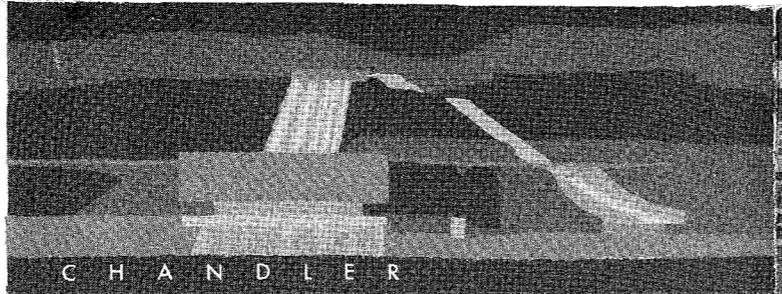
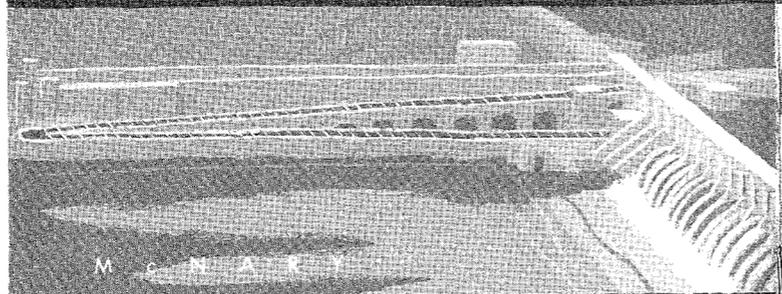


UNITED STATES
DEPARTMENT
OF THE INTERIOR

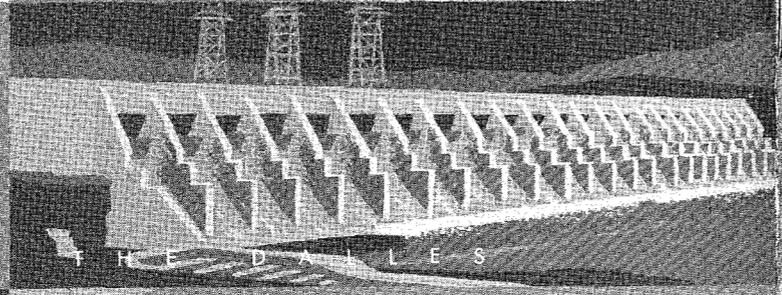
Stewart L. Udall,
Secretary



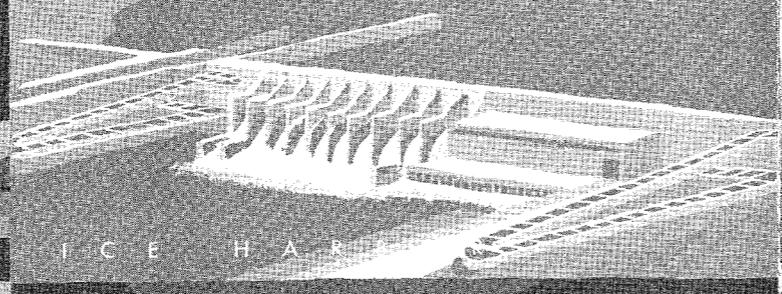
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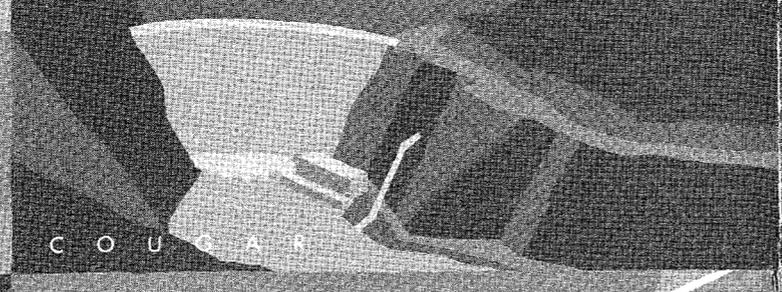
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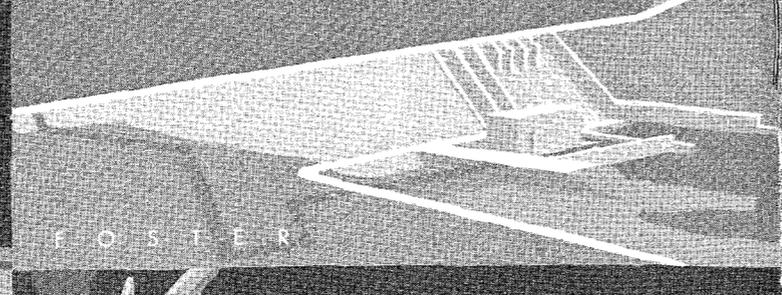
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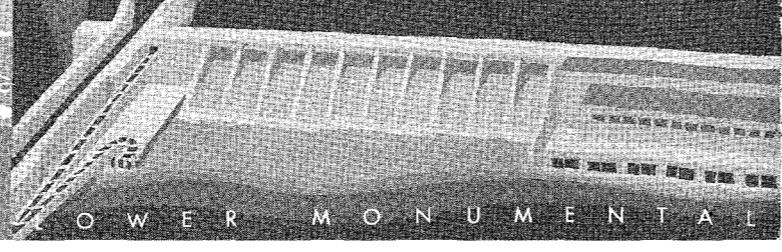
ICE HARBOR



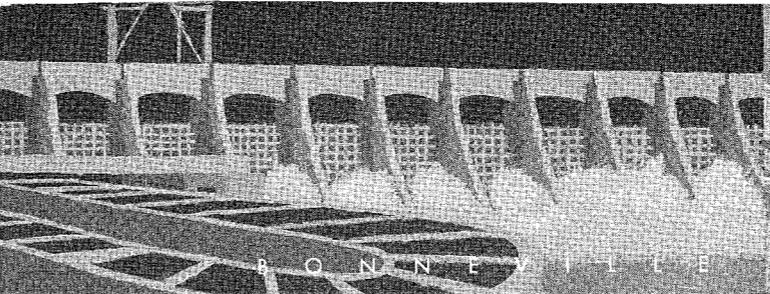
COUGAR



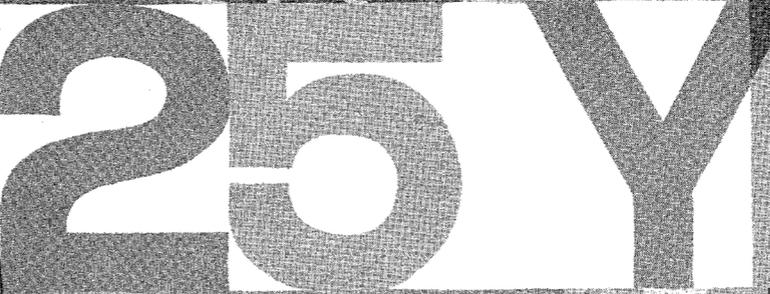
FOSTER



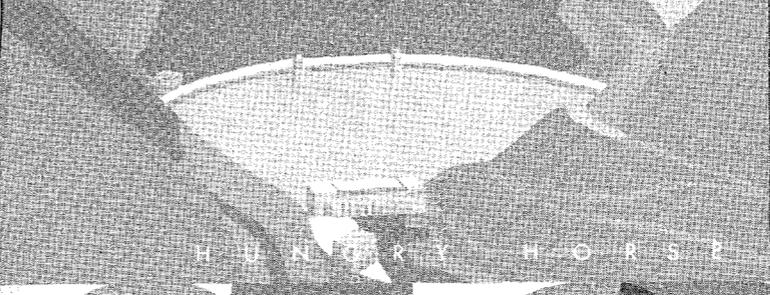
LOWER MONUMENTAL



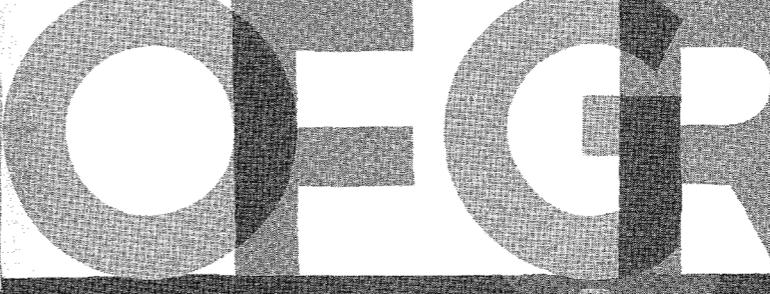
BONNEVILLE



GRAND COULEE



HUNGRY HORSE



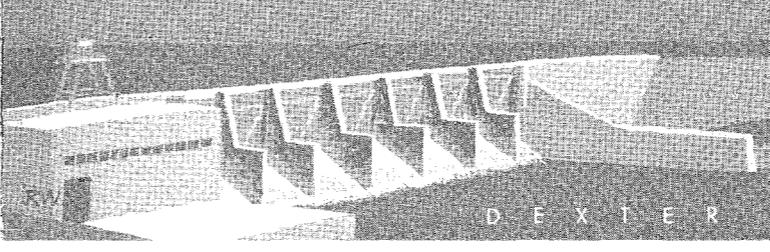
DETROIT



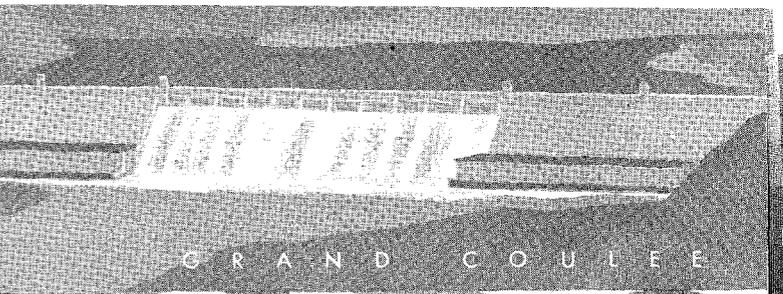
BIG CLIFF



LOUGHOUT POINT



DEXTER



ALBION FALLS

25 YEARS

OF GROWTH

1962 REPORT ON THE U.S. COLUMBIA
RIVER POWER SYSTEM  UNITED
STATES DEPARTMENT OF THE INTERIOR
BONNEVILLE POWER ADMINISTRATION



B O N N E V I L L E



G R A N D C O U L E E

25 YEARS



H U N G R Y H O R S E



D E T R O I T

OF GROWTH

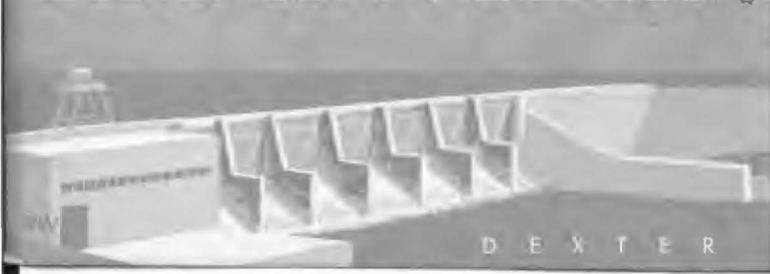


B I G C L I F F



L O O K O U T P O I N T

1962 REPORT ON THE U.S. COLUMBIA RIVER POWER SYSTEM UNITED STATES DEPARTMENT OF THE INTERIOR BONNEVILLE POWER ADMINISTRATION



D E X T E R



A L B E N I F A L L S

**The U. S. Columbia
River Power System
consists of
Bonneville Power Administration,
and the following projects:
Bonneville Dam,
Columbia Basin
(Grand Coulee Dam),
Hungry Horse, Albeni Falls,
Detroit - Big Cliff, McNary,
Lookout Point - Dexter,
Chief Joseph, Yakima
(Roza & Chandler),
The Dalles, Ice Harbor,
Hills Creek, Cougar,
Green Peter, Foster,
John Day
& Lower Monumental**



U. S. Department of the Interior, Stewart L. Udall, Secretary

1962

U. S. COLUMBIA RIVER POWER SYSTEM

Report

Bonneville Power Administration, Charles F. Luce, Administrator



August 20, 1962

When you help build a region, you help build your nation. This is the real significance of Bonneville Power Administration's first 25 years.

The Bonneville Project Act, signed 25 years ago by President Franklin D. Roosevelt, expressed the aspirations of the Pacific Northwest with respect to its unique endowment of water resources. It foresaw what wide distribution of electric power at low cost could do for the region and the nation, and it provided the vehicle to accomplish this goal.

Today the evidence is all around us. People of the Pacific Northwest use more electricity--for their homes, their farms, their businesses, their industries--than the residents of any other region. More than 99 percent of the area's farms are electrified. Northwest industry has built and thrived and expanded on Columbia River power. Electric rates of all utilities, public and private, in the Bonneville marketing area are some of the lowest in the nation.

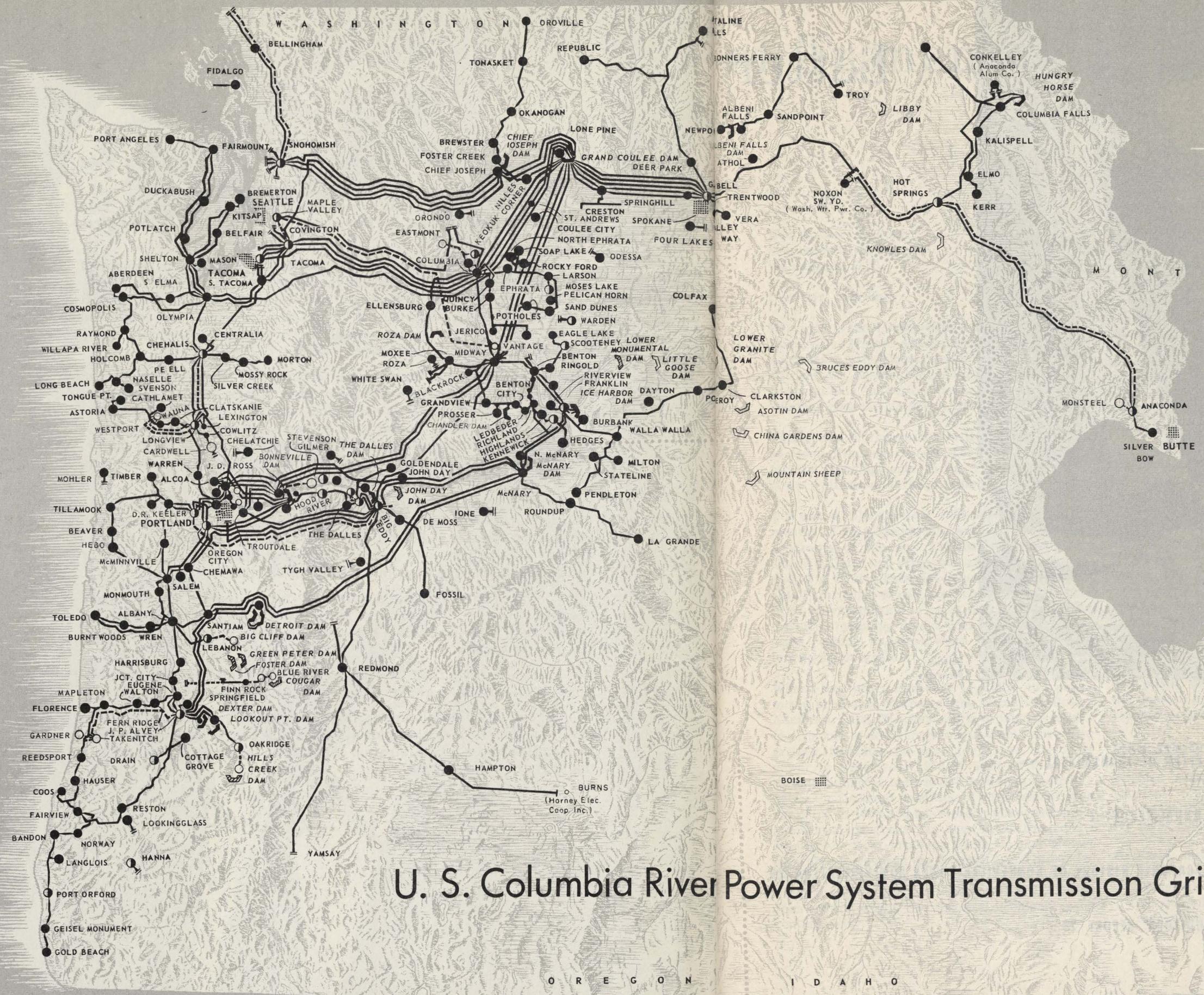
Other regions also have benefited. The economic growth of the Pacific Northwest has created a bigger market for Detroit cars and Pittsburgh steel and Boston shoes and Atlanta textiles. The list is almost without end, and proves again that the economic vitality of one region affects the economic vitality of all other regions.

Twice in Bonneville's relatively short life-span our nation has been required to fight wars to preserve freedom. On each occasion, Bonneville's great hydro and transmission resources played an important role in victory.

Bonneville's first 25 years point the way to ever bigger contributions to the economic growth and prosperity and security of our nation.

The job of developing the hydroelectric potential of the Columbia River system is less than half done. May the past achievements of the Bonneville Power Administration serve as an inspiration to get on with the job in the years ahead.

A handwritten signature in cursive script, appearing to read "John A. Lammie". The signature is written in dark ink and is positioned in the lower right quadrant of the page.



- LEGEND**
- Existing Transmission Line and Substation
 - Approved or Under Construction
 - ⊙ Additional Facilities Approved or Under Construction in Existing Substation
 - ▬ Existing Dam and Hydro Development
 - ▬ Dam and Hydro Development Under Construction
 - ▬ Authorized Dam and Hydro Development
 - Interconnection
 - Principal City

U. S. Columbia River Power System Transmission Grid

As of June 30, 1962



Building
Bonneville

Letter of Transmittal

December 31, 1962

HANFORD REACTOR

Hon. Stewart L. Udall
Secretary of the Interior
Washington, D. C.

Dear Mr. Secretary:

Herewith is the Twenty-fifth Annual Report of the Bonneville Power Administration, submitted in accordance with subsection 9(c) of the Bonneville Project Act. Besides the customary operations and financial data, the report contains a special section summarizing the history of BPA's first 25 years.

This letter of transmittal will highlight certain sections of the report and will briefly describe significant developments in the Pacific Northwest power situation through calendar year 1962.

The end of calendar year 1962 marks the first 23 months of BPA operations under the policies and programs of the new National Administration. These policies and programs are gaining momentum. The first substantial gains are now identifiable in the form of new starts and new authorizations; advancements in extra-high voltage transmission, including direct current; progress toward regional interties; and a rejuvenated power marketing program.

When I took office February 14, 1961, two paramount problems confronted the Bonneville Power Administration. The first was to provide an orderly schedule of new generation to meet future load growth, including the need for a new source of power by water year 1965-66 in order to avoid a threatened power brownout. The second was to improve the financial condition of BPA, which began declining in 1953 and has steadily worsened since. Substantial progress has been made toward resolving the first problem. While we have not yet been able to reverse the downhill trend of our financial condition, we have identified the means by which it can be done, and we look forward to progress toward solving our financial problems in the coming year.

The threat of a regional power shortage in 1965-66 ended on September 14, 1962, when the House of Representatives authorized the Atomic Energy Commission and the Bonneville Power Administration to enter into the necessary contracts for non-Federal financing, construction and operation of steam generating facilities at the New Production Reactor at Hanford, Washington. Under this authorization, the AEC will contract with Washington Public Power Supply System, a group of 16 Washington State public utility districts, for the sale of by-product steam from the NPR and for the lease of the reactor to WPPSS to produce steam for power whenever it is not being used for the production of plutonium.

Hanford will add more than 900,000 kilowatts of firm power to the region's supply. It will be marketed through exchange agreements with the Bonneville Power Administration. A unique feature of the authorizing legislation requires that private utilities and industries be offered up to 50 percent of the Hanford steamplant output. This will be the first time that private utilities have been offered power on long-term contracts at standard Bonneville rates. The region's public and private utilities all have been offered a share of Hanford power and are now in the process of determining whether they will participate and to what extent. Our policy has been to encourage both public and private utilities to participate in the Hanford project to the fullest extent of their statutory rights.

OTHER HANFORD BENEFITS

Besides avoiding a threatened regional power shortage in 1965-66, the Hanford steamplant is important to Bonneville Power Administration for three additional reasons:

- First, assurance that this new supply of power will be available by late 1965 will permit Bonneville to offer for sale immediately some 250,000 kilowatts of presently surplus short-term firm power which we have been required

LETTER OF TRANSMITTAL ➤

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to withhold from the market in order to meet contractual commitments for the normal load growth of present customers after 1965.

- Second, the cost of this power is comparable to that of power from then available projects.
- By our participation in the Hanford electric project, we make it possible for the U. S. Treasury to recoup up to \$125,000,000 of the Government's investment in the plutonium reactor, and to save a valuable energy resource that would otherwise be wasted.

NEW HYDRO PROJECTS

In addition to the Hanford steamplant, the last Congress authorized two new major hydro projects on the Columbia River System--Bruces Eddy and Asotin Dams. These are the first new major hydro authorizations since 1950. Further, Congress appropriated funds for new construction starts in fiscal year 1963 on Bruces Eddy and the previously authorized Little Goose project. These two new starts, plus Hanford, will add approximately 1,800,000 kilowatts of firm power to the region's supply.

The authorization of two additional projects--Knowles and China Gardens--was denied. The Knowles project was approved by the Senate, but was not approved by the House which had not held hearings on it. In the 1963 session of Congress, we understand that Knowles will be considered again, and that there will be House hearings on the project. Knowles is an important Federal project whether or not the treaty with Canada for joint development of the Columbia River is ratified in Canada. But if the treaty is not ratified, Knowles (or its alternative, Paradise) becomes absolutely essential to comprehensive and economical development of the Columbia watershed. If we do not get Canadian storage, Knowles would add 953,000 kilowatts of prime power to the region, counting both at-site and downstream power benefits. If the treaty is ratified, and we get Canadian storage, Knowles still would add 336,000 kilowatts of prime power at site and downstream.

Additionally, Knowles will provide significant flood control benefits. Depending on system conditions, Knowles would reduce the flood at The Dalles by 30,000 to 50,000 cubic feet per second. Without Canadian storage, Knowles storage is essential to the primary flood control goal of reducing flows to 800,000 c.f.s. at The Dalles. It

presents the last opportunity to provide storage in this part of the river basin for future river control requirements. Even with Canadian storage, it would be an integral part of the flood control plan to reach the desirable secondary goal of 600,000 c.f.s. on the Lower Columbia.

