BEM

ORIGINAL

Decision	No.	73646

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 No. 5 at The Geysers Power Plant.

(Electric)

Application No. 49869 (Filed December 11, 1967)

OPINION AND ORDER

Pacific Gas and Electric Company (Pacific) requests a certificate of public convenience and necessity for the construction, operation, and maintenance of a fifth unit at its geothermal steam-electric generating station in Sonoma County, known as The Geysers Power Plant.

Unit No. 1 at The Geysers Power Plant and its accompanying transmission-line project were certificated by this Commission's Decision No. 58243, dated April 7, 1959, in Application No. 40641.

Unit No. 1 was placed in commercial operation on September 25, 1960. Subsequently and pursuant to the authorization contained in Decision No. 62243, dated July 11, 1961, in Application No. 43331, Pacific constructed Unit No. 2, having operating capacity of 12,500 kw and bringing the total plant capacity to 25,000 kw. Unit No. 2 was placed in commercial operation March 19, 1963. Unit No. 3 was certificated by this Commission's Decision No. 67858, dated September 22, 1964, in Application No. 46807, having operating capacity of 27,500 kw (name plate). Unit No. 3 was placed in commercial operation April 28, 1967. By Decision No. 70940 dated July 12, 1966, in Application No. 48448, Unit No. 4 was authorized. Commercial operation of Unit No. 4 is scheduled for December 1, 1968.

Pacific now proposes to install Unit No. 5, which will consist of one 55,000 kw (nominal) capacity turbine designed for steam at 100 pounds per square inch gauge and 355 degrees Fahrenheit, one 66,000 kva generator, one direct contact condenser with gas ejectors and circulating water pumps, and one cooling tower, together with related electrical facilities, including one 39.6/52.8/66.0 mva, 13.8-115/230 kv, 3-phase transformer. Unit No.5 will be provided with a steam supply of not less than 950,000 pounds of steam per hour at a pressure of 100 pounds per square inch gauge and a temperature of about 355 degrees Fahrenheit. Pacific proposes to have Unit No. 5 in commercial operation by June 1, 1971.

The estimated cost of Unit No. 5 is \$6,390,000. The average delivered energy cost is estimated to be 4.38 mills per kilowatt-hour at 90% capacity factor.

Unit No. 5 will be at a new location between Units Nos. 1 and 2 and Units Nos. 3 and 4.

Pacific proposes to construct a 230 kv double circuit tap line approximately one and one-quarter miles long from Unit No. 5 to a connection with a 230 kv double circuit tower line planned for construction between Fulton and Mendocino Substations to provide adequate system bulk transmission facilities north of Fulton Substation. It is planned initially to operate the Fulton-Mendocino line and the Unit No. 5 tap line at 115 kv.

For the operation of The Geysers Power Plant, Pacific purchases geothermal steam pursuant to the terms and conditions of an agreement dated October 30, 1958 (Basic Agreement), as amended by agreements respectively dated March 31, 1961, and August 4, 1964, April 13, 1966 and May 10, 1967, with Magma Power Company and Thermal Power Company. The basic agreement as amended is hereby incorporated into this proceeding by reference.

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3. The authorization granted shall expire if not exercised within four 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 1900 day of JANUARY, 1968.

President

Mugatar
William Jerussey

Med P. Monassey

Commissioners

Commissioner William M. Bennett
Present but not participating.