

United States
Department of the Interior
Bureau of Reclamation
Annual Project History
Boulder Canyon Project Arizona-Nevada
Volume 32 Calendar Year 1962

ANNUAL PROJECT HISTORY

* * * * *

BOULDER CANYON PROJECT

* * * * *

HOOVER DAM

* * * *

1 9 6 2

* * *

TABLE OF CONTENTS

	<u>Page</u>
Introduction	1
Construction	3
Operation and Maintenance	4
Photographs	7
Contents of Appendix	13

LIST OF PHOTOGRAPHS

	<u>Page</u>
Aerial View of Hoover Dam and Black Canyon	7
N8 Operating Balcony during (Gibson) Tests	8
Connections of Test Instruments	9
Electrical Instruments for Measuring Exciter Power Output . . .	10
Nut Head Gage and Manometer Set Up for Acceptance Tests	11
Nine Millionth Visitor on Personally Conducted Tour	12

INTRODUCTORY AND GENERAL

This is the thirty-second annual history of the Boulder Canyon Project. The previous histories have described the establishment of the Project, construction of the dam, installation of powerplant machinery, and operation and maintenance of the Project to December 31, 1961.

During the calendar year 1962, revenues deposited in the Colorado River Dam Fund from the sale of power, from diversion of stored water in Lake Mead, and from miscellaneous sources amounted to \$8,514,813. From these revenues (not otherwise required), there were paid to the United States Treasury from the Colorado River Dam Fund \$5,071,000, of which \$2,189,676 were applied to reduce the principal of the long-term debt and \$2,881,324 were applied to interest on the debt. Repayments to the Treasury since the beginning of the operations of the Project total \$123,005,591 of which \$88,508,793 were to pay interest accruals and \$34,496,798 were to reduce the principal of the debt.

Charge-offs through December 31, 1962 have amounted to \$3,110,952. Of this amount, \$3,107,180 are attributable to nonproject investments and expenditures charged off in accordance with P.L. 841, 80th Congress and P.L. 900, 85th Congress. The balance of \$3,772 is attributable to transfers to approved institutions for health or educational activities without exchange of funds in accordance with the Federal Property and Administrative Service Act of 1949.

The total long-term debt was \$102,478,805 at December 31, 1962 excluding the sum of \$25,000,000 allocated to flood control, which is deferred for repayment until after June 1, 1987, under the Boulder Canyon Project Adjustment Act.

Government employees averaged 155 during the year and were, in general, working on operation and maintenance. Minor construction work was performed by the staff on a part-time basis.

The two operating agents maintained an average force of 76 employees, 61 of which were employed by the City of Los Angeles and 15 by the Southern California Edison Company.

The Project safety record for the year shows 328,828 man-hours worked, 3 lost-time accidents, and 89 calendar days' lost time. The frequency rate was 9.1 and the severity rate was 270.

Visitors taking the guided tour of Hoover Dam and Powerplant in 1962 numbered 511,994. Among the many notable persons visiting the Project were the Ambassador of Ghana, a Congressman of Iran, and the Israelian Ambassador to the United Nations. Senator Alan Bible of Nevada and five Egyptian governors visited in August. Senator Bible made a return visit in October and Representative Wayne N. Aspinall, Member of Congress from Colorado, visited in November. An interesting highlight was the nine millionth visitor to the dam. John Sheridan, of Daly City, California, bought the lucky ticket on October 13, 1962.

CONSTRUCTION

Except for the corrective work on the centralized lubrication system, the requirement under Invitation No. DS-5136 for furnishing the turbine, by Baldwin-Lima-Hamilton Corporation, was completed during the year. Turbine acceptance tests were conducted during month of June.

Acceptance tests were also conducted during February on the N8 generator furnished by the Allis-Chalmers Manufacturing Co. under Specifications No. DS-5193. Corrective work was performed in June to eliminate loss of oil at the upper guide bearing during overspeed runs. In October, the side sheets on the N8 generator stator upper air baffle housing showed evidence of failure and were removed to prevent possible major damage to the windings by complete failure of the fractured sections. At the end of the year, corrective work on this defect and on several other minor items had not been done. Final painting of N8 generator was completed in December 1962.

The three-phase, 105,000-kva transformer supplied by S. A. Des Ateliers de Secheron under Specifications No. DS-5271 was completed except for some corrective work required to make the water to oil differential relays meet the operating conditions. Three bushing storage tanks were procured and assembled for storage of the spare high voltage bushings for the N8 power transformer.

Requirements of Specifications No. DS-5240 for installation of N8 equipment and reconstruction of transformer circuits was completed, but final settlement of the contract was held in abeyance because the contractor failed to submit some necessary information and failed to return the executed final documents.

Preliminary investigations and surveys were started for the proposed installation of a 22,000-kva transformer on the Nevada powerhouse roof to be designated as Bank Z, for relieving load on transformer Bank Y to permit supplying additional load to the State of Nevada from Bank Y.

A flowmeter for measuring the quantity of water passing through the N8 turbine was installed, but, by the end of the year, the manufacturer had not supplied the necessary calibrated parts to permit placing the flowmeter in service.

OPERATION AND MAINTENANCE

Usable storage in Lake Mead at the end of the year was 22,990,000 acre-feet; the surface elevation of 1193.19 feet was 38.56 feet higher than the level at the end of 1961. The inflow to Lake Mead measured at Grand Canyon was 14,862,000 acre-feet for the year, which was above normal.

The inflow during the 1962 flood season, April through July, was 10,888,000 acre-feet, which is 132 percent of the average of the past 40 years of 8,263,000 acre-feet. Releases from Lake Mead amounted to 8,615,000.

Diversions from Lake Mead for use in Nevada amounted to 21,359 acre-feet for the State of Nevada and 2,610.97 acre-feet for Boulder City, Nevada, which includes water delivered to National Park Service and Bureau of Mines.

Electrical energy delivered to power allottees during the contract year ending May 31, 1962 was 3,152,122,069 kilowatt-hours. In addition to this quantity, a net of 4,764,981 kilowatt-hours was delivered to Parker-Davis Project as interchange. Gross generation of energy for the calendar year was 3,205,719,000 kilowatt-hours.

Electrical Laboratory

The laboratory standard wattmeters were calibrated against the Bureau of Standard Certified Standard Test Cell. Revenue and recording watt-hour meters for the main generating units were calibrated as necessary.

Pet Rest Facilities

A preliminary drawing was made for an open-type pet rest to be located on the Arizona side of the dam, provided that a suitable agreement is negotiated with the Clark County Humane Society of Las Vegas, Nevada and that funds for the construction are appropriated by the Congress.

Removal of Railroad

An invitation for sale of Government-owned railroad equipment and trackage between Boulder City and Hoover switchyard was issued on April 11, 1962. In May 1962, the diesel locomotive was delivered

to Union Pacific Railroad at the request of the purchasing contractor. The contractor completed all work in connection with removal of railroad in December 1962. The rails between the switchyard and the 150-ton cableway cradle pit were removed by Project forces.

Cloudburst Damage

On the afternoon of September 26, a rain of cloudburst proportions occurred at Hoover Dam, resulting in some damage and requiring extensive clean-up of mud, rock sand, and debris.

The space behind the retaining wall on the Arizona rim was filled with rock, sand, and debris, thus causing the water to flow over the top of the wall and fall on the powerhouse, Arizona valve house, and upper penstock adit, carrying along with it considerable rock, sand, and mud. Windows were broken in the upstream end of the Arizona valve house, allowing water to enter the main floor from which it ran down the elevator shaft. Minor damage was caused to the elevator equipment and the elevator had to be taken out of service. Drains in the upper penstock adit were partially blocked and water accumulated in the adit to a depth of about 3 feet, leaving a deposit of sand, mud, and rock. On the ramp between the upper adit and the Arizona valve house, about four cubic yards of rock and mud were deposited.

At the downstream end of the Arizona powerhouse ramp, about six cubic yards of rock, sand, and mud were deposited, but fortunately no damage occurred to the transformer Bank Y bushings. The lower penstock adit had an accumulation of water, sand, and mud about three feet deep.

On top of the dam, water accumulated to a depth of about three inches above the sidewalk. Some water entered the elevator shafts, but by keeping all doors closed the amount entering the shafts caused no damage. A considerable amount of rock, mud, and sand was deposited along the entire length of the top of the dam, having been carried by water from the switchyards that was funneled to the top of the dam by the retaining walls along the roadway from the switchyards.

The Snacketeria (vending stand for the blind) was flooded with water and mud. Across the road, the upper cableway landing was covered with mud and rock.

Water on the lower portal roadway, funneled by the retaining walls along the lower portion of the roadway, ran across the lower portal bridge, through the lower portal tunnel to the end of the Nevada powerhouse ramp, and into the lower penstock adit.

One of the Project's small motor boats, docked at the downstream end of the Arizona ramp, was damaged and sunk by falling rock carried by water from the Arizona rim.

Most of the clean-up had been completed by the end of the year.

Fall-out Protection

The following locations at Hoover Dam will be used by the Office of Civil Defense as emergency fall-out shelters for the use of the public:

1. The abandoned railroad tunnels located between the No. 2 warehouse and State Highway No. 41;
2. The tunnel on the lower portal road leading to the power-plant; and
3. The tunnel leading to the disposal area downstream from Hoover Dam.

Replacement of Type F Bushings

Replacement of the General Electric Company Type F high-voltage bushings with rebuilt bushings (designated as Type U bushings) was completed during the year. Employee and visitor traffic, which had been restricted on the Arizona transformer ramp because of the possible danger from exploding Type F bushings, was restored to normal.

287.5-kv Transformer Cooling Coil Failure

During routine sampling of transformer oil from power transformers, water was detected in the N3-4, C-phase power transformer, Serial No. 5,002,003. The transformer was replaced by the spare unit and the faulty transformer was disassembled. Eighty gallons of water were removed or separated from the transformer oil. The transformer core and winding were placed in a special dry-out tank provided by the operating agent, the Department of Water and Power, and dry out was in progress at the close of the year. Leakage of water had occurred through holes that had developed in two of the cooling coil entrance elbow fittings.

Aerial View of
Hoover Dam
and
Black Canyon.



P-45 -301-10287

Unit N8

Operating Balcony

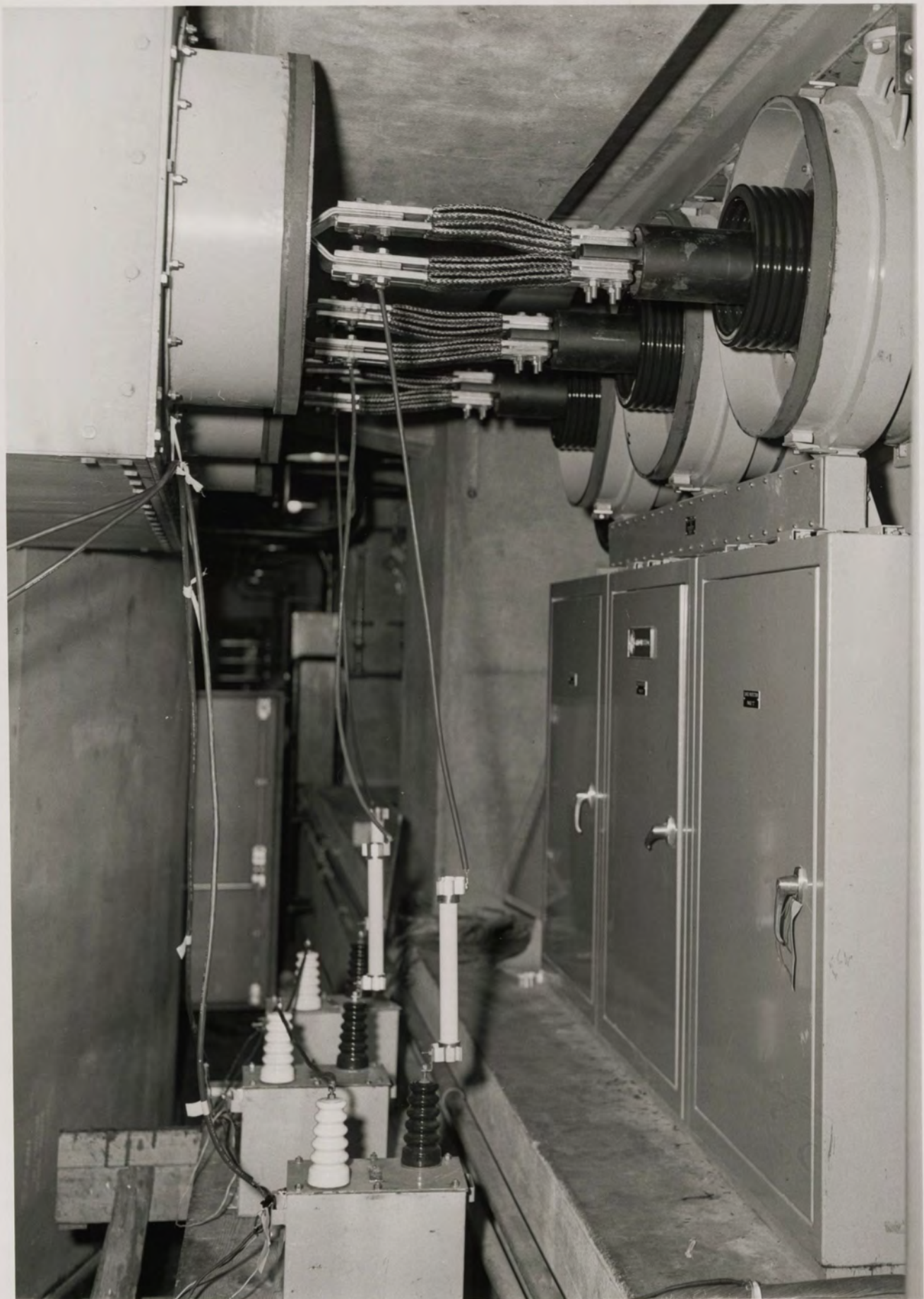
Electrical instruments set up for
measuring power output of Unit N8 generator
during turbine acceptance (Gibson) tests.