THE CANADIAN TREATY

The treaty with Canada provides for the construction by Canada of three large storage dams in British Columbia, and construction by the United States of Libby Dam in Montana. Because the reservoir of Libby would extend 42 miles into Canada, it cannot be built without Canadian consent. The additional kilowatts produced at downstream U. S. dams as a result of the Canadian storage are to be shared 50-50 by the two countries. The United States' share of treaty power, including Libby, amounts to roughly 2,000,000 salable firm kilowatts, and would profoundly affect the scheduling of new projects in the Pacific Northwest.

The treaty remains a "bird in the bush". It has been ratified by the U. S. Senate, but not by the Canadian Parliament. For nearly 2 years Canadian ratification has been held up because of a difference of opinion within Canada concerning the disposition of Canada's share of treaty power. The United States has maintained the position that we would prefer that Canada retain her share of treaty power for use in Canada, as contemplated in the treaty negotiations, but that if she desires to sell all or part of her share in the United States on long-term contracts, we will cooperate in an effort to find buyers under terms and conditions acceptable to all parties. Ratification of the treaty is becoming a matter of urgency. Plans for development of alternative sources of generation cannot long be delayed by the United States.

NEED FOR COORDINATED SCHEDULING

With or without Canadian storage, we feel strongly that the orderly scheduling of new generating projects is essential to the future economic growth of the region. When projects are not scheduled to come on the line by the time they are needed, power brownouts occur and the economy suffers through loss of industry, payrolls and taxes. When projects are built too far in advance of need, rate payers may be burdened with idle investment and increased costs.

The region's economy finally pays for the cost

of power, and it pays whether the power is used or wasted. Utilities of the region must look not only to their own needs, but to the orderly and economic development of the area's hydro resources. Power produced at Federal multipurpose projects normally costs less than non-Federal power produced at plants built for the single purpose of producing power. From a regional and a national viewpoint, it makes sense for the utilities of the Northwest to encourage the scheduling of Federal multipurpose projects ahead of various higher cost non-Federal projects. Because it makes sense and because BPA and its customers have been hurt in recent years by poor timing in scheduling projects, we are endeavoring to provide leadership in achieving coordinated orderly scheduling of new generating projects in the region. (Our forthcoming Advance Program will propose schedules for the region both with and without the benefits of Canadian storage.)

The difficult problems associated with proper scheduling of new Federal and non-Federal electric generating projects would be made much easier if large extra-high voltage interconnections existed between the Northwest and the Southwest. Such interconnections, among other advantages to both regions, would permit the Northwest utilities to market temporary surpluses to the large steam-generating utilities of California, Nevada and Arizona.

BPA'S FINANCIAL PROBLEM

This 25th Annual Report shows Bonneville Power Administration has incurred a substantial annual deficit for the fifth year in succession. Cumulatively, we are still approximately \$20,000,000 ahead of schedule in repaying our obligations to the Treasury, with interest. However, 5 years ago we were \$79,000,000 ahead of schedule, and a predicted deficit for fiscal year 1963 will consume most of our remaining surplus. This is a pressing matter of concern to us.

In each of the past and predicted future deficit years, BPA revenues have been and will be sufficient to repay all current operation and maintenance expense, all current interest expense, and a substantial amount of scheduled retirement of the capital investment. Thus, the deficits for the past 5 years and those predicted for future years are deficits only in the sense that revenues are insufficient to meet the present schedules for repayment of amortization of the capital investment.

Basically, there are three ways to attack this problem: modify our financial practices and payout schedules, sell power now being wasted, and raise our rates.

PAYOUT SCHEDULE

Do BPA financial statements accurately reflect our financial condition? We do not believe so.

We are now repaying the U. S. Government's capital investment in the U. S. Columbia River Power System on a dam-by-dam basis, over a 50-year period dating from the time each dam starts producing power. This is a more demanding repayment schedule than for Federal power developments in any other river basin. Of course, the service lives of these dams are much longer than 50 years.

In other Federal river basin developments, projects are customarily paid out on a system-wide basis. That is, as each new dam is added to the System, the outstanding balance owing on the previous dams is added to the cost of the newest dam, and the entire System is placed on a new 50-year payout schedule dating from the time power starts flowing from the newest dam. If we were to adopt such a payout system, it would reduce our annual obligations to the Treasury by about \$7,000,000 per year.

Therefore, we have recommended a revised payout schedule to bring repayment of projects for the Columbia River Power System more nearly in line with those in other river basins, to more accurately reflect the actual life of power facilities, and to standardize amortization of project costs allocated to power. (Parenthetically, both Senator Carl Hayden, chairman of the Senate Appropriations Committee, and the Bonneville Regional Advisory Council have recommended that we revise our payout schedules.) If our recommendations or their equivalent are accepted, the changes would be reflected favorably in Columbia River Power System financial statements beginning with fiscal year 1963 or 1964.

COST ALLOCATIONS

The North Pacific Division of the Corps of Engineers has recommended revised cost allocations for McNary and The Dalles Dams which, if approved, will reduce the charges to power by \$1,700,000 per year. Such allocations would recognize the increasing importance of the navigation locks in these two dams.

Region I of the Bureau of Reclamation has recommended to the Commissioner of Reclamation an interim revision in the cost allocations for Grand Coulee Dam, taking into account flood control benefits, which would lower payout requirements by about \$1,500,000 per year. Although Grand Coulee has 35 percent of the reservoir capacity presently used for flood control protection in the Columbia Basin, there never has been any recognition of this benefit in cost allocations.

It must be pointed out that by themselves the recommended revisions in payout schedule and cost allocations will not completely offset annual deficits predicted for future years.

INCREASED SALES

For the Columbia River Power System to break even financially or to produce annual surpluses once again, not only should the foregoing changes be made but more of the System's total power capability must be marketed.

Ironically, in each of our deficit years, we have had unsold firm power,¹ secondary energy,² and peaking capacity of a value nearly twice the size of the corresponding deficit. In other words, we have been forced to waste some \$30,000,000 worth of water per year over our spillways--water that could have turned generators, produced kilowatt-hours and revenues, and converted red ink into black had there been a Northwest market for this kind of power.

CALIFORNIA INTERTIE

There has not been, and for many years there will not be, a sufficient market within the Northwest to absorb all the short-term firm power, secondary energy and peaking capacity the Bonneville system can produce. Despite recent intensified efforts to sell more of this capacity inside the region, it is clear we will have to look outside the region to find markets for the System's total power capability. The proposed extra-high voltage California intertie could open up the necessary markets, and produce net revenues for Bonneville Power Administration ranging from \$6,000,000 to \$15,000,000 per year.

1/ This firm power was temporary firm power; that is, firm power that could not be offered for sale on long-term contracts because, in the absence of assured new generation, BPA felt obligated to hold it for normal load growth of existing customers.

2/ Secondary energy or seasonal power is that produced under conditions of high streamflow. It cannot be guaranteed for delivery day in and day out.

It also could help several of the non-Federal utilities which have temporary surpluses to dispose of.

Some progress toward the California intertie has been recorded since a special Interior Department Task Force recommended the interconnection in late 1961. The last Congress appropriated \$300,000 for Bonneville and the Bureau of Reclamation to finance preliminary engineering, reconnaissance surveys and economic analysis of an intertie. The Congress also directed Bonneville to undertake negotiations with both public and private utilities interested in a coordinated plan for power interchange between the regions. Congress wanted to "be assured that it is being presented with the most feasible and economical plan for construction and use of intertie facilities".

We are now canvassing the public and private utilities of the west coast to determine the extent of their possible participation in the use or construction of portions of proposed intertie facilities. We have asked the utilities to submit any proposals by January 31, 1963.

DIRECT CURRENT

We firmly believe that at least one major tie line should utilize direct-current transmission. Other countries--notably Russia, Sweden, Great Britain and France--have made great strides in direct-current transmission, and it behooves the United States to move ahead in this important field. BPA, with appropriations from the last Congress, is now constructing a 5-mile d-c transmission test line from which we expect to learn much.

GROUND RULES LEGISLATION

Before the construction of any California intertie, Federal or non-Federal, it remains our hope that Congress will enact legislation defining BPA's primary marketing area and setting forth the ground rules for the exchange of power between regions. Legislation of this type was passed last year in the Senate but was not acted upon by the House. This legislation is important to the regions concerned, and is necessary whether the intertie be Federal, non-Federal, or part Federal and part non-Federal. It would make possible all the mutually desired benefits of the intertie on an economic basis without endangering the power supply of any region.

POSSIBLE RATE INCREASE

If it should happen that Congress rejects our intertie program, the \$6,000,000 to \$15,000,000 we expect to net from the intertie will have to be found elsewhere, most likely in a rate increase. A rate increase of 10 percent across the board would add about \$8,000,000 to BPA revenues, although it is unlikely any rate increase made would be across the board.

Bonneville Power Administration rates require approval by the Federal Power Commission and are reviewed every 5 years. The next review is not scheduled until December 1964. However, our financial problems are of such great concern that we cannot wait until 1964; we intend to meet these problems in 1963. We already have begun reviewing our rate structure with a view toward recommending any necessary changes. But because of the great bearing our intertie proposal will have on our need for a rate increase, we do not intend to make specific recommendations until Congress has acted on our intertie proposal.

SUMMARY

Payout schedule revisions, increased sales in the region and through a California intertie, and pos-

sibly a rate increase--all are being studied with a view toward ending the financial slippage that has plagued the Columbia River Power System in recent years. We do not believe that as a matter of policy a Federal power system should operate in the red, and we are dedicated to taking such steps in 1963 as are necessary to correct this situation.

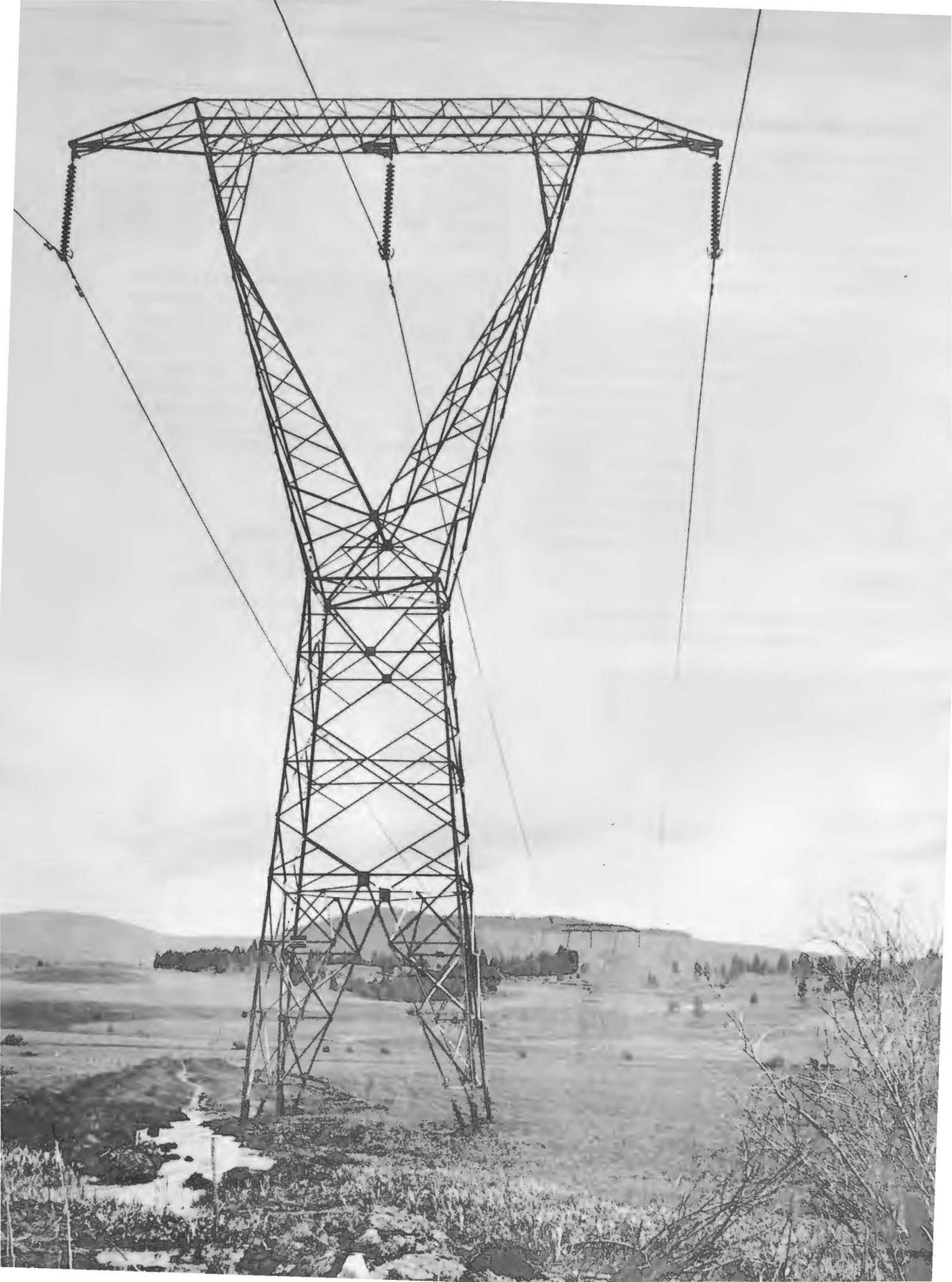
There is much yet to be done if we are to meet our responsibilities to the Pacific Northwest economy, continue to fulfill our obligations to the U. S. Treasury, push ahead on the technological frontiers and make our fullest contribution to the region and the Nation. Guided by the policies of the Administration, aided by the full cooperation of the Department of the Interior, and given the support of the people of the region, we believe we can accomplish these major goals.

Sincerely yours,

Charles F. Luce

Charles F. Luce
Administrator





Annual Report

Fiscal year 1962 marks Bonneville Power Administration's 25th year. President Franklin Delano Roosevelt on August 20, 1937, signed the Bonneville Project Act, the birth of Bonneville Power Administration.

ELECTRICAL LIVING

During the last quarter century, people of the Pacific Northwest have achieved one of the world's highest standards of electrical living, and 99 percent of the region's farms have become electrified. Typical residential and farm families in Oregon and Washington today use about 10,000 kilowatt-hours of electricity a year, pay a power bill averaging less than \$10 a month, and have an investment of about \$2,000 in electrical appliances. This is about two and one-half times the national average use at a cost of about one-half of the national average.

INDUSTRIAL GROWTH

Columbia River power has fostered a giant complex of electroprocess industries served by Bonneville Power Administration. These 18 large industrial plants represent a gross investment of nearly \$400,000,000 and pay state and local taxes ranging from 5 to 7 million dollars annually. The eight aluminum reduction plants alone supply 28 percent of the Nation's primary aluminum reduction.

Pacific Northwest economists, resource planners and engineers believe the next quarter century will be one of rapid population growth, solid industrial development, and significant technological advances in the generation and transmission of electric energy.

HYDRO DEVELOPMENT

Today no other single river basin in the world surpasses the hydroelectric development of the U. S. Columbia River Power System. Bonneville Power Administration's utility operations serve an area of 220,000 square miles covering Oregon, Washington, northern Idaho, western Montana and a small corner of Nevada, with a rapidly growing population already in excess of 5,000,000 people.

FEDERAL PROJECTS

Bonneville Dam, first of the U. S. multipurpose Columbia River projects, supplied the generation for Bonneville Power Administration's initial power delivery to the city of Cascade Locks, Oregon, on July 9, 1938. BPA is now or will be the designated marketing agency for 26 Federal multipurpose projects existing, under construction or authorized in the Columbia River Basin, including 22 Corps of Engineers and four Bureau of Reclamation projects.

Projects existing, under construction and authorized are shown in table 1.

BPA's electric energy account for fiscal year 1962 is shown in table 2.

PUBLIC BENEFITS

Power revenues will repay (1) power's full share of the total investment in the multipurpose dams of the U. S. Columbia River Power System; (2) all of the transmission investment; and (3) a substantial portion of the investment in the dams and irrigation works allocated to irrigation but assigned for return from power operations. For the 20 dams existing or under construction as of June 30, 1962, and related transmission facilities, power revenues will repay about 81 percent of the total capital investment. This investment, which includes the dams, reservoirs, power plants, transmission facilities, navigation locks, irrigation works, etc., brings large public benefits in the form of flood control, navigation, recreation, and irrigation, as well as power. In many cases inclusion of power has made these multipurpose projects feasible.

GENERATION ADDED

Ice Harbor Dam on the Snake, with 270,000 kilowatts of installed capacity, and Hills Creek Dam

NET OPERATIONS ENDING JUNE 30, 1962

NORTHWEST POWER POOL

BPA SUPPLIED 48.5% OF NET ENERGY REQUIREMENTS

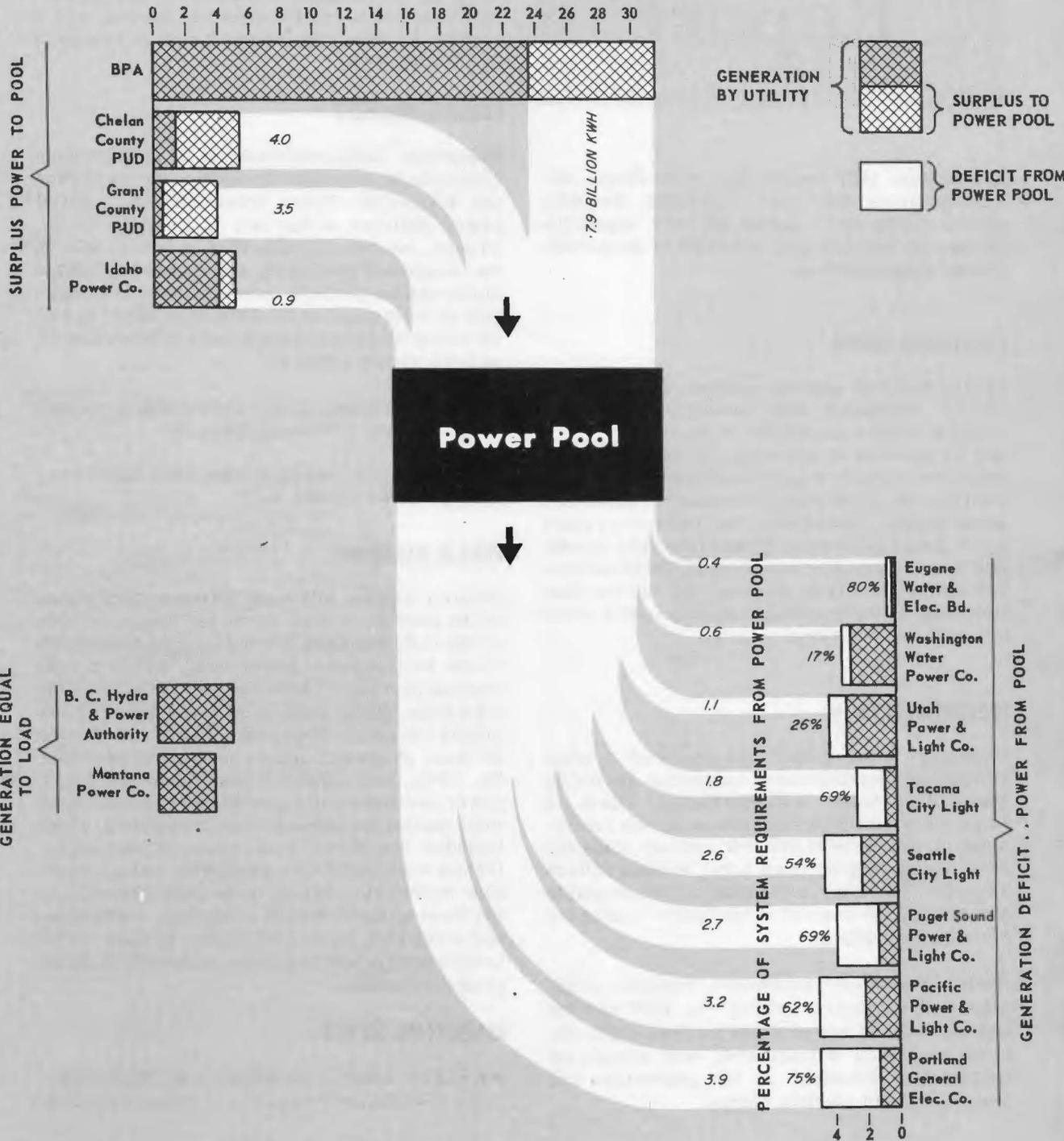


TABLE 1
U. S. COLUMBIA RIVER POWER SYSTEM
 General specifications, projects existing, under construction and authorized
 June 30, 1962

Project	Operating agency 1/	Location	Stream	Plant installations		Date in service (initial unit)	Generation fiscal year 1962 3/
				Number of units	Total capacity kilowatts 2/		
Existing:							
Bonneville	CE	Washington-Oregon	Columbia	10	518,400	June 1938	3,461
Grand Coulee	BR	Washington	Columbia	18	1,944,000	September 1941	11,433
Hungry Horse	BR	Montana	South Fork Flathead	4	285,000	October 1952	796
Detroit	CE	Oregon	North Santiam	2	100,000	July 1953	338
McNary	CE	Washington-Oregon	Columbia	14	980,000	November 1953	4,859
Big Cliff	CE	Oregon	North Santiam	1	18,000	June 1954	97
Lookout Point	CE	Oregon	Middle Fork Willamette	3	120,000	December 1954	223
Albeni Falls	CE	Idaho	Pend Oreille	3	42,600	March 1955	176
Dexter	CE	Oregon	Middle Fork Willamette	1	15,000	May 1955	58
Chief Joseph	CE	Washington	Columbia	16	1,024,000	August 1955	4,446
Chandler	BR	Washington	Yakima	2	12,000	February 1956	40
The Dalles	CE	Washington-Oregon	Columbia	16	1,119,000	May 1957	4,985
Roza	BR	Washington	Yakima	1	11,250	August 1958	50
Ice Harbor	CE	Washington	Snake	3	270,000	December 1961	537
Hills Creek	CE	Oregon	Middle Fork Willamette	2	30,000	May 1962	11
Subtotal					6,489,250		31,510
Under construction:							
Cougar	CE	Oregon	South Fork McKenzie	2	25,000	November 1963	
Green Peter	CE	Oregon	Middle Santiam	2	80,000	April 1966	
Foster	CE	Oregon	South Santiam	2	30,000	April 1967	
John Day	CE	Washington-Oregon	Columbia	10	1,350,000	June 1967	
Lower Monumental	CE	Washington	Snake	3	405,000	December 1967	
Subtotal					1,890,000		
Authorized:							
Libby	CE	Montana	Kootenai	4	344,000		
Little Goose	CE	Washington	Snake	3	405,000		
Lower Granite	CE	Washington	Snake	3	405,000		
Subtotal					1,154,000		
Total, 23 projects					9,533,250		

1/ CE - Corps of Engineers; BR - Bureau of Reclamation.

2/ Nameplate rating.

