1954

U. S.
COLUMBIA
RIVER
POWER
SYSTEM

Report

U. S. DEPARTMENT OF THE INTERIOR
BONNEVILLE POWER ADMINISTRATION
Consisting of

the Bonneville Power Administration,

& Power Components of

the Bonneville Dam Project,

the Columbia Basin Project

( Grand Coulee Dam ),

the Hungry Horse Project,

the Detroit Project

( Detroit Dam &

Big Cliff Dam ),

& the McNary

Dam Project

THE U.S. COLUMBIA

1954
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The Honorable
The Secretary of Interior
Washington, D. C.

Dear Mr. Secretary:

Operations of the U. S. Columbia River Power System from July 1, 1953 through June 30, 1954, are covered in the 17th annual report of the Bonneville Power Administration, respectfully submitted as required by Section 9 (c) of the Bonneville Project Act.

The report embraces the Administration's management, operating and financial responsibilities. It also gives an official accounting of the joint trusteeship for power components of Federal multipurpose dams under jurisdiction of the Corps of Engineers and the Bureau of Reclamation, for which the Administration is designated as marketing agency.
Substantial additions to the generating capacity on the Federal system and comparatively favorable streamflows in the Columbia River Basin combined to set a new record of 20.2 billion kilowatt-hours of energy generated in fiscal year 1954. Gross operating revenues were $45,317,693, the highest for any year of the system's operation. These figures reflect a 15 percent increase over fiscal 1953 in energy generated and 15.68 percent in gross revenues.

Net revenues for the year decreased 9.72 percent due largely to high costs of new dams going into service. Hungry Horse dam was completed in 1954 and operations started at Albeni Falls, McNary, Detroit and Big Cliff dams. Increases in the cost of transmission facilities, and operation and maintenance activities, reflected the growth of the Administration's transmission system.

As of June 30, 1954, the Federal gross investment allocated to commercial power operations for both generation and transmission was $1,240,790,232. The invested capital was reduced to an unpaid balance of $842,596,730 as of June 30, 1954 by cumulative repayments to that date of $170,409,916, equal to 16.82 percent of the total investment. Repayment of the capital investment in the Bonneville Power Administration transmission system is approximately $55,400,000 ahead of schedule.

At the end of the fiscal year Bonneville Power Administration was operating 6,377 circuit miles of transmission lines and 158 substations, an increase of 670 miles of transmission lines and 13 substations over the previous year. Through the interconnected systems of the Northwest grid and the Administration's customer substations, these transmission facili-
ties supplied over 58 percent of the total energy generated by major utilities of the region. In addition to supplying power requirements of the Administration's 116 industrial, non-pool utility and Federal customers, it delivered approximately 3.9 billion kilowatt-hours of energy to meet requirements of Northwest Power Pool utilities.

Additions to the Federal system generation in fiscal year 1954 totaled 540,500 kilowatts, nameplate rating, while non-Federal utilities in the area served by the Administration added a nameplate rating total of 249,200 kilowatts.

Brief comment should be made on several significant management and policy phases of the Administration's program.

The power partnership policy of President Dwight D. Eisenhower under guidance of the Department of Interior has aroused great activity and interest in the Pacific Northwest. Bonneville Power Administration is offering full cooperation to all utilities of the region, both publicly and privately owned, in planning for integration of proposed non-Federal projects with the Federal power system.

The unprecedented interest in the power partnership policy is reflected by 41 applications for power projects in the Pacific Northwest which have been filed by non-Federal utilities with the Federal Power Commission. These applications represent a potential addition of over 8,000,000 kilowatts, exclusive of several proposed Canadian storage projects which could add between 1,000,000 and 1,500,000 kilowatts of generating capacity to the Columbia
River system in the United States.

There is every reason to believe the power requirements of the Pacific Northwest can be met through the new generation contemplated under the partnership program and construction of recommended Federal multipurpose projects such as Libby dam.

An important achievement is represented by the new formula developed within the Bonneville Power Administration whereby its present basic wholesale rate of $17.50 per kilowatt-year continues until December 1956 in spite of greatly increased construction costs for recent additions to the Federal system. Although it is recognized that an increase will eventually be necessary to meet increased costs, there is every assurance that such increases will be moderate.

Internal changes began with a management survey of Bonneville Power Administration's organization in February 1954. This has resulted in simplification of the organizational structure and substantial operation and management economies.

Bonneville Power Administration and other department agencies in the Portland area occupied the new Department of Interior building, 1001 N. E. Lloyd Boulevard, as the fiscal year closed. The move not only has increased the efficiency of the administration's operations but has brought about closer working relationships with related bureaus. Since the end of the fiscal year, payroll, voucher audit, personnel, transportation, office supply, communication and other administrative services of the department agencies have been operated on a consolidated basis.
In conclusion it may be said that Bonneville Power Administration is not alone in being able to report notable progress toward the long-range goal of power development for the Pacific Northwest. Never in the history of the region has a more optimistic, comprehensive and promising approach been made to solution of the Pacific Northwest’s power problems than in the current work of the Columbia Basin Inter-Agency Committee, the Northwest Governors’ Power Policy Committee, the Interstate Compact Commission, the Washington State Power Commission, the Puget Sound Utilities Council, and other regional and local groups.

These efforts, buttressed by the demonstrated willingness of all Federal, state and local groups concerned to cooperate as partners for the solution of these problems, should have a tremendous impact on the welfare and economy of the region.

Sincerely,

Wm. A. Pearl
Administrator
The estimates of gross operating revenue for fiscal years 1955 and 1956 are based on an
assumption that median water conditions will prevail. These estimates are based also on the
Administration's present wholesale rates.

Gross revenues in 1955 were reduced from 1952 as a result of adverse water conditions during
the winter months of fiscal year 1953, despite the fact that the system received some benefits
in 1953 from initial generation at the Hungry Horse Project and the operation of the storage
capacity of the Alveda Falls Project.

The McNary Dam and Detroit-Big Cliff projects started commercial power operations in
fiscal year 1954. The Lookout Point-Dexter project will start commercial power operations in
1955 and the Chief Joseph and Chandler projects will start operations in fiscal year 1956.
Financial Results of Operations

Table I presents a condensed summary for fiscal years 1953 and 1954 and a cumulative total to June 30, 1954 of the results of commercial power operations of the Columbia River power system of the Federal Government.

New High for Gross Revenues

Gross operating revenues of $45,317,693 in 1954 were the highest for any year of the system’s operations. However, the increase of $6,142,484 in gross revenues was more than offset by the increase of $7,072,366 in total costs, with the result that surplus net revenues declined $929,882, or 9.72 percent to a total of $8,637,710 for 1954 from the net of $9,567,592 for the preceding year. Cumulative surplus net revenues from commercial power operations rose to $101,774,950 as of June 30, 1954, an amount equal to 29 percent of cumulative gross revenues of $349,746,787.

