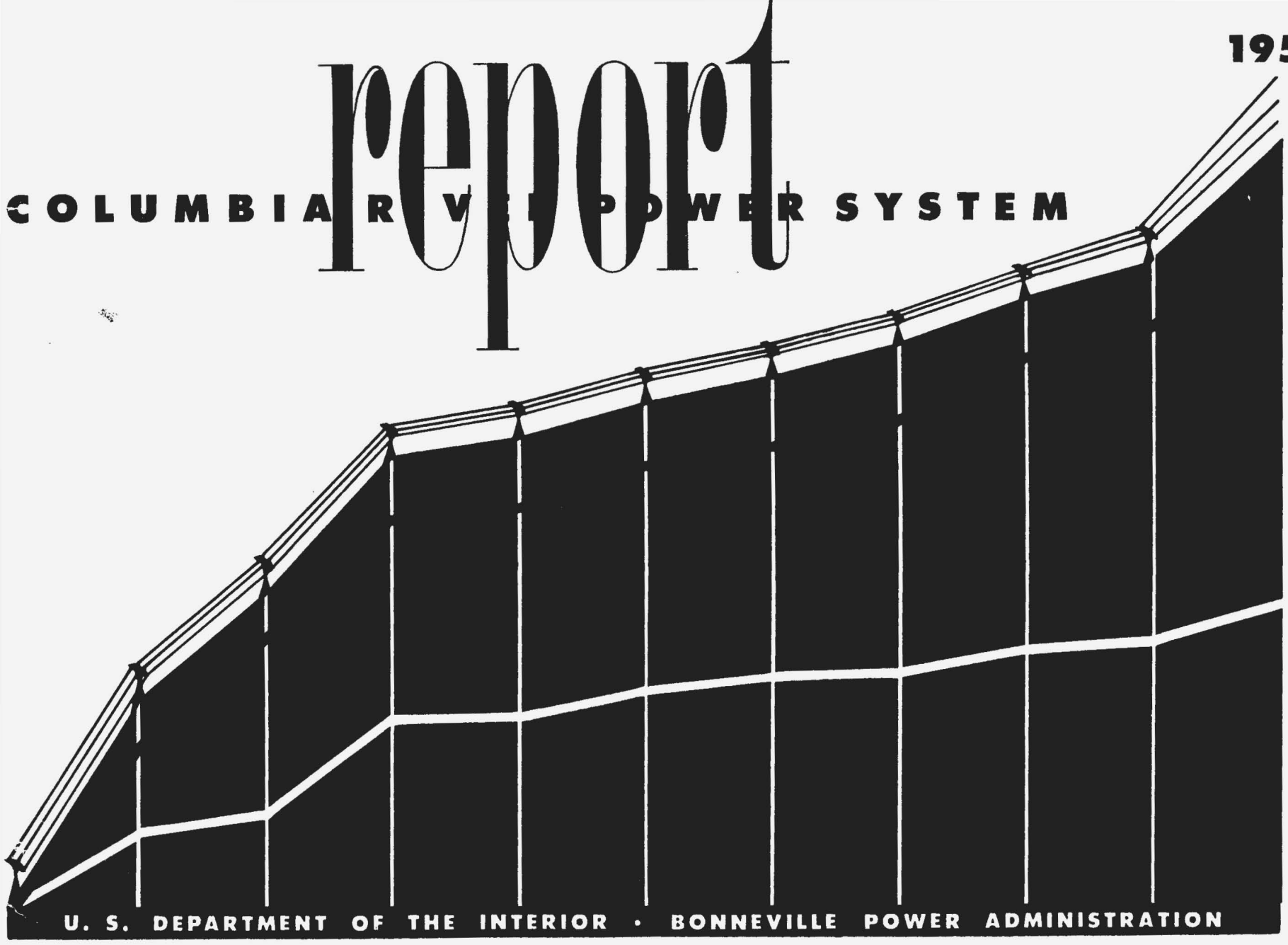
1950

report

COLUMBIA RIVER POWER SYSTEM



U. S. DEPARTMENT OF THE INTERIOR • BONNEVILLE POWER ADMINISTRATION

BONNEVILLE POWER ADMINISTRATION

PORTLAND 8, OREGON

REPORT

ON THE COLUMBIA RIVER POWER SYSTEM

CONSISTING OF THE BONNEVILLE POWER ADMINISTRATION, AND POWER COMPONENTS OF THE BONNEVILLE DAM PROJECT, AND THE COLUMBIA BASIN PROJECT (GRAND COULEE DAM).

1950

Department of the Interior

CONTENTS

December 31, 1950

LETTER OF TRANSMITTAL

The Honorable
The Secretary of the Interior
Washington, D. C.

My dear Mr. Secretary:

Transmitted herewith, in accordance with the requirements of Section 9 (c) of the Bonneville Project Act, is the thirteenth annual report of the Bonneville Power Administration, covering the operations of the Columbia River power system from July 1, 1949 to June 30, 1950.

The content of this report relates to the management and repayment of the federal investment in the transmission facilities of the Bonneville Power Administration, and the power components of the Bonneville dam project of the United States Engineers, Department of the Army, and the Columbia Basin project of the Bureau of Reclamation, Department of the Interior.

Repayment of the federal investment in Northwest power facilities continues well in advance of schedule. The general financial condition of the power system, as of the close of fiscal year 1950, is sound. Gross operating revenues showed a gain of 12 per cent over fiscal year 1949, and the system produced net revenues of $11,908,967 during fiscal year 1950, as compared with $10,665,769 in the previous year.

Substantial gains were made throughout the year in additions to the transmission system, resulting in improved service conditions and better assurance of system reliability in the event of extreme weather conditions such as those which were experienced in the winter of 1949. New transmission facilities, energized through the fiscal year and up to the present time, included 630 circuit miles of high voltage lines while substation capacity was increased by 308,200 kilovolt amperes. Heavy load-

ings, however, leave the system still in a far from desirable position to assure complete stability.

Advances in engineering techniques developed by Bonneville Power Administration engineers have resulted in substantial savings to the federal government and are expected to yield increasingly profitable results with system growth, both in terms of construction costs and costs of operation. These gains have played a substantial part in permitting the administration to preserve its region wide low uniform rate.

Having completed its fifth year of operation under the collective bargaining agreement with the Columbia Power Trades Council, the Bonneville Power Administration takes pride in the general excellence of its labor relations structure. Continued regular meetings of labor-management committees have resulted in greatly improved understandings and general harmony of working relationships. The collective bargaining agreement was recently renewed with only minor technical changes.

A program of reorganization, designed to give the administration more flexibility in its operation through delegating of operating responsibilities to the field and through closer integration of field operation, is proceeding satisfactorily. It is anticipated that a major part of this program will be in effect before the end of the current fiscal year.

Inadequate power supply to satisfy existing and future regional needs remains as the greatest problem confronting the administration. As was forecast in the Bonneville Power Administration annual report for

fiscal year 1949, it has not been possible to execute any new firm power commitments with either industry or utilities, regardless of whether they are public or private operations. Commitments have been made, however, to several manufacturers of critical materials, located in western Montana, for supplies of interruptible power to become firm following the completion of Hungry Horse dam.

In addition, a firm power contract was executed during March 1950 with the Montana Power Company for an initial term of five years, beginning with first delivery of power from Hungry Horse dam during the fall of 1952. A provision of the contract requires service by transfer to four Montana cooperatives until firm power from Hungry Horse becomes available. Other provisions include a formula for rate reductions on the part of the company and other transfer arrangements to customers of the Bonneville Power Administration.

Since 1945 the Bonneville Power Administration has consistently urged all utilities in the region to develop additional generation. In good part due to controversy over maintenance of the anadromous fish runs this new generation has largely failed to materialize. With the exception of the City of Seattle, no major contribution has been made to the region's power supply other than that which has been developed by the federal government. Even with the completion of McNary and Chief Joseph dams the region will find itself still short of the power supply needed to fulfill its requirements, for either peace or war time purposes.

The importance, therefore, of bending every effort to effect new starts on recommended power producing projects in the region cannot

be too strongly emphasized. Of equal importance is adherence to a schedule of construction that will lend itself to integration of the river system in such a way that full benefits may be obtained through storage of water and full advantage of seasonal diversity may be taken to increase downstream energy production.

The present world crisis, which places upon the nation's industrial plant the requirement of preparedness to meet the impact of increasingly greater military needs, lends force to the argument for a speeded up program of new power generation. The Pacific Northwest, with the greatest hydroelectric potential in the nation, should be in a position to absorb a considerable portion of this impact. Regrettably, it is not. Under extreme adverse water conditions, the Columbia River power system would be hard pressed to meet its normal industrial and domestic requirements even with complete curtailment of interruptible load.

It should be noted that the Congress has given full recognition to the importance of maintaining schedules on transmission line construction, having granted a substantial construction appropriation for the fiscal years 1950-51, as well as supplemental appropriations to meet certain contingencies. The awareness of the need to meet transmission system schedules has been substantially evident since the beginning of fiscal year 1948, and we can say at this point that in the main added substation capacity has kept pace with added generation capacity as well as energy sales.

In attempting to resolve the many complex problems concerned with the Pacific Northwest power supply situation, the Bonneville Power

Administration has worked closely with the Columbia Basin Inter-Agency Committee, the Pacific Northwest Field Committee and the Bonneville Regional Advisory Council, and received from their membership aid and advice of immeasurable value. Officials of the Bonneville Power Administration have also met regularly with the Pacific Northwest Utilities Conference Committee to consider mutual problems of regional power supply and service.

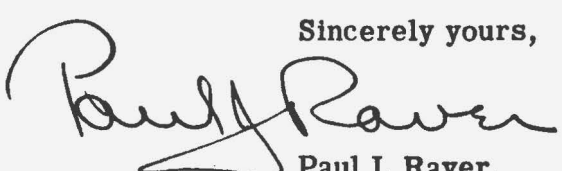
In summary, three recommendations for the consideration of Congress and the Executive branch are offered:

1. In a time when there is every likelihood that the nation may have demands for every possible kilowatt of power that may be generated, all efforts should be directed toward obtaining full development of the great power potential of the Columbia River system through an accelerated program of river project construction.

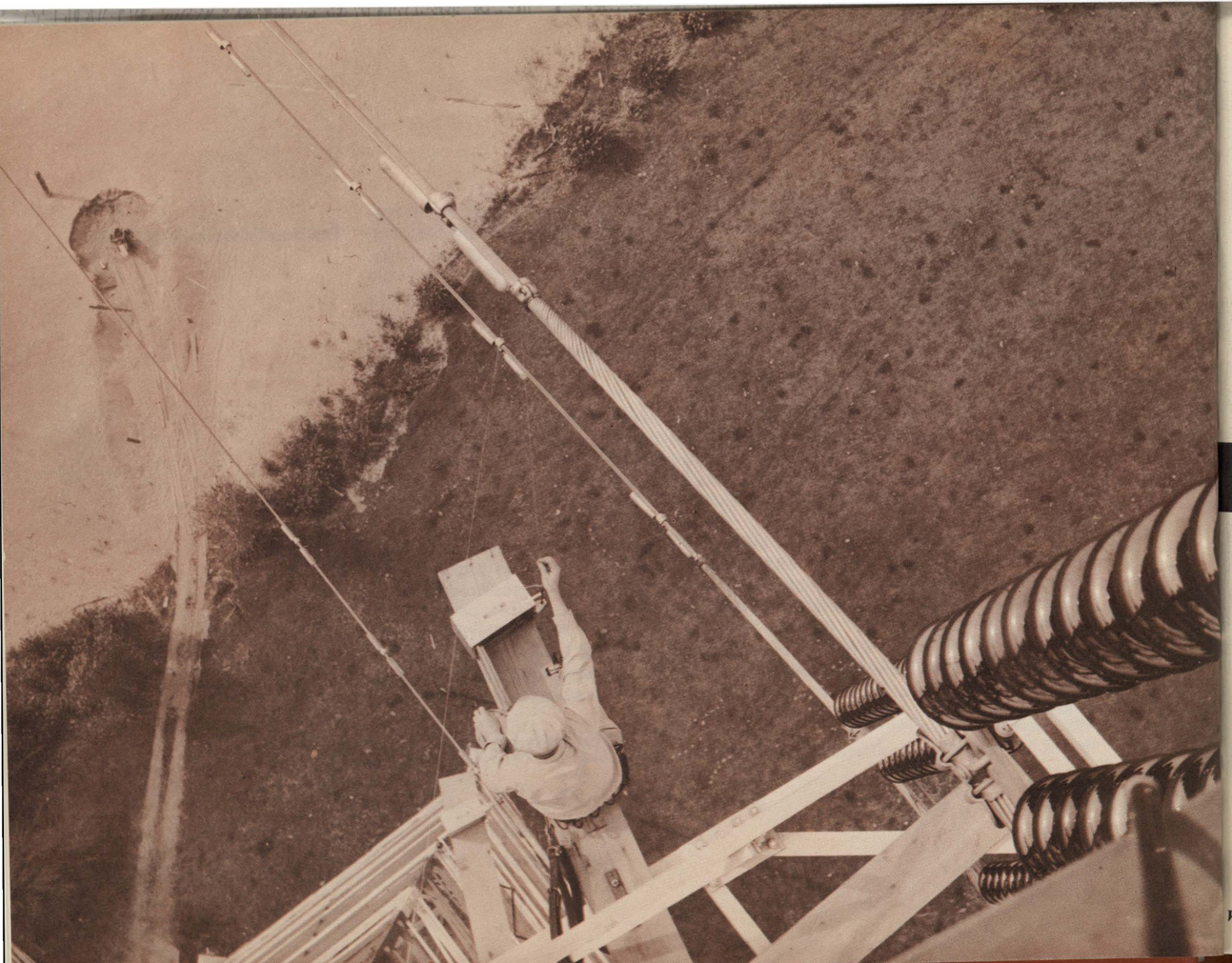
2. As additional projects come in, the financial structure of the system will become more and more complex. It becomes increasingly clear, therefore, that there is need for some such single fiscal mechanism as the recommended Columbia Basin Account.

3. Transmission construction should be spurred considerably to keep pace with new generation, as well as to reach a point where there is sufficient reserve capacity on the system to assure year around stability of service.

Sincerely yours,



Paul J. Raver,
Administrator



Condensed Summary of Revenues and Expenses

	Fiscal Year 1949	Fiscal Year 1950	Total to June 30, 1950
Operating revenues	$27,821,029	$31,197,515	$188,884,711
Expenses of operation, maintenance, etc.	6,757,317	7,404,258	52,821,799
Provision for depreciation	4,394,224	5,799,855	31,143,973
Interest expense	5,855,417	6,061,576	49,177,451
Miscellaneous deductions, net	148,302	22,859	1,097,427
Total deduction	17,155,260	19,288,548	134,240,650
Surplus net revenues from power operations	$10,665,769	$11,908,967	$ 54,644,061

FINANCIAL RESULTS OF OPERATIONS

new peaks

Gross and net revenues of the Columbia River power system reached new peaks in fiscal year 1950, as unprecedented demands for power were made upon the government's system. Installation of three new generators at Grand Coulee dam and added transmission capacity made possible increased power sales and net revenues. Critical loading of the administration's transmission system and inadequate transmission reserves continued to harass operations.

operating revenues

The accompanying table shows a condensed summary of revenues and expenses of the Columbia River power system for the past two fiscal years, and cumulative from the commencement of operations

Vibration of energized conductor is measured for design of damper system.

TABLE I

REVENUES BY CLASS OF CUSTOMER
Through Fiscal Year 1950

Class of Customer	1945 and Prior	1946	1947	1948	1949	1950	Total to June 30, 1950	1950 Percentage (dollar revenue)
Industry:								
Aluminum	$36,188,589	$ 7,987,226	$ 9,045,540	$10,453,425	$11,741,530	$12,133,254	$ 87,549,564	38.89
Other Industry 1/	9,356,963	3,108,749	1,836,349	1,915,884	2,219,819	2,677,580	21,115,344	8.58
Publicly-owned utilities	5,910,277	1,711,822	2,778,765	4,318,120	5,893,436	8,409,428	29,021,848	26.96
Privately-owned utilities	11,904,553	5,209,344	6,127,669	7,633,051	7,756,301	7,587,963 6/	46,218,881	24.32
Other electric revenue	216,860	1,867,144 2/	2,102,606 3/	193,230	209,943	384,609	4,974,392	1.23
Total BPA operating revenue	$63,577,242	$19,884,285	$21,890,929	$24,513,710	$27,821,029	$31,192,834 6/	$188,880,029 4/	
Columbia Basin Project Other electric revenue						4,682 5/	4,682	.02
Total operating revenue	$63,577,242	$19,884,285	$21,890,929	$24,513,710	$27,821,029	$31,197,516	$188,684,711	100.00

1/ Includes military establishments.

2/ Includes $1,789,443 of contract cancellations applicable to fiscal year 1946. (The total of $3,802,415 was apportioned over a period of 12 months.)

3/ Includes $2,012,972 of contract cancellations applicable to fiscal year 1947. (The total of $3,802,415 was apportioned over a period of 12 months.)

4/ As of June 30, 1950, the Administration had collected and deposited in the United States Treasury power revenue receipts totaling $173,773,605 and general fund receipts of $5,505,196. Accounts receivable, accrued unbilled revenues, unbilled exchange sales, miscellaneous adjustments and minor items account for the difference between total revenues and total receipts deposited by the Administration with the United States Treasury.

5/ Interdepartmental Sales—Irrigation pumping.

6/ These figures are not strictly comparable to prior years due to a change in the accounting treatment of exchange sales. Had the prior accounting treatment been continued in 1950 the revenues would have been increased by $714,931.

to June 30, 1950. These data, condensed from the certified financial statements set forth in the auditors' reports reflect results on the basis of commercial cost accounting in accordance with the Federal Power Commission's system of accounts for electric utilities.

In fiscal year 1950 operating revenues were $31,197,515 and net revenues were $11,908,967 after deduction of all expenses of

Bonneville and Grand Coulee dams allocated to power and of the transmission system for operation, maintenance, administration, marketing, interest and depreciation. For the entire operating period, gross revenues of $188,884,711 have left net revenues of $54,644,061 after all expenses. These net revenues, together with interest of $49,177,451 included among the expenses repaid, represent a total return of $103,821,512 on the power investment.

Gross operating revenues of the Columbia River power system for fiscal year 1950 were $31,197,515, a gain of $3,376,486, or 12 per cent over the previous year. Energy sales totaled 13,032,173,000 kilowatt hours, resulting in average revenues of 2.36 mills per kilowatt hour. For the entire period of operations, revenues have averaged 2.44 mills per kilowatt hour.

public agency growth

In fiscal year 1950 for the first time since the inception of the Columbia River power system, sales to public agencies, including cooperatives, exceeded those to privately owned utilities. Sales to public agencies in 1950 were $8,409,428, an increase of $2,515,992, 43 per cent over the previous year. Sales to privately owned utilities in 1950 were $7,587,963. An important factor contributing to the increase in sales to public agencies in 1950 was the purchase by Snohomish County PUD No. 1 of the local distribution properties of Puget Sound Power & Light Co. Although the dollar volume of sales to public agencies in 1950 exceeded the amount for privately owned utilities, the reverse was true in the case of the number of kilowatt hours sold to these respective groups, the public agencies taking 2,840,529,000 kilowatt hours and privately owned systems taking 3,311,777,000 kilowatt hours. The private systems' facilities and operations enable them to take power at higher load factor and thus achieve a lower cost per kilowatt hour.

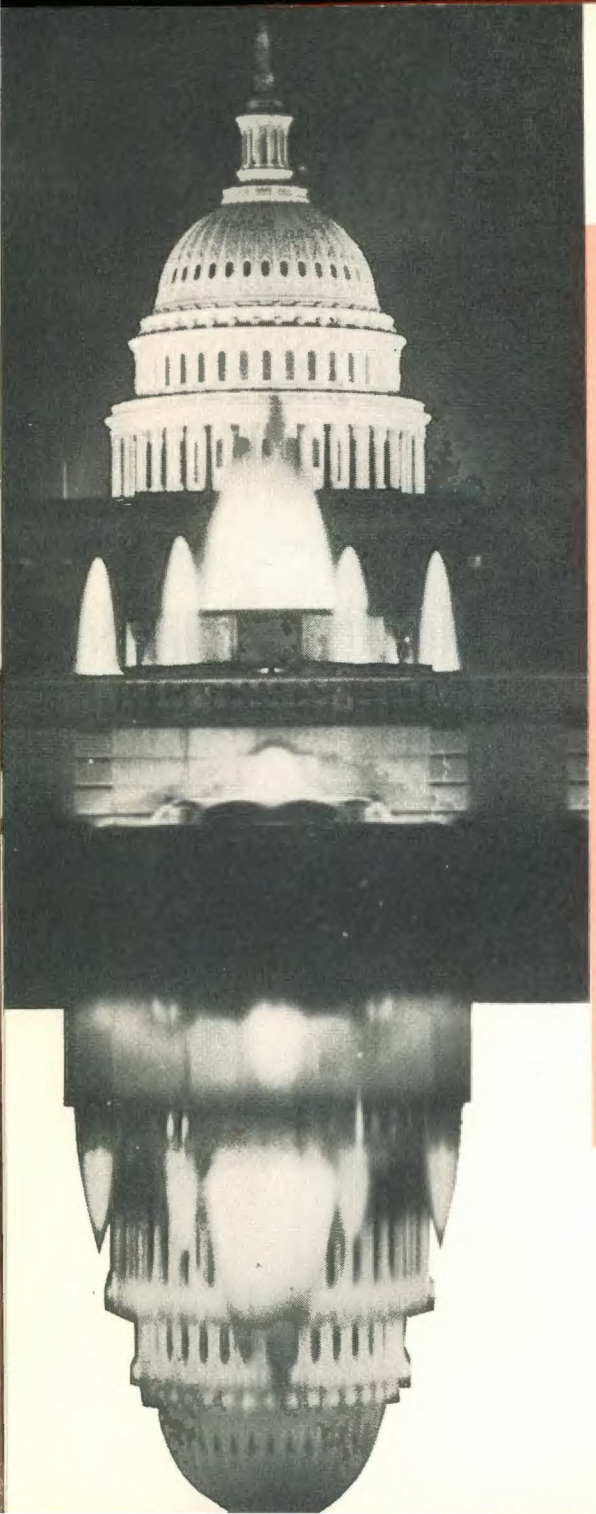


TABLE II

COLUMBIA RIVER POWER SYSTEM

SUMMARY OF PLANT ACCOUNTS AS OF JUNE 30, 1950

	Total	Allocation	
		Non-Power	Power
Bonneville Power Administration	$161,500,444		$161,500,444
Bonneville Dam	86,047,089	$ 27,023,275	59,023,814
Columbia Basin Project	360,905,952	170,703,918	190,202,034
Total	$608,453,485	$197,727,193	410,726,292 1/
Less Combined Reserve for Depreciation			33,357,494
Total Less Reserve			$377,368,798

1/ The total of plant investment represents the major component of the gross Federal investment of $521,766,747, as shown in Schedule I of the Auditors' report, which includes in addition amounts appropriated for cash working capital, materials and supplies, operating expenses and other similar items and non-appropriated items such as interest on Federal Investment.