P-45 -301-11108

Unit N8 Generator

Bus covers removed to permit connection
of manufacturer's test instrument potential
transformers to the generator bus terminals
for generator acceptance tests.



P-45 -301-11066-2

Unit N8 Generator Upper Bracket
Electrical instruments
(d-c voltmeter and ammeter)
connected to generator field shunt
for measuring exciter power output
during N8 turbine acceptance tests (Gibson).

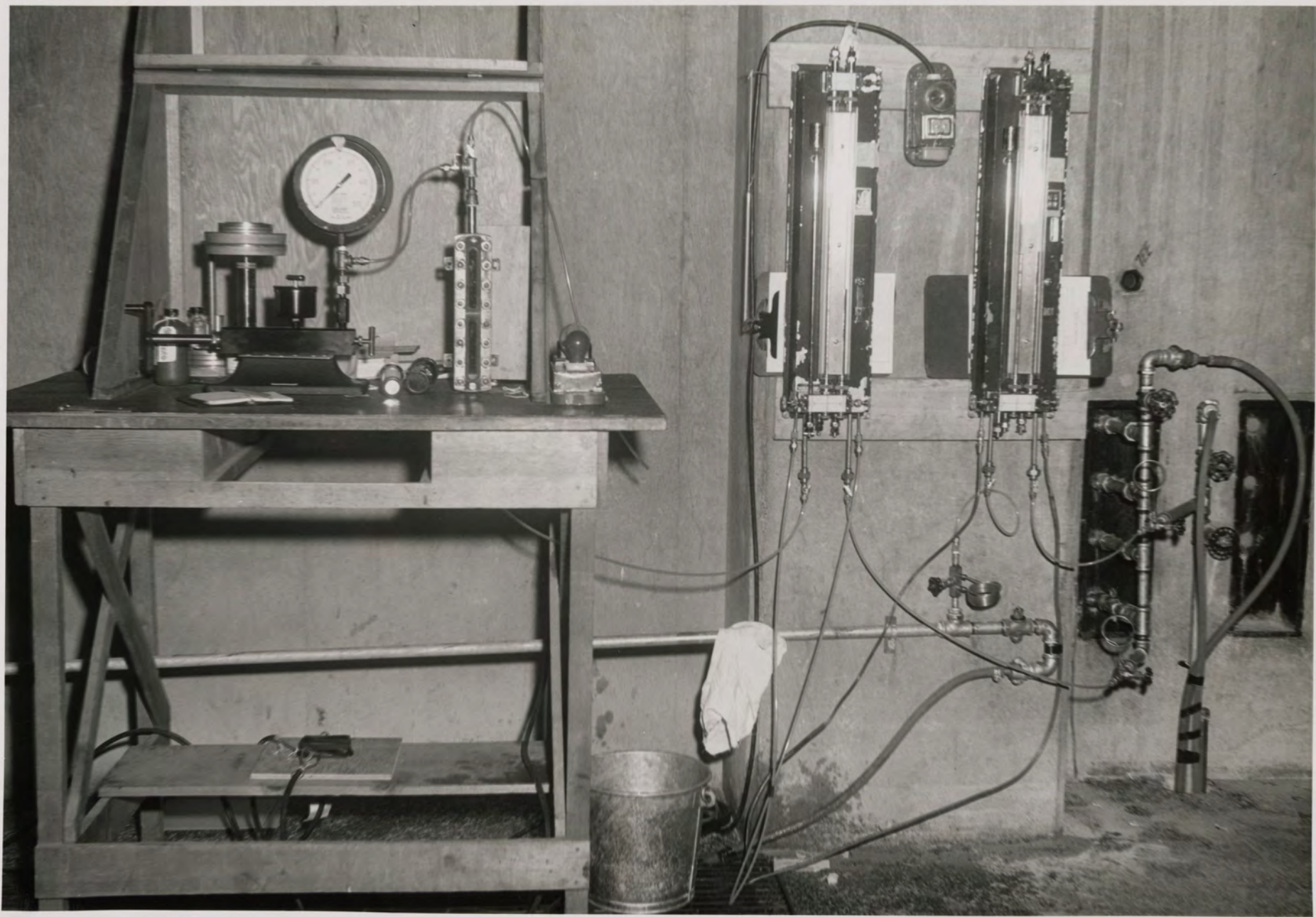


P-45 -301-11102

Unit N8

Governor Gallery

Net head gage and manometer
and butterfly valve manometer
set up for turbine acceptance
(Gibson) test on Unit N8.



P-45 -301-11106

Nine-millionth visitor to Hoover Dam. Mr. John Sheridan
from Daly City, California bought the nine-millionth ticket.

Shown with Mr. Sheridan and his wife is Project Manager
L. J. Hudlow, who took them on a personally conducted tour.



BUREAU OF RECLAMATION

P45-301- 11132-8 OCT 13 '62

BOULDER CITY, NEVADA

Photo By:
John R. Cotterill

Contents of Appendix

Title	<u>Page</u>
Control Schedule PF-2, Construction, F.Y. 1962.	15
Control Schedule PF-3, Operation and Maintenance, F.Y. 1963 . .	16
Cost and Progress Report PF-7, June 30, 1962.	17
Cost and Progress Report PF-7, December 31, 1962.	18
Summary Cost and Progress Report PF-6, June 30, 1962.	19
Summary Cost and Progress Report PF-6, December 31, 1962. . . .	20
Balance Sheet - Credits PF-52B, June 30, 1962	21
Balance Sheet - Debits PF-52a, June 30, 1962.	22
Analysis of Excess of Income Over Expense PF-55, June 30, 1962.	23
Statement of Income and Expense - Electric PF-55, June 30, 1962.	24
Statement of Electric Operating Income - Account No. 450 PF-55, June 30, 1962.	26
Visitors Facilities and Service Income - Account No. 492.1 PF-55, June 30, 1962.	27
Nonutility Operations Income - Account No. 493.1 PF-55, June 30, 1962.	28
Miscellaneous Income - Account No. 494.1, PF-55, June 30, 1962.	29
Statement of Electric Operating Expense - Account No. 451.1 PF-55, June 30, 1962.	30
Visitors Facilities and Service Expense - Account No. 492.2 PF-55, June 30, 1962.	38
Nonutility Operations Expense - Account No. 493.2 PF-55, June 30, 1962.	39
Miscellaneous Expense - Account No. 494.2, PF-55, June 30, 1962.	40
Weather Conditions.	41

	<u>Page</u>
Power Operations, PO&M -60b, and -61b	44
Daily Average Load - Megawatts, Hoover Powerplant	48
Daily Peak Load - Megawatts, Hoover Powerplant.	49
Monthly Water Diversions - Lake Mead Reservoir.	50
Project Data as of June 30, 1962.	51

LEGEND: Types of Activity

Preconstruction Construction

LINE NO.	CLASS AND ACCOUNT	PROGRAM ITEM	QUANTITY	UNIT	ESTIMATED TOTAL	TOTAL TO JUNE 30, 1962	FISCAL YEARS												BALANCE TO COMPLETE	ESTIMATED COMPLETION DATE	NO.
							1962	1963	1964												
1																					
2		Power Development	1,344,800	KW		1,249,800KW				95,000 KW (Unit N8)											
3		Municipal and Industrial Water	18,000	A.F.																	
4	107	CONSTRUCTION PROGRAM																			
5	01	Hoover Dam and Reservoir	29,827,000	A.F.	84,149,055	84,149,055															
6	11	Hoover Powerplant	1,344,800	KW	57,489,450	56,642,081				847,369											
7	13	Hoover Switchyard	1,546,890	Kva	12,007,389	11,547,308				160,081	70,000	230,000									
8	15.01-.04 & .10-.18	General Property			12,346,106	12,339,909				6,197											
9																					
10		TOTAL CONSTRUCTION COST			165,992,000	164,678,353				1,013,647	70,000	230,000									
11		Interest During Construction			8,690,000	8,486,261				193,739	1,000	9,000									
12		TOTAL PROJECT COST			174,682,000	173,164,614				1,207,386	71,000	239,000									
13																					
14		Consolidated Expenditures and Credits			-7,440,000	-7,232,204				-197,796	-1,000	-9,000									
15																					
16		TOTAL EXPENDITURES			167,242,000	165,932,410				1,009,590	70,000	230,000									
17		Undelivered Orders				728,200				-728,200											
18		TOTAL OBLIGATIONS			167,242,000	166,660,610				281,390	70,000	230,000									
19																					
20																					
21		Funds Available								281,390											
22		Funds Required									70,000	230,000									
23																					
24																					
25																					
26																					
27																					
28																					
29																					
30																					
31																					
32																					
33																					

Notes: 1. Construction initiated prior to Definite Plan Report requirement.
2. No land certification required

NCH
 Recommended: *D.O. Farnsworth* 12/21/61 (Date)
 (Sponsoring Office Head)
 Recommended: *Edith Davis* 12/27/61 (Date)
 (Regional Director)
 Recommended: *Edith Davis* JAN 30 1962 (Date)
 (Chief of P.C. & P.)
 Approved: *Walter D. Smith* JAN 30 1962 (Date)
 (Commissioner)
 Revised: 12-61 (Date)

Form PF-2 UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF RECLAMATION
CONTROL SCHEDULE
BOULDER CANYON PROJECT
 Boulder City, Nevada August 10, 1961 3 REGION
 OFFICE DATE
 GENERAL INVESTIGATIONS OPERATION & MAINTENANCE
 CONSTRUCTION OTHER

