The Role of the Private Power Company

*William B. Kuder**

The public service of the private power company includes cooperation with federal, state, and local public agencies in conservation and development of water resources. Company dams help control floods and store water for irrigation and domestic use, as well as for generation of hydroelectric power. Company payments for falling water or power made available at federal, state, and local public water conservation projects aid in financing their construction. Operation of the company electric system in coordination with the power plants of public agencies makes their power more valuable and increases their revenues. Company transmission and distribution lines are used by public agencies to market power to their consumers. Company tax payments to federal, state, and local treasuries make funds available for public water resources development. Company power is sold without discrimination to public agencies and all other company customers at fair rates established under public regulation.

This cooperation by the private power company means maximum power revenues to aid public water resources development, minimum cost of water for irrigation and other consumptive uses and lowest taxes for taxpayers generally.

What the private power company can do in these areas of cooperation has been well demonstrated in California.

I

PRIVATE DAMS FOR PUBLIC BENEFIT

Since the beginning of this century, when the electric power industry was in its infancy, the electric utilities have played an important part in the conservation of the waters of this state. The early hydroelectric projects in northern California were, in a number of cases, built around storage reservoirs and ditches constructed in the early mining days. As the demand for electric power increased, many large reservoirs were constructed on the rivers of northern and central California in connection with hydroelectric developments.

Today Pacific Gas and Electric Company owns and operates fifty-seven storage reservoirs with a total effective capacity of nearly a million and a half acre-feet. Water released from these reservoirs supplies much of the irrigation in the foothill area from Nevada County to Tuolumne County and in the valley areas in the vicinity of Oroville, Chico, and Marysville.

Southern California Edison Company has a number of large storage

* Member of the San Francisco Bar; Attorney, Pacific Gas and Electric Company.

reservoirs, located principally on the San Joaquin River, with a total storage capacity of over 450,000 acre-feet. Most of these reservoirs are located in the mountains at high elevations and the water, after passing through one or more power plants, is returned to the river channels and augments the flow available in low water seasons for downstream irrigation, domestic and other beneficial uses.

These reservoirs were operated in coordination with those of public agencies to fight the floods which ravaged California in December 1955. Of the total amount of flood water captured during the December deluge, Pacific Gas and Electric Company reservoirs held back 470,000 acre-feet. In addition, reservoirs in northern and central California owned by irrigation districts, the City and County of San Francisco, and Southern California Edison Company caught 670,000 acre-feet during the same period. Storage in these reservoirs, built for water and power supply, is normally low in the winter. Consequently, they captured this total of 1,140,000 acre-feet of water, one-third of all the flood water stored during the December storms. The remainder was caught by reservoirs built by the Army Engineers or the Bureau of Reclamation for flood control and other purposes.

II

POWER REVENUES AND PUBLIC WATER DEVELOPMENT

In addition to developing and storing water in connection with their own hydroelectric developments, the California electric utilities have followed a policy of cooperation which has aided financially the public water conservation projects of the federal government, irrigation districts, cities, and other government agencies. This is not a new policy, but dates back to the early 1920's, when the first major irrigation district projects were started.

The power agencies of southern California had an important part in the Boulder Dam development on the Colorado River. By contract with the Secretary of the Interior, Southern California Edison Company and the City of Los Angeles operate the Boulder Dam power plant as agents for the Government. These agencies and California Electric Power Company constructed transmission lines to transmit Boulder power to southern California and, together with several municipalities, market virtually all the power output. Power revenues are expected to amortize within fifty years, with interest at three per cent, the cost of the entire Boulder project.[1]

The power produced as a by-product of water projects has its greatest value under a cooperative power program. In general, the water from such

[1] Less $25 million for flood control.

projects must be released, and therefore most of the power is generated, during the summer irrigation season. The varying power output of these projects can be most efficiently utilized when coordinated with a regional power system. In this respect, there are interconnected on the Pacific Gas and Electric Company's system fifty-eight hydroelectric and fourteen steam electric plants owned by it, together with the plants of nine other producing agencies.