Costs Increase

The increase of $7,072,366 in total costs for 1954 over 1953 reflects largely the costs of additional generating capacity placed in service for the first time in 1954. Total costs
include all the expenses of operation, maintenance, administration, marketing, depreciation, interest, etc., in accordance with generally accepted cost accounting practice and may be summarized as follows:

<table>
<thead>
<tr>
<th>Project</th>
<th>1954</th>
<th>1953</th>
<th>Increase or (Decrease)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bonneville Dam</td>
<td>$2,600,719</td>
<td>$2,538,219</td>
<td>$62,500</td>
</tr>
<tr>
<td>Columbia Basin</td>
<td>6,618,232</td>
<td>6,967,217</td>
<td>(348,985)</td>
</tr>
<tr>
<td>Hungry Horse Dam</td>
<td>2,926,817</td>
<td>1,035,367</td>
<td>1,891,450</td>
</tr>
<tr>
<td>Albeni Falls Dam</td>
<td>233,911</td>
<td>—</td>
<td>233,911</td>
</tr>
<tr>
<td>McNary Dam</td>
<td>1,331,618</td>
<td>—</td>
<td>1,331,618</td>
</tr>
<tr>
<td>Detroit-Big Cliff Dams</td>
<td>1,114,744</td>
<td>—</td>
<td>1,114,744</td>
</tr>
<tr>
<td>Generation subtotal</td>
<td>14,826,041</td>
<td>10,540,803</td>
<td>4,285,238</td>
</tr>
<tr>
<td>Transmission (Bonneville)</td>
<td>21,853,942</td>
<td>19,066,814</td>
<td>2,787,128</td>
</tr>
<tr>
<td>Power Administration</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>$36,679,983</td>
<td>$29,607,617</td>
<td>$7,072,366</td>
</tr>
</tbody>
</table>

Four Additional Dams

These figures reflect the completion of the Hungry Horse Dam in 1954 and the commencement of operations in that year at four additional dams, Albeni Falls, McNary, Detroit and Big Cliff. The increase in transmission costs reflects the growth of the Bonneville Power...
## TABLE I

**Columbia River power system**

Condensed summary of revenues and expenses 1/

Operating projects only

<table>
<thead>
<tr>
<th>Fiscal year</th>
<th>Fiscal year</th>
<th>Total to June 30, 1954</th>
</tr>
</thead>
<tbody>
<tr>
<td>1953</td>
<td>1954</td>
<td></td>
</tr>
<tr>
<td>Operating revenues:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sales of electrical energy</td>
<td>$38,383,475</td>
<td>$44,127,409</td>
</tr>
<tr>
<td>Other electric revenue</td>
<td>791,734</td>
<td>1,190,284</td>
</tr>
<tr>
<td>Total operating revenues</td>
<td>$39,175,209</td>
<td>$45,317,693</td>
</tr>
<tr>
<td>Expenses of operation, maintenance, etc.</td>
<td>$10,856,179</td>
<td>$12,804,967</td>
</tr>
<tr>
<td>Provision for depreciation</td>
<td>9,410,048</td>
<td>11,638,135</td>
</tr>
<tr>
<td>Interest expense</td>
<td>8,983,109</td>
<td>12,248,197</td>
</tr>
<tr>
<td>Miscellaneous deductions, net</td>
<td>358,281</td>
<td>(11,316)</td>
</tr>
<tr>
<td>Total deductions</td>
<td>$29,607,617</td>
<td>$36,679,983</td>
</tr>
<tr>
<td>Surplus net revenues from operations</td>
<td>$ 9,567,592 2/</td>
<td>$8,637,710 2/</td>
</tr>
</tbody>
</table>

1/ Commercial power operations only.

2/ Before adjustments applicable to prior years: $272,753 debit in 1954; $263,740 credit in 1953.

3/ Prior years' adjustments are reflected in the individual items in the total column; hence, the net of $101,774,950 is after giving effect to such adjustments.
Administration's transmission system although almost precisely half of the increase in transmission costs reflects inclusion in 1954 of nonrecurring costs. The latter represent the write-off of the capital investment in projects, rights-of-way, etc., abandoned on account of changes in plans over the past several years due to shifts in loads, changes in sources of supply, and similar factors.

Operating Revenues Grow  Gross commercial power operating revenues of the Columbia River power system reached a new peak of $45,317,693 in fiscal year 1954, an increase of $6,142,484 or 15.68 percent over the total of $39,175,209 for fiscal year 1953. The increase reflects (1) favorable streamflows in the Columbia River Basin in 1954 as against below average streamflows in the preceding year and (2) the operation of additional generating capacity on the Federal system.

Generators Added  Generating capacity in service in 1953 included only the Bonneville and Grand Coulee powerplants plus two of the four units at the Hungry Horse Dam. Additional generators placed in service in fiscal year 1954 were the remaining two generators at Hungry Horse Dam, the two units at Detroit Dam, the one unit at Big Cliff Dam, and four of the scheduled total of 14 units at McNary Dam. In most cases these additional generator units were in service only a part of fiscal year 1954.

Power Sales Summarized  Table II summarizes by customer categories the source of revenue in each of the past five fiscal years and in total to June 30, 1954.
### TABLE II

Columbia River power system
Revenue by class of customer operating projects only

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Industry:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aluminum</td>
<td>75,416,310</td>
<td>12,133,254</td>
<td>13,523,276</td>
<td>13,376,207</td>
<td>13,545,562</td>
<td>15,944,356</td>
<td>$143,938,965</td>
<td>35.18</td>
</tr>
<tr>
<td>Other 1/ utilities</td>
<td>18,437,765</td>
<td>2,677,580</td>
<td>3,774,798</td>
<td>4,650,425</td>
<td>4,715,747</td>
<td>5,417,177</td>
<td>39,673,492</td>
<td>11.96</td>
</tr>
<tr>
<td>Publicly owned utilities</td>
<td>20,612,420</td>
<td>8,409,428</td>
<td>9,947,909</td>
<td>12,973,025</td>
<td>13,882,890</td>
<td>14,882,992</td>
<td>80,708,669</td>
<td>32.84</td>
</tr>
<tr>
<td>Privately owned utilities</td>
<td>38,630,918</td>
<td>7,587,963</td>
<td>8,525,609</td>
<td>8,526,775</td>
<td>6,239,276</td>
<td>7,882,879</td>
<td>77,393,420</td>
<td>17.39</td>
</tr>
<tr>
<td>Other operating revenue</td>
<td>4,589,782</td>
<td>389,291</td>
<td>417,436</td>
<td>653,714</td>
<td>791,734</td>
<td>1,190,284</td>
<td>8,032,241</td>
<td>2.63</td>
</tr>
<tr>
<td>Total operating revenue</td>
<td>$157,687,195</td>
<td>$31,197,516</td>
<td>$36,189,028</td>
<td>$40,180,146</td>
<td>$39,175,209</td>
<td>$45,317,693</td>
<td>$349,746,787</td>
<td>100.00</td>
</tr>
</tbody>
</table>

1/ Includes sales to Federal agencies.

Sales to the aluminum industry in 1954 were $15,944,356, representing 35.18 percent of the year's total revenue. Other industries accounted for 11.96 percent, thus making total industrial sales equal to 47.14 percent of the total for the year.

Sales to industries in both the aluminum and other categories reached an all-time high in 1954, a record made possible largely by the sale of substantial amount of nonfirm...
interruptible power based upon favorable streamflow conditions prevailing during the year. Sales to publicly owned utilities also registered a new high in 1954 and accounted for 32.8 percent of the year’s gross business.

Sales to privately owned utilities were 17.39 percent of the total in 1954 and increased substantially over 1953. They did not come up to the levels of 1951 and 1952 when considerably larger portions of the total energy supply were available for this group of customers. Sales to this class of customer increased approximately $1,640,000, or about 26 percent over 1953 as against an increase of $1,000,000 or 7 percent for the sales to publicly owned utilities.

Other operating revenue arising from operations other than the sales of electrical energy accounted for 2.63 percent of the year’s gross operating revenue and were substantially higher than in any prior year.

Statement of Financial Condition

The report on the audit of the Columbia River power system by the Comptroller General of the United States is appended as part of this report. Schedule 3 of the Auditors’ Report is a statement of the combined assets and liabilities of the projects in the Columbia River power system, including those in operation and under construction as of June 30, 1954. This year for the first time the combined balance sheet includes (1) projects under construction and (2) the project totals for all purposes, commercial power, irrigation, flood control and navigation, rather than commercial power only as was the case for the balance sheets presented in the Auditors’ Reports for preceding years.
The total assets of the system, including assets for all of the multiple purposes, exceeded $1,600,000,000 net of the accrued provisions for depreciation in an amount of more than $69,000,000. The principal component of the assets is the fixed plant investment of $1,577,000,000. This total includes $212,000,000 of fixed assets for multiple-purpose projects under construction but not in operation and not allocated among purposes. Of the remaining fixed assets of $1,365,000,000 for operating projects, more than $990,000,000 has been allocated to commercial power, $274,000,000 to irrigation, $53,000,000 to navigation, and $48,000,000 to flood control.