SHEET 1 of 1 SHEETS

13

13

LINE NO.	COST CLASSIFICATION	ITEM	SIZE OR CAPACITY FY 1964	PRIOR YEAR FY 1962	FISCAL YEARS			REMARKS
					1963	1964	1965	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	
1		Electric Generation	1,344,800 KW					
2		Hoover Dam and Powerplant						
3	520	Operation		410,587	425,000	420,000	428,000	Replacements: F.Y.63 F.Y.64
4	521	Maintenance		349,647	377,200	370,400	389,000	Water Piping 30,000 30,000
5	180& 261	Replacements		5,457	30,000	30,000	30,000	
6	522.4	Other Expenses		51,251	64,800	57,600	60,000	
7	522.4	Other Expenses (Sedimentation Survey Lake Mead)		16,243	50,000	200,000	--	
8		Subtotal - Electric Generation		833,185	947,000	1,078,000	907,000	
9								
10		Transmission System						
11	541	Maintenance		1,152	1,000	1,000	1,000	
12								
13		Subtotal - Transmission System		1,152	1,000	1,000	1,000	
14								
15		General Project Activities						Replacements: F.Y.63 F.Y.64
16	586,591,593	Administrative & General Expense - Boulder Canyon Project (Excluding Replacements from O&M)		188,103	248,000	250,000	250,000	1 Bus 4,800 --
17								4 Sedans 5,400 --
18	591.2	General Property Replacements		11,305	38,000	30,000	40,000	2 Sedans 2,700
19	530	Non-Utility Water and Electric Systems		74,558	83,707	84,000	86,000	2 Suburbans 3,800 --
20	551	Guide Service - Boulder Canyon Project		140,941	159,000	146,000	150,000	1 Suburban -- 1,650
21	G.L.179	Work Performed for Operating Agents		28,745	40,000	30,000	40,000	5 Pickups 8,250 --
22								3 Pickups -- 4,950
23		Subtotal - General Project Activities		443,652	568,707	540,000	566,000	1 Ambulance -- 8,800
24								Misc. Property 10,150 6,300
25		TOTAL O&M COST		1,277,989	1,516,707	1,619,000	1,474,000	Office Furn.&
26								Equipment 5,600 5,600
27		Transfers, Credits and Other Expenditures		25,529	1,000	1,000	1,000	
28								38,000 30,000
29		TOTAL COST TO APPROPRIATION		1,303,518	1,517,707	1,620,000	1,475,000	
30								
31		Stores		-16,006	-2,000	--	--	
32								
33		TOTAL EXPENDITURES		1,287,512	1,515,707	1,620,000	1,475,000	
34								
35		Undelivered Orders		26,676	-34,707	--		
36								
37		TOTAL OBLIGATIONS		1,314,188	1,481,000	1,620,000	1,475,000	
38		Method of Financing						
39		Allotment		1,491,000	1,481,000			
40		Unobligated Balance of Allotment		176,812				
41		Allotment required				1,620,000	1,475,000	
42								
43								
44								

NOTES:

HCN
 Submitted: *[Signature]* 8-22-62
 Operating Office Head
 Recommended: *[Signature]* 8-27-62
 National Director
 Recommended: *[Signature]* SEP 25 1962
 Chief, P. C. & I. Div.
 Approved: *[Signature]* SEP 25 1962
 Commissioner
 Revised: _____ (Date)

UNITED STATES
 DEPARTMENT OF THE INTERIOR
 BUREAU OF RECLAMATION
**OPERATION AND MAINTENANCE
 PROGRAM SCHEDULE
 BOULDER CANYON PROJECT**

Boulder City, Nev. August 23, 1962 3
 OFFICE DATE REGION
 PF-3 (May 1958) SHEET 1 OF 1
 BR-94

SUMMARY COST AND PROGRESS REPORT

Boulder Canyon Project

PROJECT OR UNIT

Boulder City, Nevada

December 1962

3

OFFICE

DATE

REGION

GENERAL INVESTIGATIONS

OPERATION & MAINTENANCE

CONSTRUCTION

OTHER

PREPARED: ⁹⁹⁴ *Harry C. Hall*
Program Engineer

APPROVED: *C. Hudson*
Project Head

ACCOUNT NO.	PROGRAM ITEM	CURRENT FISCAL YEAR						TOTAL PROJECT					
		ORIGINAL FISCAL YEAR ESTIMATE	COST		BALANCE TO COMPLETE	PROBABLE FISCAL YEAR COST	% COMPLETE	OFFICIAL PROJECT ESTIMATE	TOTAL COST TO DATE	BALANCE REQUIRED TO COMPLETE	PROBABLE TOTAL COST	% COMPLETE	
			THIS MONTH	FISCAL YEAR TO DATE									
1	2	3	4	5	6	7	8	9	10	11	12	13	
	Power Development	0											
	Municipal and Industrial Water	0											
107	Construction Program												
01	Hoover Dam and Reservoir	0	0	0	0	0		84,149,055	84,149,055	0	84,149,055	100	
11	Hoover Powerplant	0	13,574	28,540	3,054	31,594		57,538,184	57,539,946	3,054	57,543,000	99	
13	Hoover Switchyard	70,000	1,136	2,730	71,141	73,871	4	11,964,852	11,658,895	301,141	11,960,036	97	
15.01-.04& .10-.18	General Property	0	0	0	0	0		11,339,909	12,339,909	0	12,339,909	100	
	TOTAL CONSTRUCTION COST	70,000	14,710	31,270	74,195	105,465	30	165,992,000	165,687,805	304,195	165,992,000	99	
	Interest During Construction	1,000	0	0	2,831	2,831		8,690,000	8,586,946	103,054	8,690,000	99	
	TOTAL PROJECT COST	71,000	14,710	31,270	77,026	108,296	29	174,682,000	174,274,751	407,249	174,682,000	99	
	Consolidated Expenditures and Credits	-1,000	-17,509	3,772	-16,674	-12,902		-7,440,000	-7,323,103	-116,897	-7,440,000	98	
	TOTAL EXPENDITURES	70,000	-2,799	35,042	60,352	95,394	37	167,242,000	166,951,648	290,352	167,242,000	99	
	Undelivered Orders	0	0	-7,538	-17,473	-25,011	30	0	17,473	-17,473	0		
	TOTAL OBLIGATIONS	70,000	-2,799	27,504	42,879	70,383	39	167,242,000	166,969,121	272,879	167,242,000	99	
	Funds Available			70,383									
	Unobligated Balance			42,879									

COST CLASSIFICATION	PROGRAM ITEM	FISCAL YEAR 1961 F.Y. 1962				OPERATING YEAR END'G 5-31-63		REMARKS
		APPROVED ESTIMATE		COST TO DATE	PROBABLE TOTAL COST	ESTIMATE	COST TO DATE	
		ORIGINAL	REVISED					
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	Electric Generation Hoover Dam and Powerplant							
520	Operation	425,000		410,587	410,587	425,000	52,522	
521	Maintenance	377,000		349,647	349,647	377,200	38,960	
180 & 261	Replacements (Chargeable to Replacement Reserve)	115,000		5,457	5,457	30,000	207	
522.4	Other Expenses	40,000		67,494	67,494	97,507	25,425	
	Subtotal Electric Generation	957,000		833,185	833,185	929,707	117,114	
541	Transmission System Maintenance	1,500		1,152	1,152	1,000	380	
	Subtotal Transmission System	1,500		1,152	1,152	1,000	380	
	General Project Activities							
586, 591, 593	Administrative & General Expense - Boulder Canyon Project (Excluding Replacements from O&M)	280,000		188,103	188,103	269,000	8,361	
591.2	General Property Replacements	25,000		11,305	11,305	38,000	10,316	
493.2	Non-utility Water and Electric Systems	88,000		74,558	74,558	80,000	11,851	
492.2	Guide Service - Boulder Canyon Project	120,000		140,941	140,941	159,000	15,149	
G.L. 179	Work Performed for Operating agents	28,689		28,745	28,745	40,000	1,761	
	Subtotal - General Project Activities	541,689		443,652	443,652	586,000	47,438	
	TOTAL O&M COST	1,500,189		1,277,989	1,277,989	1,516,707	164,932	
154	Transfers, Credits and other Expenditures Stores	1,000		25,529	25,529	1,000	-42,966	
		--		-16,006	-16,006	-2,000	603	
	TOTAL EXPENDITURES	1,501,189		1,287,512	1,287,512	1,515,707	122,569	
	Prior Year Obligations Liquidated	-10,189		-8,031	-8,031	-34,707	-6,316	
	Undelivered Orders	--		34,707	34,707	--	--	
	TOTAL OBLIGATIONS	1,491,000		1,314,188	1,314,188	1,481,000	116,253	
	Method of Financing							
	Allotment	1,491,000		1,491,000				
	Unobligated Balance of Allotment			176,812				

NOTES:

Prepared: Harry C. Hall
 Approved: A. J. Hurdlow
 Operating Office Head

Schedule Dated: August 17, 1961

UNITED STATES
 DEPARTMENT OF THE INTERIOR
 BUREAU OF RECLAMATION
 OPERATION AND MAINTENANCE
 COST & PROGRESS REPORT
 FOR THE

Boulder City, Nev. 3 June 1962
 OFFICE REGION DATE
 PF-6 (2-55) SHEET 1 of 1

COST CLASSIFICATION	PROGRAM ITEM	FISCAL YEAR 1963 F.Y. 1963				OPERATING YEAR END 6/30/63		REMARKS
		APPROVED ESTIMATE		COST TO DATE	PROBABLE TOTAL COST	ESTIMATE	COST TO DATE	
		ORIGINAL	REVISED					
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	Electric Generation Hoover Dam and Powerplant							
520	Operation	425,000		245,507	491,000	510,000	298,029	
521	Maintenance	377,200		223,677	447,000	450,000	278,879	
180 & 261	Replacements	30,000		1,218	5,000	5,000	1,425	
522.4	Other Expenses	64,800		16,800	64,800	64,800	25,982	
522.4	Other Expenses (Sedimentation Survey Lake Mead)	50,000		170	50,000	50,000	170	
	Subtotal Electric Generation	947,000		487,372	1,057,800	1,079,800	604,485	
541	Transmission System Maintenance	1,000		778	1,500	1,500	1,158	
	Subtotal Transmission System	1,000		778	1,500	1,500	1,158	
	General Project Activities							
586, 591, 593	Administrative & General Expense - Boulder Canyon Project (Excluding Replacements from O&M)	248,000		78,005	184,407	165,722	96,683	
591.2	General Property Replacements	38,000		623	5,000	5,000	623	
493	Non-utility Water and Electric Systems	83,707		44,374	89,000	96,000	56,225	
832, 833	Guide Service - Boulder Canyon Project	159,000		75,431	159,000	155,000	90,580	
G.L. 179	Work Performed for Operating Agents	40,000		4,552	20,000	20,000	6,313	
	Subtotal - General Project Activities	568,707		202,985	457,407	441,722	250,424	
	TOTAL O&M COST	1,516,707			1,516,707	1,523,022		
154	Transfers, Credits and Other Expenditures Stores	1,000 -2,000		59,833 -16,592	1,000 -2,000	1,000 -2,000	16,720 -15,989	
	TOTAL EXPENDITURES	1,515,707		734,376	1,515,707	1,522,022	856,798	
	Prior Year Obligations Liquidated	-34,707		-17,617	-34,707	-41,022	-23,932	
	Undelivered Orders	--		39,852	--	--	39,998	
	TOTAL OBLIGATIONS	1,481,000		756,611	1,481,000	1,481,000	872,864	
	Method of Financing							
	Allotment			1,481,000				
	Unobligated Balance of Allotment			724,389				

NOTES:

