

ORIGINAL

Decision No. 24004

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. 1, at its ORMOND BEACH)
STEAM STATION, together with other)
appurtenances to be used in con-)
nection with said station.)

Application No. 49774
Filed November 3, 1967

Rollin E. Woodbury, Harry W. Sturges, Jr.
and William E. Marx, for applicant.
Mrs. Jerald Leish, for League of Women
Voters of Ventura County; E. D. Marshall,
for Los Padres Chapter, Sierra Club; and
Paul H. Ryckoff, interested parties.
N. R. Johnson, for the Commission staff.

O P I N I O N

Southern California Edison Company requests a certificate of public convenience and necessity under Section 1001 of the Public Utilities Code to construct and operate at its proposed Ormond Beach Steam Station one steam electric generating unit of 750 megawatt rated capacity to be known as Unit No. 1, together with transmission lines and related facilities.

The matter was heard and submitted before Examiner Main in Oxnard on January 15, 1968.

Applicant presented evidence in support of the application through four witnesses and five exhibits. A representative of the Los Padras Chapter of the Sierra Club, a representative of the League of Women Voters of Ventura County, and one individual either made statements in opposition to the application or otherwise expressed concern based on air pollution considerations. The Commission staff did not present any evidence but it took an active part in developing the record through cross-examination of witnesses.

Proposed Power Plant

The Ormond Beach power plant, as proposed, will be built upon a 281-acre coastal site, located approximately two and one-half miles southeast of Port Hueneme adjacent to Arnold Road, within the Oxnard city limits. Plans for Unit No. 1 call for a generating resource of 750 mw, which is to be placed in operation on or before June 1, 1971.

For Unit No. 1, as proposed, the steam generator will have a rated capability of 5,600,000 pounds of steam per hour; the turbine-generator will be a tandem-compound unit rated at 750,000 kilowatts output at 3-1/2 inches of mercury absolute back pressure and 3 percent boiler water makeup. The expected maximum net capability of this single shaft unit is 795,000 kw at 1-3/4 inches of mercury absolute back pressure and one-half percent makeup. It will turn at 3,600 rpm and drive a direct coupled hydrogen cooled generator.

Steam will be supplied at throttle conditions of 3500 lbs. per sq. in. and 1,000° F with reheat to 1,000° F. The estimated heat rate is 9,122 Btu/kwh at rated load when the single boiler is fired with natural gas; when fired with fuel oil, the expected heat rate is estimated to be 8,709 Btu/kwh at rated load.

Applicant states that the design features of the steam generator, the fuel supply, the stack arrangement, and the exit gas conditions for Unit No. 1 should minimize any effect of emissions from the plant on the environment. It is expected that fuel oil will be burned only during the winter months when the supply of natural gas is curtailed or interrupted because of increased residential heating loads. The stack height of approximately 250 feet, in conjunction with full load exit gas conditions of 240° F to 245° F and 90 feet per second velocity at the stack outlet, is expected to meet the objective of minimum effect on air quality at ground level.

The proposed unit will be designed as an outdoor type station with centralized control facilities. Sea water will be used for cooling purposes.

It is proposed that the power output of Unit No. 1 will be transmitted to applicant's interconnected system through two new 220 kv transmission circuits to be located on a new right of way between the proposed Ormond Beach Steam Station and Sandstone Sub-Station, a transmission substation to be constructed approximately 9 miles northeasterly of the Ormond Beach site and scheduled for operation in 1970.

Plant Costs

The following table summarizes the estimate of cost, including general overheads, of the proposed new unit:

<u>Cost of Plant</u>	<u>Unit No. 1</u>
Land	\$ 5,577,000
Structures and Improvements	7,879,000
Boiler Plant Equipment	37,240,000
Turbine Generator Units	32,447,000
Accessory Electric Equipment	6,950,000
Other Equipment	<u>4,806,000</u>
	\$94,899,000
Cost of Ormond Beach Unit No. 1 per kw (based on nameplate rating of 750,000 kw)	\$ 126.53

The installation of Unit No. 2 of similar size would result in a station cost per kw nameplate of \$106 based on an estimated cost of \$159,000,000 for the two units.

Off-site capital costs attributable to the addition of proposed Ormond Beach Steam Station Unit No. 1 are as follows:

Transmission Line Costs	\$ 8,047,000
Transmission Terminal Facilities	925,000
Off-site Fuel Service Facilities	<u>1,608,000</u>
Total Other Capital Costs	\$10,580,000

The above costs are inclusive of interest during construction and all other applicant overhead expenses chargeable to plant costs.

Applicant proposes to finance the construction of said Unit No. 1 from available funds, or funds to be obtained through sale of securities, applications for the issuance of which will be filed with the Commission.

