

ORIGINAL

Decision No. 57205

BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

In the Matter of the Application of the 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 a new steam electric generating station to be known as SOUTH BAY POWER PLANT, together with such substations, transmission lines, and other appurtenances to be used in connection with said station.

Application No. 39817

Chickering & Gregory, attorneys, by C. Hayden Ames, for applicant.
Frederick B. Holoboff, deputy city attorney, for the City of San Diego.
Bernard L. Lewis, deputy district attorney, for the County of San Diego.
Harold T. Sipe for the Commission staff.

O P I N I O N

San Diego Gas & Electric Company, a California corporation, by the above-entitled application filed February 13, 1958, seeks a certificate of public convenience and necessity to construct and operate a new steam electric generating station to be known as its South Bay Power Plant Unit No. 1, together with substations, transmission lines, and other appurtenances to be used in connection with said station. Said unit and facilities, proposed to be placed in operation by July 1, 1960, are covered by the instant application, although applicant plans, eventually, to seek authority for and to construct, at later dates when system demands require, Units Nos. 2 and 3, and possibly as many as a total of 8 units if sufficient

cooling water is found to be available. The location of the proposed plant is a site in the Cities of San Diego and Chula Vista, and in San Diego County at the extreme southeastern end of San Diego Bay as shown on the maps, Exhibits B and C, attached to the application. Said site comprises approximately 146 acres of undeveloped industrial property.

A public hearing was held before Examiner Stewart C. Warner on July 9, 1958, at San Diego. Prior to the hearing and on July 8, 1958, the City of National City protested the holding of the hearing on the grounds that it had not received adequate notice. The record shows that notice of the hearing was mailed by the Commission to the City Clerk of said City on June 23, 1958, but that the City Manager had informed the examiner by telephone on the day of the hearing that said notice had been received at the City Clerk's office on July 3, 1958. The record further shows that legal notice of the hearing was published in both the San Diego Union and Evening Tribune, newspapers of general circulation in the City and County of San Diego, on June 28, 1958, and that the City of National City was advised on July 9, 1958, by the Commission by telegram that notice as above outlined had been given and that the hearing was in progress. There were no protests to the granting of the application. The matter was taken under submission subject to the filing, by the applicant, of late-filed Exhibit No. 3 on or before July 16, 1958. Said exhibit has been received and the matter is now ready for decision.

Applicant proposes to install and place the first unit of the South Bay Power Plant, together with related transmission and other appurtenant facilities, in operation by July 1, 1960. 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 per cent

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. The initial steam temperature will be 1,000 degrees F. with reheat to 1,000 degrees F. Provision will be made for use of gas and oil fuels.

Applicant submitted three exhibits and its president, vice president in charge of operations, and chief mechanical engineer testified regarding the applicant's needs to add to its electric generating capacity to meet an anticipated increase in yearly peak load under normal temperature weather conditions of 7.5 per cent per annum; the financial capabilities of applicant to carry out the proposed construction which, it is estimated, would amount to approximately \$24,770,000 or \$174 per kw gross dependable capability for Unit No. 1 and its facilities, including the dredging of lower San Diego Bay to obtain main condenser cooling water; the technical engineering aspects of the proposed plant construction; the comparative economics of adding more units to applicant's existing Encina Station; the comparative economics of installing at the proposed South Bay Power Plant three, 136,500-kw name-plate units with dependable capability of 142,000 kw each, or four, 100,000-kw name-plate units with dependable capability of 106,000 kw each; the estimated cost of the installation; and the estimated effect on applicant's earnings and rate of return for the average rate base fiscal year 1960-61.

Applicant's December system peak demand increased from 250 megawatts in 1950 to 485 megawatts in 1957, and is estimated at 615 megawatts in 1960. The 1960 demand was arrived at by projecting the estimated December 1958 peak load at an average annual rate of 7.5 per cent. Table 1-A of Exhibit No. 1 shows the estimated

December system peak loads and gross dependable generating capabilities, taking into account the addition of South Bay Unit No. 1. These may be summarized as follows:

Year	Demands-Megawatts			Margin
	Capacity	Peak Load	Quantity	Ratio Per Cent
1958 Estimated	672	532	140	26.3%
1959 Estimated	667	572	95	16.6
1960 Estimated	809	615	194	31.5
1961 Estimated	809	661	148	18.3

Exhibits Nos. 1 and 3 are a 28-page document, charts, and a late-filed exhibit, setting forth supplemental information requested by the Commission staff and submitted by applicant to show, among other things, the estimated average cost of the first year of operation at 20, 40, 60, and 80 per cent capacity factor as Case I, and the average cost of operation over the life span of the unit, assuming a half depreciated plant as the basis for ad valorem taxes and return and utilizing the same percentage capacity factors, as Case II. Under Case I gross annual production of 717,444,000 kwhrs, reflecting 60 per cent capacity factor, would result in an annual cost of \$7,234,300 or 10.08 mills per kwhr. Under Case II the same energy generation would result in an annual cost of \$5,960,900 or 8.31 mills per kwhr. If an 80 per cent capacity factor is used the unit costs of energy under Cases I and II are 8.37 mills per kwhr, and 7.19 mills per kwhr, respectively.