Details by project appear on schedule 4 of the Auditors' Report, but a condensed summary of the allocation of the fixed plant investment among purposes appears in table III.

Schedule 3, of the Auditors' Report, shows a gross Federal investment of $1,866,000,000, including power and other purposes. The total consists of the capital investment, the investment in expenses and operation, maintenance, etc., and the gross interest accumulation on the commercial power investment. The latter item, which totals nearly $138,000,000 and is repayable from commercial power operations, is summarized by project in table IV. The gross Federal investment for all purposes has been reduced to a net unpaid balance of $1,504,000,000 by the return of more than $340,000,000 of cash receipts from commercial power operations, by cash receipts returned in repayment of irrigation, and by the elimination of nonreimbursable expense of flood control and navigation functions. The depreciated book value of the fixed assets, together with unexpended appropriations, inventories and other assets, is substantially in excess of the net unpaid Federal investment.
# TABLE III

Columbia River power system
Summary of amount and allocation of investment in fixed assets
(Plant accounts)
as of June 30, 1954
Operating projects only

<table>
<thead>
<tr>
<th>Project</th>
<th>Total</th>
<th>Nonpower</th>
<th>Power</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bonneville Power Administration</td>
<td>$ 335,171,962</td>
<td>$ 27,329,300</td>
<td>$335,171,962</td>
</tr>
<tr>
<td>Bonneville Dam</td>
<td>86,947,927</td>
<td>59,618,627</td>
<td>96,566,554</td>
</tr>
<tr>
<td>Columbia Basin</td>
<td>481,932,267</td>
<td>207,509,670</td>
<td>482,521,947</td>
</tr>
<tr>
<td>Hungry Horse</td>
<td>106,933,312</td>
<td>86,122,418</td>
<td>107,055,732</td>
</tr>
<tr>
<td>Albeni Falls</td>
<td>27,611,778</td>
<td>27,353,056</td>
<td>35,965,834</td>
</tr>
<tr>
<td>McNary Dam</td>
<td>261,344,511</td>
<td>236,401,692</td>
<td>261,344,511</td>
</tr>
<tr>
<td>Detroit - Big Cliff</td>
<td>65,750,950</td>
<td>38,500,636</td>
<td>94,251,586</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$1,365,692,707</strong></td>
<td><strong>$375,014,646</strong>/</td>
<td><strong>$990,678,061</strong></td>
</tr>
</tbody>
</table>

Less combined reserve for
depreciation ................................................. 63,777,062

**Total less reserve** .............................................. $926,900,999

1/ Segregation of nonpower total by purpose:

<table>
<thead>
<tr>
<th>Specific facilities</th>
<th>Allocation of joint facilities</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Irrigation</td>
<td>$ 203,119,390</td>
<td>$ 70,303,207</td>
</tr>
<tr>
<td>Navigation</td>
<td>28,062,083</td>
<td>25,323,244</td>
</tr>
<tr>
<td>Flood control</td>
<td>48,206,722</td>
<td>48,206,722</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$231,181,473</strong></td>
<td><strong>$143,833,173</strong></td>
</tr>
</tbody>
</table>
### TABLE IV

**Columbia River power system**  
**Summary of interest on Federal investment allocated to commercial power**  
**As of June 30, 1954**  
**Operating projects only**

Interest during construction, to be returned during repayment period as part of the Federal investment:

<table>
<thead>
<tr>
<th>Project</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transmission system</td>
<td>$4,697,557</td>
</tr>
<tr>
<td>Bonneville Dam</td>
<td>2,332,775</td>
</tr>
<tr>
<td>Columbia Basin</td>
<td>9,727,004</td>
</tr>
<tr>
<td>Hungry Horse</td>
<td>4,708,542</td>
</tr>
<tr>
<td>McNary Dam</td>
<td>14,751,905</td>
</tr>
<tr>
<td>Albeni Falls</td>
<td>700,068</td>
</tr>
<tr>
<td>Detroit-Big Cliff</td>
<td>2,542,532</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td><strong>$39,460,383</strong></td>
</tr>
</tbody>
</table>

Interest on costs at projects allocated to future river regulation, to be returned as part of repayment of future downstream projects:

<table>
<thead>
<tr>
<th>Project</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Columbia Basin</td>
<td>12,934,026</td>
</tr>
<tr>
<td>Hungry Horse</td>
<td>433,144</td>
</tr>
<tr>
<td>Albeni Falls</td>
<td>124,616</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td><strong>$13,491,786</strong></td>
</tr>
</tbody>
</table>

Interest charged to operations — repaid currently:

<table>
<thead>
<tr>
<th>Project</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transmission system</td>
<td>31,097,858</td>
</tr>
<tr>
<td>Bonneville Dam</td>
<td>18,065,858</td>
</tr>
<tr>
<td>Columbia Basin</td>
<td>31,976,741</td>
</tr>
<tr>
<td>Hungry Horse</td>
<td>2,351,923</td>
</tr>
<tr>
<td>McNary Dam</td>
<td>615,480</td>
</tr>
<tr>
<td>Albeni Falls</td>
<td>154,496</td>
</tr>
<tr>
<td>Detroit-Big Cliff</td>
<td>621,046</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td><strong>$84,883,402</strong></td>
</tr>
</tbody>
</table>

Gross interest accumulation: **$137,835,571**
Nine Projects in Operation

Of the gross Federal investment of $1,866,000,000, projects in operation account for $1,643,000,000 and those under construction but not in operation represented $223,000,000 of the total. The total of $1,643,000,000 for operating projects consists of $1,240,800,000 allocated to commercial power. Details by project of the Federal investment in operating projects and the status of repayment of the investment appear in schedule 5 of the Auditors’ Report and are summarized in table V of this report.

Repayment of Federal Investment

As of June 30, 1954 the gross Federal investment allocated to commercial power operations for both generation and transmission was $1,240,790,232, exclusive of such portion of the investment of multiple-purpose projects under construction but not in operation as of June 30, 1954 as may be allocated to commercial power. This gross investment includes funds appropriated and requisitioned for both construction and operation, including maintenance, administration, marketing, etc. Also included are indirect items such as WPA expenditures and other funds, properties, or services received from other Federal agencies, plus a gross interest accumulation computed at the rate of 2 1/2 percent per annum on the unamortized balances of the investment.

Invested Capital Reduced

The status of the repayment of the commercial power investment in operating projects for the system as a whole is summarized in table V. The gross Federal investment of $1,240,790,232 includes $170,155,673 for expenses of operation, maintenance, interest, etc.,
TABLE V
Columbia River power system
Summary of Federal investment in operating projects
allocated to commercial power and status of repayment
as of June 30, 1954

Operating projects only 1/

<table>
<thead>
<tr>
<th>Gross Investment</th>
<th>Repayments</th>
<th>Net Investment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Investment in current expenses:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Operation, maintenance, etc. 2/</td>
<td>$ 85,272,271</td>
<td>$ 85,272,271</td>
</tr>
<tr>
<td>Interest 3/</td>
<td>84,883,402</td>
<td>84,883,402</td>
</tr>
<tr>
<td>Total current expenses</td>
<td>$170,155,673</td>
<td>$170,155,673</td>
</tr>
<tr>
<td>Investment in capital assets:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Electric plant, inventories, etc. 4/</td>
<td>$1,013,006,646</td>
<td>$170,409,916</td>
</tr>
<tr>
<td>Unexpended appropriations</td>
<td>57,627,913</td>
<td></td>
</tr>
<tr>
<td>Total capital investment</td>
<td>$1,070,634,559</td>
<td>$170,409,916</td>
</tr>
<tr>
<td>Total Federal investment</td>
<td>$1,240,790,232</td>
<td>$340,565,589</td>
</tr>
</tbody>
</table>

1/ Bonneville Dam, Columbia Basin project, Hungry Horse Dam, Albeni Falls Dam, Detroit-Big Cliff Dams, McNary Dam and Bonneville Power Administration. Does not include Chief Joseph Dam, The Dalles Dam and Lookout Point-Dexter Dams which were under construction but not in operation as of June 30, 1954.

