

Decision No. 50945

ORIGINAL

BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

In the Matter of the Application of)
 PACIFIC GAS AND ELECTRIC COMPANY, a)
 corporation, for an order issuing to)
 applicant a certificate under Section)
 1001 of the Public Utilities Code of)
 the State of California declaring)
 that public convenience and necessity)
 require the construction, operation)
 and maintenance by applicant of the)
 steam electric generating plant,)
 transmission lines, and related)
 facilities herein generally described.)
 (Humboldt Bay Steam Plant)

Application No. 35789

F. T. Searls, for applicant.
J. J. Deuel for California Farm Bureau Federation,
 Dion R. Holm and Paul L. Beck for City and
 County of San Francisco, Fred L. Groat for
 State Engineer, Burle Laton for U. S. Bureau
 of Reclamation, George R. Bell for San Francisco
 Regional Office of the Federal Power Commission,
 interested parties.
John J. Doran for the Commission staff.

O P I N I O N

Nature of Proceeding

By the above-entitled application, filed September 17, 1954,
 Pacific Gas and Electric Company seeks a certificate of public
 convenience and necessity to construct and to thereafter operate
 and maintain a steam-electric generating plant near Eureka in
 Humboldt County.

Public Hearing

A public hearing, on a record consolidating this matter
 with that of Application No. 35926 (certificate for a hydro-electric
 generating plant) for purposes of hearing, was held before Examiner
 F. Everett Emerson on November 22, 1954 in San Francisco.

Humboldt Division Electric Requirements

Applicant's Humboldt Division, although integrated with applicant's over-all system by two 110 kv and one 60 kv transmission lines between the Eureka area and the Sacramento Valley and one 60 kv transmission line extending into the area from its North Bay Division to the south, is in effect an isolated area. The 60 kv transmission lines are generally not a source of power to the Eureka area. Except for the present steam-electric capacity of about 19.3 megawatts at Eureka, the demands of the area are met by drawing upon the over-all system by means of the two 110 kv transmission lines whose combined capacity is 74 megawatts. These transmission lines necessarily traverse isolated areas and rugged terrain, pass through heavily timbered country and through areas subject to violent storms and heavy snowfall. If both lines go out of service the Humboldt Division cannot meet its demands. If one line is out of service the Division has a present peak-demand deficiency of about 13.7 megawatts. At the present rate of load growth such deficiency will become about 22.7 megawatts in 1955 and approximately 30.7 megawatts in 1956.

Humboldt Bay Steam Plant

Applicant proposes to install and operate a new 50,000-kilowatt steam-electric generating plant in the Eureka area in order to remedy the present deficiency in capacity and in order to provide some margin for load growth. It proposes to locate the plant on a 141-acre site on Buhne Point, approximately four miles south of Eureka, near the lower end of Humboldt Bay. The proposed plant will initially consist of one generating unit with provisions for expansion or additions to reach an ultimate four-unit plant. Semi-outdoor construction is proposed and the plant would be tied

in to the electric system by means of new and relatively short transmission lines and other transmission facilities to be installed as part of the first unit construction project.

Applicant's engineers have estimated that the cost of the initial-unit plant, together with its necessary substation, transmission tie lines and appurtenances, will approximate \$9,195,000. Under a 25 percent load factor operation the kilowatt-hour cost is computed to be 1.98 cents, while at 80 percent load factor the cost is computed to be 0.86 cents per kilowatt-hour. The plant is so designed that it can pick up, from minimum load, to 40 megawatts of load in less than two seconds. Gross incremental fuel is expected to amount to 608 kilowatt-hours per barrel of oil. Applicant intends to use oil for fuel and no use of hogged fuel is contemplated. Annual fuel bills are estimated to range between \$504,000 at 25 percent load factor and \$1,296,000 at 80 percent load factor, calculated on a fuel oil cost of \$2.00 per barrel at Eureka.

Effect of Plant on Division Needs

The over-all effect of the proposed Humboldt Bay Steam Plant and the demand deficiencies above discussed are illustrated by the following tabulation.

<u>Available Capacity</u>				
HUMBOLDT DIVISION				
<u>Item</u>	<u>: Year 1953:</u>	<u>Year 1954:</u>	<u>Year 1955:</u>	<u>Year 1956:</u>
Resources	Megawatts	Megawatts	Megawatts	Megawatts
Sta. B Steam Plant	14.5	14.5	14.5	14.5
Donbass Steam Plant	4.8	4.8	4.8	4.8
110 kv Line #1	37.0	37.0	37.0	37.0
110 kv Line #2	37.0	37.0	37.0	37.0
Humboldt Bay Plant	-	-	-	50.0
Total	93.3	93.3	93.3	143.3
Maximum Demand Peak	60*	70	79	87
Gross Margins				
All Resources	33.3	23.3	14.3	56.3
One Line Out	(3.7)	(13.7)	(22.7)	19.3
* Actual simultaneous peak (Deficiency)				

Conclusions

It is clear that the proposed Humboldt Bay steam-electric plant is needed and that its construction will be in the public interest. Applicant's request for a certificate will be granted. The certificate of public convenience and necessity herein issued is 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.

O R D E R

The above-entitled application having been considered, public hearing thereon having been had, the matter having been submitted and now being ready for decision,

IT IS HEREBY FOUND AS A FACT that public convenience and necessity require and will require the construction, operation and maintenance of the steam-electric generating plant proposed by applicant and discussed in the foregoing opinion; therefore,

IT IS ORDERED that a certificate of public convenience and necessity be and it is hereby granted Pacific Gas and Electric Company for the construction, operation and maintenance of the aforesaid Humboldt Bay steam-electric generating plant.

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

Dated at San Francisco, California, this 14th day of JANUARY, 1955.

John E. Mitchell
President
Augustus J. Crueser
Raymond L. Lutz

Commissioners