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ORIGINAL

Decision No. 61227

BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

In the Matter of the Application of SAN DIEGO GAS & ELECTRIC COMPANY for a certificate that present and future public convenience and necessity require or will require the construction and operation by applicant of steam electric generating Unit No. 2 at SOUTH BAY POWER PLANT, together with substation, transmission lines, and other appurtenances.	Application No. 42679

Chickering and Gregory, by Sherman Chickering and C. Hayden Ames, for applicant.
Robert O. Curran, for City of National City; J. F. Du Paul, City Attorney, by F. B. Holoboff, for City of San Diego; and R. E. Frey, for Harvey O. Banks, Department of Water Resources; interested parties.
L. S. Patterson, for the Commission staff.

O P I N I O N

Applicant's Request

San Diego Gas & Electric Company filed the above-entitled application on September 21, 1960, requesting a certificate under Section 1001 of the Public Utilities Code to construct and operate steam electric generating Unit No. 2 at its South Bay Power Plant, San Diego County, together with substations, transmission lines and other appurtenances.

Public Hearing

A public hearing was held before Examiner William W. Dunlop on November 16, 1960 at San Diego. Applicant presented two exhibits and testimony through three witnesses in support of its request. Representatives of the City of National City, the City of San Diego, and the Commission's staff cross-examined applicant's witnesses.

No party opposed the granting of the application. However, the representative of National City stated that while he did not oppose the application, he did not agree as a matter of law that applicant is required to make application under Section 1001 of the Public Utilities Code for authority to construct the proposed facilities. He further stated that any order of the Commission on this application should not be deemed to bind National City in any subsequent proceeding, particularly any rate proceeding; and that National City should not be deemed to have waived any matter relative to the construction of the facilities.

The application was submitted for Commission consideration at the conclusion of the day's hearing.

South Bay Power Plant

Pursuant to the certificate of public convenience and necessity issued by Decision No. 57205, dated August 19, 1958, in Application No. 39817, San Diego Gas & Electric Company constructed South Bay Power Plant on a 146-acre site at the southeastern end of San Diego Bay in the City of Chula Vista and installed one conventional type steam-electric generating unit designated Unit No. 1. This unit was placed in commercial operation on July 23, 1960 and has a total gross normal operating capacity of 142,000 kw. In the construction of South Bay Power Plant, applicant made provision for expansion or additions to reach an ultimate eight-unit plant.

Proposed Additions

Applicant now proposes to construct and place in operation by July 1, 1962 the second unit[1/] of its South Bay Power Plant, together with related substation, transmission, and other appurtenant facilities. Unit No. 2, according to the evidence, will be a

1/ Designated Unit No. 2.

duplicate of South Bay Unit No. 1, except that the turbo-generator unit will be constructed by a different manufacturer. The unit will consist of a turbine with a name-plate rating of 136,500 kw and a generator with a name-plate capacity of 160,000 kva at 85 percent power factor and 30 pounds hydrogen pressure. The turbine-generator will be a tandem compound, reheat unit which will be supplied by a single boiler with a rated capacity of 980,000 pounds of steam per hour. Provision will be made for use of gas and oil fuels.

To utilize the energy generated by proposed Unit No. 2, applicant plans to construct a single-circuit 138-kv steel tower transmission line from the South Bay Power Plant to its Los Coches substation, a distance of approximately 24.4 miles. Connected at each end of this transmission line will be a 138/69-kv, 150,000-kva transformer bank. The location of present and proposed facilities are shown on maps filed as Exhibits B and C of the application.

Load Growth and Resources

Applicant predicates its need for additional generating capacity on the basis of the past trend of system demands and requirements projected into the future. Applicant's annual system peak demand increased from 250 megawatts in 1950 to 602.5 megawatts in 1959 and is estimated by applicant to increase to 850 in 1963. System energy requirements have increased from 1,061.3 million kilowatt hours in 1950 to 2,762.1 in 1959 and are estimated to increase to 3,771.1 million kilowatt hours in 1963.

Present resources available for the supply of power to applicant's system have a maximum capability of 809 megawatts. The evidence reveals that with an outage of the largest single source of power (142 megawatts) the maximum capability would be 667 megawatts.

Applicant estimates that the annual peak load will reach 685 megawatts in 1960, 735 megawatts in 1961, 795 megawatts in 1962, and 850 megawatts in 1963. Accordingly, applicant proposes construction of Unit No. 2 to assure continued adequate service to the public.

