

Chapter VI

THE HOOVER DAM POWER CONTRACTS OF 1930

A. Determinations Preceding the Contract Negotiations

Before negotiating the power contracts required by the project act, it was necessary to determine: (a) The costs to be amortized; (b) the quantity of energy, etc., available, involving a forecast of the water supply during the amortization period; and (c) the competitive value of the energy. These determinations are referred to below.

The following is reprinted from the first edition (p. 15):

[1. *Costs to be amortized*].—Since these contracts must provide revenue to amortize the cost of the dam, the first undertaking was to verify the estimates of the dam's costs and to set up a definite goal for revenues. The exhaustive studies made under the Commissioner of Reclamation, Dr. Elwood Mead, Chief Engineer R. F. Walter, and their predecessors, Arthur P. Davis and F. E. Weymouth, had been supplemented by the review of the so-called Sibert board. The latter was a commission of engineers appointed pursuant to an act of Congress, whose principal function was to pass upon safety features of the proposed works. The result of all these studies, as reported by Commissioner Mead, fixed the estimated cost of the Boulder Canyon Dam and power plants at \$109,446,000. Interest upon this sum during construction was estimated to amount to \$11,554,000, or a total estimated cost of \$121,000,000. During the negotiation of the contracts the Sibert board authorized an increase in the height of the dam, to raise the water level 25 feet; and, while that board estimated that the higher dam could be built within the original estimate, the Bureau of Reclamation added for safety another \$4,392,000 to the estimate, making an aggregate investment of \$125,392,000. But as the project act provided that \$25,000,000 of this cost might be allocated to flood control, to be repaid out of surplus revenues, the amount remaining to be met by firm power sales became fixed at \$100,392,000. But of this sum, \$17,717,000 was estimated to be the cost of power machinery, which it was contemplated would be financed by the lessees of the power plant. This reduced the net investment, exclusive of flood control and the cost of machinery, to \$82,675,000. Computed against an amortization period of 50 years, interest at 4 percent on this investment (required by the project act to be paid to the Treasury) was estimated at \$108,107,007. The total which the Secretary was required to recover from sale of power during a 50-year period thus became \$206,920,024.¹

[2. *Quantity of water available for power generation*].—Preliminary studies of the quantity of water available for generation of power had been carried forward under the direction of Mr. E. B. Debler, hydraulic engineer of the Bureau of

¹ For tables and graphs, see appendix 43 to the first edition: "Financial operation."

Reclamation.² Revised to January 31, 1930, these computations showed that with a dam 557 feet high, we would have available on completion 3,600,000,000 kilowatt-hours of firm energy per year; with a dam 575 feet high, 4,240,000,000; and with a dam 582 feet high, 4,330,000,000. During the negotiation of the contracts the figure 4,240,000,000 was assumed. During negotiations the decision of the Sibert board, permitting an increase in the water level to 582 feet, raised this output by 90,000,000 kilowatt-hours, and this increment was separately disposed of.³

[3. *Competitive value of energy*].—The third basic element of information required before undertaking negotiations was the price which could be realized for this power. That price was subject to control by two factors:

(a) The Secretary was required by the Project Act to obtain a sufficient rate to amortize the cost of the dam, but (b) the act required that the amount be determined by "competitive conditions at distributing points or competitive centers"; and this latter would have been a determining factor even in the absence of statutory direction. As the only market large enough to absorb sufficient energy to yield the required revenues lay in southern California, and was located over large oil and gas deposits, the cost of energy provided by oil and gas necessarily fixed the comparative value of Boulder Canyon power. A study was accordingly undertaken by R. F. Walter, Chief Engineer, L. N. McClellan, chief electrical engineer for the Bureau, Prof. W. F. Durand, of Stanford University, and others. Their report, rendered on September 10, 1929, computed the value of Boulder Canyon power at the switchboard on a series of assumptions as to costs of private and public development, all of which reckoned back to a value for the use of falling water, amounting to about 1.63 mills per kilowatt-hour.⁴

