

1952

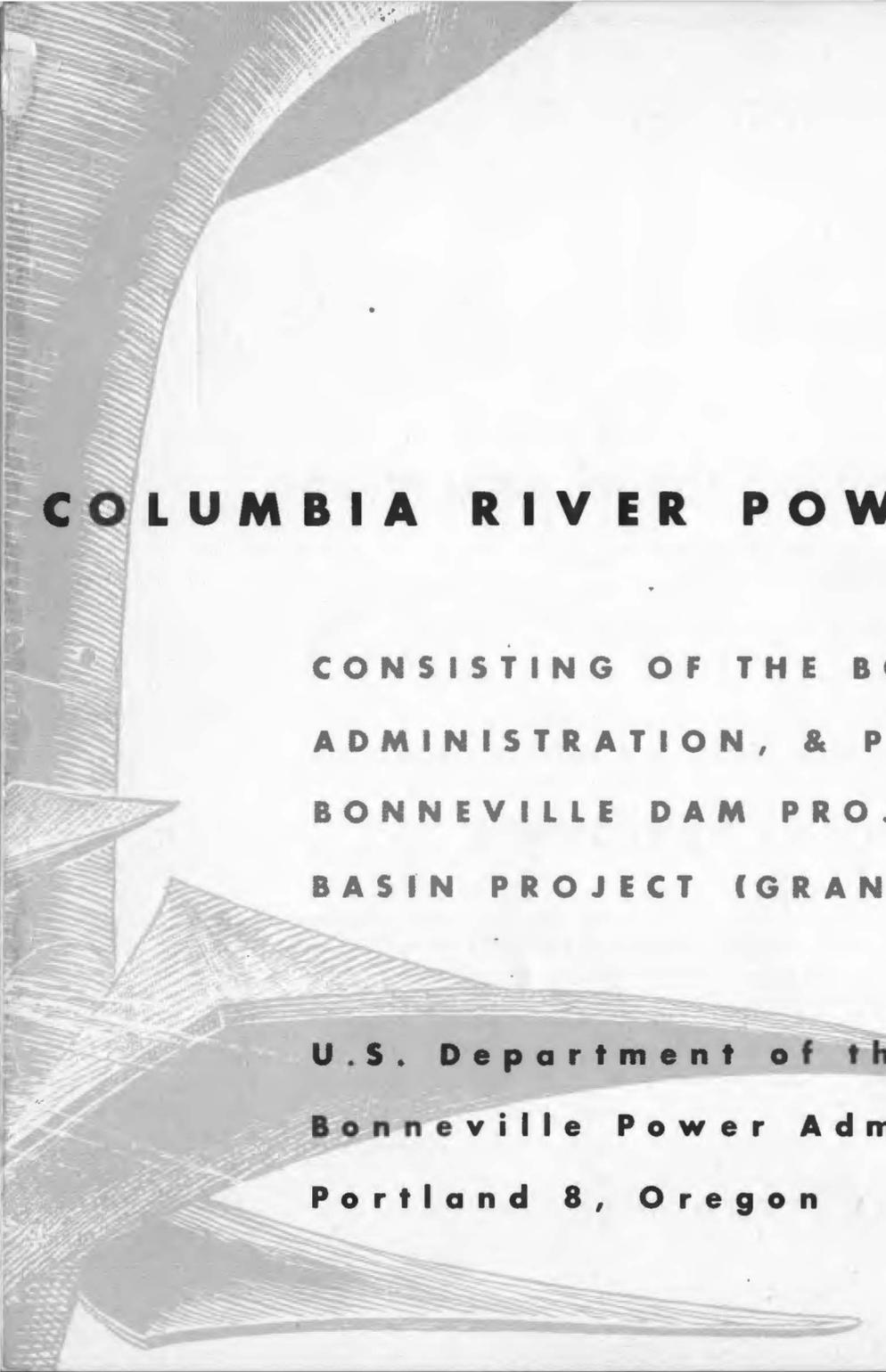
report on the Columbia River Power System

U. S. DEPARTMENT OF THE INTERIOR

BONNEVILLE POWER ADMINISTRATION



1952 REPORT ON THE

A stylized, high-contrast graphic on the left side of the page depicts a dam structure with water flowing over it. The lines are dense and parallel, creating a sense of movement and depth. The graphic is rendered in shades of gray and white, blending into the background.

COLUMBIA RIVER POWER SYSTEM

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

**U.S. Department of the Interior
Bonneville Power Administration
Portland 8, Oregon**

letter of transmittal

contents

financial results of operations 1

heavy power demand • important change •
net revenues rise • new projects in 1953 •
summary of revenues •
industrial sales up •
public utility gains •
repayment of federal investment •
investment summaries •
cash receipts •
project repayments

summary of operations 11

energy production • new system peak • integrated grid • energy
transactions • sales exceed 17 billion kilowatt hours • composite average
rate 2.41 mills • load factor trends • energy deliveries • rate schedules summarized •
customers served • distributor contracts • added generating capacity •
non-federal additions • northwest power pool • administration
supplies 61.2 percent • transmission system additions • key lines
completed • substation facilities • new construction
in progress • series capacitors • high voltage
transformers • transmission economies

auditors' report

37

Letter of Transmittal November 30, 1952

The honorable,
The Secretary of Interior
Washington, D. C.

My dear Mr. Secretary:

Bonneville Power Administration respectfully submits its Fifteenth Annual Report, covering operations of the Columbia river power system from July 1951 to June 30, 1952. This conforms to the requirements of Section 9 (c) of the Bonneville Project Act.

The primary purpose of this report is to give a comprehensive picture of the management, operations and repayment of the federal investment in the transmission facilities of the Bonneville Power Administration and the power components of the Bonneville dam project, United States Engineers, Department of the Army, and the Columbia Basin Project of the Bureau of Reclamation, Department of Interior, during the past fiscal year.

Operations continued on a sound financial basis with gross operating revenues at the close of fiscal year 1952 reflecting a gain of 11 percent over fiscal year 1951. Net revenues of \$15,890,642, after expenses, depreciation and interest, represented a gain of nearly 10 percent over the previous year. Revenues, from beginning of operations to June 30, 1951, totaled \$265,253,885. The basic wholesale rate of \$17.50 has remained the same during the 13-year period of operations despite increased costs of material and labor.

The administration was operating 4,954 circuit miles of high voltage transmission line and 132 substations with a total capacity of 3,553,850 kilovolt amperes at the end of the fiscal year. Addition of 584 circuit miles of transmission line and nine substations during the year kept us well on schedule in construction of new transmission facilities to carry generation from federal dams now nearing completion and to meet added power requirements of the principal load centers.

The financial and engineering progress shown in this 1952 report has been characteristic of Bonneville's Annual Reports for the past several years.

The economic and social consequences of this progress are well illustrated by the following facts:

Electro process industries, served directly by the Bonneville Power Administration, already represent an investment in plant of over \$300,000,000 as compared to the current federal power investment of about \$515,000,000.

Products of 13 of these electro process industries have an accumulated total value since 1940 of \$1,400,000,000.

Payroll expense of these industries on an accumulated basis has exceeded \$200,000,000.

The stimulus to rural electrification in the region by the availability of low cost Columbia river power has resulted in the highest percentage of rural power use in the nation.

Of the 50 communities in the nation with the lowest domestic power rates, 41 are served by municipal operations which obtain their power in total, or in large part,

ii letter of transmittal

from the Columbia river power system.

These achievements are a direct result of the support given to this and related regional agencies by the Congress, the Executive establishment, and, above all, by the people of the Pacific Northwest.

However, it is of the highest urgency to point out that the very success of the Columbia river program has brought with it a new and serious responsibility upon the federal establishment.

The Bonneville Power Administration now provides, to an area embracing 200,000 square miles, 61 percent of the entire electric power supply. There is scarcely a citizen who is not now affected directly by the management of this power supply. It becomes daily more apparent that any failure to meet the growing power needs of the Columbia river community will be a management failure by the several agencies and branches of federal government which, through force of circumstance, cannot escape responsibility for full development of the river resources.

It is my duty to report again, as I have during each of the past four years, that unless a realistic level of capital investment in multi-purpose projects is achieved on the Columbia river the vital stimulus to private industrial enterprise, which this program has provided in the past, will disappear. The loss of this stimulus will stultify economic growth for decades to come and will constitute a factor adverse not only to the national defense program but to the longer range economic progress of the nation.

Delays in the progress of development of multi-purpose projects, particularly during the past four years, now make mandatory the start of construction of at least three multi-purpose projects within the coming year, if more serious deficiencies are to be avoided in the future.

letter of transmittal III

Without an early beginning on these projects the completion of all federal and non-federal generating facilities now under construction will still leave the region with a deficit in supply of firm electric energy totaling 345,000 kilowatts in the year 1960-61 without including any substantial industrial uses.

It is particularly necessary to stress the need for immediate attention by the Congress to the major upstream storage projects. The investment in downstream projects will not be completely productive until such time as upstream storage is provided which will make it possible to increase project capabilities by the simple expedient of adding new generators.

Balanced development of the system to permit full use of the total power investment assumes even greater importance in the light of rising construction costs.

Although, in spite of these steadily rising costs of materials and of wages, the uniform \$17.50 per kilowatt year has been maintained; it becomes increasingly apparent that as new projects are added to the system and costs continue to rise, it will become necessary to make some revision in the rate at the time of the next rate review in 1954. This matter is currently under serious study by the Bonneville Power administration staff.

During the fiscal year 1952, the agency decentralized its power services, customer facilities, operations and maintenance to four area offices. This was a major organizational change, and was the result of three years of organization and management planning.

In parallel with this management decentralization, the administration expanded and decentralized its Regional Advisory Council. This Council has functioned since 1945. Its membership has comprised business, labor, farm and local government

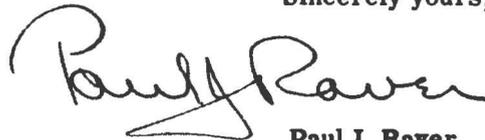
IV letter of transmittal

representatives from all parts of the four states which make up most of the Columbia river basin. The Council membership has assisted the administration in periodic review of policy problems and has offered practical advice as to the acceptability and improvement of the agency's policies.

Under the reorganization, the Advisory Council now meets regularly on an area basis. Its membership has been expanded and strengthened. Working committees have been established and are undertaking studies of problems, solution of which should go far to remove misunderstandings and disunity relative to the river program. Particular attention is now being given by these Council committees to methods for expanding state and local participation in the actual management of the river program; to suggesting methods for financing the river program in ways which will impose a minimum burden upon the United States Treasury; and principles the administration and the Congress may find of value in the improvement of the statutes upon which the river program is based.

It is the hope of the Bonneville administration that these changes in its organization and its regional relationships will be of use both to the legislative and executive branches of the government in promoting fullest use of the river resource.

Sincerely yours,

A handwritten signature in cursive script that reads "Paul J. Raver". The signature is written in dark ink and is positioned above the typed name and title.

Paul J. Raver
Administrator

letter of transmittal V



financial results of operations

heavy power demand

Excellent water conditions during the fiscal year ending June 30, 1952, and a continuation of heavy demands for power from defense industries and distributors combined to boost gross revenues of the Columbia river power system to a new peak of \$40,180,146, an increase of \$3,991,118 or 11 percent over the previous year. Net revenues, after deduction of all current year expenses for operation, maintenance, administration, marketing, depreciation and interest were \$15,890,642, a gain of \$1,395,090 or 9.6 percent over 1951.

important change

The net revenues for 1952 would have been \$311,147 greater except for an important change in accounting policy adopted by the Bonneville Power Administration for 1952 to reflect in its accounts the share applicable to its activities of the estimated costs to the federal government of the Civil Service retirement system. As indicated in the Condensed Summary of Revenues and Expenses, an adjustment also was made for the estimated

*Aerial view,
Snohomish substation
near Everett, Washington*

COLUMBIA RIVER POWER SYSTEM

**Condensed Summary of
Revenues and Expenses**

	Fiscal Year 1951	Fiscal Year 1952	Total to June 30, 1952
Operating revenues	\$36,189,028	\$40,180,146	\$265,253,885
Expenses of operation, maintenance, etc. . .	8,657,494	9,367,657	70,846,950
Provision for depreciation	6,496,777	7,147,815	44,788,565
Interest expense	6,532,009	7,608,214	63,317,674
Miscellaneous deductions, net	7,196	165,818	1,270,441
Total deductions	\$21,693,476	\$24,289,504	\$180,223,630
Surplus net revenues from power operations .	14,495,552	15,890,642	85,030,255
Adjustment for prior years' pension costs:*			
Expenses of operation, maintenance, etc. .		\$ 1,117,173	
Interest expense		334,420	
Total adjustment		\$ 1,451,593	\$ 1,451,593
Amount carried to accumulated net revenues .		\$14,439,049	\$ 83,578,662

* See text of report for explanation.

retirement system costs for prior years in the amount of \$1,451,593, including compound interest on prior years' charges, reducing the net results for the year carried to accumulated net revenues to \$14,439,049.

net revenues rise These net results increased the accumulated net revenues as of June 30, 1952, to \$83,578,662. In addition to the pension cost charged against net revenues as current expense, the new accounting policy increased the capital investment (plant account) by \$2,645,782 consisting of \$541,904 for 1952 and \$2,103,878 for prior years. The grand total adjustment, made only in the accounts of the Bonneville Power Administration and not in the accounts of the two generating projects, was therefore \$4,408,522 for both current expense and capital (plant).

new projects in 1953 The Administration anticipates further increases in gross operating revenues in 1953 but a decline in net revenues from the 1952 level of \$15,890,642. New projects, Hungry Horse, Albeni Falls and Detroit, will be in partial operation in fiscal year 1953. The added generation will contribute gross revenues, but will reduce net revenues since these projects have been constructed at higher costs than the existing dams and they will be only partially completed. Moreover, costs generally for labor and supplies have risen in recent years.

summary of revenues Revenue trends by customer categories are summarized in Table I. Aluminum with 33.29 percent and other industries, 11.57 percent, accounted for nearly one-half or 45.86 percent

of gross for 1952. Publicly owned utilities ranked second with one-third or 32.29 percent and privately owned utilities followed with about one-fifth or 21.22 percent.

industrial sales up

Sales to the aluminum industry decreased slightly, \$147,069 or 1.1 percent, due principally to a brief curtailment of operations at the Reynolds plant at Longview for rehabilitation purposes necessitated by an expansion program, and to a short curtailment of interruptible service during the low water period in the fall of 1951. Other industrial sales were up \$875,219 or 23.2 percent, representing increased usage by Chromium Mining and Smelting Corporation and the Atomic Energy Commission plus a new customer, Victor Chemical Works.

public utility gains

Sales to publicly owned utilities gained \$3,025,116 or 30.4 percent. This gain resulted in large part from general growth in the regional power requirements plus a few special factors such as increased sales of about \$900,000 to City Light of Seattle, largely as a result of the City's acquisition of properties of Puget Sound Power and Light Co. Sales to privately owned utilities remained almost unchanged in total, but increased sales to companies other than Puget were offset by the transfer by the latter of its Seattle properties to the City of Seattle.

repayment of federal investment

All funds required for construction of plant, for working capital costs and materials and for miscellaneous assets are obtained from congressional appropriations, directly or indirectly, except for a small amount obtained from power sales through

TABLE I
REVENUES BY CLASS OF CUSTOMER
Through Fiscal Year 1952

<u>Class of Customer</u>	<u>1947 and Prior</u>	<u>1948</u>	<u>1949</u>	<u>1950</u>
Industry:				
Aluminum	\$ 53,221,355	\$ 10,453,425	\$ 11,741,530	\$ 12,133,254
Other <u>1/</u>	14,302,061	1,915,884	2,219,819	2,677,580
Publicly owned utilities	10,400,864	4,318,120	5,893,436	8,409,428
Privately owned utilities	23,241,566	7,633,051	7,756,301	7,587,963
Other operating revenue	<u>4,186,610</u>	<u>193,230</u>	<u>209,943</u>	<u>389,291</u>
Total operating revenue	<u>\$ 105,352,456</u>	<u>\$ 24,513,710</u>	<u>\$ 27,821,029</u>	<u>\$ 31,197,516</u>

<u>Class of Customer</u>	<u>1951</u>	<u>1952</u>	<u>% of Total</u>	<u>Total to June 30, 1952</u>
Industry:				
Aluminum	\$ 13,523,276	\$ 13,376,207	33.29	\$ 114,449,047
Other <u>1/</u>	3,774,705	4,650,425	11.57	29,540,474
Publicly owned utilities	9,947,909	12,973,025	32.29	51,942,782
Privately owned utilities	8,525,609	8,526,775	21.22	63,271,265
Other operating revenue	<u>417,529</u>	<u>653,714</u>	1.63	<u>6,050,317</u>
Total operating revenue	<u>\$ 36,189,028</u>	<u>\$ 40,180,146</u>	<u>100.00</u>	<u>\$ 265,253,885</u>

1/ Includes federal agencies.

TABLE II

COLUMBIA RIVER POWER SYSTEM

Summary of Interest* on Federal Investment as of June 30, 1952

Interest during construction—to be returned during repayment period as part of the federal investment:

Transmission system.	\$ 3,012,802.81
Bonneville Dam Project	2,331,652.95
Columbia Basin Project	<u>9,718,739.70</u>

Subtotal \$15,063,195.46

Interest on costs of Columbia Basin Project allocated to future river regulation—to be returned as part of repayment of future downstream projects. 10,318,658.93

Interest charged to operations—repaid currently:

Transmission system.	\$21,923,366.93
Bonneville Dam Project	16,033,343.59
Columbia Basin Project	<u>25,695,383.95</u>

Subtotal 63,652,094.47

Gross interest accumulation as per Schedule 5 of Auditors' report for 1952 \$89,033,948.86

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

a continuing fund available to insure continuous operation or to meet emergencies. All receipts from sales or other sources are returned to the Treasury, again except for the small amounts transferred to the continuing fund. Interest at 2.5 percent per year is computed on the net balance and is added to and becomes a part of the gross investment of the federal government. Details of the interest accumulation are given in Table II.

investment summaries

Table III summarizes the federal investment. A detailed statement of the federal investment is given in Schedule 5 of the auditor's report which is included as a part of this report. This year, for the first time, the federal investment has been segregated between amounts for capital (plant, working capital, etc.) and the amount for annual expenses (operation, maintenance, interest, etc.). The schedule shows the application of cash receipts to repayment of the expenses in full and the application of remaining receipts to returns of the capital investment.

cash receipts

Cash receipts of \$251,845,393 have repaid all expenses for operation, maintenance, interest and miscellaneous items and have left a remainder of \$123,005,866 in repayment of the capital investment. This repayment has reduced the net unpaid federal investment to \$410,857,174 and represents the return to the Treasury of 23 percent of the gross capital investment of \$533,863,040, consisting primarily of electric utility plant which is shown in Table IV. The repayment is substantially greater than required to meet scheduled return of capital costs.

TABLE III
COLUMBIA RIVER POWER SYSTEM
SUMMARY OF FEDERAL INVESTMENT AND REPAYMENT AS OF JUNE 30, 1952

	<u>Gross Investment</u>	<u>Repayments</u>	<u>Net Investment</u>
Investment in expenses of operation, maintenance, etc.:			
From Congressional appropriations—direct	\$ 62,221,180		
From Congressional appropriations—indirect <u>1/</u>	2,790,049		
From power sales receipts—continuing fund	176,204		
Total for operation, maintenance, etc.	<u>65,187,433</u>	<u>\$ 65,187,433</u>	<u>\$ -0-</u>
Investment in interest expense <u>2/</u>	<u>63,652,094</u>	<u>63,652,094</u>	<u>-0-</u>
Total current expense	<u>128,839,527</u>	<u>128,839,527</u>	<u>-0-</u>
Investment in capital costs (plant, working capital, etc.): <u>3/</u>			
From Congressional appropriations—direct	452,827,165		
From Congressional appropriations—indirect:			
Allotments from P.W.A. funds	43,200,800		
W.P.A. expenditures	6,674,130		
Other <u>1/</u>	4,692,691		
Interest on federal investment <u>2/</u>	25,381,854 <u>4/</u>		
From power sales receipts—continuing fund	<u>1,086,400</u>		
Total capital investment of the federal government	<u>533,863,040</u>	<u>123,005,866</u>	<u>410,857,174</u>
Total current expense and capital costs	<u>\$ 662,702,567</u>	<u>\$ 251,845,393</u>	<u>\$ 410,857,174</u>

1/ Goods and services received from, net of amounts furnished to, other federal agencies without transfer of funds.