2/ Table I shows expenses of operation, maintenance, etc. in the amount of $95,540,185 and miscellaneous deductions of $1,617,406, or an expense total of $97,157,591 as against the total of $85,272,271 shown above. The data on Table I are accrued cost accounts including non-cash exchange account transactions and the capital costs of abandoned projects written off to expense. These items account for the difference in the total shown on Table I from the total shown in this table which is prepared on a cash payout basis. For the same reason, this table uses as gross repayments only the cash receipts of $340,565,589 as against total accrued operating revenues of $349,746,787 shown on Table I. The difference between the accrued revenues and cash receipts consists of adjustments for uncollected accounts receivable and non-cash exchange account transactions included in accrued revenue.

3/ The Columbia River power system does not receive appropriations for payment of interest, but imputes and includes in its accounts provisions for interest expense and returns receipts to the Treasury in repayment of such expenses.

4/ Includes interest during construction of $39,460,383 which will be repaid to the Treasury as part of the capital cost of electric plant, and $13,491,786 of interest charged to future downstream regulation recoverable from operations of future downstream hydroelectric plants.
all of which expenses have been repaid, leaving a gross capital investment of $1,070,634,559. Elimination of unexpended appropriations of $57,627,913 reduces the gross invested capital to $1,013,006,646, consisting largely of the fixed electric plant investment but including small amounts for inventories and other items. The invested capital was reduced to an unpaid balance of $842,596,730 as of June 30, 1954 by cumulative repayments to that date of $170,409,916, equal to 16.82 percent of the total invested capital. These repayments of expenses and capital were made from the total cash receipts of the power system returned to the U.S. Treasury. Such receipts are applied first to the repayment of the expenses of operation, maintenance, interest, etc., with the remainder applied to the return of the capital investment.

### Net Power Investment

As of June 30, 1954 the amount and repayment of the commercial power capital investment of the individual projects were as follows:

<table>
<thead>
<tr>
<th>Project</th>
<th>Power capital investment</th>
<th>Repaid as of June 30, 1954</th>
<th>Percent repaid</th>
<th>Net power investment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bonneville Power Administration</td>
<td>$347,767,945</td>
<td>$90,064,194</td>
<td>25.90</td>
<td>$257,703,751</td>
</tr>
<tr>
<td>Bonneville Dam</td>
<td>59,813,926</td>
<td>21,790,983</td>
<td>36.43</td>
<td>38,022,943</td>
</tr>
<tr>
<td>Columbia Basin</td>
<td>221,462,229</td>
<td>51,031,697</td>
<td>23.04</td>
<td>170,430,532</td>
</tr>
<tr>
<td>Hungry Horse</td>
<td>87,184,051</td>
<td>2,855,592</td>
<td>3.28</td>
<td>84,328,459</td>
</tr>
<tr>
<td>Albeni Falls</td>
<td>26,941,232</td>
<td>302,979</td>
<td>1.13</td>
<td>26,638,253</td>
</tr>
<tr>
<td>McNary Dam</td>
<td>231,322,397</td>
<td>3,535,258</td>
<td>1.53</td>
<td>227,787,139</td>
</tr>
<tr>
<td>Detroit-Big Cliff</td>
<td>38,514,866</td>
<td>829,213</td>
<td>2.15</td>
<td>37,685,653</td>
</tr>
<tr>
<td><strong>Totals</strong></td>
<td>$1,013,006,646</td>
<td>$170,409,916</td>
<td>16.82</td>
<td>$842,596,730</td>
</tr>
</tbody>
</table>
Cost Account Basis

The foregoing data are derived from the cost accounts maintained in accordance with the Federal Power Commission's Uniform System of Accounts for Electric Utilities. On a statutory repayment basis the status of repayment is the same as shown in the above tabulation for all projects except the Columbia Basin project. In the case of the latter, (1) commercial power revenues must pay operation and maintenance costs of the Grand Coulee Dam and powerplant allocated to irrigation for cost accounting purposes, (2) interest expense is computed at a rate of 3 percent per annum rather than at a rate of 2 1/2 percent per annum used in the cost accounts and on a somewhat different investment base from that used in the cost accounts, and (3) other differences between the cost and payout accounts such as the exclusion of interest during construction from the accounts for payout purposes.

Repayment

Repayment of the capital investment for the Bonneville Power Administration is approximately $55,400,000 ahead of schedule and the repayment of the power capital investment of the Bonneville Dam project is approximately $9,600,000 ahead of schedule, a total repayment of nearly $65,000,000 in excess of scheduled requirements as of June 30, 1954. Repayment of the power capital investment of the Columbia Basin project is considered to be on schedule, although repayments have exceeded substantially the schedule contemplated in the initial repayment plan. However, the original plan was subsequently modified and the possibility of further revision is under consideration. Pending agreement upon the new payout schedule for this project, all payments to date are considered as in accordance with scheduled requirements. The small percentage of repayment on the other projects reflects the fact that Hungry Horse and Detroit-Big Cliff were not completed until 1954 and Albeni Falls and McNary will not be completed until subsequent to 1954.
Energy generated at 6 Federal plants for the Administration totaled 20.2 billion kilowatt-hours during fiscal year 1954. This was an increase of 15 percent over fiscal year 1953 and an increase of 8.8 percent over fiscal year 1952. The marked increase over the 1953 fiscal year was a result of the addition of 9 units during the 1954 fiscal year at Big Cliff, Detroit, Hungry Horse and McNary and reflects the comparatively low streamflow in the first half of the 1953 fiscal year.

A new system peak was reached for the hour 5-6 p.m. on January 20, 1954, before the generator at Big Cliff and the fourth generator at McNary were in operation. Coincident demand on Bonneville, Detroit, Grand Coulee, Hungry Horse and McNary plants was 3,301,000 kilowatts, an increase of 15 percent over the previous fiscal year's maximum demand of 2,867,000 kilowatts occurring during August 1952.

Since the fall of 1946 maximum system demands have continuously exceeded the nameplate rating of installed generators. Energy produced at Federal plants for the Adminis-
tration is shown by years in table VI with peak demand and energy data in the accompanying chart. Prepared on a quarterly basis the chart shows the general trends of the Bonneville Power Administration system-load growth and development.

**Backbone Transmission 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 system cover many complex transactions in addition to receipts from Federal powerplants 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.

**Storage 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

Generation at Bonneville, Detroit, Grand Coulee and Hungry Horse plants
for Bonneville Power Administration, fiscal years 1939 – 1954
( Thousands of kilowatt-hours )

<table>
<thead>
<tr>
<th>Fiscal years ending June 30</th>
<th>Big Cliff generation</th>
<th>Bonneville generation</th>
<th>Detroit generation</th>
<th>Grand Coulee generation</th>
<th>Hungry Horse generation</th>
<th>McNary generation</th>
<th>Total generation for BPA</th>
</tr>
</thead>
<tbody>
<tr>
<td>1939</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>34,874</td>
</tr>
<tr>
<td>1940</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>208,426</td>
</tr>
<tr>
<td>1941</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>901,632</td>
</tr>
<tr>
<td>1942</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>2,549,153</td>
</tr>
<tr>
<td>1943</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>5,618,436</td>
</tr>
<tr>
<td>1944</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>9,239,823</td>
</tr>
<tr>
<td>1945</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>9,051,573</td>
</tr>
<tr>
<td>1946</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>6,236,163</td>
</tr>
<tr>
<td>1947</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>8,753,737</td>
</tr>
<tr>
<td>1948</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>10,885,907</td>
</tr>
<tr>
<td>1949</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>12,925,788</td>
</tr>
<tr>
<td>1950</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>14,140,833</td>
</tr>
<tr>
<td>1951</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>16,472,384</td>
</tr>
<tr>
<td>1952</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>18,555,401</td>
</tr>
<tr>
<td>1953</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>17,633,232</td>
</tr>
<tr>
<td>1954</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>20,195,833</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>153,403,195</td>
</tr>
</tbody>
</table>

1/ Includes energy transferred for Bureau of Reclamation.
2/ Includes energy for testing operations.
3/ Does not include 7,466,000 kwh for condensers at Detroit.
Table VII, electric-energy account, summarizes energy receipts and deliveries for fiscal year 1954.