The amount of money to be brought in by sale of power at the rate stated would, of course, be subject to certain assumptions. First, the Project Act required the readjustment of rates to accord with competitive conditions at competitive centers 15 years after the date of the contract, and every 10 years thereafter. Second, the amount of water available for generation of power would decrease by virtue of upstream use and gradual silting of the reservoir. Third, the amount would be affected by the number of years covered by each power contract. * * *

² A report, "Hydrology of Boulder Canyon Reservoir," by E. B. Debler (summarized by its author in "The Hoover Dam Contracts," first edition, appendix 29, pp. 473, 477), gave the following estimate of the water supply during the 50-year amortization period:

Development above Boulder Canyon

	1928	1938	1968
Irrigated area.....acres..	1, 717, 000	2, 040, 000	3, 368, 000
Capacity of irrigation reservoirs.....acre-feet..	662, 000	-----	2, 933, 000
Capacity of power reservoirs.....do.....	10, 000	-----	8, 100, 000
Transmountain diversions.....acre-feet annually..	116, 000	180, 000	621, 000
Surface area of irrigation reservoirs.....acres..	27, 800	60, 000	86, 400
Surface area of power reservoirs.....do.....	2, 000		
Mean depletion for irrigation consumptive use, transmountain diversions and reservoir losses.....acre-feet annually..	2, 760, 000	3, 481, 000	6, 595, 000
Mean annual inflow to Boulder Canyon.....acre-feet..	15, 730, 000	15, 009, 000	11, 895, 000

³ Appendix 303.

⁴ See appendix 30 to the first edition.

B. Negotiations

(1) *Invitations for applications.*—The following is reprinted from the first edition (p. 17):

Invitations for applications for the purchase of power were published on September 10, 1929. October 1 was fixed as the application date. Upon that date the Secretary had at hand applications from 27 parties. Some of these applications were conditional and others were indefinite; but the three principal applicants were the City of Los Angeles, the Southern California Edison Co., and the Metropolitan Water District of Southern California. Each of the first two asked for the entire power output, which was assumed at that date, prior to decision on the final height of the dam, to be 3,600,000,000 kilowatt-hours. The Metropolitan Water District asked for about half that amount of energy and the State of Nevada asked for a third of it. The total of the applications was thus well over three times the amount of power available.⁵

(2) *Tentative allocation.*—The following is reprinted from the first edition (p. 18):

The Secretary was accordingly faced with the problem of allocating the energy available among the conflicting applicants.

The allocation of the energy was undertaken on the premise that the Project Act required that the public interest be the governing factor, and that the first requisite in protecting the public interest was to provide adequate security for the taxpayers' money. It was recognized that the absorption of this quantity of power represented a serious problem and that adequate security for the Government required that the risk be spread among several agencies. It was recognized also that it was desirable that as broad a regional benefit be obtained from this power as was consistent with financial soundness. The dam would rest on the border between Arizona and Nevada, and it was desired to give them an opportunity to use its energy; but neither of them was in a position to make a firm contract for use of any power within its borders. The California applicants included agencies serving cities, great rural areas, and the Metropolitan Water District, which proposed to construct an aqueduct from the Colorado River to the Coastal Plain. It was recognized that the water needs of this area were the great motive force behind the financing of the dam.

On October 21 the Secretary announced a tentative allocation of power.

November 12, 1929, was set for hearings on protests to the proposed allocation.⁶

(3) *Hearing, November 12-13, 1929.*—All of the major parties interested in power except Arizona were represented at the hearing held by the Secretary of the Interior, November 12-13, 1929, in Washington. Arizona declined to attend.

During the hearing Secretary Wilbur announced three points of policy. These concerned (1) the desirability of spreading the benefits of the project as widely as possible; (2) the limitations imposed by

⁵ For a tabulation of the applications, see appendix 32 to the first edition.

⁶ The tentative allocation of October 21, 1929, appears as appendix 33 to the first edition.

the necessity for a sound economic basis; and (3) the desirability of having all parties contract with the Government rather than with each other.