2/ The Columbia River Power System does not pay interest from its appropriations but imputes interest expense at 2-1/2% per year and returns receipts to the Treasury in repayment of such costs.

3/ Consists of utility plant of \$515,602,079, cash (including a \$500,000 balance in the continuing fund), materials, etc.

4/ Consists of interest during construction, \$15,063,195, included as part of cost of plant and \$10,318,659 for deferred interest charges on future downstream river regulation.

TABLE IV
 COLUMBIA RIVER POWER SYSTEM
 SUMMARY OF PLANT ACCOUNTS AS OF JUNE 30, 1952

	<u>Total</u>	<u>Allocation</u>	
		<u>Non Power</u>	<u>Power</u>
Bonneville Power Administration	\$249,039,489	\$ —	\$249,039,489
Bonneville Dam Project.	86,773,504	27,266,273	59,507,231
Columbia Basin Project.	<u>445,222,773</u>	<u>238,167,414</u>	<u>207,055,359</u>
Total	<u>\$781,035,766</u>	<u>\$265,433,687</u>	<u>\$515,602,079</u> ^{1/}
Less combined reserve for depreciation			<u>44,623,044</u>
Total less reserve			<u>\$470,979,035</u>

^{1/} The total of plant investment represents the major component of the gross federal investment of \$662,702,568 as shown in Schedule 5 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.

project repayments On an individual project basis, the return of the power capital investment has been as follows:

	Gross Power Capital Investment	Repaid as of June 30, 1962	Net Power Investment
Bonneville Power Administration	\$255,557,049	\$ 67,552,561 (26.4%)	\$188,004,488
Bonneville Dam	59,874,490	18,699,654 (31.2%)	41,174,836
Columbia Basin Project	<u>218,431,501</u>	<u>36,753,651 (16.8%)</u>	<u>181,677,850</u>
Total	<u>\$533,863,040</u>	<u>\$123,005,866 (23.0%)</u>	<u>\$410,857,174</u>

The foregoing data on repayment of the investment are based on the certified cost accounts maintained in accordance with the Federal Power Commission Uniform System of Accounts. On a statutory repayment basis, results are the same for the Bonneville Power Administration and Bonneville dam, but different for the Columbia Basin Project since in the case of the latter (1) power revenues must pay operation and maintenance costs of Grand Coulee dam and power plant allocated to irrigation, (2) interest expense is computed at 3 percent rather than 2.5 percent, and on a different investment base, and (3) other differences such as the exclusion of interest during construction in the payout accounts of the Columbia Basin Project and the inclusion of a provision for replacements. Final payout data are not available for the Columbia Basin Project.

energy production

summary of operations

energy production

Power generated at Bonneville and Grand Coulee power plants for the Administration exceeded 18.5 billion kilowatt hours of electric energy during fiscal year 1952. This was more than 60 percent of all produced in the Pacific Northwest during the year. Power produced during the fiscal year brought total production from the two Columbia river plants since July 1939 to 115.6 billion kilowatt hours and reflected an increase of 12.6 percent over fiscal year 1951.

new system peak

A new system peak was recorded between five and six p. m., December 31, 1951, with a coincidental demand on Bonneville and Grand Coulee plants of 2,784,000 kilowatts, a 10 percent increase over the previous fiscal year's maximum demand of 2,535,000 kilowatts, occurring during June 1951.

Since the fall of 1946, maximum system demands have continuously exceeded the nameplate rating of installed generators. Energy production by years at Bonneville and Grand Coulee plants is shown in Table V, with peak demand and energy data in Chart 1. Prepared on a quarterly basis the chart shows clearly the general trends of Bonneville Power Administration system growth and development.

integrated grid

Bonneville Power Administration's transmission grid forms the backbone of the interconnected transmission system of public and private utilities in the Pacific Northwest. As a result electric energy receipts and deliveries on Bonneville's transmission

TABLE V
GENERATION AT BONNEVILLE AND GRAND COULEE PLANTS FOR
BONNEVILLE POWER ADMINISTRATION, FISCAL YEARS 1939-1952
(Thousands of Kilowatt hours)

<u>Fiscal Years Ending June 30</u>	<u>Bonneville Generation</u>	<u>Grand Coulee Generation</u>	<u>Total Generation for BPA</u>
1939	34,874	—	34,874
1940	208,426	—	208,426
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 <u>1/</u>	10,885,907
1949	3,868,558	9,057,230 <u>1/</u>	12,925,788
1950	3,689,309	10,451,524 <u>1/</u>	14,140,833
1951	3,793,276	12,679,108 <u>1/</u>	16,472,384
1952	<u>4,462,935</u>	<u>14,092,466 1/</u>	<u>18,555,401</u>
Total	38,802,295	76,771,837 <u>1/</u>	115,574,132

1/ Includes energy transferred for Bureau of Reclamation.

CHART 1

PEAK DEMAND & ENERGY

BONNEVILLE & GRAND COULEE PLANTS

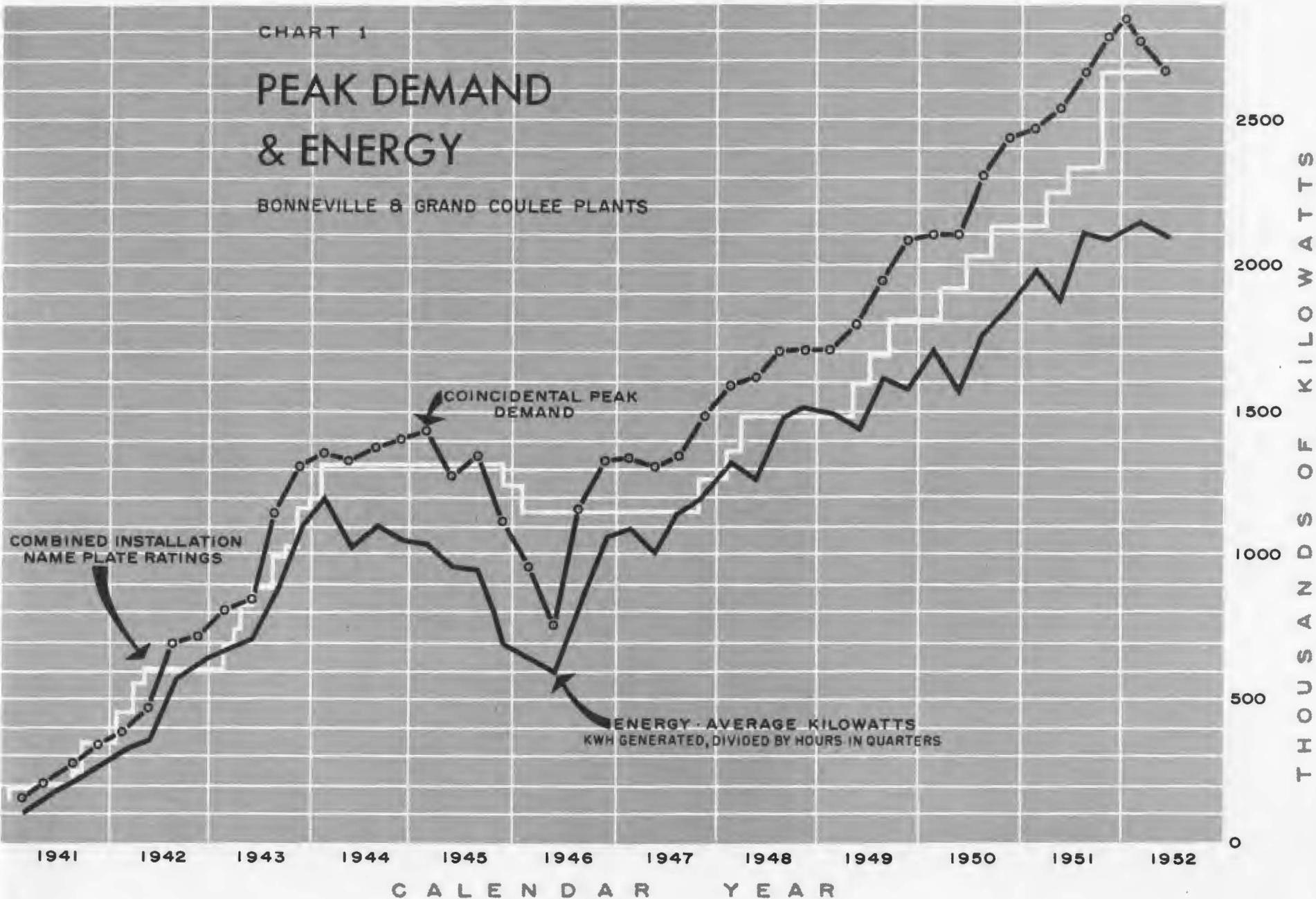


TABLE VI
ELECTRIC ENERGY ACCOUNT, FISCAL YEAR ENDED JUNE 30, 1952

Energy received (thousands of kilowatt hours):	
Energy generated for Bonneville Power Administration	
Bonneville	4,462,935
Grand Coulee	<u>14,092,466</u> ^{1/}
Total	18,555,401 ^{1/}
Power purchased and interchanged in.	<u>1,119,425</u>
Total received	<u>19,674,826</u>
 Energy delivered (thousands of kilowatt hours):	
Sales	17,022,998
Power interchanged out	1,076,574 ^{1/}
Used by Administration	<u>19,376</u>
Total delivered	18,118,948
Energy losses in transmission and transformation	1,555,878
Losses as percent of total energy received	7.9%
Maximum demand on Bonneville and Grand Coulee plants (kilowatts)	
Dec. 31, 1951, 5-6 p.m., Pacific Standard Time	2,784,000
 Load factor, total generated for Bonneville Power Administration	
	75.9%

^{1/} Includes energy transferred for Bureau of Reclamation.

system cover many complex transactions in addition to receipts from Bonneville and Grand Coulee generation, and deliveries by sales.

The integrated transmission grid makes possible the fullest utilization of power facilities in the area through diversity in peaking and water capabilities and diversity of system load conditions. Substantial quantities of energy are received and delivered as transfers from other utilities.

energy transactions

Transactions also involve storage by the Administration in non federal reservoirs as well as storage by non federal utilities in the Grand Coulee reservoir. Disposition of energy includes deliveries from storage in Grand Coulee or to storage in other reservoirs, energy transfers for the Bureau of Reclamation from Grand Coulee, energy used by the Administration and energy losses in transmission and transformation.

Table VI, electric energy account, summarizes energy receipts and deliveries.

**sales exceed
17 billion kilowatt hours**

Energy sales to customers of the Bonneville Power Administration exceeded 17 billion kilowatt hours during fiscal year 1952, an increase of 12.9 percent over the previous year. Energy losses in transmission and transformation of power were 1.6 billion kilowatt hours, or 7.9 percent of total energy received on the system.

Critical water conditions existing in September 1951 made curtailment of power to aluminum plants and other large industries necessary for about two weeks, with some curtailment during peaking periods being necessary during eight months of the year. As a result of reduced operations at the Longview Reynolds plant for change in the plant and water conditions, one percent less energy was sold to aluminum plants than during the previous fiscal year. Deliveries to all other classes of customers showed increases, the largest in deliveries to public utilities, an increase of 41 percent. Firm energy deliveries to private utilities increased 6 percent, industries other than aluminum 37 percent, and federal agencies 17 percent.

**composite average
rate 2.41 mills**

The Administration has delivered 107,480,705,000 kilowatt hours of energy at a composite average rate of 2.41 mills per kilowatt hour during the 14 years of operation ending June 30, 1952. Sales to publicly owned utilities for this period were 18.5

LEGEND

- PRIVATELY OWNED UTILITIES
- PUBLICLY OWNED UTILITIES
- OTHER INDUSTRY*
- ALUMINUM INDUSTRY
- * INCLUDES FEDERAL AGENCIES

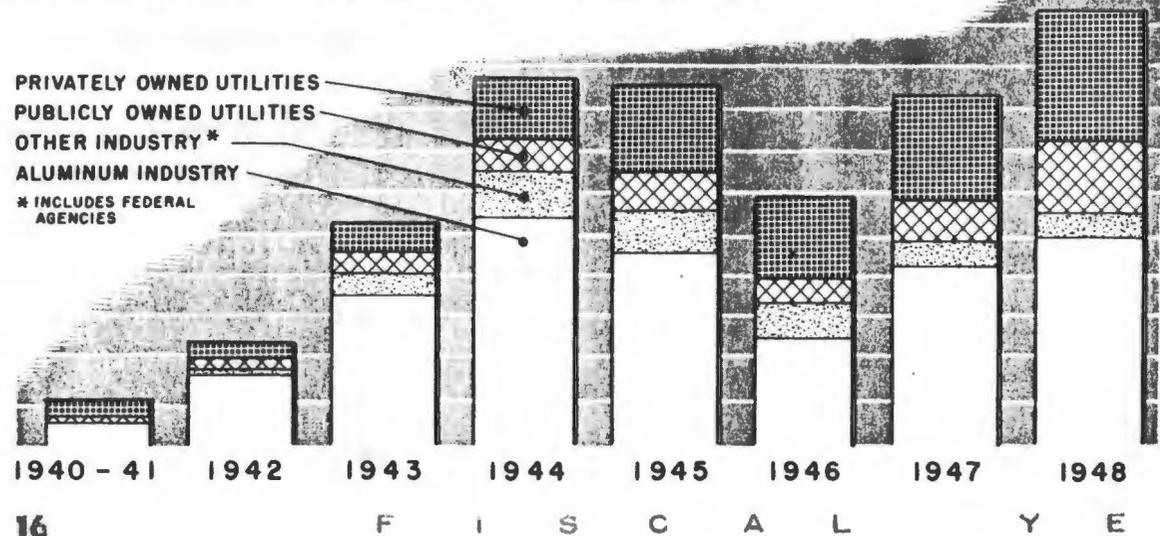
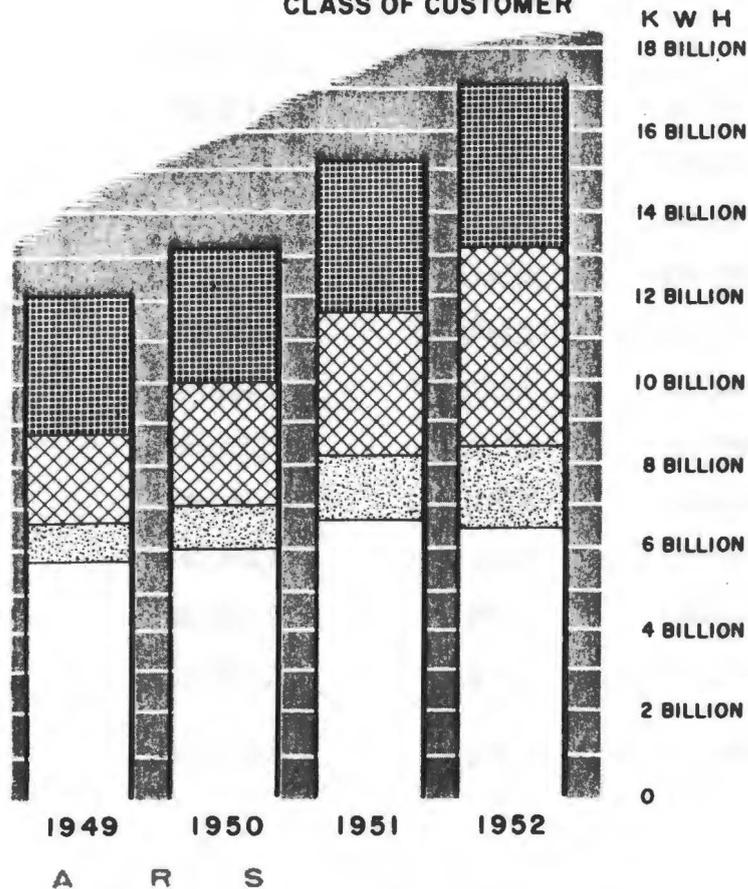


CHART 2

ENERGY SALES

CLASS OF CUSTOMER



billion kilowatt hours at an average rate of 2.80 mills. Privately owned utilities received 26.7 billion kilowatt hours at an average rate of 2.37 mills, and industries 62.3 billion kilowatt hours at an average rate of 2.31 mills. Power sales to the aluminum plants, initially established in the Pacific Northwest to meet World War II production needs and expanded to meet current requirements, were 52.2 billion kilowatt hours at an average rate of 2.20 mills. Sales to industries other than aluminum including sales to federal agencies were 10.0 billion kilowatt hours at an average rate of 2.91 mills.

load factor trends

Since 1942, the proportion of energy sales delivered to aluminum plants with high load factor usage of electric energy has been decreasing, resulting in a trend of higher average mills per kilowatt hour. Increasing load factors on power purchases from Bonneville by other customers, made possible by favorable stream flows during the past fiscal year except for a short period last fall, have counterbalanced this tendency in fiscal year 1952 to give 2.31 mills per kilowatt hour, as compared to 2.37 and 2.38 mills per kilowatt hour for the previous two fiscal years. The same set of rate schedules, based on \$17.50 per kilowatt year, is available to all customers, but the average rate varies according to the customer's system load conditions and the rate schedules best adapted to those load conditions.

TABLE VII
ELECTRIC ENERGY SALES BY CLASS OF CUSTOMER
Fiscal Years 1939-1952

(Thousands of Kilowatt hours)

<u>Fiscal Years Ending June 30</u>	<u>Industry</u>		<u>Publicly Owned Utilities</u>	<u>Privately Owned Utilities</u>	<u>Total</u>
	<u>Aluminum</u>	<u>Other Industries 1/</u>			
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	1,560,754	3,180,993	10,291,125
1949.	5,665,746	881,454	2,079,290	3,343,983	11,970,473
1950.	5,863,465	1,023,830	2,840,021	3,318,719	13,046,035
1951.	6,544,703	1,537,580	3,413,487	3,582,586	15,078,356
1952.	<u>6,471,694</u>	<u>1,941,968</u>	<u>4,803,357</u>	<u>3,805,979</u>	<u>17,022,998</u>
Total to June 30, 1952	52,231,824	10,036,192	18,541,710	26,670,979	107,480,705

1/ Includes federal agencies.

energy deliveries

Electric energy sales by class of customer for each of the 14 years' operation are shown in Table VII. Annual detail of energy deliveries to these four classes of customers is shown in Chart 2 for the period from July 1938 to date. The relative size and growth of energy sales to aluminum plants, other industries, privately owned utilities and publicly owned utilities are shown in the chart while detail by customers of energy sales during fiscal year 1952 is shown in Table VIII.

rate schedules summarized

A sales summary for fiscal year 1952, classified by rate schedules, is shown in Table IX. Over three-fourths of energy sales during the fiscal year were made under the C schedule at an average rate of 2.09 mills. This is the kilowatt year rate for firm power delivered anywhere from the transmission system and is also used with special measured demand provisions for sales of interruptible power. Sales are generally made under this rate to industries operating at high load factor and to utilities having substantial generating facilities. Other sales were made principally under the E schedule to utilities purchasing all or substantially all of their power requirements from the Administration. Sales under the F schedule were made to the utilities and industries requiring power at low load factor use and under the H schedule for dump, exchange, or experimental purposes.