REPAYMENT OF FEDERAL INVESTMENT

investment

Gross investment of the federal government in the Columbia River power system as of June 30, 1950 was $521,766,747, consisting of appropriations, WPA expenditures, etc., in the amount of $448,875,545, net transfers from other federal agencies in the amount of $2,439,097 and gross accumulated interest of $70,452,105. The gross investment includes amounts for current expenses of operation, maintenance, interest, etc., as well as amounts appropriated for construction costs. The detail of the interest figure of $70,452,105 is set forth in Table III.

receipts returned

Receipts from operations are returned to the Federal Treasury and are not available for use by the operating agencies to meet expenses or construction costs, with the exception of a minor amount made available in a continuing fund to meet emergencies and to assure continuous operations. Total cash receipts of the system to June 30, 1950 allocated to power were $179,938,906, of which $1,146,379 were placed in the continuing fund and the remaining $178,792,527 applied to repayment of the federal investment. The difference between cash receipts of $179,938,906 and accrued revenues of $188,884,711 is represented by accounts receivable, exchange power sales and miscellaneous items of a minor amount.

repayment

The gross repayment of $178,792,527 reduced the federal investment to a balance of $342,974,220 to be returned from future operations. This unpaid balance of the investment in the power system is substantially less than the depreciated plant account of $377,368,798 allocated to power and net power working capital and other assets of $20,249,483, indicating that the government has a substantial equity in the system as a result of repayment of the investment more rapidly than depreciation has

TABLE III

COLUMBIA RIVER POWER SYSTEM

Summary of Interest* on Federal Investment as of June 30, 1950

Interest during construction — to be returned during repayment period as part of the Federal Investment:		
Transmission system	$1,949,821.61	
Bonneville Dam	2,325,700.95	
Columbia Basin Project	9,061,973.44	
Subtotal		$13,337,496.00
Interest on costs of Columbia Basin Project allocated to future river regulation — to be returned as part of repayment of future downstream projects		7,937,157.92
Interest charged to operations — repaid currently:		
Transmission system	$15,698,708.62	
Bonneville Dam	13,842,255.04	
Columbia Basin Project	19,636,487.38	
Subtotal		49,177,451.04
Gross interest accumulation as per Schedule I of Auditors' report for 1950		$70,452,104.96

* Computed at the rate of 2-1/2% per year.

accrued. See Table II for a summary of the plant account.

The gross repayment of $178,792,527 has covered (1) current expenses for operation, maintenance, interest, etc., allocated to power, (2) $1,666,513 of the operation and maintenance expenses of Grand Coulee dam allocated to irrigation but repaid from power revenues, (3) approximately $3,480,658 of additional interest at Grand Coulee dam representing the excess of the agreed repayment of 3 per cent interest over the cost accounting rate of 2-1/2 per cent, (4) repayment of $66,953,316 of construction costs including replacements, and (5) an undistributed balance of $8,090,632 of cash receipts available for repayment of construction costs in 1951.

ahead of schedule

Repayment of $66,953,316 of capital costs, excluding the undistributed balance carried forward, is substantially in excess of requirements to meet the adopted 50 year payout plan in the case of the transmission system and Bonneville dam and the repayment schedule for the Columbia Basin project.

The repayment of transmission system capital costs, totaling $33,323,070, represents a repayment of approximately one-fifth of the total as of June 30, 1950, and is about 76 per cent more than required for the 50 year payout schedule.

The Bonneville dam capital repayment has totaled $15,262,842, representing nearly 26 per cent of the repayment obligation, despite the fact that only 12 per cent of the payout period has elapsed. At Bonneville dam the repayments are approximately 80 per cent in excess of scheduled requirements.

For the Columbia Basin project the capital repayment totaled $18,367,404, roughly 13 per cent of the repayable commercial power construction costs as of June 30, 1950. This repayment is materially in excess of the originally scheduled repayment of $5,367,101.

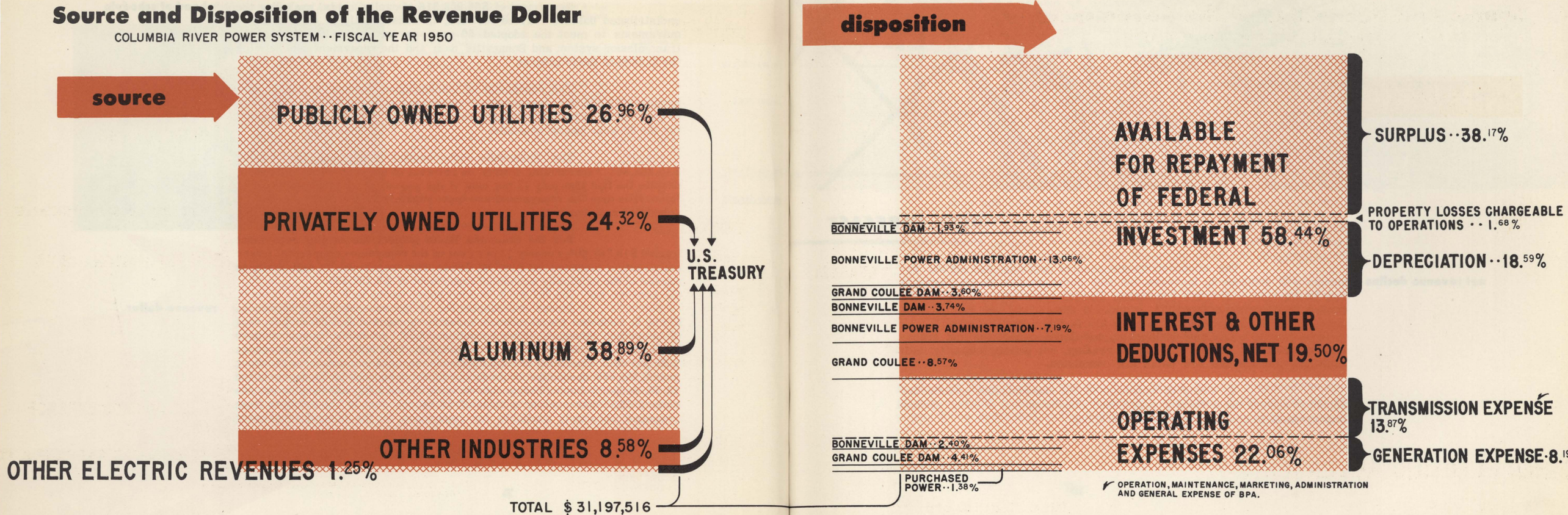
revenue dollar

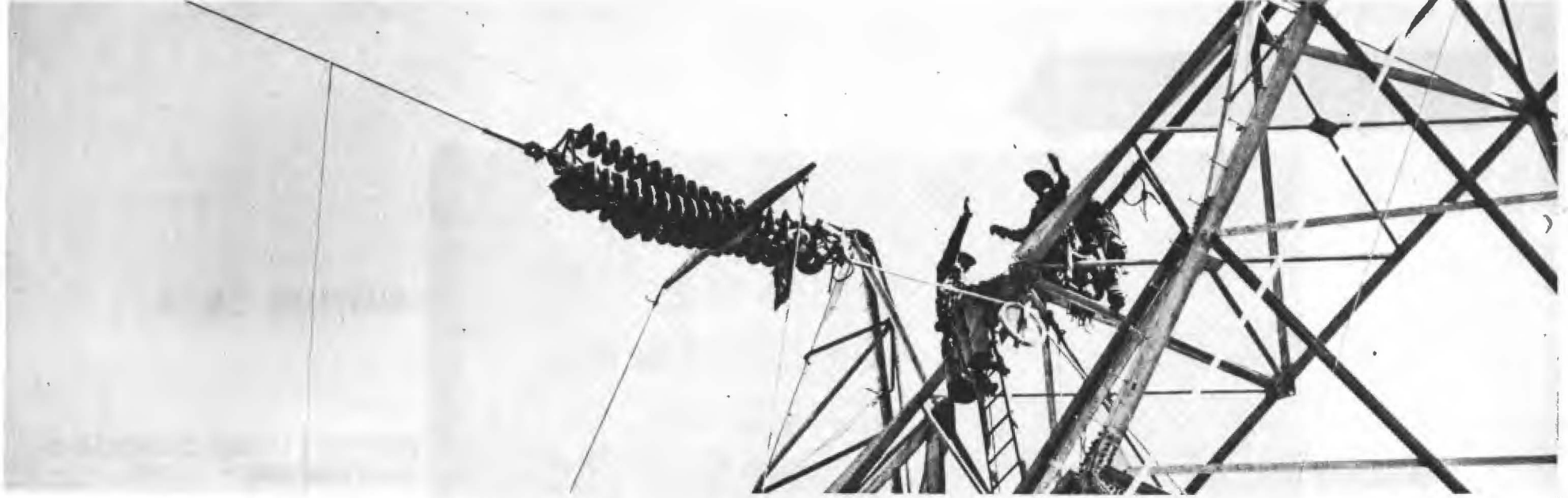
Source and disposition of the revenue dollar, shown in Chart I, indicates the aluminum industry accounted for 38.89 per cent of operating revenues, other industries 8.58, privately owned utilities 24.32, publicly owned utilities 26.96 per cent, and other electric revenues 1.25 per cent. Operating and maintenance expenses accounted for 22.06 per cent of the revenue dollar, interest and other deductions 19.50, depreciation 18.59, property losses chargeable to operations 1.68, and surplus net revenues 38.17 per cent or a total of 58.44 per cent of the receipts from revenues ultimately available for repayment of the federal investment.

CHART I

Source and Disposition of the Revenue Dollar

COLUMBIA RIVER POWER SYSTEM · · FISCAL YEAR 1950





RATE FORECAST

net revenue decline

The administration's studies indicate that gross revenues will continue to increase, but that some decline in net revenues may be expected in the next few years. Factors contributing to a probable decline in net revenues are:

1. Costs related to additional generation and transmission facilities which will supply peaking, not prime, capacity until additional storage and new dams are completed.

2. Costs of additions to the transmission system designed to relieve the presently overloaded conditions and to effect system improvement in communications and relaying.

3. Costs of additional generating and transmission facilities that will be only partially developed until several years later when the generating unit installations are completed at dams such as McNary that will have only a few of their units in service in the next few years.

basic rate adequate

Despite some probable decline in net revenues in the next few years, the forecast indicates that the present basic wholesale rate structure of $17.50 per kilowatt year is adequate, particularly in view of accumulated surplus, to meet the following repayment obligations, on the basis of present legal requirements:

1. All future repayment obligations assigned to power operations in the case of the two existing projects, the Bonneville dam and Columbia Basin project, and the Hungry Horse project, and related transmission facilities on the basis of the present payout agreements which provide, in the case of the Columbia Basin project, for extension of the repayment period to cover increases in estimated cost occurring since the preparation of the original plan of repayment.

2. Total annual repayment obligations in each of the next few years until December, 1954, the next rate adjustment date, including obligations to be met in connection with new dams and related transmission facilities, as well as the cost of existing projects.

In view of these findings, the Secretary of the Interior approved the application of the administration's present wholesale rates to the sale of power to be generated at the Hungry Horse Project.

SUMMARY OF OPERATIONS

TABLE IV

GENERATION AT BONNEVILLE AND GRAND COULEE PLANTS FOR BONNEVILLE POWER ADMINISTRATION, FISCAL YEARS 1939-1950
(Thousands of Kilowatt-hours)

Fiscal Years Ending June 30	Bonneville Generation	Grand Coulee Generation	Total Generation For BPA
1939	34,874	—	34,874
1940	308,426	—	308,426
1941	894,177	7,455	901,632
1942	1,807,309	741,844	2,549,153
1943	2,801,480	2,816,956	5,618,436
1944	3,488,874	5,750,950	9,239,824
1945	3,391,128	5,660,446	9,051,574
1946	2,674,834	3,561,329	6,236,163
1947	3,695,255	5,058,482	8,753,737
1948	3,991,860	6,894,047	10,885,907
1949	3,868,558	9,057,230	12,925,788
1950	3,689,309	10,451,524	14,140,833
Total	30,546,084	50,000,263	80,546,347

Turbine blades which capture the energy of falling water.

ENERGY PRODUCTION

reaches record

Electric energy produced at Bonneville and Grand Coulee power plants during fiscal year 1950 totaled over 14 billion kilowatt hours. The generation of energy by the U. S. Columbia River power system was about 10 per cent less than generation by the Tennessee Valley Authority, the only system in the United States, either publicly or privately owned, with generation larger than the Columbia River system.

over 50 per cent

The total generation of 14,140,833,500 kilowatt hours was an increase of 9 per cent over fiscal year 1949 and represented over 50 per cent of total power production in the Pacific Northwest region during the 12 month period.

Table IV, Generation at Bonneville and Grand Coulee Plants, shows energy production by years from the beginning of operations to the end of fiscal year 1950. The quarterly peak and average production for the same period of time is shown in Chart II together with the combined installed generation capacity. Maximum system demands during the last 4 years have continuously exceeded the nameplate rated generating capacity.

new system peak

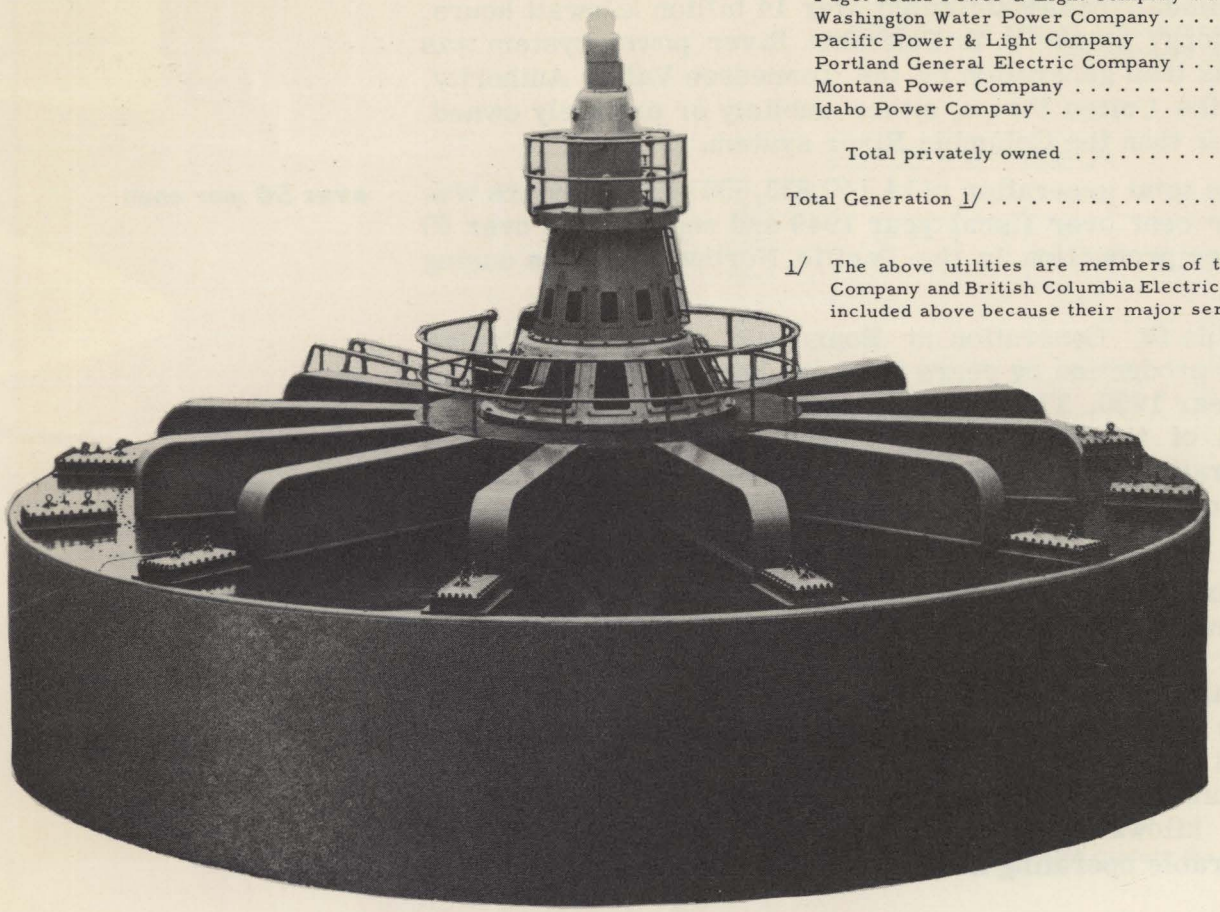
Maximum coincidental demand of the administration's system on the Bonneville and Grand Coulee plants was 2,106,000 kilowatts on January 4, 1950. This demand represents an increase of 17 per cent over the system peak during the preceding fiscal year. Installation of three new units was completed at Grand Coulee during the fiscal year, making a total of 13 units installed at that plant. Addition of these units brought the total installed generating capacity at the two Columbia River plants to 1,922,400 kilowatts nameplate rating, with safe continuous capability under favorable operating head conditions of 2,124,000 kilowatts.

TABLE V

GENERATION BY THE PRINCIPAL ELECTRIC UTILITY SYSTEMS OF THE PACIFIC NORTHWEST, FISCAL YEAR 1950

Utilities	Kilowatt-hours	Percent of Total Generation
Publicly owned:		
Bonneville Power Administration	14.1 billion	56.7%
Seattle City Light	1.1 "	4.4
Tacoma City Light	.8 "	3.2
Total publicly owned	16.0 "	64.3
Privately owned:		
Puget Sound Power & Light Company	1.7 "	6.8
Washington Water Power Company	1.3 "	5.2
Pacific Power & Light Company	.9 "	3.6
Portland General Electric Company	.7 "	2.8
Montana Power Company	2.8 "	11.3
Idaho Power Company	1.5 "	6.0
Total privately owned	8.9 "	35.7
Total Generation 1/	24.9 billion	100.0%

1/ The above utilities are members of the Northwest Power Pool. Utah Power & Light Company and British Columbia Electric Company are also members of the Pool, but are not included above because their major service areas lie outside the Pacific Northwest region.



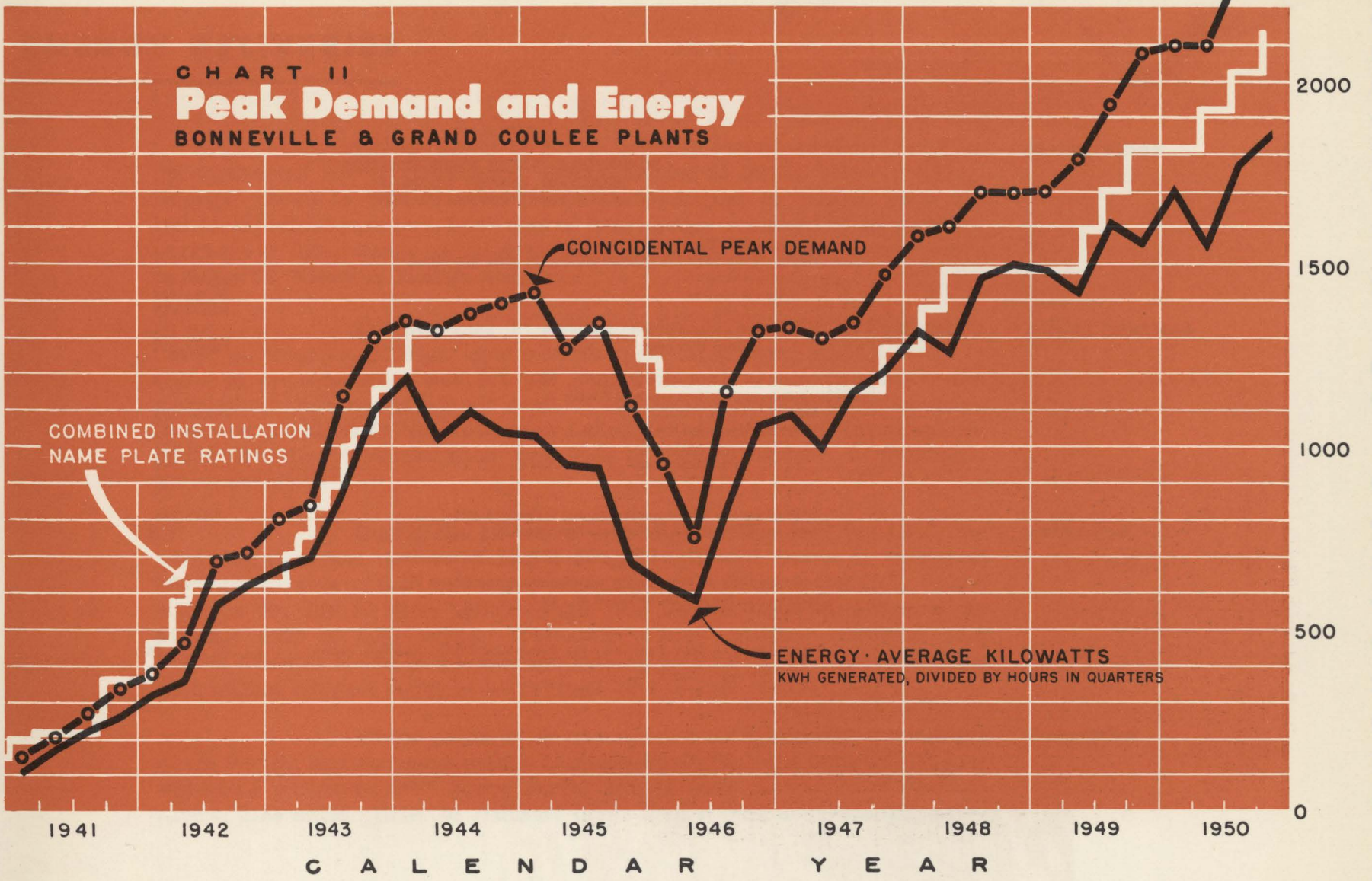
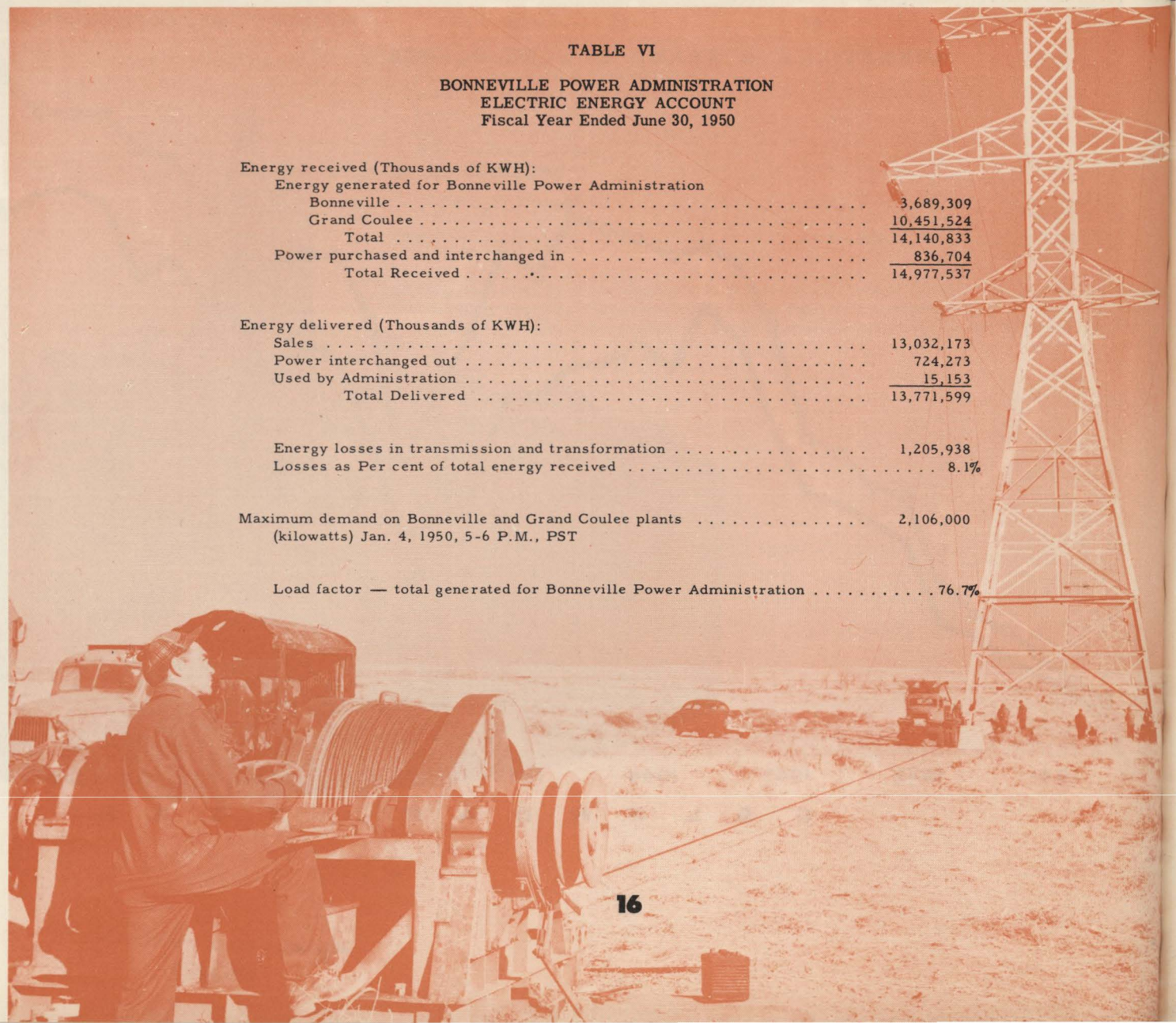