Pacific Gas and Electric Company is purchasing power from the East Bay Municipal Utility District, and from the Merced, Modesto, Turlock, Oakdale, and South San Joaquin irrigation districts. The Company has thus provided an assured market for power developed as an incident to public water projects and thereby has aided in the financing of their construction.

The Company also has constructed power plants in connection with the Narrows Dam, built by the United States Army Engineers on the Yuba River, the Melones Dam of the Oakdale and South San Joaquin irrigation districts on the Stanislaus River, and dams of the Nevada Irrigation District on the Yuba and Bear Rivers. Under cooperative arrangements with these agencies and with the Thermalito and Table Mountain irrigation districts, Company payments for the use of falling water released from their dams through its power plants have made a substantial contribution toward repayment of the cost of the water conservation works.

The most recent example of such cooperation is the Tri-Dam project of the Oakdale and South San Joaquin irrigation districts. The Company will buy power generated by plants built by the districts at their Donnells, Beardsley and Tulloch dams on the Stanislaus River and also will pay for the use of falling water made available by these publicly owned dams to produce power in two Company plants. The Presidents of these districts recently said in a joint statement:

> As a result of this system of financing, additional water will be delivered to the ditch without cost to the land owners of the districts.
>
> We have created a $52 million project without one cent of federal or state aid and without any economic risk to our taxpayers in the repayment of bonds and interest and for maintenance and operation.

III

THE CENTRAL VALLEY PROJECT

Pacific Gas and Electric Company has followed this policy of cooperation with respect to Central Valley Project power. Early in the history of the Project, it offered to coordinate the operation of the Shasta and Keswick plants with the Company's widespread regional power system.

On February 11, 1937, before project construction started, the Presi-

dent of the Company proposed such coordination and declared in a letter to the State Director of Public Works that:

> It is and has been the fixed policy of our Company to aid and cooperate in the development of all worthy public projects which mean the building and growth of California. As California grows, so will our Company grow and benefit. We recognize the desirability and the necessity of conserving and putting to maximum beneficial use the waters of the State and we are anxious to assist in every possible way the final realization of this worthy objective.

Under this policy the Company purchased project power at its Cottonwood Substation, twenty-five miles south of Shasta Dam, from 1944 until 1951. The Company provided a market for all project power as soon as it was developed. It paid the price fixed by the Bureau of Reclamation. For many years it delivered power to project pumps and other project uses on an exchange basis. Under this arrangement the cost of delivering power for project pumping plants was less than the cost of such delivery over a full-loaded, tax-free government line.

This policy of cooperation meant much to the Central Valley Project and to the United States Treasury. Through 1951, the Bureau received a total revenue of about 48 million dollars from the sale of project water and power. Of this revenue $43,700,000—more than nine-tenths of the total—was paid by the Company. This was sufficient to pay the project's operation, maintenance and replacement costs and leave 38 million dollars toward repayment of the cost of the Project.

Notwithstanding the fact that during this period the United States was receiving maximum net revenue from the output of project power plants, the Bureau of Reclamation persistently requested Congress to appropriate funds for a large steam-electric generating plant, sub-stations, and transmission and distribution lines, all of which were wholly unnecessary and would duplicate existing facilities of the Company. The cost of these power facilities would exceed 115 million dollars.

The president and other representatives of the Company appeared before both House and Senate Committees on Appropriations each year and opposed these requests of the Bureau. They repeatedly showed the Company's plan of cooperation would: (1) assure maximum financial returns from the sale of project power to aid federal reclamation in California; (2) permit a fifty per cent reduction in the Bureau's charge for project water sold for irrigation and other beneficial uses; (3) pay the cost of all project dams, canals, and other reclamation works within the period established by reclamation law; (4) provide electric service to project pumps and facilities at the lowest cost to the Government; (5) prevent waste of federal taxpayers' money; (6) provide maximum tax revenues to federal,

state, and local governments; (7) prevent duplication of existing electric generation, transmission, and distribution facilities by a tax-free competitive federal power system; and (8) protect the investment which thousands of individuals and many insurance, charitable, and educational institutions have made in the Company under the private enterprise system.