During an emergency at Grand Coulee on March 14, the Administration purchased a small amount of steam generated power and resold this power at cost to Bonneville Power

TABLE VII
ENERGY DELIVERIES TO CUSTOMERS OF THE
BONNEVILLE POWER ADMINISTRATION
Fiscal Year Ended June 30, 1952

Customers

**Energy Deliveries for Year 1/
Kilowatt hours**

Publicly Owned Utilities

Municipalities

Bandon, Oregon	8,352,000
Canby, Oregon	8,064,000
Cascade Locks, Oregon	7,382,400
Centralia, Washington	6,683,000
Cheney, Washington	10,400,287
Drain, Oregon	6,948,000
Ellensburg, Washington	25,939,680
Eugene, Oregon	64,712,639
Forest Grove, Oregon	27,547,488
Grand Coulee, Washington	18,993,600
McCleary, Washington	12,849,600
McMinnville, Oregon	40,284,300
Milton, Oregon	12,432,000
Monmouth, Oregon	7,946,370
Seattle, Washington	874,328,172
Springfield, Oregon	12,955,200
Tacoma, Washington	<u>820,503,000</u>

Total Municipalities (17) . . . 1,966,321,736

Public Utility Districts

Benton Co. PUD #1	75,599,654
Central Lincoln PUD	82,602,400
Chelan Co. PUD #1	245,608,818
Clallam Co. PUD #1	65,566,136
Clark Co. PUD #1	314,633,300
Clatskanie PUD	11,959,200
Cowlitz Co. PUD #1	303,073,084
Douglas Co. PUD #1	57,586,700
Ferry Co. PUD #1	568,504
Franklin Co. PUD #1	53,412,000
Grant Co. PUD #2	120,291,240
Grays Harbor Co. PUD #1	181,082,088
Kittitas Co. PUD #1	5,074,500
Klickitat Co. PUD #1	36,988,278

<u>Customers</u>	<u>Energy Deliveries for Year 1/ Kilowatt hours</u>
Lewis Co. PUD #1	88,478,770
Mason Co. PUD #3	88,504,800
Northern Wasco Co. PUD	6,998,400
Okanogan Co. PUD #1	66,149,583
Pacific Co. PUD #2	53,295,145
Pend Oreille Co. PUD #1	33,573,301
Skamania Co. PUD #1	16,448,800
Snohomish Co. PUD #1	446,597,194
Tillamook PUD	37,556,200
Wahkiakum Co. PUD #1	<u>9,823,671</u>

Total Public Utility Districts
(24) 2,401,471,766

Cooperatives

Benton Lincoln Elec. Coop.	64,069,710
Benton Rural Elec. Assn.	22,752,973
Big Bend Elec. Coop.	15,783,232
Blachly-Lane Co. Elec. Coop.	8,610,000
Central Electric Coop.	7,397,560
Chelan Co. Electric Coop.	600,600
Clearwater Valley L & P Assn.	23,336,300
Columbia Basin Elec. Coop.	4,772,400
Columbia County REA	11,780,950
Coos-Curry Elec. Coop.	8,346,000
Douglas Elec. Coop.	22,194,632
Eastern Oregon Elec. Coop.	1,033,800
Hood River Elec. Coop.	8,944,800
Idaho Co. L & P Assn.	5,914,350
Inland Empire REA	46,840,300
Kootenai Co. REA	7,692,730
Lane Co. Elec. Coop.	27,983,712
Lincoln Elec. Coop. - Montana.	1,912,800
Lincoln Elec. Coop. - Wash.	11,806,039
Missoula Elec. Coop.	<u>3,328,544</u>

<u>Customers</u>	<u>Energy Deliveries for Year 1/ Kilowatt hours</u>
Nespelem Valley Elec. Coop. . .	4,924,000
Northern Lights	7,133,440
Okanogan Co. Elec. Coop. . . .	2,458,750
Orcas Power & Light Co. . . .	2,502,720
Pend Oreille Elec. Coop. . . .	4,642,107
Ravalli Co. Elec. Coop.	3,845,880
Salem Electric	27,776,800
Sandy Elec. Coop.	2,035,836
Stevens Co. Elec. Coop.	15,956,000
Tanner Mutual P & L Assn. . . .	243,099
Umatilla Elec. Coop. Assn. . . .	15,961,555
Wasco Elec. Coop.	16,739,122
West Oregon Elec. Coop.	11,803,355
Total Cooperatives (33)	421,124,096
 <u>Other</u>	
Oregon State College.	18,720
Vanport Extension Center	621,720
Vera Irrigation District #15 . . .	13,798,400
Total Other (3)	14,438,840
 Total Publicly Owned	
Utilities	4,803,356,438
 <u>Privately Owned Utilities</u>	
British Columbia Elec. Co. . . .	61,000
California Oregon Power Co. . . .	13,721,781
Montana Power Co.	39,990,261
Interconnected Pool 2/	599,558,284
Mountain States Power Co. . . .	174,785,928
Pacific P & L Co.	721,120,000
Portland General Electric Co. . .	1,445,932,000
Puget Sound P & L Co.	238,597,000
Washington Water Power Co. . . .	273,557,000
WWP - Kootenay Lake	298,656,000
Total Privately Owned	
Utilities (8)	3,805,979,254

<u>Customers</u>	<u>Energy Deliveries for Year 1/ Kilowatt hours</u>
Federal Agencies (12)	919,699,041
 <u>Industries</u>	
<u>Aluminum</u>	
Aluminum Co. of America	
Vancouver Plant.	1,479,768,269
Wenatchee Plant.	3,132,000
Kaiser Alum. & Chem. Corp.	
Spokane Aluminum Fab. . . .	225,287,505
Spokane Aluminum Red. . . .	2,477,028,973
Tacoma Aluminum Red. . . .	441,662,981
Reynolds Metals Co.	
Longview Plant	486,391,240
Troutdale Plant	1,358,422,548
 <u>Other</u>	
Carborundum Co.	88,410,000
Crown Zellerbach Corp.	111,462,045
Electro-Metallurgical Co.	129,113,528
General Services Adm.	311,413,575
Keokuk Electro Metals Co. . . .	131,030,104
Pacific Carbide & Alloys Co. . . .	37,653,931
Pennsylvania Salt Mfg. Co. . . .	134,596,084
Rayonier Corp.	22,364,628
Victor Chemical Works	56,225,425
Total Industries (16)	7,493,962,836

Total Sales of Electric Energy (113) ^{3/} 17,022,997,569

^{1/} Includes energy deliveries carried on exchange accounts.

^{2/} Includes MSP Co., PP&L Co., PGE Co., PSP&L Co. and WWP Co.

^{3/} 112 customers as of June 30, 1952; service to one customer discontinued during year.

Administration customers. The cost of this steam generated power was 8.61 mills per kilowatt hour.

customers served

Customers served by the Administration at the end of the fiscal year totaled 112, including 76 publicly owned distributors of power, 16 industrial customers, 12 federal agencies, and 8 privately owned utilities. Five customers were added during the year--the Orcas Power and Light Cooperative, Aluminum Company of America at Wenatchee, Victor Chemical Works at Silver Bow, the U. S. Indian Service, and a radio station of the U. S. Navy. Service to Oregon State College was discontinued.

distributor contracts

All long term wholesale 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 X. 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.

added generating capacity

Energization of the final unit in the right powerhouse at Grand Coulee during the year completed the 18 generator installation and increased the combined Bonneville-Grand Coulee nameplate rating to 2,462,400 kilowatts, with a maximum peak generating capability of 2,724,000 kilowatts.

TABLE IX

ELECTRIC ENERGY SALES BY RATE SCHEDULES, FISCAL YEAR ENDED JUNE 30, 1952

<u>Rate Schedule</u>	<u>Energy (Thousands of Kilowatt hours)</u>	<u>Revenue 1/</u>	<u>Mills per Kilowatt hour</u>
C-3, C-4:			
Industries	7,881,460	\$ 16,291,322	2.07
Utilities	5,148,515	10,937,770	2.12
Subtotal	<u>13,029,975</u>	<u>27,229,092</u>	2.09
F-2, F-3, F-4:			
Industries	250,325	895,966	3.58
Utilities	84,321	341,854	4.05
Subtotal	<u>334,646</u>	<u>1,237,820</u>	3.70
A-4: Utilities	21,108	70,025	3.32
E-3, E-4: Utilities	2,512,147	7,973,051	3.17
Experimental, steam, H-2, H-3, and exchange (industries and utilities)	1,125,122	2,835,843	2.52
Total sales	<u>17,022,998</u>	<u>39,345,831</u>	2.31
Reconciliation with accounting records		plus 180,601 1/	
Other electric revenues		<u>653,714</u>	
Total operating revenues		<u>\$40,180,146</u>	

1/ Sales statistics include billing adjustments or revisions made subsequent to close of accounting records.

Major features of rate schedules:

- C-3, C-4: Kilowatt year rate for transmission system power.
- F-2, F-3, F-4: Demand energy rate for firm power.
- A-3, A-4: Kilowatt year rate for at site firm power.
- E-2, E-3, E-4: Demand energy rate for firm power for resale to ultimate consumer.
- Experimental: Energy rate of 2.5 mills for developmental purposes.
- H-2, H-3: Energy rate for dump, emergency, or breakdown service.
- Exchange: Gross exchange account deliveries at dump energy rate.
- Interruptible: Billed under C-4 and F-4 schedules with special measured demand provisions.

TABLE X
RESIDENTIAL AND RURAL SERVICE
AVERAGE USE PER CUSTOMER AND AVERAGE PRICE PER KILOWATT HOUR

<u>Calendar Year</u>	<u>Kilowatt hours per Customer</u>		<u>Calendar Year</u>	<u>Price per Kilowatt hour</u>	
	<u>U. S. Total</u>	<u>Oregon and Washington</u>		<u>U. S. Total</u>	<u>Oregon and Washington</u>
				Cents	Cents
1938	902	1,410	1938	4.02	2.65 ^{1/}
1939	953	1,467	1939	3.87	2.55 ^{1/}
1940	1,006	1,589	1940	3.74	2.27
1941	1,044	1,776	1941	3.65	2.08
1942	1,088	2,024	1942	3.57	1.94
1943	1,135	2,279	1943	3.50	1.84
1944	1,225	2,504	1944	3.41	1.74
1945	1,305	2,801	1945	3.32	1.69
1946	1,418	3,219	1946	3.13	1.58
1947	1,546	3,696	1947	3.00	1.49
1948	1,674	4,160	1948	2.92	1.41
1949	1,806	4,503	1949	2.87	1.38
1950	1,951	4,867	1950	2.81	1.36
1951	2,137	5,205	1951	2.74	1.34

^{1/} Partially estimated from State Commission data.

Source: Edison Electric Institute.

Federal projects existing, under construction, authorized, or recommended by the Corps of Engineers, Bureau of Reclamation and the Bonneville Power Administration are shown in Table XI. Complete development of these multipurpose projects will provide a total of 27.6 million acre-feet of storage space for flood control and power, and over 12 million kilowatts of peaking capability needed to meet the region's power requirements.

non federal additions

A few additions were made to non federal utility generating facilities during the year. The Idaho Power Company completed its C. J. Strike plant with an installed capacity of 82,800 kilowatts, California Oregon Power Company completed the Fish Creek plant, and Portland General Electric Company added a 5,000 kilowatt unit at Station "M". In addition to these hydro installations, the Montana Power Company completed the F. W. Bird steam plant with a nameplate rating of 60,000 kilowatts. Additions presently planned by the non federal utilities during the next three years are shown in Table XII.

northwest power pool

Generation during fiscal year 1952 by the principal electric utility systems of the Pacific Northwest region is shown in Chart 3. All of the utilities are members of the Northwest Power Pool. Utah Power and Light Company and the British Columbia Electric Company are also members of the pool but are not included since their major service areas are outside the Pacific Northwest region.

TABLE XI
GENERAL SPECIFICATIONS — EXISTING, AUTHORIZED AND RECOMMENDED PROJECTS
INSTALLATIONS AND CAPABILITIES CORRESPOND TO A COORDINATED SYSTEM OF OPERATION OF PLANTS SHOWN

	Location	Stream	Plant installations 1/ Number units	Total capacity kilowatts	Nominal prime power average kilowatts 2/	Pool elevation (feet)	Usable storage 4/ (acre-feet)	Average head (feet)	Initial date 4/ in service	Principal purposes 5/
EXISTING PROJECTS										
Columbia Basin Project (Grand Coulee)	Washington	Columbia	18	1,944,000	1,575,000 3/	1,288.0	5,118,000	330	Mar. 1941	P, I, N, FC.
Bonneville	Wash.-Ore.	Columbia	10	518,400	479,000	72.0	—	60	Jan. 1938	P, N.
Minidoka	Idaho	SNAKE	7	13,400	6,000	4,245.0	95,200	48	1909	P, I.
Boise Diversion	Idaho	Boise	3	1,500	2,000	2,800.0	—	31	1912	P, I.
Black Canyon	Idaho	Payette	2	8,000	9,000	2,497.0	14,800	88	1925	P, I.
Anderson Ranch	Idaho	S. Fk. Boise	2	27,000	21,000	4,196.0	464,200	260	Dec. 1950	P, I, FC.
PROJECTS UNDER CONSTRUCTION										
Hungry Horse	Montana	S. Fk. Flathead	4	285,000	187,000	3,559.0	2,980,000	380	Oct. 1952 6/	P, I, N, FC.
Albeni Falls	Idaho	Pend Oreille	3	42,600	23,000	2,062.5	1,140,000	24	Aug. 1954 7/	P, N, FC.
Chief Joseph	Washington	Columbia	18	1,152,000	801,000	937.5	—	171	Dec. 1955	P, I, N.
McNary	Wash.-Ore.	Columbia	14	980,000	621,000	340.0	—	87	Dec. 1953	P, I, N.
The Dalles	Wash.-Ore.	Columbia	14	1,092,000	691,000	160.0	—	88	Nov. 1957	P, I, N.
Lookout Point	Oregon	M. Fk. Willamette	3	114,000	36,000	929.0	368,000	228	July 1954	P, I, N, FC.
Dexter	Oregon	M. Fk. Willamette	1	15,000	12,000	695.0	—	53	Dec. 1954	P.
Detroit	Oregon	N. Santiam	2	100,000	30,000	1,569.0	340,000	299	June 1953	P, I, N, FC.
Big Cliff	Oregon	N. Santiam	1	18,000	10,000	1,206.0	—	91	Dec. 1953	P.
Chandler	Washington	Yakima	2	12,000	12,000	—	—	118	Dec. 1955	P, I.
Palisades	Idaho	SNAKE	4	114,000	41,000	5,620.0	1,200,000	144	Oct. 1956	P, I, FC.
AUTHORIZED PROJECTS										
Libby	Montana	Kootenai	5	515,000	275,000	2,459.0	4,600,000	310	Sept. 1958 8/	P, N, FC.
Priest Rapids	Washington	Columbia	18	954,000	723,000	550.0	2,100,000 10/	129	Dec. 1962	P, N, FC.
John Day	Wash.-Ore.	Columbia	13	1,105,000	720,000	255.0	2,000,000 10/	95	Dec. 1964	P, I, N, FC.
Ice Harbor	Washington	SNAKE	4	260,000	204,000	440.0	—	93	Dec. 1956	P, I, N.
Lower Monumental	Washington	SNAKE	4	240,000	194,000	533.0	—	89	Dec. 1958	P, I, N.
Little Goose	Washington	SNAKE	4	260,000	209,000	633.0	—	96	Dec. 1959	P, N.
Lower Granite	Washington	SNAKE	4	220,000	170,000	715.0	—	77	Dec. 1960	P, N.
Hills Creek	Oregon	M. Fk. Willamette	1	20,000	14,000	1,510.0	221,000	204	Dec. 1957	P, I, N, FC.
Cougar 11/	Oregon	S. Fk. McKenzie	1	25,000	15,000	1,683.0	182,000	418	—	P, I, N, FC.
Green Peter 11/	Oregon	M. Santiam	2	81,000	22,000	984.0	322,000	315	—	P, I, N, FC.
White Bridge 12/	Oregon	M. Santiam	1	15,000	9,000	670.0	—	93	—	P.
Roza	Washington	Yakima	2	10,000	4,000	—	—	140	July 1955	P, I.
American Falls	Idaho	SNAKE	3	30,000	—	4,355.0	1,700,000	80	Nov. 1955	P, I.
RECOMMENDED PROJECTS										
Hells Canyon	Ore.-Idaho	SNAKE	8	800,000	688,000	2,077.0	3,880,000	510	Sept. 1957 9/	P, I, N, FC.
Upper Scriver	Idaho	Scriver Creek	3	37,500	26,000	4,505.0	—	410	Sept. 1956	P, I.
Lower Scriver	Idaho	Scriver Creek	2	60,000	52,000	4,060.0	—	794	Sept. 1956	P, I.
Garden Valley	Idaho	Payette	4	60,000	52,000	3,246.0	843,000	334	—	P, I, FC.

1/ Name-plate rating.

2/ Average capability during storage draw-down period.

3/ Pumping requirements for 450,000 acres of the Columbia Basin Project have been deducted.

4/ Generator installation and storage development dates correspond to Schedule U dated March 5, 1952.

5/ P - Power; I - Irrigation; N - Navigation; FC - Flood Control.

6/ The storage schedule for usable storage at Hungry Horse is 580,000 acre-feet by September 1952, 2,000,000 acre-feet by September 1953, and 2,980,000 acre-feet by September 1954.

7/ Total storage is now developed.

8/ Usable storage of 4,250,000 acre-feet is scheduled for September 1958 and total usable storage of 4,600,000 acre-feet by September 1959.

9/ Initial generation in 1957 and total usable storage in August 1958.

10/ Flood control storage only.

11/ Power facilities are not authorized.

12/ White Bridge is not authorized but is required for reregulating purposes with installation of generating units at Green Peter.