Energy sales to customers of the Bonneville Power Administration totaled 18.8 billion kilowatt-hours during fiscal year 1954, an increase of 14.5 percent over the previous year.

Sales of electric energy to other utilities, both publicly and privately owned, totaled 8.7 billion kilowatt-hours, an increase of 9.5 percent over the previous fiscal year. Deliveries to industrial plants and Federal agencies totaled 10.1 billion kilowatt-hours, an increase of 19.1 percent.

With better than minimum waterflow in the Columbia during the first six months of the year and favorable water conditions during the last 6 months it was possible to deliver almost 3 billion kilowatt-hours of interruptible energy to industrial customers. This was an increase of 6.6 percent over the 1953 fiscal year when unfavorable water conditions cut off interruptible deliveries during 4 months of the year.

The Administration has delivered 142,617,635,000 kilowatt-hours of energy at a composite average rate of 2.40 mills per kilowatt-hour during the 16 years of operation ending June 30, 1954. Sales to publicly owned utilities for this period were 28.8 billion kilowatt-hours at an average of 2.81 mills. Privately owned utilities received 32.8 billion kilowatt-hours at an average rate of 2.34 mills, and industries 80.9 billion kilowatt-hours at an average rate of 2.27 mills.
<table>
<thead>
<tr>
<th>Energy received (thousands of kilowatt hours)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Big Cliff</strong></td>
</tr>
<tr>
<td><strong>Bonneville</strong></td>
</tr>
<tr>
<td><strong>Detroit</strong></td>
</tr>
<tr>
<td><strong>Grand Coulee</strong></td>
</tr>
<tr>
<td><strong>Hungry Horse</strong></td>
</tr>
<tr>
<td><strong>McNary</strong></td>
</tr>
<tr>
<td><strong>Total</strong></td>
</tr>
</tbody>
</table>

| Power purchased and interchanged in | 2,739,695 |
|-----------------------------------|
| **Total received** | 22,935,528 |

<table>
<thead>
<tr>
<th>Energy delivered (thousands of kilowatt hours)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Sales</strong></td>
</tr>
<tr>
<td><strong>Power interchanged out</strong></td>
</tr>
<tr>
<td><strong>Used by Administration</strong></td>
</tr>
<tr>
<td><strong>Total delivered</strong></td>
</tr>
</tbody>
</table>

| Energy losses in transmission and transformation | 1,505,396 |
|-----------------------------------------------|
| **Losses as percent of total energy received** | 6.6% |

<table>
<thead>
<tr>
<th>Maximum demand on generating plants (kilowatts)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>January 20, 1954, 5-6 p.m. Pacific Standard Time</strong></td>
</tr>
<tr>
<td><strong>Load factor, total generated for Bonneville Power Administration</strong></td>
</tr>
</tbody>
</table>

1/ Does not include 7,466,000 kwb for condensers at Detroit.
2/ Includes 57,292,833 kwb transferred over BPA transmission facilities for Bureau of Reclamation.
CHART 2

ENERGY SALES
CLASS OF CUSTOMER

194.4 FIRM SALES TO ALUMINUM

*INCLUDES FEDERAL AGENCIES

1950 1951

18 BILLION

16 BILLION

14 BILLION

12 BILLION

10 BILLION

8 BILLION

6 BILLION

4 BILLION

2 BILLION
Power sales to aluminum plants were 66.7 billion kilowatt-hours at an average rate of 2.17 mills. Sales to industries other than aluminum including sales to Federal agencies were 14.2 billion kilowatt-hours at an average of 2.76 mills.

Sales by class of customer are shown in table VIII.

More than three-fourths of the energy sales for the year were made under the C-4 wholesale rate schedule at an average rate of 2.14 mills per kilowatt-hour. 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. A summary of energy sales for the fiscal year 1954 classified by rate schedules is shown in table IX.

The Administration was serving 114 customers at the end of fiscal year 1954. There were 78 publicly owned distributors of power, 17 industrial customers, 12 Federal agencies and 7 privately owned utilities. There were five customer changes during the year: Hanna Nickel Smelting Co. and Bonners Ferry, Idaho, were added, the U.S. Engineer Corps
### TABLE VIII

**Electric energy sales by class of customer**

Fiscal years 1939–1954

(Thousands of kilowatt-hours)

<table>
<thead>
<tr>
<th>Fiscal years ending June 30</th>
<th>Industry</th>
<th>Publicly owned utilities</th>
<th>Privately owned utilities</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Aluminum</td>
<td>Other industries 1/</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1941 and prior</td>
<td>522,982</td>
<td>4,829</td>
<td>35,242</td>
<td>536,555</td>
</tr>
<tr>
<td>1942</td>
<td>1,845,249</td>
<td>79,155</td>
<td>142,491</td>
<td>357,704</td>
</tr>
<tr>
<td>1943</td>
<td>3,588,848</td>
<td>507,196</td>
<td>435,289</td>
<td>739,076</td>
</tr>
<tr>
<td>1944</td>
<td>5,453,893</td>
<td>1,022,477</td>
<td>727,642</td>
<td>1,467,304</td>
</tr>
<tr>
<td>1945</td>
<td>4,667,381</td>
<td>964,724</td>
<td>823,822</td>
<td>2,057,203</td>
</tr>
<tr>
<td>1946</td>
<td>2,492,985</td>
<td>799,378</td>
<td>635,531</td>
<td>1,902,990</td>
</tr>
<tr>
<td>1947</td>
<td>4,212,413</td>
<td>626,688</td>
<td>1,044,784</td>
<td>2,377,887</td>
</tr>
<tr>
<td>1948</td>
<td>4,902,465</td>
<td>646,913</td>
<td>1,560,754</td>
<td>3,180,993</td>
</tr>
<tr>
<td>1949</td>
<td>5,665,746</td>
<td>881,454</td>
<td>2,080,833</td>
<td>3,343,091</td>
</tr>
<tr>
<td>1950</td>
<td>5,863,465</td>
<td>1,023,830</td>
<td>2,839,913</td>
<td>3,311,972</td>
</tr>
<tr>
<td>1951</td>
<td>6,544,702</td>
<td>1,537,580</td>
<td>3,414,245</td>
<td>3,578,212</td>
</tr>
<tr>
<td>1952</td>
<td>6,471,694</td>
<td>1,943,241</td>
<td>4,803,210</td>
<td>3,793,699</td>
</tr>
<tr>
<td>1953</td>
<td>6,546,677</td>
<td>1,947,129</td>
<td>5,110,297</td>
<td>2,789,175</td>
</tr>
<tr>
<td>1954</td>
<td>7,862,085</td>
<td>2,253,331</td>
<td>5,127,298</td>
<td>3,521,913</td>
</tr>
<tr>
<td>Total to June 30, 1954</td>
<td>66,640,585</td>
<td>14,237,925</td>
<td>28,781,351</td>
<td>32,957,774</td>
</tr>
</tbody>
</table>

1/ Includes Federal agencies.
### Energy Deliveries to Customers of the Bonneville Power Administration