TABLE VI

BONNEVILLE POWER ADMINISTRATION
ELECTRIC ENERGY ACCOUNT
Fiscal Year Ended June 30, 1950

Energy received (Thousands of KWH):	
Energy generated for Bonneville Power Administration	
Bonneville	3,689,309
Grand Coulee	10,451,524
Total	14,140,833
Power purchased and interchanged in	836,704
Total Received	14,977,537
Energy delivered (Thousands of KWH):	
Sales	13,032,173
Power interchanged out	724,273
Used by Administration	15,153
Total Delivered	13,771,599
Energy losses in transmission and transformation	1,205,938
Losses as Per cent of total energy received	8.1%
Maximum demand on Bonneville and Grand Coulee plants (kilowatts) Jan. 4, 1950, 5-6 P.M., PST	2,106,000
Load factor — total generated for Bonneville Power Administration	76.7%



ENERGY DELIVERIES

record sales

Energy sales by the Bonneville Power Administration to its customers during fiscal year 1950 exceeded 13 billion kilowatt hours. Energy losses in transmission and transformation of power were 1.2 billion kilowatt hours or 8.1 per cent of total energy received by generation, purchase or interchange. A summary of total energy receipts and deliveries in Table VI, Electric Energy Account.

utility increase

The increase in energy sales to publicly and privately owned utilities was 13.6 per cent over the preceding year. The increase in sales to all industries was 5.1 per cent with an increase in sales to the aluminum industries of 3.5 per cent. A substantial portion of the increase in power supplied to the aluminum industries represented interruptible power that the administration was able to supply because of favorable water conditions.

rates low

During the 12 years' operation ending June 30, 1950, the administration has delivered 75,353,895,000 kilowatt hours of energy at a composite rate of 2.44 mills per kilowatt hour. Sales to publicly owned utilities for the 12 year period were 10.3 billion kilowatt hours at an average rate of 2.81 mills. Privately owned utilities received 19.3 billion kilowatt hours at an average rate of 2.41 mills, and all industries 45.8 billion kilowatt hours at an average rate of 2.37 mills.

industries

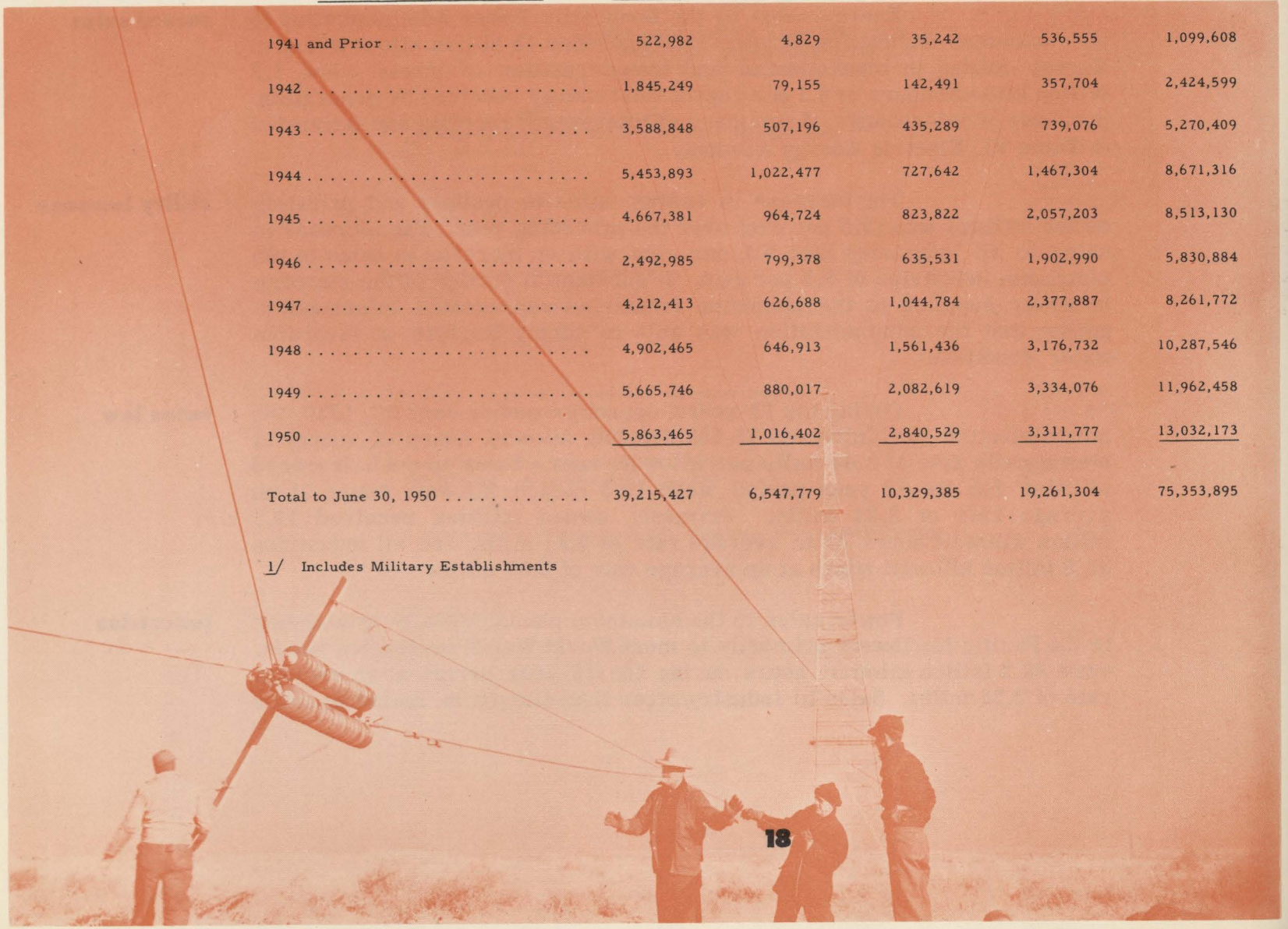
Power sales to the aluminum plants, initially established in the Pacific Northwest primarily to meet World War II production needs, were 39.2 billion kilowatt hours during the 12 year period at an average rate of 2.23 mills. Sales to industry other than aluminum, including sales

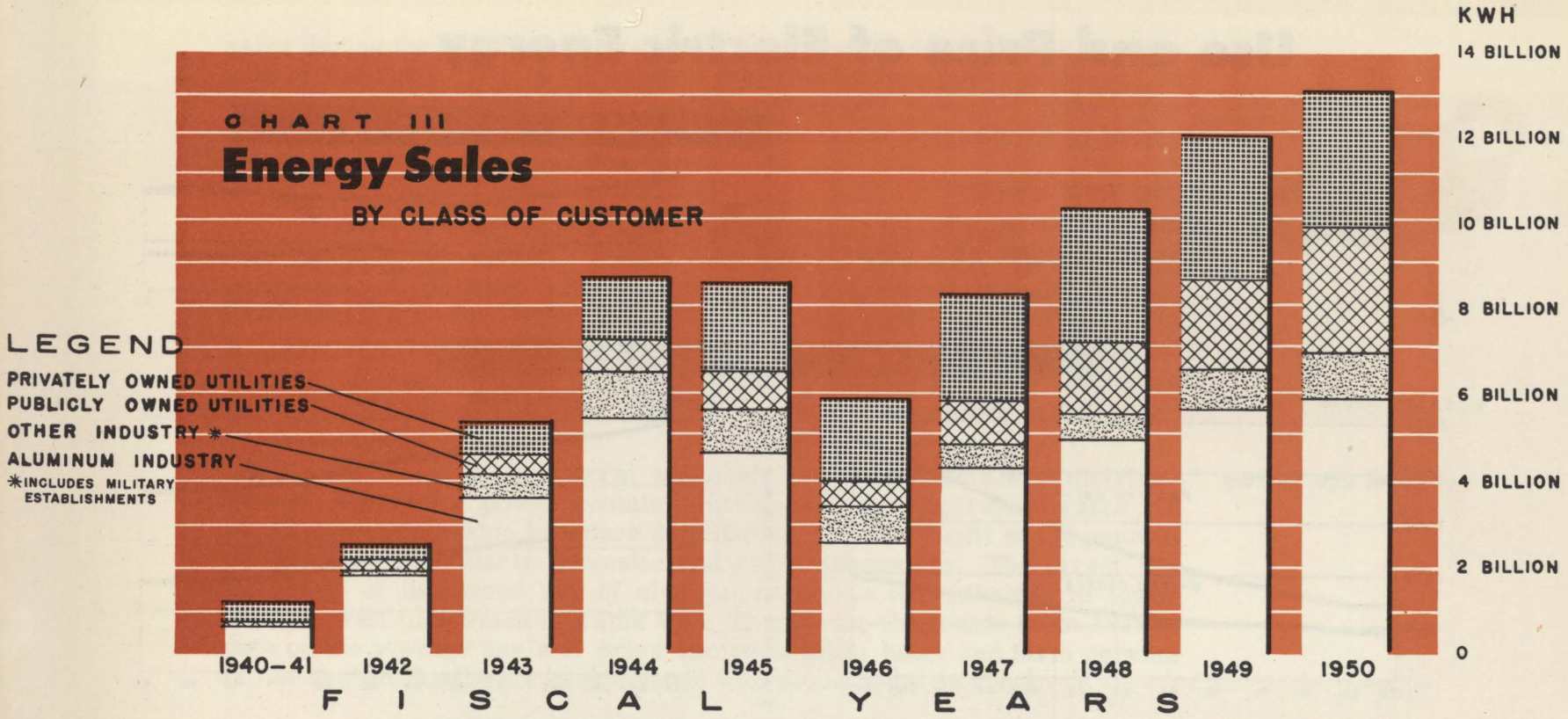
TABLE VII

ELECTRIC ENERGY SALES BY CLASS OF CUSTOMER
Fiscal Years 1939-1950
(Thousands of Kilowatt-hours)

Fiscal Years Ending June 30	Industry		Publicly Owned Utilities	Privately Owned Utilities	Total
	Aluminum	Other Industry 1/			
1941 and Prior	522,982	4,829	35,242	536,555	1,099,608
1942	1,845,249	79,155	142,491	357,704	2,424,599
1943	3,588,848	507,196	435,289	739,076	5,270,409
1944	5,453,893	1,022,477	727,642	1,467,304	8,671,316
1945	4,667,381	964,724	823,822	2,057,203	8,513,130
1946	2,492,985	799,378	635,531	1,902,990	5,830,884
1947	4,212,413	626,688	1,044,784	2,377,887	8,261,772
1948	4,902,465	646,913	1,561,436	3,176,732	10,287,546
1949	5,665,746	880,017	2,082,619	3,334,076	11,962,458
1950	5,863,465	1,016,402	2,840,529	3,311,777	13,032,173
Total to June 30, 1950	39,215,427	6,547,779	10,329,385	19,261,304	75,353,895

1/ Includes Military Establishments





to military establishments, were 6.6 billion kilowatt hours at an average rate of 3.22 mills.

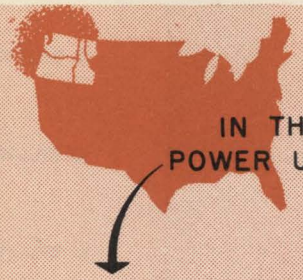
sales data

Revenues from electric energy sales by class of customer for each of the years are shown in Table I. Kilowatt hour sales by class of customer are shown in Table VII. Approximately three-fourths of energy

CHART IV

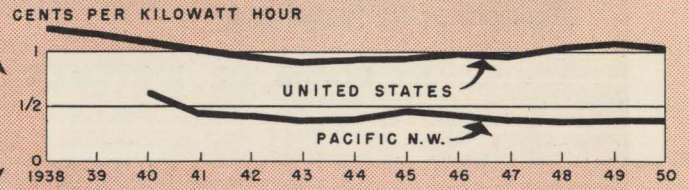
PACIFIC NORTHWEST & THE UNITED STATES

Use and Price of Electric Energy

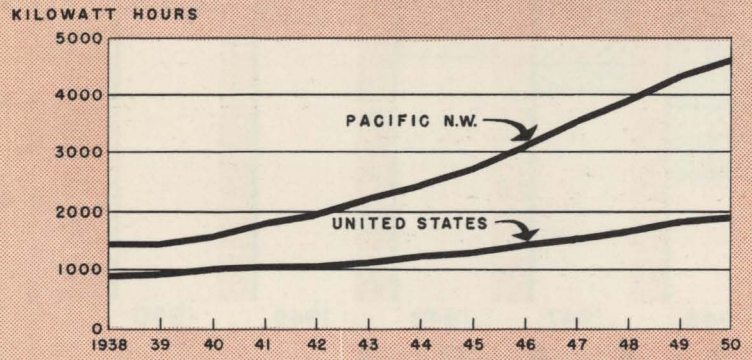


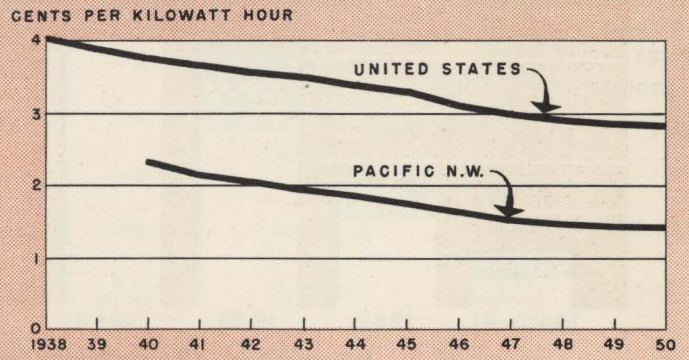
IN THE PACIFIC NORTHWEST
POWER USE IS GREATER · · · · ·
POWER PRICES ARE LOWER

LARGE INDUSTRIES

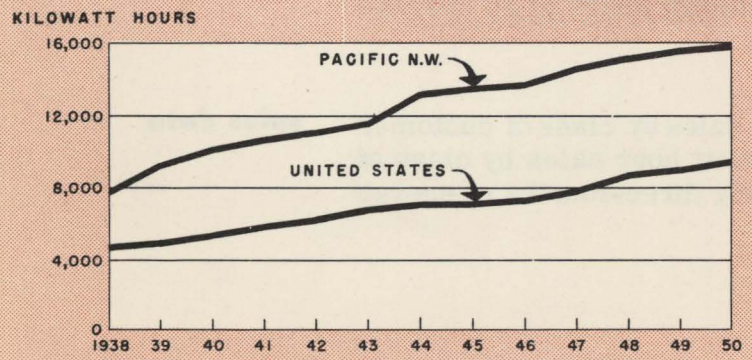


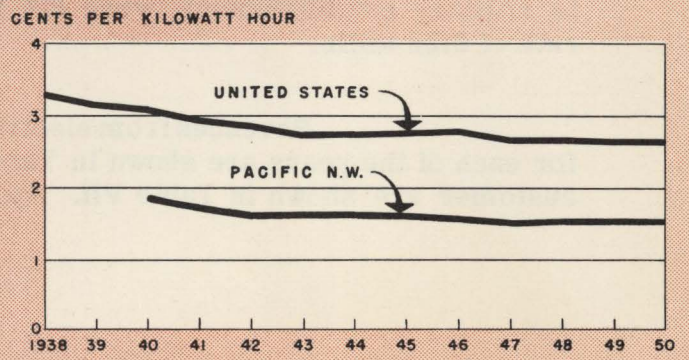
FARMS AND HOMES





STORES AND SMALL INDUSTRIES





DATA: EDISON ELECTRIC INSTITUTE
1950 VALUES ESTIMATED BY BPA

sales during the fiscal year were made under the "C" schedule, at an average rate of 2.16 mills. This is the kilowatt year rate for firm power delivered at any point from the transmission system. Sales are generally made under this rate to industries operating at high load factor and to utilities having substantial generating facilities.

new customers

Customers served at the end of fiscal year 1950 totaled 103, including 73 publicly owned distributors of power, 19 industrial customers, 4 military establishments and 7 privately owned utilities. Nine customers were added during the year—2 public utility districts, 3 cooperatives, 1 state institution, 1 privately owned utility and 2 industries. Service to 2 industries was discontinued during the year. Energy deliveries during the fiscal year to each individual customer are shown in Table IX.

power use increase

All long term wholesale power contracts with distributors of Bonneville power contain provisions regarding resale rates and principles of operation to insure distribution for the benefit of the general public, and particularly domestic and rural consumers. The direct relationship of increased use of electric energy to the influence of lower rates is well illustrated in Table VIII. This shows the trends from 1938 to date on the average use and price for residential home and farm service in the Pacific Northwest as compared with the national average.

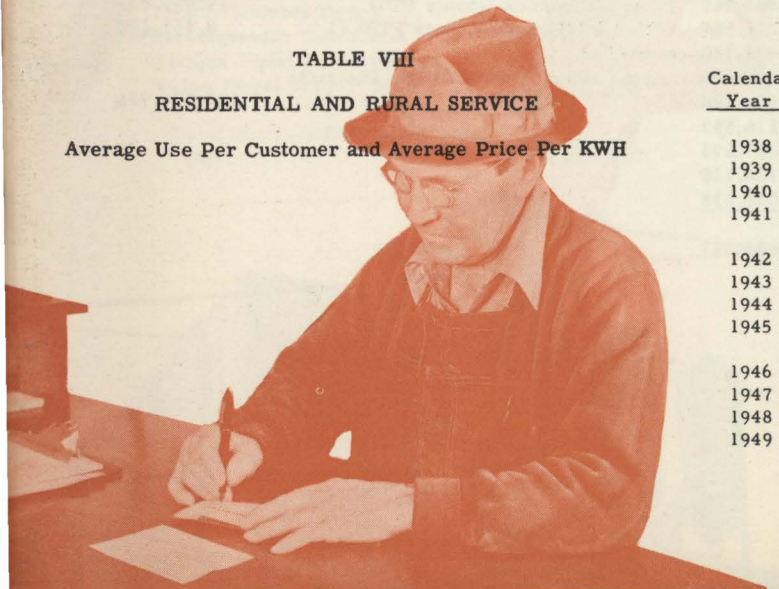


TABLE VIII

RESIDENTIAL AND RURAL SERVICE

Average Use Per Customer and Average Price Per KWH

Calendar Year	Kilowatt-hours Per Customer		Price Per Kilowatt-hour	
	U. S. Total	Oregon and Washington	U. S. Total	Oregon and Washington
1938	902	1,410	4.02	2.65 1/
1939	953	1,467	3.87	2.55 1/
1940	1,006	1,589	3.74	2.27
1941	1,044	1,776	3.65	2.08
1942	1,088	2,024	3.57	1.94
1943	1,135	2,279	3.50	1.84
1944	1,225	2,504	3.41	1.74
1945	1,305	2,801	3.32	1.69
1946	1,418	3,219	3.13	1.58
1947	1,546	3,696	3.00	1.49
1948	1,674	4,160	2.92	1.41
1949	1,806	4,503	2.87	1.38

Source: Edison Electric Institute.

1/ Partially estimated from State Commission data.

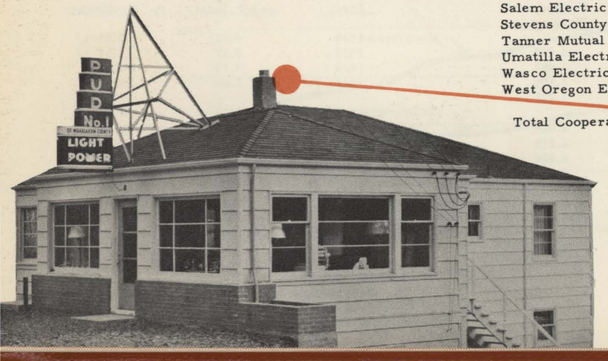
TABLE IX

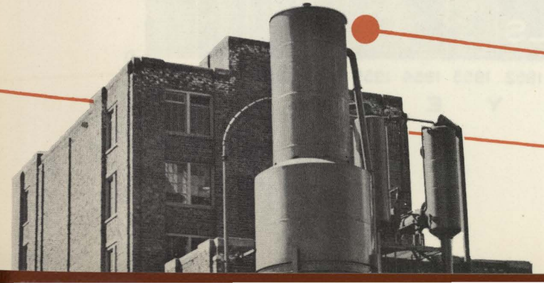
ENERGY DELIVERIES TO CUSTOMERS OF THE BONNEVILLE POWER ADMINISTRATION

Fiscal Year Ended June 30, 1950

Customers	Energy Deliveries For Year 1/ Kilowatt Hours
Publicly Owned Utilities	
Municipalities	
Bandon, Oregon	3,356,880
Canby, Oregon	6,472,800
Cascade Locks, Oregon	6,940,800
Centralia, Washington	2,700,410
Cheney, Washington	9,185,300
Drain, Oregon	6,084,000
Ellensburg, Washington	15,968,975
Eugene, Oregon	62,099,130
Forest Grove, Oregon	22,560,000
Grand Coulee, Washington	22,221,600
McMinnville, Oregon	35,543,000
Milton, Oregon	8,907,600
Monmouth, Oregon	6,822,024
Seattle, Washington	230,574,000
Tacoma, Washington	441,179,000
Total Municipalities (15)	880,615,519
Cooperatives	
Benton-Lincoln Electric Coop.	27,164,876
Benton Rural Electric Assn.	16,020,891
Big Bend Electric Coop.	8,728,349
Blachly-Lane County Elec. Coop.	3,765,600
Central Electric Cooperative	4,955,220
Chelan County Elec. Coop.	462,960
Clearwater Valley L & P Assn.	16,560,150
Columbia Basin Elec. Coop.	649,800
Columbia County REA	8,068,050
Coos-Curry Electric Coop.	5,289,000
Douglas Electric Cooperative	13,817,464
Eastern Oregon Elec. Coop.	300,600
Hood River Electric Coop.	7,972,800
Idaho County L & P Assn.	3,445,450
Inland Empire REA	35,282,100
Kootenai County REA	6,615,410
Lane County Electric Coop.	12,691,404
Lincoln Electric Cooperative	10,004,860
Missoula Electric Cooperative	487,733
Nespelem Valley Elec. Coop.	4,518,299
N.E. Clackamas Elec. Coop.	1,145,300
Northern Lights	4,892,700
Okanogan County Elec. Coop.	1,808,360
Pend Oreille Electric Coop.	3,216,987
Ravalli County Elec. Coop.	532,140
Salem Electric	20,116,600
Stevens County Elec. Coop.	7,631,484
Tanner Mutual P & L Assn.	216,553
Umatilla Electric Cooperative	12,067,673
Wasco Electric Cooperative	13,168,146
West Oregon Elec. Coop.	8,036,538
Total Cooperatives (31)	259,633,497
Public Utility Districts	
Benton County PUD #1	57,044,799
Central Lincoln PUD	49,231,087
Chelan County PUD #1	129,920,120
Clallam County PUD #1	51,691,581
Clark County PUD #1	261,211,415
Clatskanie PUD	8,067,600
Cowlitz County PUD #1	219,606,227
Douglas County PUD #1	10,160,700
Ferry County PUD #1	100,095
Franklin County PUD #1	42,216,920
Grant County PUD #2	82,707,527
Gray's Harbor County PUD #1	146,405,600
Kittitas County PUD #1	3,799,200
Klickitat County PUD #1	28,089,000
Lewis County PUD #1	71,404,026
Mason County PUD #3	55,391,160
Northern Wasco County PUD	3,197,400
Okanogan County PUD #1	57,474,786
Pacific County PUD #2	40,586,843
Pend Oreille County PUD #1	24,757,315
Skamania County PUD #1	13,710,600
Snohomish County PUD #1	307,402,488
Tillamook County PUD	14,807,237
Wahkiakum County PUD #1	8,551,200
Total Public Utility Districts (24)	1,687,534,926
Other	
Oregon State College	1,809,600
Vanport Extension Center	372,367
Vera Irrigation District #15	10,563,000
Total Other (3)	12,744,967
Total Publicly Owned Utilities	2,840,528,909
Privately Owned Utilities	
British Columbia Elec.Ry. Co.	—
Mt. States Power Company	143,823,719
Pacific P & L Co. - Astoria	71,425,000
Portland Gen. Elec. Co.	1,083,384,000
Puget Sound P & L Co.	576,698,741
WWP Co. - Kootenay Lake	116,160,000
WWP-PP & L Companies	838,928,000
Five-Company Pool	481,357,518
Total Privately Owned Utilities (7)	3,311,776,978
Military Establishments	
Pasco General Depot	1,335,600
Strategic Air Command	11,072,000
Tongue Point Naval Station	15,899,607
Velox Naval Supply Depot	3,945,600
Total Military Establishments (4)	32,252,807
Industries	
Aluminum	
Aluminum Co. of America	1,463,237,200
Kaiser Alum. & Chem. Corp.	
Spokane Alum. Fab.	210,540,000
Spokane Alum. Red.	1,966,210,000
Tacoma Alum. Red.	435,790,000
Reynolds Metals Company	
Longview	554,328,000
Troutdale	1,233,360,000
Other	
Carborundum Company	45,137,000
Crown Zellerbach Corp.	38,545,400
Electro-Metallurgical Co.	77,740,000
Pacific Carbide & Alloys	23,012,650
Pennsylvania Salt Mfg. Co.	94,104,800
Rayonier Corporation	13,501,000
Miscellaneous (9)	692,108,720
Total Industries (21)	6,847,614,770
Total Sales of Electric Energy (104)	13,032,173,464

1/ Includes energy deliveries carried on exchange accounts.