TABLE XII
NON FEDERAL UTILITIES
GENERATOR INSTALLATION SCHEDULE AS OF MARCH 5, 1952

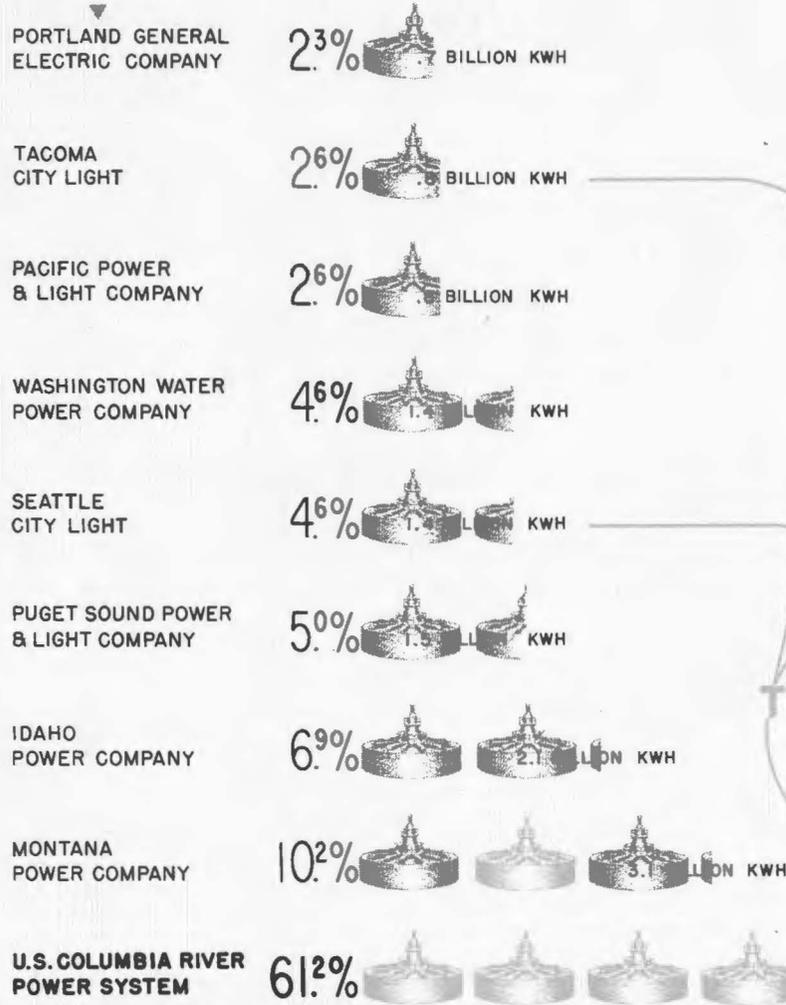
<u>Utility and Plant</u>	<u>Unit</u>	<u>Name Plate Rating-Mw</u>	<u>Date in Service</u>	<u>Utility and Plant</u>	<u>Unit</u>	<u>Name Plate Rating-Mw</u>	<u>Date in Service</u>
<u>CITY OF SEATTLE</u>				<u>PORTLAND GENERAL ELECTRIC COMPANY</u>			
Ross	#1	90	Dec. 1952	Station "B"	#1,2,3	3.6	Aug. 1952
	#2	90	Mar. 1953		#4,5,6	3.6	Sept. 1952
	#3	90	Sept. 1953		#7,8,9	3.6	Oct. 1952
		<u>270</u>			#10,11,12	3.6	Nov. 1952
						<u>14.4</u>	
<u>CITY OF TACOMA</u>				Pelton	#1,2	80.0	Nov. 1953
Mayfield	#1	40	Aug. 1954		#3	40.0	Jan. 1954
	#2	40	Oct. 1954			<u>120.0</u>	
	#3	40	Dec. 1954	<u>PACIFIC POWER & LIGHT COMPANY</u>			
	#4	40	Feb. 1955	Yale	#1	50	Dec. 1952
		<u>160</u>			#2	50	Jan. 1953
Mossyrock	#1	75	Oct. 1954			<u>100</u>	
	#2	75	Dec. 1954	<u>CALIFORNIA OREGON POWER COMPANY</u>			
	#3	75	Feb. 1955	Clearwater #1	-	15	June 1953
	#4	75	Apr. 1955	Clearwater #2	-	26	June 1953
		<u>300</u>		Lemolo #1	-	25	Sept. 1954
<u>CHELAN COUNTY PUD</u>				Lemolo #2	-	35	Sept. 1954
Rock Island Additions	#5	25	Sept. 1952			<u>101</u>	
	#6	25	Nov. 1952	<u>IDAHO POWER COMPANY</u>			
	#7	25	Dec. 1952	C. J. Strike	#1	27.6	Jan. 1952
	#8	25	Feb. 1953		#2	27.6	Feb. 1952
	#9	25	Mar. 1953		#3	27.6	Apr. 1952
	#10	25	May 1953			<u>82.8</u>	
		<u>150</u>		Dike	#1	15	June 1954
<u>PEND OREILLE PUD</u>					#2	15	July 1954
Box Canyon	-	60	June 1954		#3	15	Aug. 1954
					#4	15	Sept. 1954
						<u>60</u>	
<u>WASHINGTON WATER POWER COMPANY</u>				<u>MONTANA POWER COMPANY</u>			
Cabinet Gorge	#1	50	Sept. 1952	Kerr	#3	56	Oct. 1954
	#2	50	Oct. 1952				
	#3	50	Nov. 1952				
	#4	50	Apr. 1953				
		<u>200</u>					

CHART 3

POWER GENERATED BY NORTHWEST UTILITIES

THESE PRINCIPAL ELECTRIC UTILITIES OF THE PACIFIC NORTHWEST 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 ---- FOR THE YEAR ENDED JUNE 30, 1952.

GENERATED BY



LEGEND

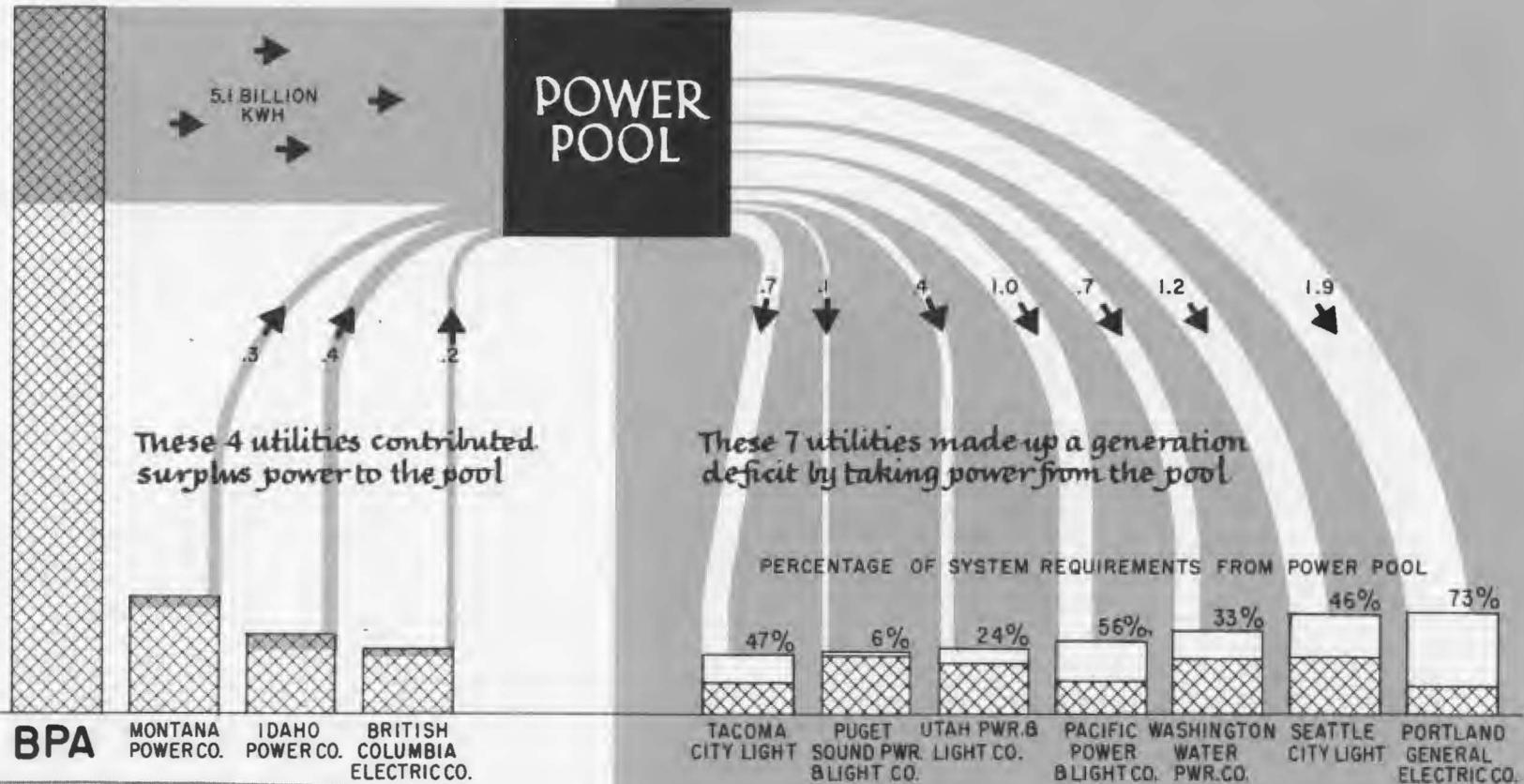


**TOTAL PUBLICLY OWNED
20.8 BILLION KWH...68.4%**

TOTAL 30.4 BILLION KWH

CHART 4
NORTHWEST POWER POOL

NET OPERATIONS YEAR ENDING
JUNE 30, 1952
BPA SUPPLIED 85% OF NET ENERGY REQUIREMENTS
OF THE POWER POOL UTILITIES



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

LEGEND



GENERATION BY UTILITY

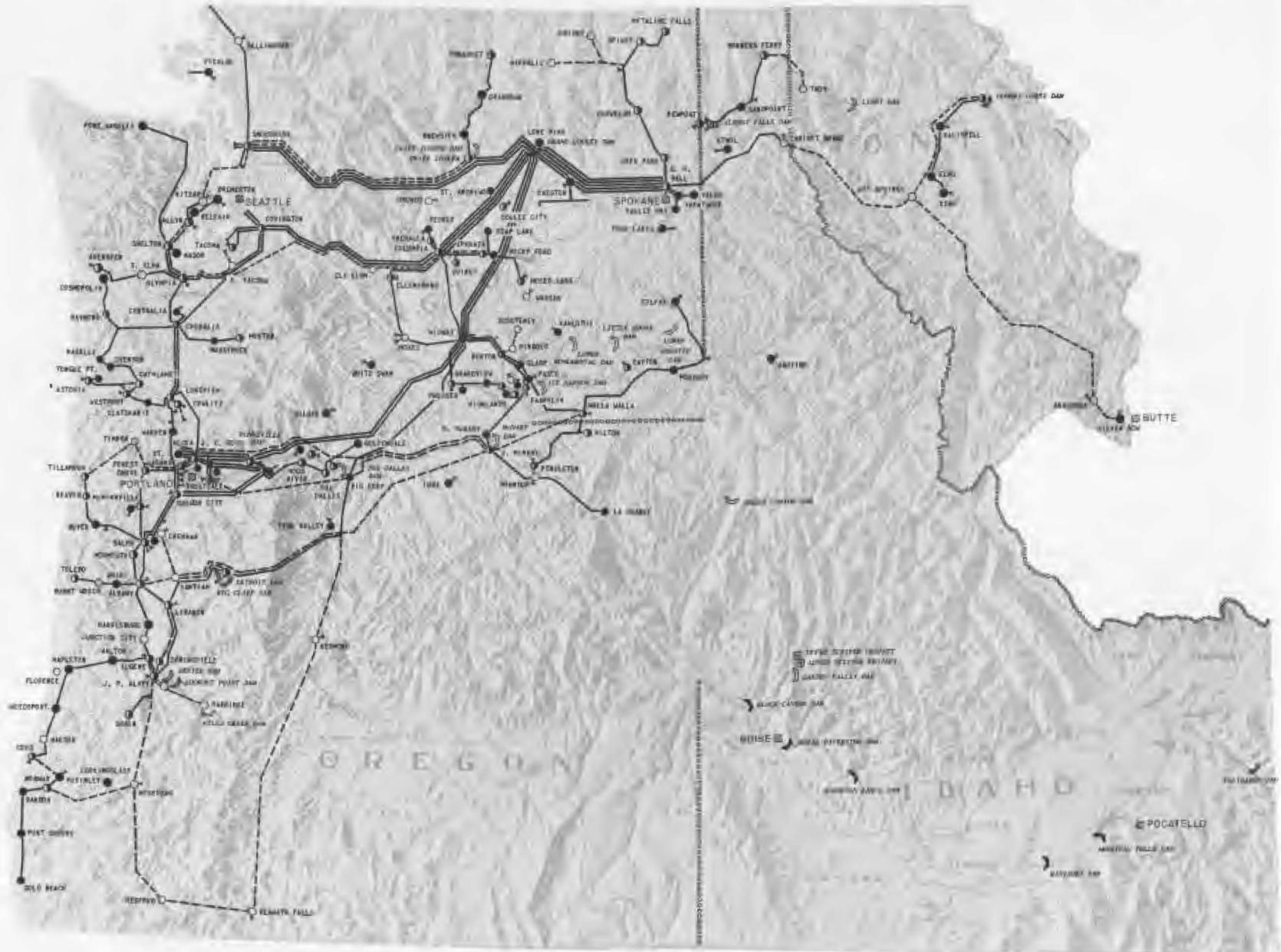


SURPLUS TO POWER POOL



DEFICIT FROM POWER POOL

BPA TRANSMISSION SYSTEM



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

administration supplies 61.2 percent

The Administration supplied 61.2 percent of the total energy generated by the major utilities serving the region, also shown in Chart 3. In addition to the power requirements of industries and non pool member utilities served by the Administration, a maximum hourly delivery of nearly 900,000 kilowatts and approximately 5,100,000,000 kilowatt hours of energy was provided for use by other pool member utilities to meet their requirements, Chart 4.

transmission system additions

Addition of 584 circuit miles of transmission line during the fiscal year gives the Administration a total of 4,954 circuit miles of transmission lines. This includes 2,409 circuit miles of 230,000 volt line, 2,260 circuit miles of 115,000 volt line, and 285 miles of lower voltage line, as shown in Chart 5.

L E G E N D

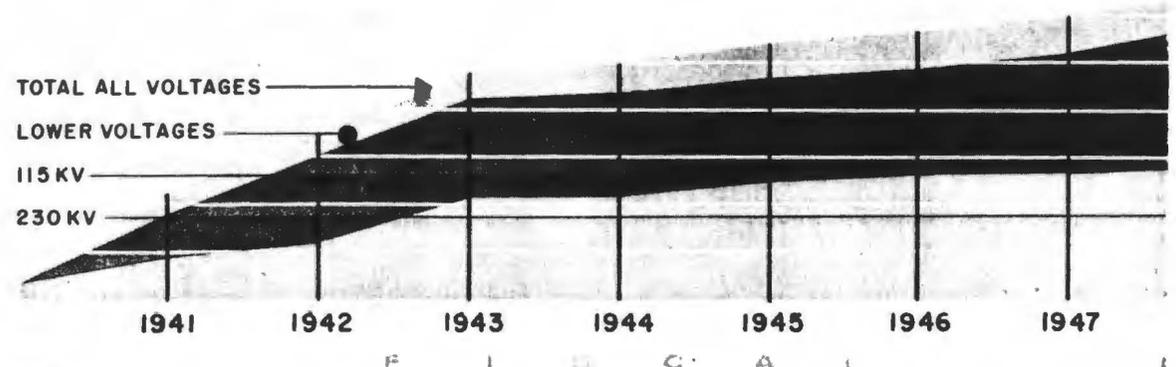
- Existing transmission line and substation
- Approved or under construction
- ⊙ Additional facilities approved or under construction in existing substations
- Interconnection with existing utility
- Existing dam and hydro development
- Authorized dam and hydro development
- Proposed dam and hydro development
- Principal city

Substation capacity was increased by 646,359 kilovolt amperes, bringing the total transformer capacity to 3,553,850 kilovolt amperes under self-cooled conditions, and a maximum of 4,516,684 kilovolt amperes with forced cooling, Chart 6. Additional static capacitors, with a capacity of 116,150 reactive kilovolt amperes, were installed, bringing the total on the system to 742,550 reactive kilovolt amperes. A new 50,000 kilovolt ampere synchronous condenser was energized, bringing the total system capacity of this type of equipment to 407,500 kilovolt amperes. Nine substations were added during the fiscal year making a total of 132.

key lines completed

The major addition to the Administration's high voltage transmission grid was the completion of the 230 kilovolt line between Midway and Detroit, tying in the previously constructed facilities between Grand Coulee dam and Midway and Detroit dam and J. P. Alvey substation, providing a direct 230 kv transmission circuit between Grand Coulee dam and the west central Oregon area. Because of delays in delivery of the transformers at Detroit and Alvey, this circuit was placed in service initially at 115 kv with plans for energization at 230,000 volts early in fiscal year 1953.

Increased transmission capacity required to carry power away from Grand Coulee dam was provided by the energization of the Grand Coulee-Columbia line No. 4 and the Grand Coulee-Midway line No. 3. Additional service to the Puget Sound area was made possible upon completion of the Snohomish-Arlington and Snohomish-Bothell 230 kv lines. A second line constructed between Olympia and Shelton increased the capacity available to the Olympic Peninsula.

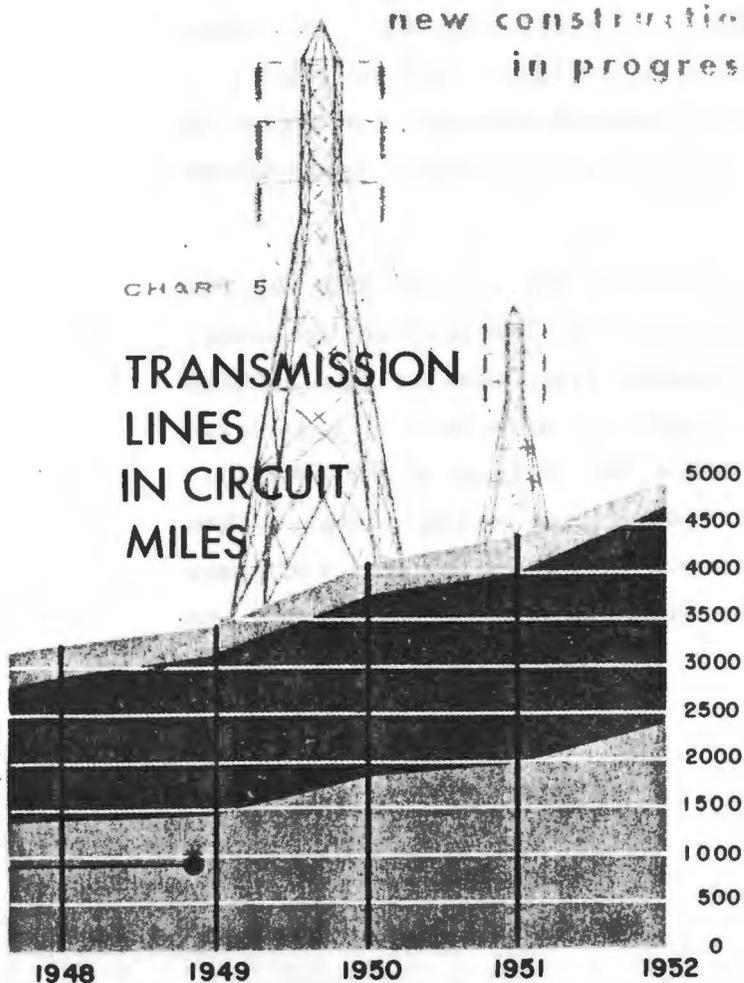


substation facilities

Major substation additions during fiscal year 1952 include an additional 250,000 kilovolt ampere transformer at the Glenn H. Bell substation, Spokane, a 250,000 kva transformer replacing a 66,666 kva transformer at the Columbia substation, and a new 100,000 kva transformer at the Oregon City substation.

new construction in progress

Major construction activity under way during fiscal year 1952, and scheduled for completion in fiscal year 1953, was concentrated in the western Montana area, with construction contracts in progress on lines connecting Hungry Horse dam and Anaconda to the main 230,000 volt grid by way of Spokane. Extension of the transmission system further down the power short southern Oregon coastal area was pushed forward with construction contracts awarded for a 115,000 volt line between Bandon, Port Orford and Gold Beach, scheduled for completion early in 1953 fiscal year.



Extensive right-of-way clearing operations were under way in fiscal year 1952 prior to construction of high-voltage lines between McNary dam and Troutdale, Columbia and Olympia, and a line to Klamath Falls in southern Oregon.