Exhibit No. 3 further shows that by utilizing 70 per cent fuel oil at a cost in the year 1960 of \$2.652 per barrel, including

4 per cent tax and a heat value of 6,400,000 Btu per barrel, 30 per cent gas at a cost of 34.09 cents per Mcf and a heat value of 1,085,000 Btu per Mcf, a depreciation rate of 2.50 per cent (40-year life), ad valorem taxes at 3.35 per cent of the gross plant, income tax, and operation and maintenance costs related to applicant's experience with its Encina Station and from its records, and assuming for the Electric Department a rate of return of 6.5 per cent, the reduction in net revenue for the fiscal year 1960-61 would be \$280,767 and said rate of return would be reduced .93 per cent to 5.57 per cent.

Exhibit No. 2 is an 8-page study with two charts submitted by applicant as an economic comparison of unit sizes for the proposed plant. Said exhibit shows that Plan I, which is the installation proposed herein of three larger units aggregating 426 megawatts dependable capability, will be more favorable from the standpoint of total annual costs after the year 1967 than applicant's so-called Plan II which is not proposed herein and which would have included the installation of four smaller units aggregating 424 megawatts dependable capability.

Applicant's witnesses testified that the population of San Diego County has shown a steady average growth since 1940 of approximately 7.5 per cent per annum which is expected to continue; that community agencies are actively inviting large industries to build plants in a new industrial area near Miramar where land values are attractive for industrial purposes; that applicant had, in the past, estimated its electric service demands over conservatively; that although applicant was a member of an interchange power pool in Southern California, its interconnections with Southern California Edison Company of 60,000-kw capacity, and California Electric Power Company of 10,000-kw capacity, were adequate only to meet

emergency conditions; that on several occasions within the last two or three years, applicant had been called upon to sell power to one of its interconnected companies; that no agreements for firm capacity would be feasible as a means of meeting system load growth; that applicant considered it neither wise nor practical to assist or require other Southern California electric public utilities to build large generating facilities in order to wholesale electric energy to applicant. Under cross-examination applicant's witness testified that the Southern California utilities, including San Diego Gas & Electric Company, were presently engaged in studies to determine the economic feasibility of a power pool type of operation which might permit a reduction in the individual margin requirements of the participating utilities and promote the sale and purchase of energy for economic reasons. The Commission feels such studies should be continued in order to dispose of any excess capacity and energy which may become available at the South Bay power plant.

Applicant's witnesses further testified that addition of a fourth unit to applicant's Encina Station, which is located about 35 miles north of the San Diego load center, together with the construction of a transmission line, would cost nearly \$2 million more than construction of the proposed South Bay Power Plant; that applicant's objective was to provide its system with excess generating power of sufficient capacity to take care of the outage of its largest generating unit; that its Station B plant capacity would be reduced from a dependable peak capability of 112,000 to 107,000 kw on January 1, 1959 due to retirement of Unit No. 23, and that the capacity factor of said plant would gradually be reduced to 8.2 per cent in 1961; and that it was applicant's practice to operate its newest power plants at the highest possible capacity factor.

Findings and Conclusions

After a careful review of the record herein, the Commission finds as a fact and concludes that public convenience and necessity require that this application to construct South Bay Power Plant Unit No. 1 should be granted and the order hereinafter will so provide. It is evident from the record that San Diego, and its environs, and San Diego County have experienced rapid population growth which may reasonably be expected to continue, and that applicant must, at present and in the reasonably foreseeable future, be fully prepared to meet the electric service demands of such growth. The record clearly shows that applicant is in a position to finance the cost of the new facilities.

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.

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 HEREBY ORDERED as follows:

1. That San Diego Gas & Electric Company, a corporation, be and it is granted a certificate of public convenience and necessity to construct and operate its South Bay Power Plant Unit No. 1, together with the 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.

2. That applicant shall file with this Commission a detailed statement of capital cost of the electric generating station to be known as its South Bay Power Plant Unit No. 1 and other facilities certificated herein within six 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 19th day of August, 1958.

E. J. Fox President
[Signature]
[Signature]
[Signature]

 Commissioners

Commissioner Ray E. Untereiner, being necessarily absent, did not participate in the disposition of this proceeding.