Prepared: Harry C. Hall
 Approved: [Signature]
 Operating Office Head

Schedule Dated: December 18, 1962

UNITED STATES
 DEPARTMENT OF THE INTERIOR
 BUREAU OF RECLAMATION

**OPERATION AND MAINTENANCE
 COST & PROGRESS REPORT**
 FOR THE
BOULDER CANYON PROJECT

Boulder City, Nev. 3 December 1962
 OFFICE REGION DATE

PF-6 (2-55) SHEET 1 of 1

BALANCE SHEET - CREDITS

PROJECT		Boulder Canyon		REGION 3		AS OF		June 30, 19 62	
ACCT NO.	TITLE ACCOUNT	Sch. No.	BALANCE		INCREASE OR DECREASE				
			6/30, 1961	6/30, 1962					
(1)	(2)		(3)	(4)	(5)				
	LIABILITIES AND OTHER CREDITS								
	INVESTMENT OF U. S. GOVERNMENT								
200	FUNDS APPROPRIATED (EXCLUSIVE OF TRUST FUNDS)		166,116,872	300,963,903	134,847,031				
205	INTEREST DURING CONSTRUCTION CAPITALIZED		8,493,540	8,587,777	94,237				
207	INTEREST ACCRUED ON INVESTMENT		74,369,269	77,379,690	3,010,421				
208	INTEREST DUE FROM THE UNITED STATES TREASURY (DR.)								
212	TRANSFER OF COST OR PROPERTY (NET)		350,459	-0-	(350,459)				
	TOTAL INVESTMENT OF U. S. GOVERNMENT		249,330,140	386,931,370	137,601,230				
	LESS								
214	CHARGE-OFFS AS AUTHORIZED BY CONGRESS (10)		3,009,920	3,058,051	48,131				
216	FUNDS RETURNED TO U. S. TREASURY		116,950,791	256,214,955	139,264,164				
217	NONREIMBURSABLE EXPENSES								
	TOTAL REPAYMENTS AND CHARGE-OFFS		119,960,711	259,273,006	139,312,295				
	NET INVESTMENT OF U. S. GOVERNMENT		129,369,429	127,658,364	(1,711,065)				
	NON-FEDERAL INVESTMENT								
218	REPAYMENTS REALIZED FROM OTHER SOURCES								
219	REPAYMENT CONTRACTS - MATURED								
220	OTHER CHARGES FUNDED (DR.)								
221	INTEREST AND PENALTIES FUNDED (DR.)								
222	CONTRIBUTION (11)		278,239	278,239	-0-				
	NET NON-FEDERAL INVESTMENT		278,239	278,239	-0-				
	EXCESS OF INCOME OVER EXPENSE								
225	EXCESS OF INCOME OVER EXPENSE (16)		24,583,409	25,560,750	977,341				
	CURRENT AND ACCRUED LIABILITIES								
232	ACCOUNTS PAYABLE (12)		102,482	72,609	(29,873)				
242	DEPOSIT FUNDS		414,008	381,898	(32,110)				
243	CREDIT DUE WATER USERS - OPERATING SURPLUS								
	TOTAL CURRENT AND ACCRUED LIABILITIES		516,490	454,507	(61,983)				
	OTHER CREDITS								
252	FACILITY USERS' ADVANCES FOR CONSTRUCTION								
253	OTHER DEFERRED CREDITS (13)		1,188,910	1,098,378	(90,532)				
	TOTAL OTHER CREDITS		1,188,910	1,098,378	(90,532)				
	TRANSFERS OF REPAYMENT OBLIGATIONS								
258	REPAYMENT OBLIGATIONS TRANSFERRED FROM OTHER PROJECTS (DR.)								
259	REPAYMENT OBLIGATIONS TRANSFERRED TO OTHER PROJECTS (CR.)								
	NET TRANSFERS OF REPAYMENT OBLIGATIONS								
	RESERVES								
260	DEPRECIATION								
261	REPLACEMENT (14)		16,052,979	17,267,954	1,214,975				
269	OTHER (15)		4,197,811	4,245,942	48,131				
	TOTAL RESERVES		20,250,790	21,513,896	1,263,106				
	TOTAL LIABILITIES AND OTHER CREDITS		176,187,267	176,564,134	376,867				

BALANCE SHEET - DEBITS

PROJECT **Boulder Canyon** REGION **3** AS OF **June 30, 1962**

ACCT NO.	TITLE OF ACCOUNT	Sch. No.	BALANCE		INCREASE OR DECREASE
			6/30, 1961	6/30, 1962	
(1)	(2)		(3)	(4)	(5)
	ASSETS AND OTHER DEBITS				
	PLANT PROPERTY AND EQUIPMENT				
101	MULTIPURPOSE PLANT	(1)	94,653,725	93,914,322	(739,403)
102	IRRIGATION PLANT				
103	ELECTRIC PLANT	(2)	65,738,687	72,256,763	6,518,076
104	MUNICIPAL AND INDUSTRIAL WATER PLANT				
105	OTHER PLANT				
107	CONSTRUCTION WORK IN PROGRESS	(3)	5,452,030	12,821	(5,439,209)
114	OTHER PHYSICAL PROPERTY	(4)	7,320,172	6,494,302	(825,870)
115	SERVICE FACILITIES				
	TOTAL PLANT, PROPERTY AND EQUIPMENT		173,164,614	172,678,208	(486,406)
	INVESTIGATION AND DEVELOPMENT COSTS				
116	INVESTIGATION COSTS				
117	TRANSITIONAL DEVELOPMENT COSTS				
	TOTAL INVESTIGATION AND DEVELOPMENT COSTS				
	INVESTMENTS				
124	INVESTMENTS				
125	DEFERRED AND UNMATURED RECEIVABLES		698,226	636,137	(62,089)
	TOTAL INVESTMENTS		698,226	636,137	(62,089)
	CURRENT AND ACCRUED ASSETS				
131	CASH AND AVAILABLE FUNDS		1,013,885	305,065	(708,820)
134	DEPOSIT FUNDS		414,008	392,279	(21,729)
140	DUE FROM WATER USERS - OPERATING DEFICIT				
142	ACCOUNTS RECEIVABLE	(5)	813,950	991,097	177,147
147	ESTIMATED APPROPRIATION TRANSFERS				
154	STORES		179,483	163,477	(16,006)
165	PREPAYMENTS AND ADVANCES		2,596	8,543	5,947
	TOTAL CURRENT AND ACCRUED ASSETS		2,423,922	1,860,461	(563,461)
	DEFERRED CHARGES AND OTHER DEBITS				
179	OTHER WORK IN PROGRESS	(6)	-0-	-0-	-0-
180	RETIREMENT WORK IN PROGRESS	(7)	(537,707)	960,894	1,498,601
182	EXTRAORDINARY LOSSES ON PROPERTY				
184	CLEARING ACCOUNTS		(1,883)	5,112	6,995
186	MISCELLANEOUS DEFERRED DEBITS	(8)	440,095	423,322	(16,773)
	TOTAL DEFERRED CHARGES AND OTHER DEBITS		(99,495)	1,389,328	1,488,823
	TOTAL ASSETS AND OTHER DEBITS		176,187,267	176,564,134	376,867

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION

29

COLUMNAR
SCHEDULE

TITLE EXCESS OF INCOME OVER EXPENSE

BOULDER CANYON PROJECT, NEVADA REGION 3

	DESCRIPTION	FISCAL YEAR THIS YEAR	TO DATE LAST YEAR	OPERATING YEAR THIS YEAR	OPERATING YEAR FROM 6/1 LAST YEAR
225	EXCESS OF INCOME OVER EXPENSE				
225.1	Power				
	Beginning of Period	24,583,408.63	22,742,032.43	25,437,009.52	24,348,769.29
	Net Income Current Period	926,482.73	1,620,439.56	123,740.70	105,796.70
	Adjustments Prior Years:				
	Adjustment of Generating Charges - O.Y. 1960		198,445.24		114,459.36
	Advance Payment Interest Adjustment		.02		.02
	Interest Adjustment Long Term Debt P.L. 85-900		14,383.26		14,383.26
	Adjustment to Actual Generating Charges (Boulder City Finance Office) in accordance with letter to City Manager from Regional Director, dated 8/29/60 (See C/B 61-88)		8,108.12		
	Adjustment of Generating Charges - O.Y. 1961	79,625.38			
	Correct Entries on JV 41 May and JV 12-6 June 1961 - Interest	(14,383.26)			
	Adjustment Long Term Debt-P.L. 85-900	(14,383.26)			
		25,560,750.22	24,583,408.63	25,560,750.22	24,583,408.63

TITLE EXCESS OF INCOME OVER EXPENSE

SCHEDULE NO. 16
DATE June 30, 1962
SHEET 1 OF 1

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION

32

COLUMNAR
SCHEDULE

TITLE INCOME AND EXPENSE

BOULDER CANYON PROJECT, NEVADA REGION 3

	DESCRIPTION	FISCAL YEAR TO DATE		OPERATING YEAR FROM 6/1	
		THIS YEAR	LAST YEAR	THIS YEAR	LAST YEAR
450	ELECTRIC OPERATING INCOME				
	Sale of Electric Energy	8,465,877.99	9,196,317.35	822,332.50	780,233.47
	Other Electric Income	282,442.76	287,066.43	26,776.12	27,799.65
	SUBTOTAL -ELECTRIC OPERATING INCOME	8,748,320.75	9,483,383.78	849,108.62	808,033.12
	NONOPERATING INCOME AND EXPENSE				
492.1	Visitors Facilities and Service Income	118,821.30	116,233.20	16,617.90	13,759.80
493.1	Nonutility Operations Income	178,431.65	202,111.98	17,647.82	16,382.13
494.1	Miscellaneous Income	8,918.14	30,594.77	306.08	1,308.42
	SUBTOTAL - NONOPERATING INCOME	306,171.09	348,939.95	34,571.80	31,450.35
	TOTAL - INCOME	9,054,491.84	9,832,323.73	883,680.42	839,483.47
451	OPERATION AND MAINTENANCE EXPENSES				
	Hydraulic Power Generation	1,836,813.49	1,867,305.24	203,077.93	169,272.12
	Transmission Expense	239,698.77	246,965.83	24,682.76	27,340.65
	Administrative and General Expenses	391,437.59	497,985.69	35,942.63	51,147.48
	TOTAL OPERATION AND MAINTENANCE EXPENSES	2,467,949.85	2,612,256.76	263,703.32	247,760.25
492.2	Visitors Facilities and Service Expense	140,941.49	118,637.84	15,149.15	12,275.47
493.2	Nonutility Operations Expense	199,570.79	210,224.65	21,902.59	18,296.58
494.2	Miscellaneous Expense	-0-		-0-	
	SUBTOTAL - NONUTILITY OPERATIONS EXPENSE	340,512.28	328,862.49	37,051.74	30,572.05
	TOTAL - OPERATION AND MAINTENANCE EXPENSE	2,808,462.13	2,941,119.25	300,755.06	278,332.30

TITLE INCOME AND EXPENSE
SCHEDULE NO. 17
DATE JUN 30 1962
SHEET 1 OF 2

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION

COLUMNAR
SCHEDULE

TITLE _____ INCOME EXPENSE _____

_____ BOULDER CANYON _____ PROJECT, NEVADA _____ REGION 3 _____

Acct. No.	DESCRIPTION	FISCAL YEAR THIS YEAR	TO DATE LAST YEAR	OPERATING YEAR THIS YEAR	FROM 6/1 LAST YEAR
453	Provisions for Replacement and Depreciation	733,852.29	694,214.29	64,456.29	57,798.29
456	Interest on Investment Allocated to Power	2,981,653.70	2,987,746.75	258,673.83	264,107.30
457	OTHER INTEREST CHARGES				
	Replacement Reserve	481,670.05	447,338.14	42,901.60	39,888.35
	Customers Prepayments	22,370.94	41,465.74	1,489.94	1,897.53
	TOTAL - OTHER INTEREST CHARGES	504,040.99	488,803.88	44,391.54	41,785.88
458	Miscellaneous Reservations of Net Income	1,100,000.00	1,100,000.00	91,663.00	91,663.00
	NET INCOME	926,482.73	1,620,439.56	123,740.70	105,796.70

TITLE _____ INCOME EXPENSE _____

SCHEDULE NO. 17
DATE June 30, 1962
SHEET 2 OF 2

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION

COLUMNAR
SCHEDULE

TITLE ELECTRIC OPERATING INCOME - ACCOUNT 450
BOULDER CANYON PROJECT, NEVADA REGION 3

	DESCRIPTION	FISCAL YEAR TO DATE		OPERATING YEAR FROM 6/1	
		THIS YEAR (3)	LAST YEAR (4)	THIS YEAR (5)	LAST YEAR (6)
	<u>SALES OF ELECTRIC ENERGY</u>				
500	Sales to Municipalities, Towns & Villages	2,038,714.58	2,266,389.61	191,849.95	187,654.38
501	Sales to Other Agencies of State Governments	3,040,898.20	3,327,708.06	287,266.01	279,551.89
504	Sales to Privately Owned Utilities	1,134,254.43	1,239,441.46	104,974.56	100,366.18
505	Sales to Projects Engaged in Electric Operations	-0-	-0-	-0-	-0-
507	Other Sales to Public Authorities	2,150,553.14	2,263,751.22	230,668.76	204,888.85
512	Interdepartmental Sales	101,457.64	99,027.00	7,573.22	7,772.17
	TOTAL - SALES OF ELECTRIC ENERGY	8,465,877.99	9,196,317.35	822,332.50	780,233.47
	<u>OTHER ELECTRIC ENERGY</u>				
515	Rent from Electric Property	1,320.00	1,320.00	-0-	1,320.00
517	Forfeited Discounts and Penalties	108.37	213.31	-0-	-0-
518	Sales of Water and Water Power	266,897.39	272,358.12	25,492.12	25,312.65
519	Miscellaneous Electric Income	14,117.00	13,175.00	1,284.00	1,167.00
	TOTAL - OTHER ELECTRIC INCOME	282,442.76	287,066.43	26,776.12	27,799.65
	TOTAL - ELECTRIC OPERATING INCOME	8,748,320.75	9,483,383.78	849,108.62	808,033.12