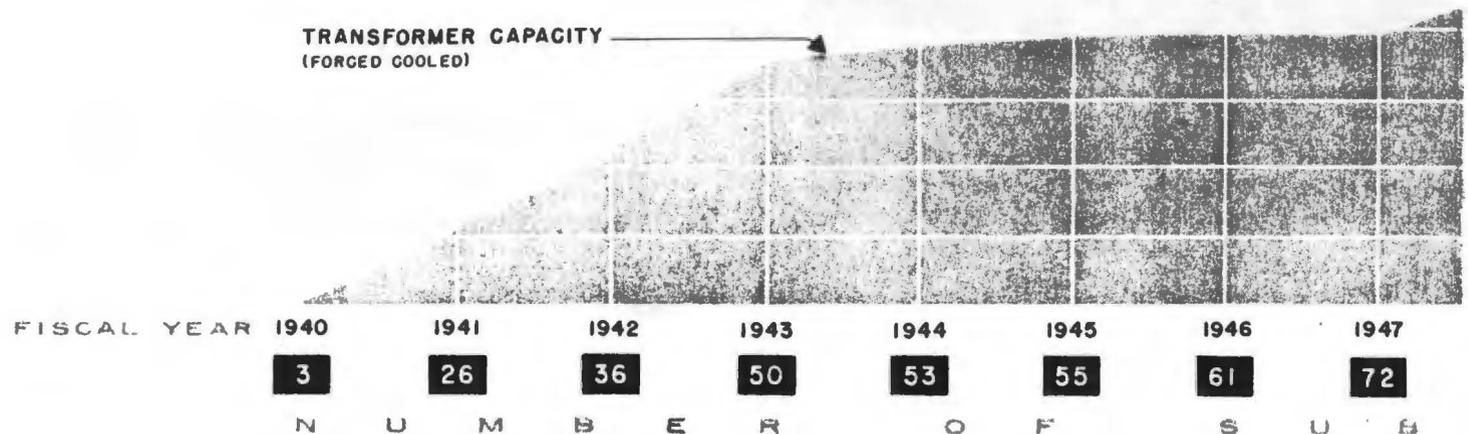
series capacitors

The second installation of series capacitors on the system was placed in service during fiscal year 1952 at the Rocky Ford compensation station on the Grand Coulee-Midway 230,000 volt

line No. 3, increasing the capacity of this line by 33 percent. Successful use of series capacitors at Rocky Ford and at the previously energized Chehalis installation justifies further use of this device on other transmission lines, thereby increasing the capacity of these circuits and improving their operating characteristics. An additional installation will be placed in service early in fiscal year 1953 and studies are in progress to determine the most beneficial locations for future applications of this equipment.

high voltage transformers

Contracts were awarded for two 400,000 kva 230,000-300,000 volt autotransformers scheduled to be installed in December 1954 on the Grand Coulee-Olympia transmission line. These transformers are the first pieces of such high voltage level equipment placed on order since the decision of the Administration to study and adopt transmission voltages higher than 230,000 volts. Studies continued throughout the year and plans are being made for future circuits to be operated at 300,000 and 345,000 volts.

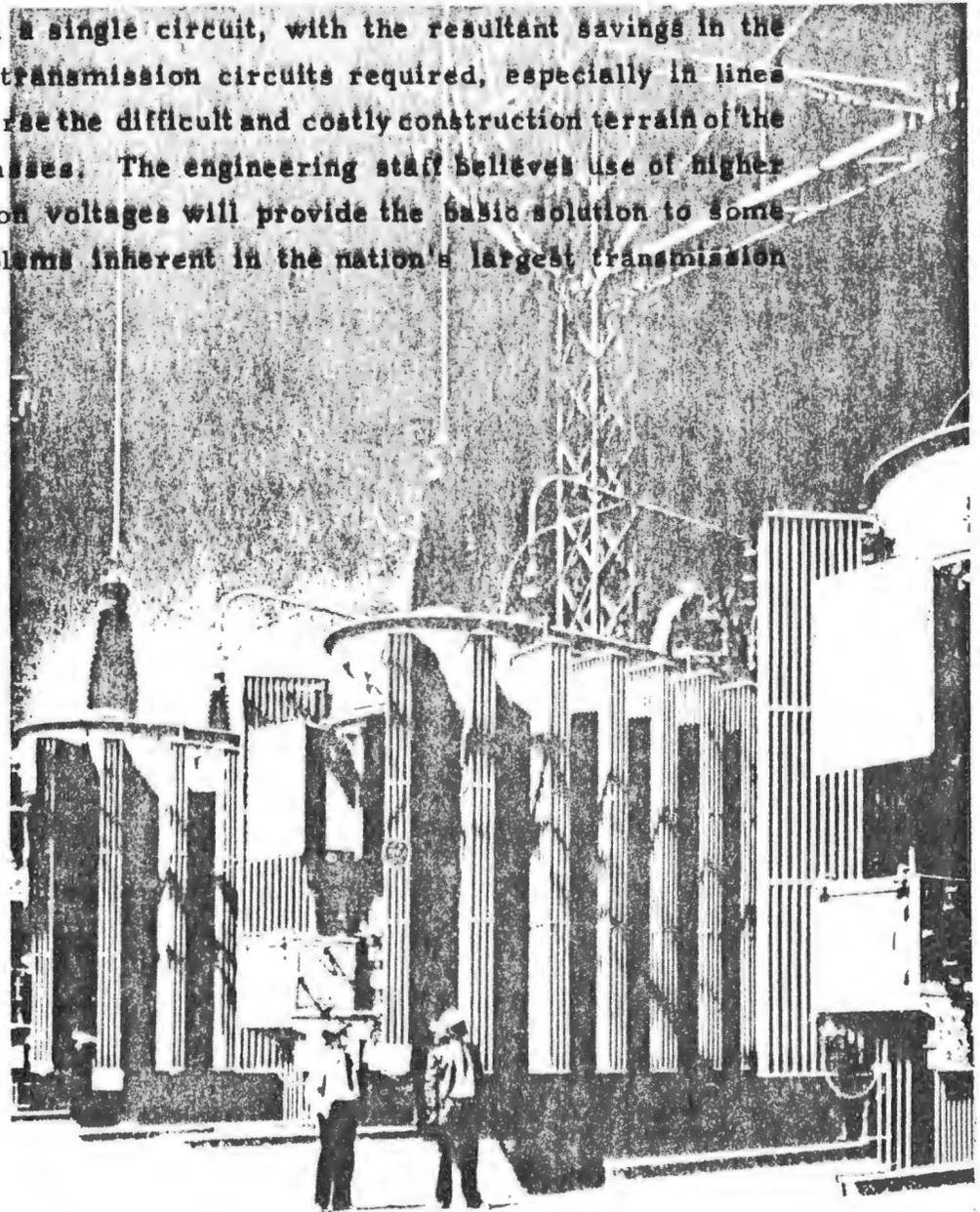
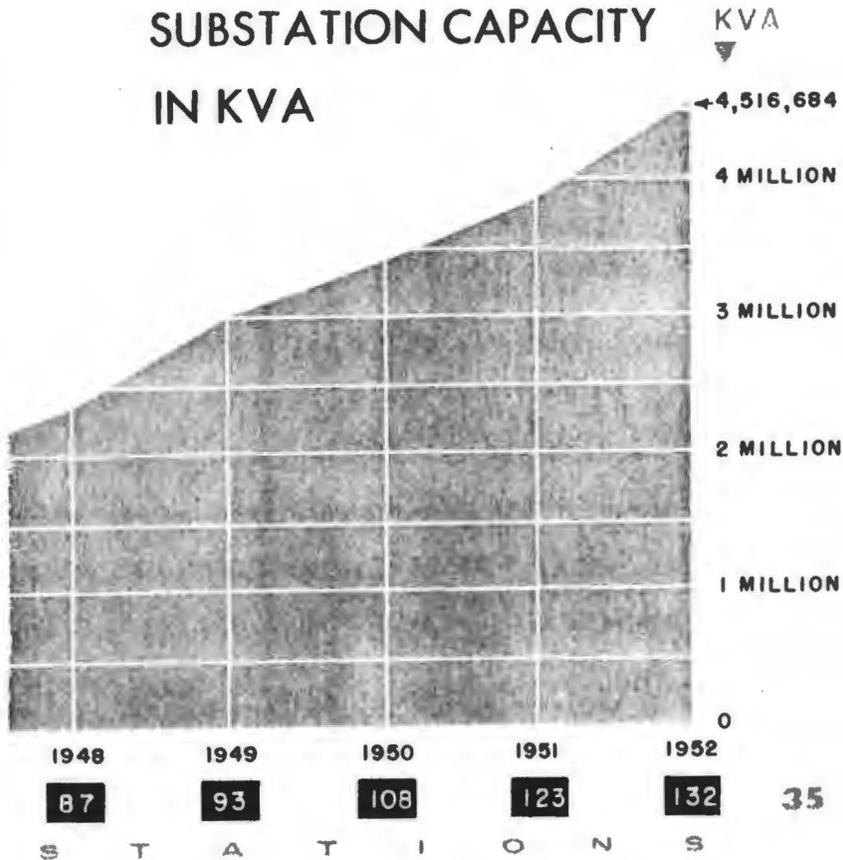


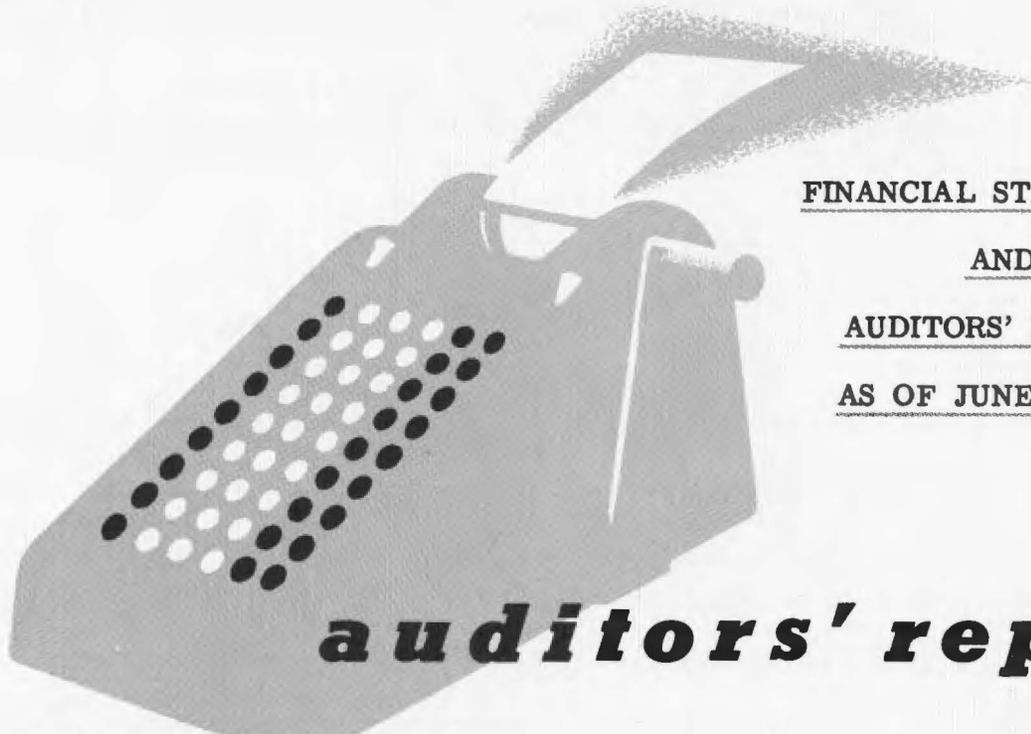
transmission economies

Use of higher voltage transmission is expected to result in considerable economic savings because of the increased loadings possible on a single circuit, with the resultant savings in the number of transmission circuits required, especially in lines which traverse the difficult and costly construction terrain of the Cascade passes. The engineering staff believes use of higher transmission voltages will provide the basic solution to some of the problems inherent in the nation's largest transmission system.

CHART 6

**SUBSTATION CAPACITY
IN KVA**





FINANCIAL STATEMENTS

AND

AUDITORS' REPORT

AS OF JUNE 30, 1952

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 Commercial Power Components
of Bonneville Dam Project and Columbia Basin Project

INDEX TO FINANCIAL STATEMENTS

<u>Title</u>	<u>Schedule Number</u>
AUDITORS' REPORT	
COLUMBIA RIVER POWER SYSTEM:	
Statement of Combined Assets and Liabilities Allocated to Commercial Power (Including Future Downstream River Regulation) — June 30, 1952 and 1951	1
Statement of Combined Revenues and Expenses Allocated to Commercial Power (Including Future Downstream River Regulation) for the Fiscal Years Ended June 30, 1952 and 1951	2
Statement Combining Assets and Liabilities Allocated to Commercial Power (Including Future Downstream River Regulation)— June 30, 1952	3
Statement Combining Revenues and Expenses Allocated to Commercial Power (Including Future Downstream River Regulation) for the Fiscal Year Ended June 30, 1952	4
Analysis of the Investment of the U. S. Government Allocated to Commercial Power	5
Analysis of Funds Returned to U. S. Treasury	6
Notes to Financial Statements	7
BONNEVILLE POWER ADMINISTRATION:	
Statement of Assets and Liabilities — June 30, 1952	8
Statement of Revenues and Expenses for the Fiscal Year Ended June 30, 1952	9
Notes to Financial Statements	10
BONNEVILLE DAM PROJECT:	
Statement of Assets and Liabilities — June 30, 1952	11
Statement of Revenues and Expenses for the Fiscal Year Ended June 30, 1952	12
Notes to Financial Statements	13
COLUMBIA BASIN PROJECT:	
Statement of Assets and Liabilities — June 30, 1952	14
Statement of Revenues and Expenses for the Fiscal Year Ended June 30, 1952	15
Notes to Financial Statements	16

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 commercial power components of Bonneville Dam Project, built and operated by the Corps of Engineers, U. S. Army, and Columbia Basin Project, built and operated by the Bureau of Reclamation, Department of the Interior, hereinafter referred to as COLUMBIA RIVER POWER SYSTEM, as of June 30, 1952; the statements of assets and liabilities allocated to commercial power of each of these projects as of that date; and the related statements of revenues and expenses allocated to commercial 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 commercial power components of the projects and the results of their commercial 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, 1952, include facilities totaling \$209,449,366.06 which have been determined to be jointly useful for power generation and for other purposes. As set forth in Note 2 of Schedule 7, 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 are allocable to power and that a proportion of certain specific power facilities at Columbia Basin Project is allocable to irrigation pumping. The two projects have maintained their accounts in conformity with these allocations and the designated proportions of joint facilities, amounting to \$116,855,809.23 at June 30, 1952, have been included in power assets while \$1,428,200.89 of specific power facilities has been assigned to irrigation pumping. Operating and interest expenses 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 commercial power and the related statements of revenues and expenses present fairly the position of Columbia River Power System and its commercial power components at June 30, 1952, and the results of their commercial 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.

Arthur Andersen & Co.

Seattle, Washington
August 12, 1952

UNITED STATES OF AMERICA

COLUMBIA RIVER POWER SYSTEM

Consisting of Bonneville Power Administration and the Commercial Power Components
of Bonneville Dam Project and Columbia Basin Project (Note 7)

STATEMENT OF COMBINED ASSETS AND LIABILITIES ALLOCATED TO COMMERCIAL POWER
(INCLUDING FUTURE DOWNSTREAM RIVER REGULATION) — JUNE 30, 1952 AND 1951

ASSETS	June 30		LIABILITIES	June 30	
	1952	1951		1952	1951
ELECTRIC UTILITY PLANT at original cost, including interest during construction (Notes 1 and 2):			NET INVESTMENT OF U. S. GOVERNMENT (Schedule 5)	\$410,857,174.08	\$368,429,456.32
Specific power facilities (powerhouses, generating equipment and transmis- sion plant)	\$398,746,269.47	\$344,406,928.91			
Joint facilities (dams, reservoirs, fish- ways, general service facilities, etc.)—					
Present commercial power pro- duction	75,483,457.73	73,533,865.74	CURRENT LIABILITIES:		
Future downstream river regulation	41,372,351.50	39,916,167.04	Accounts payable	\$ 9,518,252.52	\$ 11,336,029.33
	\$515,602,078.70	\$457,856,961.69	Employees' accrued leave	2,594,356.13	2,355,627.78
Less — Reserve for depreciation (Note 3) —				\$ 12,112,608.65	\$ 13,691,657.11
Specific power facilities	\$ 39,068,909.77	\$ 32,323,533.52			
Joint facilities —			DEFERRED CREDITS AND RESERVES:		
Present commercial power pro- duction	3,657,971.34	3,408,101.78	Customer's deposit see contra	\$ 675,376.82	\$ 728,695.90
Future downstream river regulation	1,896,162.86	1,799,836.71	Deposits for construction of property for others, see contra	51,018.50	134,103.98
	\$ 44,623,043.97	\$ 37,531,472.01	Other deferred credits	4,888.23	4,888.23
Original cost less reserve	\$470,979,034.73	\$420,325,489.68	Reserve for deferred maintenance	—	106,393.60
			Contribution in aid of construction — by State of Washington	175,526.14	175,526.14
INTEREST AND DEPRECIATION CHARGES ON JOINT FACILITIES ALLOCATED TO FUTURE DOWNSTREAM RIVER REGULA- TION — recoverable from operations of future downstream hydro plants	\$ 11,521,143.87	\$ 10,076,014.92		\$ 906,809.69	\$ 1,149,607.85
SPECIAL DEPOSITS:			ACCUMULATED NET REVENUES (Note 1):		
Customer's deposit, see contra	\$ 675,376.82	\$ 728,695.90	Balance at beginning of year	\$ 69,139,612.77	\$ 54,644,060.66
Cash held for construction of property for others, see contra	51,018.50	134,103.98	Add — Net revenues for the year	14,439,048.57	14,495,552.11
	\$ 726,395.32	\$ 862,799.88			
			Balance at end of year	\$ 83,578,661.34	\$ 69,139,612.77
CURRENT ASSETS:					
Cash (Note 4)	\$ 6,016,968.14	\$ 6,173,896.02			
Special Deposits	1,264,659.65	2,755,736.61			
Accounts receivable —					
Customers	\$ 8,962,303.38	\$ 5,259,984.08			
Other	587,460.95	700,007.96			
Materials and supplies	6,136,874.77	5,379,457.77			
	\$ 22,968,266.89	\$ 20,269,082.44			
DEFERRED CHARGES	\$ 1,260,412.95	\$ 876,947.13			
	\$507,455,253.76	\$452,410,334.05		\$507,455,253.76	\$452,410,334.05

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

UNITED STATES OF AMERICA

COLUMBIA RIVER POWER SYSTEM

Consisting of Bonneville Power Administration and the Commercial Power Components
of Bonneville Dam Project and Columbia Basin Project (Note 7)

STATEMENT OF COMBINED REVENUES AND EXPENSES ALLOCATED TO COMMERCIAL POWER
(INCLUDING FUTURE DOWNSTREAM RIVER REGULATION) FOR THE FISCAL YEARS ENDED JUNE 30, 1952 AND 1951

	Fiscal Year Ended June 30	
	1952	1951
OPERATING REVENUES:		
Sales of electric energy	\$39,526,431.78	\$35,771,591.66
Other electric revenues	653,714.51	417,436.06
Total operating revenues	\$40,180,146.29	\$36,189,027.72
OPERATING EXPENSES (Notes 1 and 2):		
Purchased power	\$ 624,119.53	\$ 553,974.15
Operation —		
Specific power facilities	6,250,954.06	5,863,828.72
Joint facilities	235,364.69	197,367.62
Maintenance —		
Specific power facilities	1,894,550.05	1,863,588.30
Joint facilities	271,885.55	178,734.41
Depreciation (Note 3) —		
Specific power facilities	6,771,358.73	6,214,670.96
Joint facilities	568,404.88	405,951.39
Less — Amount allocated to future downstream river regulation, recoverable from operations of future downstream hydro plants	191,948.52*	123,845.11*
Losses on sales and abandonments of property	90,783.57	—
Total operating expenses	\$16,515,472.54	\$15,154,270.44
Net operating revenues	\$23,664,673.75	\$21,034,757.28
INTEREST AND OTHER DEDUCTIONS:		
Interest on Federal investment	\$ 9,651,559.22	\$ 8,612,375.98
Less —		
Amount allocated to future downstream river regulation, recoverable from operations of future downstream hydro plants	1,253,180.43*	1,128,320.58*
Amount charged to construction	790,164.73*	952,046.03*
Miscellaneous income deductions (net)	165,818.12	7,195.80
Total interest and other deductions	\$ 7,774,032.18	\$ 6,539,205.17
Net revenues for the year	\$15,890,641.57	\$14,495,552.11
PRIOR YEARS' COSTS OF FEDERAL CIVIL SERVICE RETIREMENT SYSTEM (Note 5)		
	1,451,593.00	—
Balance transferred to accumulated net revenues	\$14,439,048.57	\$14,495,552.11

* Denotes red figure

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

UNITED STATES OF AMERICA
COLUMBIA RIVER POWER SYSTEM
 Consisting of Bonneville Power Administration and the Commercial Power Components
 of Bonneville Dam Project and Columbia Basin Project (Note 7)