3/ Millions of kilowatt-hours.

on the Middle Fork of the Willamette, with 30,000 kilowatts, were completed during fiscal year 1962. This brought the nameplate rating of the U. S. Columbia River Power System to 6,489,250 kilowatts. Projects under construction will increase the nameplate rating to 8,379,250.

addition of 693,450 kilowatts of installed capacity during fiscal year 1962, bringing the total non-Federal capacity to 5,318,790 kilowatts. Future additions under construction or licensed would add 3,053,000 kilowatts.

STORAGE INCREASED

Federal reservoir storage, usable for power, was increased to 10,456,000 acre-feet with addition of the 249,000 acre-feet at Hills Creek. Cougar and Green Peter, now under construction in the Willamette Basin, will add 487,000 acre-feet. Libby, an authorized project, would provide 5,010,000 acre-feet but construction is conditional on final ratification of the Canadian Treaty.

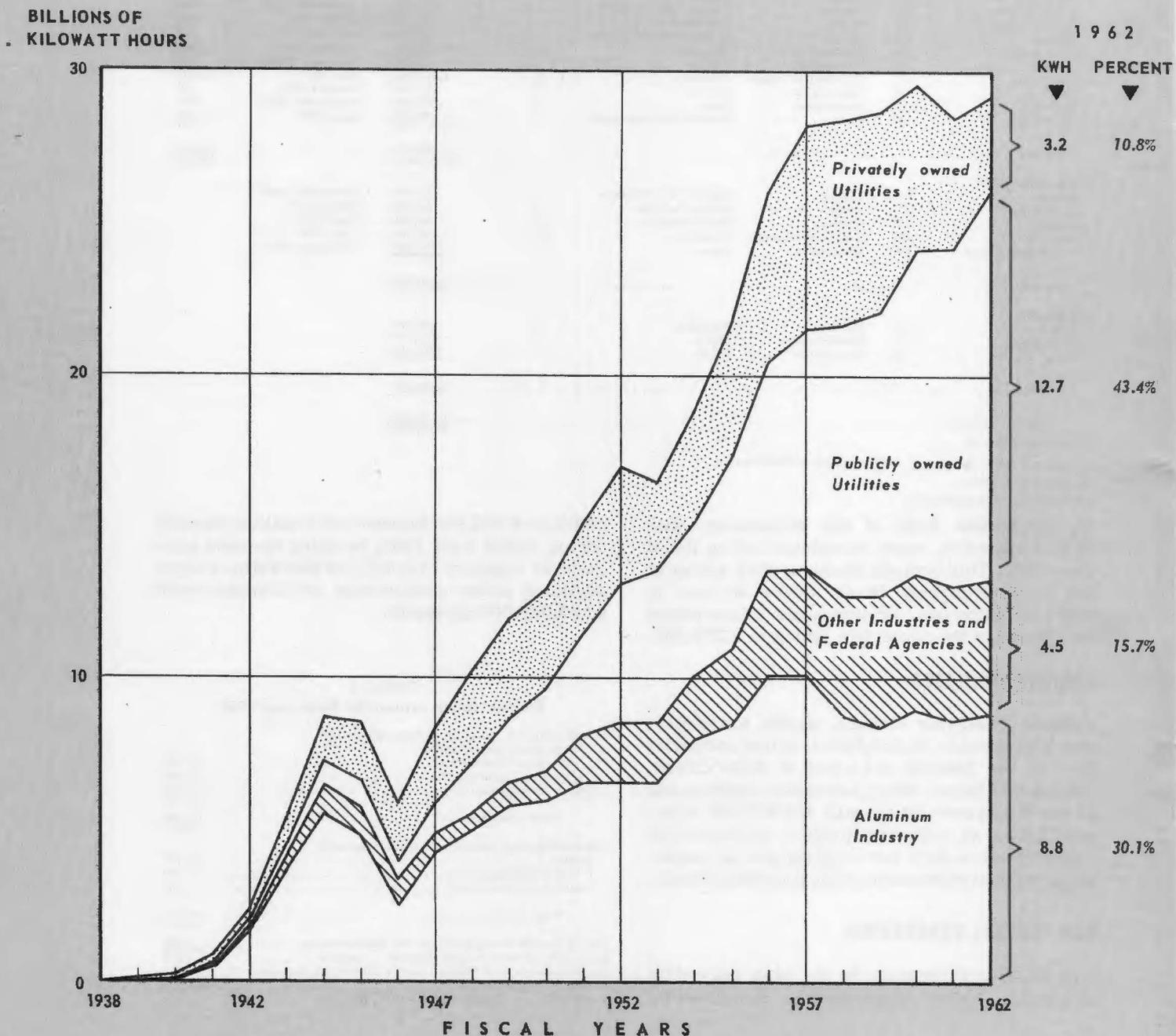
NON-FEDERAL GENERATION

Non-Federal generation in the area served by Bonneville Power Administration increased by

TABLE 2
Electric energy account for fiscal year 1962

Energy received (millions of kilowatt-hours):	
Energy generated for BPA:	
Bureau of Reclamation	12,318
Corps of Engineers	19,192
Power interchanged in	12,320
Total received	43,830
Energy delivered (millions of kilowatt-hours):	
Sales	29,157
Power interchanged out	12,649
Used by Administration	37
Total delivered	41,843
Energy losses in transmission and transformation	1,987
Losses in percent of total received - percent	4.5
Maximum demand on Federal plants (kilowatts) February 27, 1962, at 9-10 a.m., PST	4,967,000
Load factor, total generated for BPA, percent	72.4

SALES OF ELECTRIC ENERGY by class of customer



NORTHWEST POWER POOL

During fiscal year 1962, Bonneville Power Administration supplied 52.6 percent of the total energy generated by the major utilities of the region and 48.5 percent of the net requirements of the Northwest Power Pool. Generation by principal electric utility systems of the region is shown in the Northwest Power Pool chart.

POWER SOLD

Bonneville Power Administration since beginning of operations in 1938 has sold 363 billion kilowatt-hours of hydroelectric energy. This would be enough to meet the current power requirements of the entire United States for more than 6 months.

Fiscal year 1962 power sales totaled 29.2 billion kilowatt-hours for \$69,000,000, an average of 2.36 mills per kilowatt-hour. Kilowatt-hours sold increased 2.2 percent over the previous year. Customers added during the year include the Harney Electric Cooperative, Inc., the U. S. Coast Guard and General Services Administration.

Percentage distribution by classes of customers for fiscal year 1962 follows:

	Number of customers June 1962	Energy sale by percent of total
Publicly owned utilities	82	43.4
Privately owned utilities	8	10.8
Aluminum industry	9	30.1
Other industries & Federal agencies .	<u>20</u>	<u>15.7</u>
Total	<u>119</u>	<u>100.0</u>

TREND OF ENERGY SALES

The tremendous growth and important trends in BPA's short 25-year history are graphically shown, in the accompanying chart "Sales of Electric Energy by Class of Customer". Although kilowatt-hour sales during the current 5-year period, 1958-1962, increased 30.1 percent over the 1953-57 period, the rate of increase was about half that shown in the prior 5-year period. BPA sales to publicly owned utilities lead all customer categories with an average increase of 16.4 percent a year. Total sales in this category have doubled since fiscal year 1954.

TABLE 3
Sales of electric energy by classes of customers

	Fiscal year 1962		Fiscal year 1961		Percent increase
	Millions of kilowatt-hours	Mills per kilowatt-hour	Millions of kilowatt-hours	Mills per kilowatt-hour	
Publicly owned utilities:					
Firm	12,131	2.69	10,876	2.72	11.5
Nonfirm	<u>536</u>	2.50	<u>198</u>	2.50	170.7
Total	<u>12,667</u>	2.68	<u>11,074</u>	2.71	14.4
Privately owned utilities:					
Firm	2,607	2.13	3,629	2.24	-28.2
Nonfirm	<u>554</u>	2.50	<u>673</u>	2.50	-17.7
Total	<u>3,161</u>	2.19	<u>4,302</u>	2.28	-26.5
Aluminum plants:					
Firm	7,046	2.03	7,431	2.01	- 5.2
Nonfirm	<u>1,719</u>	1.78	<u>1,128</u>	1.76	52.4
Total	<u>8,765</u>	1.98	<u>8,559</u>	1.98	2.4
Other industries: 1/					
Firm	4,074	2.31	4,193	2.24	- 2.8
Nonfirm	<u>490</u>	2.22	<u>393</u>	2.26	24.7
Total	<u>4,564</u>	2.30	<u>4,586</u>	2.26	- 0.5
Total energy:					
Firm	25,858	2.39	26,129	2.37	- 1.0
Nonfirm	<u>3,299</u>	2.09	<u>2,392</u>	2.11	37.9
Total	<u>29,157</u>	2.36	<u>28,521</u>	2.35	2.2

1/ Includes Federal agencies.

Comparative energy sales by classes of customers for 1961 and 1962 are shown in table 3. Sales to publicly owned utilities continued to increase at a higher rate than other classes of customers. Sales to privately owned utilities actually decreased during 1962 due to availability of additional power from newly completed non-Federal resources. A decrease in firm sales to industries reflects further curtailment of their 1962 operations.

During the last 10-year period, sales to publicly owned utilities increased 164 percent, to private utilities decreased 17 percent, to aluminum companies increased 35 percent, and combined sales to Federal agencies and other industries increased 135 percent.

BASIC POWER RATE HOLDS

Bonneville Power Administration's "Postage Stamp" rate of \$17.50 per kilowatt-year has been in effect since beginning of operations nearly a quarter century ago. The next 5-year rate review and adjustment period specified in power contracts pursuant to the Bonneville Act falls due December 20, 1964.

Electric resale rates of the Pacific Northwest graphically demonstrate the contribution of low-cost energy. See the chart entitled "Northwest Electric Bills".

BPA delivered about 64 percent of its energy sales--at an average cost of 2.18 mills per kilowatt-hour--to industries and to utilities having substantial generating facilities. A summary of energy sales for the fiscal year, classified by rate schedules, appears in table 4.

Energy deliveries to customers for fiscal year ended June 30, 1962, appear in table 5.

INDUSTRIAL USE

Bonneville Power Administration's industrial customers have an estimated capacity to use power at the rate of 1,928,000 kilowatts of which 1,562,000 kilowatts are represented by the aluminum industry and 366,000 kilowatts by other industries. As of June 30, 1962, their combined purchases from the Government and other sources totaled 1,499,000 kilowatts, leaving an idle capacity of 429,000 kilowatts at that date. A total of 999,000 kilowatts was purchased from the Government under firm contracts and 282,000

kilowatts on an interruptible basis. The remaining 218,000 kilowatts were purchased from outside sources.

The aluminum industry was purchasing only 1,251,000 kilowatts of its total plant capacity of 1,562,000 kilowatts, leaving idle plant capacity of 311,000 kilowatts.

The Aluminum Company of America, at its Vancouver and Wenatchee plants, was curtailing its firm contract demand from BPA by 110,200 kilowatts as of June 30, 1962. At this same date, the company was purchasing 110,700 kilowatts of Rocky Reach and Rock Island power from Chelan County Public Utility District. Contracted deliveries of 100,000 kilowatts of power from Rocky Reach started in August 1961.

TRANSMISSION SYSTEM

Bonneville Power Administration in a little over two decades has constructed one of the Nation's largest high voltage grid systems to carry power from the U. S. Columbia River Power System and from large non-Federal projects to the region's load centers.

Addition of 384 circuit miles of high voltage transmission lines and seven substations during fiscal year 1962 gives the Administration a network of 8,608 circuit miles of transmission line and 215 substations. Transformer capacity was increased by 113,000 kilovolt-amperes for a total

TABLE 4
Sales of electric energy by rate schedules
Fiscal year 1962

Rate schedule	Millions of kilowatt-hours	Percent of total	Percent change from fiscal year 1961	Mills per kilowatt-hour
C-4 1/	18,566	63.7	- 3.0	2.18
F-4	34	0.1	-- 34.3	5.06
A-4 1/	2,658	9.1	12.0	1.68
E-4 1/	6,679	22.9	11.9	3.11
H-3	1,197	4.1	24.2	2.50
Space heating	23	0.1	64.3	1.00
Total	29,157	100.0	2.2	2.36

Major features of rate schedules:

- C-4 - Kilowatt-year rate for transmission system firm power.
- F-4 - Demand energy rate for firm power.
- A-4 - Kilowatt-year rate for at-site firm power.
- E-4 - Demand energy rate for firm power for resale to ultimate consumers.
- H-3 - Energy rate for dump, emergency, breakdown, or experimental service.
- Space heating - Special space heating rate applicable in vicinity of Grand Coulee plant.

1/ Includes interruptible sales.

TABLE 5
Electric energy deliveries to customers of the Bonneville Power Administration
Fiscal year ended June 30, 1962

<u>Customers</u>	<u>Energy deliveries for year 1/ thousands of kilowatt-hours</u>	<u>Customers</u>	<u>Energy deliveries for year 1/ thousands of kilowatt-hours</u>
<u>PUBLICLY OWNED UTILITIES</u>			
<u>MUNICIPALITIES</u>			
Bandon, Oregon	24,388	Midstate Elec. Coop.	17,418
Bonnors Ferry, Idaho	4,371	Missoula Elec. Coop.	19,632
Canby, Oregon	19,335	Nespelem Elec. Coop.	11,095
Cascade Locks, Oregon	14,018	Northern Lights	35,770
Centralia, Washington	11,684	Okanogan Co. Elec. Coop.	6,248
Cheney, Washington	27,580	Orcas Power & Light Co.	22,140
Coulee Dam, Washington	20,603	Quinalt Light Co.	2,950
Drain, Oregon	17,956	Ravalli Co. Elec. Coop.	15,725
Ellensburg, Washington	62,526	Salem Electric	76,462
Eugene, Oregon	535,867	Surprise Valley Elec. Coop.	8,836
Forest Grove, Oregon	57,440	Tanner Electric	1,790
Grand Coulee, Washington	19,690	Umatilla Elec. Coop. Assn.	38,998
McMinnville, Oregon	82,463	Vera Irrigation Dist. # 15	45,085
Milton-Freewater, Oregon	43,085	Wasco Elec. Coop.	36,408
Monmouth, Oregon	19,177	West Oregon Elec. Coop.	27,181
Port Angeles, Washington	238,172	Total cooperatives (36)	1,384,966
Richland, Washington	168,138	B. C. Hydro and Power Authority (1) 3/	--
Seattle, Washington	1,789,855	Total publicly owned utilities	12,667,254
Springfield, Oregon	106,441	<u>PRIVATELY OWNED UTILITIES</u>	
Tacoma, Washington	1,450,584	British Columbia Elec. Co. 3/	177
Total municipalities (20)	4,713,373	California-Pacific Utilities Co.	10,260
<u>PUBLIC UTILITY DISTRICTS</u>			
Benton County PUD # 1	287,109	Idaho Power Company	--
Central Lincoln PUD	372,978	Montana Power Company	350,400
Chelan County PUD # 1	273,621	Pacific Power & Light Company	720,120
Clallam Co. PUD # 1	83,923	Portland General Electric Company	1,772,721
Clark Co. PUD # 1	773,559	Puget Sound Power & Light Co.	13,057
Clatskanie PUD	29,704	Washington Water Power Co.	294,491
Cowlitz Co. PUD # 1	1,084,601	Total privately owned utilities (7)	3,161,226
Douglas Co. PUD # 1	154,939	<u>FEDERAL AGENCIES (10)</u>	
Ferry Co. PUD # 1	20,653	2,705,572	
Franklin Co. PUD # 1	150,432	<u>INDUSTRIES</u>	
Grant Co. PUD # 2	415,536	<u>ALUMINUM</u>	
Grays Harbor Co. PUD # 1	481,965	Aluminum Co. of America	
Kittitas Co. PUD # 1	12,121	Vancouver Plant	1,263,891
Klickitat Co. PUD # 1	100,066	Wenatchee Plant	86,062
Lewis Co. PUD # 1	183,340	Anaconda Aluminum Co.	1,227,927
Mason Co. PUD # 1	13,163	Harvey Aluminum Co.	1,429,930
Mason Co. PUD # 3	104,328	Kaiser Aluminum & Chemical Corp	
Northern Wasco Co. PUD	36,354	Spokane Rolling Mill	277,420
Okanogan Co. PUD # 1	149,770	Spokane Reduction Plant	2,646,930
Pacific Co. PUD # 2	100,785	Tacoma Reduction Plant	--
Pend Oreille Co. PUD # 1	25,365	Reynolds Metals Co.	
Skamania Co. PUD # 1	41,847	Longview Plant	1,164,478
Snohomish Co. PUD # 1	1,411,228	Troutdale Plant	668,301
Tillamook PUD	193,539	<u>OTHER INDUSTRIES</u>	
Wahkiakum Co. PUD # 1	18,897	Carborundum Company	200,727
Whatcom Co. PUD # 1	49,092	Crown Zellerbach Corp.	112,412
Total public utility districts (26)	6,568,915	Hanna Nickel Smelting Co.	543,077
<u>COOPERATIVES</u>			
Benton Rural Elec. Assn.	63,668	Keokuk Electro-Metals Co.	110,066
Big Bend Elec. Coop.	80,454	Pacific Carbide & Alloys Co.	46,114
Blachly-Lane Elec. Coop. Assn.	32,599	Pacific Northwest Alloys	98,724
Central Elec. Coop.	28,033	Pennsalt Chemicals Corp.	255,124
Clearwater Power Co.	49,923	Rayonier Corp.	48,843
Columbia Basin Elec. Coop.	15,170	Union Carbide Metals Co.	154,581
Columbia Power Coop. Assn.	18,693	Victor Chemical Works	288,519
Columbia Rural Elec. Assn.	35,997	Total industries (19)	10,623,126
Consumers Power	113,529	<u>Total sales of electric energy (119)</u>	
Coos-Curry Elec. Coop.	132,467	29,157,178	
Douglas Elec. Coop.	47,936		
Eastern Oregon Elec. Coop. Assn.	7,364		
Flathead Elec. Coop.	30,883		
Harney Elec. Coop. 2/	10,020		
Hood River Elec. Coop.	26,586		
Idaho Co. L & P Assn.	21,643		
Inland Power & Light Co.	134,587		
Kootenai Rural Elec. Assn.	22,566		
Lane Co. Elec. Coop.	97,717		
Lincoln Elec. Coop. - Montana	15,392		
Lincoln Elec. Coop. - Washington	34,001		

1/ Includes energy deliveries carried on exchange accounts.
2/ New customer added during year.
3/ During F.Y. 1962 B. C. Hydro & Power Authority, a publicly owned agency, acquired operations of B. C. Electric Co., a privately owned utility.



of 14,585,747 kilovolt-amperes, and the present system reactive capacitance of 2,538,670 kilovolt-amperes was increased by 103,125 kilovolt-amperes during the fiscal year.

TRANSMISSION COSTS

Transmission costs of the U. S. Columbia River Power System are related both to kilowatt-hours sold and kilowatt-hours handled. The unit transmission cost of kilowatt-hours sold during fiscal year 1962 was 1.05 mills per kilowatt-hour, a drop of 0.01 mills from last year.

Kilowatt-hours handled consists of kilowatt-hours sold plus the amounts of power wheeled over the Federal grid for other utilities. The unit transmission cost on the basis of kilowatt-hours handled was 0.83 mills per kilowatt-hour, a decrease of 0.07 mills from last year.

The "per kilowatt-hour" costs of transmission are lower on the kilowatt-hours handled than on the kilowatt-hours sold basis because the wheeling power is normally carried over the highest voltage and highest capacity transmission facilities. These facilities have a lower average annual cost to operate and maintain than the transmission system as a whole.

NEW FACILITIES COMPLETED

Major facilities completed during the year were:

- An 80-mile, 345,000-volt line from Big Eddy Substation near The Dalles, Oregon, to Portland General Electric Company's McLoughlin Substation southeast of Portland, Oregon, to increase transmission capacity into the Willamette Valley area from mid-Columbia River generating plants.
- A 129-mile, 345,000-volt line from Chelan County PUD's Rocky Reach hydroelectric project to Maple Valley near Seattle, Washington, to bring additional power to northwestern Washington.
- A 9-mile, double circuit 115,000-volt line to integrate the output of the Corps of Engineers' Ice Harbor hydroelectric project, on the lower Snake River, into the BPA system near Pasco, Washington.
- A 125-mile, 115,000-volt line between our Redmond Substation and Harney Electric Cooperative near Burns, Oregon, to bring electric power service to presently unserved areas in southern Harney and Malheur Counties, Oregon, and northern Humboldt County, Nevada.
- A 50,000 kilovolt-ampere transformer addition to the Aberdeen Substation to serve load growth in the Grays Harbor area of Washington.

CONSTRUCTION UNDER WAY

Construction under way on key facilities at the end of the fiscal year included:

- An 18-mile, 115,000-volt line from the Administration's Lebanon Substation, initially to furnish construction power to the Corps of Engineers' Green Peter Dam in western central Oregon, and later to integrate generation from the dam into the BPA grid.
- The Vantage Substation and 230,000-volt tap to the Midway-Columbia line to integrate the Wanapum project of the Grant County PUD with the Administration's grid under long-term "wheeling" agreements.
- A second 33-mile, 230,000-volt line between Chehalis and Longview, Washington, to reinforce the Administration's system in the Longview area of southwestern Washington.
- A 46-mile, 115,000-volt line between Eugene, Oregon, and the Corps of Engineers' Cougar project on the South Fork of the McKenzie River.