At the close of the hearing, November 13, 1929, Secretary Wilbur made the following statement:⁷

I propose not to complete these contracts before the second week in December in the hope that we can bring Arizona into the picture, and I assign each of you and all of those who represent you as agents to make this if possible a seven-State compact.

It will be a most unfortunate thing in this great series of epochs that the West is necessarily to go through in the development of the water, not to carry this thing through upon a uniform program. This must go through so when the Flaming Gorge and all the other projects come on, as they will, we can have a united front against all of those who do not have the vision to see the necessity. Do not forget in your particular thing that you are involved in that your real interest is in this country and its development, and that the western part of the United States must depend upon water and its controlled use for its further development. We must not lose this first battle since otherwise years must elapse before we can do as we should in the maturing of the necessary plans for the West. The easy things have all been done. We are now facing the hard things like this where we must all get together. I hope we may close this conference in that spirit.

Active negotiation of the contracts was suspended until the latter part of February, 1930 to afford an opportunity for further negotiations among the lower-basin States.

(4) *Negotiations among the States.*—Section 8 (b) of the Project Act held out an invitation to the States of Arizona, California, and Nevada "or any two thereof" to enter into a compact for division of the water allocated to the lower basin by the Colorado River compact and—

for the equitable division of the benefits, including power, arising from the use of water accruing to said States.

If such compacts should be negotiated and approved by the States and by Congress prior to January 1, 1929, section 8 (b) stipulated that the United States and its contractors "shall observe and be subject to" such compact; but if the States should approve the agreement or Congress give its consent after January 1, 1929, it was provided—

that in the latter case such compact shall be subject to all the contracts, if any, made by the Secretary of the Interior under section 5 hereof prior to the date of such approval and consent by Congress.

⁷ Appendix 33-A, first edition.

While plans for construction of the dam went forward, the Department made a series of efforts to bring the three States into accord.⁸ None of these attempts was successful.⁹

(5) *Conferences with congressional committees.*—Following the breakdown of the final attempt at a lower-basin agreement, Secretary Wilbur invited the members of the House and Senate Committees on Irrigation and Reclamation to a conference in his office, held February 15, 1930, to advise as to further course of action: whether to continue with an effort to reach a settlement of water and power questions by compact, or to abandon the effort and (4) *Negotiations among the States* between the Interior Department and the proposed compact.

The consensus of opinion was that negotiations should proceed at once with the negotiation of the new compact that appropriations could be sought before adjournment of the present session of Congress.

⁸ From February 14 to March 5, 1929, representatives of the lower-basin States was held at Santa Fe, N. Mex. and March 6 to 8 at Albuquerque, N. Mex. Col. W. J. Donovan presided as representative of the Federal Government. Representatives of the upper-basin States attended as observers.

On April 5 to 7, 1929, informal conferences between California and Arizona were held at Los Angeles.

On May 28 to June 16, 1929, the lower-basin State commissioners met informally in Washington.

On August 28, 1929, at Salt Lake City, representatives of Arizona, California, Nevada, Colorado, New Mexico, Utah, and Wyoming met primarily on power matters.

On January 21, 1930, the lower-basin commissioners resumed formal conference at Reno, Nev., under the chairmanship of Chairman W. J. Donovan. At the suggestion of the Secretary of the Interior, advisers were added by each State: For Arizona, Senator Carl Hayden; for Nevada, Senator Pittman and Thomas Cole; for California, W. J. Carr.

On February 6 to 9, 1930, the commissioners met at Phoenix, having recessed at Reno. They failed to agree.

Matters remained in this inconclusive state. Extended conferences were held in 1933-34 and again in 1940, and once more in 1943-44 with reference to the proposed Arizona contract. (See ch. IV.)

⁹ For a summary of the negotiations between Arizona, California, and Nevada, 1929-30, see the testimony of Col. William J. Donovan, hearings on the second deficiency appropriation bill for 1930 (46 Stat. 860), Senate, pp. 173-185, 192-193; Congressional Record, 71st Cong., 2d sess., June 26, 1930, p. 12203 et seq.