TITLE ELECTRIC OPERATING INCOME

SCHEDULE NO. 18.1
DATE June 30, 1962
SHEET 1 OF 1

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION

COLUMNAR
SCHEDULE

TITLE VISITORS FACILITIES AND SERVICE INCOME - ACCOUNT 492.1
BOULDER CANYON PROJECT, NEVADA REGION 3

	DESCRIPTION	FISCAL YEAR TO DATE		OPERATING YEAR FROM 6/1	
		THIS YEAR (3)	LAST YEAR (4)	THIS YEAR (5)	LAST YEAR (6)
492.1	VISITORS FACILITIES AND SERVICE INCOME				
651	Guide Service Income	118,821.30	116,233.20	16,617.90	13,759.80
	TOTAL INCOME	118,821.30	116,233.20	16,617.90	13,759.80

TITLE VISITORS FACILITIES AND SERVICE INCOME

SCHEDULE NO. 18.2
DATE June 30, 1962
SHEET 1 OF 1

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION

COLUMNAR
SCHEDULE

TITLE NONUTILITY OPERATIONS INCOME - ACCOUNT 493.1

BOULDER CANYON PROJECT, NEVADA REGION 3

	DESCRIPTION	FISCAL YEAR TO DATE THIS YEAR (3)	LAST YEAR (4)	OPERATING YEAR THIS YEAR (5)	FROM 6/1 LAST YEAR (6)
632	WATER INCOME				
.1	Boulder City				
.1	Treatment of Water	51,799.67	59,442.30	7,631.41	5,149.72
.2	Sale of Water	-0-	-0-	-0-	-0-
.2	Park Service	(958.40)	10,063.94	-0-	958.40
.3	Bureau of Mines	(210.32)	2,001.23	-0-	210.32
	SUBTOTAL - WATER INCOME	50,630.95	71,507.47	7,631.41	6,318.44
633	ELECTRIC INCOME				
.1	Boulder City	92,650.40	87,332.36	6,554.49	6,000.31
.2	Park Service	4,011.14	3,792.46	395.68	367.34
.3	Bureau of Mines	7,584.01	14,064.00	587.63	1,060.00
.4	Pumping Energy	23,555.15	25,415.69	2,478.61	2,636.04
	SUBTOTAL - ELECTRIC INCOME	127,800.70	130,604.51	10,016.41	10,063.69
	TOTAL - NONUTILITY OPERATIONS INCOME	178,431.65	202,111.98	17,647.82	16,382.13

TITLE - NONUTILITY OPERATIONS INCOME

SCHEDULE NO. 18.3
DATE June 30, 1962
SHEET 1 OF 1

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION

COLUMNAR
SCHEDULE

TITLE MISCELLANEOUS INCOME - ACCOUNT 494.1
BOULDER CANYON PROJECT, NEVADA REGION 3

	DESCRIPTION	FISCAL YEAR TO DATE	OPERATING YEAR	FROM 6/1
		THIS YEAR	THIS YEAR	LAST YEAR
	MISCELLANEOUS INCOME			
652	Nonutility Income - Miscellaneous	8,918.14	30,594.77	306.08
	total - MISCELLANEOUS INCOME	8,918.14	30,594.77	306.08

TITLE MISCELLANEOUS INCOME

SCHEDULE NO. 18
DATE June 30, 1962
SHEET 1 OF 1

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION

98

COLUMNAR
SCHEDULE

TITLE ELECTRIC OPERATING EXPENSE - ACCOUNT 451.1

BOULDER CANYON PROJECT, NEVADA REGION 3

DESCRIPTION	Fiscal Year to Date		Operating Year From 6/1	
	This Year	Last Year Incl. Agy. Cost	This Year	Last Year Incl. Agy. Cost
PRODUCTION EXPENSES - U. S. GOVERNMENT				
<u>ELECTRIC GENERATION -- HYDRAULIC POWER OPERATION:</u>				
520.1 Supervision and Engineering	48,027.74	185,611.66	4,534.86	14,059.58
.3 Hydraulic Expenses	18,738.54	31,344.10	1,336.17	2,833.76
.4 Electric Expenses <u>1/</u>	14,399.20	<u>1/</u> 358,600.83	742.41	<u>1/</u> 37,427.45
.5 Miscellaneous Expenses <u>1/</u>	329,421.45	<u>1/</u> 383,685.05	45,908.79	<u>1/</u> 35,977.96
TOTAL-OPERATION	410,586.93	959,241.64	52,522.23	90,298.75
<u>MAINTENANCE:</u>				
521.1 Supervision and Engineering	39,240.29	123,130.04	3,757.64	12,990.71
.2 Structures	71,205.03	222,221.41	9,217.11	12,167.61
.3 Reservoirs, Dams and Waterways	190,211.90	163,686.66	36,139.54	21,098.02
.4 Electric Plant <u>1/</u>	7,523.50	<u>1/</u> 262,044.69	1,986.95	<u>1/</u> 22,182.69
.5 Miscellaneous	57,709.38	59,362.38	4,101.37	5,379.23
TOTAL-MAINTENANCE	365,890.10	830,445.18	55,202.61	73,818.26
<u>MISCELLANEOUS:</u>				
520.6 Rents <u>1/</u>	- - -	<u>1/</u> 106,786.62	- - -	<u>1/</u> 7,498.29
523 Joint Expenses -- Credits <u>3/</u>	- - -	<u>3/</u> (65,628.20)	- - -	<u>3/</u> (5,343.18)
TOTAL-MISCELLANEOUS	- - -	41,158.42	- - -	2,155.11
TOTAL-PRODUCTION EXPENSES--HYDRAULIC	776,477.03	1,830,845.24	107,724.84	166,272.12

TITLE ELECTRIC OPERATING EXPENSE - ACCOUNT 451.1

SCHEDULE NO. 19.1
DATE June 30, 1962
SHEET 1 OF 8

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION

COLUMNAR
SCHEDULE

TITLE ELECTRIC OPERATING EXPENSE - ACCOUNT 451.1

BOULDER CANYON PROJECT, NEVADA REGION 3

	DESCRIPTION	Fiscal Year to Date		Operating Year From 6/1/	
		This Year	Last Year Incl. Agy. Cost	This Year	Last Year Incl. Agy. Cost
522.4	<u>OTHER PRODUCTION EXPENSES AND CREDITS:</u> Other Production Expenses 2/ TOTAL-PRODUCTION EXPENSES	51,250.81	2/ 36,460.00	9,182.00	2/ 3,000.00
		827,727.84	1,867,305.24	116,906.84	169,272.12
	TRANSMISSION EXPENSES				
	<u>OPERATION:</u>				
540.1	Supervision and Engineering	- - -	31,433.18	- - -	1,865.45
.3	Station Expenses	- - -	102,313.50	- - -	9,488.49
.7	Miscellaneous	- - -	- - -	- - -	- - -
	TOTAL-OPERATION	- - -	133,746.68	- - -	11,353.94
	<u>MAINTENANCE:</u>				
541.1	Supervision and Engineering	164.00	9,935.28	40.50	1,445.37
.2	Structures	988.09	1,595.65	339.42	167.65
.3	Station Equipment 1/	- - -	36,060.02	- - -	9,030.51
	TOTAL-MAINTENANCE	1,152.09	47,590.95	379.92	10,643.53
	<u>MISCELLANEOUS:</u>				
543	Joint Expense--Debits 3/	- - -	65,628.20	- - -	5,343.18
	TOTAL-TRANSMISSION EXPENSES	1,152.09	246,965.83	379.92	27,340.65

TITLE ELECTRIC OPERATING EXPENSE - ACCOUNT 451.1

SCHEDULE NO. 19,1
DATE June 30, 1962
SHEET 2 OF 8

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION

COLUMNAR
SCHEDULE

TITLE ELECTRIC OPERATING EXPENSE - ACCOUNT NO. 451.1

BOULDER CANYON PROJECT, NEVADA REGION 3

	DESCRIPTION	Fiscal Year to Date		Operating Year From 6/1	
		This Year	Last Year Incl. Agy. Cost	This Year	Last Year Incl. Agy. Cost
586.1	ADMINISTRATIVE AND GENERAL EXPENSES				
	General Administrative Salaries and Expenses	61,775.62	68,957.10	(3,456.70)	6,429.48
.2	General Office Supplies and Expenses	20,405.47	17,361.85	1,845.45	1,456.82
.3	Special Services	- - -	- - -	- - -	- - -
.4	Charges from Associated Offices:				
.11	Commissioner's Office	- - -	- - -	- - -	- - -
.2	Regional CPA	115,800.00	154,000.00	9,650.00	23,220.00
.4	Denver Miscellaneous	4,509.00	11,418.30	127.00	1,939.87
.5	Solicitor's Office	7,500.00	7,500.00	- - -	- - -
586.5	Insurance 1/	- - -	1/ 9,231.40	- - -	1/ 1,432.61
.6	Injuries and Damages 1/	- - -	1/ 1,463.21	- - -	1/ 379.29
.7	Miscellaneous General Expense	10,764.09	26,917.29	764.11	2,815.50
.9	Transfers--Credit	(30,900.77)	(20,675.79)	(2,575.00)	(1,725.00)
587	Fixed Agency Contract Rates 1/	- - -	1/ 194,632.17	- - -	1/ 15,874.04
591	Maintenance of General Property:				
.1	General Plant Maintenance	24,159.95	45,089.73	5,431.06	3,663.83
.2	General Plant Replacements	(1,678.88)	(3,309.57)	9,234.76	(2,130.45)
593.1	Joint Expense--Debits	- - -	- - -	- - -	- - -
.2	Joint Expense--Credits	(12,926.55)	(14,600.00)	(2,342.61)	(1,750.20)
	Undistributed Labor Costs 1/	- - -	- - -	- - -	(458.31)
	TOTAL - ADMINISTRATIVE AND GENERAL EXPENSES	199,407.93	497,985.69	18,678.07	51,147.48
	TOTAL - ELECTRIC OPERATING EXPENSES U. S. GOVERNMENT	1,028,287.86	2,612,256.76	135,964.83	247,760.25

TITLE ELECTRIC OPERATING EXPENSE - ACCOUNT 451.1

SCHEDULE NO. 19.1
DATE June 30, 1962
SHEET 3 OF 8

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION

COLUMNAR
SCHEDULE

TITLE ELECTRIC OPERATING EXPENSE - ACCOUNT NO. 451.1

BOULDER CANYON PROJECT, NEVADA REGION 3

	DESCRIPTION	Fiscal Year to Date		Operating Year From 6/1	
		This Year	Last Year Incl. Agy. Cost	This Year	Last Year Incl. Agy. Cost
	<u>AGENCY ELECTRIC OPERATING EXPENSES</u>				
	PRODUCTION EXPENSES - SOUTHERN CALIFORNIA EDISON				
	<u>ELECTRIC GENERATION - HYDRAULIC POWER</u> <u>OPERATION:</u>				
520.1	Supervision and Engineering	30,443.30		2,281.69	
.4	Electric Expenses	87,824.06		7,179.00	
.5	Miscellaneous Expenses	4,078.09		1,531.62	
.6	Rents	16,869.36		1,306.03	
	TOTAL - OPERATING EXPENSES	139,214.81		12,298.34	
	<u>MAINTENANCE:</u>				
521.1	Supervision and Engineering	10,470.08		1,341.18	
.2	Structures	4,964.19		432.84	
.4	Electric	36,587.00		3,580.78	
.5	Miscellaneous	2,336.17		505.09	
	TOTAL - MAINTENANCE EXPENSES	54,357.44		5,859.89	
	TOTAL - PRODUCTION EXPENSES -- HYDRAULIC	193,572.25		18,158.23	
	TRANSMISSION EXPENSES - S.C.E.				
	<u>OPERATION:</u>				
540.1	Supervision and Engineering	654.31		51.20	
.3	Station Expenses	1,827.05		232.82	
	TOTAL - OPERATION	2,481.36		284.02	