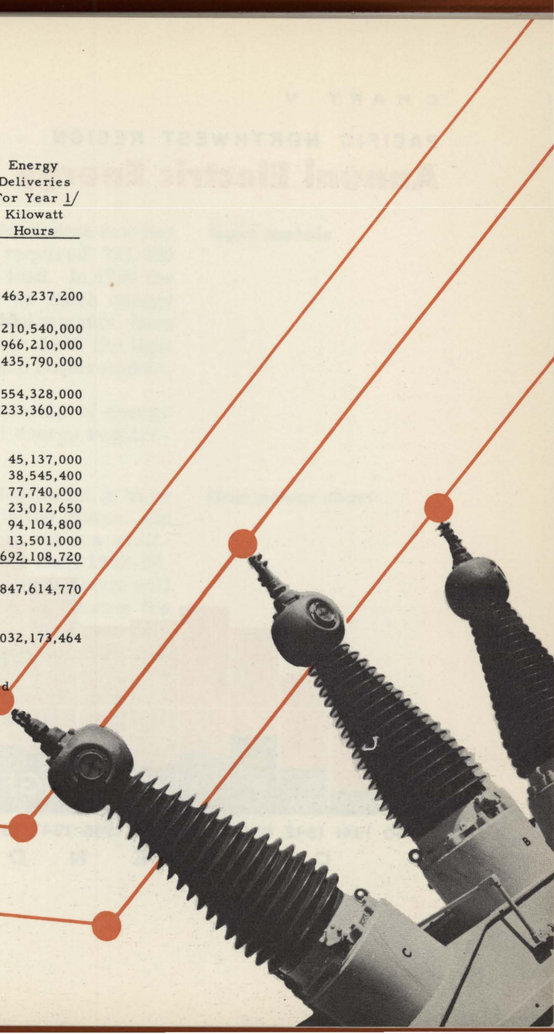
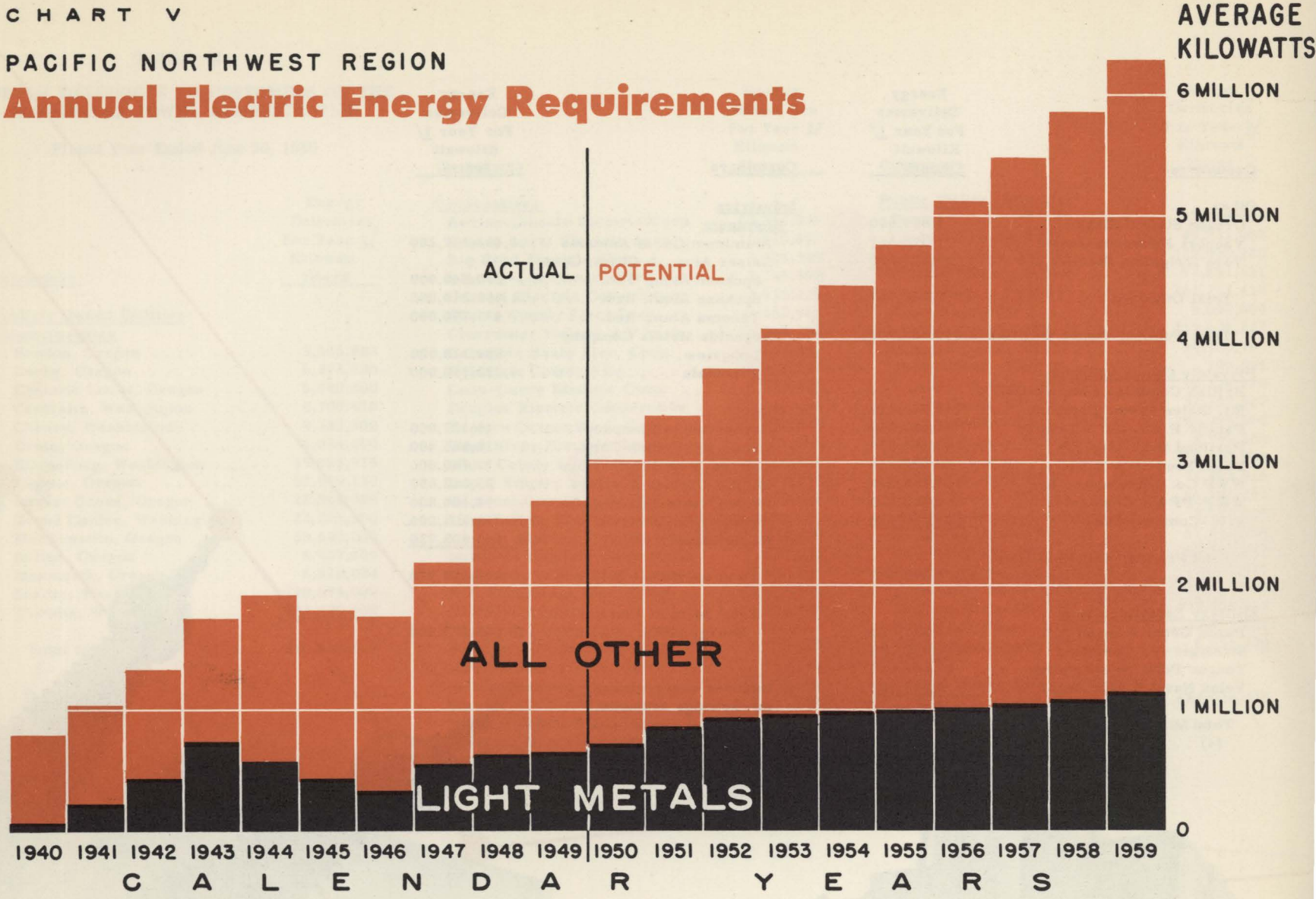


CHART V

PACIFIC NORTHWEST REGION

Annual Electric Energy Requirements



ENERGY REQUIREMENTS

light metals

Light metals production in the Pacific Northwest reached its wartime peak in 1943. In that year the industry required 721,000 average kilowatts, or 41.5 per cent of the total regional load. In 1950 the industry will require 700,000 average kilowatts, nearly as much energy as in 1943. But in the meantime the total regional requirements have grown from 1,738,000 to 3,020,000 average kilowatts. In 1950 the light metals industry will require only 23 per cent of the regional requirements.

The opposite chart indicates the relationship of energy requirements of the light metals industry to total regional energy requirements.

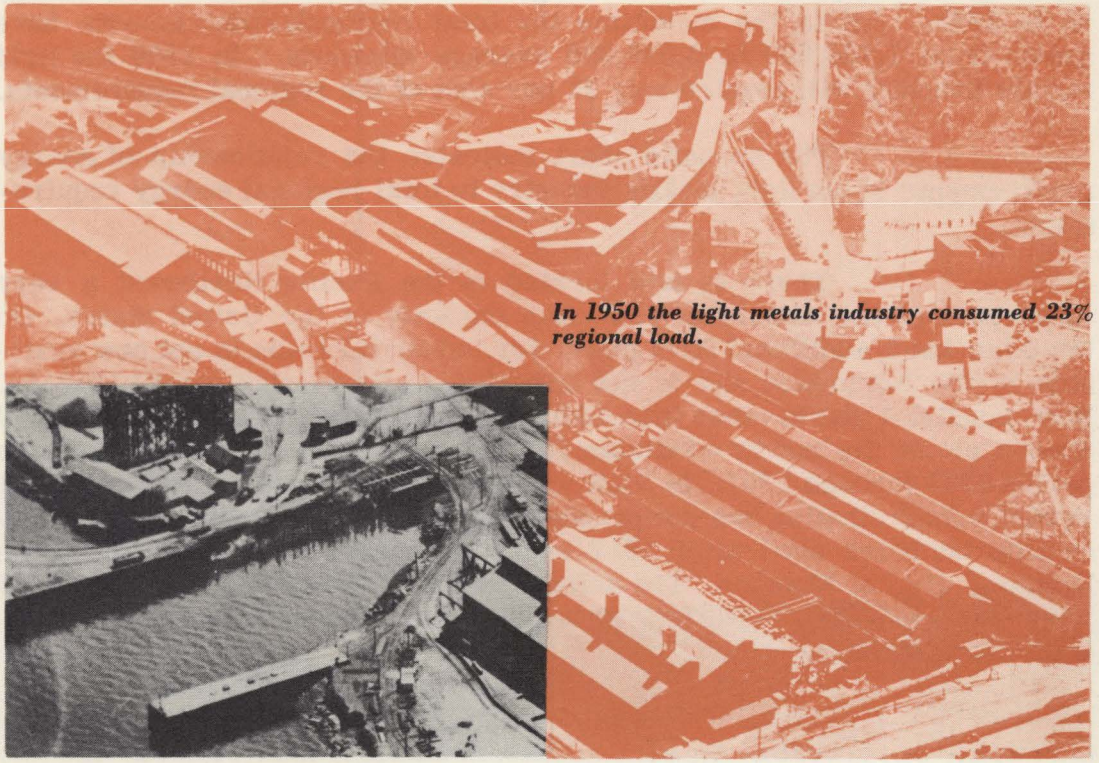
firm power short

There is now located in the Pacific Northwest a very large part of the aluminum reduction capacity of the United States. On the other hand, additional firm power for industrial loads is not now available in the Northwest and is not expected to be available until 1953-54. New industrial plants other than additional industrial aluminum plants will absorb all of the power available for industry in the region during the period 1953 through 1957. In view of these circumstances the Bonneville Power Administration has not proposed to serve additional aluminum reduction facilities until after 1957 except for three new pot lines in the Kalispell area of Montana. The defense needs of the country for additional aluminum reduction facilities, however, may reverse this policy of the administration at any time.

diversification

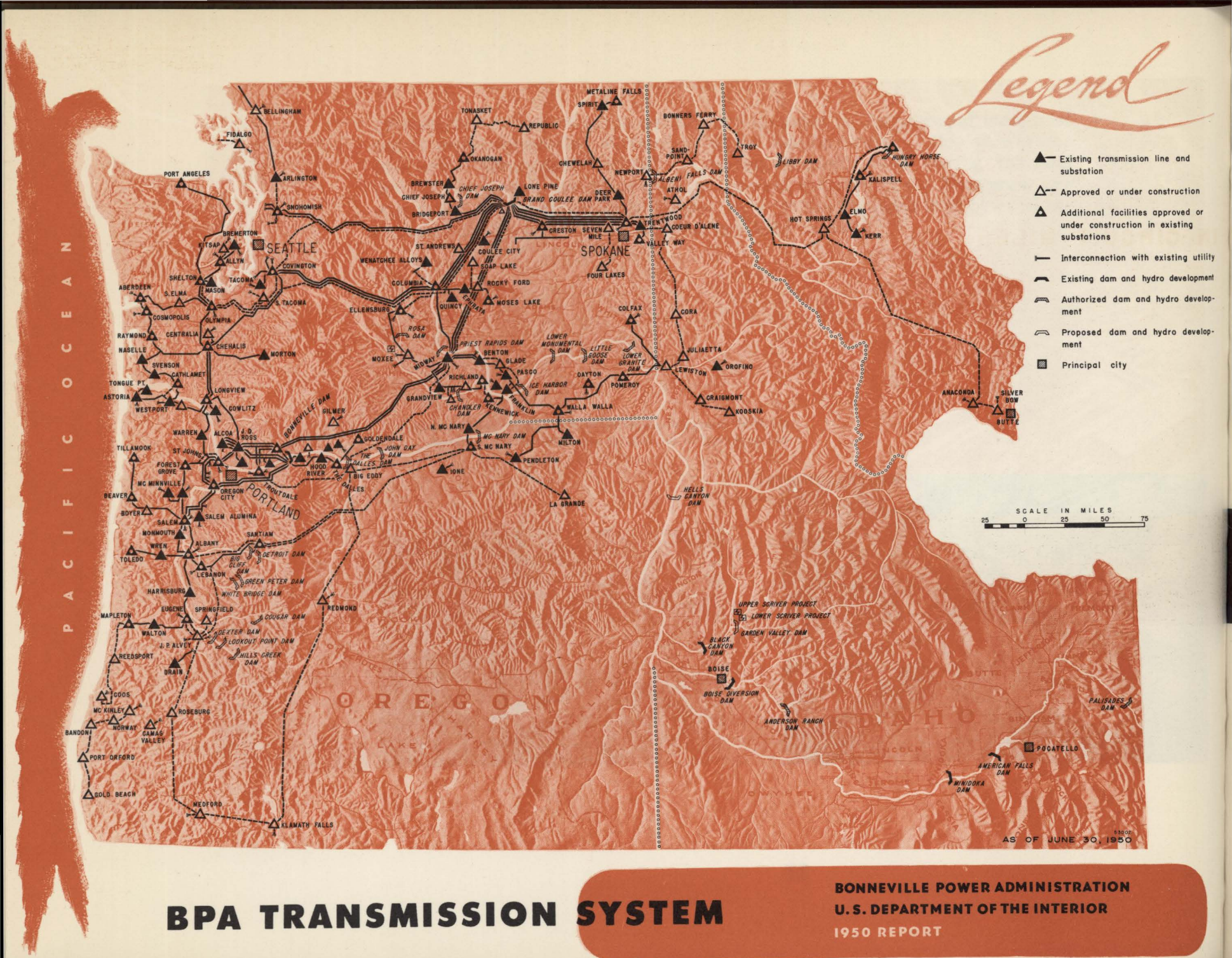
On the other hand, additional magnesium production in the Pacific Northwest along with additional aluminum fabrication and the

production of alumina from bauxite are included in the potential industrial power requirements as estimated by the administration. Due to greater industrial diversification and increased domestic use during the next decade, the requirements of the light metals industry in the Northwest are estimated to represent only 18 per cent of the regional load by 1959, as compared with the 23 per cent of the load in 1950.



In 1950 the light metals industry consumed 23% of the regional load.

By 1959 energy requirements of the light metals industry are expected to be 18% of the regional energy load.



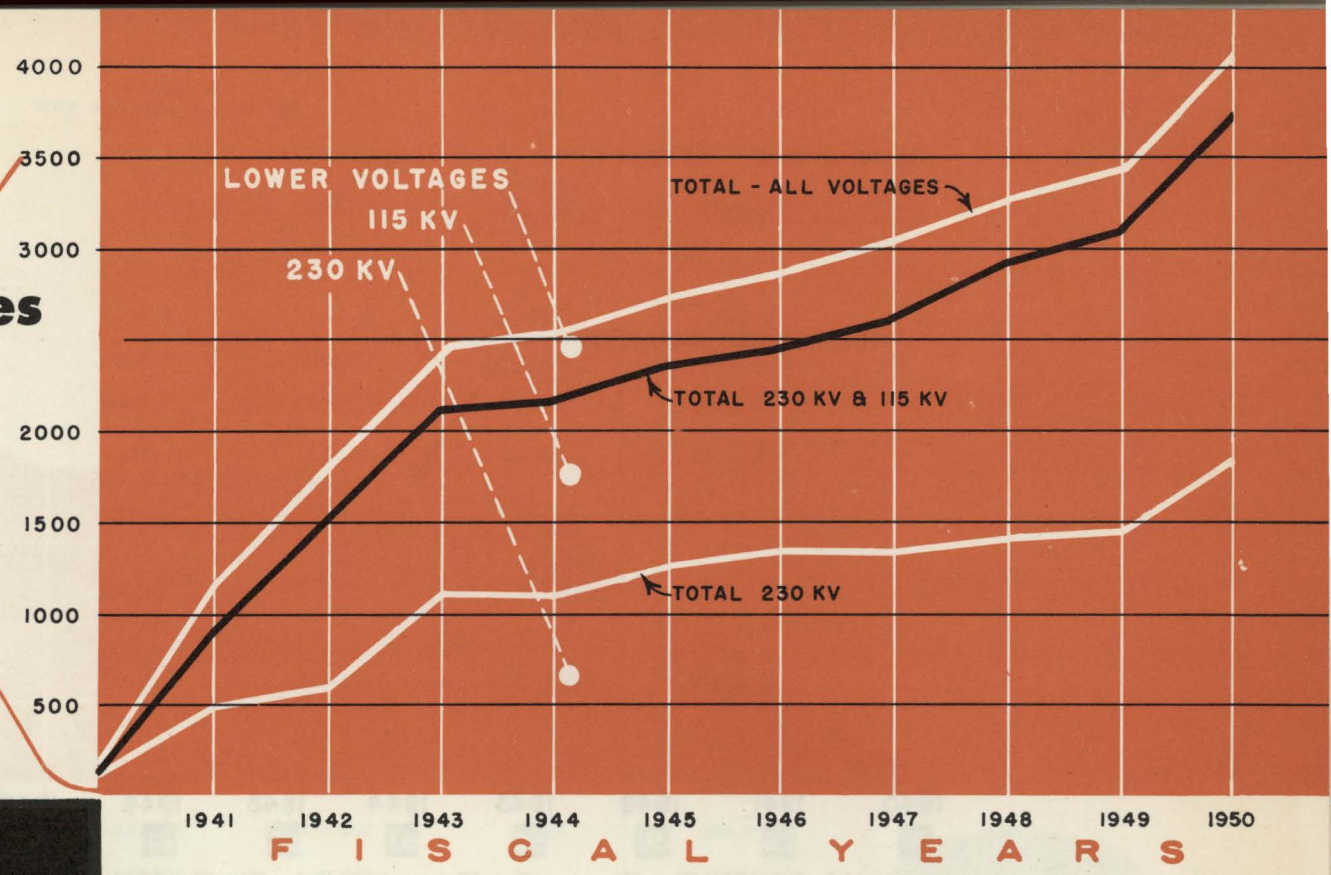
BPA TRANSMISSION SYSTEM

BONNEVILLE POWER ADMINISTRATION
U.S. DEPARTMENT OF THE INTERIOR
1950 REPORT

CHART VI

Transmission Lines

IN CIRCUIT MILES



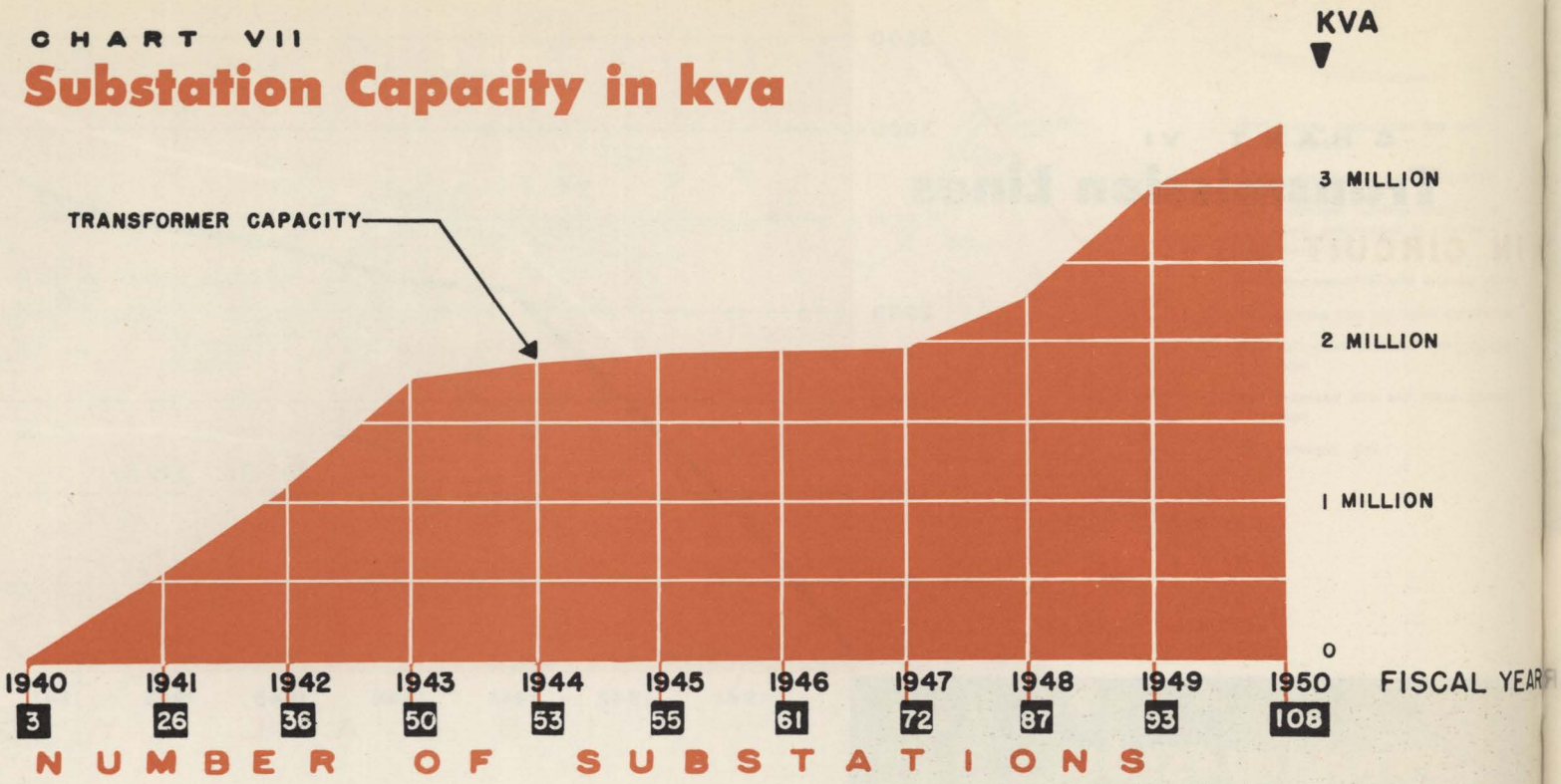
TRANSMISSION

system network

High voltage additions to the system network during the year increased transmission line circuit miles by 630 and added 15 new substations. As a result, the U. S. Columbia River high voltage transmission network serving Washington, Oregon, northern Idaho and western Montana today is the largest in the nation. At the end of the fiscal year