(6) *Negotiations in the field.*—Negotiations among the conflicting applicants, and among the lower-basin States, having failed to crystallize in an agreement, direct negotiations with the individual power applicants were initiated in Los Angeles in February 1930.¹⁰

On March 20, 1930, an agreement was reached among the southern California applicants in the form of a recommendation to the Secretary for the allocation of 64 percent of the total firm energy which the Secretary's tentative allocation of October had proposed be made available to California.¹¹

The formulation of an acceptable formula, which would commit California interests to pay for 100 percent of the firm energy, but enable the Secretary to draw back 36 percent of it for use in Arizona and Nevada at any time during 50 years, proved to be one of the most serious difficulties in the negotiations.

Agreement on all of these points was finally reached on April 25, 1930, and embodied in general regulations, a lease, and energy contracts, referred to below.¹²

C. Regulations and Contracts

(1) *"Underwriting" contracts of 1930.*—On April 25 regulations were promulgated, and on April 26 two contracts executed thereunder, satisfying the revenue requirements of the Boulder Canyon Project Act. The first was a lease of power privileges,¹³ to which the United States, the city of Los Angeles (through its department of water and power), and the Southern California Edison Co., Ltd., were parties. The second was a contract for the purchase of electric energy to which the United States and the Metropolitan Water District of Southern California were parties.¹⁴

The general framework of these instruments established the city and company as several, not joint, lessees of the power plant, obligated to generate at cost for certain other allottees, of which the Metropolitan Water District was the major one. Allottees other than the Metropolitan Water District were accorded by these regulations and contracts various time periods within which to execute their separate contracts with the United States for the purchase of energy. Ultimately, the Los Angeles Gas & Electric Corp., the Southern

¹⁰ See first edition, pp. 20-24. The negotiations, under the direction of Secretary Wilbur and Commissioner of Reclamation Elwood Mead, were carried on for the Department by Northcutt Ely, assistant to the Secretary, R. J. Coffey and L. N. McClellan of the Bureau of Reclamation, and Louis C. Hill, consulting engineer.

¹¹ Appendixes 34 and 35, first edition.

¹² Appendixes 1-9, first edition.

¹³ Appendix 2, first edition.

¹⁴ Appendix 3, first edition.

Sierras Power Co. (now California Electric Power Co.), the cities of Pasadena, Burbank, and Glendale and (considerably later) the States of Nevada and Arizona entered into such contracts. Each of these agreements carried a uniform clause on allocation of energy, the general effect being to obligate the California contractors for 100 percent of the firm energy, but requiring them to yield 36 percent thereof to Arizona and Nevada, under a "draw-back" provision which entitled those States to take blocks of power on specified notice and to relinquish its use on like notice. The city and the Edison Co. were required to underwrite these State allotments in the sense that they were required to take all energy not contracted for by the States. This allocation is illustrated by table 1, *infra*.

(2) *Completion of other power contracts, 1931.*—By November 16, 1931, the periods for execution of firm contracts (other than by Nevada and Arizona) had expired, and contracts had been executed under which the following became the fixed allocations, in terms of percentages of 4,240,000,000 kilowatt-hours of firm energy annually:

TABLE 1.—Allocation of Hoover Dam energy under regulations of Apr. 25, 1930, as amended to Nov. 16, 1931

Allottee	Firm energy (4,240,000,000 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	18.	None	22.	None.
Nevada	18. (To each State for use in the State only.)	None (Each State has the option to take and relinquish energy on specified notice.)	22. (Its own allocation plus 4 percent not taken by the other State prior to Apr. 25, 1950; the total for both States not to exceed 36 percent.)	None.
Metropolitan Water District	36. (For pumping Colorado River water into and in its aqueduct.)	36.	72 ¹ (Its own minimum, plus first call on unused energy allotted to States.)	First call on all secondary energy.
Los Angeles	14.9054	32.9054 (Its own minimum, plus 50 percent of unused State allocation, 36 percent.)	50.9054 (Its own minimum, plus 50 percent of unused State allocation, 36 percent, plus 1/2 of unused district allocation, 36 percent.)	50 percent, subject to district's first call.
Pasadena	1.6183	1.6183	1.6183	None.
Glendale	1.8867	1.8867	1.8867	None.
Burbank	.5806	.5806	.5806	None.
Southern California Edison Co., Ltd.	7.2	21.6 (Its own minimum, plus 40 percent of unused State allocation, 36 percent.)	39.6 (Its own minimum, plus 40 percent of unused State allocation, 36 percent, plus 1/2 of unused district allocation, 36 percent.)	40 percent, subject to district's first call.

