

Decision No. 64985**ORIGINAL**

## BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

In the Matter of the Application of  
 SOUTHERN CALIFORNIA EDISON COMPANY for  
 a Certificate that Present and Future  
 Public Convenience and Necessity require  
 or will require the construction and  
 operation by Applicant of a new steam  
 electric generating unit, to be known as  
 Unit No. 3, at its ETIWANDA STEAM STATION,  
 together with other appurtenances to be  
 used in connection with said station.

Application No. 43177

OPINION AND ORDER

Southern California Edison Company filed the above-entitled application on February 21, 1961, requesting a certificate of public convenience and necessity to construct and operate one additional steam electric generating unit at its Etiwanda Steam Station to be known as Unit No. 3. This new unit will be located near Units Nos. 1 and 2 on applicant's present site consisting of approximately 207 acres located in the vicinity of Fontana, California, in the County of San Bernardino as shown on the plot plan drawing designated as Exhibit A attached to the application.

Prior Authorization

The Commission on February 27, 1951 by Decision No. 45387 found that public convenience and necessity required the construction and operation of Etiwanda Steam Station consisting of two 125,000 kilowatt units, with auxiliaries, transmission lines, and appurtenant facilities. Unit No. 1 was placed in operation in July, 1953, and Unit No. 2 was placed in operation in November 1953.

Proposed Plant Construction

Applicant proposes to install a steam turbine-electric generator and related equipment and facilities including new double circuit 220-kv transmission facilities between Etiwanda Steam Station

and Mesa and Highgrove Substations. The transmission line will be initially installed for one 220-kv circuit. Unit No. 3 is expected to have a turbine generator rating of 310,000 kilowatts resulting in a total station turbine-generator set rating of 560,000 kilowatts. The proposed new unit will be designed as an outdoor type station with centralized and digital computer automated control facilities. Make-up water for the circulating water cooling system will be supplied from a branch of the Colorado River Aqueduct which flows through the Etiwanda Steam Station site. Natural gas will be burned for fuel with provisions for alternate burning of fuel oil.

Applicant states that it will require the use of Unit No. 3 at Etiwanda Steam Station by June 1963 and to meet this operating date construction must be commenced by August 1961.

#### Estimated Plant Cost

Exhibit No. 3 sets forth the estimated capital and operating cost of Unit No. 3 and of the total Etiwanda Steam Station. The total estimated capital cost of Unit No. 3 based on present price levels is \$43,155,000. Other capital costs attributed to the addition of Unit No. 3, such as fuel and transmission facilities, and a prorated of joint facilities common to all units are estimated at \$12,457,000.

The total cost and cost per kilowatt of the Etiwanda Steam Station including all three units is as follows:

<u>Plant</u>	<u>Plant Capacity-Kw</u>	<u>Capital Cost</u>	<u>Dollars per Kw</u>
Units 1 & 2	250,000	\$43,295,000	\$173
Unit 3	<u>310,000</u>	<u>43,155,000</u>	<u>139</u>
Total	560,000	\$86,450,000	154

#### Annual Operating Costs

Applicant's estimated annual costs of operation for Unit

No. 3 are summarized as follows:

<u>Annual Expenses</u>	<u>Amount</u>
Fuel (present price levels)*	\$ 5,283,000
Other operation & maintenance	380,000
Depreciation (straight-line) 40-year life	1,078,000
Income taxes (current rates)	1,064,000
Ad valorem taxes (current rates)	1,026,000
Return (average)	1,381,000
Total	\$10,212,000

\* Assumes operation at 62.8% capacity factor using gas fuel 50% of the time and oil operations 50% of the time.

Based on the foregoing assumptions the estimated average total cost per kilowatt-hour at the steam station, assuming fuel at present price level, is 5.9888 mills per kilowatt-hour.

Details of these estimated costs for Etiwanda Steam Station Unit No. 3 and for the entire station are contained in applicant's Exhibit No. 3 submitted with the application.

#### Load Growth

Applicant's records and studies indicate that its net system peak demand has increased from 2,284,900 kilowatts in 1955 to 3,432,000 kilowatts in 1960, and it is estimated it will increase to 4,410,000 kilowatts in 1963. During the same period net system energy requirements have increased from 12.35 billion kilowatt-hours in 1955 to 19.14 billion kilowatt-hours in 1960.

Applicant's estimates of margins of available generating capacity over maximum demands for the estimated years 1961 through 1963, based on average and adverse year hydro conditions, are summarized from Exhibit No. 1 in the following tabulation:

Year	Average Hydro Conditions		Adverse Hydro Conditions	
	Gross Margin	Per Cent	Gross Margin	Per Cent
	(1,000 Kw)	Margin	(1,000 Kw)	Margin
1961 (Dec.)	392	10.1	287	7.3
1962 (Dec.)	802	19.6	694	16.7
1963 (Dec.)	792	18.0	683	15.2

The above data reflect operating dates for new units as follows:

Huntington Beach No. 3	January 1961
Huntington Beach No. 4	July 1961
Alamitos No. 3	January 1962
Alamitos No. 4	August 1962
Etiwanda No. 3	June 1963

If Etiwanda Unit No. 3 is delayed until after the December peak in 1963, the per cent margin of available generating capacity over estimated maximum demand under adverse conditions will be reduced to 8.3% or 373,000 kilowatts.

Exhibit No. 2, submitted with the application, presents load and resource data for the entire Pacific Southwest Power Area.

Findings and Conclusions

In view of applicant's annual average rate of growth of about 9% in energy load during the five-year period ending in 1960 and from a review of other information submitted by applicant in connection with this application, it is evident that applicant will need Etiwanda Unit No. 3 to provide adequate capacity to meet the future public demands for electric energy.

It is hereby found as a fact that public convenience and necessity require the construction, operation, maintenance and use of Unit No. 3 of Etiwanda Steam Station as described in this application.

The certificate of public convenience and necessity which will issue herein is subject to the following provision of law:

That 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 as a consideration for the issuance of such certificate of public convenience and necessity or right.

The Commission having considered the above-entitled application and being of the opinion that the application should be granted and that a public hearing thereon is not necessary; therefore,

IT IS HEREBY ORDERED as follows:

1. That a certificate of public convenience and necessity be and it is hereby granted Southern California Edison Company to

construct, install, operate, maintain, and use Unit No. 3 of Etiwanda Steam Station and appurtenances in connection with said station, as described in this Application No. 43177.

2. That within one year following the date of completion Southern California Edison Company shall file with this Commission a detailed statement of capital cost of Unit No. 3 of Etiwanda Steam Station together with appurtenances used in connection with said station.

3. The authorization herein granted will 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 16th day of MAY, 1961.

Robert W. Bage  
President  
George L. Fox  
George L. Fox  
Frederick B. Holhoff  
Commissioners