/EW

Decision No. 77048

ORIGINAL

BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

In the matter of the application of PACIFIC GAS AND ELECTRIC COMPANY for a certificate of public convenience and necessity to construct, install, operate, maintain and use certain hydroelectric plants to be located on Battle Creek, Shasta and Tehama Counties, California, and related facilities. (Electric)	Application No. 51681 (Filed February 3, 1970)

OPINION AND ORDER

Pacific Gas and Electric Company, applicant, requests an order issuing to it a certificate under Section 1001 of the Public Utilities Code that the present and future public convenience and necessity require or will require the construction, installation, operation and maintenance of Volta and Coleman Power Plants, Shasta County, and South and Inskip Power Plants, Tehama County, and related facilities, referred to as the Battle Creek Project.

Applicant presently owns and operates the Coleman, Volta, South and Inskip Power Plants located on Battle Creek and its tributaries in Shasta and Tehama Counties. The Coleman Power Plant, the last in the chain of four power plants, is located about nine miles east of Cottonwood. The Coleman and Volta Power Plants first generated power in 1911 and 1901, respectively. The South and Inskip Power Plants commenced power generation in 1910.

The Volta Power Plant utilizes water from North Fork Battle, Bailey, Ash and Millseat Creeks. The three Volta single overhung

impulse-type turbines are driven by water supplied through two penstocks; one originates at the Lake Grace Forebay and the other at Lake Nora Forebay. The three generators have an installed capacity of 7,000 kva.

The South Power Plant utilizes water from the Volta Power Plant tailrace and from the North and South Forks of Battle Creek and their tributaries. Water is delivered to a double overhung impulse turbine. The generator has an installed capacity of 4,000 kva.

Inskip Power Plant utilizes water from South Fork Battle Creek upon which it is located, South Power Plant tailrace and from North Fork Battle, Digger and Ripley Creeks. The two Inskip triple impulse turbines are supplied from a single penstock. The two generators have an installed capacity of 6,000 kva.

The Coleman Power Plant receives its water supply from Inskip tailrace, and the North and South Forks of Battle Creek and their tributaries which is delivered to three horizontal turbines. The three Coleman generators have an installed capacity of 17,250 kva.

Power generated by Battle Creek Project Plants not utilized in local distribution is transmitted by two 60-kv circuits to Coleman Junction and Deschutes Substation where it is available to applicant's interconnected electric system.

Applicant states the four Battle Creek Project Plants have been in operation from 58 to 68 years and have become obsolete, inefficient and undependable. Much of the electrical and mechanical equipment has deteriorated to such an extent that rehabilitation is impractical and in some cases impossible, thus requiring either construction of new plant facilities or abandonment of existing facilities.

Applicant proposes to construct new power plants and related facilities at Volta, South, Inskip, and Coleman in order to continue generation of power at these sites, to utilize more efficiently the water supply now available to the power plants, and to meet load requirements in its service area. It is planned to continue to use the existing penstocks, certain other plant facilities, reservoirs, forebays, and canals of the existing project. The new construction is described more particularly as follows:

Volta Power Plant

The intake structure of the Lake Nora Forebay will be modified to provide automatic excess flow closure. The existing penstocks will be retained in service for the new plant and modified at the lower end to adapt them to the new turbine.

A new powerhouse will be constructed adjacent to the existing power plant. It will be an outdoor installation which will include a single 11,500-horsepower horizontal shaft impulse turbine direct-connected to a 9,500-kva generator. Transformation equipment will be provided to connect the plant to the 60-kv transmission system at the existing plant.

South Power Plant

The intake structure at the forebay will be modified to provide automatic excess flow closure. Minor work is required at the lower end of the existing penstock to provide connection to the new turbine.

A new powerhouse will be constructed on the site of the existing power plant. It will be a semi-outdoor installation which will include a single 9,000-horsepower vertical Francis turbine direct-connected to a 7,500-kva generator. Transformation and switching facilities will be provided to connect the new plant to the 60-kv transmission system at the existing power plant.

Inskip Power Plant

The intake structure at the forebay will be modified to provide automatic excess flow closure. The existing penstock will be extended at the lower end to accommodate the new turbine.

A new semi-outdoor type powerhouse will be constructed adjacent to the existing power plant and will include a 10,000-horsepower vertical shaft turbine direct-connected to an 8,000-kva generator. Transformation and switching facilities will be installed to connect the new unit to the 60-kv system at the existing power plant.

