

**ORIGINAL**

64356

Decision No. \_\_\_\_\_

BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

Application of CALIFORNIA ELECTRIC )  
POWER COMPANY for a certificate under )  
Section 1001 of the Public Utilities )  
Code authorizing construction of )  
Unit #2 of the Cool Water Steam- )  
Electric Generating Plant and )  
Related Transmission Facilities. )

Application No. 44386  
(Filed April 24, 1962)

Donald J. Carman, Kenneth M. Lemon and  
Richard Edsall, for applicant.  
B. A. Morse and L. H. Exon, for Southern  
California Edison Company, and  
William J. Johnstone, for Mojave Water  
Agency, interested parties.  
Melvin E. Mezek, for the Commission staff.

O P I N I O N

Hearing

Public hearing on this matter was held before Examiner Stewart C. Warner on August 29, 1962, at Barstow. Applicant presented testimony through five witnesses and eight exhibits. No protests to the granting of the application were entered. The matter was submitted and is ready for decision.

Application

California Electric Power Company by this application seeks a certificate under Section 1001 of the Public Utilities Code authorizing the construction of Unit No. 2 of its Cool Water Steam-Electric Generating Plant and related transmission facilities, on its Cool Water Ranch properties in unincorporated territory of San Bernardino County about 10 miles east of Barstow.

By Decision No. 59202, dated October 27, 1959, in Application No. 41033, a certificate was granted to applicant authorizing the construction of Unit No. 1 on said property. The location of Cool Water Plant is shown on the map, Exhibit A, attached to the instant application. It abuts the Atchison, Topeka and Santa Fe Railway on the north side thereof, southeast of the Marine Corps Supply Center at Yermo, and is in the Mojave River Basin whence applicant obtains its water supply and proposes to obtain the water supply necessary for the operation of the plant. The interest of Mojave Water Agency was in the amount of applicant's projected water requirements. These were shown on the record to be 1,200 acre-feet annually, of which 25 percent will be returned to the Basin. Lohanton State Water Pollution Control Board will monitor any effects of the returned water to the Basin.

Cool Water Plant Unit No. 1 was placed in commercial service on June 15, 1961, and applicant proposes to commence construction of Unit No. 2 in January, 1963, and to complete said unit and place it in service by June 1, 1964.

Estimated total production plant cost of Unit No. 2, to be designed and constructed by Fluor Corporation, is \$9,729,740, which will result in an estimated cost of \$120.12 per kilowatt of maximum summer net capability of 81,000 kilowatts.

Need

Exhibit 1 is a tabulation of applicant's kilowatt-hour sales by classes of its main integrated system, which excludes non-interconnected and isolated systems not affecting or affected by the construction proposed herein, for the years 1955 through

1961 actual, and the years 1962 through 1964 estimated. Said exhibit shows a six-year actual compounded percent increase in sales for all classes of service of 10.3 percent, and a three-year estimated compounded increase of 7.8 percent. Such estimate is based on testimony by a witness for applicant that sales during the year 1962 will have increased by only 5.4 percent due to a temporary economic recession in applicant's service area. Such recession is anticipated by applicant not to continue nor to occur during 1963 or 1964 whose percent increases in total sales over preceding years were estimated at 8.5 percent and 9.5 percent, respectively. Total sales during 1961 were 1,622,892,911 kWhrs; in 1962 were estimated to be 1,710,200,000 kWhrs; and were estimated for 1964 to be 2,031,110,000 kWhrs.

Exhibit 2 is a tabulation of applicant's generating plants and their capabilities in kilowatts. Without Cool Water Unit No. 2, the total integrated system capability is 450,000 kw. With the addition of Unit No. 2, the total will be 531,000 kw.