STATEMENT COMBINING ASSETS AND LIABILITIES ALLOCATED TO COMMERCIAL POWER
(INCLUDING FUTURE DOWNSTREAM RIVER REGULATION) — JUNE 30, 1952

<u>ASSETS</u>	Bonneville Power Administration (Schedule 8)	Bonneville Dam Project (Schedule 11)	Columbia Basin Project (Schedule 14)	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)	\$249,039,488.81	\$38,587,308.79	\$111,119,471.87	\$ —	\$398,746,269.47
Joint facilities (dams, reservoirs, fishways, general service facilities, etc.) —					
Present commercial power production	—	20,919,921.67	54,563,536.06	—	75,483,457.73
Future downstream river regulation	—	—	41,372,351.50	—	41,372,351.50
	<u>\$249,039,488.81</u>	<u>\$59,507,230.46</u>	<u>\$207,055,359.43</u>	<u>\$ —</u>	<u>\$515,602,078.70</u>
Less — Reserve for depreciation (Note 3) —					
Specific power facilities	\$ 28,374,366.21	\$ 4,779,706.19	\$ 5,914,837.37	\$ —	\$ 39,068,909.77
Joint facilities —					
Present commercial power production	—	1,157,234.82	2,500,736.52	—	3,657,971.34
Future downstream river regulation	—	—	1,896,162.86	—	1,896,162.86
	<u>\$ 28,374,366.21</u>	<u>\$ 5,936,941.01</u>	<u>\$ 10,311,736.75</u>	<u>\$ —</u>	<u>\$ 44,623,043.97</u>
Original cost less reserve	<u>\$220,665,122.60</u>	<u>\$53,570,289.45</u>	<u>\$196,743,622.68</u>	<u>\$ —</u>	<u>\$470,979,034.73</u>
INTEREST AND DEPRECIATION CHARGES ON JOINT FACILITIES ALLOCATED TO FUTURE DOWNSTREAM RIVER REGULATION — recoverable from operations of future downstream hydro plants	\$ —	\$ —	\$ 11,521,143.87	\$ —	\$ 11,521,143.87
SPECIAL DEPOSITS:					
Customer's deposit, see contra	\$ 675,376.82	\$ —	\$ —	\$ —	\$ 675,376.82
Cash held for construction of property for others, see contra	51,018.50	—	—	—	51,018.50
Payments for amortization in excess of depreciation at Bonneville Dam Project (Note 3, Schedule 10)	12,566,676.67	—	—	12,566,676.67	—
	<u>\$ 13,293,071.99</u>	<u>\$ —</u>	<u>\$ —</u>	<u>\$12,566,676.67</u>	<u>\$ 726,395.32</u>
CURRENT ASSETS:					
Cash (Note 4)	\$ 5,397,106.36	\$ 89,276.19	\$ 530,585.59	\$ —	\$ 6,016,968.14
Special Deposits	543,477.46	—	721,182.19	—	1,264,659.65
Accounts receivable —					
Customers	8,962,303.38	—	—	—	8,962,303.38
Other	525,696.97	13,180.86	48,583.12	—	587,460.95
Materials and supplies	4,729,654.00	57,214.50	1,350,006.27	—	6,136,874.77
	<u>\$ 20,158,238.17</u>	<u>\$ 159,671.55</u>	<u>\$ 2,650,357.17</u>	<u>\$ —</u>	<u>\$ 22,968,266.89</u>
DEFERRED CHARGES	\$ 970,817.53	\$ 21,958.77	\$ 267,636.65	\$ —	\$ 1,260,412.95
	<u>\$255,087,250.29</u>	<u>\$53,751,919.77</u>	<u>\$211,182,760.37</u>	<u>\$12,566,676.67</u>	<u>\$507,455,253.76</u>

The accompanying notes (Schedule 7) together with the notes to the financial statements of the individual projects (Schedules 10, 13, and 16) are an integral part of this statement.

UNITED STATES OF AMERICA

COLUMBIA RIVER POWER SYSTEM

Consisting of Bonneville Power Administration and the Commercial Power Components
of Bonneville Dam Project and Columbia Basin Project (Note 7)

**STATEMENT COMBINING ASSETS AND LIABILITIES ALLOCATED TO COMMERCIAL POWER
(INCLUDING FUTURE DOWNSTREAM RIVER REGULATION) — JUNE 30, 1952**

<u>LIABILITIES</u>	Bonneville Power Administration (Schedule 8)	Bonneville Dam Project (Schedule 11)	Columbia Basin Project (Schedule 14)	Eliminations	Combined (To Schedule 1)
NET INVESTMENT OF U. S. GOVERNMENT (Schedule 5)	\$188,004,487.91	\$41,174,836.44	\$181,677,849.73	\$ —	\$410,857,174.08
CURRENT LIABILITIES:					
Accounts payable	\$ 8,463,300.73	\$ 10,406.66	\$ 1,044,545.13	\$ —	\$ 9,518,252.52
Employees' accrued leave	2,217,565.14	—	376,790.99	—	2,594,356.13
	<u>\$ 10,680,865.87</u>	<u>\$ 10,406.66</u>	<u>\$ 1,421,336.12</u>	<u>\$ —</u>	<u>\$ 12,112,608.65</u>
DEFERRED CREDITS:					
Customer's deposit, see contra	\$ 675,376.82	\$ —	\$ —	\$ —	\$ 675,376.82
Deposits for construction of property for others, see contra	51,018.50	—	—	—	51,018.50
Other deferred credits	4,888.23	—	—	—	4,888.23
Contribution in aid of construction--by State of Washington	—	—	\$ 175,526.14	—	175,526.14
	<u>\$ 731,283.55</u>	<u>\$ —</u>	<u>\$ 175,526.14</u>	<u>\$ —</u>	<u>\$ 906,809.69</u>
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 13)	<u>\$ —</u>	<u>\$12,566,676.67</u>	<u>\$ —</u>	<u>\$12,566,676.67</u>	<u>\$ —</u>
ACCUMULATED NET REVENUES (Note 1):					
Balance at beginning of year	\$ 46,438,108.61	\$ —	\$ 22,701,504.16	\$ —	\$ 69,139,612.77
Add — Balance of net revenues transferred for the year ended June 30, 1952	9,232,504.35	—	5,206,544.22	—	14,439,048.57
	<u>\$ 55,670,612.96</u>	<u>\$ —</u>	<u>\$ 27,908,048.38</u>	<u>\$ —</u>	<u>\$ 83,578,661.34</u>
	<u>\$255,087,250.29</u>	<u>\$53,751,919.77</u>	<u>\$211,182,760.37</u>	<u>\$12,566,676.67</u>	<u>\$507,455,253.76</u>

The accompanying notes (Schedule 7) together with the notes to the financial statements of the individual projects
(Schedules 10, 13, and 16) are an integral part of this statement.

UNITED STATES OF AMERICA

COLUMBIA RIVER POWER SYSTEM

Consisting of Bonneville Power Administration and the Commercial Power Components
of Bonneville Dam Project and Columbia Basin Project (Note 7)

STATEMENT COMBINING REVENUES AND EXPENSES ALLOCATED TO COMMERCIAL POWER
(INCLUDING FUTURE DOWNSTREAM RIVER REGULATION) — FOR THE FISCAL YEAR ENDED JUNE 30, 1952

	Bonneville Power Administration (Schedule 9)	Bonneville Dam Project (Schedule 12)	Columbia Basin Project (Schedule 15)	Eliminations	Combined (To Schedule 2)
OPERATING REVENUES:					
Sales of electric energy	\$39,526,431.78	\$ —	\$ —	\$ —	\$39,526,431.78
Less — Amounts allocated to —					
Bonneville Dam Project	2,797,936.66*	2,797,936.66	—	—	—
Columbia Basin Project	10,912,430.00*	—	10,912,430.00	—	—
Payment for river regulation at Bonneville Dam Project	—	—	187,570.00	187,570.00	—
Other electric revenues	653,714.51	—	—	—	653,714.51
Total operating revenues	\$26,469,779.63	\$2,797,936.66	\$11,100,000.00	\$187,570.00	\$40,180,146.29
OPERATING EXPENSES (Notes 1 and 2):					
Purchased power	\$ 624,119.53	\$ —	\$ —	\$ —	\$ 624,119.53
Operation —					
Specific power facilities	4,914,290.42	391,241.53	945,422.11	—	6,250,954.06
Joint facilities	—	98,689.70	136,674.99	—	235,364.69
Payment for river regulation	—	187,570.00	—	187,570.00	—
Maintenance —					
Specific power facilities	1,476,642.88	227,963.86	189,943.31	—	1,894,550.05
Joint facilities	—	152,020.07	119,865.48	—	271,885.55
Depreciation (Note 3) —					
Specific power facilities	5,285,591.67	537,695.39	948,071.67	—	6,771,358.73
Joint facilities	—	123,411.24	444,993.64	—	568,404.88
Less — Amount allocated to future downstream river regulation, recoverable from operations of future downstream hydro plants	—	—	191,948.52*	—	191,948.52*
Losses on sales and abandonments of property	90,783.57	—	—	—	90,783.57
Total operating expenses	\$12,391,428.07	\$1,718,591.79	\$ 2,593,022.68	\$187,570.00	\$16,515,472.54
Net operating revenues	\$14,078,351.56	\$1,079,344.87	\$ 8,506,977.32	\$ —	\$23,664,673.75
INTEREST AND OTHER DEDUCTIONS:					
Interest on Federal investment	\$ 3,973,234.50	\$1,082,049.18	\$ 4,596,275.54	\$ —	\$ 9,651,559.22
Less —					
Amount allocated to future downstream river regulation, recoverable from operations of future downstream hydro plants	—	—	1,253,180.43*	—	1,253,180.43*
Amount charged to construction	642,268.47*	2,704.31*	145,191.95*	—	790,164.73*
Miscellaneous income deductions (net)	63,288.18	—	102,529.94	—	165,818.12
Total interest and other deductions	\$ 3,394,254.21	\$1,079,344.87	\$ 3,300,433.10	\$ —	\$ 7,774,032.18
Net revenues for the year	\$10,684,097.35	\$ —	\$ 5,206,544.22	\$ —	\$15,890,641.57
PRIOR YEARS' COSTS OF FEDERAL CIVIL SERVICE RETIREMENT SYSTEM (Note 5)					
	1,451,593.00*	—	—	—	1,451,593.00*
Balance transferred to accumulated net revenues	\$ 9,232,504.35	\$ —	\$ 5,206,544.22	\$ —	\$14,439,048.57

* Denotes red figure

The accompanying notes (Schedule 7) together with the notes to the financial statements of the individual projects (Schedules 10, 13 and 16) are an integral part of this statement.

UNITED STATES OF AMERICA

COLUMBIA RIVER POWER SYSTEM

Consisting of Bonneville Power Administration and the Commercial Power Components
of Bonneville Dam Project and Columbia Basin Project (Note 7)

ANALYSIS OF THE INVESTMENT OF THE U. S. GOVERNMENT ALLOCATED TO COMMERCIAL POWER

FOR THE PERIOD FROM INCEPTION TO JUNE 30, 1952

	Bonneville Power Administration (Schedule 8)	Bonneville Dam Project (Schedule 11)	Columbia Basin Project (Schedule 14)	Combined
FOR ELECTRIC UTILITY PLANT AND OTHER ASSETS (NET):				
Congressional appropriations	\$232,537,779.07	\$51,354,937.00	\$168,934,449.06	\$452,827,165.13
Allotments from P. W. A. funds	10,750,000.00	6,100,000.00	26,350,800.00	43,200,800.00
Expenditures of W. P. A.	5,038,382.54	—	1,635,747.32	6,674,129.86
Cost of materials and services furnished by other Federal agencies	3,131,684.25	87,900.00	1,473,106.41	4,692,690.66
Interest charged to construction	3,012,802.81	2,331,652.95	9,718,739.70	15,063,195.46
Interest charged to future downstream river regulation	—	—	10,318,658.93	10,318,658.93
Revenues transferred to the Continuing Fund	1,086,400.44	—	—	1,086,400.44
Total investment	\$255,557,049.11	\$59,874,489.95	\$218,431,501.42	\$533,863,040.48
Funds returned to the U. S. Treasury	67,552,561.20	18,699,653.51	36,753,651.69	123,005,866.40
Net investment of the U. S. Government	\$188,004,487.91	\$41,174,836.44	\$181,677,849.73	\$410,857,174.08
FOR OPERATING AND INTEREST EXPENSES:				
Congressional appropriations	\$ 42,883,574.34	\$ 7,242,525.75	\$ 12,095,079.68	\$ 62,221,179.77
Cost of materials and services furnished by other Federal agencies	1,554,225.94	—	1,235,823.08	2,790,049.02
Interest expense	21,923,366.93	16,033,343.59	25,695,383.95	63,652,094.47
Revenues transferred to the Continuing Fund	176,203.97	—	—	176,203.97
Total investment	\$ 66,537,371.18	\$23,275,869.34	\$ 39,026,286.71	\$128,839,527.23
Funds returned to the U. S. Treasury	66,537,371.18	23,275,869.34	39,026,286.71	128,839,527.23
Net investment of the U. S. Government	\$ —	\$ —	\$ —	\$ —
TOTAL:				
Congressional appropriations	\$275,421,353.41	\$58,597,462.75	\$181,029,528.74	\$515,048,344.90
Allotments from P. W. A. funds	10,750,000.00	6,100,000.00	26,350,800.00	43,200,800.00
Expenditures of W. P. A.	5,038,382.54	—	1,635,747.32	6,674,129.86
Cost of materials and services furnished by other Federal agencies	4,685,910.19	87,900.00	2,708,929.49	7,482,739.68
Interest on the Federal investment	24,936,169.74	18,364,996.54	45,732,782.58	89,033,948.86
Revenues transferred to the Continuing Fund	1,262,604.41	—	—	1,262,604.41
Total investment	\$322,094,420.29	\$83,150,359.29	\$257,457,788.13	\$662,702,567.71
Funds returned to the U. S. Treasury (Schedule 6)	134,089,932.38	41,975,522.85	75,779,938.40	251,845,393.63
Net investment of the U. S. Government	\$188,004,487.91	\$41,174,836.44	\$181,677,849.73	\$410,857,174.08

The accompanying notes (Schedule 7) together with the notes to the financial statements of the individual projects (Schedules 10, 13, and 16) are an integral part of this statement.

UNITED STATES OF AMERICA
COLUMBIA RIVER POWER SYSTEM
 Consisting of Bonneville Power Administration and the Commercial Power Components
 of Bonneville Dam Project and Columbia Basin Project (Note 7)

ANALYSIS OF FUNDS RETURNED TO U. S. TREASURY
FOR THE FISCAL YEAR ENDED JUNE 30, 1952

	<u>Bonneville Power Administration</u>	<u>Bonneville Dam Project</u>	<u>Columbia Basin Project</u>	<u>Combined</u>
Sales of electric energy	\$ 39,526,431.78	\$ —	\$ —	\$ 39,526,431.78
Less —				
Increase in uncollected sales, represented by accounts receivable from customers	\$ 3,702,319.30	\$ —	\$ —	\$ 3,702,319.30
Noncash (exchange) power sales	1,046,367.28	—	—	1,046,367.28
	<u>\$ 4,748,686.58</u>	<u>\$ —</u>	<u>\$ —</u>	<u>\$ 4,748,686.58</u>
Cash receipts from sales of electric energy deposited in U. S. Treasury	\$ 34,777,745.20	\$ —	\$ —	\$ 34,777,745.20
Miscellaneous power receipts	783,205.82	—	206,219.43	989,425.25
Total power receipts deposited in U. S. Treasury	\$ 35,560,951.02	\$ —	\$ 206,219.43	\$ 35,767,170.45
Allocation of receipts among projects —				
Receipts transferred to the accounts of other projects with the U. S. Treasury	13,082,430.00*	4,000,000.00	9,082,430.00	—
Payment for river regulation	—	187,570.00*	187,570.00	—
Funds returned to U. S. Treasury	<u>\$ 22,478,521.02</u>	<u>\$ 3,812,430.00</u>	<u>\$ 9,476,219.43</u>	<u>\$ 35,767,170.45</u>

* Denotes red figure

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

UNITED STATES OF AMERICA

COLUMBIA RIVER POWER SYSTEM
Consisting of Bonneville Power Administration and the Commercial Power Components
of Bonneville Dam Project and Columbia Basin Project (Note 7)

ANALYSIS OF FUNDS RETURNED TO U. S. TREASURY
FOR THE PERIOD FROM BEGINNING OF OPERATIONS TO JUNE 30, 1952

	Bonneville Power Administration	Bonneville Dam Project	Columbia Basin Project	Combined
Sales of electric energy	\$259,203,568.50	\$ 92.85	\$ —	\$259,203,661.35
Less —				
Increase in uncollected sales, represented by accounts receivable from customers	\$ 8,962,303.38	\$ —	\$ —	\$ 8,962,303.38
Noncash (exchange) power sales	6,005,125.02	—	—	6,005,125.02
Uncollectible power sales written off	2,524.01	—	—	2,524.01
	\$ 14,969,952.41	\$ —	\$ —	\$ 14,969,952.41
Cash receipts from sales of electric energy deposited in U. S. Treasury . . .	\$244,233,616.09	\$ 92.85	\$ —	\$244,233,708.94
Miscellaneous power receipts	6,550,425.97	—	\$ 1,061,258.72	7,611,684.69
Total power receipts deposited in U. S. Treasury	\$250,784,042.06	\$ 92.85	\$ 1,061,258.72	\$251,845,393.63
Allocation of receipts among projects —				
Receipts transferred to the accounts of other projects with the U. S. Treasury	116,694,109.68*	43,851,130.00	72,842,979.68	—
Payment for river regulation	—	1,875,700.00*	1,875,700.00	—
Funds returned to U. S. Treasury	<u>\$134,089,932.38</u>	<u>\$41,975,522.85</u>	<u>\$75,779,938.40</u>	<u>\$251,845,393.63</u>

* Denotes red figure

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

COLUMBIA RIVER POWER SYSTEMNOTES TO FINANCIAL STATEMENTS ON SCHEDULES 1, 2, 3, 4, 5 AND 6

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. Certain specific power facilities at Columbia Basin Project have been allocated to commercial power and to irrigation pumping power in proportion to the relative value of the power delivered for each purpose. These allocations have been made 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 dams has been computed principally 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. 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. CASH:

The cash balances of United States Treasury are not segregated by the various departments and agencies of the government. An amount approximately equal to one month's expenditures, which is estimated to be the System's proportionate share of general fund cash held by the Treasury, has been shown as cash in the accompanying statements.

SCHEDULE 7
(Continued)

COLUMBIA RIVER POWER SYSTEM

NOTES TO FINANCIAL STATEMENTS ON SCHEDULES 1, 2, 3, 4, 5 AND 6

5. CIVIL SERVICE RETIREMENT SYSTEM COSTS:

During the year ended June 30, 1952, Bonneville Power Administration adopted the policy of recognizing within its accounts the share applicable to its activities of the estimated cost to the U. S. Government of the operation of the Civil Service Retirement System. These costs, which are paid from appropriations made to the System Retirement Board rather than from appropriations made to the Bonneville Power Administration, are charged to operating expenses and other accounts and are credited to the investment of the U. S. Government in the Bonneville Power Administration program. The accounts of the Columbia Basin and Bonneville Dam Projects do not reflect the estimated share of such costs applicable to their activities.

In accordance with this policy the accounts of Bonneville Power Administration for the fiscal year 1952 reflect an additional charge of \$220,834 to operating expenses, \$90,313 of additional interest expense reflecting the effect of the adjustment for this item for prior years upon the investment of the U. S. Government, and \$541,904 of additional charges to electric plant. The adjustment reflected in the Administration's financial statement for the fiscal year 1952 on account of the estimated share of such costs applicable to prior years consists of \$1,117,173 charged to operating expenses, \$334,420 charged to interest expense, and \$2,103,878 charged to electric plant. The adjustment thus involves total charges of \$853,051 applicable to fiscal year 1952 and \$3,555,471 applicable to prior years, a total of \$4,408,522.