Southern Sierras Power Co. (now California Electric Power Co.).	.9	2.7 (Its own minimum, plus 5 percent of unused State allocation, 36 percent.)	2.7 (Its own minimum, plus 5 percent of unused State allocation, 36 percent.)	5 percent, subject to district's first call.
Los Angeles Gas & Electric Corp. (afterward acquired by city of Los Angeles).	.9	2.7 (Its own minimum, plus 5 percent of unused State allocation, 36 percent.)	2.7 (Its own minimum, plus 5 percent of unused State allocation, 36 percent.)	5 percent, subject to district's first call.
Total	100.00	100.00		100.00
Additional firm energy (90,000,000 kilowatt-hours per year) made available by increase in height of dam				
Los Angeles	All	All	All	

The district also had first call on firm energy allotted to but unused by the city of Los Angeles and the companies, but such energy was all firmly contracted for by the allottees named.

The State of Nevada thereafter exercised its draw-back privilege and contracted for various quantities of energy within its 18-percent allotment.¹⁵ Arizona did not enter into a contract until 1945, and gave its first notice of withdrawal of energy in 1948.

It will be noted that if these "draw-backs" should be fully exercised, 36 percent of the firm energy would be taken by States, 55 percent by other public agencies, and 9 percent by private power companies.

References to subsequent amendments appear in the margin.¹⁶

D. Compliance With Conditions Precedent to Appropriations

In June 1930, Secretary Wilbur reported to the congressional appropriations committees as follows, in support of a budget estimate of \$10,660,000:¹⁷

THE SECRETARY OF THE INTERIOR,
Washington, D. C., June 16, 1930.

The CHAIRMAN, COMMITTEE ON APPROPRIATIONS,
United States Senate.

MY DEAR MR. CHAIRMAN: Estimates for construction work on the dam and incidental works authorized by the Boulder Canyon Project Act (45 Stat. 1057) for the fiscal year commencing July 1, 1930, have been submitted to Congress and referred to your committee. The amount asked is \$10,660,000. I recommend the appropriation of that amount and will, if it is appropriated, direct the early commencement of construction.

¹⁵ Power contracts were made by the United States with the Nevada Colorado River Commission under the 1930 regulations as follows (references are to symbol numbers): I2R-6052, May 6, 1936; I2R-6052, Supplement No. 1, April 23, 1938; I2R-6052, Supplement No. 2, December 7, 1939; I2R-6052, Supplement No. 3, December 19, 1940; I2R-6392, August 10, 1936.

¹⁶ In 1938 the Department of Water and Power of the City of Los Angeles entered into a contract with the Secretary of the Interior ("third circuit" contract, July 6, 1938), under which it agreed to construct a third transmission circuit, bringing to 390,000 kilowatts the effective capacity of its Hoover Dam transmission lines, and to take stipulated quantities of secondary energy on which the regulations of 1930 gave it an option. In consideration of these undertakings, the United States agreed (1) to maintain the existing ratio between rates for secondary energy and firm energy on any subsequent rate adjustments; (2) to extend the amortization period on generating equipment to the full period (50 years) of the city's lease; (3) grant an absorption period with respect to the allocation made originally to the Los Angeles Gas & Electric Corp., which the city had acquired in purchasing the properties of that company.

Concurrently, the Metropolitan Water District of Southern California entered into a contract with the United States (July 13, 1938), providing for the deferment of the district's obligation to take energy in excess of its pumping requirements, but obligating it to pay interest upon the amounts deferred.

The 1938 contracts are omitted from this volume, as they were superseded by the agreements made under the Boulder Canyon Project Adjustment Act, *infra*, which incorporated these provisions in modified form.