TITLE ELECTRIC OPERATING EXPENSE - ACCOUNT NO. 451.1

SCHEDULE NO. 19.1
DATE June 30, 1962
SHEET 4 OF 8

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION

COLUMNAR
SCHEDULE

TITLE ELECTRIC OPERATING EXPENSE - ACCOUNT NO. 451.1
BOULDER CANYON PROJECT, NEVADA REGION 3

	DESCRIPTION	Fiscal Year to Date		Operating Year From	
		This Year	Last Year	This Year	Last Year
	TRANSMISSION EXPENSES - S.C.E.				
	<u>MAINTENANCE:</u>				
541.1	Supervision and Engineering	990.04		93.93	
.3	Station Equipment	2,792.54		344.16	
	TOTAL - MAINTENANCE	3,782.58		438.09	
	TOTAL - TRANSMISSION EXPENSES	6,263.94		722.11	
	ADMINISTRATIVE AND GENERAL EXPENSES				
586.5	Insurance	4,086.50		551.62	
587	Agency Contract Rates	28,368.21		2,733.51	
	TOTAL - ADMINISTRATIVE AND GENERAL EXPENSES	32,454.71		3,285.13	
	TOTAL - ELECTRIC OPERATING EXPENSES - S.C.E.	232,290.90		22,165.47	
	PRODUCTION EXPENSES - DEPARTMENT OF WATER & POWER - CITY OF LOS ANGELES				
	<u>ELECTRIC GENERATION - HYDRAULIC POWER OPERATION:</u>				
520.1	Supervision and Engineering	101,594.66		8,788.81	
.4	Electric Expenses	333,165.85		34,085.26	
.5	Miscellaneous Expenses	17,090.81		2,286.58	
.6	Rents	74,944.11		5,730.09	
	TOTAL - OPERATION	526,795.43		50,890.74	

TITLE ELECTRIC OPERATING EXPENSE - ACCOUNT NO. 451.1

SCHEDULE NO. 19,1
DATE June 30, 1962
SHEET 5 OF 8

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION

COLUMNAR
SCHEDULE

TITLE ELECTRIC OPERATING EXPENSE - ACCOUNT NO. 451.1

BOULDER CANYON PROJECT, NEVADA REGION 3

	DESCRIPTION	Fiscal Year to Date		Operating Year From	
		This Year	Last Year	This Year	Last Year
	PRODUCTION EXPENSES - DEPARTMENT OF WATER & POWER - CITY OF LOS ANGELES				
	<u>MAINTENANCE:</u>				
521.1	Supervision and Engineering	55,875.38		3,982.69	
.2	Structures	90,292.89		6,646.34	
.4	Electric Plant	139,569.27		6,493.09	
.5	Miscellaneous Hydraulic Plant	2,980.43		-0-	
	TOTAL - MAINTENANCE	288,717.97		17,122.12	
	<u>MISCELLANEOUS:</u>				
523	Joint Expense Credits	- - -		-0-	
	TOTAL - PRODUCTION EXPENSES - D.W.P.	815,513.40		68,012.86	
	TRANSMISSION EXPENSES				
	<u>OPERATION:</u>				
540.1	Supervision and Engineering	31,657.49		3,024.30	
.3	Station Expenses	97,224.28		10,791.17	
.7	Miscellaneous	- - -		-0-	
.8	Rents	38,161.09		3,470.60	
	TOTAL - OPERATION	167,042.86		17,286.07	
	<u>MAINTENANCE:</u>				
541.1	Supervision and Engineering	14,793.66		1,546.82	
.2	Structures	28,306.26		2,530.66	
.3	Station Equipment	22,139.96		2,217.18	
	TOTAL - MAINTENANCE	65,239.88		6,294.66	

TITLE ELECTRIC OPERATING EXPENSE - ACCOUNT NO. 451.1

SCHEDULE NO. 19.1
DATE June 30, 1962
SHEET 6 OF 8

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION

COLUMNAR
SCHEDULE

TITLE ELECTRIC OPERATING EXPENSE - ACCOUNT NO. 451.1
BOULDER CANYON PROJECT, NEVADA REGION 3

	DESCRIPTION	Fiscal Year to Date		Operating Year From	
		This Year	Last Year	This Year	Last Year
	TRANSMISSION EXPENSES				
	MISCELLANEOUS:				
543.3	Joint Expense Debits	---		-0-	
	TOTAL - TRANSMISSION EXPENSES - D. W. P.	232,282.74		23,580.73	
	ADMINISTRATIVE AND GENERAL EXPENSES				
	OPERATION:				
586.5	Insurance	2,777.32		281.04	
.6	Injuries and Damages	809.18		-0-	
587	Agency Contract Rates	152,575.05		13,226.66	
	TOTAL - OPERATION	156,161.55		13,507.70	
	MAINTENANCE:				
591	General Plant Maintenance	3,413.40		404.96	
	TOTAL - MAINTENANCE	3,413.40		404.96	
	Undistributed Labor	---		66.77	
	TOTAL ADMINISTRATIVE AND GENERAL EXPENSES - D. W. P.	159,574.95		13,979.43	
	TOTAL - ELECTRIC OPERATING EXPENSES D. W. P.	1,207,371.09		105,573.02	
	TOTAL - ELECTRIC OPERATING EXPENSES S. C. E.	232,290.90		22,165.47	
	TOTAL - ELECTRIC OPERATING EXPENSES AGENCY	1,439,661.99		127,738.49	

TITLE ELECTRIC OPERATING EXPENSE - ACCOUNT NO. 451.1

SCHEDULE NO. 19.1
DATE June 30, 1962
SHEET 7 OF 8

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION

COLUMNAR
SCHEDULE

TITLE ELECTRIC OPERATING EXPENSE - ACCOUNT NO. 451.1

BOULDER CANYON PROJECT, NEVADA REGION 3

DESCRIPTION	Fiscal Year to Date		Operating Year From	
	This Year	Last Year	This Year	Last Year
TOTAL - ELECTRIC OPERATING EXPENSES U. S. GOVERNMENT	1,028,287.86	<u>1/</u> 2,612,256.76	135,964.83	<u>1/</u> 247,760.25
GRAND TOTAL - ELECTRIC OPERATING EXPENSES	2,467,949.85	<u>1/</u> 2,612,256.76	263,703.32	<u>1/</u> 247,760.25
<u>1/</u> COSTS INCLUDES OPERATING AGENTS				
<u>2/</u> INCLUDES COST OF WATER CONTROL SERVICES PROVIDED BY REGION 3 ACTIVITIES AND U. S. GEOLOGICAL SURVEY				
<u>3/</u> OPERATING AGENTS ALLOCATION OF PRODUCTION TO TRANSMISSION EXPENSE				

TITLE ELECTRIC OPERATING EXPENSE - ACCOUNT NO. 451.1

SCHEDULE NO. 19.1
DATE June 30, 1962
SHEET 8 OF 8

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION

COLUMNAR
SCHEDULE

TITLE VISITORS FACILITIES AND SERVICE-EXPENSE - ACCOUNT 492.2

--- BOULDER CANYON --- PROJECT, --- NEVADA --- REGION 3 ---

	DESCRIPTION	FISCAL YEAR TO DATE		OPERATING YEAR FROM 6/1	
		THIS YEAR (3)	LAST YEAR (4)	THIS YEAR (5)	LAST YEAR (6)
	VISITORS FACILITIES AND SERVICE-EXPENSE				
851	Guide Service Expense				
-1	Guide, Cashier Salaries	98,808.96		11,314.95	
-2	Janitor Salaries	17,165.64		1,582.32	
-3	Other Direct Cost	11,455.23		1,458.60	
-4	Equipment Maintenance	789.64		48.60	
-5	Elevator Operation and Maintenance	12,722.02		744.68	
	TOTAL EXPENSE	140,941.49	118,637.84	15,149.15	12,275.47

TITLE VISITORS FACILITIES AND SERVICE EXPENSE

SCHEDULE NO. 19.2
DATE June 30, 1962
SHEET 1 OF 1

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION

39

COLUMNAR
SCHEDULE

TITLE NONUTILITY OPERATIONS - ACCOUNT 493.2

BOULDER CANYON PROJECT, NEVADA REGION 3

	DESCRIPTION	FISCAL YEAR TO DATE		OPERATING YEAR FROM JUNE 1	
		THIS YEAR	LAST YEAR	THIS YEAR	LAST YEAR
832	WATER SYSTEM				
-1	Filter Plant	40,247.80	46,624.77	6,689.89	4,268.52
-2	Lines and Pumps	33,041.92	37,945.05	4,939.65	3,479.74
-3	Pumping Energy	23,555.15	25,415.69	2,478.61	2,636.04
	SUBTOTAL - WATER SYSTEM	96,844.87	109,985.51	14,108.15	10,384.30
833	ELECTRIC SYSTEM				
.1	OPERATION AND MAINTENANCE				
-1	69-kv Transmission Line (A-1)	102.93	79.74	32.19	5.00
-2	69-kv Tap Line (A-2)	11.50	3.72	4.03	-
-3	34.5-kv Transmission Line (A-3)	206.29	92.16	36.42	14.15
-4	34.5-kv Tap Line (A-4)	11.48	3.73	4.02	-
-5	138-kv Transmission Line (A-5)	35.87	440.50	8.05	27.00
-6	Substation Facilities - Serving Pumping Plants (C)	322.56	163.37	52.06	37.77
-7	Transformer Band and Associated Equipment (B-3)	111.68	113.08	4.22	8.01
-8	Bureau of Mines Feeder (B-4)	57.14	45.91	7.04	9.45
-9	Common Facilities at Boulder City Substation (B-1,2,5 & 6)	243.61	111.62	44.33	20.24
-10	Administrative and General Expense	165.22	158.31	28.86	18.49
.2	PURCHASED POWER				
-1	Energy	61,342.64	61,133.00	4,081.22	4,443.17
-2	Generation	40,115.00	37,894.00	3,492.00	3,329.00
	SUBTOTAL- ELECTRIC SYSTEM	102,725.92	100,239.14	7,794.44	7,912.28
	TOTAL - NONUTILITY OPERATIONS EXPENSE	199,570.79	210,224.65	21,902.59	18,296.58

TITLE NONUTILITY OPERATIONS EXPENSE-ACCOUNT 493.2
SCHEDULE NO. 19.3
DATE JUNE 30, 1962
SHEET 1 OF 1

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION

COLUMNAR
SCHEDULE

TITLE MISCELLANEOUS EXPENSE - ACCOUNT 494.2

BOULDER CANYON PROJECT, NEVADA REGION 3

	DESCRIPTION	FISCAL YEAR	TO DATE	OPERATING YEAR	FROM 6/1.
		THIS YEAR	LAST YEAR	THIS YEAR	LAST YEAR
	MISCELLANEOUS EXPENSE				
494.2	Miscellaneous Expense	-0-		-0-	
	TOTAL - MISCELLANEOUS EXPENSE	-0-		-0-	

TITLE MISCELLANEOUS EXPENSE

SCHEDULE NO. 1962
DATE June 30, 1962
SHEET 1 OF 1

WEATHER CONDITIONS

PROJECT Boulder Canyon

STATION Boulder City

YEAR 1962

MONTH	TEMPERATURE—°F.			PRECIPITATION			Evaporation (inches)	Total wind movement (miles)	SKY		
	Max.	Min.	Mean	Total (inches)	GREATEST 24-HOUR				Clear	Part Cloudy	Cloudy
					Amount (inches)	Date					
January,	72	24	47.2	.12	.12	21	4.21	2,323	28	2	1
February,	69	22	51.5	.36	.10	20	2.94	1,802	8	15	5
March,	89	29	53.5	.15	.07	21	7.05	2,256	10	19	2
April,	94	49	72.5	0	0	--	12.51	2,409	17	13	0
May,	95	44	72.1	.02	.02	17	14.64	2,940	11	18	2
June,	107	50	82.2	.21	.21	28	16.34	2,267	23	7	0
July,	105	61	87.3	0	0	--	17.70	2,298	21	10	0
August,	110	67	89.0	.26	.23	17	16.51	2,190	23	8	0
September,	104	55	82.2	1.63	.98	27	12.01	1,535	23	5	2
October,	92	48	69.9	.80	.79	18	7.36	1,850	23	6	2
November,	82	39	60.0	0	0	--	4.62	1,365	19	7	4
December,	68	28	49.7	.19	0.1	18	3.04	1,386	24	5	2
The year,	110	22	68.1	3.74	.98	Sept. 27	118.93	24,621	230	115	20