Exhibit 3 shows net megawatt resources and requirements at production levels for the years 1961 through 1964, with and without Unit No. 2, together with net energy resources and requirements in millions of kWhrs. Main system estimated net megawatt loads and resources as summarized in the application are set forth in the following tabulation:

## MAIN SYSTEM

Estimated Net Megawatt Loads and Resources  
(Month of July)

|   | 1961<br>(Actual) | 1962 | 1963 | 1964 |
|---|------------------|------|------|------|
| <u>Main System Firm Resources at Time of Peak</u>   |                  |      |      |      |
| Owned Hydro (1)                                     | 49               | 47   | 47   | 47   |
| Hoover A-8  | 40               | 40   | 40   | 40   |
| Highgrove Steam                                     | 166              | 166  | 166  | 166  |
| San Bernardino Steam                                | 131              | 131  | 131  | 131  |
| Cool Water Steam                                    | 66               | 66   | 66   | 66   |
| Total Firm Resources of Main System                 | 452              | 450  | 450  | 450  |
| Less Units Isolated at Time of Peak (2)             | 102              | 37   | -    | -    |
| Total Firm Resources Available to Integrated System | 350              | 413  | 450  | 450  |
| <u>Est. Peak Loads at Net Production Level</u>      |                  |      |      |      |
| Peak Loads including Isolated Loads (3)             | 364              | 360  | 371  | 406  |
| Less Loads Served by Isolated Units                 | 93               | 20   | -    | -    |
| Est. Net Peak Loads of Integrated System            | 271              | 340  | 371  | 406  |
| <u>Estimated Margins</u>                            |                  |      |      |      |
| Integrated System Margin, Megawatts                 | 79               | 73   | 79   | 44   |
| % of Net Load                                       | 29.2             | 21.5 | 21.3 | 10.8 |
| Margin on Isolated Units of Main System             | 9                | 17   | -    | -    |
| Aggregate Margin on Main System Units, Mw.          | 88               | 90   | 79   | 44   |
| % of Peak Load Including Isolated Loads             | 24.2             | 25.0 | 21.3 | 10.8 |

- Notes: (1) Owned Hydro adjusted to reflect loss of Mill Creek Plant after 1961 Peak.  
 (2) Units isolated from Integrated System and operated in parallel with Lower Colorado River Power Pool.  
 (3) In 1961, includes Yucaipa, Banning and Garnet loads plus 36 Mw sent to Lower Colorado River Power Pool.  
 In 1962, value shown represents Lower Colorado River Power Pool obligation only.

The record shows that without Unit No. 2 and commencing in July, 1964, applicant's capacity deficiency with 15 percent margin will be 17 mw; in August, 11 mw; in September, 6 mw; and

in October, 27 mw. With the addition of Unit No. 2, in July, 1964, there will be no megawatt capacity deficiency at 15 percent margin on applicant's main system.

By Decision No. 62538, dated September 12, 1961, in Application No. 43633, an agreement for emergency electric service, dated April 6, 1961, between applicant and Southern California Edison Company was authorized. Said agreement provided for mutual assistance, in one instance, of emergency service of 34.5 kv through an air-break switch located in the City of Redlands and, in another instance, of emergency service to be supplied by applicant to Edison at a mutually agreeable point where their systems are adjacent to each other. The emergency load to be served by either party will not exceed the operating capacity of the serving party in its lines at the time, or 1,500 kw, whichever is less.

By Application No. 44404, filed May 2, 1962, applicant seeks authorization of a pool agreement between it and Pacific Gas and Electric Company, San Diego Gas and Electric Company, and Southern California Edison Company. Decision on said application is pending. Under this proposed agreement, construction of large electric generating units by each of the parties will be staggered in time and any temporary excess capacity would be available to the other parties. A witness for applicant testified that the need for immediate construction of Unit No. 2 was so great that applicant felt it was imprudent to await authorization and the placing into effect of the pool agreement.