Congress recognized the validity of the Company's position and many times denied the Bureau's requests for unnecessary facilities.

During the period 1943 to 1951, however, Congress appropriated a total of more than 26 million dollars for three 230 kilovolt transmission lines from Shasta Dam to Tracy, a switchyard at Tracy, a sixty-nine kilovolt line from Tracy to serve project pumps along the Contra Costa Canal, and a 230 kilovolt transmission line from Folsom Power Plant to connect with the east-side Shasta-Tracy line. These transmission facilities, which are totally unnecessary and duplicate existing facilities of the Company, have been completed. They cost water users and federal taxpayers about two million dollars a year.

When the Bureau completed its transmission lines to Tracy, it became necessary for the Company to take delivery of power at that point. Furthermore, several electric utilities had made so-called "wheeling contracts" with the Bureau, under which the utilities agreed to deliver power over their systems to government customers claiming preference under federal law.

In 1951, at the urging of Congress, the Company executed two ten-year contracts with the Bureau, one, a transmission and exchange or "wheeling service" contract, the other, a sale and interchange contract.

The "wheeling service" contract allows the Bureau to use the Company's widespread regional transmission and distribution network to supply power to Bureau customers in the Central Valley area. The Company accepts delivery of project power at Tracy and delivers for the Bureau an equivalent amount of power to federal establishments and to customers claiming preference under reclamation law. For this service the Company receives one mill per kilowatt-hour for power delivered at transmission voltage. Additional charges are made for delivery at lower distribution voltages.

At the present time the Company is providing "wheeling service" to twenty-four customers of the Bureau, with an aggregate maximum demand of about eighty-five thousand kilowatts. All formerly were customers of the Company except two new government establishments.

The sale and interchange contract provides for sale to the Company of such project power as the Bureau does not need for project purposes, or for service under the "wheeling service" contract, or to supply loads which may be served directly by the Bureau. This contract provides for the integrated operation of the Project and the Company system so as best to meet the combined load requiremens of both parties and for mutual standby in

emergencies. Under the contract the Company furnishes "firming" power to the Project, which enables the Government to sell 450,000 kilowatts of project power on a dependable basis to federal agencies and preference customers.

Without the benefits of such integration with the Company's system, the Government has neither sufficient firm power to meet the demands of its present customers nor the transmission facilities needed to serve them.

IV

TRINITY JOINT DEVELOPMENT

In August 1955 Congress authorized the Secretary of the Interior to build the 225 million dollar water conservation and power facilities of the Trinity River Division of the Central Valley Project.[2] The main water features are a large reservoir and small regulating reservoir of the Trinity River, a tunnel extending eleven miles eastward to Clear Creek, a reservoir on Clear Creek, and a tunnel extending three miles eastward to the existing Keswick Reservoir on the Sacramento River, immediately below Shasta Dam. One power plant will be installed at each dam on the Trinity River and one at the eastern end of each tunnel. The total installed capacity of these four plants will be approximately 384,000 kilowatts.

The Company appeared before House and Senate Committees at hearings on the Trinity Bill and offered to build the power facilities and to pay the United States for the use of Trinity falling water. As a result of this offer, the House Committee amended the bill to direct the Secretary of the Interior to negotiate with any non-federal agency for the purchase of falling water and to submit to Congress for its approval any agreement that might be reached.[3]

Pacific Gas and Electric Company was the only agency which offered to enter into such an agreement. The Company offered to (1) construct the power plants at its own expense and to operate them under federal license for fifty years, subject to renewal of the license or recapture of the project by the United States at the end of that period in the manner which Congress might then provide in the Federal Power Act and (2) make an average annual payment to the United States of $4,617,000 for the use of Trinity falling water. This payment for water alone equals 3.9 mills per kilowatt-hour of the energy it would produce. This payment of 3.9 mills contrasts with the Bureau's average rate of just over 4 mills, which it would obtain from federal agencies and preference customers for Trinity power generated, transmitted, and delivered at taxpayers' expense. Stated another way, the Company's annual payment would be $5.33 per acre-foot for water

[2] Act of Aug. 12, 1955, c. 872, 69 STAT. 719.