Coleman Power Plant

The fish ladder at the Coleman Canal diversion dam and a new canal spillway will be reconstructed. Minor work will be done on the intake and in connecting the existing penstocks to the new power plant.

A new powerhouse will be constructed adjacent to the existing power plant. The semi-outdoor type power plant will include a 16,000-horsepower vertical shaft turbine direct-connected to a 13,500-kva generator and related power plant electrical facilities. The existing transformer will be utilized at this power plant.

Applicant states the new Battle Creek Project Power Plants are planned so that power generation at this site can be continued. The water supply for the reconstructed project will remain the same as for the existing project. However, because of increased efficiency of the new single units at each power plant, the average project power generation will be increased substantially. It is expected that the reconstructed project will be in operation in the spring of 1974, about three and one-half years after the commencement of construction.

Building permits for the construction of the project will be obtained from Shasta and Tehama Counties.

Rates to be charged for service to be rendered by means of the construction proposed herein are the system electric rates now in effect or as may be authorized by the Commission in the future.

A general map showing the location of the new Battle Creek Project Plants and the existing canals, forebays, and project reservoirs is attached to the application marked Exhibit A.

Applicant owns and has utilized for many years the water rights necessary for operation of the Battle Creek Project. These rights are sufficient for continued operation of the reconstructed project.

Applicant states it now has a minor part license for certain project facilities (FPC Project 1121) and has applied to the Federal Power Commission for a new major part license to cover the entire project including certain of the 60-kv transmission lines emanating from project plants, also its proposed plans with respect to fish and wildlife and recreational use has been submitted to the Resources Agency of California, to the Boards of Supervisors of Shasta and Tehama Counties and various interested Federal agencies and the agencies are said to be in general agreement with respect to these plans.

The certificate which will issue herein shall be subject to applicant obtaining all necessary permits, licenses and/or other authorizations which are required from public authorities which may be needed for the construction and operation of the new generating units and other equipment and facilities.

The cost to install the new Battle Creek Project Power Plants and related facilities is estimated to be $7,635,000. A more detailed estimate of the cost is shown in a statement attached to the application marked Exhibit B.

The cost of power for the reconstructed project is stated to be 5.93 mills per kilowatt hour; also the cost of power, as an increment over the cost of abandoning the project is estimated to be 5.21 mills per kilowatt hour. A detailed estimate of the cost of power is attached to the application marked Exhibit C.

Exhibits D, E, and F attached to the application reflect applicant's area load and resource data.

Exhibit D, "Area Loads," shows actual and estimated annual peak demand loads and annual energy loads for the 1965 through 1974 period. Exhibit E, "Applicant's Additions to Resources 1969-1974," shows total installed and effective operating capacity as of August 31, 1969, and additions and changes planned through 1974. Exhibit F, "Area Loads and Resources," shows actual loads and resources for 1965 through 1968 and estimated loads and resources for both adverse and average years for 1969 through 1974.

Applicant desires to proceed with the construction of the four new Battle Creek project plants to provide continued generation of this economic source of power and to promote the conservation of nonreplenishable fossil and nuclear fuels through the use of replenishable natural water resource.

Applicant alleges that the proposed new project will not compete with any person, firm or public or private corporation in the public utilities business for furnishing or supplying electric service to the public in or adjacent to the territory in which the Battle Creek electric generating plants operate.

The Commission finds that reconstruction of the four existing Battle Creek power plants, now inefficient and obsolete, will increase the capacity of the project, utilize more efficiently the economical replenishable water supply now available and conserve nonreplenishable fossil and nuclear fuels. The Commission further finds that public convenience and necessity now require and will require that such reconstruction be made as described in this application. No protests to granting the certificate have been received by the Commission.

The certificate of public convenience and necessity which will issue 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 proceedings for the purpose of determining just and reasonable rates.

The Commission concludes that the application should be granted and that a public hearing is not necessary.

IT IS ORDERED that:

1. A certificate of public convenience and necessity is granted to Pacific Gas and Electric Company to construct, operate, maintain and use the hydroelectric generating power plants as described in the application.

2. Pacific Gas and Electric Company shall file with this Commission a detailed statement of the capital costs for construction of the power plants known as the Battle Creek Project and related facilities and transmission lines within one year following the date on which the last of the four plants is placed in commercial operation.

3. The authorization granted shall expire if not exercised within four years from the effective date hereof.

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

Dated at Los Angeles, California, this 7th day of APRIL, 1970.

William Symons Jr.
President

Commissioners