¹⁷ Appendix 42, first edition.

All conditions required by the Boulder Canyon Project Act to be performed prior to appropriation for such construction have been fulfilled. There are four such conditions, as follows:

(1) As required by section 4 (a) of the Boulder Canyon Project Act, six of the States of Arizona, California, Colorado, Nevada, New Mexico, Utah, and Wyoming, including the State of California, ratified the Colorado River compact, mentioned in section 13 of the act, and consented to waive the provisions of the first paragraph of article XI of the compact, which makes the same binding and obligatory only when approved by each of the seven States signatory thereto, and approved the compact without conditions, save that of such six-State approval.

Copies of the statutes of the six States of California, Colorado, Nevada, New Mexico, Utah, and Wyoming, effecting such ratification are handed to this committee, herewith.

(2) As provided by section 4 (a) of the act, the President, by public proclamation dated June 25, 1929, has declared the approval of the compact by six States, including California.

True copy of the proclamation is handed the committee herewith.

(3) As required by section 4 (a) of the act, the State of California, in the statute, copy of which has been handed you, has agreed irrevocably and unconditionally with the United States and for the benefit of the States of Arizona, Colorado, Nevada, New Mexico, Utah, and Wyoming, that the aggregate annual consumptive use of water of and from the Colorado River shall not exceed 4,400,000 acre-feet of the waters apportioned to the lower-basin States by paragraph A of article III of the Colorado River compact, plus not more than one-half of any excess or surplus waters unapportioned by the compact, such uses always to be subject to the terms of the compact.

(4) As required by section 4 (b) of the Boulder Canyon Project Act, I have made provision for revenues by contract in accordance with the provisions of the act, adequate, in my judgment to insure payment of all expenses of operation and maintenance of the dam and power plant incurred by the United States, and the repayment within 50 years from the date of the completion of said works of all amounts advanced to the Colorado River Dam fund under subdivision (b) of section 2 of the Project Act for such works, together with interest thereon made reimbursable under that act.

These contracts are two in number: (1) A contract for lease of power privilege executed severally by the city of Los Angeles and the Southern California Edison Co. (Ltd.), and (2) a contract for electrical energy executed by the Metropolitan Water District of Southern California. In addition, under authority of section 5 of the act, I have executed with the Metropolitan Water District of Southern California a contract for the delivery of water to be stored in the Boulder Canyon Reservoir.

True copies of the two power contracts required by section 4 (b) of the act, and of the contract for delivery of water, are submitted to the committee herewith.

With particular reference to the power contracts, I wish to advise you that—

(a) The power contracts between the United States and the Metropolitan Water District of Southern California, the City of Los Angeles, and the Southern California Edison Co. (Ltd.) are adequate in my judgment to insure payment of all expenses of operation and maintenance of the dam and power plant incurred by the United States and the repayment within 50 years from the date of the completion of said works of all amounts advanced to the Colorado River Dam fund under subdivision (b) of section 2 of the Project Act for such works, together with interest thereon reimbursable under that act. This finding applies to the contracts both as originally drawn, and amended as suggested before the House Committee on Appropriations.

(b) The finding stated above is reported to you regardless of whether the City of Los Angeles, or only its Department of Water and Power, or both the city and the department, as separate entities, are thereby obligated.

(c) The finding stated in paragraph (a) would be reported to you regardless of whether or not the Metropolitan Water District of Southern California was thereby obligated.

As required by Senate Joint Resolution 164, Seventieth Congress, approved May 29, 1928 (45 Stat. 1011), the Secretary of the Interior, with the sanction and approval of the President, appointed a board of five eminent engineers and geologists, one of whom is an engineer officer of the Army on the retired list, who examined the proposed site of the dam to be constructed under the Boulder Canyon Project Act, reviewed the plans and estimates made therefor, advised the Secretary as to matters affecting the safety, the economic and engineering feasibility, and adequacy of the proposed structure and incidental works, and approved the plans for construction to date. Plans are proceeding satisfactorily, and construction can start as soon as this appropriation is available.