Date of last killing frost in spring _____, of first killing frost in fall _____

Dates of serious rainfall _____, of hail storms _____, of wind storms _____

Description of evaporation station: Class "A" Weather Bureau Station

Remarks: _____

WEATHER CONDITIONS

PROJECT Boulder Canyon

STATION Lower Portal

YEAR 1962

MONTH	TEMPERATURE—°F.			PRECIPITATION		Evaporation (inches)	Total wind movement (miles)	SKY			
	Max.	Min.	Mean	Total (inches)	GREATEST 24-HOUR			NUMBER OF DAYS			
					Amount (inches)			Date	Clear	Part Cloudy	Cloudy
January,	75	32	52.3								
February,	72	32	55.8								
March,	91	36	58.7								
April,	102	55	77.3								
May,	103	55	80.4								
June,	114	59	88.8								
July,	117	77	97.3								
August,	121	79	99.0								
September,	112	63	90.7								
October,	98	54	75.5								
November,	89	48	63.7								
December,	75	35	54.3								
The year,	121	32	74.5								

Date of last killing frost in spring _____, of first killing frost in fall _____

Dates of serious rainfall _____, of hail storms _____, of wind storms _____

Description of evaporation station: Recording Thermometer

Remarks: _____

WEATHER CONDITIONS

PROJECT Boulder Canyon

STATION Switchyard

YEAR 1962

MONTH	TEMPERATURE—°F.			PRECIPITATION		Evaporation (inches)	Total wind movement (miles)	SKY			
	Max.	Min.	Mean	Total (inches)	GREATEST 24-HOUR			NUMBER OF DAYS			
					Amount (inches)			Date	Clear	Part Cloudy	Cloudy
January,	76	25	49.7								
February,	69	30	53.1								
March,	90	31	55.8								
April,	101	49	76.4								
May,	102	53	76.1								
June,	115	58	89.5								
July,	115	75	96.1								
August,	119	73	96.7								
September,	111	63	87.1								
October,	96	52	73.7								
November,	85	46	62.0								
December,	72	33	51.7								
The year,	119	25	72.3								

Date of last killing frost in spring _____, of first killing frost in fall _____

Dates of serious rainfall _____, of hail storms _____, of wind storms _____

Description of evaporation station: Recording Thermometer

Remarks: _____

P.O. & M. 60B
April 1959
Bureau of Reclamation

**YEARLY REPORT OF POWER OPERATIONS,
PART 2-ENERGY DELIVERIES & INCOME**

Calendar YEAR 19 62, SHEET NO. 1 OF 3
PROJECT BOULDER CANYON

ACCOUNT NO.	ACCOUNT	CLASS OF DELIVERY		TWELVE MONTHS ENDED WITH December 31, 19 62						
		FIRM (F)	EMERGENCY (E)	RATE SCHEDULE	12 MO. MAXIMUM DEMAND (KW)	ENERGY SALES (KW-HR)	VOLTAGE DISCOUNT	DISCOUNT IN LIEU OF WHEELING	INCOME	
		NON-FIRM (S)	SECONDARY DUMP (D)						NET AMOUNT	MILLS NET PER KW-HR
500	Sales of Electric Energy									
	Municipalities, Towns and Villages									
	City of Burbank									
		Firm	F	R3-F2	A/	19,900,064			28,204.13	
		Generating Charge				19,900,064			12,024.02	
		Total Burbank							40,228.15	2.02
	City of Glendale									
		Firm	F	R3-F2	A/	64,743,507			91,787.34	
		Generating Charge				64,743,507			38,464.29	
		Total Glendale							130,251.63	2.01
City of Pasadena										
	Firm	F	R3-F2	A/	55,522,694			78,708.40		
	Generating Charge				55,522,694			32,985.82		
	Total Pasadena							111,694.22	2.01	
City of Los Angeles										
	Firm	F	R3-F2	B/556,000	592,979,835			840,585.61		
	Secondary	S	R3-M1		0			0		
	Generating Charge				592,979,835			1,065,436.83		
	Total City of Los Angeles							1,906,022.44	3.21	
	Total Account 500				733,146,100			2,188,196.44	2.98	
501	Other Agencies of State Government									
	State of Arizona									
		Firm	F	R3-F2	Not Available	622,768,426			883,812.96	
		Generating Charge				622,768,426			742,407.37	
		Total Arizona							1,626,220.33	2.61
	State of Nevada									
	Firm	F	R3-F2	Not Available	611,851,257			866,581.30		
	Generating Charge				611,851,257			857,242.45		
	Total Nevada							1,723,823.75	2.82	
	Total Account 501				1,234,619,683			3,350,044.08	2.71	
504	Privately Owned Utilities									
	California-Pacific Utilities Co.									
		Firm			C/6,000	0			0	
		Generating Charge				0			24,394.88	
		Total C.P.U.							24,394.88	
	Citizens Utilities Co.									
		Firm			C/6,000	0			0	
		Generating Charge				0			40,515.65	
		Total Citizens Utilities							40,515.65	
	California Electric Power Co.									
	Firm	F	R3-F2	C/308,000	33,421,684			47,269.79		
	Secondary	S	R3-M1		65,079			33.84		
	Generating Charge							130,074.88		
	Total California Electric							177,378.51	5.30	
Southern California Edison Co.										
	Firm	F	R3-F2	C/337,000	229,709,670			325,000.12		
	Secondary	S	R3-M1		0			0		
	Generating Charge							645,755.41		
	Total S.C.E. Co.				229,709,670			970,755.53	4.23	
	Total Account 504				263,196,433			1,213,044.57	4.61	

CERTIFIED TO BE CORRECT AS TO INCOME (REGIONAL FINANCE OFFICER)	DATE
CERTIFIED TO BE CORRECT AS TO POWER STATISTICS OTHER THAN INCOME (REGIONAL SUPERVISOR OF POWER)	DATE
APPROVED (REGIONAL DIRECTOR)	DATE

P O & M - 60B
April 1959
Bureau of Reclamation

YEARLY REPORT OF POWER OPERATIONS,
PART 2-ENERGY DELIVERIES & INCOME

Calendar YEAR 19 62 SHEET NO. 2 OF 3
PROJECT BOULDER CANYON

ACCOUNT NO.	ACCOUNT	CLASS OF DELIVERY FIRM (F) EMERGENCY (E) NON-FIRM (S) SECONDARY (S) DUMP (D)	TWELVE MONTHS ENDED WITH December 31, 19 62						INCOME	
			RATE SCHEDULE	12 MO. MAXIMUM DEMAND (KW)	ENERGY SALES (KW-HR)	VOLTAGE DISCOUNT	DISCOUNT IN LIEU OF WHEELING	NET AMOUNT	MILLS NET PER KW-HR	
507	Other Sales to Public Authorities									
	Metropolitan Water District			Not Available						
	Firm	F	R3-P2		1,249,962,491		II/	1,771,643.01		
	Generating Charge							732,985.00		
	Total Account 507				1,249,962,491			2,504,628.01	2.00	
512	Interdepartmental									
	Energy reserved for United States' Use (Article 4, General Regulations)									
	Firm	F	R3-P2	D/	3,350	44,171,337	I/	62,443.48		
	Generating Charge							30,570.93		
	Total Account 512					44,171,337		113,014.41	2.56	
	Totals:									
	Regular Firm					3,525,030,965		4,996,036.14		
	Secondary					65,079		33.84		
	Subtotal Energy					3,525,096,044		4,996,069.98		
	Generating Charges							4,372,857.53		
	Total Charges					3,525,096,044		9,368,927.51	2.66	
	Interchange and Other Deliveries									
	Parker-Davis Project					214,684,770		0		
	Total					3,739,780,814		9,368,927.51	2.51	
	A/ Included in City of Los Angeles									
	B/ Includes Burbank, Glendale and Pasadena. Does not include MWD Line Delivery.									
	C/ Does not include MWD Line Delivery									
	D/ Includes water pumps at powerplant									
	E/ 20,000,000 kwh included in MWD									
	F/ 33,637,000 kwh included in MWD (Citizens)									
	G/ Includes 20,000,000 kwh Cal-Pac. and 35,637,000 kwh Citizens									
	H/ See Sheet 3.									
	Other Electric Revenues - Memo Only									
515	Rent from Electric Property							1,320.00		
517	Forfeited Discounts and Penalties							2,071.32		
518	Sale of Water							17,387.35		
519.1	Miscellaneous Electric Income							279,033.10		
	Total Other Electric Revenue							299,811.77		
	Total Income (G.L. 450)							9,668,739.28		
CERTIFIED TO BE CORRECT AS TO INCOME (REGIONAL FINANCE OFFICER)								DATE		
CERTIFIED TO BE CORRECT AS TO POWER STATISTICS OTHER THAN INCOME (REGIONAL SUPERVISOR OF POWER)								DATE		
APPROVED (REGIONAL DIRECTOR)								DATE		

P O & M - 60B
April 1959
Bureau of Reclamation

YEARLY REPORT OF POWER OPERATIONS,
PART 2-ENERGY DELIVERIES & INCOME

Calendar YEAR 19 62 SHEET NO. 3 OF 3
PROJECT BOULDER CANYON

ACCOUNT NO.	ACCOUNT	CLASS OF DELIVERY				TWELVE MONTHS ENDED WITH December 31, 19 62						
		FIRM (F)	EMERGENCY (E)	NON-FIRM (S)	SECONDARY DUMP (D)	RATE SCHEDULE	12 MO. MAXIMUM DEMAND (KW)	ENERGY SALES (KW-HR)	VOLTAGE DISCOUNT	DISCOUNT IN LIEU OF WHEELING	INCOME	
											NET AMOUNT	MILLS NET PER KW-HR
	g/ Disposition of Energy reserved for United States Use: Boulder Canyon Project - Nonutility Operations											
	G.L. 580.1.2 - Nonutility Expense											
	833.2-1 Purchased Power - Energy						44,171,337				62,443.48	
	833.2-2 Purchased Power - Generating Charges						44,171,337				50,570.93	
	Total Purchased Power										113,014.41	
	Sales of Electric Energy - Nonutility											
	G.L. 580.1.1 - Nonutility Income											
	633.1 - Boulder City											
	Firm	F			R3-F2		32,325,100				45,627.71	
	Generating Charge										38,302.25	
	Other Costs										15,402.00	
	Total 633.1						32,325,100				99,331.96	3.07
	633.2 - National Park Service											
	Firm	F			R3-F2		1,514,607				2,855.96	
	Generating Charge										2,295.92	
	Other Costs										2,201.54	
	Total 633.2						1,514,607				7,353.42	4.86
	633.3 - Bureau of Mines											
	Firm	F			R3-F2		2,563,400				4,586.52	
	Generating Charge										4,472.81	
	Other Costs										2,525.32	
	Total 633.3						2,563,400				11,584.65	4.51
	633.4 - Pumping Energy											
	Firm	F			R3-F2		6,750,411				9,611.30	
	Generating Charge										6,350.43	
	Other Costs										9,329.00	
	Total 633.4						6,750,411				25,290.73	3.75
	Above energy sales, except powerhouse pumps are delivered at Boulder City substation resulting in transmission losses of						1,017,819				--	
	Total energy reserved for United States use						44,171,337				143,560.76	3.25
	Excess of Nonutility Income, from sale of electrical energy to contractors listed on this sheet (3), over Nonutility Expense of Purchased Power shown above										30,546.35	
CERTIFIED TO BE CORRECT AS TO INCOME											DATE	1-17-63
REGIONAL FINANCE OFFICER											DATE	1-17-63
CERTIFIED TO BE CORRECT AS TO TOTAL SALES OTHER THAN INCOME											DATE	1-17-63
REGIONAL SUPERVISOR OF INCOME											DATE	1-17-63
APPROVED BY											DATE	1-17-63
REGIONAL DIRECTOR												

