

Decision No. 39277

## BEFORE THE RAILROAD COMMISSION OF THE STATE OF CALIFORNIA.

In the Matter of the Application of SOUTHERN CALIFORNIA EDISON COMPANY LTD. 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 plant, with an initial capacity of approximately 120,000 kw, to be located at Redondo Beach, California, and of transmission lines connecting it with the Company's system at the Company's La Fresa Substation.

ORIGINAL

Application No. 27403

Gail C. Larkin, B. F. Woodard, R. E. Woodbury, and  
Bruce Renwick for Applicant.

O P I N I O N

Southern California Edison Company Ltd. in this application seeks a certificate of public convenience and necessity authorizing the erection and operation of a steam electric generating plant at Redondo Beach, California.

In making the application Edison points out that its decision to install the proposed steam plant is prompted not only by the actual and anticipated growth of load in Edison's territory, necessitating increased generating capacity, but also by the desirability of maintaining a proper balance between steam and hydro generating capacity on the Edison system. During the war years increases in hydro capacity available to Edison's system were achieved through changes in the contractual agreements for the use of energy generated at Boulder Dam. During the same period it was not possible to develop new sources of steam capacity.

Edison proposes to install a steam electric generating plant designed for an ultimate capacity of 240,000 kw upon a site in Redondo Beach, California,

a part of which was the location of a former steam plant of the company now abandoned. It is proposed to install initially two 60,000/66,000 kw, 3,600 RPM, 850 lb. 900° steam turbine generators and four 400,000 pound per hour boilers. The station will be connected to the company's La Fresa substation 4½ miles away, with four 69 kv lines. At La Fresa energy generated in the steam plant will be fed into Edison's 69 kv subtransmission network which serves much of the heavy industrial loads in the area, as well as into the 220 kv transmission system. The location of this additional capacity at the proposed site will permit advantageous transfers of energy deliveries on the transmission networks.

The evidence shows that the system peaks have increased from approximately 680,000 kw in 1939 to 1,020,000 kw in 1945, and that peaks of 1,125,000 kw in 1946 and 1,280,000 kw in 1950 are foreseen. Under adverse hydro conditions margins for system reserve and overhaul, loss of head and reconversion replacement are such as to require the installation of additional capacity as promptly as supply circumstances will permit. No difficulty should be experienced provided normal amounts of hydro energy are available in the interim. The company, however, must be in a position to protect itself in the event of adverse hydro conditions. The present deficiencies of power at Boulder Dam, while as yet not alarming, are nevertheless indicative of the need for prudently insuring against such emergency. Under present plans, system capacity will be affected by the installation of the No. 4 unit at Big Creek No. 3, which is scheduled for operation in November 1947, the completion of the Redondo Steam Plant, for which certificate is herein sought, scheduled for November or December 1947, and the availability to the company of Long Beach No. 9 steam unit, which is now leased to the City of Los Angeles and will be returned to the company's service in November 1947. In connection with the Frequency Change program now under way on the Edison System, it is likewise planned to abandon 48,000 kw of steam generating equipment at the Long Beach steam plant in about the middle of 1948.

The estimated cost of the plant is \$17,500,000. This estimate submitted subsequent to the hearing in response to a request for detailed segregation can

be summarized as follows:

<u>Acct. No.</u>	<u>Title</u>	<u>Amount</u>
311	Structures and Improvements	\$ 1,787,000
312	Boiler Plant Equipment	4,453,000
314	Turbo-Generator Units	5,420,000
315	Accessory Electric Equipment	1,105,000
316	Miscellaneous Power Plant Equipment	120,000
343	Station Equipment	<u>363,000</u>
	Subtotal	\$13,248,000
	Distributable items including engineering supervision, insurance, temporary work, contingencies, etc. and land	<u>4,252,000</u>
	Total estimated cost	\$17,500,000

In addition it is estimated that transmission lines and rights of way to connect the new station to the system will cost approximately \$800,000.

The incremental cost of energy is estimated by the company for various operating load factors on the plant as shown below:

<u>Assumed Load Factor %</u>	<u>Assumed Efficiency Kwh/Ebl.</u>	<u>Cost Mills/Kwh Oil Price \$1.28125/Ebl.</u>
100	555	3.81
75	550	4.32
50	525	5.44
25	500	8.54

It is apparent from a consideration of the evidence that the authority sought by Edison in this application to erect the projected steam electric generating station is fully justified from a consideration of the system load growth over the past few years, estimates for the future, and the availability of present system generating capacity, both steam and hydro. The evidence further shows that other electric operating organizations in southern California are likewise planning substantial additions to generating capacity, and that the construction of the plant herein proposed has been determined upon giving full recognition to the opportunity of making the most advantageous use of the interconnections now existing between these organizations.

A public hearing in this application was held June 13, 1946, at which time no opposition to the proposed plant additions was forthcoming. The following form of Order is hereby recommended:

ORDER

A public hearing having been held, evidence submitted, and the Commission being of the opinion that the application should be granted, and finding as a fact that present and future public convenience and necessity require or will require the construction and operation of the facilities herein proposed, therefore

IT IS HEREBY ORDERED that Southern California Edison Company Ltd. be and it is hereby granted a certificate that present and future public convenience and necessity require or will require the construction and operation of a new steam electric generating plant at Redondo Beach, California, as proposed herein, the erection and operation of transmission lines and other appurtenances necessary thereto, and the acquisition of all necessary or convenient lands, rights of way, easements and permits, and other rights required in connection therewith:

The effective date of this Order shall be the date hereof,

Dated at San Francisco California, this 30 day of July

1946.

Richard C. ...  
Justice J. ...  
Thomas G. ...  
... ..  
Harold P. ...

Commissioners