**Fiscal Year Ended June 30, 1954**

#### Publicly Owned Utilities

<table>
<thead>
<tr>
<th>Customers</th>
<th>Energy Deliveries for Year 1/ Kilowatt-hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bandon, Oregon</td>
<td>12,372,000</td>
</tr>
<tr>
<td>Bonners Ferry, Idaho</td>
<td>12,000</td>
</tr>
<tr>
<td>Canby, Oregon</td>
<td>9,184,800</td>
</tr>
<tr>
<td>Cascade Locks, Oregon</td>
<td>9,028,800</td>
</tr>
<tr>
<td>Centralia, Washington</td>
<td>11,882,854</td>
</tr>
<tr>
<td>Cheney, Washington</td>
<td>11,956,000</td>
</tr>
<tr>
<td>Drain, Oregon</td>
<td>8,529,600</td>
</tr>
<tr>
<td>Ellensburg, Washington</td>
<td>33,668,000</td>
</tr>
<tr>
<td>Eugene, Oregon</td>
<td>49,328,000</td>
</tr>
<tr>
<td>Forest Grove, Oregon</td>
<td>34,195,200</td>
</tr>
<tr>
<td>Grand Coulee, Washington</td>
<td>17,294,400</td>
</tr>
<tr>
<td>McMinnville, Oregon</td>
<td>41,449,200</td>
</tr>
<tr>
<td>Milton, Oregon</td>
<td>14,640,000</td>
</tr>
<tr>
<td>Monmouth, Oregon</td>
<td>9,201,018</td>
</tr>
<tr>
<td>Seattle, Washington</td>
<td>421,077,388</td>
</tr>
<tr>
<td>Springfield, Oregon</td>
<td>25,267,265</td>
</tr>
<tr>
<td>Tacoma, Washington</td>
<td>874,922,248</td>
</tr>
</tbody>
</table>

**Total Municipalities (17)**: 1,584,008,773

#### Public Utility Districts

<table>
<thead>
<tr>
<th>Customers</th>
<th>Energy Deliveries for Year 1/ Kilowatt-hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Benton County PUD #1</td>
<td>110,730,000</td>
</tr>
<tr>
<td>Central Lincoln PUD</td>
<td>106,262,814</td>
</tr>
<tr>
<td>Chelan Co. PUD #1</td>
<td>171,106,001</td>
</tr>
<tr>
<td>Clallam Co. PUD #1</td>
<td>82,505,480</td>
</tr>
<tr>
<td>Clark Co. PUD #1</td>
<td>362,342,000</td>
</tr>
<tr>
<td>Clatskanie PUD</td>
<td>15,906,361</td>
</tr>
<tr>
<td>Cowlitz Co. PUD #1</td>
<td>382,659,807</td>
</tr>
<tr>
<td>Douglas Co. PUD #1</td>
<td>95,223,089</td>
</tr>
<tr>
<td>Ferry Co. PUD #1</td>
<td>9,393,953</td>
</tr>
<tr>
<td>Franklin Co. PUD #1</td>
<td>72,999,917</td>
</tr>
<tr>
<td>Grant Co. PUD #2</td>
<td>176,653,261</td>
</tr>
</tbody>
</table>

**Total Public Utility Districts (25)**: 2,968,092,586

#### Cooperatives

- Benton Rural Elec. Assn.
- Big Bend Elec. Coop.
- Blachelly - Lane Co. Elec. Coop.
- Central Electric Coop.
- Chelan Co. Electric Coop.
- Clearwater Power Co.
- Columbia Co. REA
- Columbia Power Co.
- Coos - Curry Elec. Coop.
- Douglas Electric Coop.
- Flutehead Elec. Coop.
- Hood River Elec. Coop.
- Idaho Co. L & P Assn.
- Inland Power & Light Co.
- Kootenai REA
- Lane Co. Elec. Coop.

**Total: 9,746,990**
<table>
<thead>
<tr>
<th>Customers</th>
<th>Energy deliveries for year 1/ kilowatt-hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lincoln Elec. Coop. – Montana</td>
<td>5,143,728</td>
</tr>
<tr>
<td>Lincoln Elec. Coop. – Washington</td>
<td>14,183,348</td>
</tr>
<tr>
<td>Midstate Electric Coop.</td>
<td>2,712,060</td>
</tr>
<tr>
<td>Missoula Elec. Coop.</td>
<td>5,495,372</td>
</tr>
<tr>
<td>Nespelem Valley Elec. Coop.</td>
<td>7,057,250</td>
</tr>
<tr>
<td>Northern Lights, Inc.</td>
<td>10,838,100</td>
</tr>
<tr>
<td>Okanogan Co. Elec. Coop.</td>
<td>3,355,100</td>
</tr>
<tr>
<td>Orcas Power &amp; Light Co.</td>
<td>6,553,000</td>
</tr>
<tr>
<td>Pend Oreille Elec. Coop.</td>
<td>6,661,602</td>
</tr>
<tr>
<td>Portland State Extension Center</td>
<td>23,364</td>
</tr>
<tr>
<td>Ravalli Co. Elec. Coop.</td>
<td>5,916,250</td>
</tr>
<tr>
<td>Salem Electric</td>
<td>29,814,200</td>
</tr>
<tr>
<td>Sandy Electric Coop.</td>
<td>3,129,120</td>
</tr>
<tr>
<td>Tanner Mutual P &amp; L Assn.</td>
<td>363,369</td>
</tr>
<tr>
<td>Umatilla Elec. Coop. Assn.</td>
<td>20,786,179</td>
</tr>
<tr>
<td>Vera Irrigation Dist. #15</td>
<td>16,590,000</td>
</tr>
<tr>
<td>Wasco Electric Coop.</td>
<td>20,523,600</td>
</tr>
<tr>
<td>West Oregon Elec. Coop.</td>
<td>18,596,228</td>
</tr>
<tr>
<td>Total cooperatives (37)</td>
<td>575,196,166</td>
</tr>
<tr>
<td>Total publicly owned utilities</td>
<td>5,127,297,525</td>
</tr>
</tbody>
</table>

**PRIVATELY OWNED UTILITIES**

<table>
<thead>
<tr>
<th>Customers</th>
<th>Energy deliveries for year 1/ kilowatt-hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>British Columbia Elec. Co.</td>
<td></td>
</tr>
<tr>
<td>California Oregon Power Co.</td>
<td>994,433</td>
</tr>
<tr>
<td>Interconnected Pool 2/</td>
<td>655,336,576</td>
</tr>
<tr>
<td>Montana Power Co.</td>
<td>380,485,000</td>
</tr>
<tr>
<td>Mountain States Power Co. 3/</td>
<td>325,402,000</td>
</tr>
<tr>
<td>Pacific Power &amp; Light Co.</td>
<td>611,843,000</td>
</tr>
<tr>
<td>Portland General Electric Co.</td>
<td>1,212,830,000</td>
</tr>
<tr>
<td>Puget Sound Power &amp; Light Co.</td>
<td>6,696,000</td>
</tr>
<tr>
<td>Washington Water Power Co.</td>
<td>150,270,000</td>
</tr>
<tr>
<td>WWP - Kootenay Lake</td>
<td>178,056,000</td>
</tr>
<tr>
<td>Total privately owned utilities (7)</td>
<td>3,521,913,009</td>
</tr>
</tbody>
</table>

**FEDERAL AGENCIES (13)**

<table>
<thead>
<tr>
<th>Customers</th>
<th>Energy deliveries for year 1/ kilowatt-hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>FEDERAL AGENCIES</td>
<td></td>
</tr>
<tr>
<td>INDUSTRIES</td>
<td></td>
</tr>
<tr>
<td>ALUMINUM</td>
<td></td>
</tr>
<tr>
<td>Aluminum Co. of America</td>
<td>1,504,593,338</td>
</tr>
<tr>
<td>Vancouver Plant</td>
<td>475,462,115</td>
</tr>
<tr>
<td>Wenatchee Plant</td>
<td></td>
</tr>
<tr>
<td>Kaiser Alum. &amp; Chem. Corp.</td>
<td>263,680,479</td>
</tr>
<tr>
<td>Spokane Alum. Fab.</td>
<td></td>
</tr>
<tr>
<td>Spokane Alum. Red.</td>
<td>552,212,863</td>
</tr>
<tr>
<td>Tacoma Alum. Red.</td>
<td></td>
</tr>
<tr>
<td>Reynolds Metals Co.</td>
<td>850,581,149</td>
</tr>
<tr>
<td>Longview</td>
<td>1,353,190,278</td>
</tr>
<tr>
<td>Troutdale</td>
<td></td>
</tr>
</tbody>
</table>

