Chapter IX

HOOVER DAM POWER CONTRACTS MADE UNDER THE BOULDER CANYON PROJECT ADJUSTMENT ACT

A. Regulations of May 20, 1941 (Appendix 901)

On July 27, 1940, Secretary Ickes designated Mr. R. V. L. Wright as his special representative to hold hearings in preparation for the promulgation of regulations and the determination of charges. Mr. Leland Olds, Chairman of the Federal Power Commission, and Dr. W. F. Durand, of Stanford University, were designated to act as advisers.

Hearings were held under that authorization from August 12, 1940, to December 6 of that year. Mr. Wright submitted his recommendations on February 19, 1941, and they were approved and regulations promulgated on May 20, 1941.

Below are summarized the more important features of these regulations:

Operation and maintenance.—The United States reserved operation and maintenance of the dam and appurtenant works, but provided for operation of the generating machinery and equipment by the city of Los Angeles and the Southern California Edison Co. under an agency contract (art. 2).

Firm and secondary energy.—Firm energy was defined as 4,330,000,000 kilowatt-hours (being the 4,240,000,000 kilowatt-hours defined by the regulations of April 25, 1930, plus 90,000,000 additional made available by an increase in the height of the dam, and allocated to the city of Los Angeles by the supplemental regulations of November 16, 1931). The same annual diminution (8,760,000 kilowatt-hours per year) was stipulated in the new regulations as in the old. Secondary energy was defined to be all electrical energy available in any year of operation in excess of the amount of firm energy; but for the purpose of computing energy rates, it was assumed that 40,000,000,000 kilowatt-hours of secondary energy would be available in the 50-year period ending May 31, 1987 (art. 3).

Allocation of energy.—Energy was allocated in the same proportions as under the regulations of November 16, 1931, but by virtue of the increase of the base from 4,240,000,000 to 4,330,000,000 kilowatt-hours (art. 4) the percentages were necessarily restated to afford to each allottee the same number of kilowatt-hours. Substantially the same provisions relating to allocations to the States, disposition of unused energy, etc., were provided for as under the original regulations, the schedules relating to the States' withdrawal and relinquishment of energy being restated somewhat. During the 10-year period intervening since promulgation of the regulations of 1931, the City of Los Angeles had acquired the properties of the Los Angeles Gas & Electric Corp. and its revised allocation reflected that change.

The table (p. 94) shows the commitments and entitlements of the various allottees.

Components of charges.—The 1941 regulations, like those under the original Project Act, separated the charges into two components: (*a*) An energy charge which was primarily related to the investment in the dam, and (*b*) a generating charge primarily related to the investment in the power plant machinery (art. V).

Basis of energy rates.—The basis of energy rates stated by article VI of the regulations conforms to the elements of section 1 of the Adjustment Act, spelled out in somewhat more detail with respect to annuities for replacements, etc., and with the necessary provisions to exclude from this calculation the annuities relating to the generating machinery (art. VI).

Uniformity of energy rates.—Article VII stipulated that the rates for firm energy should be uniform for all allottees and the rates for secondary energy uniform for all users of that class of energy (art. VII).

Relationship between rates for firm and secondary energy.—These regulations carried forward a stipulation originating in the City of Los Angeles "third-circuit contract" dated July 6, 1938, establishing a permanent ratio between the rates for firm energy and secondary energy (art. VIII).

Firm energy rate.—Subject to minor revision and adjustment as provided for below, a rate for firm energy 1.163 mills per kilowatt-hour was established for the period June 1, 1937, to May 31, 1987 (art. IX).

Secondary energy rate.—Subject to similar provisions for a readjustment, a rate for secondary energy of 0.34 mill per kilowatt-hour was established for the period of June 1, 1937, to May 31, 1987, and it was provided that energy taken by any allottee in excess of its obligation for firm energy should be charged for at the secondary rate (art. X).

Credits for allottees not taking their full firm energy obligations.—Article XI provided that if any allottee should take less than its obligation but another allottee should take more, the excess revenues paid by the latter should be credited at the secondary energy rate against the obligation of the former.

Credits to adjust payments occasioned by energy rate reduction.—Provision was made for retroactive adjustment to June 1, 1937, to place the modified rates in effect for the amortization period (art. XII).

