

ORIGINAL

Decision No. 37884

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 an elec-
trical transmission line connecting
with the existing Boulder Canyon trans-
mission line of The Metropolitan Water
District of Southern California.

Application No. 26616

BY THE COMMISSION:

O P I N I O N

Southern California Edison Company Ltd. in this application requests that the Railroad Commission issue to it a certificate of public convenience and necessity for the construction and operation of an electric transmission line extending from the Hayfield Substation of The Metropolitan Water District to a connection with the transmission and distribution system of the Applicant in San Bernardino County.

In response to a request for more detailed information regarding the construction project, Applicant, by letter dated April 11, 1945, among other things, makes the following representations.

The proposed line will be constructed from the Hayfield terminal of the 220 kv Boulder transmission system of The Metropolitan Water District of Southern California through Riverside and San Bernardino Counties and will connect to the Southern California Edison Company Ltd. system at Chino Substation. A new substation will likewise be constructed on the line at Highgrove near the city of Colton in San Bernardino County, where another connection to the Edison system will be made. It is proposed to operate the new line at 220,000 volts and 60 cycle frequency. The line will be approximately 129 miles long and will

consist of three 605 MCM, ACSR, 30/19 conductors and two 1/2 inch high strength steel overhead ground wires supported on 80 foot steel towers. There is presently installed in the Chino Substation a 50,000 kw, 50/60 cycle frequency changer set. The new substation at Highgrove will likewise be equipped with a 50,000 kw, 50/60 cycle frequency changer set.

The present output of Boulder Dam generating plant is by contract allotted to the Bureau of Power and Light of the City of Los Angeles, the Southern California Edison Company Ltd., and The Metropolitan Water District principally, and to a number of other organizations to a minor extent. Approximately 35% of the firm energy has been allotted to The Metropolitan Water District. This quantity of energy is substantially in excess of the District's present needs and has heretofore been delivered principally to the Defense Plant Corporation for the operation of certain war industries. The operation of these war plants has now been curtailed to an appreciable extent, resulting in the availability of this energy for other uses. Boulder energy is presently made available to the southern California market by means of two 287 kv, 60 cycle lines of the City of Los Angeles, two 220 kv, 50 cycle lines of the Edison Company and one 138 kv, 60 cycle line of the California Electric Power Company. Because these lines have insufficient capacity to transmit the excess energy available from The Metropolitan Water District allotment, Edison Company now proposes to make this energy available to the southern California market by means of the Metropolitan line to Hayfield and the new line from Hayfield to Chino. It is estimated that the construction will increase the capacity available to southern California by 100,000 to 125,000 kw, and will increase the total capability by 600,000,000 kwh annually.

While excess energy available at Boulder Dam is by contract available to the City of Los Angeles, the Edison Company and the California Electric Power Company in the respective portions of 55, 40 and 5, the Edison Company has on April 27, 1945, filed with the Commission copies of an interim contract dated March 19, 1945, which in effect grants to the Edison Company the right

to use excess Metropolitan Water District energy and to transmit it over the Boulder-Hayfield line and thence into the Edison system. This contract is a preliminary agreement effective until a permanent agreement is negotiated and executed, or until six months subsequent to the end of the present wars.

Edison Company further represents that the construction of the line will increase the power resources of the system, decrease the spinning reserve requirements, improve the service reliability, and alleviate the present undesirable overload operation of their Boulder lines. It will likewise contribute to increased savings of fuel presently used for power generation, but more urgently needed for other war purposes. Edison Company further states that the Office of War Utilities of the War Production Board has approved the construction and assigned priorities for the allocation and procurement of materials.

The cost of the project as estimated by the Edison Company is shown in the following tabulation:

	Transmission Line	Substation	Project Total	Per Cent
Estimated Cost				
Material	\$ 917,000	\$1,594,000	\$2,511,000	60%
Labor	643,000	202,000	845,000	20
Other	728,000	132,000	860,000	20
Total	\$2,288,000	\$1,928,000	\$4,216,000	100%
Cost per mile of line (129 ML)	\$ 17,736			
Cost per kw. of capacity	\$ 22.88	\$ 38.56		

The most recent figures which reveal the distribution of electric energy generated at Boulder Dam are those reported by the Federal Government for the contract year ending May 31, 1944, in the "Third Annual Report of Operations under the Boulder Canyon Project Adjustment Act". The following tabulation is a simplified compilation of information contained in the report and reveals the relative amounts of energy delivered to the various organizations receiving power during the contract year.

Distribution of Energy
Year Ending May 31, 1944

Millions of Kilowatt Hours					
Organization	Firm*	Secondary	Resale	Total Amount	Total Per Cent
City of Los Angeles	1,423	1,091	20	2,534	40.5%
Southern Calif. Edison Co.	786	794	14	1,594	25.5
Defense Plant Corporation			1,513	1,513	24.2
Calif. Electric Power Co.	100	89		189	3.0
State of Nevada	260		(147)	113	1.8
Metropolitan Water District	1,507		(1,425)	82	1.3
Glendale	79			79	1.3
Pasadena	68			68	1.1
United States-Boulder City	29			29	.5
Burbank	25			25	.4
Other			25	25	.4
Total	4,277	1,974	-	6,251	100.0%

(Red Figures)

*Same as contract allotment.

From the foregoing discussion it is clear that the construction of the transmission facilities herein proposed constitutes a major addition to the Edison Company system. The main issue in this proceeding is whether or not the investment required to make these proposed installations, and thereby increase the availability of electric energy to the Greater Los Angeles markets, is justified at this time. We are about to enter upon the period of reconversion from war to peacetime economy, which may be accompanied by substantial temporary reductions in electric requirements; however, the planning which precedes the development of power sources must necessarily reflect long-term future trends, and we must assume that Applicant has undertaken this program only after thorough study, and as a result of a firm conviction that the project as proposed is economically justified. It is reasonable to anticipate that additional firm capacity and energy at favorable rates will be available to the electric consumers in southern California if the circumstances as outlined by Applicant are realized and a long-term contract for the excess electric resources at Boulder becomes a reality.

In view of the representation made by Applicant, the Commission is of the opinion that the application as prayed for should be granted; that a hearing

in the matter is unnecessary, and sufficient cause appearing, therefore

It Is Hereby Found as a Fact that public convenience and necessity require the construction, operation and use of the facilities herein described and

O R D E R

IT IS HEREBY ORDERED that Southern California Edison Company Ltd. be and it is hereby granted a certificate under Section 50(a) of the Public Utilities Act: that the present and future public convenience and necessity require or will require the building of said transmission line and the operating of the same, and the acquisition of all necessary or convenient lands and rights-of-way required for said purposes and the acquisition and construction of all convenient and necessary towers, cables, wires, fixtures, substations, transformers, frequency-changers and appurtenances.

The effective date of this Order is the date hereof.

Dated at San Francisco, California, this 15th day of May,

1945.

Harold Ruden
Justin F. Crayner
Richard Kachse
Francis C. ...
Isaac Lawrence

Commissioners