**INDUSTRIES**

<table>
<thead>
<tr>
<th>Customers</th>
<th>Energy deliveries for year 1/ kilowatt-hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>INDUSTRIES</td>
<td></td>
</tr>
<tr>
<td>OTHER</td>
<td></td>
</tr>
<tr>
<td>Carborundum Company</td>
<td>107,950,000</td>
</tr>
<tr>
<td>Crown Zellerbach</td>
<td>104,751,797</td>
</tr>
<tr>
<td>Electro-Metallurgical Co.</td>
<td>151,529,563</td>
</tr>
<tr>
<td>Hanna Nickel Smelting Co.</td>
<td>204,000</td>
</tr>
<tr>
<td>Keokuk Electro-Metals Co.</td>
<td>76,089,666</td>
</tr>
<tr>
<td>Pacific Carbine and Alloys Co.</td>
<td>33,829,139</td>
</tr>
<tr>
<td>Pacific Northwest Alloys</td>
<td>100,097,707</td>
</tr>
<tr>
<td>Pennsylvania Salt Mfg. Co.</td>
<td>156,442,902</td>
</tr>
<tr>
<td>Rayonier, Corp.</td>
<td>22,570,000</td>
</tr>
<tr>
<td>Victor Chemical Works</td>
<td>313,590,000</td>
</tr>
<tr>
<td>Total industries (17)</td>
<td>8,929,139,829</td>
</tr>
<tr>
<td>Total sales of electric energy (116) 4/</td>
<td>18,764,627,054</td>
</tr>
</tbody>
</table>

---

1/ Includes energy deliveries carried on exchange accounts.
4/ 114 customers as of June 30, 1954; service to two customers discontinued during year.
### TABLE IX

**Electric energy sales by rate schedules**  
*Fiscal year ending June 30, 1954*

<table>
<thead>
<tr>
<th>Rate schedule</th>
<th>Energy thousands of kilowatt-hours</th>
<th>Revenue</th>
<th>Mills per kilowatt-hour</th>
</tr>
</thead>
<tbody>
<tr>
<td>C - 3, C - 4:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Industries</td>
<td>9,846,648</td>
<td>$20,570,066</td>
<td>2.09</td>
</tr>
<tr>
<td>Utilities</td>
<td>4,660,869</td>
<td>10,426,739</td>
<td>2.24</td>
</tr>
<tr>
<td>Subtotal</td>
<td>14,507,517</td>
<td>30,996,805</td>
<td>2.14</td>
</tr>
<tr>
<td>F - 2, F - 3, F - 4:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Industries</td>
<td>18,171</td>
<td>111,262</td>
<td>6.12</td>
</tr>
<tr>
<td>Utilities</td>
<td>61,470</td>
<td>281,881</td>
<td>4.59</td>
</tr>
<tr>
<td>Subtotal</td>
<td>79,641</td>
<td>393,143</td>
<td>4.94</td>
</tr>
<tr>
<td>A - 4: Utilities</td>
<td>16,893</td>
<td>55,558</td>
<td>3.29</td>
</tr>
<tr>
<td>E - 3, E - 4: Utilities 1/</td>
<td>3,201,969</td>
<td>10,150,067</td>
<td>3.17</td>
</tr>
<tr>
<td>Experimental, H - 2, H - 3 and exchange; Industries and Utilities</td>
<td>958,607</td>
<td>2,396,517</td>
<td>2.50</td>
</tr>
<tr>
<td>Total sales</td>
<td>18,764,627</td>
<td>$43,992,090</td>
<td>2.34</td>
</tr>
<tr>
<td>Reconciliation with accounting records</td>
<td>+ 134,954</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other electric revenues</td>
<td>1,089,244 2/</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total operating revenues</td>
<td></td>
<td>$45,216,288 2/</td>
<td></td>
</tr>
</tbody>
</table>

---

1/ Including federal agency pumping service.  
2/ Preliminary; subject to audit adjustments.
discontinued service at McNary, Portland State Extension Center discontinued service, and Mountain States Power Co. merged with Pacific Power & Light Co.

Additions to the Federal system in fiscal year 1954 have a nameplate rating of 540,500 kilowatts. Hungry Horse project units 3 and 4 with a combined rating of 142,500 kilowatts were brought into operation by the Bureau of Reclamation. The Corps of Engineers completed Detroit Dam on the North Santiam River in Oregon with initial operation of two generators having a total nameplate rating of 100,000 kilowatts. The Big Cliff reregulating dam downstream with an 18,000-kilowatt generator was also completed, permitting peaking operations to start at Detroit in November 1953. The first four generators, with combined rating of 280,000 kilowatts, were placed in service by the Corps of Engineers at McNary Dam.

Federal projects existing, under construction, and authorized for construction by the Corps of Engineers and the Bureau of Reclamation are shown in table X. With all these projects operating as a system, existing generating capacity, excluding the 10 McNary units not yet in operation, would provide 2,637,000 average kilowatts of nominal prime power. Generating capacity under construction including the 10 McNary units would provide an additional 1,815,000 kilowatts, and authorized projects would add 2,259,000 kilowatts.

Existing storage capacity including Albeni Falls reservoir is 9,532,000 acre-feet. An additional 336,000 acre-feet will be provided by Lookout Point reservoir now under construction and 5,805,000 acre-feet by currently authorized projects.
**EXISTING PROJECTS**

<table>
<thead>
<tr>
<th>Location</th>
<th>Stream</th>
<th>Number of units</th>
<th>Total capacity (kW)</th>
<th>Nominal prime power (kW)</th>
<th>Pool elevation (ft)</th>
<th>Usable storage (acre-feet)</th>
<th>Average head (feet)</th>
<th>Initial date in service</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bonneville</td>
<td>Columbia</td>
<td>10</td>
<td>518,400</td>
<td>458,000</td>
<td>72.0</td>
<td>5,072,000</td>
<td>59</td>
<td>June 1938</td>
</tr>
<tr>
<td>Grand Coulee</td>
<td>Columbia</td>
<td>18</td>
<td>1,944,000</td>
<td>1,631,000</td>
<td>1,288.0</td>
<td>2,982,000</td>
<td>326</td>
<td>Sept. 1941</td>
</tr>
<tr>
<td>Hungry Horse</td>
<td>S. Fk. Flathead</td>
<td>4</td>
<td>285,000</td>
<td>187,000</td>
<td>3,560.0</td>
<td>323,000</td>
<td>364</td>
<td>Oct. 1952</td>
</tr>
<tr>
<td>Detroit</td>
<td>W. S. Santiam</td>
<td>2</td>
<td>100,000</td>
<td>29,000</td>
<td>1,589.0</td>
<td>83</td>
<td>299</td>
<td>July 1953</td>
</tr>
<tr>
<td>McNary</td>
<td>Columbia</td>
<td>14</td>
<td>980,000</td>
<td>563,000</td>
<td>340.0</td>
<td>83</td>
<td>83</td>
<td>Nov. 1953</td>
</tr>
<tr>
<td>Big Cliff</td>
<td>N. Santiam</td>
<td>1</td>
<td>18,000</td>
<td>10,000</td>
<td>1,206.0</td>
<td>105</td>
<td>91</td>
<td>June 1954</td>
</tr>
</tbody>
</table>