TABLE 2.—*Allocation of Hoover Dam energy under regulations of May 20, 1941*

Allottee	Firm energy (4,330,000,000 kilowatt-hours per year, diminishing 8,760,000 kilowatt-hours per year)			Secondary energy (percentage)
	Minimum which United States must supply (percentage)	Allottee's obligation if energy is available (percentage)	Maximum which allottee may demand under various conditions (percentage)	
Arizona	17.6259	None	21.5428	None.
Nevada	17.6259 (To each State for use in the State only.)	None (Each State has the option to take and relinquish energy on specified notice.)	21.5428 (To each State its own allocation plus 3.9169 percent not taken by the other State prior to Apr. 26, 1950; the total for both States not to exceed 35.2518 percent.)	None.
Metropolitan Water District	35.2517 (For pumping Colorado River water into and in its aqueduct.)	35.2517	70.5035 [1] (Its own minimum, plus first call on unused energy allotted to States.)	First call on all secondary energy.
Los Angeles	17.5554	36.9439 (Its own minimum, plus 55 percent of unused State allocation 35.2518 percent.)	36.9439 (Its own minimum, plus 55 percent of unused State allocation, 35.2518 percent.)	55 percent, subject to district's first call.
Pasadena	1.5847	1.5847	1.5847	None.
Glendale	1.8475	1.8475	1.8475	None.
Burbank	.5773	.5773	.5773	None.
Southern California Edison Co., Ltd.	7.0503	21.1510 (Its own minimum, plus 40 percent of unused State allocation, 35.2518 percent.)	21.1510 (Its own minimum, plus 40 percent of unused State allocation, 35.2518 percent).	40 percent, subject to district's first call.
California Electric Power Co. (formerly Nevada-California Electric Corp., previously Southern Sierras Power Co.).	.8813	2.6439 (Its own minimum, plus 5 percent of unused State allocation, 35.2518 percent.)	2.6439 (Its own minimum, plus 5 percent of unused State allocation, 35.2518 percent.)	5 percent, subject to district's first call.
Total	100.00	100.00		100.00.

[1] The district also has first call on firm energy allotted to but unused by the city of Los Angeles and the companies, but such energy is all under firm contract to the allottees named.

Payments to States and transfers to Colorado River development fund.—Mechanics were established for the transfers to Arizona, Nevada, and the development fund of the amounts provided for in the Adjustment Act (art. XIII).

Adjustment of energy rates.—Provision was made for three types of adjustments: (1) some on a periodic 5-year basis, primarily to reflect differences between the estimated quantities of firm and secondary energy on which the rates were calculated, and the quantities actually available; (2) annual adjustments to reflect variations between estimated costs of operation, maintenance, and replacements and actual costs as well as to reflect additional investments not taken into account in previous estimates; (3) an adjustment at the end of the amortization period June 1, 1987, to accomplish the result that the revenues during that period should be "sufficient but not more than sufficient" to provide the amounts required by the regulations (art. XIV).

With respect to the first category, the assumption was made that during the 50-year amortization period a total of 205,769,000,000 kilowatt-hours of firm energy would be available, and provision was made for adjustment if the firm energy actually available should be short as much as 30 percent in any 1-year or 25 percent in any 5-year period, or 3 percent short of the total assumed for the 50-year period. Details were spelled out with respect to these calculations.

In like manner it was assumed that during the 50-year period a total of 40,000,000,000 kilowatt-hours of secondary energy would be utilized, and provision was made for adjustment in the event the quantity actually used should vary from that figure.

With respect to the second category of the adjustments, i. e., those made on an annual basis, provision was made for hearings on the Secretary's annual estimates.

As to the investment prior to June 1, 1937, a fixed amortization period of 50 years, ending May 31, 1987, was stipulated; as to investments subsequent to June 1, 1937, a 50-year period commencing June 1 following the year of operation in which the funds were advanced; and in the event of a deficiency in revenues for firm energy occasioned by act of God, major catastrophe, etc., it was provided that such deficiency should not be reflected in any adjustment of the energy charge, but only in the amount to be amortized within the period ending May 31, 1987 (art. XV).

It will be noted that all of the foregoing relates to energy charges, and not to generating charges, which are treated separately in article XVI.

Division of generating machinery and equipment.—These regulations (art. XVI) continued the policy established by those of 1930, in segregating the main generating facilities, transforming and switching facilities, etc., into groups to be operated separately by the Department of Water and Power of the City of Los Angeles, and the Southern California Edison Co. Whereas the original regulations of 1930 had been written in advance of construction of the power plant, those of 1941 were promulgated after the equipment was largely installed, and hence designated in detail the elements to be included in the various groups. The assignment of facilities, and responsibility for amortizing investments or various sections thereof, were spelled out in subsequent articles.

Adjustment of generating charges.—The operating agents are required to furnish as of May 1 each year their estimates of the costs of operation and maintenance for the coming year of operation. Monthly bills for generating charges are rendered by the United States to the various allottees, based on those estimates (art. XIX).