[3] H.R. 4663, 84th Cong., 1st Sess. § 1; 69 STAT. 719 (1955).

which would not be consumed by the power operation but would flow down to the Central Valley, where water is sold by the Bureau at canal-side for irrigation at $3.50 per acre-foot.

In addition the Company offered to extend existing wheeling service and power interchange contracts with certain amendments advantageous to the Government for the fifty-year repayment period of the Project. Under this proposal the Government would be assured during the entire period of support from Company plants for 450,000 kilowatts of project commercial power capacity and the use of Company transmission facilities to serve government customers, at less than it would cost the government to build and operate its own facilities for such service.

On February 12, 1957, the Secretary of the Interior transmitted the proposed agreements to Congress and recommended joint development of Trinity water resources by the United States and the Company.[4]

Approval by Congress of the Secretary's recommendations will save the Government a capital outlay of fifty-six million dollars for power plants

---

[4] H.R. Doc. No. 94, 85th Cong., 1st Sess. (Feb. 14, 1957); *id.*, Part II (April 15, 1957). The Secretary declared that: "The substantial increase in the Central Valley project surplus which would result from joint development represents project revenues that could be available to assist further irrigation and multipurpose development. Under the present Central Valley rate structure the Trinity power facilities, if built by the United States, would require substantial assistance from other project revenues in order to meet repayment requirements. Joint development under the proposed agreement would convert Trinity falling water into a substantial net asset of the project." *Id.* at 3.

It thus appears that federal Trinity power facilities would be a liability and provide no financial assistance to the Central Valley Project. This would defeat the policy declared by Congress in the Central Valley Project Authorization Act of 1937, 50 STAT. 844, 850, § 2 of which authorizes "generation and sale of electric energy as a means of financially aiding and assisting" the water features of the Project. Moreover, use of project water revenues to finance power operation is not authorized. On the other hand, the falling water payments offered by the Company would provide substantial assistance to project water features in accordance with Congressional policy. See also notes 8, 9, and 10 *infra*.

In concluding his report, the Secretary further stated: "In my opinion, it appears clear from the report of the Commissioner [of Reclamation] that joint development would provide substantially more funds for potential irrigation and multipurpose development in the Central Valley project area. This means that the power resource of the Trinity River division under joint development would provide the greater benefit to the project area and to the Nation as a whole . . . .

"I am also conscious of the fact that the basic purpose of the reclamation program is the development of irrigation supply and the reclamation of land. Electric power is generated as an incident to the basic purpose of the program. It seems to me that the development of the power resource of the Trinity River division under a joint proposal such as that offered by the Company would mean that power would become a better partner of irrigation development in the Central Valley project area than under all-Federal construction." H.R. Doc. No. 94, 85th Cong., 1st Sess. 5 (1955).

H.R. 6997 and H.R. 7407, identical bills to authorize Trinity joint development substantially as recommended by the Secretary of the Interior, were introduced in the first session of the 85th Congress and referred to the Committee on Interior and Insular Affairs of the House of Representatives. A hearing has been scheduled in January 1958.

and related transmission facilities. This is almost twenty-five per cent of the project cost. It will also provide total additional revenues to federal, state, and local governments of 310 million dollars over the Project fifty-year repayment period as follows: (1) 165 million dollars in payments for falling water and savings to the federal government in project costs; (2) $145,600,000 in tax revenues—83 million dollars federal and $62,600,000 state and local.

In Trinity County the Company's tax payments would more than double. The total payments would rise to nearly $400,000 a year. This would represent more than forty per cent of the total taxes levied by the county. The annual payments in Shasta County would increase to over $3,170,000, or more than one-half of the total taxes levied in the county.

Operation of the plants by the Company would impair in no way the operation of the Project for its primary purposes of river regulation, navigation, flood control, and supply of water for irrigation and domestic uses.[5]

The Company would distribute Trinity power to its 1,750,000 electric customers throughout northern and central California without discrimination. The power would be sold at rates established by the California Public Utilities Commission. The Commission has continuously and effectively regulated the electric rates, financing, and operation of public utilities since 1914. Under such regulation, payments made by the Company for the use of Trinity falling water would be entered as an operating expense on its books. The Company can make no profit on the falling water it purchases. All that is allowed is a fair return on its investment in facilities used and useful in service to the public. Any benefits from purchase of water power must be passed on to consumers in the form of lower electric rates.

