net Capability	6,936	7,672	8,298	8,227
Peak Demand	6,290	6,760	7,280	7,210
Margin	646	912	1,018	1,017
Desirable Reserves for Contingencies	935	958	984	984

Applicant considers that a desirable reserve for contingencies should include 330 megawatts for outage of largest unit, 200 megawatts for outage of major transmission line, 90 megawatts for governing allowance and an allowance of 5 percent of peak demand for loads higher than estimates and other contingencies.

The preceding tabulation indicates that installation and operation of Contra Costa Power Plant Units Nos. 6 and 7 as requested will be necessary if applicant is to maintain margins approximately equal to the reserves it considers necessary at the times of its estimated 1964 summer and winter peak demands.

#### Findings and Conclusions

The Commission concludes that, in view of the continuing growth in electric demand and load that applicant is experiencing, the capacity additions proposed herein will be needed to meet the requirements of the public.

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

That 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 Commission having considered the above-entitled application and the supplemental information furnished by the aforementioned affidavits, and being of the opinion that the application should be granted and that a public hearing thereon is not necessary; therefore,

IT IS HEREBY FOUND AS A FACT that public convenience and necessity require the construction, operation, maintenance and use of Contra Costa Power Plant Units Nos. 6 and 7 together with transmission lines and related facilities, all as described in the application; therefore,

IT IS HEREBY ORDERED as follows:

1. That a certificate of public convenience and necessity be and it hereby is granted to Pacific Gas and Electric Company to construct, install, operate, maintain and use Contra Costa Power Plant Units Nos. 6 and 7 together with transmission lines and related facilities as set forth in the application.

2. That applicant shall notify this Commission in writing within thirty days following the respective dates that Contra Costa Power Plant Units Nos. 6 and 7 are placed in commercial operation.

3. That applicant shall file with this Commission a detailed statement of the capital cost of Contra Costa Power Plant Units Nos. 6 and 7 and the transmission lines and related facilities within one year following the date that the second of the two units is placed in commercial operation.

4. That the authorization herein granted shall expire if not exercised within three years from the effective date hereof.

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

Dated at San Francisco, California, this 27<sup>th</sup> day of MARCH, 1962.

Robert W. Page  
President  
W. E. Mitchell  
S. L. Fox  
George L. Grover  
Fredrick B. Holcomb  
Commissioners