Under these regulations, the Secretary has entered into the contracts summarized in the following pages.

B. Agency Contract (Appendix 902)

The agency contract of May 29, 1941, between the United States, the Department of Water and Power of the City of Los Angeles, and the Southern California Edison Co., Ltd., effectuates those portions of the regulations which provide for substitution of an agency contract for the outstanding lease between the same parties. In general, it terminates the lease (art. 14), designates the city and the Edison Co. severally as operating agents, the first with respect to the equipment serving the public agencies and the latter with respect to equipment serving the privately owned utilities (art. 15); fixes a term ending May 31, 1987, for the agency contract (art. 15 (d)); specifies the properties to be operated by each agent (art. 16); specifies the duties, powers, and rights of each operating agent (art. 17); specifies the powers and duties of the power-plant director to be appointed by the Secretary (art. 18); and provides for metering and keeping of records, etc. (art. 19). The foregoing provisions parallel, more or less, comparable provisions in the preexisting lease.

Article 20 contains a new provision relating to integration of operations, its general effect being to recognize the statutory directions of the Project Act with respect to operation of the reservoir but, subject thereto, to grant to each operating agent the assurance that—

> the operation of Boulder power plant shall be reasonably integrated with the operation of other projects on the Colorado River owned and operated by the United States at which power is or may be developed, and with the operations by the operating agents of their respective systems, including their other sources of electrical energy.

An integrating committee is provided for, representing the operating agents and the Secretary, to set up annually a program for integration of operations of the Boulder Canyon plant, other plants on the river, and the plants of the respective agents. Arbitration is provided for in the event of disputes over integration of operations (art. 20 (b) (ii), (iv)).

Other provisions of the contract preserve the Secretary's right of inspection and access (art. 21), require the operating agents to generate energy in accordance with the energy contracts which the Secretary reserves the right to enter into with each of the allottees (art. 22) and provide for compensation to the operating agents for their costs, etc. (art. 23).

Article 24, captioned "Remedies for breach of contract," effectuates the interesting provisions of section 9 of the Adjustment Act. The act therein provided, in effect, that in consideration of the termination of the lease the Secretary was authorized to agree (*a*) that the lessees be named as operating agents, (*b*) that such agency contract should not be revocable or terminable except by consent or in accordance with provisions for default specified in the contract, (*c*) that suits or proceedings to restrain the termination of any such agency contract or for other appropriate equitable remedies might be maintained against the Secretary. Jurisdiction was conferred upon the District Court of the District of Columbia. The Secretary was authorized to act for the United States in arbitration proceedings. Article 24 of the contract, coupled with article 27, spells out procedure.

The remaining articles of the contract comprise clauses which have become more or less standard in Hoover Dam contracts.

Annexed to the agency contract are exhibit A (specifications of properties of the United States to be operated, maintained, and replaced by the City of Los Angeles) and exhibit B (specifications of properties of the United States to be operated, maintained, and replaced by the Southern California Edison Co., Ltd.). This contract also carries as exhibit 2 the full text of the general regulations dated May 20, 1941, printed herein as appendix 901.

C. The Energy Contracts

Nine energy contracts have been entered into with the allottees of energy named in the general regulations of May 20, 1941. These collectively dispose of all firm and secondary energy to be generated at Hoover Dam during the period June 1, 1937, to May 31, 1987. Each contract has annexed to it, as exhibits:

(1) The agency contract (printed herein as appendix 902), together with exhibits A and B of that contract.

(2) The general regulations of May 20, 1941 (printed herein as appendix 901).

The contracts are tabulated below:

TABLE 3.—*Hoover Dam energy contracts in force 1948*

Allottee	Symbol	Date	Printed herein as appendix No.
States:			
Nevada	Ilr-1338	May 29, 1941	903
Arizona	Ilr-1455	Nov. 23, 1945	904
Public agencies:			
Metropolitan Water District	Ilr-1336	May 29, 1941	905
Pasadena	Ilr-1337	do	906
Burbank	Ilr-1339	do	907
Glendale	Ilr-1340	do	908
Los Angeles	Ilr-1334	do	909
Companies:			
Southern California Edison Co	Ilr-1335	do	910
California Electric Power Co	Ilr-1341	do	911