Report of this board (commonly known as the Sibert board) was submitted to the Secretary, November 24, 1928, and transmitted by him to the Speaker of the House on December 3, 1928. The Boulder Canyon Project Act thereafter became law. A supplemental report of the board was submitted to the Secretary on April 16, 1930.

True copies of both reports are handed to this committee herewith.

Annexed to this report, as a part of it, are two memoranda on the following subjects:

- I. Financial operation of the project.
- II. Analysis of the power contracts.

Submitted separately are the following memoranda:

Engineering:

1. Present status of Boulder Dam designs.
2. Hydrology of Boulder Canyon Reservoir.
3. Basis of the rates for power.
4. Charts on financial operation.

Legal:

1. Opinion of the Attorney General on authority of the contractors and minimum obligations of the contracts.
2. Opinion of the Attorney General on funds required by the act to be repaid.
3. Opinion by the Solicitor of the Interior Department on 16 questions involving construction of the act.

Economic:

1. Audit of the Los Angeles Bureau of Power and Light, 1929.
2. Annual Report of the Southern California Edison Co., 1929.

Very truly yours,

RAY LYMAN WILBUR.

(For enclosure see appendixes 43 and 44 to the first edition.)

A supplemental report, June 17, 1930, gave the following background:¹⁸

¹⁸ Appendix 45, first edition.

THE SECRETARY OF THE INTERIOR,
Washington, D. C., June 17, 1930.

The CHAIRMAN, COMMITTEE ON APPROPRIATIONS,

United States Senate.

MY DEAR MR. CHAIRMAN: Supplementing my formal report to your committee, and with reference to the Boulder Dam power contracts, I would suggest that analysis of these contracts will be assisted by keeping certain points in mind which were made objectives in drafting these instruments.

1. A wide regional benefit from this power was desired and obtained: 18 percent is allocated to Arizona; 18 percent to Nevada; 36 percent to the Metropolitan Water District of Southern California for pumping a domestic water supply from the Colorado; 13 percent to Los Angeles; 6 percent to 11 smaller cities; in all, 91 percent of the firm energy to 15 public agencies, to be generated by machinery leased and operated by the City of Los Angeles. The remaining 9 percent was allocated to four public utilities who alone can serve the great agricultural back country.

2. This wide distribution was not possible, however, if the States of Arizona and Nevada were required to firmly obligate themselves now for power which they cannot yet use. The same was true to a lesser extent of the 11 smaller cities. Yet the act requires firm contracts in advance of appropriations, adequate to return the Government's investment. It was found that sale of 64 percent of the firm energy would accomplish this. Two applicants had sufficient resources and market to be able to guarantee to take that amount of power, which is in excess of two-thirds of the entire present southern California consumption. These were the City of Los Angeles and the Southern California Edison Co. But to allot 64 percent to these two agencies would have meant a restriction of the regional spread of this power. The problem was solved by requiring the city to underwrite purchase of 37 percent and the company 27 percent of the firm power, of which these two only acquired title respectively to 13 and 9 percent; the balance of the 64 percent being available to them only until the States of Arizona and Nevada and the smaller municipalities might need it. The smaller municipalities were allowed 1 year within which to contract for their 6 percent, and the two States the entire 50-year period of amortization within which to contract for their 36 percent. And this State power may be taken and relinquished, taken again and relinquished again, on notice, as the cycles of mining or other development in these two growing States may require; their energy will thus be available for them for the entire 50 years, without any firm obligation to take it. This arrangement was only made possible by the earnest desire of the city and the company to facilitate the building of the dam as a solution of the water problem of the Coastal Plain.