YEARLY REPORT OF POWER OPERATIONS

PART 2A--RECAPITULATION OF ENERGY SALES AND INCOME*

PROJECT <u>Boulder Canyon</u>		Calendar YEAR, 19 <u>62</u>					
ACCOUNT NUMBER	ACCOUNT	12 MONTHS ENDED WITH <u>19</u>					
		NUMBER OF CUSTOMERS	ENERGY SALES (KW - HR)	VOLTAGE DISCOUNT	DISCOUNT IN LIEU OF WHEELING	INCOME NET AMOUNT	MILLS NET PER KW-HR
TOTAL		12	3,525,096,044			9,368,927.51	2.66
500	MUNICIPALITIES, TOWNS AND VILLAGES	4	733,146,100			2,188,196.44	2.98
501	OTHER AGENCIES OF STATE GOVERNMENTS	2	1,234,619,683			3,350,044.08	2.71
502	RURAL COOPERATIVES						
503	OTHER AGENCIES OF FEDERAL GOVERNMENT						
504	PRIVATELY OWNED UTILITIES	4	263,196,433			1,213,044.57	4.61
506	PROJECTS NOT ENGAGED IN ELECTRIC OPERATIONS						
507	OTHER SALES TO PUBLIC AUTHORITIES	1	1,249,962,491			2,504,628.01	2.00
509	RURAL SALES						
510	DOMESTIC						
511	COMMERCIAL AND INDUSTRIAL						
512	INTERDEPARTMENTAL	1	44,171,337			113,014.41	2.56
	OTHER SALES						

* Do not include interchange deliveries or sales to projects engaged in electric operations and income

CERTIFIED TO BE CORRECT AS TO INCOME (REGIONAL FINANCE OFFICER) <i>R. L. Brown</i>	DATE 1-17-63
CERTIFIED TO BE CORRECT AS TO POWER STATISTICS OTHER THAN INCOME (REGIONAL SUPERVISOR OF POWER) <i>J. H. Baker</i>	DATE 1-17-63
APPROVED <i>Antino</i> (REGIONAL DIRECTOR) <i>Faul A. Oliver</i>	DATE 1-17-63

Image
Coming
Soon

Oversized
Material

Image
Coming
Soon

Oversized
Material

7-521
(June 1957)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION

MONTHLY WATER DIVERSIONS

From Lake Mead Reservoir River

Project For State of Nevada

Years 1958-1959-1960-1961-
1962

QUANTITIES IN ACRE-FEET

MONTH	YEAR				
	19.58	19.59	19.60	19.61	19.62
January	904.68	1,111.55	924.04	1,117.52	1,211.59
February	920.18	974.68	832.38	1,083.29	945.99
March	1,141.17	1,171.40	1,057.29	1,148.59	1,126.85
April	1,144.70	1,278.96	1,137.07	1,294.60	1,270.79
May	1,342.95	1,331.75	1,567.00	1,749.78	1,813.02
June	1,967.47	1,601.35	2,219.61	2,684.80	2,461.23
July	2,463.86	2,176.31	2,601.83	2,762.21	2,949.21
August	2,426.88	2,132.58	2,507.05	2,286.98	3,200.77
September	2,041.58	1,498.39	1,614.61	1,503.18	2,366.55
October	1,175.85	1,324.23	1,368.12	1,222.95	1,366.86
November	1,149.24	972.23	1,131.81	1,103.19	1,312.15
December	1,104.50	929.42	1,108.75	1,150.26	1,334.65
TOTAL	17,783.06	16,502.85	18,069.56	19,107.35	21,359.66
Acreage irrigated					
Per acre irrigated					

REMARKS: Water is pumped by Basic Management Inc., and Fibreboard Paper
Paper Products for industrial and domestic use.

Boulder Canyon PROJECT DATA AS OF JUNE 30, 1962
Hoover Dam and Powerplant

SCHEDULE A		GENERAL	
Project Location	Colorado River Basin on the Arizona - Nevada States boundary, in Mohave County, Arizona and Clark County, Nevada	State	Arizona-Nevada
Authorization (s)	Boulder Canyon Project Act of 12/21/28 (45 Stat. 1057).	Congressional District	No At Large-Nev.
Cost of Features Originally Authorized	\$ xxx	Finding of Feasibility	11/24/1928
Irrigation Development, Ultimate	Land Certification xxx	date	Land Certification xxx
Irrigation Development, Completed	Full Supply xxx	acres	Supplemental Supply xxx
Power Development, Installed Capacity	Full Supply xxx	acres	Supplemental Supply xxx
Municipal & Industrial Water, Annual Delivery	Ultimate 1,344,800	KW	Completed 1,344,600
Construction Begun	1931	a.f.	Completed xxx
	First Irrigation Water xxx		Initial Power October 26, 1936

SCHEDULE B CUMULATIVE FINANCIAL DATA			
Total Construction Appropriations	\$ 166,664,995 1/	Total Oper. & Maint. Appropriations	\$ 35,959,068 2/
		Total Federal Expenditures	\$ 200,202,147
		Cost of Plant, Prop. & Equip.	\$ 172,678,208

SCHEDULE C COST, ALLOCATIONS AND ULTIMATE REPAYMENTS			
Cost		Allocations	
Plant - Actual on 6/30/62	\$ 158,185,324	Irrigation	xxx
Est. balance to complete..	1,901,569	Commercial Power	\$ 146,571,048
Total Plant	\$ 160,086,893	M&I Water	xxx
Corollary Costs:		Fish & Wildlife	xxx
Abandoned Plant	5,905,107	Recreation	xxx
Interest during Constr	8,690,000	Navigation	xxx
		Flood Control	25,000,000
		Non-Project Costs	3,110,952
Total	\$174,682,000	Total	\$174,682,000
		Ultimate Repayments & Other Credits	
		By Irrigators	xxx
		By Commercial Power Revenues	\$ 171,294,044
		By M&I Water Users	xxx
		Contributions	277,004
		Other Credits	xxx
		Total Repayments	\$171,571,048
		Nonreimbursable	3,110,952
		Total	\$174,682,000
		Surplus or (Deficit)	

SCHEDULE D AMOUNTS PER ACRE		SCHEDULE E REPAYMENTS TO DATE	
Irrigable Cost	\$ xxx	Payment Capacity	\$ xxx
Repayment		Annual Charges (est.)	
By Irrigators	xxx	O & M	xxx
By Power Revenues	xxx	Construction	xxx
By M&I Water Users	xxx	Total	xxx
		By Repayment Contracts	\$ xxx
		By Power Revenues	25,312,298
		By Water Service Contracts	xxx
		Contributions	277,004
		Other Credits	xxx
		Total Repayment	\$25,589,302

SCHEDULE F NONREIMBURSABLE COSTS			SCHEDULE G AUTHORIZED CONSTRUCTION CHARGE-OFFS		
Feature, Function or Reason	Authorizing Act	Amount	Feature, Function or Reason	Authorizing Act	Amount
xxx	xxx	xxx	Non - Project Costs	PL 80 - 841	3,006,148
			Non - Project Costs	PL 85 - 900	101,032
			Donations thru D.H.E.W.	Fed. Property &	3,772
			Total Admin. Service Act of	1949	3,110,952

SCHEDULE H STATUS OF REPAYMENT CONTRACTS (See Remarks for Water Service Contracts)				
Repayment Entity	Total Value	Contract Date	Validation Date	Matured Value
xxx	\$ xxx	xxx	xxx	\$ xxx

SCHEDULE I AREA OF IRRIGABLE LANDS, CROP RETURNS AND O&M COSTS CROP YEAR 1961						
Irrigation Service Lands	Irrigated Acreage	Total Gross Crop Value	Aver. Crop Value Per Irrig. Acre	Actual O&M Cost per Bureau	per Irrigated Acre	Water Users Total
Full Supply Supplemental	xxx	xxx	xxx	xxx	xxx	xxx

SCHEDULE J PROJECT OPERATION			
Division - Unit	Operating Organization	Date	Feature or Extent of Operation
Hoover Dam & Powerplant	Bureau of Reclamation	1947	Dam & Powerplant building
	Department of Water & Power of the City of Los Angeles	1936	Generating, transforming, and switching facilities.
	Southern California Edison Co.		

SCHEDULE K RECREATIONAL AREAS					
Name of Lake, Reservoir or Recreation Area	Total Area (Acres)	Water Surface Area (Acres)	Elevation	Annual Attendance	Administering Agency
Lake Mead	1,920,000	186,000	2,219,960 3/647		National Park Service

REMARKS: 1/ Includes: \$1,278,288 appropriated under P.L. 84-641, and 235,000 - Preliminary investigations.
2/ Includes: Appropriations and collections for O&M, repayment to Colorado River Dam Fund.
3/ Elevations of Lakes Mead and Mohave respectively (both are included in Lake Mead National Recreational Area).

SCHEDULE L

STORAGE RESERVOIRS

Name	River	Purpose	Capacity (acre feet)		Surface Area (acres)	Year Completed
			Active	Total		
Lake Mead	Colorado	I-P-FC-RR-N	28,427,000	31,047,000	158,000 ^{h/}	1936

SCHEDULE M

STORAGE DAMS

Name	Reservoir	Type	Hydraulic Height (ft)	Structural Height (ft)	Crest Length (ft)	Total Volume (cu yds)	Year Completed
Hoover	Lake Mead	Concrete thick arch	576	726	1,244	4,400,000	1936

SCHEDULE N

DIVERSION DAMS

Name	River	Type	Diversion Cap. (cfs)	Hydraulic Height (ft)	Length (ft)	Total Vol. (cu yds)	Year Completed
xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx

SCHEDULE O

POWERPLANTS

Name	No. of Units	Capacity of Unit (kw)	Existing Plant Capacity (kw)	Ultimate Plant Capacity (kw)	Date First Generation	Year Completed
Hoover	14	82,500	1,344,800	1,344,800	October 1936	
	2	2,400				
	1	40,000				
	1	50,000				
	1	95,000				

SCHEDULE P

TRANSMISSION LINES

Circuit Miles							Total Circuit Miles
Above 230 kv	230 kv	161 kv	138 kv	115 kv	110 kv	69 kv	
0.96	4.48	xxx	1.09	xxx	xxx	9.20	22.73

SCHEDULE Q

SUBSTATIONS

Number of Substations in Operation	5	Total Capacity of Transformers	1,546,850	kva
------------------------------------	---	--------------------------------	-----------	-----

SCHEDULE R

GENERATION AND OTHER SOURCES OF POWER ENERGY (KWH) F.Y. 19 62

Powerplant	Generation			Purchased Power	Inter-changed	Total Energy Available
	Gross	Plant Use	Net			
Total	3,209,263,000	12,584,600	3,196,678,400	xxx	192,870,867	3,389,549,267
Hoover	3,209,263,000	12,584,600	3,196,678,400	xxx	192,870,867	3,389,549,267

SCHEDULE S

DISPOSITION OF POWER ENERGY (KWH) F.Y. 19 62

Total Energy Available	Losses	Interchanged	Recl. Projects for Resale	Sales		
				Electric Utilities	Ultimate Consumers	Total
3,389,549,267	36,160,950	190,862,654	xxx	2,003,217,057	1,159,308,606	3,162,525,663

SCHEDULE T

SALES TO ELECTRIC UTILITIES F.Y. 19 62

Item	Municipal Utilities	State Utilities	Rural Cooperatives	Other Federal Agencies	Privately Owned Utilities	Subtotal
Energy Sales (KWH)	660,772,000	1,114,437,813	xxx	xxx	228,007,244	2,003,217,057
Revenues (dollars)	\$ 2,038,714.58	\$ 3,040,898.20	\$ xxx	\$ xxx	\$ 1,134,254.43	\$ 6,213,867.21
No. Year-end Customers	4	2	xxx	xxx	4	10

REMARKS:

^{h/} Top of spillway gates.