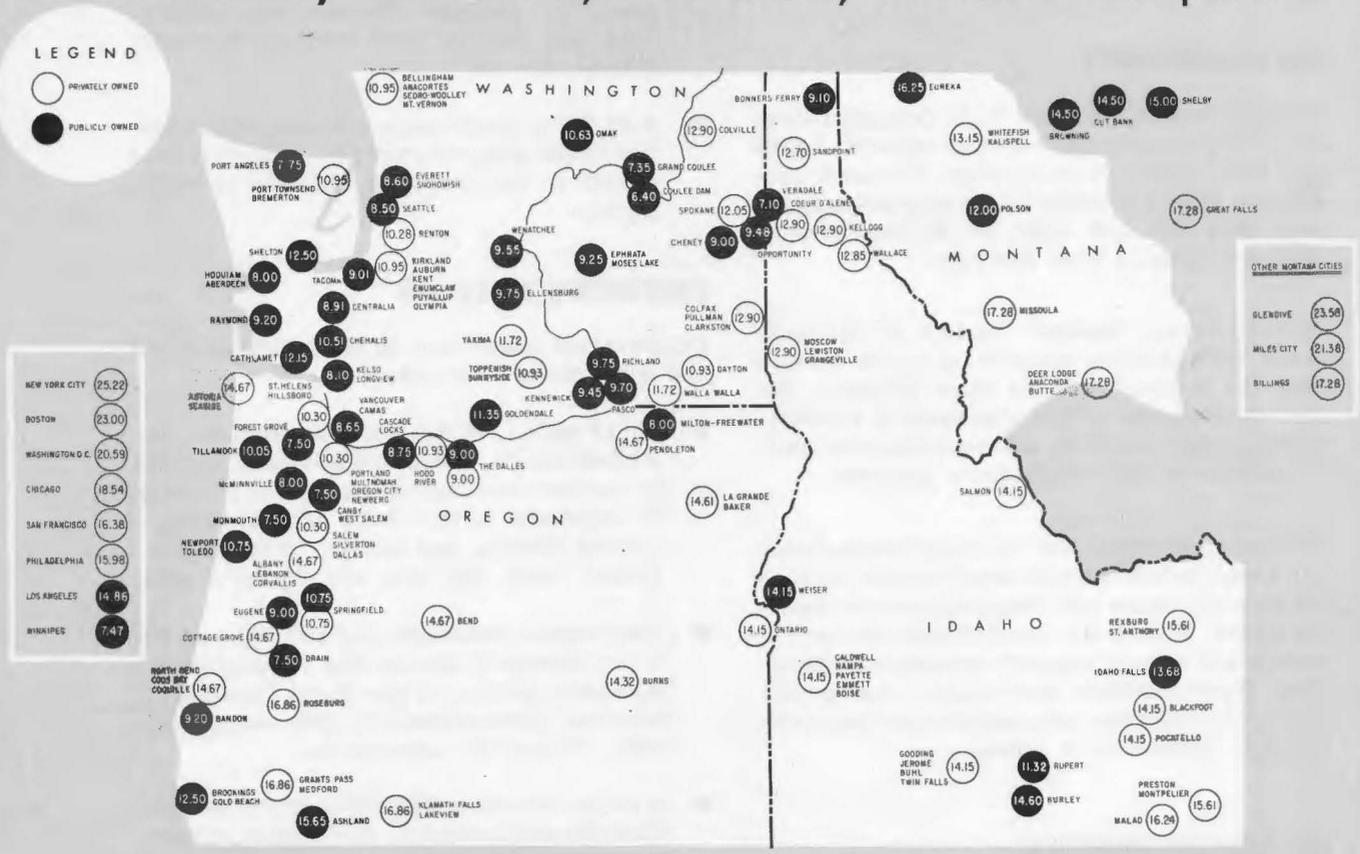
WHEELING PROGRAM GROWS

Bonneville Power Administration's wheeling program, making the Federal grid available for transmission of non-Federal generation to area load centers, continued its steady growth in fiscal year 1962.

Contractual energy transfers increased by 25 percent over the previous year, totaling 11 billion kilowatt-hours as compared with 8.8 billion. Deliveries from the Rocky Reach plant of the Chelan County PUD, beginning in June 1961, accounted for most of the increase.

NORTHWEST ELECTRIC BILLS

monthly cost of 1,000 kwh, residential power



LONG-TERM CONTRACTS

Power is being delivered under long-term firm capacity wheeling contracts from the Pelton project of the Portland General Electric Company, the Box Canyon project of the Pend Oreille PUD, the Priest Rapids project of the Grant County PUD, and the Rocky Reach project of the Chelan County PUD.

Excess capacity wheeling contracts cover power from the Swift project of the Pacific Power and Light Company, the Rock Island project of the Chelan County PUD, the Priest Rapids project

of the Grant County PUD, and the Idaho Power Company.

COORDINATION AGREEMENT

Most major non-Federal generating utilities of the region entered into a 1-year coordination contract with BPA during fiscal year 1962 to maximize power output of all Pacific Northwest generating projects. The agreement, a pilot plan for coordination of the region's power resources, will be required if the Columbia River Treaty is ratified by Canada, and will be important even if not.

The 1-year contract was designed to provide the required experience in the complex scheduling of coordinating operation of over 100 projects represented by the participating utilities.

A new 1-year coordination agreement is under negotiation to provide additional experience and knowledge looking forward to a proposed long-term contract.

RESOURCES FOR THE FUTURE

Conservation of hydroelectric resources requires careful advance planning and scheduling. U. S. Columbia River multipurpose projects must be planned in close cooperation with other Federal agencies to assure the fullest utilization of flood control, irrigation, navigation and recreational benefits as well as power. Construction of these projects must be scheduled to meet insofar as possible the rapidly growing power demands of the region.

BPA during the year consistently emphasized the importance of early construction of key projects in the Snake River Basin such as Little Goose,

Bruces Eddy and Asotin projects, the Knowles project, in western Montana, and similar feasible projects.

The greatest single remaining potential hydroelectric resource in the region is the storage which could be provided through ratification of the Columbia River Treaty. Completion of the three proposed storage projects in Canada and Libby Dam in the United States would add about 2,000,000 kilowatts of dependable capacity to U.S. power resources. If the Canadian Treaty is not ratified, alternate resources must be developed.

HANFORD

Bonneville Power Administration staff members worked closely with the Washington Public Power Supply System and the Atomic Energy Commission on plans before Congress to authorize a program for construction of generating facilities for the New Production Reactor at Hanford. The Hanford project if approved this year could provide about 900,000 kilowatts of firm power to meet anticipated power deficits beginning in 1965-66.



REGIONAL INTERTIES

Interregional transmission interties play an important part in Bonneville's resource planning. Such interconnections would enable BPA to realize substantial benefits due to load diversity, create new markets for secondary energy and peaking capacity, and permit Pacific Northwest secondary hydro capacity to be firmed up by importing off-peak steam energy from the Pacific Southwest.

Congress has been asked for funds to carry out recommendations of the Secretary's task force study of a Pacific Northwest-Pacific Southwest extra-high voltage common carrier interconnection pertaining to economic feasibility, planning, design, and experimental testing facilities for 500,000-volt alternating and 750,000-volt direct current transmission. Other interregional ties under consideration include interconnections between BPA's system and southern Idaho, and with the Missouri River Basin. Construction funds for additional interconnections between the Pacific Northwest and Canada have been requested.

FINANCIAL HIGHLIGHTS

Since its inception 25 years ago, Bonneville Power Administration has returned more than \$860,200,000 to the U. S. Treasury from power operations of the U. S. Columbia River Power System. As of June 30, 1962, the scheduled payout of power facilities was \$20,100,000 ahead of requirements.

BPA has repaid operation and maintenance expenses totaling \$221,100,000, or 25.7 percent of its gross receipts. Repayment of the capital investment totaled \$321,000,000 or 37.3 percent, and the balance of \$318,100,000, or 37 percent, was applied to interest. Substantial amounts of interest charged to construction are included in the construction costs amortized over the payout periods for the facilities--a 50-year maximum for generating projects and an average 35-year period for the transmission system.

ANNUAL PAYOUT DEFICIT

Despite Bonneville's favorable cumulative payout status as of June 30, 1962, the accumulated payout surplus has decreased rapidly during the past 5 years. Beginning in fiscal year 1957 when the system had a payout surplus of \$78,800,000,

the Administration has experienced annual payout deficits averaging nearly \$12,000,000 a year. The annual deficit for fiscal year 1962 was \$17,700,000. If the trend continues, the cumulative payout surplus of \$20,100,000 will disappear before the end of the fiscal year 1964.

The forecast of the payout results through fiscal year 1965 based on the present arbitrarily established repayment schedules appears in the following table:

	Fiscal year 1963	Fiscal year 1964	Fiscal year 1965
Cash receipts	\$77,700,000	\$84,500,000	\$ 91,000,000
System payout requirements	95,015,000	97,871,000	100,441,000
Estimated payout deficit	\$17,315,000	\$13,371,000	\$ 9,441,000

CAPITAL INVESTMENT

The U. S. Columbia River Power System as of June 30, 1962, represented a capital investment of \$2.4 billion in 13 operating plants and the Bonneville Power Administration transmission system. The current plant investment allocated to power is \$1.8 billion. This includes \$520,593,978 for the BPA transmission facilities, and \$1.2 billion, representing the cost of generating facilities, to be repaid from power revenues. The total power investment less \$237,357,900 combined reserve for depreciation is \$1.6 billion.

ALLOCATION TO POWER

The investment allocated to power presently represents 73.5 percent of total capital investment in operating projects while the remaining 26.5 percent or \$635,606,942 is allocated to other purposes, namely, irrigation, navigation, flood control, fish and wildlife and recreation. The latter, except irrigation, are generally nonrevenue producing and in accordance with current statutes are not reimbursable.

Investment allocated to irrigation is repayable without interest and will be returned by the water users to the extent of their ability to repay. However, power revenues will be the primary repayment source for this investment.

Power revenues at the end of the fiscal year had repaid \$321,000,000, about 17.8 percent, of the capital investment allocated to power.

BENEFITS FROM TREATY BETWEEN UNITED STATES AND CANADA

1972-73 LEVEL
OF DEVELOPMENT

6.94 BILLION KILOWATT HOURS
OF AVERAGE ANNUAL ENERGY
RETURNED TO CANADA

15.5 MILLION
ACRE-FEET
OF STORAGE

Mica
Arrow Lakes
Duncan Lake

DUNCAN LAKE

ARROW LAKES

6.94 BILLION KILOWATT HOURS NET ADDITIONAL
AVERAGE ANNUAL ENERGY TO UNITED STATES

LIBBY

Grand Coulee
Chief Joseph
Wells
Rocky Reach
Rock Island
Wanapum
Priest Rapids
McNary
John Day
The Dalles
Bonneville



Table 6 summarizes the amount and allocation of investment in fixed assets for the operating projects of the U. S. Columbia River Power System.

PAYOUT GOVERNS RATES

The data in the foregoing financial summary have been presented on a payout basis. Cumulative financial results are considerably more favorable on a cost accounting basis. However, the payout basis is much more meaningful in terms of the basic responsibility of the Bonneville Power Administration, because payout requirements govern BPA wholesale rates. These rates must be adequate to cover the operation and maintenance costs of power operations, the interest on the Federal investment allocated to power, and the total payout requirements based on the amortization schedules, including that portion of the costs allocated to irrigation which exceeds the ability of the water users to repay.

ANNUAL INDEPENDENT AUDIT

The U. S. General Accounting Office annually makes an independent audit of the commercial power operations of the U. S. Columbia River Power System on both a payout and cost accounting basis.

The payout basis of financial reporting is to be found in schedule 4 of the Auditors' Report. All of the other schedules have been prepared on a cost accounting basis; that is, the income statements and balance sheets are on a conventional commercial accounting basis.

The cost accounting approach differs from the payout approach primarily in two important respects:

- (1) It uses depreciation of properties over their service lives instead of amortizing the capital investment over a 50-year period for generating projects and over an average 35-year period for transmission projects.

TABLE 6
U. S. COLUMBIA RIVER POWER SYSTEM
Summary of amount and allocation of investment in fixed assets
(plant accounts)
as of June 30, 1962
Operating projects only

Project	Total	Allocation 1/			
		Power		Nonpower 2/	
		Amount	Percent 3/	Amount	Percent 3/
Bonneville Power Administration	\$520,593,978	\$520,593,978	100.0	\$ -	-
Albeni Falls	31,956,334	31,655,099	99.1	301,235	.9
Bonneville Dam	88,333,737	60,790,965	68.8	27,542,772	31.2
Chief Joseph	162,251,670	155,535,349	95.9	6,716,321	4.1
Columbia Basin (Grand Coulee)	547,264,071	200,536,101	36.6	346,727,970	63.4
Detroit-Big Cliff	66,109,130	41,825,374	63.3	24,283,756	36.7
Hills Creek	47,794,213	13,797,934	28.9	33,996,279	71.1
Hungry Horse	106,142,411	81,649,145	76.9	24,493,266	23.1
Ice Harbor	130,539,131	91,473,489	70.1	39,065,642	29.9
Lookout Point-Dexter	94,153,068	41,924,768	44.5	52,228,300	55.5
McNary	306,141,117	280,149,761	91.5	25,991,356	8.5
The Dalles	264,797,114	242,897,441	91.7	21,899,673	8.3
Yakima (Chandler and Roza)	36,650,358	4,289,986	11.7	32,360,372	88.3
Total plant	\$2,402,726,332	\$1,767,119,390	73.5	\$635,606,942	26.5
Less combined reserve for depreciation		237,357,900			
Total less reserve		\$1,529,761,490			

1/ Allocations are tentative or interim except for Bonneville, Grand Coulee, Hungry Horse, Albeni Falls & BPA.

2/ Segregation of nonpower by purpose:

	Specific facilities	Allocation of joint facilities	Total	Percent
Irrigation	309,455,475	87,930,424	397,385,899	62.5
Flood control	1,000,000	118,788,129	119,788,129	18.8
Navigation	69,685,273	46,981,124	116,666,397	18.4
Fish and wildlife	1,165,888	--	1,165,888	.2
Recreation	600,629	--	600,629	.1
Total	\$381,907,265	\$253,699,677	\$635,606,942	100.0

3/ These are percentages of total project costs, not just the joint costs.



Columbia river traffic

(2) It uses accrued revenues instead of cash receipts in the statements of current and cumulative financial results.

The General Accounting Office independent audit is submitted to Congress annually and appears as a separate section at the back of this Annual Report.

FIRM POWER SALES

As shown in table 7, firm power sales for fiscal year 1962 decreased by \$207,136, or about one-third of 1 percent compared with the previous year. The most significant trend during the year was a decrease in firm power sales to the aluminum industries and private utilities with a substantial offsetting increase in sales to publicly owned utilities. An analysis of BPA revenue by class of customer and type of service together with estimates for the next 3 fiscal years appears in table 7.

Aluminum industry firm power sales during fiscal year 1962 were \$637,853 lower than fiscal year 1961. The decrease resulted primarily from curtailment of power requirements by the Aluminum Company of America at the Vancouver and

Wenatchee plants due to their contract for firm power from the Chelan County PUD's Rocky Reach Dam project. The decrease was slightly less than forecast last year.

ALUMINUM INDUSTRIES CURTAIL

Aluminum industries, largely because of decreased markets, curtailed an aggregate of about 13.1 percent of their contracted kilowatts of firm power from BPA. Had there been no such curtailment, sales to the industry would have been \$1,508,781 higher in 1962 than those reported for the year.

PRIVATE UTILITY SALES DROP

Firm power sales to privately owned utilities decreased by \$2,659,837 during the year. The decrease can be attributed primarily to development of sources of power supply other than BPA. The new sources of supply include construction of generation projects and contracts with public utility districts to purchase substantial amounts of power from large hydroelectric plants constructed or under construction on the main stem of the Columbia by public utilities.

TABLE 7
BONNEVILLE POWER ADMINISTRATION
 Comparative summary of revenues, fiscal years
 1961 and 1962 and estimates for 1963, 1964 and 1965

Class of customer and type of service	Fiscal yr. 1961	Fiscal year 1962				Estimates for future fiscal years			
		Amount	Percent of total	Per KWH (mills)	Increase or (decrease) Amount Percent	1963	1964	1965	
Aluminum:									
Firm power	\$14,978,449	\$14,340,596	19.25	2.04	\$(637,853)	(4.26)	\$14,300,000	\$15,000,000	\$15,500,000
Nonfirm	1,980,787	3,041,923	4.08	1.77	1,061,136	53.57	3,800,000	4,000,000	4,800,000
Total aluminum	16,959,236	17,382,519	23.33	1.98	423,283	2.50	18,100,000	19,000,000	20,300,000
Other industries:									
Firm power	3,204,802	3,194,289	4.29	2.18	(10,513)	(.33)	3,000,000	3,100,000	3,200,000
Nonfirm	613,257	854,261	1.15	2.18	241,004	39.30	800,000	1,000,000	1,100,000
Total other industries	3,818,059	4,048,550	5.44	2.18	230,491	6.04	3,800,000	4,100,000	4,300,000
Federal agencies:									
Firm power	6,193,983	6,216,891	8.35	2.39	22,908	.37	6,700,000	7,400,000	7,700,000
Nonfirm	281,116	252,923	.34	2.48	(28,193)	(10.03)	200,000	300,000	300,000
Total Federal agencies	6,475,099	6,469,814	8.69	2.39	(5,285)	(.08)	6,900,000	7,700,000	8,000,000
Privately owned utilities:									
Firm power	8,337,618	5,677,781	7.62	2.18	(2,659,837)	(31.90)	6,700,000	6,600,000	6,900,000
Nonfirm	1,301,054	1,536,447	2.06	2.77	235,393	18.09	600,000	700,000	500,000
Total privately owned utilities.	9,638,672	7,214,228	9.68	2.28	(2,424,444)	(25.15)	7,300,000	7,300,000	7,400,000
Publicly owned utilities:									
Firm power	29,519,803	32,597,962	43.77	2.69	3,078,159	10.43	37,000,000	40,600,000	43,900,000
Nonfirm	583,675	1,340,971	1.80	2.50	757,296	129.75	800,000	1,100,000	1,600,000
Total publicly owned utilities .	30,103,478	33,938,933	45.57	2.68	3,835,455	12.74	37,800,000	41,700,000	45,500,000
Total energy sales	66,994,544	69,054,044	92.71	2.36	2,059,500	3.07	73,900,000	79,800,000	85,500,000
Other electric revenues:									
Wheeling of power	2,550,120	4,186,251	5.62		1,636,131	64.16	4,300,000	5,400,000	6,200,000
Coordination revenues	--	1,100,000	1.48		1,100,000	--	1,100,000	1,100,000	1,100,000
Miscellaneous revenues	157,201	142,534	.19		(14,667)	(9.33)	200,000	200,000	200,000
Total other electric revenues . .	2,707,321	5,428,785	7.29		2,721,464	100.52	5,600,000	6,700,000	7,500,000
Total operating revenues	69,701,865	74,482,829	100.00		4,780,964	6.86	79,500,000	86,500,000	93,000,000
Recapitulation of energy sales revenue:									
Firm power	62,234,655	62,027,519	83.28	2.40	(207,136)	(0.33)	67,700,000	72,700,000	77,200,000
Nonfirm	4,759,889	7,026,525	9.43	2.13	2,266,636	47.62	6,200,000	7,100,000	8,300,000
Total	\$66,994,544	\$69,054,044	92.71	2.36	\$2,059,500	3.07	\$73,900,000	\$79,800,000	\$85,500,000

PUBLIC SALES INCREASE

Publicly owned utilities increased their purchase of firm power by \$3,078,159. The majority of publicly owned utilities continued to take all or a large share of their requirements from BPA, and their normal load growth accounts for the substantial increase of BPA firm sales in this category.

However, some publicly owned utilities, namely the Chelan County and Grant County PUDs, have constructed large hydroelectric projects on the main Columbia River that will generate far in excess of their own energy requirements. They are meeting a substantial part of their own requirements from these projects, but are selling most of the output to non-Federal utilities and industry.

NONFIRM SALES UP

Nonfirm power sales showed a total increase of \$2,266,636 with an increase in most customer categories. Sales of interruptible power increased by \$1,231,411. Approximately three-fourths of this increase resulted from increased sales of interruptible to the Kaiser Aluminum and Chemical Corporation plants at Spokane, Washington.

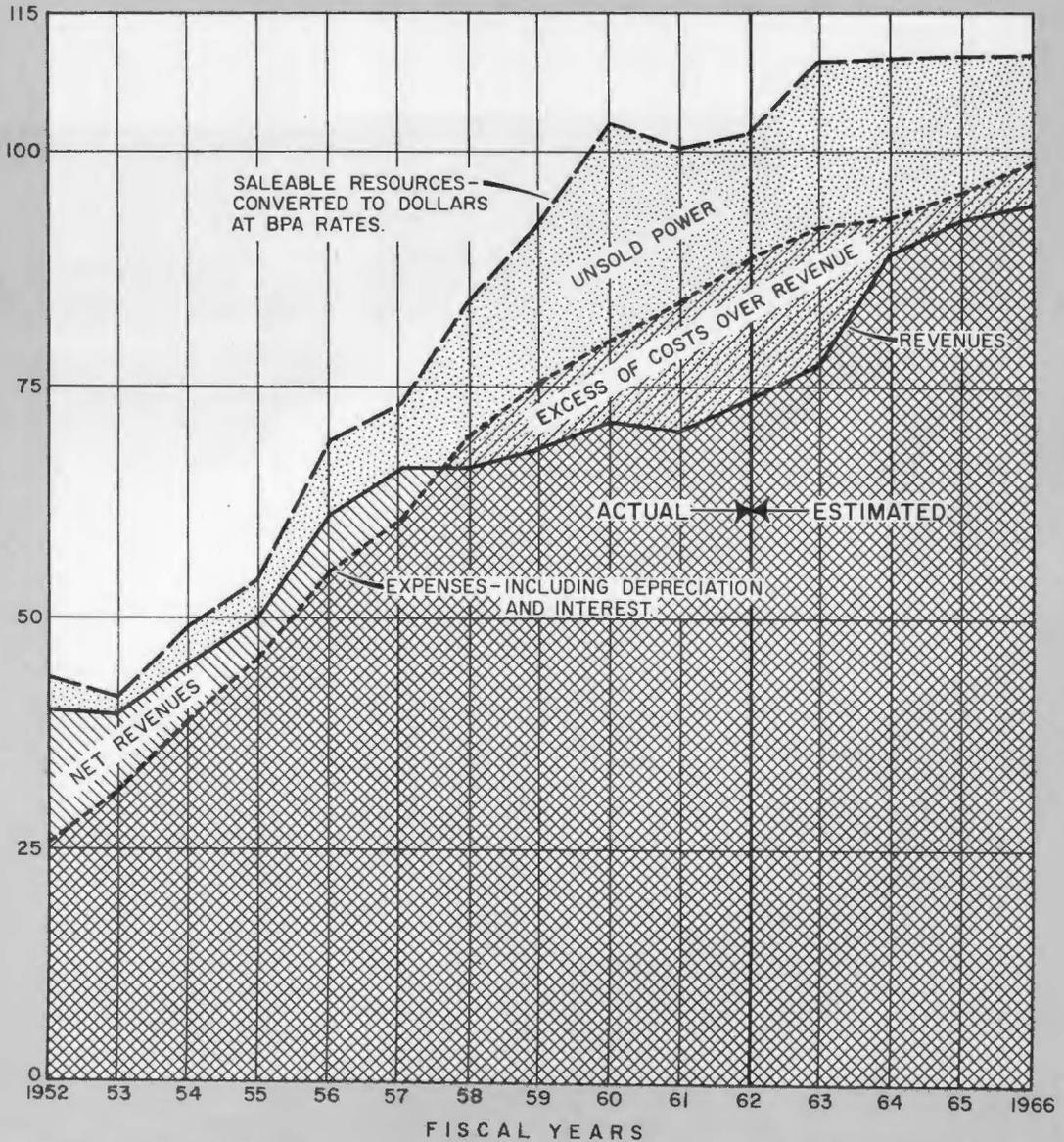
Exchange power sales increased by \$979,430. Approximately two-thirds of this increase resulted from increased sales of exchange power to the light departments of the cities of Seattle and Tacoma, Washington.

