

Decision No. 78935

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 the present and future public convenience and necessity require or will require the construction and operation by applicant of a section of the future No. 1 500-kv transmission line from Vincent Substation to Rio Hondo Substation, together with related appurtenances

Application No. 52447  
(Filed February 16, 1971)

OPINION AND ORDER

Southern California Edison Company (Edison), a California corporation, seeks an order of the Public Utilities Commission (Commission) pursuant to General Order No. 131 of the Commission granting to it a certificate that the present and future public convenience and necessity require or will require the construction at 500-kv and operation initially at 220-kv of a section of the future No. 1 500-kv transmission line from Vincent Substation to Rio Hondo Substation, together with related appurtenances.

Edison proposes to dismantle a 22.8-mile section of its existing Antelope-Mesa 220-kv transmission line, and to construct in its place a single-circuit steel tower transmission line designed for ultimate operation at 500-kv. Initially, the new line section will be connected to an existing 4.5-mile 220-kv line section extending to Vincent Substation on the north, and to an existing 4.7-mile 220-kv line section extending to Rio Hondo Substation on the south. The transmission line so formed will be designated the No. 2 Vincent-Rio Hondo 220-kv transmission line and will function in parallel with the existing No. 1 Vincent-Rio Hondo 220-kv

transmission line. Ultimately, the new line section will become part of a future 32-mile 500-kv transmission line to be designated the No. 1 Vincent-Rio Hondo 500-kv transmission line.

In connection with the aforementioned construction of the 22.8-mile section of transmission line, one additional conductor per phase will be added to the existing 4.7-mile section of 220-kv line extending to Rio Hondo Substation to reinforce the capacity of that portion of the line. No modification of the existing 4.5-mile section of 220-kv line extending to Vincent Substation is required.

All of the new construction will be on existing rights-of-way, and the 500-kv towers will be installed in the same general locations as the existing 220-kv towers which are being replaced.

Edison has given proper notice to the general public by advertisement in the manner required. No request for a public hearing has been received by the Commission. Pursuant to Section 5 of General Order No. 131, Edison submitted the following data.

#### Necessity for Proposed Line

The completion and operation of the proposed facility by March 1, 1973 will be necessary to promote the present and future safety, health, comfort and convenience of the public for the following reasons:

The proposed line is initially required for operation at 220-kv in order to provide transmission system capability during circuit outage conditions. As a result of adding the 790-megawatt output of Ormond Beach Generating Station Unit No. 2 to the system, a double line-out contingency involving the Nos. 1 and 2 Lugo-Mira Loma 500-kv lines would expose the existing Vincent-Rio Hondo 220-kv line to excessive loadings of 137% of the normal thermal rating. The added capacity of the proposed circuit will permit the 220-kv system network to withstand either single-circuit or two-circuit outage contingencies in the area without exceeding thermal loading criteria.

Applicant states that the line will ultimately be required to provide 500-kv transmission capacity between Vincent and Rio Hondo Substations in connection with Edison's long range plans to develop

additional generating resources in the northwest part of its system. Edison's analysis regarding the proposed section of line has determined it to be more economical and efficient to initially build the proposed section at 500-kv than to build it first at 220-kv and later rebuild it at 500-kv.

The proposed facility will provide an economic, efficient and reliable means of providing the additional transmission line capacity required by the Edison system.

#### Location of Proposed Line

A map, attached to the application, marked Exhibit A, shows the general location and the overall route of the proposed facility. The route of the proposed new section of line is located in the cities of Monrovia, Azusa and Duarte and in unincorporated territory within the boundaries of the County of Los Angeles. The existing section of line from Rio Hondo Substation that will be reinforced by adding one additional conductor per phase is located in the cities of Duarte and Irwindale.

The route of the proposed new section of transmission line starts at a point approximately 4.5 miles southeast of Vincent Substation, proceeds for approximately 20 miles in a southeasterly direction, and then continues in a southerly direction to the point of attachment with the existing section of 220-kv line, 4.7 miles from the Rio Hondo Substation. The route is adjacent to two existing 220-kv lines, and shares the same right-of-way corridor.

The proposed new section of line traverses mostly rugged, unimproved land within or in the vicinity of the Angeles National Forest. There are no settled areas through which the proposed section of line passes. The proposed new section of line crosses both the Angeles Forest Highway and the Angeles Crest Highway (California State Highway 2).

A review by Edison of recent quadrangle maps and the Recreational Map of the Angeles National Forest published by the Forest Service in 1969 led to a field investigation by applicant, of 21 individual sites, consisting of various campgrounds, picnic

grounds and trail camps. Applicant concluded that the transmission line would be clearly visible from only four of the 21 sites investigated. These are two picnic areas and one campground along Angeles Forest Highway and one picnic area along Angeles Crest Highway. The proposed transmission line does not pass in the vicinity of any historic sites or buildings, or archeological sites. Construction of the proposed facility will not produce an unreasonable burden on natural resources or aesthetics of the area.

A map of the proposed route attached to the application, marked Exhibit B, shows details of the right-of-way and existing electrical transmission lines within one mile of the proposed route.