CHART VII

Substation Capacity in kva



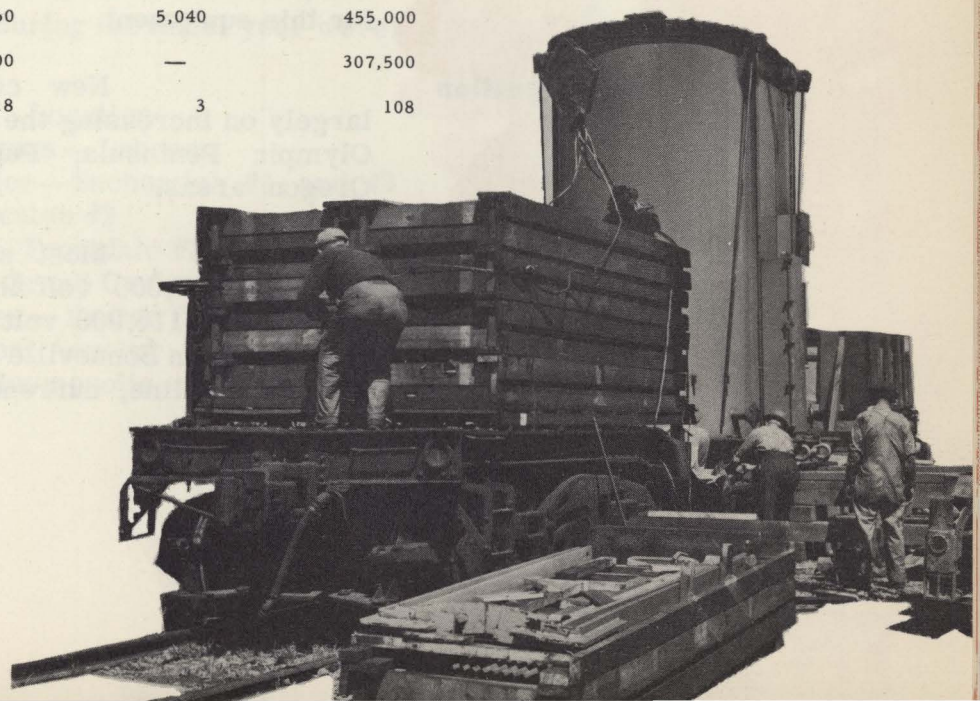
the administration had 4040 circuit miles of transmission line including 1,823 miles of 230,000 volt, 1,913 miles of 115,000 volt and 304 miles of lower voltage transmission lines. Substations totaled 108 with a transformer capacity of 2,765,975 kilovolt-amperes under self cooled conditions and 3,389,808 when force cooled. Capacity was increased during the year by 308,200 kilovolt-amperes.

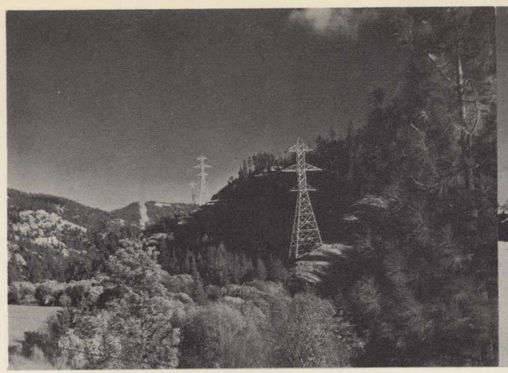
TABLE X
BPA SYSTEM ADDITIONS

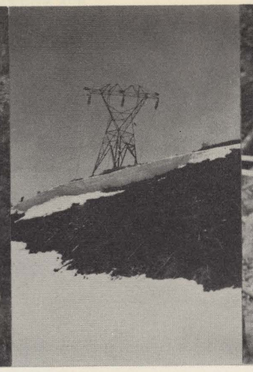
	230 KV	115 KV	Under 115 KV	Total
Transmission Lines (Circuit Miles):				
Placed in Operation 1950 F.Y.	387.0	243.5	-41.5	589.0
In Operation June 30, 1949	1436.2	1669.7	341.7	3447.6
Total Operated June 30, 1950	1823.2	1913.2	300.2	4036.6
Leased to Others	—	—	3.4	3.4
Grand Total June 30, 1950	1823.2	1913.2	303.6	4040.0

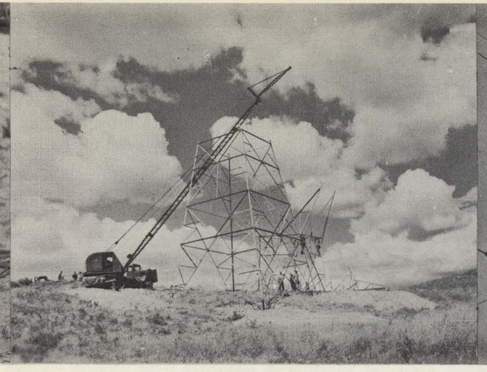
	Installed at End of 1949 F.Y.	F.Y. 1950 Added	F.Y. 1950 Removed	Installed at End of 1950 F.Y.
Substations Operated:				
Transformer Capacity Kva*	2,964,941	556,034	131,167	3,389,808
Static Capacitors Kva	337,480	122,560	5,040	455,000
Synchronous Condensers Kva	287,500	20,000	—	307,500
Number of Substations	93	18	3	108

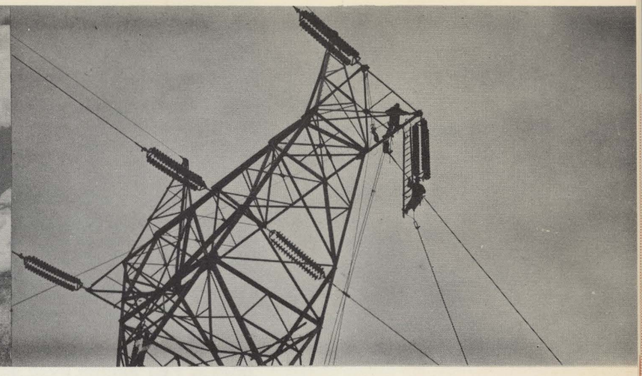
* Includes forced cooling but not temporary installations of portable fans.
Includes one 600 kva substation owned but operated by others.











new construction

Other important system additions included 117,520 kilovolt-amperes of static capacitors, bringing the total rating to 455,000, and a 20,000 kilovolt-ampere synchronous condenser, giving a 307,500 capacity for this equipment.

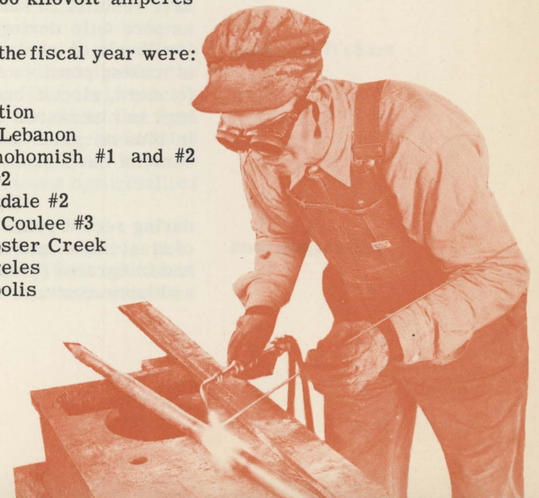
New construction during the year was concentrated largely on increasing the flow of energy to power short load centers of the Olympic Peninsula, Puget Sound, Portland-Vancouver and southwest Oregon areas.

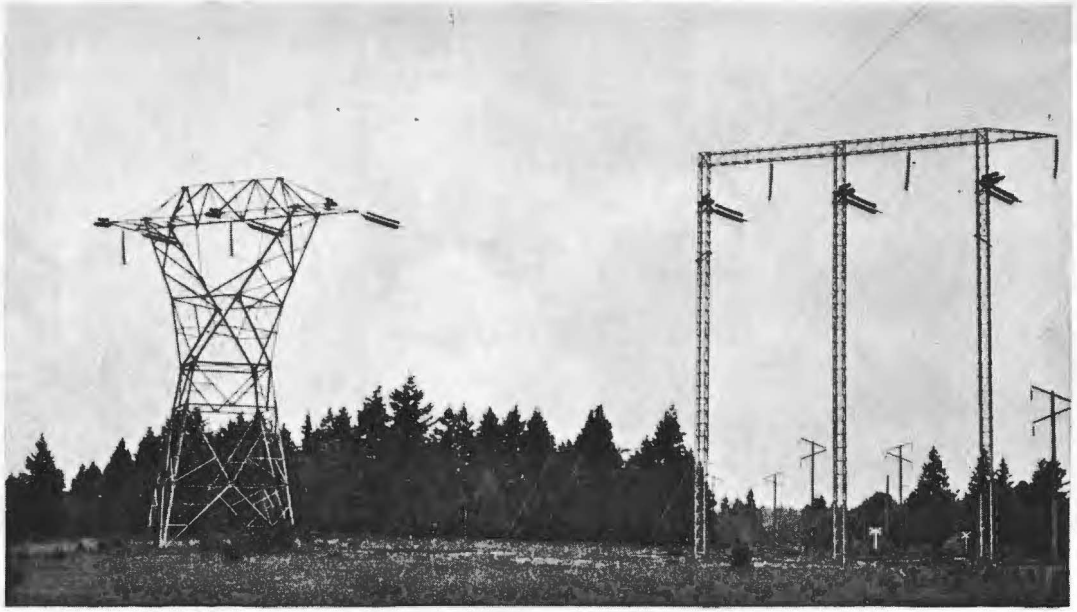
Most significant of the transmission lines completed were the 230,000 volt line from Grand Coulee dam to Snohomish substation, the 115,000 volt line from Shelton to Port Angeles, a 230,000 volt line from Bonneville dam to Troutdale, and the Detroit-Lyons-Lebanon 230,000 volt line, currently operated at 115,000 volts.

Largest single substation addition was a third transformer bank at Troutdale with a self-cooled capacity of 150,000 kilovolt-amperes and a force-cooled capacity of 250,000.

Principal facilities energized during the fiscal year were:

Date Energized	Structure Miles	KV	Location
9/1/49	44	230	Detroit—Lyons—Lebanon
10/21/49	136	230	Grand Coulee—Snohomish #1 and #2
12/7/49.	17	230	Midway—Benton #2
12/10/49	21	230	Bonneville—Troutdale #2
6/7/50	76	230	Columbia—Grand Coulee #3
9/25/49.	30	115	Grand Coulee—Foster Creek
10/31/49	82	115	Shelton—Port Angeles
2/23/50.	41	115	Olympia—Cosmopolis





New light weight angle tower construction (right) saves steel.

engineering advances

Engineering advances in system design and operation have resulted in substantially lowering costs of transmission per kilovolt-ampere mile during the past decade. Utility industry acceptance of new low levels of insulation requirements, pioneered by Bonneville engineers, is making possible savings of as much as 10 per cent in the cost of transformers, circuit breakers and other high voltage equipment. These savings and increased competition among equipment manufacturers resulted in bids as much as 50 per cent lower than 1947 and 1948 quotations on some of the items.

Development and use of light steel transmission towers during recent years has saved the administration over $4,000,000 in costs of steel alone, and together with improvements in high voltage equipment and integrated system operation has more than offset present high material and labor costs.

REGIONAL POWER SUPPLY

water conditions

Water conditions in the Pacific Northwest region during the winter of 1949-50 were very good for generation of hydroelectric energy. Except for two short periods of unusually cold weather, all requirements of the administration's customers were met including interruptible service to industrial plants and considerable deliveries to private utilities over contractual requirements. Although interruptible power to industrial plants was discontinued October 24, 1949, water conditions improved to the extent that it was possible to resume deliveries by December 9.

cold weather

Extremely cold weather in January and February greatly increased power requirements and decreased river flows. However, the power supply was affected seriously on only nine days during this period, when interruptible power had to be dropped at the time of daily peak loads. Since that time supplies of power have been adequate to meet all existing loads in the region.

power still short

Even though good water conditions made it possible to come through the 1949-50 winter season without serious curtailment, the region is still suffering from a continued power shortage that could quickly become critical if low water conditions should prevail. No additional firm power can be marketed in the area until after 1953-54 and many industries are being prevented from establishing new plants in the region or expanding present operations. Restricted employment and business opportunities will result until additional power is available.

new generation

The present federal program for new generation provides for a system of 35 hydroelectric plants by 1959. Three additional plants, Priest Rapids, John Day and The Dalles, are now authorized but

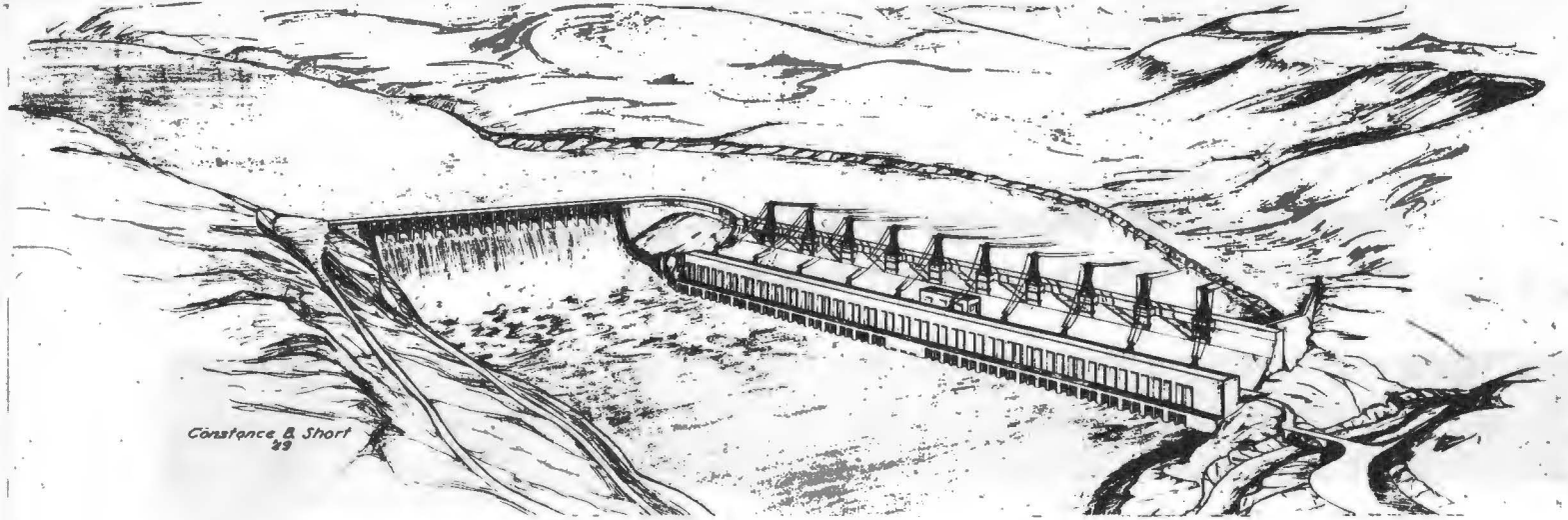
TABLE XI

FEDERAL HYDROELECTRIC PROJECTS IN THE COORDINATED CONSTRUCTION PROGRAM
EXISTING, AUTHORIZED, AND RECOMMENDED

Installations and Capabilities Correspond to a Coordinated System of Operation of all Plants

	Location	Plant Installations 1/ Kilowatts	Nominal Prime Power 2/ Average Kilowatts	Pool Elevation Feet	Usable Storage Acre-Feet	Average Head Feet	Principal Purposes
EXISTING PROJECTS							
Grand Coulee	Washington	1,944,000 3/	1,557,000 5/	1,288.0	5,212,000	330	Power, irrigation, navigation and flood control
Bonneville	Wash.-Ore.	518,400	476,000	72.0	—	60	Power and navigation
Minidoka	Idaho	13,400	6,000	4,245.0	95,200	49	Power and irrigation
Boise Diversion	Idaho	1,500	2,000	2,800.0	—	31	Power and irrigation
Black Canyon	Idaho	8,000	9,000	2,947.0	14,800	94	Power and irrigation
PROJECTS UNDER CONSTRUCTION							
Hungry Horse	Montana	285,000	187,000	3,559.0	2,980,000	377	Power, irrigation, navigation and flood control
Chief Joseph	Washington	1,152,000	792,000	937.5	—	171	Power, irrigation and navigation
McNary	Wash.-Ore.	980,000	617,000	340.0	—	87	Power, irrigation and navigation
Anderson Ranch	Idaho	40,500	21,000	4,196.0	464,200	260	Power, irrigation and flood control
Lookout Point (Meridian)	Oregon	115,000	36,000	929.0	368,000	228	Power, irrigation, navigation and flood control
Dexter	Oregon	15,000	12,000	695.0	—	53	Power
Detroit	Oregon	100,000	30,000	1,569.0	340,000	299	Power, irrigation, navigation and flood control
Big Cliff	Oregon	18,000	10,000	1,197.0	—	81	Power
Albeni Falls	Idaho	42,600	23,000	2,062.5	1,140,000	24	Power, navigation and flood control
AUTHORIZED PROJECTS							
Libby	Montana	588,000	244,000	2,440.0	4,250,000	300	Power, flood control and navigation
Priest Rapids	Washington	1,590,000	715,000	550.0	2,100,000	129	Power, navigation and flood control
John Day	Wash.-Ore.	1,275,000	715,000	255.0	2,000,000	95	Power, navigation, irrigation and flood control
The Dalles	Wash.-Ore.	980,000	687,000	160.0	—	88	Power, navigation and irrigation
Ice Harbor	Washington	260,000	204,000	440.0	—	93	Power, navigation and irrigation
Lower Monumental	Washington	240,000	194,000	533.0	—	89	Power, navigation and irrigation
Little Goose	Washington	260,000	209,000	633.0	—	96	Power and navigation
Lower Granite	Washington	220,000	170,000	715.0	—	77	Power and navigation
Hills Creek	Oregon	20,000	14,000	1,510.0	221,000	204	Power, navigation, flood control and irrigation
Cougar 4/	Oregon	25,000	15,000	1,683.0	182,000	418	Power, irrigation, navigation and flood control
Green Peter 4/	Oregon	81,000	22,000	984.0	322,000	315	Power, irrigation, navigation and flood control
Roza	Washington	10,000	4,000	—	—	140	Power and irrigation
Chandler	Washington	12,000	12,000	—	—	118	Power and irrigation
Palisades	Idaho	112,500	41,000	5,620.0	1,200,000	144	Power, irrigation and flood control
American Falls	Idaho	30,000	—	4,355.0	—	80	Power and irrigation.
RECOMMENDED PROJECTS							
Hells Canyon	Ore-Idaho	900,000	688,000	2,077.0	3,880,000	510	Power, navigation and flood control
Upper Scriver	Idaho	30,000	26,000	4,505.0	—	400	Power
Lower Scriver	Idaho	90,000	62,000	4,060.0	—	794	Power
Garden Valley	Idaho	60,000	52,000	3,266.0	843,000	280	Power, irrigation and flood control
White Bridge	Oregon	15,000	9,000	670.0	—	93	Power
Cabinet Gorge	Idaho	100,000	95,000	2,162.0	—	107	Power

1/ Nameplate rating
2/ Average capability during the storage draw-down period.
3/ Fifteen of ultimate 18 units are now in operation and 3 units are being manufactured.
4/ Power facilities are not authorized.
5/ Pumping requirements of the Columbia Basin Project have been deducted.



Chief Joseph Dam.

are not scheduled to be in service until after 1959. Projects now under construction including Grand Coulee which will have a completed installation by late 1951, are Anderson Ranch, Hungry Horse, Albeni Falls, McNary, Chief Joseph, Detroit, Big Cliff, Lookout Point and Dexter. Plants presently authorized but not yet under construction are Roza, Chandler, American Falls, Dexter, Ice Harbor, Lower Monumental, Little Goose, Lower Granite, Palisades, Hills Creek and Libby. Green Peter and Cougar dams are in this category except the power facilities for these projects are not yet authorized.

recommended plants

Plants recommended for early authorization and construction are Hells Canyon, White Bridge, Upper Scriver Creek, Lower Scriver Creek, Garden Valley and Cabinet Gorge. All of the above scheduled plants are needed to meet regional load requirements between now and 1959 and new starts must be made on projects not listed above for loads following 1959. All of the above plants are scheduled on a peacetime basis. If new or expanded defense industries are to be served, schedules will have to be accelerated where feasible and additional plants will have to be added to the system.