Miscellaneous power revenues increased by \$2,721,500. A large part of this increase re-

U. S. Columbia river power system

SYSTEM RESOURCES & REVENUES

MILLIONS
OF
DOLLARS



NOTE: Fiscal Year 1962 data are preliminary



sulted from a \$1,636,131 increase in revenues from wheeling non-Federal power over the BPA transmission system for privately and publicly owned utilities. The remaining increase resulted from payments of \$1,100,000 by private and publicly owned utilities under the 1-year coordination agreement.

Forecasts of revenues for fiscal years 1963, 1964 and 1965 are shown in table 7.

The 1963 forecast of \$79,500,000 in revenues is \$2,900,000 below the forecast made in last year's Annual Report. The reduction of the 1963 estimate reflects the latest available information on loads and particularly the power requirements of BPA's large industrial customers.

KEY INDUSTRIAL LOADS

Eighteen electrometallurgical and electrochemical plants requiring large blocks of power are served directly by BPA under industrial power sales contracts. These large industrial customers represent one of the key sources of revenue for the U. S. Columbia River Power System.

Power demands of these industrial customers change from day-to-day as their operations reflect general economic conditions or the market outlook for their particular product changes. This is particularly true with respect to secondary energy which they may increase or decrease at will without penalty. A summary of the industrial customer load data as of June 30, 1962, appears in table 8.

TABLE 8
Summary load data for industrial customers served
directly by the Bonneville Power Administration
as of June 30, 1962

Industries	Location	Products	Number potlines or furnaces	Total plant capacity (MW)	BPA firm contract demand (MW)	Purchases June 30, 1962			Total (MW)
						BPA firm (MW)	BPA in- terrupt. (MW)	Outside sources (MW)	
Aluminum:									
Alcoa	Vancouver	Alum. pig, rod, wire & extrusions	5	210.0	190.0	145.8	1.8	30.0 1/	177.6
Alcoa	Wenatchee	Aluminum pig	4	210.0	66.0	.0	.0	110.7 2/	110.7
Anaconda Aluminum Co.	Columbia Falls	Aluminum pig	2	148.0	111.0	111.0	31.7	.0	142.7
Harvey Aluminum, Inc.	The Dalles	Aluminum pig	2	169.7	60.6	60.6	110.3	.0	170.9
Kaiser Aluminum Reduction	Spokane	Aluminum pig	8	370.0	204.0	249.0 3/	79.8	.0	328.8
Kaiser Aluminum Fabrication	Spokane	Alum. sheet & fab. products	-	45.0	35.8	40.8 3/	1.2	.0	42.0
Kaiser Aluminum Reduction	Tacoma	Aluminum pig	2	85.0	50.0	.0 3/	.0	.0	.0
Reynolds Metals Co.	Longview	Aluminum pig	3	135.0	132.0	132.0	3.0	.0	135.0
Reynolds Metals Co.	Troutdale	Aluminum pig	4	189.0	85.1	85.1	12.2	46.2 4/	143.5
Subtotal aluminum				1,561.7	934.5	824.3	240.0	186.9	1,251.2
Other industries:									
Carborundum Co.	Vancouver	Silicon carbide	6 sets	28.7	18.7	18.7	9.3	.0	28.0
Crown Zellerbach Corp.	Port Angeles	Pulp & paper	-	59.1	8.2	8.2	4.4	13.8 5/	26.4 6/
Hanna Nickel Smelting Co.	Riddle	Ferromanganese	4 melting	75.0	67.1	67.1	2.1	3.0 4/	72.2
Keokuk Electro Metals Co.	Rock Island	Ferrosilicon	4	30.0	7.7	7.7	7.2	14.6 7/	29.5
Pacific Carbide & Alloys Co.	Portland	Calcium carbide & vinyl acetate	1	6.5	5.0	5.0	.0	.0	5.0
Pennsalt Chemical Co.	Portland	Chlorine, caustic soda, ammonia, am- monium perchlorate	2 lines	31.5	19.6	19.6	10.4	.0	30.0
Rayonier, Incorporated	Port Angeles	Pulp	-	16.0	3.3	3.3	4.3	.0	7.6 6/
Union Carbide Corp.	Portland	Ferromanganese	4	30.1	9.0	9.0	1.8	.0	10.8
Victor Chemical Works	Silver Bow	Phosphorus	2	53.0	38.1	38.1	.0	.0	38.1
Subtotal other industries				329.9	176.7	176.7	39.5	31.4	247.6
Total				1,891.6	1,111.2	1,001.0	279.5	218.3	1,498.8

1/ Purchased from City of Seattle under firm contract. Seattle obtains power from the Box Canyon plant of Pend Oreille PUD.

2/ Purchased from Chelan PUD.

3/ The 50 MW contract demand for the Tacoma plant (which is presently shut down) has been shifted by agreement with BPA to the Spokane plant.

4/ Purchased from Pacific Power & Light Co.

5/ Purchased from City of Port Angeles.

6/ Also obtains power from own generation.

7/ Purchased from Douglas County PUD.

A Capsule History of Bonneville Power Administration

BONNEVILLE ACT SIGNED

President Franklin D. Roosevelt signed the Bonneville Project Act on August 20, 1937, heralding a quarter century of unparalleled Pacific Northwest hydroelectric and economic growth.

The Act, together with later amendments and executive orders, provided that power to be generated at Bonneville Dam and subsequent Federal multipurpose projects of the U. S. Columbia River Basin was to belong henceforth to the people of the United States and to be distributed for their benefit. There are now 26 multipurpose projects existing, under construction or authorized for which Bonneville Power Administration is the designated marketing agent.

POWER SYSTEM BORN

Secretary of the Interior Harold L. Ickes appointed James D. Ross, "Father of Seattle City Light", as Bonneville Power Administrator on November 1, 1937.

Often working far into the night, Ross plunged relentlessly into the tremendous task of setting up an organization, designing initial transmission facilities, and securing construction and operating funds.

The U. S. Columbia River Power System was born with the first delivery of Bonneville power to the city of Cascade Locks, Oregon, July 9, 1938.

When Administrator Ross died on March 14, 1939, he left much more than a functioning organization.

He left a touch of greatness.

- A master plan for future growth of the BPA transmission system to serve every corner of the region with abundant low-cost power.
- The famous "postage stamp" rate of \$17.50 per kilowatt-year--still in effect today, 25 years later.
- Adoption by the public utilities of resale rate schedules averaging about a penny per kilowatt-hour for home use.

His concepts and visions of the role Federal power should play in the Pacific Northwest have stood the test of time.

WAR AND PROGRESS

Dr. Paul J. Raver, chairman of the Illinois Commerce Commission, became Administrator September 16, 1939, following interim service by two famed engineers, Charles E. Carey and Frank A. Banks.

Within the month, Poland was invaded. Clouds of World War II were gathering.

First transmission lines, with tower steel packed in by mule and shank's mare, threaded the rugged terrain of the Columbia Gorge from Bonneville Dam west to J. D. Ross Substation, Vancouver, Washington, and east toward The Dalles, Oregon. This was in December 1939.

Ross Substation became the power crossroads for southwest Washington, western Oregon and the Willamette Valley.

The year of 1940 saw transmission lines completed--south to Salem and Eugene, west to Astoria, north to Chehalis, Raymond, Naselle and Aberdeen, and northeast from the dam to Midway in southeast Washington.

WORLD WAR II

The United States was about to be swept into the holocaust of World War II. The nation was girding for the defense of democracy.

President Roosevelt by Executive order of August 26, 1940, made Bonneville Power Ad-

ministration the marketing agency for power generated at Grand Coulee, and authorized coordination of the electrical facilities of Bonneville and Grand Coulee Dams.

United States declaration of war against Japan and against Germany and her allies in December 1941 placed power construction on a crash basis.

Plans for new transmission lines rolled off the drawing boards and went into construction. All generator installations scheduled were accelerated.

Bonneville Dam and Grand Coulee Dam were interconnected at Midway early in 1941, forerunner to coordinated operation of the region's power resources. The first power arteries radiating from Grand Coulee were under construction.

A year later the first Grand Coulee power was flowing to Spokane in the east, and west over the Cascades to Puget Sound. The Chehalis line was extended north to loop with the Grand Coulee line at Covington. Walla Walla and Lewiston were linked to Midway.

The Northwest Power Pool was born. All power resources--public and private--were pooled for a staggering war effort.

Bonneville and Grand Coulee Dams poured some 26 billion kilowatt-hours of muscle into the Pacific Northwest's war effort.

Thousands of ships and planes, precious aluminum, lumber and food, ingredients for the atom bomb and countless critical materials and fabrication were the region's contribution to shortening the world conflict.

POSTWAR -- A NEW ERA

Six new Federal Columbia River dams had been authorized by Congress when President Harry S. Truman accepted the unconditional surrender of Germany and Japan in 1945.

It was not until 1947 that construction was started on McNary, the third Columbia River Basin Federal dam. Work began on Hungry Horse in 1948 and on Detroit and Lookout Point in the Willamette Basin in 1949.

Aluminum and electroprocess industries expanded.

War workers imported to the region stayed in the Pacific Northwest. Servicemen who liked what they saw in the Northwest sparked a new westward migration.

Building boomed and farms prospered.

BROWNOUTS OF 1952-53

Outbreak of the 3-year Korean conflict in June 1950 skyrocketed demands for hydroelectric energy.

Combined hydroelectric installations and emergency steamplants of the Pacific Northwest were unable to meet the soaring powerloads, intensified by low winter streamflows and frequent periods of below normal temperatures.

All available steampower from Utah and hydro from Canadian plants was imported to fill the breach.

Yet this was not enough.

Electric clocks lost time and lights dimmed visibly during hours of peak use in winters of 1952-53.

Power to aluminum plants and large industries had to be curtailed.

Utilities launched publicity campaigns asking everyone to cut down on uses of electricity, particularly during the morning and evening peakload hours.

NEW DAMS -- NEW POWER LINES

Power demands of the Korean war and urgency of the Pacific Northwest crisis brought action by Congress.

All dams in the present U. S. Columbia River System were authorized by 1954 with congressional approval of Cougar and Green Peter.

Seven dams were authorized in 1950--Albion Falls, Dexter, Hills Creek, The Dalles, John Day, Libby, and Lookout Point (previously authorized as Meridian project).

Construction started on Chief Joseph in 1950... Big Cliff and Albion Falls in 1951...The Dalles in 1952...Dexter and Chandler in 1953.

Final links in Bonneville Power Administration's backbone grid were completed late in 1952.

A 230,000-volt transmission line from Spokane to Kalispell and from Hot Springs to Anaconda brought low-cost Bonneville power to western Montana industries and public agencies.

Storage at Hungry Horse not only made possible 222,000 kilowatts at site, but it increased production at downstream dams by 832,000 kilowatts. Thus coordination of Hungry Horse with the downstream Columbia River System added 1,054,000 kilowatts to the region's power resources.

Lines were completed in 1952 to carry direct Columbia River power service to central Oregon via a 230,000-volt The Dalles-Redmond line, and to southwest Oregon via Eugene, Bandon and Gold Beach.

New transmission lines were on the drawing board to link each new project with the system as new generators were ready to spin.

In 1955 BPA completed the first extra-high voltage transmission line west of the Rockies, a 345,000-volt line carrying the output of McNary Dam to Portland-Vancouver load centers. More were in the planning stage.

BPA WHEELING PROGRAM

Bonneville Power Administration's wheeling program was firmly established under the administration of Dr. William A. Pearl, former director of the Washington State Institute of Technology, who took office January 15, 1954.

A series of solicitor's opinions based on power interchange provisions of the Bonneville Act made it possible for a non-Federal utility to use BPA's interconnected regional backbone grid to transmit power from an isolated project to distant load centers.

The wheeling program brought far-reaching benefits to the region:

- Non-Federal projects dependent on marketing their power at distant load centers were made feasible.
- Costly duplication of transmission facilities was avoided.
- Power could be transmitted at the lowest possible cost.
- Long-term wheeling contracts have been signed for power from the Chelan County PUD's Rocky Reach, Grant County PUD's Priest Rapids and Wanapum, Pend Oreille's Box Canyon, and Portland General Electric's Pelton project.

Excess capacity wheeling contracts cover power from the Swift project of the Pacific Power and Light Company, the Rock Island project of the Chelan County PUD, the Priest Rapids project of the Grant County PUD, and the Idaho Power Company.

POWER SHORTAGE EASED

Power shortages were eased temporarily in the

middle 1950's when the 10 Federal dams started soon after World War II were completed and large new blocks of power came on the line.

Hungry Horse and Detroit were finished in 1953... Big Cliff in 1954...Albion Falls, Lookout Point and Dexter in 1955...Chandler in 1956...McNary in 1957...Roza and Chief Joseph in 1958...The Dalles in 1960...and Ice Harbor and Hills Creek early in 1962.

From 1954 until 1962 no new projects were authorized. New starts on construction of previously authorized projects came slowly...Roza and Cougar in 1956...Ice Harbor and Hills Creek in 1957...John Day in 1958...Green Peter and Foster in 1961...and Lower Monumental early in 1962. In the absence of new Federal authorizations, public agencies sought and obtained licenses for three main stem dams on the Columbia River. Washington PUDs started construction on Priest Rapids in 1956, Rocky Reach in 1957 and Wanapum in 1959.

An economic recession in 1957 and uncoordinated scheduling of new Federal and non-Federal projects coming on the line found BPA with temporary surpluses of firm power and large blocks of secondary power that could not be sold. The firm power could not be offered on long-term contracts because it had to be held to meet the normal load growth of preference customers. There was no market in the region for the surplus secondary power.

In the course of these developments, BPA in 1958, for the first time in its history, began incurring annual operating deficits. These deficits grew larger each year and cut deeply into previously accumulated surpluses, threatening to force Bonneville to raise basic rates.

THE NEW PROGRAM

Charles F. Luce, Walla Walla attorney and a former member of the BPA legal staff, was appointed Administrator February 14, 1961.

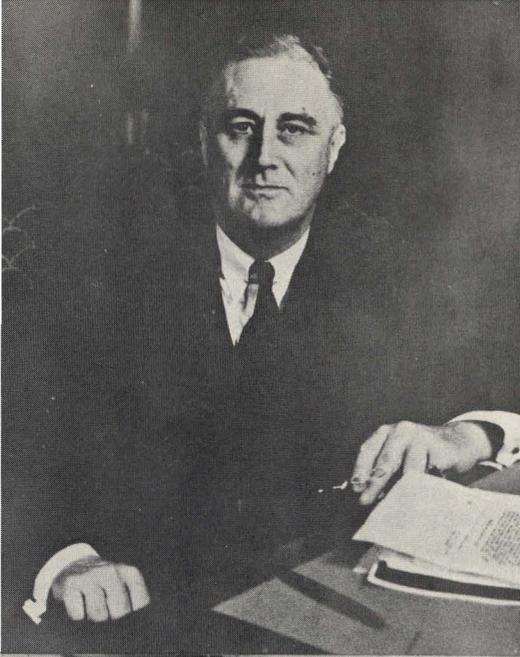
The new Administrator faced three major problems. There seemed to be no market for a temporary surplus of firm power and large blocks of secondary power. Annual operating deficits were rapidly using up accumulated net revenues. The region was confronted with a power shortage in 1965-66 on the basis of scheduled generation and anticipated loads.

One of his first acts was to re-establish and place new importance on the power marketing branch. The value of unsold power in each year of deficit operations, for example, was nearly double the amount of the deficit.

The new effort to market the kilowatts wasting to sea included surveys of industrial potential, power use and customer service studies, and investigation of the feasibility of an intertie with California. A California intertie, with adequate safeguards for Northwest customers, was found feasible, and recommended for construction at the earliest practical time.

Determined to be a leader in transmission technology, BPA undertook the pioneer U. S. testing of direct current transmission, and stepped up its work in extra-high voltage alternating current transmission.

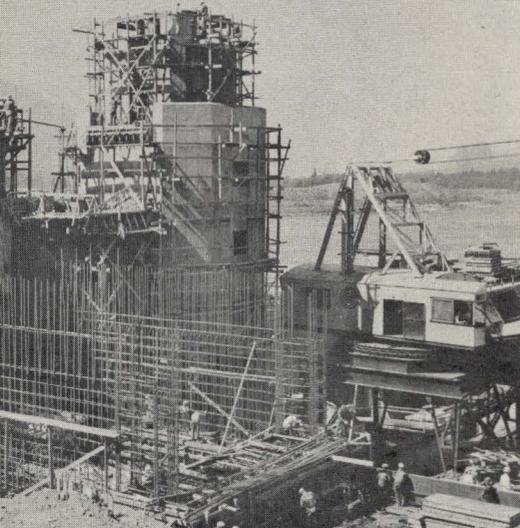
Power resource planning also was revived and stepped up to plan an orderly schedule for new projects. BPA lent its full support to the Hanford Reactor project, which would avert the threatened 1965-66 regional power shortage, and to new starts of multipurpose hydro projects which would assure a long-range power supply. A historic coordination agreement was reached with non-Federal utilities to squeeze every last firm kilowatt possible out of existing dams. Meanwhile, BPA and the region hopefully are awaiting Canadian ratification of the treaty for joint development of the Columbia River, which would add some 2,000,000 low-cost kilowatts to Northwest resources.



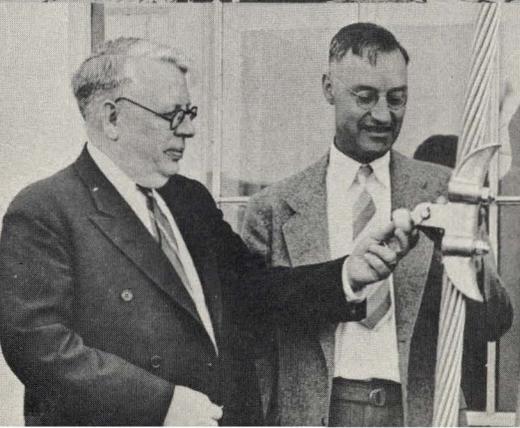
Franklin D. Roosevelt



J. D. Ross



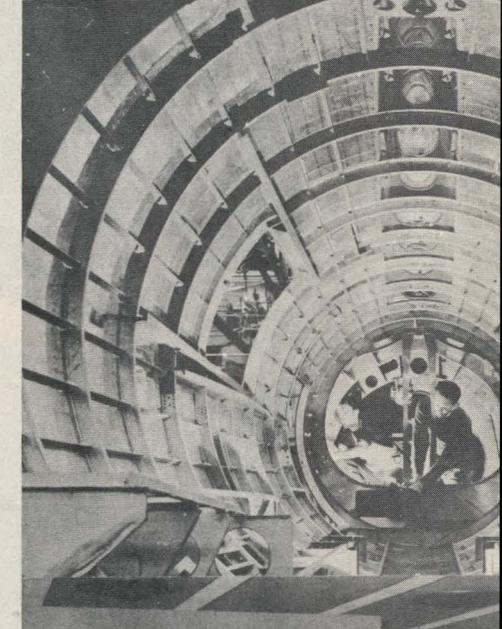
Bonneville Beginnings



Charles Carey, Orin A. Denuth



Joseph Carson, Fiorella A. LaGuardia, Dr. Paul J. Raver



Dr. William A. Pearl, James R. Curtin



Charles F. Luce

*The Big Bend country
before Bonneville*



Auditors'
Report

**REPORT ON AUDIT
OF
FINANCIAL STATEMENTS
OF
COLUMBIA RIVER POWER SYSTEM
AND RELATED ACTIVITIES**

FISCAL YEAR 1962



**BY
THE COMPTROLLER GENERAL OF THE UNITED STATES
DECEMBER 1962**



COMPTROLLER GENERAL OF THE UNITED STATES
WASHINGTON 25

B-114858

December 6, 1962

Dear Mr. Secretary:

The General Accounting Office has made audits of the activities of the Bonneville Power Administration and the Bureau of Reclamation, Department of the Interior, and the Corps of Engineers (Civil Functions), Department of the Army, pursuant to the Budget and Accounting Act, 1921 (31 U.S.C. 53), and the Accounting and Auditing Act of 1950 (31 U.S.C. 67). In connection with these audits, we examined the accounts and records pertaining to the Columbia River Power System and Related Activities for fiscal year 1962. Our examination of the accompanying financial statements was made in accordance with generally accepted auditing standards and included such tests of the accounting records and such other auditing procedures as we considered necessary in the circumstances.

The Columbia River Power System consists of the Bonneville Power Administration and the generating facilities for commercial power of the multiple-purpose projects built and operated (or under construction) by the Bureau of Reclamation and the Corps of Engineers in the Pacific Northwest, for which the Administration acts as the transmitting and marketing agency. The transmission system of Bonneville Power Administration and the hydroelectric plants of these multiple-purpose projects are operated as an integrated power system. Activities of these projects include the operation of irrigation, flood control, navigation, fish and wildlife, and recreation facilities, in addition to the generation of electric energy.

The accompanying financial statements were prepared by the Bonneville Power Administration and present the combined assets and liabilities at June 30, 1962, of the Bonneville Power Administration and the multiple-purpose projects (including those under construction) for which it acts as the power-marketing agent, and the combined financial results of commercial power operations for the year then ended. In prior years, the General Accounting Office prepared the financial statements of the Columbia River Power System and Related Activities. In our report for fiscal year 1961, however, we recommended that the Bonneville Power Administration be assigned the responsibility for preparation of

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such financial statements which in our opinion and that of the Bureau of the Budget is more properly a function of the executive branch of the Federal Government.

The financial statements are based on the official accounting records of these activities as maintained by the Bonneville Power Administration and the Corps of Engineers and, in part, on the official accounting records of the Bureau of Reclamation. However, in some important respects the financial data relating to the Bureau of Reclamation for fiscal year 1962 were still based on memorandum accounting records maintained by that agency pursuant to precedent established by a 1946 agreement with the Bonneville Power Administration; these records, although designed to provide cost accounting information, have not been part of the official accounting system. The information obtained from the memorandum records relates to (1) depreciation of fixed assets applicable to the generation of electric power which has not been recorded in the official accounts of the Bureau of Reclamation and (2) interest on the Federal investment in power facilities which is not recorded in the Bureau's official accounts on the same basis as it is recorded in the accounts of the Bonneville Power Administration and the Corps of Engineers.

The practices of the Bureau of Reclamation insofar as they do not include accounting for depreciation of fixed assets devoted to commercial power production are contrary to the principles and standards of accounting prescribed for executive agencies by the Comptroller General pursuant to law, and we recommended in our prior report that appropriate revision be made in the Bureau's official accounting system. In February 1962 you informed us that the Bureau of Reclamation would include depreciation charges in its official accounts and records for the power features of its operation as soon as implementing procedures could be developed.