#### Description and Cost of Proposed Line

A description of the proposed new section of transmission line and its estimated cost are as follows:

- |                            |   |  |
|----------------------------|---|--|
| a. Line Length             | - | 22.8 miles (approx.)   |
| b. Right-of-Way Width      | - | Existing right-of-way varies from 200' to 800'                   |
| c. Type of Conductor       | - | Aluminum Conductor Steel Reinforced (ACSR)                       |
| d. Size of Conductor       | - | 2156 MCM, 84 x 19  |
| e. Conductor Configuration | - | Two-conductor bundle per phase                                   |
| f. Capacity (thermal)      | - | 3600 Amps  |
| g. Voltage:                |   |  |
| Initial operation          | - | 220 kv   |
| Ultimate operation         | - | 500 kv   |
| h. Type of Structure       | - | Conventional self-supporting, square based, lattice steel towers |
| i. Height of Structures    | - | 130' (average)   |
| j. Estimated Cost          | - | \$5,673,000  |

Selection of Proposed Route

The proposed new section of transmission line will replace a portion of an existing 220-kv steel tower line and is on a route generally parallel and adjacent to the existing No. 1 Vincent-Rio Hondo 220-kv and the Vincent-Mesa 220-kv transmission lines. Applicant states that access roads used for existing lines will be improved.

Applicant states that the route for the proposed facility was selected because it is more efficient than any other alternative, and avoids settled areas. Any alternative route would require a new right-of-way corridor, new access roads, a longer period of construction and would have a greater total impact on the environment.

Estimated Schedules

An application for an amendment to the existing easement and right-of-way will be filed with the United States Forest Service for the proposed facility. The estimated construction schedule is as follows:

Procurement of Material	- August 1, 1971
Start of Foundations and Access Road Improvement Work	- March, 1972
Start of Tower Erection	- July, 1972
Start of Conductor Stringing	- October, 1972
Operating Date	- March 1, 1973

In order to meet this schedule, applicant respectfully requests that the Commission grant its authorization not later than twelve months from the date of filing of this application.

Governmental Agency Review

Pursuant to Section 6 of General Order No. 131, Edison gave proper notice of filing of the application to the legislative bodies and/or planning commissions of the cities and county concerned (City of Monrovia, City of Irwindale, City of Duarte, City of Azusa, and County of Los Angeles), to the Director of the State Department of Public Works, to the State Highway Engineer, and to the Director of the State Department of Aeronautics by mailing notice of the

filing to them. Each of these governmental agencies was requested in writing to provide a written position statement. Position statements which included no objection to the construction and operation of the line are attached to the application as Exhibit C, except for the position statement of the City of Azusa. Subsequent to the filing of this application the City of Azusa, by letter dated February 17, 1971, furnished a statement endorsing this project, a copy of which has been forwarded to the Commission. Applicant further states that notice will be filed with the Federal Aviation Administration. In accordance with the applicable criteria of Part 77, Federal Aviation Regulations, applicant states that the proposed structures will not have a substantial adverse effect upon the safe and efficient use of navigable airspace and will not be a hazard to air navigation.

#### Findings

The Commission finds:

1. The construction, installation, operation and maintenance of a transmission line, referred to as the No. 2 Vincent-Rio Hondo line, constructed for ultimate operation at 500 kv but for operation initially at 220 kv, and as described in this application, are reasonably required to meet area demands for present and future reliable and economic electric service.
2. The No. 2 Vincent-Rio Hondo line will not produce an unreasonable burden on natural resources, aesthetics of the area in which located, public health and safety, air and water quality in the vicinity, or parks, recreational and service areas, or historic sites and buildings or archeological sites.
3. Applicant's proposal is in the public interest, that public convenience and necessity now require and will require the construction of the transmission line described in this application, that a public hearing is not necessary, and that a certificate should be issued.

The certificate herein granted shall be subject to the following provision of law:

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.

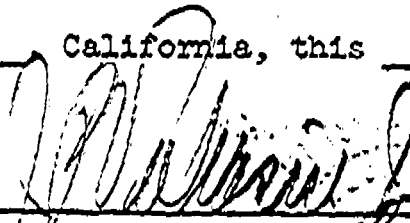
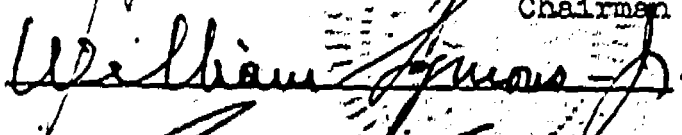
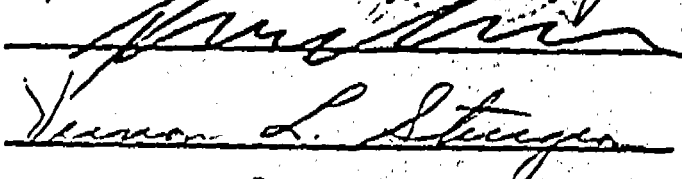
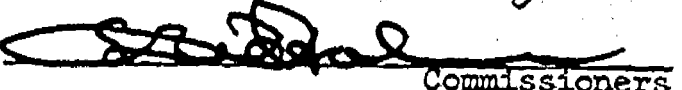
The action taken herein is for the issuance of a certificate of public convenience and necessity only and is not to be considered as indicative of amounts to be included in a future proceeding for the purpose of determining just and reasonable rates.

IT IS ORDERED that a certificate of public convenience and necessity is granted to Southern California Edison Company to construct, operate, maintain and use a 220-kv transmission line as described in the application.

The authorization herein granted shall expire if not exercised within two years from the date hereof.

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

Dated at San Francisco California, this 10th  
day of AUGUST, 1971.

  
Chairman  
  
  
Vernon L. Stenger  
  
Commissioners