Annual Operating Costs

The estimated annual cost, exclusive of fuel costs, of operating and maintaining proposed Unit No. 1 totals \$1,926,000. The annual cost of the on-site investment for depreciation, taxes and return, assuming a 6.75 percent return on a plant half depreciated to represent the average condition over the life span, is approximately \$10,566,000.

Assuming a 62.0 percent capacity factor on 750,000 kw capacity and a weighted average net heat rate based on an assumed operation of 80 percent of the time on gas fuel and 20 percent of the time on oil fuel, and based upon a weighted average cost of fuel of 31.46 cents per million Btu's at present price levels, the estimated fuel cost of generation for Unit No. 1 is 2.844 mills per kilowatt-hour. If a fuel cost of 50 cents per million Btu's is assumed, the corresponding estimated fuel cost of generation is 4.520 mills per kwh.

The estimates of annual expenses associated with the on-site investment for Unit No. 1 by principal categories are summarized as follows:

Expenses (Total - Unit No. 1)

Fuel (present price levels)	\$11,585,000
Other operation and maintenance	1,926,000
Depreciation (straight line)	2,552,000
Income taxes	1,937,000
Ad valorem taxes	2,783,000
Return (average)	<u>3,294,000</u>
Total	\$24,077,000

Based on the foregoing assumptions, the estimated average total operating cost per kwh of the new unit, assuming fuel at present price levels, is 5.91 mills per kwh. Assuming a prorated cost of fuel of \$.50 per million Btu's, the estimated average total operating cost per kwh of the new unit is 7.59 mills per kwh.

Load Growth

In Exhibit 1, applicant has shown that its net system peak loads for the period 1950 through 1966 have followed a growth rate of 9.39 percent compounded annually. Applicant's estimates reflect that growth will continue at this rate through 1971. The peak demands recorded for years 1962 through 1967 and estimated by applicant through 1971 are set forth below:

NET SYSTEM PEAK DEMAND

Year	Megawatts	Increase Over Prior Year	
		Megawatts	Percent
1962	4,442	408	10.1
1963	4,949	507	11.4
1964	5,335	386	7.8
1965	5,863	528	9.9
1966	6,173	310	5.3
1967	7,001	828	13.4
1968	7,560	559	7.9
1969	8,290	730	9.7
1970	9,080	790	9.5
1971	9,930	850	9.4

To help meet the growth in power needs, including capacity needed to meet spinning and cold reserve requirements and to accommodate planned maintenance, applicant has planned capacity additions of 3,185 megawatts by June 1, 1971, exclusive of the proposed Ormond Beach Unit No. 1, as shown in Exhibit 1. Applicant has further shown therein that a reserve requirement deficit in the range of 100 megawatts would occur in October/November, 1971, if Ormond Beach Unit No. 1 is not placed in service by that time.

As part of the planned capacity additions for 1971, applicant selected the 750 megawatt size unit and the Ormond Beach location. This selection reflects the favorable energy costs of proposed Ormond Beach Unit No. 1, when compared with other

alternatives as shown in Exhibit 4, and the suitable location of Ormond Beach within and in relation to applicant's Western Division which is experiencing rapid load growth. The prudent dispersion of plants, transmission requirements and other factors were also considered.

Air Pollution

Pollution of the atmosphere is properly a matter of growing concern throughout the nation and a matter of long-standing concern in California. Because of such concern the executive committee of the Los Serranos Chapter of the Sierra Club and one individual oppose the granting of the application. In addition, the League of Women Voters of Ventura County expressed concern that an air pollution control district had not been activated, their urgings notwithstanding, and that standards for emissions into the atmosphere have not been set in Ventura County.

About twenty years ago legislation was enacted which created an air pollution control district in each county in California (California Health and Safety Code, Division XX, Chapter 2). To activate the air pollution control district so created in Ventura County, the Board of Supervisors may adopt a resolution declaring that there is need for the district to function if from the evidence adduced at a public hearing it finds:

(a) That the air within Ventura County is so polluted, or is likely to become so polluted, with air contaminants as to be injurious to health, or an obstruction to the free use of property, or offensive to the senses of a considerable number of persons,

so as to interfere with the comfortable enjoyment of life or property. (b) For any reason it is not practical to rely upon the enactment or enforcement of local county and city ordinances to prevent or control the emission of smoke, fumes or other substances which cause or contribute to such pollution.

The record herein indicates that on two occasions last year the Board of Supervisors considered and rejected activating the district; that recently, the Ventura County Health Department employed an air pollution control engineer; and that neither Ventura County nor the City of Oxnard has enacted ordinances concerning air pollution which apply to the proposed Ormond Beach Steam Station or to the Mandalay Steam Station.¹ It has come to our attention, however, that this situation has changed significantly since the hearing, for on March 12, 1968, the Board of Supervisors adopted, by a 3 to 2 vote, the requisite resolution enabling an air pollution control district to function in Ventura County. Official notice is taken of this subsequent action by the Board of Supervisors.