CHART VIII

Northwest Power Pool

NET OPERATIONS YEAR ENDING JUNE 30, 1950

BPA SUPPLIED 52% OF ALL ENERGY REQUIREMENTS

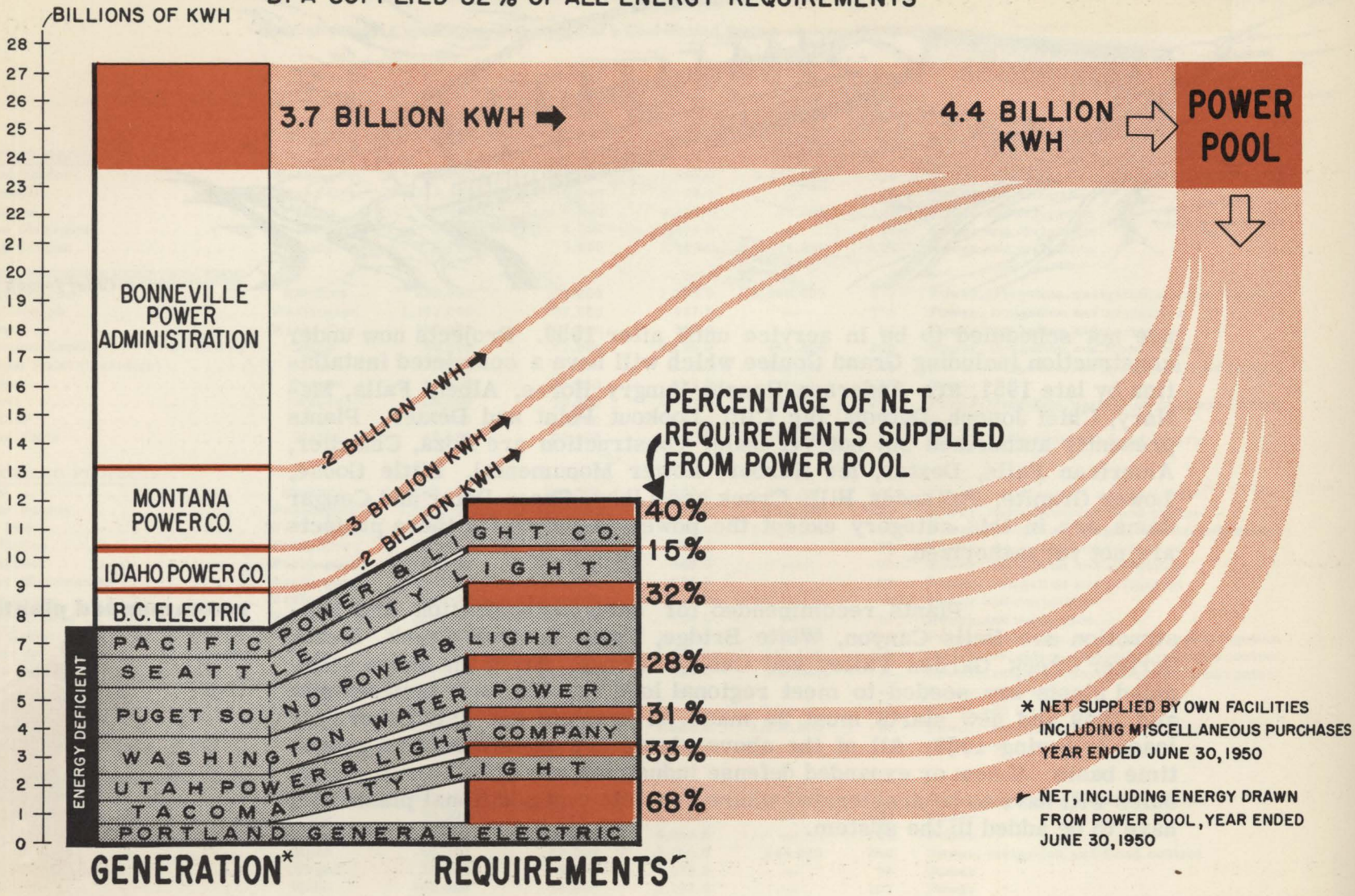


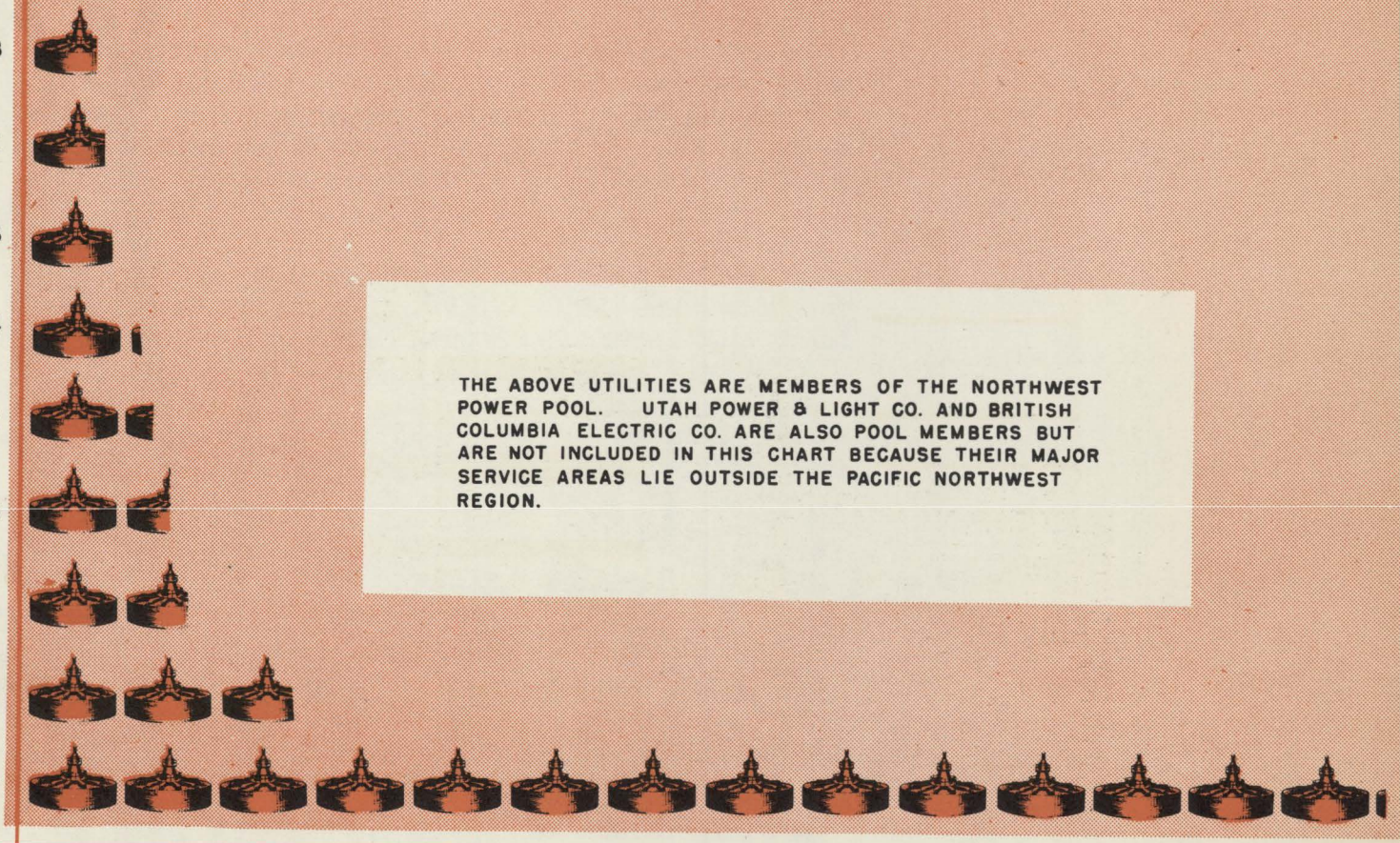
CHART IX

Power Generated

BY THE PRINCIPAL ELECTRIC UTILITIES OF THE PACIFIC NORTHWEST

YEAR ENDED JUNE 30, 1950

GENERATED BY	PERCENT
Portland Gen. Electric Co.	2.8
Tacoma City Light	3.2
Pacific Power & Light Co.	3.6
Seattle City Light	4.4
Washington Water Power Co.	5.2
Idaho Power Company	6.0
Puget Sound Power & Light Co.	6.8
Montana Power Co.	11.3
U. S. Columbia River Power System	56.7



THE ABOVE UTILITIES ARE MEMBERS OF THE NORTHWEST POWER POOL. UTAH POWER & LIGHT CO. AND BRITISH COLUMBIA ELECTRIC CO. ARE ALSO POOL MEMBERS BUT ARE NOT INCLUDED IN THIS CHART BECAUSE THEIR MAJOR SERVICE AREAS LIE OUTSIDE THE PACIFIC NORTHWEST REGION.

TOTAL 24.9 BILLION KWH

LEGEND  ONE BILLION KWH

SOURCE: WEEKLY OPERATING REPORTS OF N. W. POWER POOL

Checking conductor sag on Grand Coulee-Snohomish 230 kv line.

RECENT DEVELOPMENTS

new energizations

Since the end of the fiscal year, June 30, 1950, a number of important transmission line and substation projects have been completed to meet critical power conditions during the 1950-51 winter season. These include:

Southwestern Oregon Service—completion of Mapleton-Reedsport-Coos 65 mile 115,000 volt transmission line, Reedsport 6,000 kva substation and Coos switching station, October 25, 1950, gives direct service for the coastal area. A 30,000 kva transformer bank was added to the Eugene substation and work begun on the J. P. Alvey substation, Goshen, with installation of a 6,000 kva substation.

Olympic Peninsula and Puget Sound Service—completion of the Grand Coulee-Snohomish No. 2, a 230,000 volt transmission line completed in November, will bring an additional 200,000 kilowatts of Grand Coulee dam power to the Olympic Peninsula and Puget Sound area.

North Central Washington Service—conversion of the Columbia switching station near Wenatchee to 50,000 kva substation, completed early in November, provides direct power service at 115,000 volts for the Columbia Basin project, City of Ellensburg, Kittitas County PUD and Wenatchee.

Idaho Panhandle-Northwest Montana Service—completion of the Newport-Sandpoint 115,000 volt line, Spirit Lake-Athol line conversion, a 6,000 kva substation at Sandpoint and a 3,000 kva substation at Athol, provides increased power capacity and service reliability for Northern Lights, Inc., and the Kootenai Rural Electrification Association,

Inc. Extension of the facilities is scheduled to Bonners Ferry, Idaho, Troy and Libby, Montana.

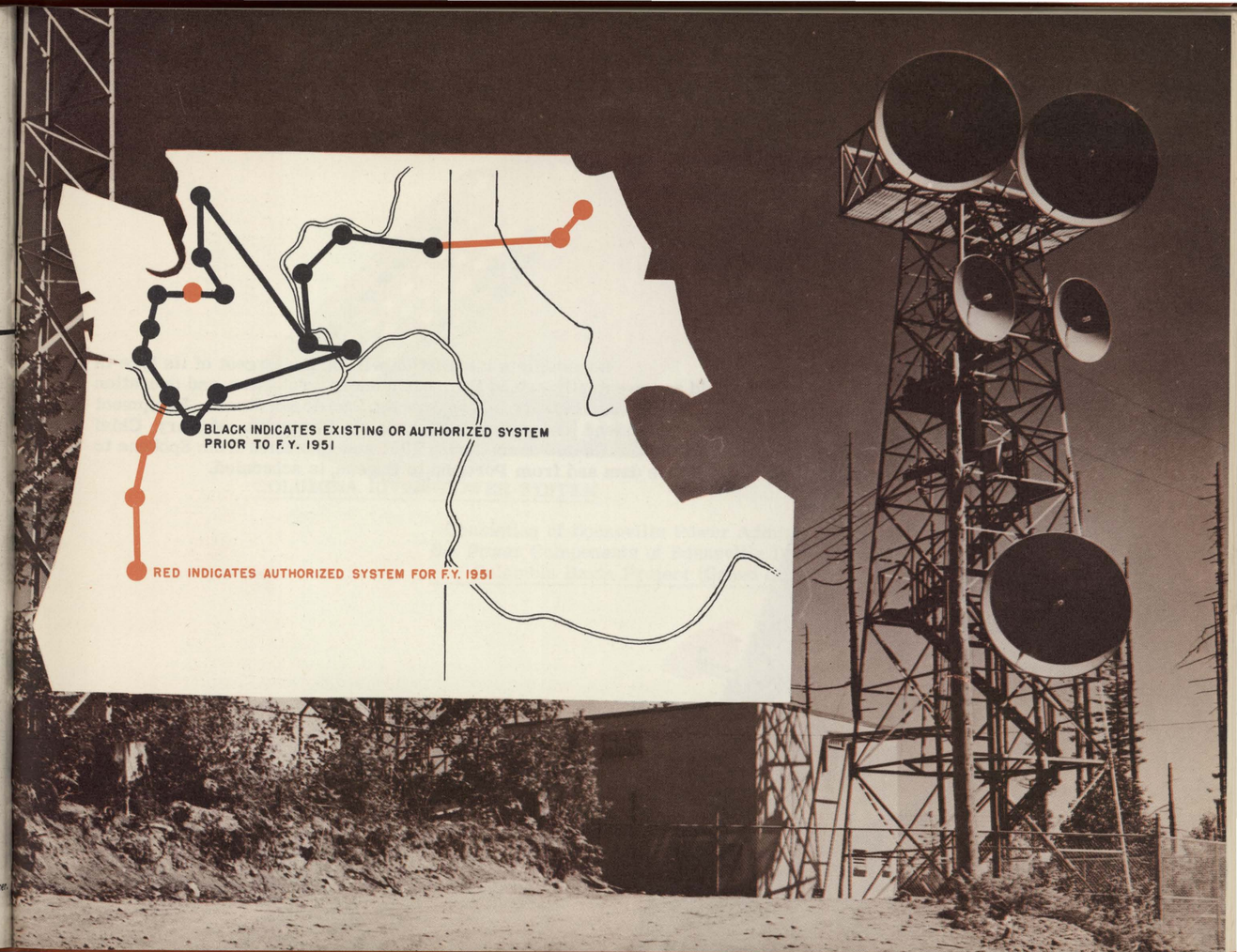
Key substation energizations—a 50,000 kva transformer bank was added to the Spokane substation August 15, 1950 to meet critical demands for increased aluminum production; a 15,000 kva transformer bank was added to Walla Walla substation October 20, 1950, to meet Mid-Columbia shortages, and a 12,000 kva substation was completed at Chief Joseph dam September 17, 1950 to supply power for construction work.

first microwave link

Bonneville Power Administration's first microwave communication installations were placed in service October 5, 1950, linking all major power facilities between the Olympic Peninsula, Puget Sound and Vancouver-Portland load centers.

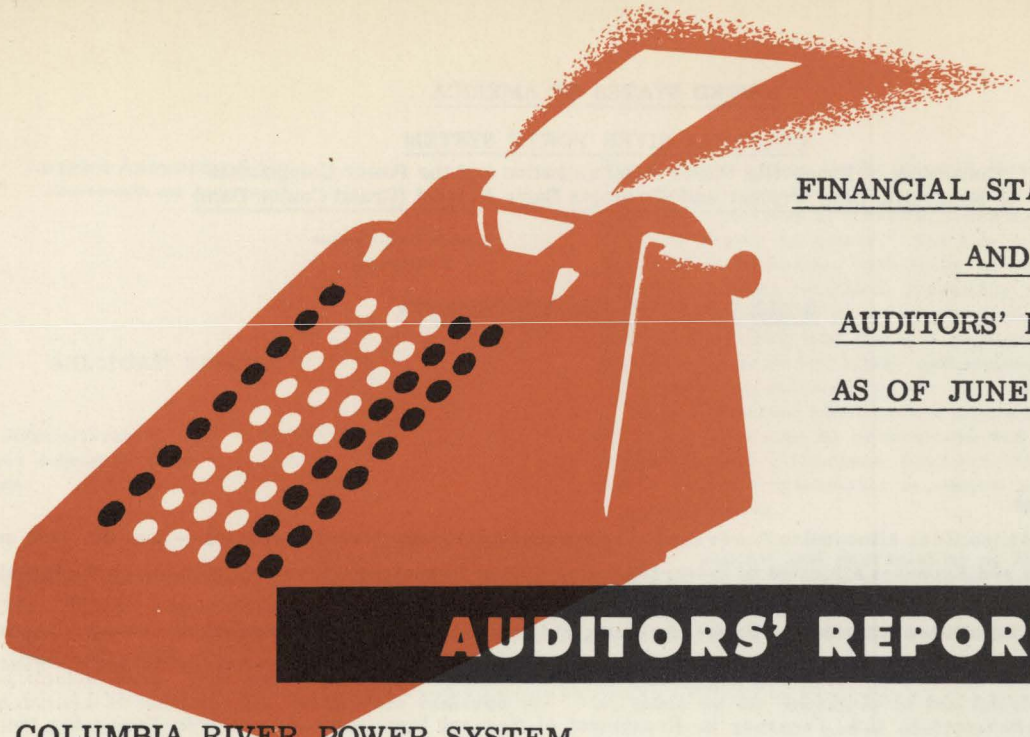
Built at a cost of about $900,000, the initial microwave installations include terminal receiving and sending stations with microwave towers, parabolic antenna and radio equipment adjacent to primary substations at Snohomish, Covington, Seattle, Olympia and Vancouver, with repeater stations at Squak Mountain, Chehalis and Rainier.

Seven high frequency radio channels, including two voice communication, one service, one telemetering, two relaying and a video fault location channel are being used for initial operations, although the number can be expanded to 23 as the need arises. The facilities provide instant voice communication between coast dispatching centers and all the substation operators, telemetering of tie line loads, reactive power and generation, relaying and fault location.



Squak Mountain microwave tower

Bonneville's installation will be the largest of its type in the world and eventually extend the most modern protective and operation facilities to all transmission networks of the Pacific Northwest. Equipment is on order to extend the system to Spokane via Bonneville, McNary, Chief Joseph and Grand Coulee dams during 1951 and extension from Spokane to Hungry Horse dam and from Portland to Eugene, is scheduled.



FINANCIAL STATEMENTS

AND

AUDITORS' REPORT

AS OF JUNE 30, 1950

AUDITORS' REPORT

COLUMBIA RIVER POWER SYSTEM

Consisting of Bonneville Power Administration and
the Power Components of Bonneville Dam Project and
Columbia Basin Project (Grand Coulee Dam)

ARTHUR ANDERSEN & CO.

Accountants and Auditors
Dexter Horton Building
Seattle

UNITED STATES OF AMERICA

COLUMBIA RIVER POWER SYSTEM

Consisting of Bonneville Power Administration and the Power Components of Bonneville Dam Project and Columbia Basin Project (Grand Coulee Dam)

INDEX TO FINANCIAL STATEMENTS

ARTHUR ANDERSEN & Co.
ACCOUNTANTS AND AUDITORS

DEXTER HORTON BUILDING
SEATTLE 4

AUDITORS' REPORT

Dr. Paul J. Raver, Administrator,
Bonneville Power Administration,
Portland, Oregon

Dear Sir:

We have examined the statement of combined assets and liabilities of Bonneville Power Administration, Department of the Interior, and the power components of Bonneville Dam Project, built and operated by the Corps of Engineers, U. S. Army, and Columbia Basin Project (Grand Coulee Dam), built and operated by the Bureau of Reclamation, Department of the Interior, hereinafter referred to as COLUMBIA RIVER POWER SYSTEM, as of June 30, 1950; the statements of assets and liabilities allocated to power of each of these projects as of that date; and the related statements of revenues and expenses allocated to power for the fiscal year then ended. Our examination was made in accordance with generally accepted auditing standards, and accordingly included such tests of the accounting records and such other auditing procedures as we considered necessary in the circumstances to enable us to render an opinion as to the financial position of the power components of the projects and the results of their power operations.

Property costs and operating expenses of the System do not include costs of administrative and other services rendered by other departments and agencies of the U. S. Government which, under governmental accounting procedures, are not allocated to individual projects. It is not practicable to determine the amounts of such costs applicable to these projects.

Property, plant and equipment of Bonneville Dam Project and Columbia Basin Project at June 30, 1950, include facilities totaling $192,881,605.36 which have been determined to be jointly useful for power generation and for other purposes. Acting under authority delegated by Congress, determinations have been made, by the Federal Power Commission in the case of Bonneville Dam Project and by the Secretary of the Interior in the case of Columbia Basin Project, that certain proportions of these facilities as set forth in Note 2 of Schedule 6 are allocable to power. The two projects have maintained their accounts in conformity with these allocations and the designated proportions of joint facilities, amounting to $107,557,577.96 at June 30, 1950, are included in power assets in the accompanying financial statements. Operating and interest expenses applicable to joint facilities have been allocated to power and nonpower activities in the same proportions as the related property costs. We have not examined the bases of these allocations which involve engineering findings and other matters outside our purview as accountants and we take no responsibility with respect to such allocations; however, the fairness of the accompanying power financial statements is subject to the fairness of these underlying allocations.

Interest and depreciation on the portion of joint facilities at Columbia Basin Project allocated to downstream river regulation have been deferred to future periods on the basis that they will be recovered from the operations of additional downstream hydro plants which, it is contemplated, will be constructed in future years. The deferment of these charges is consistent with the allocation of costs of this project as made by the Secretary of the Interior but the exclusion of these items from present power costs is dependent upon the construction of the proposed downstream plants.

Except for the omission of certain costs as set forth in paragraph two above and subject to the fairness of the allocations of joint facilities and to the construction of the proposed downstream hydro plants as discussed in paragraphs three and four, respectively, in our opinion, the accompanying statements of assets and liabilities allocated to power and the related statements of revenues and expenses present fairly the position of Columbia River Power System and its power components at June 30, 1950, and the results of their power operations for the fiscal year ended that date, and are in conformity with generally accepted accounting principles applied on a basis consistent with that of the preceding year and are in accordance with the uniform system of accounts prescribed by the Federal Power Commission pursuant to the Federal Power Act.

/s/ Arthur Andersen & Co.

Arthur Andersen & Co.

Seattle, Washington
August 11, 1950

UNITED STATES OF AMERICA

COLUMBIA RIVER POWER SYSTEM

Consisting of Bonneville Power Administration and the Power Components of Bonneville Dam Project and Columbia Basin Project (Grand Coulee Dam) (Note 5)

STATEMENT OF COMBINED ASSETS AND LIABILITIES ALLOCATED TO POWER (INCLUDING FUTURE DOWNSTREAM RIVER REGULATION) — JUNE 30, 1950 AND 1949

ASSETS	June 30 1950	June 30 1949
ELECTRIC UTILITY PLANT at original cost, including interest during construction (Notes 1 and 2):		
Specific power facilities (powerhouses, generating equipment and transmission plant)	$303,168,713.92	$252,841,183.95
Joint facilities (dams, reservoirs, fishways, general service facilities, etc.) allocated to power —		
Present power production	70,144,283.05	68,847,193.72
Future downstream river regulation	37,413,294.91	36,543,395.42
	$410,726,291.88	$358,231,773.09
Less — Reserve for depreciation (Note 3) —		
Specific power facilities	$ 28,327,506.57	$ 22,429,503.94
Joint facilities allocated to power —		
Present power production	3,262,617.49	2,872,545.58
Future downstream river regulation	1,767,369.92	1,553,800.60
	$ 33,357,493.98	$ 26,855,850.12
Original cost less reserve	$377,368,797.90	$331,375,922.97
INTEREST AND DEPRECIATION CHARGES ON JOINT FACILITIES ALLOCATED TO FUTURE DOWNSTREAM RIVER REGULATION — recoverable from operations of future downstream hydro plants	$ 8,823,849.23	$ 7,621,681.68
SPECIAL DEPOSITS:		
Customer's deposit, see contra	$ 782,014.98	$ 897,558.91
Cash held for construction of property for others, see contra	242,218.93	—
	$ 1,024,233.91	$ 897,558.91
CURRENT ASSETS:		
Cash held by Treasury Department disbursing officers	$ 9,707,312.89	$ 10,100,275.46
Contract retentions and other special deposits	3,381,864.97	2,385,690.24
Accounts receivable —		
Customers —		
Departments and agencies of U. S. Government	284,936.69	266,721.73
Other	6,410,542.93	5,528,135.20
Miscellaneous receivables	183,336.88	205,985.34
Materials and supplies	5,447,404.43	5,806,321.89
	$ 25,415,398.79	$ 24,293,129.86
DEFERRED CHARGES:		
Losses on abandoned properties (principally rights-of-way and clearing costs), being amortized over five years from date of abandonment	$ —	$ 323,581.62
Other Deferred charges	1,013,352.06	939,022.60
	$ 1,013,352.06	$ 1,262,604.22
	$413,645,631.89	$365,450,897.64

LIABILITIES	June 30 1950	June 30 1949
INVESTMENT OF U. S. GOVERNMENT:		
Congressional appropriations (including amounts for operating expenses), allotments and W. P. A. expenditures, less amounts not requisitioned	$448,875,544.89	$392,468,118.64
Transfers from Other Federal projects (net)	2,439,097.06	2,384,232.13
Interest on Federal investments	70,452,104.96	62,302,868.92
	$521,766,746.91	$457,155,219.69
Less — Funds returned to U. S. Treasury in repayment of Federal investment (including amounts for operating expenses and interest) (Schedule 5)	178,792,527.01	148,893,914.48
Net investment of U. S. Government	$342,974,219.90	$308,261,305.21
CURRENT LIABILITIES:		
Accounts payable	$ 12,433,159.14	$ 10,695,981.98
Employees' accrued leave	2,186,293.00	2,014,291.45
	$ 14,619,452.14	$ 12,710,273.43
DEFERRED CREDITS AND RESERVES:		
Customer's deposit, see contra	$ 782,014.98	$ 897,558.91
Deposits for construction of property for others, see contra	242,218.93	—
Other deferred credits	11,810.93	335,139.92
Reserve for deferred maintenance	196,328.21	336,000.00
Contribution in aid of construction — by State of Washington	175,526.14	175,526.14
	$ 1,407,899.19	$ 1,744,224.97
ACCUMULATED NET REVENUES (Note 1):		
Balance at beginning of year	$ 42,735,094.03	$ 32,069,325.21
Add — Net revenues for the year	11,908,966.63	10,665,768.82
Balance at end of year	$ 54,644,060.66	$ 42,735,094.03
	$413,645,631.89	$365,450,897.64

The accompanying notes (Schedule 6) are an integral part of this statement.