Firm allocations of the construction costs of 7 of the 12 projects in operation at June 30, 1962, had not been made as between power and nonpower purposes. These projects were the Yakima Project of the Bureau of Reclamation and the Detroit-Big Cliff, McNary, Lookout Point-Dexter, The Dalles, Ice Harbor, and Hills Creek Projects of the Corps of Engineers. The cost of joint-use facilities of these projects amounted to \$471.9 million at June 30, 1962, of

B-114858

which \$329.4 million was tentatively allocated to commercial power. As explained in note 3 of schedule 7, tentative allocations of project construction costs were used in preparing the accompanying financial statements. When firm allocations of costs are made, the accounts and financial statements relating to these projects may require adjustment.

Some of the practices followed by the agencies concerned in maintaining the accounting records on which the accompanying financial statements are based are not consistent. The more important of these inconsistencies relate to depreciation on plant-in-service, interest on the Federal investment, and costs incurred by other agencies and are described in note 2 of schedule 7.

The cumulative effect of the foregoing matters on the fairness of the accompanying financial statements is not practicable to determine. However, we do not believe that the effect is so material as to preclude us from stating that, in our opinion, except for the effect of such matters, the accompanying financial statements (schedules 1 through 7) present fairly the assets and liabilities of the Columbia River Power System and Related Activities at June 30, 1962, and the financial results of power operations for the year then ended in conformity with principles, standards, and related requirements for accounting prescribed for executive agencies of the Federal Government.

Sincerely yours,



Comptroller General
of the United States

The Honorable
The Secretary of the Interior

Enclosures

UNITED STATES OF AMERICA

COLUMBIA RIVER POWER SYSTEM AND RELATED ACTIVITIES

FINANCIAL STATEMENTS

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UNITED STATES OF AMERICA

COLUMBIA RIVER POWER SYSTEM AND RELATED ACTIVITIES

STATEMENT OF COMMERCIAL POWER OPERATIONS

FOR THE FISCAL YEARS ENDED JUNE 30, 1962 AND 1961

	<u>1962</u>	<u>1961</u>
OPERATING REVENUES:		
Sales of electric energy by Bonneville Power Administration:		
Publicly owned utilities	\$33,938,933	\$30,103,478
Privately owned utilities	7,214,228	9,638,672
Federal agencies	6,469,814	6,475,099
Aluminum industry	17,382,519	16,959,236
Other industry	<u>4,048,550</u>	<u>3,818,059</u>
Sales, at wholesale	<u>69,054,044</u>	<u>66,994,544</u>
Other operating revenues (note 6):		
Payments for coordination and downstream river regulation	1,114,645	1,748
Projects energy--use at site	123,636	106,876
Rental of electric property	<u>4,337,675</u>	<u>2,715,957</u>
	<u>5,575,956</u>	<u>2,824,581</u>
Total operating revenues	<u>74,630,000</u>	<u>69,819,125</u>
OPERATING EXPENSES (notes 2 and 3):		
Purchased power	1,089,748	696,859
Operation:		
Specific power facilities	13,849,087	12,225,237
Joint facilities	2,020,098	1,496,827
Maintenance:		
Specific power facilities	5,497,838	6,441,853
Joint facilities	894,288	1,524,328
Depreciation:		
Specific power facilities	24,781,985	23,843,837
Joint facilities	5,232,237	4,841,924
Net loss on sales and abandonment of property	<u>22,179</u>	<u>95,731</u>
Total operating expenses	<u>53,387,460</u>	<u>51,166,596</u>
Net operating revenues	<u>21,242,540</u>	<u>18,652,529</u>
INTEREST AND OTHER DEDUCTIONS (note 2):		
Interest on Federal investment	36,597,773	33,475,455
Interest charged to construction	2,031,482*	667,527*
Miscellaneous income deductions, net	<u>210,399*</u>	<u>15,342</u>
Net interest and other deductions	<u>34,355,892</u>	<u>32,823,270</u>
Net loss from commercial power operations	13,113,352	14,170,741
ACCUMULATED NET REVENUES FROM COMMERCIAL OPERATIONS:		
Beginning of fiscal year	<u>70,284,864</u>	<u>84,455,605</u>
End of fiscal year	<u>\$57,171,512</u>	<u>\$70,284,864</u>

*Deduction

The accompanying notes (schedule 7) are an integral part of this statement.

UNITED STATES OF AMERICA

COLUMBIA RIVER POWER SYSTEM AND RELATED ACTIVITIES

STATEMENT OF COMBINED ASSETS AND LIABILITIES

JUNE 30, 1962 AND 1961

ASSETS				LIABILITIES	
	<u>1962</u>	<u>1961</u>		<u>1962</u>	<u>1961</u>
FIXED ASSETS, at original cost, including interest during construction (notes 2 and 3):			INVESTMENT OF U.S. GOVERNMENT AND ACCUMULATED NET REVENUES:		
Commercial power	\$1,767,119,390	\$1,644,940,848	Total investment of U.S. Government (note 5)	\$3,230,571,411	\$2,973,623,107
Irrigation	397,385,899	383,736,571	Less:		
Flood control	119,788,129	91,249,515	Funds returned to U.S. Treasury:		
Navigation	116,666,397	77,177,458	Repayment of Federal investment in the power program	860,228,216	787,941,456
Fish and wildlife	1,165,888	1,165,888	Repayment of Federal investment in the nonpower programs	28,529,997	25,057,551
Recreation	600,629	211,683	Total expense of flood control operations	20,547,584	17,407,375
Multiple-purpose projects under construction	<u>138,152,372</u>	<u>254,856,325</u>	Total expense of navigation operations	41,095,443	37,538,611
Total	<u>2,540,878,704</u>	<u>2,453,378,288</u>	Other nonreimbursable expenses	<u>2,364,355</u>	<u>2,046,711</u>
Less accumulated depreciation:				<u>952,755,595</u>	<u>869,989,704</u>
Commercial power	237,357,900	208,921,454	Net investment of U.S. Government	<u>2,277,805,816</u>	<u>2,203,633,403</u>
Irrigation	1,711,362	1,368,025	Accumulated net revenues:		
Flood control	5,299,743	4,445,719	Net revenues from commercial power operations (schedule 1)	57,171,512	70,284,864
Navigation	8,437,899	7,430,802	Less net loss from irrigation operations since inception	<u>4,932,695</u>	<u>4,422,810</u>
Recreation	12,446	8,098		52,238,816	65,862,054
Total	<u>252,819,350</u>	<u>222,174,098</u>	Total	<u>2,330,044,632</u>	<u>2,269,495,457</u>
Fixed assets, net	<u>2,288,059,354</u>	<u>2,231,204,190</u>	CURRENT AND ACCRUED LIABILITIES:		
CURRENT ASSETS:			Accounts payable	17,309,647	12,651,275
Unexpended funds in U.S. Treasury appropriated by the Congress for construction and for operation and maintenance	36,555,915	29,544,904	Employees' accrued leave	<u>2,505,995</u>	<u>2,471,780</u>
Special deposits	1,185,577	1,159,991	Total	<u>19,815,642</u>	<u>15,123,061</u>
Accounts receivable:			DEFERRED CREDITS	<u>612,744</u>	<u>437,035</u>
Customers	10,512,149	9,580,320	MATURED INSTALLMENTS OF FIXED OBLIGATIONS FOR USE OF IRRIGATION FACILITIES	<u>2,403,333</u>	<u>2,107,044</u>
Other	1,547,467	491,324	CONTRIBUTIONS IN AID OF CONSTRUCTION	<u>2,820,731</u>	<u>1,869,450</u>
Materials and supplies	<u>4,914,559</u>	<u>5,303,048</u>		<u>\$2,355,697,082</u>	<u>\$2,289,032,047</u>
Total	<u>54,715,667</u>	<u>46,079,587</u>			
OTHER ASSETS AND DEFERRED CHARGES	<u>12,922,061</u>	<u>11,748,270</u>			
	<u>\$2,355,697,082</u>	<u>\$2,289,032,047</u>			

The accompanying notes (schedule 7) are an integral part of this statement.

COLUMBIA RIVER POWER SYSTEM AND RELATED ACTIVITIES

STATEMENT OF INVESTMENT IN COMMERCIAL POWER PROGRAM
FROM INCEPTION TO JUNE 30, 1962

	Total	Bonneville Power Administration	Bonneville Project	Columbia Basin Project	Hungry Horse Project	Albion Falls Project	McNary Project	Detroit-Big Cliff Project	Lookout Point-Dexter Project	Chief Joseph Project	Yakima Project, Roza and Kennewick Divisions	The Dalles Project	Ice Harbor Project	Hills Creek Project	Cougar Project	John Day Project	Lower Monumental Project	Green Peter-Poster Project	
NET INVESTMENT IN COMMERCIAL POWER:																			
Investment allocated to commercial power:																			
Total investment of U.S. Government, principally, congressional appropriations for construction of fixed assets and operation and maintenance activities (schedule 5)	\$3,230,571,411	\$791,880,283	\$154,419,595	\$699,590,911	\$128,304,953	\$39,858,401	\$371,308,988	\$84,058,557	\$113,912,327	\$189,636,827	\$38,473,475	\$294,307,064	\$132,235,395	\$48,690,994	\$41,768,218	\$79,690,850	\$12,867,482	\$9,040,100	
Less amounts allocated to nonpower purposes or unallocated:																			
Irrigation	437,146,952	-	-	381,969,801	-	-	-	4,500,775	6,112,277	7,220,083	32,054,540	-	-	4,990,085	-	-	-	-	
Flood control	135,820,390	-	-	-	25,208,929	213,220	-	25,513,546	55,577,773	-	-	-	-	29,107,462	-	-	-	-	
Navigation	150,374,156	-	50,331,386	1,079,363	-	165,323	32,297,739	154,205	1,023,633	-	-	25,329,269	39,359,558	623,700	-	-	-	-	
Other purposes	2,221,354	-	-	-	-	-	251,522	417,415	50,551	-	1,151,047	-	332,303	9,045	-	-	-	-	
Construction in progress and other unallocated assets	143,366,620	-	-	-	-	-	-	-	-	-	-	-	-	-	41,768,218	79,690,850	12,867,482	9,040,100	
	855,730,792	-	50,331,386	383,048,564	25,208,929	376,543	32,559,261	30,295,945	62,764,234	7,220,083	33,205,587	25,329,259	39,691,861	34,730,292	41,768,218	79,690,850	12,867,482	9,040,100	
Total investment in commercial power	2,374,840,709	791,880,283	104,088,208	316,542,347	103,095,954	39,481,858	338,749,727	53,759,611	51,146,153	182,416,744	5,267,888	268,977,795	92,543,534	13,960,702	-	-	-	-	
Less funds from commercial power operations returned to U.S. Treasury:																			
Through June 30, 1961	787,941,456	332,133,254	67,988,743	189,556,698	31,773,382	9,202,519	72,522,009	14,256,643	11,409,498	31,010,385	1,644,594	25,834,667	353	-	-	3,711	-	-	
During the year ended June 30, 1962:																			
By Bonneville Power Administration	72,209,272	22,831,272	2,100,000	12,800,000	3,833,000	1,400,000	8,825,000	1,700,000	1,750,000	6,550,000	345,000	8,500,000	1,500,000	75,000	-	-	-	-	
By generating projects	77,486	-	10,370	37,324	2,619	43	7,737	-	6	1,143	4,342	973	1,020	-	59	11,608	244	-	
Accumulated funds returned	860,228,216	354,964,526	70,099,113	202,394,022	35,602,001	11,202,562	81,354,746	15,956,643	13,159,504	37,561,528	1,993,936	34,335,640	1,501,373	75,000	59	20,319	244	-	
Net investment in commercial power	\$1,501,612,493	\$436,915,757	\$33,989,095	\$114,148,325	\$67,493,953	\$28,279,297	\$257,394,881	\$37,802,968	\$37,986,649	\$144,865,216	\$3,273,952	\$234,642,155	\$91,042,161	\$13,885,702	\$52*	\$20,319*	\$244*	\$-	

*Deduction

The accompanying notes (schedule 7) are an integral part of this statement.

COLUMBIA RIVER POWER SYSTEM AND RELATED ACTIVITIES

STATEMENT OF REPAYMENT OF INVESTMENT IN COMMERCIAL POWER PROGRAM (note 4)

FOR THE FISCAL YEAR ENDED JUNE 30, 1962

AND FROM INCEPTION TO JUNE 30, 1962

	Total	Bonneville Power Administration	Bonneville Project	Columbia Basin Project	Hungry Horse Project	Albani Falls Project	McNary Project	Detroit-Big Cliff Project	Lookout Point-Dexter Project	Chief Joseph Project	Yakima Project, Roza and Kennewick Divisions	The Dalles Project	Ice Harbor Project	Hills Creek Project	Cougar Project	Jonn. Day Project	Lower Monumental Project
<p>COMPARISON OF REPAYMENT AND SCHEDULED REPAYMENT OF COMMERCIAL POWER INVESTMENT FOR THE FISCAL YEAR ENDED JUNE 30, 1962</p>																	
<p>REPAYMENT OF CAPITAL INVESTMENT IN COMMERCIAL POWER:</p>																	
Funds returned to U.S. Treasury (schedule 3)	\$ 72,286,760	\$ 22,831,272	\$ 2,110,370	\$ 12,837,324	\$ 3,835,619	\$ 1,400,043	\$ 3,332,737	\$ 1,700,000	\$ 1,750,006	\$ 6,551,143	\$ 349,342	\$ 8,500,973	\$ 1,501,020	\$ 75,000	\$ 59	\$ 11,608	\$ 244
Less amounts equivalent to:																	
Operation and maintenance expense	21,333,668	12,276,145	1,096,137	2,408,667	466,060	327,064	1,446,486	318,026	318,207	1,085,726	87,637	1,335,117	157,537	10,859	-	-	-
Interest charged to operations	34,566,291	9,387,912	846,093	2,965,630	1,726,372	717,761	6,434,371	940,821	962,481	3,670,542	82,333	5,886,316	886,285	28,774	-	-	-
	55,899,959	21,664,057	1,942,230	5,374,297	2,192,432	1,044,825	7,911,457	1,258,347	1,280,688	4,756,268	169,970	7,221,433	1,043,822	39,633	-	-	-
Remainder applied to amortization of capital investment	16,386,801	1,167,215	168,140	7,463,027	1,643,187	355,218	921,280	441,153	469,318	1,794,875	179,372	1,279,540	457,198	35,367	59	11,608	244
<p>SCHEDULED REPAYMENT OF CAPITAL INVESTMENT FOR FISCAL YEAR 1962, ESTABLISHED BY LAW OR ADMINISTRATIVE POLICY PURSUANT TO LAW</p>																	
	34,048,586	12,221,000	1,177,000	7,463,027	1,643,187	456,000	3,903,000	603,000	583,000	2,167,000	179,372	3,197,000	422,000	34,000	-	-	-
Excess of funds returned over scheduled repayment (-deficiency)	\$ -17,661,785	\$ -11,053,785	\$ -1,008,860	\$ -	\$ -	\$ -100,782	\$ -2,931,720	\$ -161,847	\$ -113,682	\$ -372,125	\$ -	\$ -1,917,460	\$ 35,198	\$ 1,367	\$ 59	\$ 11,608	\$ 244
<p>COMPARISON OF REPAYMENT AND SCHEDULED REPAYMENT OF COMMERCIAL POWER INVESTMENT FROM INCEPTION TO JUNE 30, 1962</p>																	
<p>REPAYMENT OF CAPITAL INVESTMENT IN COMMERCIAL POWER:</p>																	
Accumulated funds returned to U.S. Treasury (schedule 3)	\$360,228,216	\$354,964,526	\$70,099,113	\$202,394,022	\$35,609,001	\$11,202,562	\$81,354,746	\$15,956,643	\$13,159,504	\$37,561,528	\$1,993,936	\$34,335,640	\$1,501,373	\$75,000	\$59	\$20,319	\$244
Less amounts equivalent to:																	
Operation and maintenance expense	221,066,297	134,673,813	17,401,377	35,053,398	3,566,811	2,015,534	11,391,122	2,653,183	1,996,843	6,074,557	442,306	5,623,957	157,537	10,859	-	-	-
Interest charged to operations	318,126,399	92,208,810	25,072,186	73,522,295	17,536,504	5,833,041	46,522,599	8,417,311	7,171,097	20,361,211	535,142	20,031,148	886,285	28,774	-	-	-
	539,192,696	226,882,623	42,473,563	108,575,693	21,103,315	7,848,575	57,913,717	11,075,494	9,167,940	26,435,768	977,448	25,655,105	1,043,822	39,633	-	-	-
Remainder applied to amortization of capital investment	321,035,520	128,081,903	27,625,550	93,818,329	14,505,686	3,353,987	23,441,029	4,881,149	3,991,564	11,125,760	1,016,488	8,680,535	457,551	35,367	59	20,319	244
<p>SCHEDULED REPAYMENT OF CAPITAL INVESTMENT AT JUNE 30, 1962, ESTABLISHED BY LAW OR ADMINISTRATIVE POLICY PURSUANT TO LAW</p>																	
	300,903,503	112,739,000	19,352,000	93,818,329	14,505,686	3,201,000	25,808,000	4,766,000	3,942,000	10,933,000	1,016,488	10,366,000	422,000	34,000	-	-	-
Excess of funds returned over scheduled repayment (-deficiency)	\$ 20,132,017	\$ 15,342,903	\$ 8,273,550	\$ -	\$ -	\$ 152,987	\$ -2,366,971	\$ 115,149	\$ 49,564	\$ 192,760	\$ -	\$ -1,685,465	\$ 35,551	\$ 1,367	\$ 59	\$ 20,319	\$ 244

The accompanying notes (schedule 7) are an integral part of this statement.

UNITED STATES OF AMERICA

COLUMBIA RIVER POWER SYSTEM AND RELATED ACTIVITIES

STATEMENT COMBINING EXPENSES OF COMMERCIAL POWER OPERATIONS
FOR THE FISCAL YEAR ENDED JUNE 30, 1962

	Combined, to schedule 1	Bonneville Power Adminis- tration	Bonneville Project	Columbia Basin Project	Hungry Horse Project	Alberl Falls Project	McMary Project	Detroit- Big Cliff Project	Lookout Point- Dexter Project	Chief Joseph Project	Yakima Project, Roza and Kennewick Divisions	The Dalles Project	Ice Harbor Project	Hills Creek Project
OPERATING EXPENSES (notes 2 and 3):														
Purchased power	\$ 1,089,748	\$ 1,089,748	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Operation:														
Specific power facilities	13,849,087	9,069,565	605,663	1,067,784	186,312	257,782	548,354	190,425	185,848	829,431	47,301	770,438	85,187	4,487
Joint facilities	2,020,098	-	301,124	192,006	23,510	7,430	641,208	105,328	90,291	58,636	2,061	516,547	70,987	6,372
Maintenance:														
Specific power facilities	5,497,838	4,146,633	78,846	752,564	190,793	12,853	178,926	13,285	-	94,206	27,661	1,771	300	-
Joint facilities	894,288	-	112,628	381,378	65,815	49,034	77,488	4,390	42,084	103,455	10,614	46,369	1,063	-
Depreciation:														
Specific power facilities	24,781,985	12,299,520	856,948	1,633,864	490,491	384,378	3,018,427	405,925	430,386	2,091,522	50,131	2,751,058	356,263	12,872
Joint facilities	5,232,237	-	284,057	460,861	435,451	152,937	1,543,443	193,347	182,876	524,367	21,342	1,217,062	207,001	6,493
Net loss on sales and abandon- ment of property	22,179	22,168	-	-	11	-	-	-	-	-	-	-	-	-
Total operating ex- penses	<u>53,387,460</u>	<u>26,627,634</u>	<u>2,239,266</u>	<u>4,488,457</u>	<u>1,392,383</u>	<u>864,584</u>	<u>6,011,356</u>	<u>917,296</u>	<u>931,485</u>	<u>3,701,617</u>	<u>159,110</u>	<u>5,303,245</u>	<u>720,801</u>	<u>30,224</u>
INTEREST AND OTHER DEDUCTIONS (note 2):														
Interest on Federal investment	36,597,773	9,759,473	854,558	2,965,630	1,726,372	716,018	6,465,907	641,713	962,586	3,670,952	82,333	5,886,624	2,143,274	420,333
Interest charged to construc- tion	2,031,482*	371,561*	8,465*	-	-	257*	936*	392*	105*	410*	-	308*	1,256,989*	391,559*
Miscellaneous income deduc- tions, net	210,399*	222,808*	2,124*	14,935	370*	5*	-	-	16*	3*	-	8*	-	-
Net interest and other deductions	<u>34,355,892</u>	<u>9,165,104</u>	<u>843,969</u>	<u>2,980,565</u>	<u>1,726,002</u>	<u>717,756</u>	<u>6,464,971</u>	<u>940,821</u>	<u>962,465</u>	<u>3,670,539</u>	<u>82,333</u>	<u>5,886,308</u>	<u>886,285</u>	<u>28,774</u>
Total expenses and de- ductions	<u>\$87,743,352</u>	<u>\$35,792,738</u>	<u>\$3,083,235</u>	<u>\$7,469,022</u>	<u>\$3,118,385</u>	<u>\$1,582,340</u>	<u>\$12,476,327</u>	<u>\$1,858,119</u>	<u>\$1,893,950</u>	<u>\$7,372,156</u>	<u>\$241,443</u>	<u>\$11,189,553</u>	<u>\$1,607,086</u>	<u>\$ 58,998</u>

*Deduction

The accompanying notes (schedule 7) are an integral part of this statement.