6. CONTINGENT LIABILITIES:

The projects are contingently liable under pending litigation which, in some instances, involves 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.

7. 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
The Dalles Project
Willamette Basin Projects (Detroit, Big Cliff, Lookout Point and Dexter Projects)

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, 1952.

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, 1952.

UNITED STATES OF AMERICA
DEPARTMENT OF THE INTERIOR
BONNEVILLE POWER ADMINISTRATION
STATEMENT OF ASSETS AND LIABILITIES — JUNE 30, 1952

<u>ASSETS</u>		<u>LIABILITIES</u>	
ELECTRIC UTILITY PLANT (transmission lines, substations, etc.) at original cost, including interest during construction (Note 1)	\$249,039,488.81	INVESTMENT OF U. S. GOVERNMENT: Congressional appropriations (including amounts for operating expenses), allotments and W. P. A. expenditures	\$291,209,735.95
Less — Reserve for depreciation (Note 2)	28,374,366.21	Transfers from other Federal projects (net)	4,685,910.19
Original cost less reserve	\$220,665,122.60	Revenues transferred to Continuing Fund	1,262,604.41
SPECIAL DEPOSITS:		Interest on Federal investment	24,936,169.74
Customer's deposit, see contra	\$ 675,376.82	Less — Funds returned to U. S. Treasury (including amounts for operating expenses and interest)	\$322,094,420.29
Cash held for construction of property for others, see contra	51,018.50	Net investment of U.S. Government	\$188,004,487.91
Payments for amortization in excess of depreciation at Bonneville Dam Project (Note 3)	12,566,676.67	13,293,071.99	CURRENT LIABILITIES:
CURRENT ASSETS:		Accounts payable	\$ 8,463,300.73
Cash (Note 4)	\$ 5,397,106.36	Employees' accrued leave	2,217,565.14
Special deposits	543,477.46	DEFERRED CREDITS:	
Accounts receivable —		Customer's deposit, see contra	\$ 675,376.82
Customers	8,962,303.38	Deposits for construction of property for others, see contra	51,018.50
Other	525,696.97	Other	4,888.23
Materials and supplies	4,729,654.00	20,158,238.17	ACCUMULATED NET REVENUES (Notes 1 and 3):
DEFERRED CHARGES	970,817.53	Balance at beginning of year	\$ 46,438,108.61
		Add - Balance of net revenues transferred for the year ended June 30, 1952	9,232,504.35
	\$255,087,250.29	55,670,612.96	\$255,087,250.29

The accompanying notes (Schedule 10) are an integral part of this statement.

UNITED STATES OF AMERICA
DEPARTMENT OF THE INTERIOR
BONNEVILLE POWER ADMINISTRATION
STATEMENT OF REVENUES AND EXPENSES FOR THE FISCAL YEAR ENDED JUNE 30, 1952

OPERATING REVENUES:

Sales of electric energy		\$39,526,431.78
Less — Amounts allocated to (Note 3) —		
Bonneville Dam Project	\$ 2,797,936.66	
Columbia Basin Project	10,912,430.00	<u>13,710,366.66</u>
		\$25,816,065.12
Other electric revenues		<u>653,714.51</u>
Total operating revenues		\$26,469,779.63

OPERATING EXPENSES (Note 1):

Purchased power	\$ 624,119.53	
Operation	4,914,290.42	
Maintenance	1,476,642.88	
Depreciation (Note 2)	5,285,591.67	
Losses on sales and abandonments of property	90,783.57	<u>12,391,428.07</u>
Net operating revenues		\$14,078,351.56

INTEREST AND OTHER DEDUCTIONS:

Interest on Federal investment	\$ 3,973,234.50	
Less — Interest charged to construction	642,268.47*	
Miscellaneous income deductions (net)	63,288.18	<u>3,394,254.21</u>
Net revenues for the year		\$10,684,097.35

PRIOR YEARS' COSTS OF FEDERAL CIVIL SERVICE RETIREMENT SYSTEM (Note 5)

Balance transferred to accumulated net revenues		<u>1,451,593.00</u>
		\$ 9,232,504.35

* Denotes red figure

The accompanying notes (Schedule 10) are an integral part of this statement.

NOTES TO FINANCIAL STATEMENTS ON SCHEDULES 8 AND 9

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 1952 Bonneville Power Administration deposited \$4,000,000 with the U. S. Treasury for the account of Bonneville Dam Project in accordance with the terms of the agreement, of which \$2,797,937, equivalent to operating expenses (including depreciation) and interest on the Federal investment allocated to power has been treated as current year's revenues and \$1,202,063 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 \$394,500,000) 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. CASH:

The cash balances of United States Treasury are not segregated by the various departments and agencies of the government. An amount approximately equal to one month's expenditures, which is estimated to be the Administration's proportionate share of general fund cash held by the Treasury, has been shown as cash in the accompanying statements.

5. CIVIL SERVICE RETIREMENT SYSTEM COSTS:

During the year ended June 30, 1952, Bonneville Power Administration adopted the policy of recognizing within its accounts the share applicable to its activities of the estimated cost to the U. S. Government of the operation of the Civil Service Retirement System. These costs, which are paid from appropriations made to the System Retirement Board rather than from appropriations made to the Bonneville Power Administration, are charged to operating expenses and other accounts and are credited to the investment of the U. S. Government in the Bonneville Power Administration program.

In accordance with this policy the accounts of Bonneville Power Administration for the fiscal year 1952 reflect an additional charge of \$220,834 to operating expenses, \$90,313 of additional interest expense reflecting the effect of the adjustment for this item for prior years upon the investment of the U. S. Government, and \$541,904 of additional charges to electric plant. The adjustment reflected in the Administration's financial statement for the fiscal year 1952 on account of the estimated share of such costs applicable to prior years consists of \$1,117,173 charged to operating expenses, \$334,420 charged to interest expense, and \$2,103,878 charged to electric plant. The adjustment thus involves total charges of \$853,051 applicable to fiscal year 1952 and \$3,555,471 applicable to prior years, a total of \$4,408,522.

6. 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
CORPS OF ENGINEERS — U. S. ARMY
BONNEVILLE DAM PROJECT

STATEMENT OF ASSETS AND LIABILITIES — JUNE 30, 1952

<u>ASSETS</u>	<u>Total</u>	<u>Deduct — Amounts Allocated to Other Than Power</u>	<u>Amounts Allocated to Power</u>
PROPERTY, PLANT AND EQUIPMENT at original cost, including interest during construction (Notes 1 and 2):			
Specific power facilities (powerhouse and generating equipment)	\$ 38,587,308.79	\$ —	\$38,587,308.79
Specific navigation facilities (shiplock)	6,346,351.85	6,346,351.85	—
Joint facilities (dam, reservoir, fishways, etc.)	41,839,843.34	20,919,921.67	20,919,921.67
	<u>\$ 86,773,503.98</u>	<u>\$27,266,273.52</u>	<u>\$59,507,230.46</u>
Less — Reserve for depreciation (Note 3) —			
Specific power facilities	\$ 4,779,706.19	\$ —	\$ 4,779,706.19
Specific navigation facilities	386,531.20	386,531.20	—
Joint facilities	2,314,469.63	1,157,234.81	1,157,234.82
	<u>\$ 7,480,707.02</u>	<u>\$ 1,543,766.01</u>	<u>\$ 5,936,941.01</u>
Original cost less reserve	\$ 79,292,796.96	\$25,722,507.51	\$53,570,289.45
OTHER ASSETS:			
Cash (Note 5)	118,544.28	29,268.09	89,276.19
Due from other projects	15,137.10	1,956.24	13,180.86
Deferred charges	39,622.77	17,664.00	21,958.77
Materials and supplies	101,714.68	44,500.18	57,214.50
	<u>\$ 79,567,815.79</u>	<u>\$25,815,896.02</u>	<u>\$53,751,919.77</u>
<u>LIABILITIES</u>			
INVESTMENT OF U. S. GOVERNMENT:			
Congressional appropriations and allotments (including amounts for operating expenses)	\$ 93,903,137.07	\$29,205,674.32	\$64,697,462.75
Transfers from other Federal projects	175,400.00	87,500.00	87,900.00
Interest on Federal investment	28,318,777.95	9,953,781.41	18,364,996.54
	<u>\$122,397,315.02</u>	<u>\$39,246,955.73</u>	<u>\$83,150,359.29</u>
Less —			
Funds returned to U. S. Treasury in repayment of Federal investment allocated to power (including amounts for operating expenses and interest)	\$ 41,975,522.85	\$ —	\$41,975,522.85
Net expense of non-reimbursable portion of project (including \$1,135,615.32 for the year ended June 30, 1952)	13,434,594.00	13,434,594.00	—
	<u>\$ 55,410,116.85</u>	<u>\$13,434,594.00</u>	<u>\$41,975,522.85</u>
Net investment of U. S. Government	\$ 66,987,198.17	\$25,812,361.73	\$41,174,836.44
ACCOUNTS PAYABLE	<u>\$ 13,940.95</u>	<u>\$ 3,534.29</u>	<u>\$ 10,406.66</u>
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	\$ 11,364,613.33	\$ —	\$11,364,613.33
Excess for the year ended June 30, 1952	1,202,063.34	—	1,202,063.34
Balance at end of year	<u>\$ 12,566,676.67</u>	<u>\$ —</u>	<u>\$12,566,676.67</u>
	<u>\$ 79,567,815.79</u>	<u>\$25,815,896.02</u>	<u>\$53,751,919.77</u>

The accompanying notes (Schedule 13) 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, 1952

	<u>Total</u>	<u>Deduct — Amounts Allocated to Other Than Power</u>	<u>Amounts Allocated to Power</u>
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)	\$2,797,936.66	\$ —	\$2,797,936.66
OPERATING EXPENSES (Notes 1 and 2):			
Operation —			
Specific power facilities	\$ 391,241.53	\$ —	\$ 391,241.53
Specific navigation facilities	46,116.89	46,116.89	—
Joint facilities	197,379.40	98,689.70	98,689.70
Payment for river regulation	187,570.00	—	187,570.00
Maintenance —			
Specific power facilities	227,963.86	—	227,963.86
Specific navigation facilities	31,058.23	31,058.23	—
Joint facilities	304,040.13	152,020.06	152,020.07
Depreciation (Note 3)—			
Specific power facilities	537,695.39	—	537,695.39
Specific navigation facilities	38,348.40	38,348.40	—
Joint facilities	246,822.48	123,411.24	123,411.24
Total operating expenses	<u>\$2,208,236.31</u>	<u>\$ 489,644.52</u>	<u>\$1,718,591.79</u>
Net operating revenues	<u>\$ 589,700.35</u>	<u>\$ 489,644.52*</u>	<u>\$1,079,344.87</u>
INTEREST DEDUCTIONS:			
Interest on Federal investment	\$1,728,307.59	\$ 646,258.41	\$1,082,049.18
Less — Amount charged to construction	<u>2,991.92</u>	<u>287.61</u>	<u>2,704.31</u>
Net interest deductions	<u>\$1,725,315.67</u>	<u>\$ 645,970.80</u>	<u>\$1,079,344.87</u>
Net revenues	<u>\$1,135,615.32*</u>	<u>\$1,135,615.32*</u>	<u>\$ —</u>

* Denotes red figure

The accompanying notes (Schedule 13) are an integral part of this statement.

BONNEVILLE DAM PROJECTNOTES TO FINANCIAL STATEMENTS ON SCHEDULES 11 AND 12

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 principally 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 1952, deposits by Bonneville Power Administration for the account of Bonneville Dam Project amounted to \$4,000,000.00, of which \$2,797,936.66, equivalent to operating expenses (including depreciation) and interest on Federal investment allocated to power, has been reflected as current year's revenues, and \$1,202,063.34 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. CASH:

The cash balances of United States Treasury are not segregated by the various departments and agencies of the government. An amount approximately equal to one month's expenditures, which is estimated to be the Project's proportionate share of general fund cash held by the Treasury, has been shown as cash in the accompanying statements.

6. 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
STATEMENT OF ASSETS AND LIABILITIES — JUNE 30, 1952

<u>ASSETS</u>	<u>Total</u>	<u>Deduct—Amounts Allocated to Irrigation (Including Irrigation Pumping) and Navigation</u>	<u>Amounts Allocated to Commercial Power (Including Future Downstream River Regulation)</u>
PROPERTY, PLANT AND EQUIPMENT at original cost, including interest during construction on facilities allocated to commercial power (Notes 1 and 2):			
Specific power facilities (powerhouses and generating equipment) —			
Commercial power	\$111,119,471.87	\$ —	\$111,119,471.87
Irrigation pumping	1,428,200.89	1,428,200.89	—
Joint facilities (dam, reservoir and general service facilities) —			
Present commercial power production	54,563,536.06	—	54,563,536.06
Future downstream river regulation	41,372,351.50	—	41,372,351.50
Irrigation	70,673,635.15	70,673,635.15	—
Navigation	1,000,000.00	1,000,000.00	—
Specific irrigation facilities (equalizing reservoir, canals and pumping plant)	161,460,284.71	161,460,284.71	—
Farmland held for resale	3,605,293.40	3,605,293.40	—
	<u>\$445,222,773.58</u>	<u>\$238,167,414.15</u>	<u>\$207,055,359.43</u>
Less — Reserve for depreciation (Note 3) —			
Specific power facilities —			
Commercial power	\$ 5,914,837.37	\$ —	\$ 5,914,837.37
Irrigation pumping	22,089.02	22,089.02	—
Joint facilities —			
Present commercial power production	2,500,736.52	—	2,500,736.52
Future downstream river regulation	1,896,162.86	—	1,896,162.86
Irrigation	1,274,272.61	1,274,272.61	—
	<u>\$ 11,608,098.38</u>	<u>\$ 1,296,361.63</u>	<u>\$ 10,311,736.75</u>
Original cost less reserve	<u>\$433,614,675.20</u>	<u>\$236,871,052.52</u>	<u>\$196,743,622.68</u>
INTEREST AND DEPRECIATION CHARGES ON JOINT FACILITIES ALLOCATED TO FUTURE DOWNSTREAM RIVER REGULATION — recoverable from operations of future downstream hydro plants			
	<u>\$ 11,521,143.87</u>	<u>\$ —</u>	<u>\$ 11,521,143.87</u>
CURRENT ASSETS:			
Cash (Note 5)	\$ 3,164,271.43	\$ 2,633,685.84	\$ 530,585.59
Special deposits	2,173,426.56	1,452,244.37	721,182.19
Accounts receivable	103,981.45	55,398.33	48,583.12
Materials and supplies	2,714,179.64	1,364,173.37	1,350,006.27
	<u>\$ 8,155,859.08</u>	<u>\$ 5,505,501.91</u>	<u>\$ 2,650,357.17</u>
DEFERRED CHARGES			
	<u>\$ 2,342,558.24</u>	<u>\$ 2,074,921.59</u>	<u>\$ 267,636.65</u>
	<u>\$455,634,236.39</u>	<u>\$244,451,476.02</u>	<u>\$211,182,760.37</u>

The accompanying notes (Schedule 16) are an integral part of this statement.

UNITED STATES OF AMERICA
DEPARTMENT OF THE INTERIOR
COLUMBIA BASIN PROJECT

STATEMENT OF ASSETS AND LIABILITIES — JUNE 30, 1952

<u>LIABILITIES</u>	<u>Total</u>	<u>Deduct—Amounts Allocated to Irrigation (Including Irrigation Pumping) and Navigation</u>	<u>Amounts Allocated to Commercial Power (Including Future Downstream River Regulation)</u>
INVESTMENT OF U. S. GOVERNMENT:			
Congressional appropriations (including amounts for operating expenses), allotments, and W.P.A. expenditures	\$450,472,162.89	\$241,456,086.83	\$209,016,076.06
Transfers from other Federal projects (net)	3,796,933.87	1,088,004.38	2,708,929.49
Interest on portion of Federal investment allocated to commercial power	45,732,782.58	—	45,732,782.58
	<u>\$500,001,879.34</u>	<u>\$242,544,091.21</u>	<u>\$257,457,788.13</u>
Less — Funds returned to U. S. Treasury in repayment of Federal investment (including amounts for operating expenses and interest)	76,952,881.80	1,172,943.40	75,779,938.40
Net investment of U. S. Government	<u>\$423,048,997.54</u>	<u>\$241,371,147.81</u>	<u>\$181,677,849.73</u>
CURRENT LIABILITIES:			
Accounts payable	\$ 5,072,345.24	\$ 4,027,800.11	\$ 1,044,545.13
Employees' accrued leave	1,151,990.34	775,199.35	376,790.99
	<u>\$ 6,224,335.58</u>	<u>\$ 4,802,999.46</u>	<u>\$ 1,421,336.12</u>
CONTRIBUTIONS IN AID OF CONSTRUCTION - BY STATE OF WASHINGTON	\$ 313,439.53	\$ 137,913.39	\$ 175,526.14
ACCUMULATED NET REVENUES (Notes 1 and 4):			
Balance at beginning of year	\$ 21,045,076.87	\$ 1,656,427.29*	\$ 22,701,504.16
Add — Net revenues for the year ended June 30, 1952	5,002,386.87	204,157.35*	5,206,544.22
Balance at end of year	<u>\$ 26,047,463.74</u>	<u>\$ 1,860,584.64*</u>	<u>\$ 27,908,048.38</u>
	<u>\$455,634,236.39</u>	<u>\$244,451,476.02</u>	<u>\$211,182,760.37</u>

* Denotes red figure

The accompanying notes (Schedule 16) are an integral part of this statement.

UNITED STATES OF AMERICA
DEPARTMENT OF THE INTERIOR
COLUMBIA BASIN PROJECT

STATEMENT OF REVENUES AND EXPENSES FOR THE FISCAL YEAR ENDED JUNE 30, 1952

	Total	Deduct—Amounts Allocated to Irrigation (Including Irrigation Pumping) and Navigation	Amounts Allocated to Commercial 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)	\$10,912,430.00	\$ —	\$10,912,430.00
Payment for river regulation	187,570.00	—	187,570.00
Irrigation revenues	30,410.18	30,410.18	—
Total operating revenues	<u>\$11,130,410.18</u>	<u>\$ 30,410.18</u>	<u>\$11,100,000.00</u>
 OPERATING EXPENSES (Notes 1 and 2):			
Operation —			
Specific power facilities	\$ 957,326.46	\$ 11,904.35	\$ 945,422.11
Specific irrigation facilities	12,840.26	12,840.26	—
Joint facilities	244,062.48	107,387.49	136,674.99
Maintenance —			
Specific power facilities	192,335.00	2,391.69	189,943.31
Specific irrigation facilities	20,233.70	20,233.70	—
Joint facilities	214,045.50	94,180.02	119,865.48
Depreciation (Note 3) —			
Specific power facilities	965,464.97	17,393.30	948,071.67
Joint facilities	444,993.64	—	444,993.64
Less — Amount allocated to future downstream river regulation, recoverable from operations of future downstream hydro plants	191,948.52*	—	191,948.52*
Total operating expenses	<u>\$ 2,859,353.49</u>	<u>\$266,330.81</u>	<u>\$ 2,593,022.68</u>
Net operating revenues	<u>\$ 8,271,056.69</u>	<u>\$235,920.63*</u>	<u>\$ 8,506,977.32</u>
 INTEREST AND OTHER DEDUCTIONS:			
Interest on Federal investment	\$ 4,596,275.54	\$ —	\$ 4,596,275.54
Less —			
Amount allocated to future downstream river regulation, recoverable from operations of future downstream hydro plants	1,253,180.43*	—	1,253,180.43*
Amount charged to construction	145,191.95*	—	145,191.95*
Miscellaneous income deductions (net)	70,766.66	31,763.28*	102,529.94
Total interest and other deductions	<u>\$ 3,268,669.82</u>	<u>\$ 31,763.28*</u>	<u>\$ 3,300,433.10</u>
Net revenues	<u>\$ 5,002,386.87</u>	<u>\$204,157.35*</u>	<u>\$ 5,206,544.22</u>

* Denotes red figure

The accompanying notes (Schedule 16) are an integral part of this statement.