Applicant's vice-president and assistant general manager testified, among other things, that applicant had, in determining its policies with respect to the instant application, entered into

negotiations for a contract for a firm supply of electric energy from Southern California Edison Company. The result of such negotiations was that the term of firm supply would be limited to one year; the cost would be \$720,000; and the net saving to applicant would be \$60,000. After considering the short-term nature of the proposed contract, the costs involved, and applicant's long-range needs, negotiations were discontinued and plans for the construction of Unit No. 2 were started. This witness testified that construction of Unit No. 2 at Cool Water was motivated by the fact that applicant's main integrated transmission system is divided by the San Bernardino Mountains which are subject to fires and winter storms. As a safety factor, Cool Water Unit No. 2 construction was decided upon. Applicant plans the construction of a second 115-kv transmission line from Cool Water to Kramer Substation in Inyo County to back up its electric transmission supply facilities to Edwards Air Force Base, a large customer, and to provide an additional transmission circuit for its system-wide operations. Exhibit 8 is a map showing the anticipated addition to applicant's existing transmission system to accommodate the proposed Cool Water Unit No. 2.

#### Costs

Exhibit 5 shows the estimated cost of production plant at Unit No. 2 to be \$9,729,740, with a per-kw cost of \$120.12 as noted heretofore. This compares with a total production plant cost of Unit No. 1 of \$12,151,722, with a cost of \$184.12 per kw. The major savings in Unit No. 2 are slightly in excess of \$1,000,000 in land and land rights and in the use of common structures, accessory electric equipment, and the miscellaneous power plant equipment. Total cost of Cool Water Plant

will be \$21,881,282 for maximum summer net capability of 147,000 kw or \$148.85 per kw. Capability of applicant's San Bernardino steam plants is \$18,152,583 for 131,000 kw, or a cost of \$138.57 per kw. Exhibit 5 shows development costs of kwhr of energy to be produced by Cool Water Unit No. 2 and Units Nos. 1 and 2, compared with similar costs at San Bernardino Steam Plant, Units Nos. 1 and 2. Total estimated energy costs per net kwhr using gas fuel including fixed charges, estimated production expenses (exclusive of fuel), and estimated fuel expense using gas fuel at 80 percent plant factor, is 6.133 mills at Unit No. 2, 6.724 mills at Units Nos. 1 and 2 combined, and 6.591 mills at San Bernardino Units Nos. 1 and 2. Exhibit 6 is a comparison of estimated energy costs using gas fuel at 37 cents/mcf, fuel oil at \$3.06/bbl, and coal at \$10 per ton for Cool Water Unit No. 2 with 80 percent load factor and production of 567,648,000 kwhr/yr. Total estimated gas energy cost is 6.133 mills per net kwhr, oil energy cost is 7.330 mills, and coal energy cost is 7.149 mills. Exhibit 7 is a graph comparing nuclear energy costs of four types of nuclear power plants. Said graph shows total energy cost from plants with 80 megawatt capacity ranging from about 7.8 mills per kwhr to 13.2 mills per kwhr.

#### Financing

Applicant proposes to finance construction of Unit No. 2 through short-term borrowings from Bank of America, to be refunded by the proceeds of issues of securities when authorized by this Commission. Competitive bids on all major items of construction have been and will be taken either by applicant or Fluor Corporation.

Findings

After consideration of the records the Commission finds that public convenience and necessity require that the application of California Electric Power Company to construct Cool Water Unit No. 2 and related transmission facilities be granted.

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

That 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 rate base for determining just and reasonable rates.

O R D E R

Application having been filed, public hearing having been held, the matter having been submitted and now being ready for decision,

IT IS ORDERED that:

1. A certificate of public convenience and necessity is granted to California Electric Power Company to construct and operate Unit No. 2 at Cool Water Steam-Electric Generating Plant and to construct related transmission facilities as described in the application.



2. Within one year following the date of completion, California Electric Power Company shall file with this Commission a detailed statement of the capital cost of Unit No. 2 and related transmission facilities.

3. The authorization herein granted will expire if not exercised within three years after the effective date hereof.

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

Dated at San Francisco, California, this 9<sup>th</sup> day of OCTOBER, 1962.

George T. Hoover  
President  
W. E. Mitchell  
S. J. [unclear]  
Everett W. [unclear]  
Fredrick B. Holdhoff  
Commissioners