UNITED STATES OF AMERICA
COLUMBIA RIVER POWER SYSTEM AND RELATED ACTIVITIES

STATEMENT COMBINING ASSETS AND LIABILITIES

JUNE 30, 1962

ASSETS	Combined, to schedule 2	Bonneville Power Administra- tion	Bonneville Project	Columbia Basin Project	Hungry Horse Project	Albeni Falls Project	McNary Project	Detroit- Big Cliff Project	Lookout Point- Dexter Project	Chief Joseph Project	Yalcoma Project, Roza and Kennewick Divisions	The Dallas Project	Ice Harbor Project	Hills Creek Project	Cougar Project	John Day Project	Lower Monumental Project	Green Peter- Poster Project	
FIXED ASSETS, at original cost in- cluding interest during con- struction (notes 2 and 3):																			
Commercial power:																			
Specific facilities (power- houses, generating equip- ment, and transmission plant)	\$1,218,488,330	\$520,593,978	\$39,711,140	\$110,799,438	\$23,426,842	\$20,483,974	\$143,528,715	\$22,535,168	\$23,644,498	\$116,545,333	\$ 2,397,603	\$141,229,717	\$ 46,646,596	\$ 6,945,328	\$ -	\$ -	\$ -	\$ -	\$ -
Joint facilities (dams, res- ervoirs, etc.) allocated to power	548,631,060	-	21,079,825	89,736,653	58,222,303	11,171,125	136,621,046	19,290,206	18,280,270	38,990,016	1,892,383	101,667,724	44,826,893	6,852,606	-	-	-	-	-
	1,767,119,390	520,593,978	60,790,965	200,536,101	81,649,145	31,655,099	280,149,761	41,825,374	41,924,768	155,535,349	4,289,986	242,897,441	91,473,489	13,797,934	-	-	-	-	-
Irrigation:																			
Specific facilities	309,455,475	-	-	280,335,864	-	-	-	3,795,287	5,066,893	6,716,321	22,403,290	-	-	4,884,944	-	-	-	-	-
Joint facilities	87,930,424	-	-	65,392,106	-	-	-	-	-	-	8,791,194	-	-	-	-	-	-	-	-
	397,385,899	-	-	345,727,970	-	-	-	3,795,287	5,066,893	6,716,321	31,194,484	-	-	4,884,944	-	-	-	-	-
Flood control:																			
Specific facilities	1,000,000	-	-	-	1,000,000	-	-	20,357,748	46,271,499	-	-	-	-	28,495,754	-	-	-	-	-
Joint facilities	118,788,129	-	-	-	23,493,266	169,862	-	-	-	-	-	-	-	-	-	-	-	-	-
	119,788,129	-	-	-	24,493,266	169,862	-	20,357,748	46,271,499	-	-	-	-	28,495,754	-	-	-	-	-
Navigation:																			
Specific facilities	69,685,273	-	6,462,947	-	-	-	22,260,538	-	-	-	-	14,246,744	26,715,044	-	-	-	-	-	-
Joint facilities	46,981,124	-	21,079,825	1,000,000	-	131,373	3,503,103	130,721	852,704	-	-	7,652,929	12,019,913	610,556	-	-	-	-	-
	116,666,397	-	27,542,772	1,000,000	-	131,373	25,763,641	130,721	852,704	-	-	21,899,673	38,734,957	610,556	-	-	-	-	-
Fish and wildlife:																			
Specific facilities	1,165,888	-	-	-	-	-	-	-	-	-	1,165,888	-	-	-	-	-	-	-	-
Recreation:																			
Specific facilities	600,629	-	-	-	-	-	227,715	-	37,204	-	-	-	330,685	5,025	-	-	-	-	-
	1,766,517	-	-	-	-	-	227,715	-	37,204	-	-	-	330,685	5,025	-	-	-	-	-
Multiple-purpose projects un- der construction	138,152,372	-	-	-	-	-	-	-	-	-	-	-	-	-	40,216,338	77,240,948	11,768,465	8,926,621	-
Total	2,540,878,704	520,593,978	88,333,737	547,264,071	106,142,411	31,956,334	306,141,117	66,109,130	94,153,068	162,251,670	36,650,358	264,797,114	130,539,131	47,794,213	40,216,338	77,240,948	11,768,465	8,926,621	-
Less accumulated depreciation:																			
Specific facilities:																			
Commercial power	199,875,630	117,517,728	11,080,710	21,329,967	4,528,334	2,711,955	14,730,798	3,436,858	3,113,899	11,435,685	293,651	9,326,910	356,263	12,872	-	-	-	-	-
Irrigation (pumping power facilities)	996,225	-	-	777,511	-	-	-	-	-	-	218,714	-	-	-	-	-	-	-	-
Navigation	4,834,916	-	894,702	-	-	-	2,872,365	-	-	-	-	1,067,849	-	-	-	-	-	-	-
Recreation	12,446	-	-	-	-	-	12,446	-	-	-	-	-	-	-	-	-	-	-	-
Joint facilities:																			
Commercial power	37,482,270	-	2,710,925	7,198,736	3,930,700	1,520,146	12,072,246	1,506,923	1,334,404	2,880,779	120,388	3,993,528	207,002	6,493	-	-	-	-	-
Irrigation	715,137	-	-	-	-	-	-	304,499	378,277	-	-	-	-	32,361	-	-	-	-	-
Flood control	5,299,743	-	-	-	-	-	23,189	1,633,310	3,454,463	-	-	-	-	188,781	-	-	-	-	-
Navigation	3,602,983	-	2,710,925	-	-	-	399,544	10,489	63,656	-	-	487,068	-	4,053	-	-	-	-	-
Total	252,819,350	117,517,728	17,397,262	29,306,214	8,459,034	4,272,538	29,997,399	6,892,079	8,344,699	14,316,464	632,753	14,875,355	563,265	244,560	-	-	-	-	-
Fixed assets, net	2,288,059,354	403,076,250	70,936,475	517,957,857	97,683,377	27,683,796	276,143,718	59,217,051	85,808,369	147,935,206	36,017,605	249,921,759	129,975,866	47,549,653	40,216,338	77,240,948	11,768,465	8,926,621	-
CURRENT ASSETS:																			
Unexpended funds in U.S. Treas- ury appropriated by the Con- gress for construction and for operation and maintenance	36,555,915	17,190,061	450,916	2,118,431	135,240	44,563	366,919	72,279	121,154	652,229	64,460	611,231	1,558,474	474,432	2,690,554	4,752,035	1,486,786	3,766,151	-
Special deposits	1,185,577	798,909	-	318,792	604	-	-	-	-	67,064	208	-	-	-	-	-	-	-	-
Accounts receivable:																			
Customers	10,512,149	10,512,149	4,386	1,187,366	4,342	-	3,608	-	-	-	-	-	-	-	-	-	-	-	-
Other	1,547,467	229,701	-	675,394	37,711	-	40	143	4,493	191	1,203	4,830	77,531	29,165	21	-	-	-	487
Materials and supplies	4,914,559	4,200,493	-	-	-	-	-	-	-	-	-	-	-	921	-	-	-	-	-
Total	54,715,667	32,931,313	455,302	4,299,983	177,897	44,563	370,567	72,422	125,647	719,484	65,871	616,061	1,636,005	474,432	2,720,640	4,752,056	1,486,786	3,766,638	-
OTHER ASSETS AND DEFERRED CHARGES	12,922,061	1,049,316	111,409	10,416,209	73,394	-	450,033	201	92	84,135	720,391	2,252	270	1,428	1,200	10,724	300	-	-
	\$2,355,697,082	\$437,056,879	\$71,503,186	\$532,674,049	\$97,934,668	\$27,728,359	\$276,964,318	\$59,290,374	\$85,934,108	\$148,738,825	\$36,803,867	\$250,540,079	\$131,612,141	\$48,025,513	\$42,938,178	\$82,003,728	\$13,255,551	\$12,693,259	-

UNITED STATES OF AMERICA
COLUMBIA RIVER POWER SYSTEM AND RELATED ACTIVITIES

STATEMENT COMBINING ASSETS AND LIABILITIES (continued)
JUNE 30, 1962

LIABILITIES	Combined, to schedule 2	Bonneville Power Administra- tion	Bonneville Project	Columbia Basin Project	Hungry Horse Project	Albani Falls Project	McNary Project	Detroit- Big Cliff Project	Lookout Point- Dexter Project	Chief Joseph Project	Yakima Project, Roza and Kennewick Divisions	The Dalles Project	Ice Harbor Project	Hills Creek Project	Cougar Project	John Day Project	Lower Monumental Project	Green Peter- Poster Project
INVESTMENT OF U.S. GOVERNMENT AND ACCUMULATED NET REVENUES: Congressional appropriations	\$2,739,461,892	\$669,225,707	\$110,649,634	\$610,427,650	\$107,018,132	\$32,901,313	\$298,794,592	\$66,331,677	\$ 91,057,184	\$157,644,612	\$37,266,432	\$253,107,215	\$122,787,173	\$45,138,300	\$39,486,000	\$76,480,000	\$12,485,000	\$ 8,661,271
Cost of materials and serv- ices furnished by other Federal agencies, net	26,631,401	19,984,011	124,015	5,953,925	160,004*	54,367	620,993*	2,484	10,821*	411,262	509,679	88,747	7,861*	17,354	122,585	51,072	1,448*	113,027
Interest on Federal invest- ment: Charged to operations	356,264,465	92,208,810	40,012,230	73,522,295	17,536,504	5,898,880	51,824,505	13,666,254	16,488,367	20,361,211	535,142	22,803,000	886,285	520,982	-	-	-	-
Charged to construc- tion	106,380,618	8,628,720	3,633,717	9,687,041	4,410,321	1,033,841	21,310,784	4,055,142	6,377,657	11,219,742	162,222	18,308,102	8,569,798	3,014,358	2,159,633	3,159,808	383,930	265,802
Revenues transferred to continuing fund	1,833,035	1,833,035	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total investment of U.S. Govern- ment (note 5)	3,230,571,411	721,880,283	154,419,596	699,590,911	128,804,953	39,888,401	371,308,888	84,055,557	113,912,387	189,636,827	38,473,475	294,307,064	132,235,395	48,650,994	41,768,218	79,690,880	12,867,482	9,040,100
Less:																		
Funds returned to U.S. Treasury:																		
Repayment of Fed- eral investment in the power pro- gram (including amounts for oper- ating expense and interest)	860,228,216	354,964,526	70,099,113	202,394,022	35,609,001	11,202,562	81,354,746	15,956,643	13,159,504	37,561,528	1,993,936	34,335,640	1,501,373	75,000	59	20,319	244	-
Repayment of Fed- eral investment in nonpower pro- grams	28,529,997	-	19,586	24,928,816	267,313	22	9,022	21,745	20,873	-	3,253,964	968	114	-	207	7,326	41	-
Total expense of flood control operations	20,547,584	-	-	-	370,267	66,487	-	6,770,261	12,722,529	-	-	-	-	618,040	-	-	-	-
Total expense of navi- gation operations	41,095,443	-	26,216,723	79,363	-	51,145	9,493,209	43,855	233,889	-	-	4,963,974	-	13,285	-	-	-	-
Other nonreimbursable expenses	2,354,355	-	-	138,493	-	-	45,704	1,173,182	933,816	-	159	-	-	73,001	-	-	-	-
	952,765,595	354,964,526	96,335,422	227,540,694	36,246,581	11,320,216	90,902,681	23,965,686	27,070,611	37,561,528	5,248,059	39,300,582	1,501,487	779,326	266	27,645	285	-
Net investment of U.S. Gov- ernment	2,277,805,816	436,915,757	58,084,174	472,050,217	92,558,372	28,568,185	280,406,207	60,089,871	86,841,776	152,075,299	33,225,416	255,006,482	130,733,908	47,911,668	41,767,952	79,663,235	12,867,197	9,040,100
Accumulated net revenues: Net revenues from com- mercial power opera- tions (schedule 1)	57,171,512	7,582,916*	13,295,001	59,077,184	5,310,586	879,547*	3,534,924*	293,152*	489,427*	3,603,149*	606,309	4,653,352*	97,103*	16,002	-	-	-	-
Less net loss from irrigation operations since inception	4,932,696	-	-	4,183,959	-	-	-	549,873	485,657	-	320,030*	-	-	33,237	-	-	-	-
	52,238,816	7,582,916*	13,295,001	54,893,225	5,310,586	879,547*	3,534,924*	843,025*	975,084*	3,603,149*	926,339	4,653,352*	97,103*	17,235*	-	-	-	-
Total	2,330,044,632	429,332,841	71,379,175	526,943,442	97,868,958	27,688,638	276,871,283	59,246,846	85,866,692	148,472,150	34,151,755	250,353,130	130,636,805	47,894,433	41,767,952	79,663,235	12,867,197	9,040,100
CURRENT AND ACCRUED LIABILI- TIES:																		
Accounts payable	17,309,647	4,606,853	123,811	3,115,532	65,710	39,721	93,035	43,528	65,917	264,989	131,904	182,499	892,836	131,080	1,170,226	2,340,493	388,354	3,653,159
Employees' accrued leave	2,505,295	2,505,295	-	-	-	-	-	-	65,917	264,989	131,904	182,499	892,836	131,080	1,170,226	2,340,493	388,354	3,653,159
Total	19,815,642	7,112,848	123,811	3,115,532	65,710	39,721	93,035	43,528	-	1,554	-	-	-	-	-	-	-	-
DEFERRED CREDITS	612,744	611,190	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MATURED INSTALLMENTS OF FIXED OBLIGATIONS FOR USE OF IRRIGATION FACILITIES	2,403,333	-	-	108,593	-	-	-	-	-	-	2,294,740	-	-	-	-	-	-	-
CONTRIBUTIONS IN AID OF CON- STRUCTION	2,820,731	-	200	2,506,482	-	-	-	-	1,499	132	225,463	4,450	82,500	-	-	-	-	-
	\$2,355,697,082	\$437,056,872	\$ 71,503,186	\$532,674,042	\$ 97,934,668	\$27,728,359	\$276,964,318	\$59,290,374	\$ 85,934,108	\$148,738,825	\$36,803,867	\$250,540,079	\$131,612,141	\$48,025,513	\$42,938,178	\$82,003,728	\$13,255,551	\$12,693,259

*Deduction

The accompanying notes (schedule 7) are an integral part of this statement.

COLUMBIA RIVER POWER SYSTEM AND RELATED ACTIVITIES

NOTES TO THE FINANCIAL STATEMENTS

SCHEDULES 1 TO 6, INCLUSIVE

Note 1. Composition of the Columbia River Power System and Related Activities

The Columbia River Power System and Related Activities consist of the Bonneville Power Administration and multiple-purpose projects of the Corps of Engineers and the Bureau of Reclamation for which the Bonneville Power Administration is the power-marketing agent. The transmission system and the hydroelectric plants of these multiple-purpose projects are operated as an integrated power system.

The following multiple-purpose projects, together with the transmission system of the Administration, constitute the Columbia River Power System and Related Activities:

<u>Agency and project</u>	<u>Operation of first unit (fiscal year)</u>	<u>Kilowatts</u>	
		<u>Installed capacity, June 30, 1962</u>	<u>Ultimate installed capacity (17-project 20-dam system)</u>
Corps of Engineers:			
Bonneville	1938	518,400	518,400
McNary	1954	980,000	980,000
Detroit-Big Cliff	1954	118,000	118,000
Albeni Falls	1955	42,600	42,600
Lookout Point-Dexter	1955	135,000	135,000
Chief Joseph	1956	1,024,000	1,024,000
The Dalles	1957	1,119,000	1,119,000
Ice Harbor	1962	270,000	270,000
Hills Creek	1962	30,000	30,000
Cougar	-	-	25,000
John Day	-	-	1,350,000
Lower Monumental	-	-	405,000
Green Peter-Foster	-	-	110,000
Total, Corps of Engineers		<u>4,237,000</u>	<u>6,127,000</u>
Bureau of Reclamation:			
Columbia Basin	1942	1,944,000	1,944,000
Hungry Horse	1953	285,000	285,000
Yakima (Kennewick Division)	1956	12,000	12,000
Yakima (Roza Division)	1959	11,250	11,250
Total, Bureau of Reclamation		<u>2,252,250</u>	<u>2,252,250</u>
Total		<u>6,489,250</u>	<u>8,379,250</u>

Note 1 (continued)

Cougar, John Day, Lower Monumental, and Green Peter-Foster Projects of the Corps of Engineers are under construction, which will complete the 20-dam system. When more upstream storage is added to the system additional generators may be planned and the ultimate installed capacity thereby increased considerably over the 8,379,250 kilowatts shown on the above table as presently scheduled.

The irrigation facilities at the Chief Joseph Project, which are included in the project's statement of assets and liabilities, were constructed by the Bureau of Reclamation. These facilities are the Foster Creek Division and the Greater Wenatchee Division.

The Yakima Project has been included in these statements only to the extent of the Kennewick and Roza Divisions; the assets and liabilities of four other divisions have been omitted. Certain costs of the Storage Division, one of those omitted, are allocable directly to the irrigation operations of the Kennewick and Roza Divisions by tentative Bureau of Reclamation determination.

Note 2. Accounting policies

Accounting policies of the Bonneville Power Administration, Corps of Engineers, and Bureau of Reclamation are not wholly uniform with regard to depreciation, the recording of interest as a charge to expense and to construction work in progress, the inclusion of costs incurred by other Federal agencies, and the capitalization of investigation costs.

Note 2 (continued)

Depreciation. In fiscal year 1962, the straight-line method was used to compute depreciation for property of the Bonneville Power Administration, and for all individual projects in the system except the Columbia Basin Project. The compound-interest method, employing an interest factor of 2.5 percent, was used in computing depreciation on most of the plant investment allocated to power at the Columbia Basin Project of the Bureau of Reclamation. If the straight-line depreciation method were used the total fiscal year 1962 expenses and deductions for the Columbia Basin Project shown on schedule 5 would be increased by about \$750,000.

All property of the Bonneville Power Administration is allocated to power and is depreciated where appropriate. Depreciation is recorded on depreciable property allocated to commercial power and to all other purposes at projects of the Corps of Engineers. Depreciation is recorded in special memorandum accounts on property allocated to commercial power for projects of the Bureau of Reclamation and on specific power facilities allocated to irrigation pumping at the Columbia Basin Project; no depreciation is recorded on most of the other property allocated to irrigation or to other purposes. The plant investment at June 30, 1962, not depreciated by the Bureau of Reclamation totaled about \$377.4 million allocated to irrigation and about \$26.5 million allocated to other purposes.

Estimated service lives of the various classes of property have been determined by engineering studies. No item of property has been assigned a service life in excess of 100 years, except for

Note 2 (continued)

certain property at the Hungry Horse Project which has been assigned a maximum of 150 years. If this property were assigned a maximum service life of 100 years, the total fiscal year 1962 expenses and deductions for the Hungry Horse Project shown on schedule 5 would be increased by about \$160,000.

Costs of land and land rights for the Bonneville Power Administration have been included in the base for computing depreciation except for amounts paid to former owners for fee title. All costs of acquiring fee title to lands of the Corps projects are excluded from the base for computing depreciation, although any costs of acquiring intangible rights in land are depreciated. All costs associated with the acquisition of land and land rights at the Columbia Basin Project are depreciated; no costs associated with the acquisition of land and land rights at other Bureau projects are depreciated. If the Bureau eliminated depreciation on costs of acquiring fee title to lands of the Columbia Basin Project and included depreciation on costs of land rights at other projects on the basis of a maximum service life of 100 years, the fiscal year 1962 total expenses and deductions allocated to power on schedule 5 would be increased by about \$35,000.

Interest. The Administration and the Corps of Engineers have recorded interest in their accounts at the rate of 2.5 percent on the net Federal investment allocated to commercial power. The Corps of Engineers also records interest on the net Federal investment in the nonpower features of the projects, most of which is not

Note 2 (continued)

reimbursable to the Federal Government by the project beneficiaries. The following table shows the interest recorded to date and the present net investment in the nonpower features of the Corps projects in operation as of June 30, 1962:

<u>Features</u>	<u>Net investment</u>	<u>Cumulative interest recorded</u>
Flood control	\$ 90,198,640	\$19,045,086
Navigation	108,248,590	29,748,660
Irrigation	13,065,655	2,694,466
Recreation	607,717	16,619
Other	-	23,137
Total	<u>\$212,120,602</u>	<u>\$51,527,968</u>

The net investment in irrigation is reimbursable to the Federal Government, but cumulative interest charged to operations is not reimbursable. Costs of the other features are nonreimbursable.

For the Bureau of Reclamation projects included in these financial statements, interest has been included at the rate of 2.5 percent on the net Federal investment allocated to commercial power, and no interest has been recorded on the investment in nonpower features. The following table shows the net investment in nonpower features of the Bureau projects in operation as of June 30, 1962:

Note 2 (continued)

	<u>Net investment</u>
Nonreimbursable features:	
Flood control	\$ 24,571,409
Navigation	1,000,000
Fish and Wildlife	<u>1,150,888</u>
Total	26,722,297
Reimbursable features:	
Irrigation	<u>389,058,622</u>
Total	<u>389,058,622</u>
Total	<u>\$415,780,919</u>

Interest on the Federal investment recorded prior to operations has been charged to property costs (interest during construction).

Costs incurred by other agencies. Bonneville Power Administration has recorded in its accounts a net amount of \$19,984,011 of actual or estimated costs for rentals, property, materials, and services furnished without charge by the General Services Administration and other Federal agencies, death and disability claims on account of the Administration employees paid by the Bureau of Employees' Compensation, Department of Labor, and legal services by the Regional Solicitor. For the fiscal year 1962, the Administration recorded in its accounts \$923,816 of costs for rentals, property, materials and services furnished without charge; of this amount \$450,010 was included in operating expenses, and \$473,806 was included in construction costs. The Administration transferred to other agencies without charge during the year a total of \$36,639 of supplies and services. The net transfer for fiscal year 1962 totaled \$887,177.

Note 2 (continued)

It is not the practice of the Corps of Engineers or the Bureau of Reclamation to include in its accounts amounts incurred by other Federal agencies and not assignable to the projects pursuant to law or administrative policy. However, the Bureau of Reclamation imputes in its accounts the costs incurred by the Regional Solicitor for legal service in behalf of Reclamation projects.

Investigation costs. Expenditures for preliminary surveys and investigations have been included as a part of construction costs, where appropriate, by the Administration and the Bureau of Reclamation. Expenditures for preliminary surveys and investigations were not included by the Corps as a part of construction costs of the Bonneville Project, Albeni Falls Project, Detroit-Big Cliff Project, and Lookout Point-Dexter Project.

Note 3. Allocation of Costs and Expenses

All of the property costs and expenses for facilities which serve only one purpose are allocated to that purpose. For example, all of the property costs and expenses of the Bonneville Power Administration are allocated to commercial power. Another example, at Bonneville Dam, a navigation and power project, all of the specific navigation facilities are allocated to navigation and all of the specific power facilities are allocated to power. The joint facilities which serve more than one purpose at the projects in the Columbia River Power System are allocated as follows:

Bonneville Project. The costs of property, plant, and equipment determined to be jointly useful for power generation and for

Note 3 (continued)

navigation, consisting principally of the dam, reservoir, and fishways, have been allocated 50 percent to power and 50 percent to navigation by the Federal Power Commission under the provisions of the Bonneville Project Act (16 U.S.C. 832f). Operation and maintenance expenses applicable to joint facilities have been allocated to power and to navigation in the same proportion as the related property costs.

Columbia Basin Project. The costs of property, plant, and equipment determined to be jointly useful for power generation and for other purposes, consisting principally of the dam, reservoir, and general service facilities, have been allocated 56 percent to commercial power (including downstream river regulation) and 44 percent to irrigation after assigning \$1,000,000 to navigation. Costs of specific power facilities (principally powerhouses and generating equipment) have been allocated to commercial power and to irrigation pumping power in proportion to the relative value of power delivered for each purpose except that the cost of the last 3 of the 18 main generating units and related electrical facilities has been assigned to commercial power. These allocations have been made by the Secretary of the Interior under the provisions of the Reclamation Project Act of 1939 (43 U.S.C. 485h). The expenses of operating and maintaining the joint facilities have been allocated in the same proportions as the related property costs for purposes of presenting financial statements on the commercial power operation.