Provisions of the energy contracts.—In general, the energy contracts, which are uniform in character, subject all operations to the regulations and to the terms of the agency contract (art. 8); provide for the delivery of energy to the contractor in accordance with the allocation stated in the regulations (art. 9); obligate the United States to deliver water for the generation of energy allocated (art. 10); provide for measurement of energy (art. 11); provide for the payment of energy rates and generating charges stipulated in the regulations (art. 12); provide for billing and payment (art. 13); stipulate minimum annual payments, representing the quantity of allocated energy multiplied by the rate in effect at the time (art. 14); make the contract contingent on the final effectiveness of the Adjustment Act which, in turn, required the execution of contracts representing 90 percent of the firm energy before the act should be fully effective (art. 15); stipulate a period ending May 31, 1987, as the duration of the contract (art. 16); stipulate that no energy shall be delivered without payment (art. 17); provide for termination in the event of default (art. 18); preserve the Secretary's rights of access to the contractors' books and records (art. 19); grant the use of public and reserved lands to the United States for transmission lines (art. 20); reserve to each allottee the right to the benefit of any modification, extension, or waiver granted any other allottee (art. 21); provide for arbitration of certain disputes and disagreements (art. 22); and contain the other standard clauses of the type which have appeared in all the Boulder Canyon power contracts re priorities of claims (art. 23), title (art. 24), waiver (art. 25), transfer of interests in contracts (art. 26), notices (art. 27), contingency on appropriations (art. 28), Member of Congress clause (art. 29).

The 1941 contracts, it will be observed, follow closely the provisions of those made under the regulations of 1930.

Nevada and Arizona, by entering into the contracts referred to above, did not commit themselves to take specific quantities of energy, but merely formalized the options accorded them by the regulations, under which they may take and relinquish energy on specified notice from time to time. Each State has exercised its option as to specified blocks on various occasions, but as this is written no energy has as yet been actually taken by Arizona thereunder.

D. Proclamation of Effectiveness of the Act (Appendix 802)

On May 29, 1941, Secretary of the Interior Harold L. Ickes issued the finding required by section 10 of the Adjustment Act that provision had been made for the termination of the lease and for the operation thereof by agents, as authorized in section 9 of the act; that the allottees obligated under contracts in force on the date of the Adjustment Act to pay for at least 90 percent of the firm energy had entered into contracts under the new act; and announcing the Adjustment Act to be in full force and effect.

E. Wartime Contracts

The interesting wartime contracts under which Hoover Dam contributed spectacularly to the prosecution of the war are necessarily omitted because of their transitory character and the space required. One group of these agreements, relating to the furnishing of power for Basic Magnesium plant at Henderson, Nev., had a permanent effect on the contract structure, because it involved the installation of an additional generating unit, N-7, and the disposition of unused Metropolitan Water District energy, leading into a group of contracts made in 1945 and 1947, also relating to unused district energy, and involving this unit. These latter are referred to below.

F. 1945 Resale and Related Contracts; 1947 Amendments

Demand for energy in southern California having continued at a high level, notwithstanding the termination of the war, the Metropolitan Water District, the Department of Water and Power of the City of Los Angeles, the Southern California Edison Co., the California Electric Power Co., and the Defense Plant Corporation entered into the "1945 resale contract" (appendix 912), and the California entities entered into a collateral contract, relating to generating equipment.

Under these agreements as amended in 1947 by the four-party 1947 Parker-unit contract (appendix 1206), the net result is to dispose of all unused District firm energy for the balance of the amortization period ending May 31, 1987. Such unused power is taken by the City, 55 percent; Southern California Edison Co., 40 percent; and California Electric Power Co., 5 percent, subject to the gradually increasing load requirements of the District. Provision is made for the possibility that the District's use may exceed the rate of growth assumed, in which event the District is charged with the cost of substitute energy, under a stated formula.

The collateral agreement, May 31, 1945, provides for the cooperative use of generating equipment so that, in general, the capacity of the generating equipment assigned to the District under the general regulations (appendix 901), the agency contract (appendix 902), and the District's energy contract (appendix 905), but not from time to time required for the District's service, may be used for the benefit of certain other purchasers of energy. An agreement between the District and the Edison Co., May 31, 1945, provides for use of transmission facilities resulting from these rearrangements.

By the four-party 1947 Parker-unit contract (appendix 1206) the District undertook to exercise its right to have the use of units 3 and 4 at Parker power plant transferred to its service immediately after December 13, 1952, which it had the right but not the obligation to do under its basic Parker Dam contracts with the United States (appendixes 1201, 1203, 1204), and thereafter to use Parker energy for the service of the aqueduct, in preference to using energy from Hoover Dam. This results in making more energy available to the purchasers of District unused energy at Hoover Dam, and has the same financial effect on the District as though its share of Parker energy had been sold at the rate for firm energy at Hoover Dam.

At this point, having traced the development of the Hoover Dam power contracts from their beginning in 1930 to date, we revert to the activities under the project act dealing with water contracts, which also took form first in 1930.