SCHEDULE 2

UNITED STATES OF AMERICA

COLUMBIA RIVER POWER SYSTEM

Consisting of Bonneville Power Administration and the Power Components
of Bonneville Dam Project and Columbia Basin Project (Grand Coulee Dam) (Note 5)

STATEMENT OF COMBINED REVENUES AND EXPENSES ALLOCATED TO POWER
(INCLUDING FUTURE DOWNSTREAM RIVER REGULATION) FOR THE FISCAL YEARS ENDED JUNE 30, 1950 AND 1949

	Fiscal Year Ended June 30 1950	1949
OPERATING REVENUES:		
Sales of electric energy	$30,808,224.62	$27,611,085.66
Other electric revenues	389,291.00	209,942.89
Total operating revenues	$31,197,515.62	$27,821,028.55
OPERATING EXPENSES (Notes 1 and 2):		
Purchased power	$ 430,150.68	$ 735,239.31
Operation —		
Specific power facilities	4,208,772.66	3,673,153.66
Joint facilities allocated to power	181,165.59	168,862.16
Adjustment of prior years' provisions for rental and excess installation costs at Shasta Dam of generating facilities formerly leased from Central Valley Project	—	242,124.02*
Maintenance —		
Specific power facilities	1,631,489.67	1,462,606.70
Joint facilities allocated to power	431,191.43	475,975.50
Depreciation (Note 3) —		
Specific power facilities	5,535,853.44	4,149,589.29
Joint facilities allocated to power	378,364.40	350,881.66
Less — Amount allocated to future downstream river regulation, recoverable from operations of future downstream hydro plants	114,362.86*	106,247.46*
Charge-off of plant acquisition adjustment	157,502.99	—
Losses on sales and abandonments of property	363,985.32	483,603.67
Total operating expenses	$13,204,113.32	$11,151,540.47
Net operating revenues	$17,993,402.30	$16,669,488.08
INTEREST AND OTHER DEDUCTIONS:		
Interest on Federal investment allocated to power	$ 8,149,236.04	$ 7,517,298.72
Less —		
Amount allocated to future downstream river regulation, recoverable from operations of future downstream hydro plants	1,087,804.69*	1,018,033.19*
Amount charged to construction	999,855.25*	643,848.84*
Miscellaneous income deductions (net)	22,859.57	148,302.57
Total interest and other deductions	$ 6,084,435.67	$ 6,003,719.26
Net revenues	$11,908,966.63	$10,665,768.82

* Denotes red figure

The accompanying notes (Schedule 6) are an integral part of this statement.

UNITED STATES OF AMERICA

COLUMBIA RIVER POWER SYSTEM

Consisting of Bonneville Power Administration and the Power Components
of Bonneville Dam Project and Columbia Basin Project (Grand Coulee Dam) (Note 5)

STATEMENT COMBINING ASSETS AND LIABILITIES ALLOCATED TO POWER (INCLUDING FUTURE DOWNSTREAM RIVER REGULATION) — JUNE 30, 1950

ASSETS	Bonneville Power Administration (Schedule 7)	Bonneville Dam Project (Schedule 10)	Columbia Basin Project (Schedule 13)	Eliminations	Combined (To Schedule 1)
ELECTRIC UTILITY PLANT at original cost, including interest during construction (Notes 1 and 2):					
Specific power facilities (powerhouses, generating equipment and transmission plant)	$161,500,443.94	$ 38,221,702.88	$103,446,567.10	$ —	$303,168,713.92
Joint facilities (dams, reservoirs, fishways, general service facilities, etc.) allocated to power —					
Present power production	—	20,802,111.55	49,342,171.50	—	70,144,283.05
Future downstream river regulation	—	—	37,413,294.91	—	37,413,294.91
	$161,500,443.94	$ 59,023,814.43	$190,202,033.51	$ —	$410,726,291.88
Less — Reserve for depreciation (Note 3) —					
Specific power facilities	$ 20,918,870.91	$ 3,711,623.67	$ 3,697,011.99	$ —	$ 28,327,506.57
Joint facilities allocated to power —					
Present power production	—	931,738.33	2,330,879.16	—	3,262,617.49
Future downstream river regulation	—	—	1,767,369.92	—	1,767,369.92
	$ 20,918,870.91	$ 4,643,362.00	$ 7,795,261.07	$ —	$ 33,357,493.98
Original cost less reserve	$140,581,573.03	$ 54,380,452.43	$182,406,772.44	$ —	$377,368,797.90
INTEREST AND DEPRECIATION CHARGES ON JOINT FACILITIES ALLOCATED TO FUTURE DOWNSTREAM RIVER REGULATION — recoverable from operations of future downstream hydro plants	$ —	$ —	$ 8,823,849.23	$ —	$ 8,823,849.23
SPECIAL DEPOSITS:					
Customer's deposit, see contra	$ 782,014.98	$ —	$ —	$ —	$ 782,014.98
Cash held for construction of property for others, see contra	242,218.93	—	—	—	242,218.93
Payments for amortization in excess of depreciation at Bonneville Dam Project (Note 3, Schedule 9)	10,440,536.54	—	—	10,440,536.54	—
	$ 11,464,770.45	$ —	$ —	$ 10,440,536.54	$ 1,024,233.91
CURRENT ASSETS:					
Cash held by Treasury Department disbursing officers	$ 2,174,772.07	$ —	$ 7,532,540.82	$ —	$ 9,707,312.89
Receipts deposited with Treasury Department for transfer to Reclamation Fund for the account of Columbia Basin Project	5,000,000.00	—	—	5,000,000.00	—
Contract retentions and other special deposits	256,101.10	—	3,125,763.87	—	3,381,864.97
Due from Bonneville Power Administration	—	—	5,000,000.00	5,000,000.00	—
Accounts receivable —					
Customers —					
Departments and agencies of U. S. Government	284,936.69	—	—	—	284,936.69
Other	6,410,542.93	—	—	—	6,410,542.93
Miscellaneous receivables	128,531.88	1,358.44	53,446.56	—	183,336.88
Materials and supplies	3,660,960.05	66,649.82	1,719,794.56	—	5,447,404.43
	$ 17,915,844.72	$ 68,008.26	$ 17,431,545.81	$ 10,000,000.00	$ 25,415,398.79
DEFERRED CHARGES	$ 385,583.85	$ 32,012.11	$ 595,756.10	$ —	$ 1,013,352.06
	$170,347,772.05	$ 54,480,472.80	$209,257,923.58	$ 20,440,536.54	$413,645,631.89

The accompanying notes (Schedule 6) together with the notes to the financial statements of the individual projects (Schedules 9, 12, and 15) are an integral part of this statement.

SCHEDULE 3
(Continued)

UNITED STATES OF AMERICA

COLUMBIA RIVER POWER SYSTEM

Consisting of Bonneville Power Administration and the Power Components
of Bonneville Dam Project and Columbia Basin Project (Grand Coulee Dam) (Note 5)

STATEMENT COMBINING ASSETS AND LIABILITIES ALLOCATED TO POWER (INCLUDING FUTURE DOWNSTREAM RIVER REGULATION) — June 30, 1950

LIABILITIES	Bonneville Power Administration (Schedule 7)	Bonneville Dam Project (Schedule 10)	Columbia Basin Project (Schedule 13)	Eliminations	Combined (To Schedule 1)
INVESTMENT OF U. S. GOVERNMENT:					
Congressional appropriations (including amounts for operating expenses), allotments and W.P.A. expenditures, less amounts not requisitioned	$194,242,015.74	$ 62,402,725.48	$192,230,803.67	$ —	$448,875,544.89
Transfers from other Federal projects (net)	192,432.76	87,900.00	2,158,764.30	—	2,439,097.06
Interest on Federal investment	17,648,530.23	16,167,955.99	36,635,618.74	—	70,452,104.96
	$212,082,978.73	$ 78,658,581.47	$231,025,186.71	$ —	$521,766,746.91
Less — Funds returned to U. S. Treasury in repayment of Federal investment (including amounts for operating expenses and interest)	89,887,741.83	34,626,000.00	49,278,785.18	5,000,000.00	178,792,527.01
Net investment of U. S. Government	$122,195,236.90	$ 44,032,581.47	$181,746,401.53	$ 5,000,000.00	$342,974,219.90
CURRENT LIABILITIES:					
Accounts payable	$ 4,278,590.65	$ 7,354.79	$ 8,147,213.70	$ —	$ 12,433,159.14
Employees' accrued leave	1,554,619.54	—	631,673.46	—	2,186,293.00
Due to Columbia Basin Project	5,000,000.00	—	—	5,000,000.00	—
	$ 10,833,210.19	$ 7,354.79	$ 8,778,887.16	$ 5,000,000.00	$ 14,619,452.14
DEFERRED CREDITS AND RESERVES:					
Customer's deposit, see contra	$ 782,014.98	$ —	$ —	$ —	$ 782,014.98
Deposits for construction of property for others, see contra	242,218.93	—	—	—	242,218.93
Other deferred credits	11,810.93	—	—	—	11,810.93
Reserve for deferred maintenance	—	—	196,328.21	—	196,328.21
Contribution in aid of construction — by State of Washington	—	—	175,526.14	—	175,526.14
	$ 1,036,044.84	$ —	$ 371,854.35	$ —	$ 1,407,899.19
RESERVE FOR FUTURE POWER COSTS — Excess of repayment to U. S. Treasury applied to amortization of cost of power facilities over depreciation (Note 4, Schedule 12)	$ —	$ 10,440,536.54	$ —	$ 10,440,536.54	$ —
ACCUMULATED NET REVENUES (Note 1):					
Balance at beginning of year	$ 29,206,599.26	$ —	$ 13,528,494.77	$ —	$ 42,735,094.03
Add — Net revenues for the year ended June 30, 1950	7,076,680.86	—	4,832,285.77	—	11,908,966.63
Balance at end of year	$ 36,283,280.12	$ —	$ 18,360,780.54	$ —	$ 54,644,060.66
	$170,347,772.05	$ 54,480,472.80	$209,257,923.58	$ 20,440,536.54	$413,645,631.89

The accompanying notes (Schedule 6) together with the notes to the financial statements of the individual projects (Schedules 9, 12 and 15) are an integral part of this statement.

UNITED STATES OF AMERICA

COLUMBIA RIVER POWER SYSTEM

Consisting of Bonneville Power Administration and the Power Components
of Bonneville Dam Project and Columbia Basin Project (Grand Coulee Dam) (Note 5)

STATEMENT COMBINING REVENUES AND EXPENSES ALLOCATED TO POWER (INCLUDING FUTURE DOWNSTREAM RIVER REGULATION
FOR THE FISCAL YEAR ENDED JUNE 30, 1950

	Bonneville Power Administration (Schedule 8)	Bonneville Dam Project (Schedule 11)	Columbia Basin Project (Schedule 14)	Eliminations	Combined (To Schedule 2)
OPERATING REVENUES:					
Sales of electric energy	$ 30,808,224.62	$ —	$ —	$ —	$ 30,808,224.62
Less — Amounts allocated to —					
Bonneville Dam Project	2,704,227.74*	2,704,227.74	—	—	—
Columbia Basin Project	9,812,430.00*	—	9,812,430.00	—	—
Payment for river regulation at Bonneville Dam Project	—	—	187,570.00	187,570.00	—
Other electric revenues	384,608.95	—	4,682.05	—	389,291.00
Total operating revenues	$ 18,676,175.83	$ 2,704,227.74	$ 10,004,682.05	$ 187,570.00	$ 31,197,515.62
OPERATING EXPENSES (Notes 1 and 2):					
Purchased power	$ 430,150.68	$ —	$ —	$ —	$ 430,150.68
Operation —					
Specific power facilities	3,249,670.79	297,151.95	661,949.92	—	4,208,772.66
Joint facilities allocated to power	—	68,447.78	112,717.81	—	181,165.59
Payment for river regulation	—	187,570.00	—	187,570.00	—
Maintenance —					
Specific power facilities	1,078,361.33	237,130.01	315,998.33	—	1,631,489.67
Joint facilities allocated to power	—	144,962.94	286,228.49	—	431,191.43
Depreciation (Note 3) —					
Specific power facilities	4,075,223.29	489,001.43	971,628.72	—	5,535,853.44
Joint facilities allocated to power	—	112,686.47	265,677.93	—	378,364.40
Less — Amount allocated to future downstream river regulation, recoverable from operations of future downstream hydro plants	—	—	114,362.86*	—	114,362.86*
Charge-off of plant acquisition adjustment	157,502.99	—	—	—	157,502.99
Losses on sales and abandonments of property	363,985.32	—	—	—	363,985.32
Total operating expenses	$ 9,354,894.40	$ 1,536,950.58	$ 2,499,838.34	$ 187,570.00	$ 13,204,113.32
Net operating revenues	$ 9,321,281.43	$ 1,167,277.16	$ 7,504,843.71	$ —	$ 17,993,402.30
INTEREST AND OTHER DEDUCTIONS:					
Interest on Federal investment allocated to power	$ 2,637,261.26	$ 1,169,327.27	$ 4,342,647.51	$ —	$ 8,149,236.04
Less —					
Amount allocated to future downstream river regulation, recoverable from operations of future downstream hydro plants	—	—	1,087,804.69*	—	1,087,804.69*
Amount charged to construction	420,166.11*	2,050.11*	577,639.03*	—	999,855.25*
Miscellaneous income deductions (net)	27,505.42	—	4,645.85*	—	22,859.57
Total interest and other deductions	$ 2,244,600.57	$ 1,167,277.16	$ 2,672,557.94	$ —	$ 6,084,435.67
Net revenues	$ 7,076,680.86	$ —	$ 4,832,285.77	$ —	$ 11,908,966.63

* Denotes red figure

The accompanying notes (Schedule 6) together with the notes to the financial statements of the individual projects (Schedules 9, 12 and 15) are an integral part of this statement.

SCHEDULE 5

UNITED STATES OF AMERICA

COLUMBIA RIVER POWER SYSTEM

Consisting of Bonneville Power Administration and the Power Components of Bonneville Dam Project and Columbia Basin Project (Grand Coulee Dam) (Note 5)

COMBINING STATEMENT OF FUNDS RETURNED TO U. S. TREASURY IN REPAYMENT OF FEDERAL INVESTMENT ALLOCATED TO POWER FOR THE FISCAL YEAR ENDED JUNE 30, 1950

	Bonneville Power Administration	Bonneville Dam Project	Columbia Basin Project	Combined
Sales of electric energy	$30,808,224.62	$ —	$ —	$30,808,224.62
Less —				
Increase in uncollected sales, represented by accounts receivable from customers	$ 900,622.69	$ —	$ —	$ 900,622.69
Net change in collections in transit to U. S. Treasury	56,133.32*	—	—	56,133.32*
Noncash (exchange) power sales	357,138.00	—	—	357,138.00
	$ 1,201,627.37	$ —	$ —	$ 1,201,627.37
Cash receipts from sales of electric energy deposited in U. S. Treasury	$29,606,597.25	$ —	$ —	$29,606,597.25
Miscellaneous receipts allocated to power	359,151.44	—	127,505.66	486,657.10
Total receipts allocated to power deposited in U. S. Treasury	$29,965,748.69	$ —	$ 127,505.66	$30,093,254.35
Allocation of receipts among projects —				
Receipts transferred to the accounts of other projects with the U. S. Treasury	15,418,000.00*	5,605,570.00	9,812,430.00	—
Payment for river regulation	—	187,570.00*	187,570.00	—
Amount transferred to Emergency Fund	194,641.82*	—	—	194,641.82*
Funds returned to U. S. Treasury in repayment of Federal investment allocated to power	$14,353,106.87	$ 5,418,000.00	$10,127,505.66	$29,898,612.53

* Denotes red figure

The accompanying notes (Schedule 6) are an integral part of this statement.

UNITED STATES OF AMERICA

COLUMBIA RIVER POWER SYSTEM

Consisting of Bonneville Power Administration and the Power Components
of Bonneville Dam Project and Columbia Basin Project (Grand Coulee Dam) (Note 5)

COMBINING STATEMENT OF FUNDS RETURNED TO U. S. TREASURY IN REPAYMENT OF FEDERAL INVESTMENT ALLOCATED TO POWER

FOR THE PERIOD FROM BEGINNING OF OPERATIONS TO JUNE 30, 1950

	Bonneville Power Administration	Bonneville Dam Project	Columbia Basin Project	Eliminations	Combined
Sales of electric energy	$183,905,637.91	$ —	$ —	$ —	$183,905,637.91
Less —					
Increase in uncollected sales, represented by accounts receivable from customers	$ 6,695,479.62	$ —	$ —	$ —	$ 6,695,479.62
Noncash (exchange) power sales	3,436,553.08	—	—	—	3,436,553.08
	$ 10,132,032.70	$ —	$ —	$ —	$ 10,132,032.70
Cash receipts from sales of electric energy deposited in U. S. Treasury	$173,773,605.21	$ —	$ —	$ —	$173,773,605.21
Miscellaneous receipts allocated to power	5,505,195.58	—	660,105.50	—	6,165,301.08
Total receipts allocated to power deposited in U. S. Treasury	$179,278,800.79	$ —	$ 660,105.50	$ —	$179,938,906.29
Allocation of receipts among projects —					
Receipts transferred to the accounts of other projects with the U. S. Treasury	83,244,679.68*	36,126,560.00	47,118,119.68	—	—
Receipts held for transfer to the accounts of other projects with the U. S. Treasury	5,000,000.00*	—	—	5,000,000.00	—
Payment for river regulation	—	1,500,560.00*	1,500,560.00	—	—
Amount transferred to Emergency Fund	1,146,379.28*	—	—	—	1,146,379.28*
Funds returned to U. S. Treasury in repayment of Federal investment allocated to power	$ 89,887,741.83	$ 34,626,000.00	$ 49,278,785.18	$ 5,000,000.00	$178,792,527.01

* Denotes red figure

The accompanying notes (Schedule 6) are an integral part of this statement.

SCHEDULE 6

COLUMBIA RIVER POWER SYSTEM

NOTES TO FINANCIAL STATEMENTS ON SCHEDULES 1, 2, 3, 4 AND 5

1. CERTAIN COSTS NOT INCLUDED:

Property costs and operating expenses do not include costs of administrative and other services rendered by other departments and agencies of the U. S. Government which, under governmental accounting procedures, are not allocated to individual projects. It is not practicable to determine the amount of such costs applicable to these projects.

2. ALLOCATION OF JOINT COSTS AND EXPENSES:

Property, plant and equipment determined to be jointly useful for power generation and for other purposes, consisting principally of dams, reservoirs, fishways, and general service facilities, has been allocated 50% to power and 50% to nonpower purposes at Bonneville Dam Project and 56% to power (including future downstream river regulation) and 44% to nonpower purposes at Columbia Basin Project in accordance with determinations made by the Federal Power Commission and by the Secretary of the Interior, respectively, acting under authority delegated by Congress. Operation and maintenance expenses applicable to joint facilities have been allocated to power and nonpower operations in the same proportions as the related property costs.

3. DEPRECIATION POLICY:

Depreciation of the property of Bonneville Power Administration, consisting principally of transmission facilities, has been computed on the straight line method and depreciation of the power facilities of the two dams has been computed on the compound interest method using an interest factor of 2.5% in each case based upon the estimated service lives of the various classes of property as determined by engineering studies, except that no property has been assigned a service life of longer than one hundred years which has been assumed to be the maximum economic life of the projects. Land, land rights and clearing costs allocated to power are being amortized over such one hundred year period. Depreciation of general service facilities at Columbia Basin Project, which is charged to clearing accounts and redistributed to construction and other accounts, has been computed on the straight line method based on the estimated service lives of the various types of facilities. A composite depreciation reserve is maintained for each class of property and the original cost of property retired, less net salvage applicable thereto, is charged to the related reserve.

4. CONTINGENT LIABILITIES:

The projects are contingently liable under pending litigation which, in some instances, involve claims of substantial amounts. In the opinion of counsel for the projects, any actual liability which may result from such litigation will not be material.

5. PROJECTS NOT INCLUDED:

Bonneville Power Administration has been appointed marketing agent for power to be generated at the following projects which are presently under construction:

McNary Dam Project
Hungry Horse Project
Chief Joseph Dam Project
Albeni Falls Project
Detroit Project
Willamette Basin Projects (Meridian Dam)

Pending allocation of the costs of these projects as between power and other purposes, no amounts have been included in the accompanying financial statements of the Columbia River Power System for construction costs incurred on these projects to June 30, 1950.

Bonneville Power Administration has also been appointed marketing agent for power to be generated at other Federal dams whose construction has been authorized but not commenced at June 30, 1950.

UNITED STATES OF AMERICA

DEPARTMENT OF THE INTERIOR

BONNEVILLE POWER ADMINISTRATION

STATEMENT OF ASSETS AND LIABILITIES — JUNE 30, 1950

ASSETS

ELECTRIC UTILITY PLANT (principally transmission plant) at original cost, including interest during construction (Note 1)	$161,500,443.94	
Less — Reserve for depreciation (Note 2)	20,918,870.91	
Original cost less reserve		$140,581,573.03
SPECIAL DEPOSITS:		
Customer's deposit, see contra	$ 782,014.98	
Cash held for construction of property for others, see contra	242,218.93	
Payments for amortization in excess of depreciation at Bonneville Dam Project (Note 3)	10,440,536.54	11,464,770.45
CURRENT ASSETS:		
Cash held by Treasury Department disbursing officer	$ 2,174,772.07	
Receipts deposited with Treasury Department for transfer to Reclamation Fund for the account of Columbia Basin Project	5,000,000.00	
Employees' withholding tax and other special deposits	256,101.10	
Accounts receivable —		
Customers —		
Departments and agencies of U. S. Government	284,936.69	
Other	6,410,542.93	
Miscellaneous receivables	128,531.88	
Materials and supplies	3,660,960.05	17,915,844.72
DEFERRED CHARGES		385,583.85
		$170,347,772.05

LIABILITIES

INVESTMENT OF U. S. GOVERNMENT:		
Congressional appropriations (including amounts for operating expenses), allotments and W.P.A. expenditures, less amounts not requisitioned	$194,242,015.74	
Transfers from other Federal projects (net)	192,432.76	
Interest on Federal investment	17,648,530.23	
	$212,082,978.73	
Less — Funds returned to U. S. Treasury in repayment of Federal investment (including amounts for operating expenses and interest)	89,887,741.83	
Net investment of U. S. Government		$122,195,236.90
CURRENT LIABILITIES:		
Accounts payable	$ 4,278,590.65	
Employees' accrued leave	1,554,619.54	
Due to Columbia Basin Project	5,000,000.00	10,833,210.19
DEFERRED CREDITS:		
Customer's deposit, see contra	$ 782,014.98	
Deposits for construction of property for others, see contra	242,218.93	
Other	11,810.93	1,036,044.84
ACCUMULATED NET REVENUES (Notes 1 and 3):		
Balance at beginning of year	$ 29,206,599.26	
Add — Net revenues for the year ended June 30, 1950	7,076,680.86	
Balance at end of year		36,283,280.12
		$170,347,772.05

The accompanying notes (Schedule 9) are an integral part of this statement.