Note 3 (continued)

Hungry Horse Project. The costs of property, plant, and equipment determined to be jointly useful for power generation and flood control purposes, consisting principally of the dam and reservoir, have been allocated 70 percent to commercial power and 30 percent to flood control. These allocations were approved by the Commissioner of Reclamation on June 24, 1960, and were ratified by the Assistant Secretary for Water and Power Development, Department of the Interior, on September 30, 1960. Operation and maintenance expenses applicable to joint facilities have been allocated to commercial power and flood control in the same proportions as the related property costs.

During fiscal year 1960, the Hungry Horse Project accounts were initially adjusted to give effect to the firm cost allocation percentages. This adjustment resulted in a decrease of \$865,026 in interest, depreciation, and operation and maintenance expenses charged to commercial power operations from inception through June 30, 1959.

During fiscal year 1961, the Hungry Horse Project accounts were further adjusted to give effect to reclassification of certain project features as to purpose in order to conform with the purposes that were specifically stated in the final cost allocation report. An outlet gate having a cost of \$1,000,000 was reclassified from a joint facility to a specific flood control facility. Penstocks having a cost of \$3,693,616 were reclassified from specific power to joint facilities. As a result of the reclassifications, cumulative adjustments were recorded which decreased fiscal

Note 3 (continued)

year 1961 power expenses by \$484,023, consisting of \$378,220 interest expense on the Federal investment and \$105,803 depreciation expense on power facilities.

Albeni Falls Project. Firm allocations of the costs of plant, property, and equipment determined to be jointly useful for power generation and for other purposes and of operation and maintenance expenses applicable to joint facilities have been approved by the Corps of Engineers. Approved firm cost allocation percentages for the Albeni Falls Project are as follows:

	<u>Percent</u>	
	<u>Construc-</u> <u>tion</u> <u>costs</u>	<u>Operation</u> <u>and</u> <u>mainte-</u> <u>nance</u> <u>costs</u>
Power	97.5	98.0
Flood control	1.5	1.0
Navigation	<u>1.0</u>	<u>1.0</u>
Total	<u>100.0</u>	<u>100.0</u>

McNary and Ice Harbor Projects. The River and Harbor Act of 1945 (59 Stat. 22) authorized these projects and provided that the Department of the Interior would market the electric energy in accordance with the terms of the Bonneville Project Act. Under the provisions of the Bonneville Project Act, the Federal Power Commission is authorized to allocate the construction costs of joint facilities to power and nonpower purposes. In an interim report on the McNary Project the Commission allocated 97.5 percent of the construction costs of joint facilities to commercial power and

Note 3 (continued)

2.5 percent to navigation. For the purposes of this report, the costs of joint facilities have been allocated in accordance with these percentages. Operation and maintenance expenses applicable to joint facilities have been allocated to commercial power and to navigation operations on the same basis.

The Federal Power Commission has not made an interim allocation for the costs of the joint facilities at the Ice Harbor Project. The tentative allocation used in the project accounts and in these statements was prepared by the Corps of Engineers. This allocation assigns 78.5 percent of the construction costs of joint facilities to commercial power and 21.5 percent to navigation. Operation and maintenance expenses of the joint facilities for fiscal year 1962 have been assigned 100 percent to commercial power, since the navigation facilities are not yet in service.

Detroit-Big Cliff, Lookout Point-Dexter, The Dalles, Chief Joseph and Hills Creek Projects. Under the provisions of section 5 of the Flood Control Act of 1944 (16 U.S.C. 825s), the Secretary of the Interior became the marketing agent for energy generated by projects constructed and operated by the Corps of Engineers that is excess to project needs. The Bonneville Power Administration has been designated by the Secretary of Interior as the marketing agent for these projects. The act, however, does not specify who shall make an allocation of the construction costs. Tentative allocations of the construction costs of the joint facilities have been made by the Corps of Engineers, as follows:

Note 3 (continued)

	Percent			
	<u>Detroit- Big Cliff</u>	<u>Lookout Point- Dexter</u>	<u>The Dalles</u>	<u>Hills Creek</u>
Commercial power	44.27	25.94	92.72	16.50
Flood control	46.72	65.66	-	70.00
Navigation	.30	1.21	7.28	1.50
Irrigation	7.77	7.19	-	12.00
Municipal water supply	<u>.94</u>	<u>-</u>	<u>-</u>	<u>-</u>
Total	<u>100.00</u>	<u>100.00</u>	<u>100.00</u>	<u>100.00</u>

For purposes of this report, the joint construction costs have been allocated in accordance with the foregoing percentages.

The entire construction costs of the joint facilities at the Chief Joseph Project have been allocated by the Corps of Engineers to commercial power. Because of related irrigation development by the Bureau of Reclamation at the Chief Joseph Project, this allocation may be changed at a later date to assign some comparatively minor amounts to irrigation.

The expenses of operating and maintaining facilities serving more than one purpose have also been allocated on the basis of tentative allocation percentages arrived at by the Corps of Engineers. The percentages are as follows:

	Percent			
	<u>Detroit- Big Cliff</u>	<u>Lookout Point- Dexter</u>	<u>The Dalles</u>	<u>Hills Creek</u>
Commercial power	56.91	38.25	95.00	24.00
Flood control	35.10	54.89	-	64.00
Navigation	.25	.98	5.00	1.50
Irrigation	6.89	5.88	-	10.50
Municipal water supply	<u>.85</u>	<u>-</u>	<u>-</u>	<u>-</u>
Total	<u>100.00</u>	<u>100.00</u>	<u>100.00</u>	<u>100.00</u>

Note 3 (continued)

As in the case of joint construction costs, the entire operation and maintenance expense of joint facilities at the Chief Joseph Project is considered applicable to commercial power.

Yakima Project (Kennewick and Roza Divisions). A firm allocation of the costs of the Yakima Project has not been made by the Secretary of the Interior.

A tentative allocation of the total costs to date of the Kennewick Division has been made by the Bureau of Reclamation. The costs of property, plant, and equipment determined to be jointly useful for power generation and for irrigation have been allocated between these purposes in accordance with the following percentages:

	Percent		Total
	Power	Irrigation	
Prosser diversion dam:			
Original	-	100.0	100.0
Additions	100.0	-	100.0
Headworks and common facilities	14.6	85.4	100.0
Chandler Canal--1st section:			
Original	-	100.0	100.0
Additions	100.0	-	100.0
Chandler Canal--2d section:			
Original	-	100.0	100.0
Additions	22.5	77.5	100.0
General plant	71.2	28.8	100.0

The expenses of operating and maintaining facilities serving more than one purpose were allocated 59.9 percent to power and 40.1 percent to irrigation during fiscal year 1962.

A tentative allocation of the total costs to date of the Roza Division has been made by the Bureau of Reclamation on the basis of

Note 3 (continued)

the use of facilities. The costs of property, plant, and equipment have been allocated between power and irrigation in accordance with the following percentages:

	Percent		Total
	Power	Irrigation	
Roza diversion dam and headworks:			
Original	-	100.0	100.0
Modification	100.0	-	100.0
Main canal:			
Original, except \$1,000,000 of canal costs	-	100.0	100.0
Canal costs of \$1,000,000	20.0	80.0	100.0
Modification	100.0	-	100.0
Roza power plant, switchyard, and operator's dwelling	20.0	80.0	100.0
34.5 kv transmission line	7.0	93.0	100.0
East Selah and pumping plant substations and balance of transmission lines	-	100.0	100.0

The operation and maintenance expenses of joint facilities were allocated 12.7 percent to commercial power and 87.3 percent to irrigation during fiscal year 1962.

Note 4. Actual repayment and scheduled repayment of commercial power investment

The Bonneville Power Administration has the responsibility of fixing commercial power rates at a level which, over periods established by or pursuant to law, will assure repayment of the investment in commercial power and the investment in related irrigation activities assigned for repayment from commercial power revenues. Repayment requirements for the Columbia River Power System are found in the Bonneville Project Act (16 U.S.C. 832f), the Flood Control Act of 1944, the Reclamation Project Act of 1939, the several acts authorizing construction, and in the administrative

Note 4 (continued)

interpretations thereof. Accordingly, System power rates reflect a composite of the requirements of these acts applied to the individual projects and the Administration.

An allocation of System power receipts among the generating projects and the Administration, designed to satisfy their respective requirements, is made annually pursuant to agreements reached by the Administration with the Corps of Engineers and the Bureau of Reclamation. Funds received from commercial power operations for repayment of the Federal investment in Bonneville Power Administration and Corps of Engineers projects are deposited into the Treasury as miscellaneous receipts. Funds received for repayment of Bureau of Reclamation projects are deposited into the Treasury to the reclamation fund.

The statement of repayment of investment in commercial power program (schedule 4) compares, for fiscal year 1962 and from inception to June 30, 1962, the actual repayment of Federal investment in commercial power with the scheduled repayment established by law or administrative policy pursuant to law. Power receipts returned to the Treasury have been applied first to the repayment of operation and maintenance and interest expenses, with the remainder being applied to repayment of the capital investment in commercial power. On projects in which part of the irrigation investment is assigned for repayment from commercial power revenues, the assistance is assumed to begin after repayment of the commercial power investment. Commercial power rate and repayment requirements are

Note 4 (continued)

affected by irrigation assistance to the extent that the assistance makes necessary the recovery of commercial power investment in Bureau of Reclamation projects in a shorter period of years than required when only commercial power is involved. The annual deposits by Bonneville Power Administration into the Treasury to the reclamation fund on behalf of reclamation projects are based on repayment requirements set forth in rate and repayment studies made annually by the Bureau of Reclamation. These studies prepared by the Bureau of Reclamation show requirements for future years after giving effect to actual repayment to date rather than fixed annual repayment obligations. Consequently, repayment for each Bureau project is considered to be just on schedule.

The rate and repayment requirements established by law or administrative policy pursuant to law for the individual projects and the Administration are as follows:

Bonneville Project, Bonneville Power Administration, McNary Project, and Ice Harbor Project. The Bonneville Project Act (16 U.S.C. 832f) provides that rate schedules shall be drawn having regard to the recovery of cost of producing and transmitting electric energy excess to project needs, including the repayment of the capital investment over a reasonable period of years. This provision of the Bonneville Project Act was also applied to the McNary and Ice Harbor Projects by the authorizing legislation.

In determining the rate and repayment requirements for the Bonneville Project, the Bonneville Power Administration, the McNary

Note 4 (continued)

Project, and the Ice Harbor Project the "cost of producing and transmitting electric energy" is substantially the same cost as that used in preparing these financial statements, except for substitution of amortization of the Federal investment for depreciation of fixed assets, and elimination of non-cash power exchange transactions. The repayment of the capital investment over a reasonable number of years has been administratively determined to be the recovery, during the periods of their respective service lives, of the costs of the power facilities having lives of less than 50 years and the repayment of the remainder of the capital investment in power facilities over a period of 50 years subsequent to the "in service" date of such facilities.

Albeni Falls, Detroit-Big Cliff, Lookout Point-Dexter, Chief Joseph, The Dalles, and Hills Creek Projects. Rate and repayment requirements for these projects are governed by section 5 of the Flood Control Act of 1944. The provisions of this section are similar to the corresponding provisions of the Bonneville Project Act and state that rate schedules shall be drawn having regard to the recovery of the cost of producing and transmitting electric energy excess to project needs, including the repayment of the capital investment over a reasonable period of years. Rate and repayment requirements for these projects have been determined by Bonneville Power Administration in cooperation with the Corps of Engineers in the same manner as those for the Bonneville Project, the Administration, and the McNary and Ice Harbor Projects.

Note 4 (continued)

The acts of July 27, 1954 (68 Stat. 568), and May 5, 1958 (72 Stat. 104), authorized the Secretary of the Interior to construct irrigation facilities constituting the Foster Creek and Greater Wenatchee Divisions of the Chief Joseph Project. The acts provide for the use of surplus power revenues to assist in repayment of the irrigation investment. In accordance with the opinion dated August 28, 1959, of the Portland Regional Solicitor, Department of the Interior, the use of power revenues for repayment of the irrigation investment in the Foster Creek and Greater Wenatchee Divisions of the Chief Joseph Project will not be required until after repayment of the project commercial power investment.

Hungry Horse Project. Construction of Hungry Horse Dam and Reservoir was authorized by the act of June 5, 1944 (43 U.S.C. 593a). By the act of May 29, 1958 (72 Stat. 147), the Hungry Horse Project was made subject to the provisions of Federal reclamation law. On the basis of rate and repayment studies by the Bureau of Reclamation, the Administration allocates power receipts annually to the Hungry Horse Project in an amount sufficient to repay, over a period of 50 years, costs of operation and maintenance, replacement of facilities, and investment in commercial facilities allocated to commercial power with interest at 3 percent.

The investment in commercial power to be repaid that was used by the Bureau of Reclamation in setting Hungry Horse Project rate and repayment requirements differs in two important respects from the investment as presented by the Bureau of Reclamation for use in

Note 4 (continued)

the financial statements of the Columbia River Power System and Related Activities. For determining rate and repayment requirements, interest has not been capitalized during construction and interest during operations has been computed at a rate of 3 percent on the unrepaid investment. Because of these interest differences, the net investment of U.S. Government as shown in the financial statements at June 30, 1962, amounting to \$92,558,372, was about \$2,070,000 greater than the net investment shown by the Bureau of Reclamation.

Columbia Basin Project. Reclamation law, as supplemented, and Executive Order 8526 require that payments be made into the reclamation fund of the United States Treasury, for the account of Columbia Basin Project, of such revenues received by Bonneville Power Administration from the sale of electric energy as may be properly allocable to the project. On the basis of official cost allocations and annual payments (estimated at \$12,800,000 for each fiscal year) from power receipts by the Administration to the Columbia Basin Project, the fiscal year 1961 rate and repayment study by the Bureau of Reclamation shows that commercial power investment will be repaid in the 32nd year. The irrigation assistance, amounting to \$629,000,000, will be repaid within 50 years after the last block of land is scheduled to receive water, currently estimated to be in 1988.

The investment in commercial power to be repaid as defined by the Bureau of Reclamation in setting Columbia Basin Project rate

Note 4 (continued)

and repayment requirements differs in several important respects from the investment as presented by the Bureau of Reclamation for use in the financial statements of the Columbia River Power System and Related Activities. For determining rate and repayment requirements, interest has not been capitalized during construction, interest has not been computed on investment in facilities held for future downstream river regulation through fiscal year 1962, and interest during operations has been computed at a rate of 3 percent on the unrepaid capital investment. Because of these interest differences, the net investment of U.S. Government as shown in the financial statements at June 30, 1962, amounting to \$472,050,217, was about \$29,740,000 greater than the net investment shown by the Bureau of Reclamation.

Yakima Project (Kennewick and Roza Divisions). Rate and repayment requirements for the Kennewick Division of the Yakima Project are governed by the Reclamation Project Act of 1939 and the authorizing act of June 12, 1948 (62 Stat. 382). The latter act provides an over-all repayment period of 66 years for the reimbursable investment in power and irrigation, with power revenue assistance to irrigators in repayment of the irrigation investment. It provides also for not less than 2.5 percent interest on the investment in commercial power and authorizes the use of one-fifth of such interest to assist in repayment of the irrigation investment.

Repayment of investment in commercial power for the Kennewick Division is expected to require 35 years (1991), and net revenues

Note 4 (continued)

after that date are to render the assistance necessary (about \$4,690,000) to repay the irrigation investment over the remaining 31 years of the project repayment period.

Rate and repayment requirements for the Roza Division are governed by the Reclamation Project Act of 1939. The rate and repayment study by the Bureau of Reclamation shows that repayment of investment in commercial power for the Roza Division is expected to require 13 years (1972), and net revenues (including irrigation pumping power revenue) after that date are to render the assistance necessary (about \$4,517,000) to repay the irrigation investment over the remaining 49 years of the project repayment period.

Current Status of Repayment. During fiscal year 1962, funds returned to the United States Treasury were not sufficient to cover the fiscal year scheduled repayment of the capital investment established by law or administrative policy. The current year deficit on this basis was \$17,661,785. However, accumulated excess of funds returned over the scheduled repayment from the inception of operations through June 30, 1962, was \$20,132,017.

Note 5. Investment of the United States Government

All funds expended on behalf of the Columbia River Power System and Related Activities for the acquisition of commercial power facilities, and for the operation and maintenance of such facilities, are obtained through congressional appropriation, except that Bonneville Power Administration may use a continuing fund to defray emergency expenses and to assure continuous operation. The

Note 5 (continued)

continuing fund was authorized by the Bonneville Project Act, as amended (16 U.S.C. 832j), to be derived from receipts from sale of electric energy. To June 30, 1962, receipts transferred to the continuing fund totaled \$1,833,035, of which \$1,584,611 had been expended and \$248,424 remained unexpended. With the exception of those available in the continuing fund, receipts from the sale of electric energy are not available for expenditure and are deposited into the United States Treasury.

An interest factor is included as a part of the Federal investment, but no funds for this factor were appropriated by the Congress. An interest charge of 2.5 percent a year has been recorded on the net Federal investment in commercial power and investment in certain other purposes. The net cost of materials and services transferred from other Federal agencies, and included in the Federal investment, does not represent appropriations to the System but only the recording of actual or estimated costs of such materials and services. (See note 2.)

The total investment shown on the statement of combined assets and liabilities represents the appropriations, interest, and other resources associated with the acquisition of assets and the operation of facilities on an accumulated basis. The deductions from total investment for funds returned to the United States Treasury and nonreimbursable expenses are also shown on an accumulated basis. Funds returned to the Treasury from commercial power activities apply to repayment of investment used for current operation,

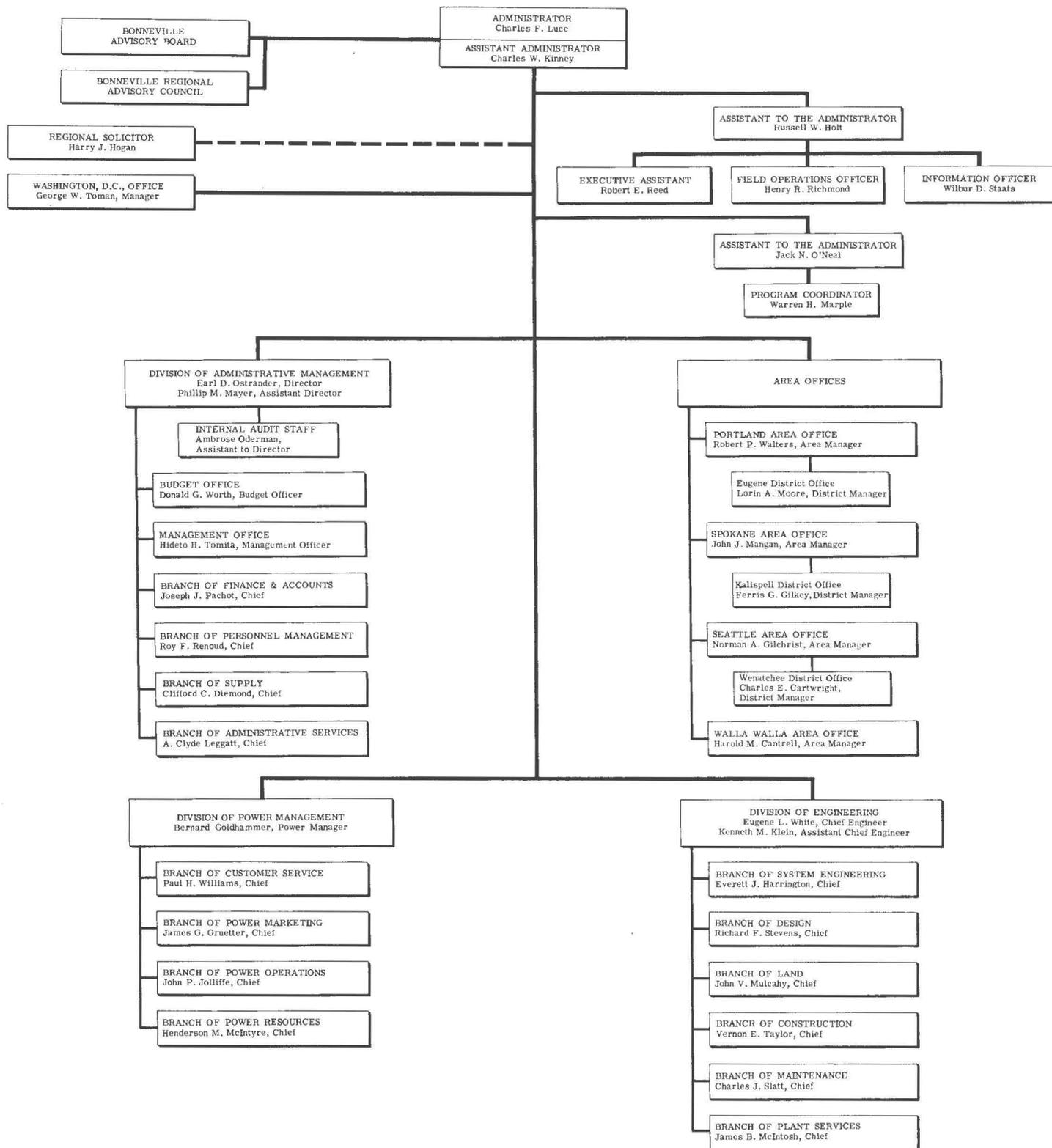
Note 5 (continued)

maintenance, and interest expenses as well as accumulated investment in fixed assets.

Note 6. Other Operating Revenues

The Bonneville Power Administration charges for the use of transmission facilities to transfer power for other utilities and industrial customers. Revenues of \$4,328,785 were accrued in the Administration's accounts in fiscal year 1962 in connection with such activities. Additional revenues totaling \$8,890 from rental of electric property were accrued in the accounts of the Columbia Basin Project and the Kennewick and Roza Divisions of the Yakima Project.

During fiscal year 1962 Bonneville Power Administration received revenues of \$1,100,000 representing payments by non-federal owners of downstream generating projects for benefits received under a one-year contract called the "Pacific Northwest Coordination Agreement." According to the terms of the agreement this amount "shall be held in suspense pending determination by the Federal Power Commission of payments due the United States under Section 10(f) of the Federal Power Act for benefits conferred by Federal Projects covered by this agreement during the period it is in effect." (16 U.S.C. 803f.)



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OF THE INTERIOR

Stewart L. Udall,
Secretary

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M T N A S S Y

R I V E R G O V E R N

T H E D I L L E S

R O Z A

I C E H A R B

H I L L S C R E E K

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