Applicant has demonstrated its ability to meet substantially the stringent air pollution control measures adopted in Los Angeles County and has applied the experience gained there in developing a combination of design features for the proposed Ormond Beach plant which are intended to minimize the effect of the proposed plant on the environment. It can reasonably be expected, therefore, that applicant would likewise meet any comparable air pollution control measures which may be placed in effect in Ventura County.

¹ The Mandalay Plant, located within the Oxnard city limits, became operational in 1959 and has an effective operating capacity of 430 megawatts.

Obviously, if a convincing showing were made that essential standards on emissions could not be met substantially by applicant in Ventura County, it would merit the most serious attention, for this Commission, like the general public, is increasingly concerned about the environment in which we live. Not only has there been no such showing, but, as stated above, the design features incorporated into the plans for the proposed Ormond Beach plant reflect applicant's experience in meeting Los Angeles County standards. Beyond and irrespective of this, applicant stated on the record that it proposed to obtain, in due course, all necessary authorizations from public authorities. Necessarily then, it would apply for such permits and authorizations as may be needed from the now activated air pollution control district in Ventura County.

Significantly, in our view, no opposition to the granting of the application has been expressed in this record by either the County of Ventura or the City of Oxnard. Further, the evidence is clear that the applicant needs the additional generating capacity proposed and that the Ormond Beach site is an appropriate and efficient way of providing that additional generating resource.

Findings

The Commission finds that:

1. Applicant has need for the 750-megawatt generating unit, as proposed, in the northwestern portion of its system by midyear 1971.
2. The economics of this project, Ormond Beach Steam Station Unit No. 1 together with transmission lines and related facilities, as supported by the estimates presented, are not unreasonable and are favorable in relation to other feasible alternatives.
3. Applicant has the ability to finance and construct this project.
4. There is no evidence in the record concerning air pollution which would cause us to reject this project.
5. An air pollution control district was activated in Ventura County on March 12, 1968.
6. There is no alternative project which will better meet the needs of applicant and the public.
7. Present and future public convenience and necessity will require the construction and operation by applicant of Ormond Beach Steam Generating Unit No. 1 rated at approximately 750 megawatts, together with associated transmission lines and other appurtenances generally as described by applicant in this proceeding.
8. A substantial saving in accounting costs would be realized by applicant if it is allowed to file a cost report for Ormond Beach Steam Station Unit No. 1 and associated transmission lines one year after Unit No. 1 is placed in commercial operation.

The certificate hereinafter 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 future proceedings for the purpose of determining just and reasonable rates.

The Commission concludes that the application should be granted in the manner set forth in the order which follows.

ORDER

IT IS ORDERED that:

1. A certificate of public convenience and necessity is granted to Southern California Edison Company to construct and operate Unit No. 1 at its Ormond Beach Steam Station together with transmission lines and related equipment, facilities and appurtenances generally as described by applicant in this proceeding.

2. Southern California Edison Company shall file with this Commission a detailed statement of the capital costs of Ormond Beach Steam Station Unit No. 1, including associated transmission lines and other appurtenances, within one year following the date on which the unit is placed in commercial operation.

3. The authorization herein granted shall expire if not exercised within three 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 16th day of APRIL, 1968.

[Signature]
President

[Signature]

[Signature]

William J. [Signature]

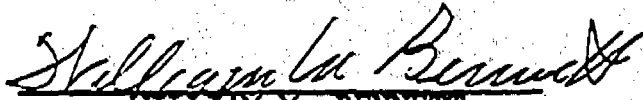
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COMMISSIONER WILLIAM M. BENNETT DISSENTING:

I share the concern of the Los Serranos Chapter of the Sierra Club and the League of Women Voters of Ventura County. We do not know whether today's authorization will in fact aggravate a smog condition or will be irrelevant to it, and simply because a local governing body fails to act is no reason for this Commission to rush to judgment. The decision is being made, I suspect, without any real knowledge of the smog issue and its impact upon this region. Why resolve the doubt in favor of construction of a plant which may conceivably spoil the atmosphere? Air pollution in Los Angeles is today critical to the point of being a hazard to health. It is no comfort to me to be told that this applicant will conform to the standards prevalent in that area. Patently those standards, as we judge the smog content of the Los Angeles environment, have failed there miserably. Control of the environment is now critical and crucial. I would not grant the authority without a complete record from health authorities and others that this plant as it is to be constructed will not in fact be injurious to public health. I would presume such would be the case, but I think that any doubt whatsoever should be explored.

/s/ WILLIAM M. BENNETT


WILLIAM M. BENNETT
Commissioner

San Francisco, California

April 16, 1968