COLUMBIA BASIN PROJECTNOTES TO FINANCIAL STATEMENTS ON SCHEDULES 14 AND 15

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 after assigning \$1,000,000 to flood control and navigation. Specific power facilities (principally power houses and generating equipment), exclusive of the cost of the three generating units and related electrical facilities installed in addition to the original fifteen units, have been allocated to commercial power and to irrigation pumping power in proportion to the relative value of the power delivered for each purpose. The cost of the three additional generating units and related electrical facilities has been assigned to commercial power. In the opinion of counsel these methods of allocating costs are in accordance with the determinations made by the Secretary of the Interior acting under authority delegated by Congress in the Reclamation Project Act of 1939; however, other methods of allocating costs between commercial power and irrigation pumping power are being considered. Operation and maintenance expenses applicable to these 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. A composite depreciation reserve is maintained for each class of property.

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 \$394,500,000) 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, 1952 under the terms of the agreement has been treated in the accompanying financial statements as current year's revenues.

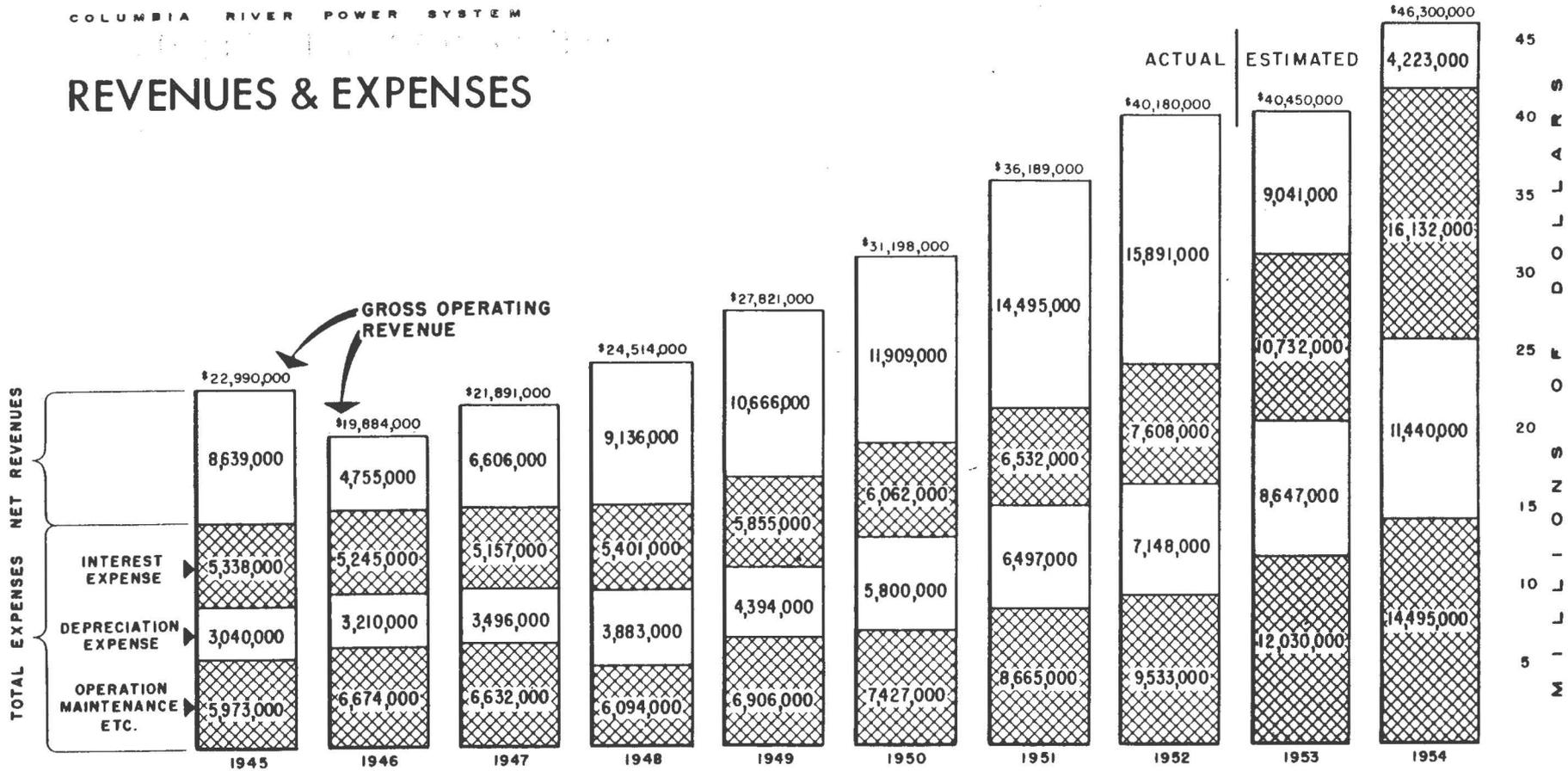
5. CASH:

The cash balances of United States Treasury are not segregated by the various departments and agencies of the government. An amount approximately equal to one month's expenditures, which is estimated to be the Project's proportionate share of general fund cash held by the Treasury, has been shown as cash in the accompanying statements.

6. CONTINGENT LIABILITIES:

The project is contingently liable under pending litigation which, in some instances, involves 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.

REVENUES & EXPENSES

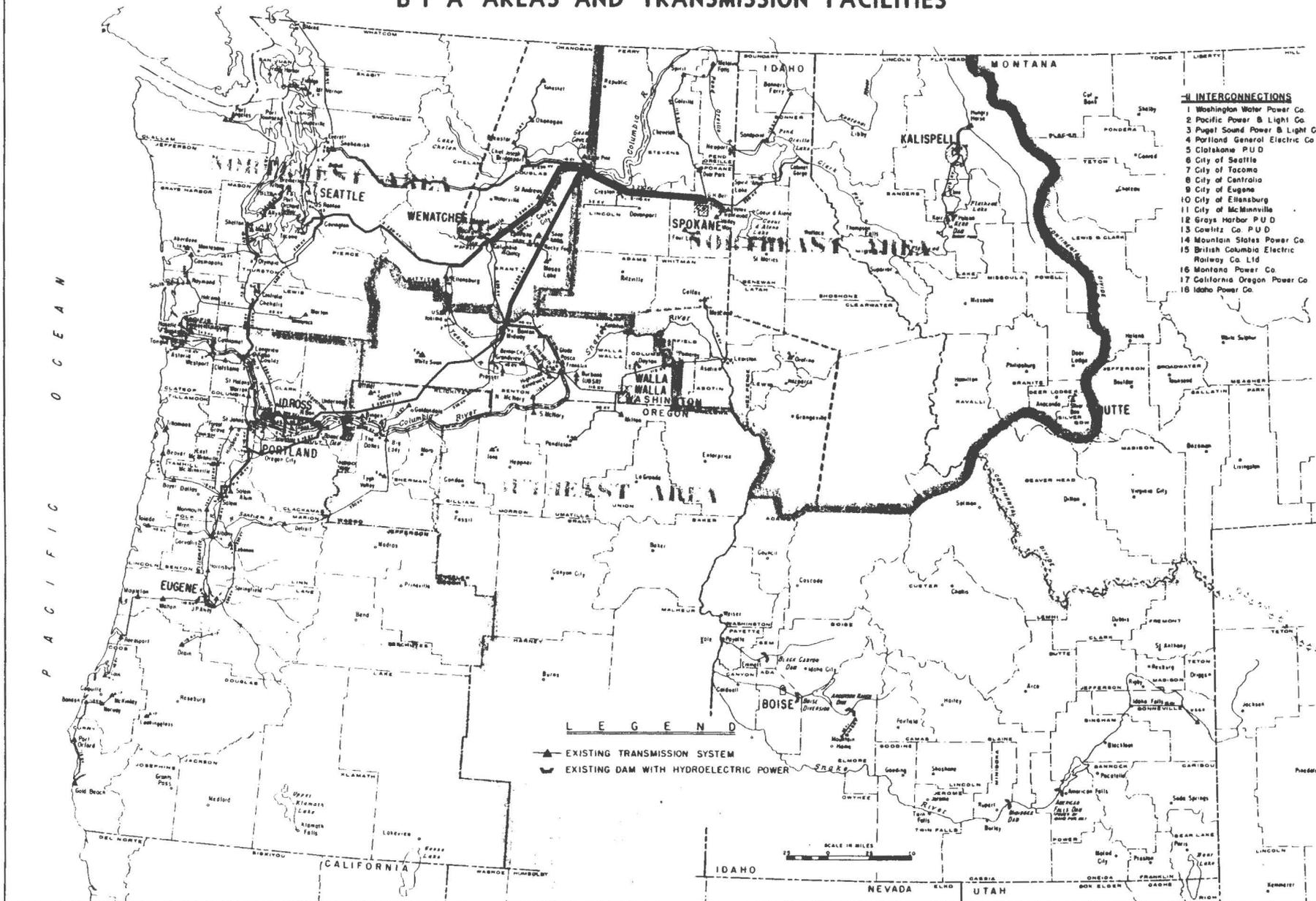


NOTES: The estimates of gross revenues for fiscal years 1953 and 1954 are based on an assumption that median water conditions will prevail. Rainfall and stream flow conditions during the first few months of fiscal year 1953 have been substantially below median and, if such conditions prevail throughout the fiscal year, the gross operating revenues may be as much as \$3,900,000 less than the estimate.

The estimate for 1953 reflects commencement of operations at Hungry Horse, Detroit-Big Cliff and Albeni Falls projects, and the estimate for 1954 includes initial operations at McNary as well. While these projects contribute to gross revenues during 1953 and 1954, they are only partially developed, with the result that related expenses exceed the contribution to gross revenues and thus account for a large part of the estimated reduction in net revenues.

In fiscal years 1951 and 1952, water conditions were considerably better than median, which resulted in high operating revenues since the additional power was readily salable on an interruptible basis to aluminum reduction plants in view of the power shortage conditions prevailing in the area.

B P A AREAS AND TRANSMISSION FACILITIES



- INTERCONNECTIONS**
- 1 Washington Water Power Co
 - 2 Pacific Power & Light Co
 - 3 Puget Sound Power & Light Co
 - 4 Portland General Electric Co
 - 5 Clatskanie P.U.D.
 - 6 City of Seattle
 - 7 City of Tacoma
 - 8 City of Centralia
 - 9 City of Eugene
 - 10 City of Elensburg
 - 11 City of McMinnville
 - 12 Grays Harbor P.U.D.
 - 13 Cowitz Co. P.U.D.
 - 14 Mountain States Power Co
 - 15 British Columbia Electric Railway Co. Ltd.
 - 16 Montana Power Co
 - 17 California Oregon Power Co
 - 18 Idaho Power Co.

BONNEVILLE POWER ADMINISTRATION

PAUL J. RAVER, Administrator

JOHN D. DAVIS, Assistant Administrator

DIVISION OF ENGINEERING

SOL E. SCHULTZ
Chief Engineer
WALTER H. KANZLER
Assistant Chief Engineer
CLAUDE A. MILLER
Maintenance Engineer
ORIN A. DEMUTH
Chief, Branch of System Engineering
RICHARD F. STEVENS
Chief, Branch of Design
VERNON E. TAYLOR
Chief, Branch of Construction
CHARLES J. SLATT
Chief, Branch of Maintenance

HARRY M. KENIN
Executive Secretary
HENRY H. ALDERMAN
Assistant to the Administrator
(Field Operations)
ELDRIDGE W. SINCLAIR
Assistant Field Operations Officer
NELSON C. HAZELTINE
Director, Branch of Publications
and Information

DIVISIONS

DIVISION OF POWER MANAGEMENT

WILLIAM A. DITTMER
Power Manager
HERSCHEL F. JONES
Chief, Branch of Power Requirements
JACK D. STEVENS
Chief, Branch of Power Resources
JOHN P. JOLLIFFE
Chief, Branch of Power Service

DIVISION OF FINANCE AND ACCOUNTS

E. D. OSTRANDER
Controller
JOSEPH J. PACHOT
Chief, Branch of Finance and Accounts
A. CLYDE LEGGATT
Chief, Branch of Administrative Services

STAFF OFFICES

JOHN F. RICHARDSON, JR.
Director, Office of Administrative
Management
ROSCOE A. DAY
Chief, Branch of Personnel
Management
EARL L. GOLDHAMMER
Director, Branch of Budget Management
PHILIP M. MAYER
Director, Branch of Management Research

DIVISION OF GENERAL SERVICE

IVAR O. HANSON
Director
LOGAN C. STEWART
Chief, Branch of Supply
A. B. MACPHERSON
Chief, Branch of Land
MILLER EVANS
Chief, Branch of Plant Services

NORMAN A. STOLL
General Counsel
ERWIN C. HANNUM
Program Coordinator
RUDOLF STORMER
Labor Relations Officer
MORGAN D. DUBROW
Manager, Washington, D. C.
Office

AREA OFFICES

NORTHWEST AREA

Seattle, Washington
V. M. MURRAY, Manager

SOUTHWEST AREA

Eugene, Oregon
W. E. TROMMERSHAUSEN, Manager

NORTHEAST AREA

Spokane, Washington
J. J. MANGAN, Manager

SOUTHEAST AREA

Walla Walla, Washington
H. R. RICHMOND, JR., Manager

DISTRICT OFFICES

NORTH CENTRAL WASHINGTON DISTRICT

Wenatchee, Washington
H. C. ELMORE, Assistant Area Manager

LOWER COLUMBIA DISTRICT

Vancouver, Washington
T. E. BLACK, Manager

WESTERN MONTANA DISTRICT

Kalispell, Montana
R. H. WOOD, Manager

BONNEVILLE ADVISORY BOARD

HERBERT M. PEET
Department of Agriculture

HAROLD T. NELSON
Department of the Interior

LESHER S. WING
Federal Power Commission

COL. E. C. ITSCHNER
Department of the Army

COOPERATING COMMITTEES

BONNEVILLE REGIONAL ADVISORY COUNCIL

ARTHUR M. EPPSTEIN Portland, Oregon	WILLIAM G. HEFNER Salem, Oregon	CAPTAIN A. LEPPALUOTO The Dalles, Oregon	ANDREW J. NATERLIN Newport, Oregon	HAROLD SHEFELMAN Seattle, Washington		
ROY ATKINSON Seattle, Washington	C. A. ERDAHL Tacoma, Washington	BERT L. HEGGEN Mt. Vernon, Washington	JAMES T. MARR Portland, Oregon	WALTER NEILS Libby, Montana	J. F. WARD Tacoma, Washington	
CHARLES BAKER Walla Walla, Washington	D. P. FABRICK Choteau, Montana	EUGENE L. HEISS Portland, Oregon	ELMER McCLURE Portland, Oregon	HARRY K. NEWBURN Eugene, Oregon	A. L. STRAND Corvallis, Oregon	THOMAS D. WELBORN Brewster, Washington
CLARENCE BELKNAP Blue River, Oregon	J. W. FORRESTER Pendleton, Oregon	D. I. HOPKINS St. John, Washington	MILTON H. MCGUIRE McMinnville, Oregon	DANIEL M. OGDEN, JR. Pullman, Washington	JAMES H. STURGIS Pendleton, Oregon	E. R. WELLS Prosser, Washington
FRANK T. BELL Ephrata, Washington	C. CLEMENT FRENCH Pullman, Washington	HARRISON P. HORNESH Coos Bay, Oregon	CHARLES MCKINLEY Portland, Oregon	JOHN O'NEILL Portland, Oregon	TOM TEMPLE Portland, Oregon	HERBERT G. WEST Walla Walla, Washington
RALPH C. BRICKER Great Falls, Montana	A. W. GALIPEAU Coeur d'Alene, Idaho	ROBERT JONES Spokane, Washington	EARL L. McNUTT Eugene, Oregon	ROGER O. OSCARSON Spokane, Washington	MORTON TOMPKINS Dayton, Oregon	E. M. WESTON Seattle, Washington
JOE BROWN Redmond, Oregon	JOHN M. GLENN Seattle, Washington	RONALD E. JONES Brooks, Oregon	FRED MERRYFIELD Corvallis, Oregon	FLOYD D. ROBBINS Seattle, Washington	DONALD TRELOAR Kalspell, Montana	JOSEPH D. WOOD Boise, Idaho
HENRY P. CARSTENSEN Seattle, Washington	CLARK HAMILTON Wesler, Idaho	BENJAMIN H. KIZER Spokane, Washington	ROLAND MILLER Walla Walla, Washington	FRANK ROMIG Portland, Oregon	WADE TROUTMAN Bridgeport, Washington	IRVING WOODS Omak, Washington
A. B. COMFORT Tacoma, Washington	LEON HAMPTON Longview, Washington	CARL KRAENZEL Bozeman, Montana	S. E. MILLER Cle Elum, Washington	W. J. SEUFERT The Dalles, Oregon	JAMES R. UMBER Helena, Montana	WILFRED R. WOODS Wenatche, Washington
JAMES G. EDMISTON Kalspell, Montana	OSCAR G. HARBAK San Francisco, California	M. W. LEE Pullman, Washington	RALPH MONTAG Portland, Oregon	ROBERT B. SHEETS Seattle, Washington	E. H. VICARY Seattle, Washington	GEORGE ZAHN Methow, Washington

COLUMBIA BASIN INTER-AGENCY COMMITTEE

	LESHER S. WING Federal Power Commission	HON. LEN B. JORDAN Governor of Idaho	
COL. E. C. ITSCHNER Department of the Army (Chairman)	ROBERT R. HARRIS Federal Security Agency	HON. JOHN W. BONNER Governor of Montana	HON. J. BRACKEN LEE Governor of Utah
PAUL J. RAVER Bonneville Power Administration	V. E. STANBERY Department of Commerce	HON. CHARLES RUSSELL Governor of Nevada	HON. ARTHUR B. LANGLIE Governor of Washington
HERBERT M. PEET Department of Agriculture	HAROLD T. NELSON Department of the Interior	HON. DOUGLAS MCKAY Governor of Oregon	HON. FRANK A. BARRETT Governor of Wyoming

PACIFIC NORTHWEST FIELD COMMITTEE

R. F. BESSBY, Chairman	HAROLD T. NELSON, Regional Director Bureau of Reclamation, Boise, Idaho	S. M. SHELTON, Regional Director Bureau of Mines, Albany, Oregon
ROSCOE E. BELL, Regional Administrator Bureau of Land Management, Portland	ARTHUR M. PIPER, Staff Scientist Geological Survey, Portland	LAWRENCE MERRIAM, Regional Director National Park Service, San Francisco
LEO L. LAYTHE, Regional Director Fish and Wild Life Service, Portland	E. MORGAN PRYSE, Area Director Bureau of Indian Affairs, Portland	NEAL BUTTERFIELD, Representative National Park Service, Portland
	PAUL J. RAVER, Administrator Bonneville Power Administration, Portland	

COLUMBIA POWER TRADES COUNCIL

JOHN O'NEILL, President EUGENE L. HEISS, Executive Secretary

CENTRAL COOPERATIVE LABOR MANAGEMENT COMMITTEE

RUDOLF STORMER, Co-Chairman J. L. HARDESTY, Co-Chairman

SOUTHWEST COOPERATIVE LABOR MANAGEMENT COMMITTEE

WM. E. TROMMERSHAUSEN, Co-Chairman FRED DODSON, Co-Chairman

NORTHEAST COOPERATIVE LABOR MANAGEMENT COMMITTEE

J. J. MANGAN, Co-Chairman ALBERT E. WATT, Co-Chairman

SOUTHEAST COOPERATIVE LABOR MANAGEMENT COMMITTEE

H. R. RICHMOND, JR., Co-Chairman B. E. SHAW, Co-Chairman