The 300 million dollar benefit to federal, state, and local governments from Trinity joint development would place no additional burden on the Company's customers. The cost of Trinity power to the company and the cost to its customers would be no higher than for power from one of the companies modern steam plants.

V

LOWEST COST WATER AND POWER FOR SAN LUIS

Several bills now before Congress and several proposals under study by the State of California provide for the construction of the San Luis reservoir and related facilities to furnish water to the west side of the San Joaquin Valley.

[5] The Commissioner of Reclamation in his report to the Secretary declared that, under joint development, "Releases of water through the Trinity system would be integrated with water releases from the existing Central Valley project features to supply the water requirements of the project in the same manner and in the same priorities as would be supplied under an all-Federal proposal." H.R. Doc. No. 94, 85th Cong., 1st Sess. 7 (Feb. 14, 1957).

Whether San Luis is constructed as a part of the Central Valley Project or of the state's Feather River Project, or under a joint arrangement, the Company's cooperation would result in benefits to water users and taxpayers.

Operation of the Trinity plants by the Company will not diminish the energy available from existing Central Valley Project plants. Project pumps have first call, as they should in a water project, on the power of these plants. Existing plants can supply about two and one-half billion kilowatt-hours annually; the pumps at ultimate operation will require about 400 million kilowatt-hours annually, leaving nearly three times the energy required by San Luis pumps under full operation.

Whether the Company participates in the Trinity River Project or the federal government builds it entirely, the Company has offered advantageous arrangements which will facilitate construction of the San Luis project.

The Central Valley Project produces large amounts of energy in the summer months, when large water releases must be made for irrigation. Except in wet years, the Project produces only small amounts of energy during the winter months, when water is being conserved in Project reservoirs. The months of low project energy production are the very months when San Luis pumping requirements are high, because that is the time when waste water in the Sacramento-San Joaquin River Delta must be diverted and pumped to storage in the San Luis reservoir.

The Company has offered to provide off-peak power to the San Luis pumps in even exchange for project power. When no project power is available for pumping, the Company will provide power at times when demands on its system are not at their peak. In exchange, the Company will take an equivalent amount of project power when it becomes available.

In connection with the proposed Feather River Project, the Company has offered the state low-cost off-peak power for pumping on a similar basis. The State Engineer, after reviewing this proposal, declared that it would provide a substantial net gain to the project.

The Company also has offered to make its transmission facilities available for transmission of power from the Tracy switchyard of the Central Valley Project to the San Luis pumps and has guaranteed that the cost to the Government will be less than the cost of federal construction of transmission lines for the purpose. Not only will the San Luis transmission costs be reduced, but the federal government also will save a capital outlay of at least seven million dollars.

A direct beneficial effect of Trinity joint development on San Luis will be the amount of additional net revenue available from the Company's Trinity falling water payments for this or other California water projects. The Bureau of Reclamation estimates there would be 124 million dollars

more net revenue to the Central Valley Project from joint development, with the construction of San Luis.[6] That money could be used to help pay for San Luis or to reduce the cost of San Luis water.

VI

FEDERAL-LOCAL COOPERATION: AN ESTABLISHED CONGRESSIONAL POLICY

Congress, more than fifty years ago, established the policy of leasing water power made available by federal projects to non-federal agencies. The Secretary's previously mentioned recommendation[7] for the Trinity joint development is in line with the policy.