SCHEDULE 8

UNITED STATES OF AMERICA

DEPARTMENT OF THE INTERIOR

BONNEVILLE POWER ADMINISTRATION

STATEMENT OF REVENUES AND EXPENSES FOR THE FISCAL YEAR ENDED JUNE 30, 1950

OPERATING REVENUES:		
Sales of electric energy		$30,808,224.62
Less — Amounts allocated to (Note 3) —		
Bonneville Dam Project	$2,704,227.74	
Columbia Basin Project	9,812,430.00	12,516,657.74
		$18,291,566.88
Other electric revenues		384,608.95
Total operating revenues		$18,676,175.83
OPERATING EXPENSES (Note 1):		
Purchased power	$ 430,150.68	
Operation	3,249,670.79	
Maintenance	1,078,361.33	
Depreciation (Note 2)	4,075,223.29	
Charge-off of plant acquisition adjustment	157,502.99	
Losses on sales and abandonments of property	363,985.32	9,354,894.40
Net operating revenues		$ 9,321,281.43
INTEREST AND OTHER DEDUCTIONS:		
Interest on Federal investment	$2,637,261.26	
Less — Amount charged to construction	420,166.11*	
Miscellaneous income deductions (net)	27,505.42	2,244,600.57
Net revenues		$ 7,076,680.86

* Denotes red figure

The accompanying notes (Schedule 9) are an integral part of this statement.

BONNEVILLE POWER ADMINISTRATION

NOTES TO FINANCIAL STATEMENTS ON SCHEDULES 7 AND 8

1. CERTAIN COSTS NOT INCLUDED:

Property costs and operating expenses do not include costs of administrative and other services rendered by other departments and agencies of the U. S. Government which, under governmental accounting procedures, are not allocated to individual projects. It is not practicable to determine the amount of such costs applicable to this project.

2. DEPRECIATION POLICY:

Depreciation has been computed on the straight line method, based upon the estimated service lives of the various classes of property as determined by engineering studies, except that no property has been assigned a service life of longer than one hundred years which has been assumed to be the maximum economic life of the project. Land, land rights and clearing costs are being amortized over such one hundred year period. A composite depreciation reserve is maintained for each class of property and the original cost of property retired, less net salvage applicable thereto, is charged to the related reserve.

3. ALLOCATION OF REVENUES:

The amounts of revenues from the sale of electric energy allocated to Bonneville Dam Project and to Columbia Basin Project have been determined in accordance with memoranda of agreement between Bonneville Power Administration and the Corps of Engineers, U. S. Army, and the Bureau of Reclamation of the Department of the Interior, respectively.

During 1950 Bonneville Power Administration deposited $5,605,570.00 with the U. S. Treasury for the account of Bonneville Dam Project in accordance with the terms of the agreement, of which $2,704,227.74, equivalent to operating expenses (including depreciation) and interest on the Federal investment allocated to power has been treated as current year's revenues and $2,901,342.26 representing the excess of the amount deposited in repayment of plant costs of that project allocated to power over depreciation, has been treated as an advance repayment of the Federal investment in that project.

Reclamation laws, as supplemented by the Act of August 30, 1935, and Executive Order No. 8526 require that payments be made, from time to time, to the Reclamation Fund for the account of Columbia Basin Project from revenues received by Bonneville Power Administration from the sale of electric energy equal to the portion of such revenues properly allocable to the project. Under the terms of the agreement of January 31, 1946, between the Bureau of Reclamation and Bonneville Power Administration entered into to effectuate these requirements, the Administration is required to make payments which in any year are not dependent upon the quantity of energy generated by the project and delivered to the Administration, but which are designed to return to the United States over the life of the project the operation and maintenance expenses of the dam and the power plant, the cost, exclusive of interest during construction, of facilities allocated to power, the portion of the cost, exclusive of interest during construction, of facilities allocated to irrigation which exceeds the repayment ability of the water users (estimated, upon completion of the project, to be approximately $365,000,000) and an annual amount equal to 3% of the unamortized cost, exclusive of interest during construction, allocated to present power production. A schedule of estimated payments is provided in the agreement but provision is made for annual adjustments of the schedule to reflect the application of actual payments to the return of such amounts. Provision is made also for payments in excess of the annual amounts set out in the schedule or less than such amounts in the event that prior excess payments have been made. In the opinion of counsel the amounts covered into the Reclamation Fund for the project each year are not in repayment of specific expenses applicable to specific years but rather represent lump sum payments against the total liability provided for in the agreement.

4. CONTINGENT LIABILITIES:

The project is contingently liable under pending litigation. In the opinion of counsel for the project, any actual liability which may result from such litigation will not be material.

SCHEDULE 10

UNITED STATES OF AMERICA

CORPS OF ENGINEERS — U. S. ARMY

BONNEVILLE DAM PROJECT

STATEMENT OF ASSETS AND LIABILITIES — JUNE 30, 1950

ASSETS	Total	Deduct - Amounts Allocated to Other Than Power	Amounts Allocated to Power
PROPERTY, PLANT AND EQUIPMENT at original cost, including interest during construction (Notes 1 and 2):			
Specific power facilities (powerhouse and generating equipment)	$ 38,221,702.88	$ —	$38,221,702.88
Specific nagivation facilities (shiplock)	6,221,163.01	6,221,163.01	—
Joint facilities (dams, reservoir, fishways, etc.)	41,604,223.09	20,802,111.54	20,802,111.55
	$ 86,047,088.98	$27,023,274.55	$59,023,814.43
Less — Reserves for depreciation (Note 3) —			
Specific power facilities	$ 3,711,623.67	$ —	$ 3,711,623.67
Specific navigation facilities	315,329.45	315,329.45	—
Joint facilities	1,863,476.66	931,738.33	931,738.33
	$ 5,890,429.78	$ 1,247,067.78	$ 4,643,362.00
Original cost less reserves	$ 80,156,659.20	$25,776,206.77	$54,380,452.43
OTHER ASSETS:			
Due from other projects	3,087.45	1,729.01	1,358.44
Deferred charges	54,681.12	22,669.01	32,012.11
Materials and supplies	118,488.57	51,838.75	66,649.82
	$ 80,332,916.34	$25,852,443.54	$54,480,472.80
LIABILITIES			
INVESTMENT OF U. S. GOVERNMENT:			
Congressional appropriations and allotments (including amounts for operating expenses), less amounts not requisitioned	$ 90,698,289.12	$28,295,563.64	$62,402,725.48
Transfers from other Federal projects	175,400.00	87,500.00	87,900.00
Interest on Federal investment	24,828,443.60	8,660,487.61	16,167,955.99
	$115,702,132.72	$37,043,551.25	$78,658,581.47
Less —			
Funds returned to U. S. Treasury in repayment of Federal investment allocated to power (including amounts for operating expenses and interest)	$ 34,626,000.00	$ —	$34,626,000.00
Net expense of non-reimbursable portion of project (including $1,067,448.00 for the year ended June 30, 1950)	11,199,227.15	11,199,227.15	—
	$ 45,825,227.15	$11,199,227.15	$34,626,000.00
Net investment of U. S. Government	$ 69,876,905.57	$25,844,324.10	$44,032,581.47
ACCOUNTS PAYABLE	$ 15,474.23	$ 8,119.44	$ 7,354.79
RESERVE FOR FUTURE POWER COSTS — Excess of repayment to U. S. Treasury applied to amortization of cost of power facilities over depreciation (Note 4):			
Balance at beginning of year	$ 7,539,194.28	$ —	$ 7,539,194.28
Excess for the year ended June 30, 1950	2,901,342.26	—	2,901,342.26
Balance at end of year	$ 10,440,536.54	$ —	$10,440,536.54
	$ 80,332,916.34	$25,852,443.54	$54,480,472.80

The accompanying notes (Schedule 12) are an integral part of this statement.

UNITED STATES OF AMERICA

CORPS OF ENGINEERS — U. S. ARMY

BONNEVILLE DAM PROJECT

STATEMENT OF REVENUES AND EXPENSES FOR THE FISCAL YEAR ENDED JUNE 30, 1950

	Total	Deduct - Amounts Allocated to Other Than Power	Amounts Allocated to Power
OPERATING REVENUES:			
Receipts from sales of electric energy by Bonneville Power Administration allocated to Bonneville Dam Project applied in repayment of operating expenses and interest allocated to power (Note 4)	$2,704,227.74	$ —	$2,704,227.74
OPERATING EXPENSES (Notes 1 and 2):			
Operation —			
Specific power facilities	$ 297,151.95	$ —	$ 297,151.95
Specific navigation facilities	32,948.25	32,948.25	—
Joint facilities	136,895.57	68,447.79	68,447.78
Payment for river regulation	187,570.00	—	187,570.00
Maintenance —			
Specific power facilities	237,130.01	—	237,130.01
Specific navigation facilities	31,098.13	31,098.13	—
Joint facilities	289,925.89	144,962.95	144,962.94
Depreciation (Note 3) —			
Specific power facilities	489,001.43	—	489,001.43
Specific navigation facilities	34,975.21	34,975.21	—
Joint facilities	225,372.93	112,686.46	112,686.47
Total operating expenses	$1,962,069.37	$ 425,118.79	$1,536,950.58
Net operating revenues	$ 742,158.37	$ 425,118.79*	$1,167,277.16
INTEREST DEDUCTIONS:			
Interest on Federal investment	$1,813,621.73	$ 644,294.46	$1,169,327.27
Less — Amount charged to construction	4,015.36	1,965.25	2,050.11
Net interest deductions	$1,809,606.37	$ 642,329.21	$1,167,277.16
Net revenues	$1,067,448.00*	$1,067,448.00*	$ —

* Denotes red figure

The accompanying notes (Schedule 12) are an integral part of this statement.

SCHEDULE 12

BONNEVILLE DAM PROJECT

NOTES TO FINANCIAL STATEMENTS ON SCHEDULES 10 AND 11

1. CERTAIN COSTS NOT INCLUDED:

Property costs and operating expenses do not include costs of administrative and other services rendered by other departments and agencies of the U. S. Government which, under governmental accounting procedures, are not allocated to individual projects. It is not practicable to determine the amount of such costs applicable to this project.

2. ALLOCATION OF JOINT COSTS AND EXPENSES:

Property, plant and equipment determined to be jointly useful for power generation and for other purposes, consisting principally of the dams, reservoir and fishways, has been allocated 50% to power and 50% to nonpower purposes in accordance with a determination made by the Federal Power Commission acting under authority delegated by Congress in the Bonneville Project Act. Operation and maintenance expenses applicable to joint facilities have been allocated to power and to nonpower operations in the same proportion as the related property costs.

3. DEPRECIATION POLICY:

Depreciation has been computed on the compound interest method using an interest factor of 2.5% and based upon the estimated service lives of the various classes of property as determined by engineering studies, except that no property has been assigned a service life of longer than one hundred years which has been assumed to be the maximum economic life of the project. Land, land rights and clearing costs are being amortized over such one hundred year period. A composite depreciation reserve is maintained for each class of property and the original cost of property retired, less salvage applicable thereto, is charged to the related reserve.

4. ALLOCATION OF REVENUES:

Under the terms of an agreement between the Corps of Engineers, U. S. Army, and Bonneville Power Administration, the Administration is required to deposit in the U. S. Treasury for the account of Bonneville Dam Project, scheduled amounts of the receipts from the sale of power generated at that project, representing the portion of such receipts properly allocable to the return of the reimbursable costs of Bonneville Dam Project. These amounts are not dependent upon the quantity of electric energy generated and delivered to the Administration by Bonneville Dam Project from year to year but are designed to return to the United States the plant costs of Bonneville Dam Project allocated to power, including necessary additions and replacements, over a fifty year period beginning July 1, 1944, together with interest at 2-1/2% per annum and annual operating and maintenance expenses allocated to power. Provision is made for deposits in excess of the scheduled amounts or less than such amounts in the event that prior excess deposits have been made. Since the repayment plan contemplates the amortization of the cost of power facilities within a shorter period than the estimated service lives of such facilities, the receipts allocated to Bonneville Dam Project to date have exceeded the accumulated power expenses to date (including depreciation of power facilities based upon their service lives). Accordingly, the excess of such amortization over depreciation has been treated in the accompanying financial statements as a reserve for future power costs.

During 1950, deposits by Bonneville Power Administration for the account of Bonneville Dam Project amounted to $5,605,570.00, of which $2,704,227.74, equivalent to operating expenses (including depreciation) and interest on Federal investment allocated to power, has been reflected as current year's revenues, and $2,901,342.26 representing the excess of amortization over depreciation, has been included in the reserve for future power costs. The amounts in this reserve will be reflected in the income account in subsequent periods in amounts equivalent to the provisions for depreciation that will be charged to the income account in those subsequent periods when the plant costs allocated to power have been repaid and payments by Bonneville Power Administration to Bonneville Dam Project will only be equal to power operating expenses exclusive of provisions for depreciation.

5. CONTINGENT LIABILITIES:

The project is contingently liable under pending litigation. In the opinion of counsel for the project, any actual liability which may result from such litigation will not be material.

UNITED STATES OF AMERICA

DEPARTMENT OF THE INTERIOR

COLUMBIA BASIN PROJECT (GRAND COULEE DAM)

STATEMENT OF ASSETS AND LIABILITIES — JUNE 30, 1950

ASSETS	Total	Deduct - Amounts Allocated to Irrigation and Navigation	Amounts Allocated to Power (Including Future Downstream River Regulation)
PROPERTY, PLANT AND EQUIPMENT at original cost, including interest during construction on facilities allocated to power (Notes 1 and 2):			
Specific power facilities (powerhouses and generating equipment)	$103,446,567.10	$ —	$103,446,567.10
Joint facilities (dam, reservoir and general service facilities) allocated to —			
Present power production	49,342,171.50	—	49,342,171.50
Future downstream river regulation	37,413,294.91	—	37,413,294.91
Irrigation	63,521,915.86	63,521,915.86	—
Navigation	1,000,000.00	1,000,000.00	—
Specific irrigation facilities (equalizing reservoir, canals and pumping plant)	104,799,853.04	104,799,853.04	—
Farmland held for resale	1,382,149.34	1,382,149.34	—
	$360,905,951.75	$170,703,918.24	$190,202,033.51
Less — Reserves for depreciation (Note 3) —			
Specific power facilities	$ 3,697,011.99	$ —	$ 3,697,011.99
Joint facilities allocated to —			
Present power production	2,330,879.16	—	2,330,879.16
Future downstream river regulation	1,767,369.92	—	1,767,369.92
Irrigation	1,602,560.85	1,602,560.85	—
	$ 9,397,821.92	$ 1,602,560.85	$ 7,795,261.07
Original cost less reserves	$351,508,129.83	$169,101,357.39	$182,406,772.44
INTEREST AND DEPRECIATION CHARGES ON JOINT FACILITIES ALLOCATED TO FUTURE DOWNSTREAM RIVER REGULATION — recoverable from operations of future downstream hydro plants	$ 8,823,849.23	$ —	$ 8,823,849.23
CURRENT ASSETS:			
Cash held by Treasury Department disbursing officers	$ 26,483,660.54	$ 18,951,119.72	$ 7,532,540.82
Contract retentions and other special deposits	6,064,997.03	2,939,233.16	3,125,763.87
Due from Bonneville Power Administration	5,000,000.00	—	5,000,000.00
Accounts receivable	145,476.58	92,030.02	53,446.56
Materials and supplies	4,441,596.61	2,721,802.05	1,719,794.56
	$ 42,135,730.76	$ 24,704,184.95	$ 17,431,545.81
DEFERRED CHARGES	$ 1,699,350.22	$ 1,103,594.12	$ 595,756.10
	$404,167,060.04	$194,909,136.46	$209,257,923.58

The accompanying notes (Schedule 15) are an integral part of this statement.

SCHEDULE 13
(Continued)

UNITED STATES OF AMERICA

DEPARTMENT OF THE INTERIOR

COLUMBIA BASIN PROJECT (GRAND COULEE DAM)

STATEMENT OF ASSETS AND LIABILITIES — JUNE 30, 1950

LIABILITIES	Total	Deduct - Amounts Allocated to Irrigation and Navigation	Amounts Allocated to Power (Including Future Downstream River Regulation)
INVESTMENT OF U. S. GOVERNMENT:			
Congressional appropriations (including amounts for operating expenses), allotments, and W.P.A. expenditures, less amounts not requisitioned	$375,639,835.24	$183,409,031.57	$192,230,803.67
Transfers from other Federal projects (net)	2,883,932.40	725,168.10	2,158,764.30
Interest on portion of Federal investment allocated to power	36,635,618.74	—	36,635,618.74
	$415,159,386.38	$184,134,199.67	$231,025,186.71
Less — Funds returned to U. S. Treasury in repayment of Federal investment (including amounts for operating expenses and interest)	49,874,329.60	595,544.42	49,278,785.18
Net investment of U. S. Government	$365,285,056.78	$183,538,655.25	$181,746,401.53
CURRENT LIABILITIES:			
Accounts payable	$ 20,045,808.35	$ 11,898,594.65	$ 8,147,213.70
Employees' accrued leave	1,370,354.22	738,680.76	631,673.46
	$ 21,416,162.57	$ 12,637,275.41	$ 8,778,887.16
RESERVES:			
Reserve for deferred maintenance	$ 350,586.09	$ 154,257.88	$ 196,328.21
Contribution in aid of construction — by State of Washington	313,439.53	137,913.39	175,526.14
	$ 664,025.62	$ 292,171.27	$ 371,854.35
ACCUMULATED NET REVENUES (Notes 1 and 4):			
Balance at beginning of year	$ 12,243,071.15	$ 1,285,423.62*	$ 13,528,494.77
Add — Net revenues for the year ended June 30, 1950	4,558,743.92	273,541.85*	4,832,285.77
Balance at end of year	$ 16,801,815.07	$ 1,558,965.47*	$ 18,360,780.54
	$404,167,060.04	$194,909,136.46	$209,257,923.58

* Denotes red figure

The accompanying notes (Schedule 15) are an integral part of this statement.

UNITED STATES OF AMERICA

DEPARTMENT OF THE INTERIOR

COLUMBIA BASIN PROJECT (GRAND COULEE DAM)

STATEMENT OF REVENUES AND EXPENSES FOR THE FISCAL YEAR ENDED JUNE 30, 1950

	Total	Deduct - Amounts Allocated to Irrigation and Navigation	Amounts Allocated to Power (Including Future Downstream River Regulation)
OPERATING REVENUES:			
Receipts from sales of electric energy by Bonneville Power Administration allocated to Columbia Basin Project (Note 4)	$ 9,812,430.00	$ —	$ 9,812,430.00
Payment for river regulation	187,570.00	—	187,570.00
Interdepartmental revenues	4,682.05	—	4,682.05
Irrigation revenues	17,599.96	17,599.96	—
Total operating revenues	$10,022,282.01	$ 17,599.96	$10,004,682.05
OPERATING EXPENSES (Notes 1 and 2):			
Operation —			
Specific power facilities	$ 661,949.92	$ —	$ 661,949.92
Specific irrigation facilities	34,484.86	34,484.86	—
Joint facilities	201,281.80	88,563.99	112,717.81
Maintenance —			
Specific power facilities	315,998.33	—	315,998.33
Joint facilities	511,122.30	224,893.81	286,228.49
Depreciation (Note 3) —			
Specific power facilities	971,628.72	—	971,628.72
Joint facilities allocated to power	265,677.93	—	265,677.93
Less — Amount allocated to future downstream river regulation, recoverable from operations of future downstream hydro plants	114,362.86*	—	114,362.86*
Total operating expenses	$ 2,847,781.00	$347,942.66	$ 2,499,838.34
Net operating revenues	$ 7,174,501.01	$330,342.70*	$ 7,504,843.71
INTEREST AND OTHER DEDUCTIONS:			
Interest on Federal investment allocated to power	$ 4,342,647.51	$ —	$ 4,342,647.51
Less —			
Amount allocated to future downstream river regulation, recoverable from operations of future downstream hydro plants	1,087,804.69*	—	1,087,804.69*
Amount charged to construction	577,639.03*	—	577,639.03*
Miscellaneous income deductions (net)	61,446.70*	56,800.85*	4,645.85*
Total interest and other deductions	$ 2,615,757.09	$ 56,800.85*	$ 2,672,557.94
Net revenues	$ 4,558,743.92	$273,541.85*	$ 4,832,285.77

* Denotes red figure

The accompanying notes (Schedule 15) are an integral part of this statement.

SCHEDULE 15

COLUMBIA BASIN PROJECT (GRAND COULEE DAM)

NOTES TO FINANCIAL STATEMENTS ON SCHEDULES 13 AND 14

1. CERTAIN COSTS NOT INCLUDED:

Property costs and operating expenses do not include costs of administrative and other services rendered by other departments and agencies of the U. S. Government which, under governmental accounting procedures, are not allocated to individual projects. It is not practicable to determine the amount of such costs applicable to this project.

2. ALLOCATION OF JOINT COSTS AND EXPENSES:

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, has been allocated 56% to power (including future downstream river regulation) and 44% to nonpower purposes in accordance with a determination made by the Secretary of the Interior acting under authority delegated by Congress in the Reclamation Project Act of 1939. Operation and maintenance expenses applicable to joint facilities have been allocated to power and to nonpower operations in the same proportion as the related property costs.

3. DEPRECIATION POLICY:

Depreciation of power facilities has been computed on the compound interest method using an interest factor of 2.5% and based upon the estimated service lives of the various classes of property as determined by engineering studies, except that no property has been assigned a service life of longer than one hundred years which has been assumed to be the maximum economic life of the project. Land, land rights and clearing costs allocated to power are being amortized over such one hundred year period. Depreciation of general service facilities, which is charged to clearing accounts and redistributed to construction and other accounts, has been computed on the straight line method based upon the estimated service lives of the various types of facilities. A composite depreciation reserve is maintained for each class of property.

No provision has been made for depreciation of nonpower facilities.

4. ALLOCATION OF REVENUES:

Reclamation laws, as supplemented by the Act of August 30, 1935, and Executive Order No. 8526 require that payments be made, from time to time, to the Reclamation Fund for the account of Columbia Basin Project from revenues received by Bonneville Power Administration from the sale of electric energy equal to the portion of such revenues properly allocable to the project. Under the terms of the agreement of January 31, 1946 between the Bureau of Reclamation and Bonneville Power Administration entered into to effectuate these requirements, the Administration is required to make payments which in any year are not dependent upon the quantity of energy generated by the project and delivered to the Administration, but which are designed to return to the United States over the life of the project the operation and maintenance expenses of the dam and the power plant, the cost, exclusive of interest during construction, of facilities allocated to power, the portion of the cost, exclusive of interest during construction, of facilities allocated to irrigation which exceeds the repayment ability of the water users (estimated, upon completion of the project, to be approximately $365,000,000) and an annual amount equal to 3% of the unamortized cost, exclusive of interest during construction, allocated to present power production. A schedule of estimated payments is provided in the agreement but provision is made for annual adjustments of the schedule to reflect the application of actual payments to the return of such amounts. Provision is made also for payments in excess of the annual amounts set out in the schedule or less than such amounts in the event that prior excess payments have been made. In the opinion of counsel the amounts covered into the Reclamation Fund for the project each year are not in repayment of specific expenses applicable to specific years but rather represent lump sum payments against the total liability provided for in the agreement. Accordingly, the amount payable for the year ended June 30, 1950 under the terms of the agreement has been treated in the accompaning financial statements as current year's revenues.

5. CONTINGENT LIABILITIES:

The project is contingently liable under pending litigation which, in some instances, involve claims of substantial amount. In the opinion of counsel for the project, any actual liability which may result from such litigation will not be material.

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