Solution of the water problem is undertaken with the balance of the power, 36 percent, which is allocated to the Metropolitan Water District, a municipal corporation comprising 11 cities with an assessed valuation of \$2,300,000,000, which has firmly contracted for this 36 percent and will use it to pump Colorado River water through an aqueduct. It is also allotted all the secondary power (surplus power fluctuating with wet and dry season cycles). But as this district, although capable of making this firm contract has not yet undertaken to finance its aqueduct and indeed could not be expected to do so until it was assured of a power and water supply by contract with the United States, this 36 percent was

not considered in our estimates of the minimum assured return to the Government of the United States. As previously stated, it was found that without this 36 percent and without any revenues from the sale of secondary power or the sale of stored water, we were still assured of all the revenues required by the act. Nevertheless, revenues under the district's power contract and from secondary energy and stored water will provide a large surplus available for payment to the States of Arizona and Nevada and to the Colorado River Dam fund.

Allocation of the California power among the city of Los Angeles, the 11 smaller cities, the Metropolitan Water District, and the four utilities, follows exactly two agreements among them which they submitted to the Secretary of the Interior. Faced by a common water problem whose solution required the marketing over an oil and gas field of power generated 250 miles away, in sufficient quantity to make the building of Boulder Dam possible, these various elements—large cities, small cities, public utilities, municipal power systems, water supply organizations—have resolved their power problem in a way which appeared to them to best afford a basis for solution of the dominant water question.

Copies of these two agreements are enclosed, and in addition, a letter to me from the chairman of the board of the Southern California Edison Co., all of which will indicate the background of cooperation on which the financial structure of these contracts is based.

Very truly yours,

RAY LYMAN WILBUR.

(For enclosures see appendixes 34, 35, and 36 to the first edition.)

E. Contest With Arizona Over the First Appropriation

The following is quoted from the first edition (p. 26):

The State of Arizona appeared in opposition to the appropriation, although the contracts reserved 18 percent of firm energy for that State to be taken by it any time within 50 years, and also provided surplus revenues which were estimated to yield that State under provisions of the project act between \$22,000,000 and \$31,000,000 during the life of the contracts. At the hearings the opposition centered upon the contracting capacity of Los Angeles and phraseology of certain clauses of the contracts. While testimony was presented on behalf not only of the Department but of each of the contractors refuting the Arizona position, it was decided, in view of the brief time remaining before adjournment of Congress, and the possibility of a filibuster, to eliminate the Arizona objections by amendment of the contracts. The amendments were signed on May 28 and 31, 1930, and effected no change in the tenor of the instruments. The contracts were thereupon submitted to the Attorney General for opinion. He reported that "all the requirements of section 4 (b) of the Boulder Canyon Project Act which are made conditions precedent to the appropriation of money, the making of contracts, and the commencement of work for the construction of a dam and power plant in Boulder Canyon have been fully met and performed by the Secretary of the Interior in securing the contracts referred to in his letter." As the city and company contracts were found adequate, the objections made to the Metropolitan contract, principally the lack of funds to build an aqueduct, were not passed upon, but: "Even if the aqueduct financing were construed as being a prerequisite, the Secretary's reservation of energy for the district is within his authority under the second paragraph of section 5 (c) of the act."¹⁹

¹⁹ Opinion of the Attorney General, June 9, 1930 (36 Ops. Atty. Gen. 270).

Later the State of Arizona filed its objections with the Comptroller General, and he concurred with the Attorney General.²⁰

The full appropriation was approved by both Houses, notwithstanding Arizona's opposition.²¹

On October 13, 1930, 3 days after the Comptroller General's opinion, Arizona filed an original action in the United States Supreme Court against the Secretary of the Interior and the six States of the basin to enjoin construction of the dam, and praying that the compact and the project act be declared unconstitutional. The decision dismissing the bill is discussed in chapter XIII (A) and the opinion (283 U. S. 448 (1931)) is printed as appendix 1301.

²⁰ Opinion of the Comptroller General, October 10, 1930 (Decision A-32702).

²¹ Second Deficiency Act, fiscal year 1930 (46 Stat. 860, 878). For a full statement of the efforts made by Secretary Wilbur to protect the position of Arizona in the negotiation of the power contracts, notwithstanding Arizona's refusal to participate, see letter of Secretary Wilbur to Governor Phillips of Arizona, May 14, 1930 (appendix 46, first edition). This letter, and Governor Phillips' reply, appear in The Congressional Record 12225-12228, June 26, 1923.