The congressional policy with respect to developing and marketing power made available at reclamation projects is laid down in the Reclamation Acts of 1906[8] and 1939,[9] and in the Federal Water Power Act of 1920, as amended in 1935.[10] All these acts provide for the lease of power privileges, such as that proposed in the Trinity development, to non-federal agencies and preference in such leases is given to public bodies.[11]

Under the Federal Water Power Act of 1920, a private agency may receive a federal license to develop power at "any Government dam" unless a preference agency comes forward with an offer equally well adapted to conserve the water resources of the region.[12]

In the Secretary's report to Congress on his proposal for Trinity joint development he stated:[13]

> I am assured by the Commissioner of Reclamation that ample opportunity was given to all prospective preference and non-preference purchasers. It is my understanding that only Pacific Gas and Electric Company indicated any desire to purchase Trinity falling water.

Thus, preference customers were given ample opportunity to lease the Trinity power privilege and none advanced any proposal to purchase Trinity falling water.

All the preference requirements of reclamation law have been met. Congress, at its own request, now has the Secretary's proposed agreement before it and can approve joint development of the Trinity without departing from its preference policy in any way.

Moreover, by accepting the Secretary's recommendation, Congress

---

[6] H.R. Doc. No. 94, 85th Cong., 1st Sess., 10 (Feb. 14, 1957).

[7] See note 4 *supra*.

[8] 34 STAT. 117, as amended, 43 U.S.C. § 522 (1952).

[9] Reclamation Project Act of 1939 § 9c, 53 STAT. 1194, 43 U.S.C. § 485h (1952).

[10] Federal Water Power Act § 4, 41 STAT. 1065 (1920), as amended, 16 U.S.C. § 797(e) (1952); *id.* § 7, 41 STAT. 1067, as amended, 16 U.S.C. § 800(a) (1952).

[11] See notes 8, 9, and 10 *supra*.

[12] Federal Water Power Act § 7(a), 41 STAT. 1067, as amended, 16 U.S.C. § 801 (1952).

[13] H.R. Doc. No. 94, 85th Cong., 1st Sess. 2 (Feb. 14, 1957).

would follow its long established policy for lease of power privileges to non-federal agencies, under which at least 26 local power developments were authorized at federal reclamation, navigation, and flood control dams between 1908 and 1953. They were located in thirteen different states. The local agencies included 14 public bodies, ten private utilities, and two industrial users. Of these authorized joint developments twelve were undertaken during Republican administrations and fourteen during Democratic administrations.[14]

VII

ADDITIONAL REVENUE FOR WATER DEVELOPMENT

California needs maximum revenues from power to assist irrigation development. The State Water Plan, recently submitted by the Department of Water Resources to the legislature, calls for the ultimate construction of 376 new reservoirs, with a total capacity of seventy-seven million acre-feet, and hundreds of miles of canals to transport water from areas of surplus to areas of deficiency. This is nearly four times the storage capacity now built or under construction. This program eventually will be required to supply forty million acre-feet of water annually for irrigation. It is now estimated to cost twelve billion dollars. Taxpayers and water users alone should not be expected to supply these billions. Revenues from the lease of power privileges to agencies which can sell electric power at full market value under state regulation will help make possible this vitally-needed water conservation development.

Faced with a proposed federal budget of $71.8 billion for fiscal 1958, the Joint Economic Committee of both houses of Congress declared in its report last February:[15]

> . . . we ought to look for ways in which the present financial limitations of State and local governments may be overcome without an ever-increasing recourse to Federal aid.

Cooperation by the private power company with federal, state, and local public agencies will provide the way in which the most comprehensive development and conservation of the nation's water resources can be accomplished at least cost to taxpayers and water users. The private power company is prepared to perform its part in such a program.

---

[14] RALPH A. TUDOR (Member, American Society of Civil Engineers; Consulting Engineer, San Francisco; formerly Under Secretary of the Interior), PARTNERSHIP WITH GOVERNMENT IN POWER PRODUCTION, reprinted in 103 CONG. REC. A1550, A1551 (Daily ed. Feb. 27, 1957).

[15] H.R. REP. No. 175, 85th Cong., 1st Sess. 5 (1957).

California Law Review

MEMBER NATIONAL AND WESTERN CONFERENCES OF LAW REVIEWS

Published Five Times Yearly by Students of the School of Law of the University of California, Berkeley, California. Indexed in Index to Legal Periodicals and Public Affairs Information Service.

Subscription Price, $6.00 Current Single Copies, $2.00