The over-all effect of the proposed South Bay Unit No. 2 and the electric loads and resources above discussed are illustrated by the following tabulation:

Estimate of Loads and Resources

Item	Megawatts				
	Actual 1959	ESTIMATED 1960	1961	1962	1963
Total Capability Excluding South Bay	667	667	667	667	667
South Bay Unit No. 1	-	142	142	142	142
South Bay Unit No. 2	-	-	-	142	142
Total Capability	667	809	809	951	951
Largest Source	106	142	142	142	142
Annual System Peak Demand	602.5	685	735	795	850
Gross Margins:					
All Capability	64.5	124	74	156	101
Largest Source Out	(41.5) (Deficiency)	(18)	(68)	14	(41)

The above estimated system peak demands are based on normal temperatures and the continued wholesale service to Baja California, Mexico. According to applicant's witness, there is a possibility that the Mexican Government will build a power plant in Baja California, by 1962. If the Baja project is constructed, applicant estimates its peak load will be reduced by about 30 megawatts with a corresponding effect on its estimated margins.

To provide adequate spinning reserves and make up for the negative margins which, as shown above, would result in certain years if the largest unit were out of service at the time of annual peak demand, applicant would rely upon its interconnections with

other utilities which under the most favorable conditions could supply 60 to 70 megawatts.

Of the total capability indicated in the above tabulation, 107,000 kilowatts are available from Station B power plant. Applicant proposes to use Station B, primarily as a peaking facility.

Estimated Plant Costs

The estimated cost of constructing proposed South Bay Unit No. 2 and associated facilities is $21,424,400 based on wage levels prevailing on July 1, 1960 and currently effective material and equipment prices.

Principal components of applicant's estimate are as follows:

Contract Work, Materials and Labor	$14,851,000
Interest and General Costs	1,989,700
Total Production Plant Costs	$16,840,700
Substation and Transmission Lines	4,583,700
Total	$21,424,400

Financing of the cost of this project, according to applicant's witness, will be from available funds, or from funds which will be obtained through the sale of additional securities as the Commission shall, hereafter, upon proper application, authorize for that purpose.

Annual Operating Cost

Applicant's estimate of the cost of the first year of operation of South Bay Unit No. 2 is $5,463,100 based upon a capacity factor of 75 percent during 8,088 hours of operation, oil at $1.98 per barrel including sales tax, an efficiency of 9,605 BTU per net kilowatt hour, and labor rates as of July 1960. Principal

categories of this estimate are as follows:

	First Year Operating Cost
Fuel	$2,336,000
Operation and Maintenance	110,900
Depreciation (Straight Line)	421,000
Ad Valorem Taxes	650,100
Return (at 6.25%)	1,052,500
Income Taxes	892,600
Total	$5,463,100

Applicant further estimates that the net energy produced would be 788,580,000 kilowatt hours the first year of operation. This results in an average cost per kilowatt hour of 6.93 mills for South Bay Unit No. 2, which is below applicant's present average cost of generation per kilowatt hour.

Effect on Electric Department Operations

Applicant estimated that in the initial year of operation, the addition of proposed South Bay Unit No. 2 will increase the rate base of its electric department by $16,735,450, increase net revenues by $74,790 and reduce the rate of return of its electric department by .44 percentage points. The above estimates do not give effect to the cost of the additional transmission facilities.

Licenses and Permits

Applicant states that it intends to obtain all necessary permits from public authorities, including the Cities of San Diego and Chula Vista, the County of San Diego, the Corps of Engineers Department of Defense, the State Lands Division and any additional franchises and permits which may be necessary for the construction of South Bay Unit No. 2 and related transmission lines.

Competition

Applicant represents that it does not manufacture, purchase, transmit, distribute, or sell electricity in competition

with any other utility and that the proposed new construction will not create any competition with any other utility.

Findings and Conclusions

Based upon the evidence of record, the Commission finds that the new facility will be needed when scheduled to help provide reasonably adequate capacity for the public demands for electric energy in and around San Diego, that applicant is capable of financing the cost of the proposed new facilities and that such construction will not be adverse to the public interest.

The Commission further finds as a fact and concludes that public convenience and necessity require and will require that this application to construct South Bay Power Plant Unit No. 2 and related facilities should be granted and that an order should be issued granting such authority.

The certificate hereinafter granted shall be 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.

O R D E R

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

IT IS ORDERED that a certificate of public convenience and necessity be and it hereby is granted to San Diego Gas & Electric

Company to construct and operate South Bay Power Plant Unit No. 2, together with substations, transmission lines and other appurtenances, to be used in connection therewith, in accordance with and pursuant to the plan set forth in the application.

IT IS FURTHER ORDERED that San Diego Gas & Electric Company shall file with this Commission a detailed statement of the capital costs of the electric generating station to be known as South Bay Power Plant Unit No. 2 and other facilities certificated herein within twelve months following the date of completion of such unit and facilities.

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

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

Dated at San Francisco, California, this 20th day of December, 1960.

President

Commissioners