**PROJECTS UNDER CONSTRUCTION**

<table>
<thead>
<tr>
<th>Location</th>
<th>Stream</th>
<th>Number of units</th>
<th>Total capacity (kW)</th>
<th>Nominal prime power (kW)</th>
<th>Pool elevation (ft)</th>
<th>Usable storage (acre-feet)</th>
<th>Average head (feet)</th>
<th>Initial date in service</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lookout Point</td>
<td>M. Fk. Willamette</td>
<td>3</td>
<td>114,000</td>
<td>30,000</td>
<td>929.0</td>
<td>336,000</td>
<td>238</td>
<td>Dec. 1954</td>
</tr>
<tr>
<td>Austin Falls</td>
<td>Pend Oreille</td>
<td>3</td>
<td>42,000</td>
<td>20,000</td>
<td>2,062.5</td>
<td>1,155,000</td>
<td>24</td>
<td>Jan. 1955</td>
</tr>
<tr>
<td>Dexter</td>
<td>M. Fk. Willamette</td>
<td>1</td>
<td>15,000</td>
<td>12,000</td>
<td>695.0</td>
<td>53</td>
<td>53</td>
<td>Apr. 1955</td>
</tr>
<tr>
<td>Tiger Creek</td>
<td>Yakima</td>
<td>2</td>
<td>12,000</td>
<td>11,000</td>
<td>620.0</td>
<td>118</td>
<td>118</td>
<td>Sept. 1955</td>
</tr>
<tr>
<td>Chief Joseph</td>
<td>Columbia</td>
<td>10</td>
<td>1,024,000</td>
<td>815,000</td>
<td>946.0</td>
<td>169</td>
<td>169</td>
<td>Sept. 1955</td>
</tr>
<tr>
<td>The Dalles</td>
<td>Columbia</td>
<td>10</td>
<td>1,115,000</td>
<td>651,000</td>
<td>150.0</td>
<td>97</td>
<td>97</td>
<td>Nov. 1957</td>
</tr>
</tbody>
</table>

**AUTHORIZED PROJECTS**

<table>
<thead>
<tr>
<th>Location</th>
<th>Stream</th>
<th>Number of units</th>
<th>Total capacity (kW)</th>
<th>Nominal prime power (kW)</th>
<th>Pool elevation (ft)</th>
<th>Usable storage (acre-feet)</th>
<th>Average head (feet)</th>
<th>Initial date in service</th>
</tr>
</thead>
<tbody>
<tr>
<td>Libby</td>
<td>Kootenai</td>
<td>6</td>
<td>600,000</td>
<td>264,000</td>
<td>2,459.0</td>
<td>5,010,000</td>
<td>267</td>
<td>-</td>
</tr>
<tr>
<td>Ice Harbor</td>
<td>S. Fk. Snake</td>
<td>3</td>
<td>195,000</td>
<td>137,000</td>
<td>440.0</td>
<td>-</td>
<td>97</td>
<td>-</td>
</tr>
<tr>
<td>Lower Monumental</td>
<td>Snake</td>
<td>3</td>
<td>180,000</td>
<td>130,000</td>
<td>533.0</td>
<td>-</td>
<td>92</td>
<td>-</td>
</tr>
<tr>
<td>Little Goose</td>
<td>Snake</td>
<td>3</td>
<td>195,000</td>
<td>139,000</td>
<td>693.0</td>
<td>-</td>
<td>99</td>
<td>-</td>
</tr>
<tr>
<td>Lower Granite</td>
<td>Snake</td>
<td>3</td>
<td>165,000</td>
<td>114,000</td>
<td>715.0</td>
<td>-</td>
<td>80</td>
<td>-</td>
</tr>
<tr>
<td>Priest Rapids B/</td>
<td>Columbia</td>
<td>18</td>
<td>954,000</td>
<td>735,000</td>
<td>550.0</td>
<td>5/</td>
<td>146</td>
<td>-</td>
</tr>
<tr>
<td>John Day B/</td>
<td>Columbia</td>
<td>13</td>
<td>1,105,000</td>
<td>675,000</td>
<td>255.0</td>
<td>5/</td>
<td>94</td>
<td>-</td>
</tr>
<tr>
<td>Roza</td>
<td>Yakima</td>
<td>2</td>
<td>15,250</td>
<td>6,000</td>
<td>1,220.0</td>
<td>-</td>
<td>140</td>
<td>-</td>
</tr>
<tr>
<td>Hills Creek</td>
<td>M. Fk. Willamette</td>
<td>14</td>
<td>14,000</td>
<td>14,000</td>
<td>1,343.0</td>
<td>-</td>
<td>291</td>
<td>220</td>
</tr>
<tr>
<td>Cougar B/ B/</td>
<td>S. Fk. McKenzie</td>
<td>1</td>
<td>25,000</td>
<td>14,000</td>
<td>1,683.0</td>
<td>182,000</td>
<td>418</td>
<td>-</td>
</tr>
<tr>
<td>Green Peter B/</td>
<td>M. Santiam</td>
<td>2</td>
<td>21,000</td>
<td>22,000</td>
<td>964.0</td>
<td>322,000</td>
<td>315</td>
<td>-</td>
</tr>
<tr>
<td>White Bridge B/</td>
<td>M. Santiam</td>
<td>1</td>
<td>15,000</td>
<td>9,000</td>
<td>670.0</td>
<td>-</td>
<td>93</td>
<td>-</td>
</tr>
</tbody>
</table>

Total 24 projects

<table>
<thead>
<tr>
<th>Location</th>
<th>Stream</th>
<th>Number of units</th>
<th>Total capacity (kW)</th>
<th>Nominal prime power (kW)</th>
<th>Pool elevation (ft)</th>
<th>Usable storage (acre-feet)</th>
<th>Average head (feet)</th>
</tr>
</thead>
</table>

**TABLE X**

General specifications - existing and authorized projects

Installations and capabilities correspond to a coordinated system operation

1/ Name-plate rating.
2/ Average capability during an 8-month storage release period (Sept. 1936 through April 1937).
3/ Pumping requirements of 24,000 average kilowatts for 450,000 acre-feet in the Columbia Basin Project.
4/ P = Power; I = Irrigation; PC = Flood Control; N = Navigation.
5/ Authorization provided for flood control storage of 2,100,000 acre-feet at Priest Rapids and 2,000,000 acre-feet at John Day.
6/ Power facilities are not authorized.
7/ Water Bridge is not authorized but is required for re-regulating purposes with installation of generating units at Green Peter.
8/ Legislation is under consideration providing for non-Federal financing of these projects.
Projects Complete by November 1961

All contemplated generation and storage capacity for the projects under construction will be in service by November 1961 under present schedules. Service dates for the authorized projects are not scheduled as no funds are appropriated for their construction. Upon completion, all these multipurpose projects would provide a total of 15.7 million acre-feet of usable storage and 6.7 million kilowatts of prime power.

Non-Federal Additions

Additions to generating facilities of non-Federal utilities in the area served by the Administration for fiscal year 1954, have a nameplate rating of 249,200 kilowatts. A 90,000-kilowatt unit was installed at the Ross plant of the city of Seattle, and the final 50,000-kilowatt unit was installed at the Cabinet Gorge plant of Washington Water Power Company. Reconstruction of the Portland General Electric Company's Sullivan plant was completed with installation of the last 1,200-kilowatt unit. Yale project with rating of 108,000 kilowatts was completed on the Lewis River by Pacific Power & Light Company. Future additions presently scheduled by non-Federal utilities in this area are shown in table XI.

Northwest Power Pool

Generation during fiscal year 1954 by the principal electric utility systems of the Pacific Northwest is shown in table XII. All of the utilities are members of the Northwest Power Pool. The Utah Power and Light Company and the British Columbia Electric Company are also members of the pool but are not included as their major service areas are outside the Pacific Northwest region.
### TABLE XI

**Non-federal utilities**

**Generator installation schedule**

**July 20, 1954**

<table>
<thead>
<tr>
<th>Utility</th>
<th>Plant</th>
<th>Stream</th>
<th>Unit number</th>
<th>Name-plate rating thousands of kilowatts</th>
<th>Date in service</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pend Oreille County PUD</td>
<td>Box Canyon</td>
<td>Pend Oreille</td>
<td>2</td>
<td>15</td>
<td>August 1954</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>3</td>
<td>15</td>
<td>October 1954</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>4</td>
<td>15</td>
<td>November 1954</td>
</tr>
<tr>
<td>Portland General Electric Co.</td>
<td>Oak Grove</td>
<td>Clackamas</td>
<td>45</td>
<td>45</td>
<td></td>
</tr>
<tr>
<td>Timothy Meadows Reservoir</td>
<td>Frog Lake Forebay 1/</td>
<td>60,000 acre - feet of usable storage 2/</td>
<td></td>
<td></td>
<td>August 1954</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>October 1955</td>
</tr>
<tr>
<td>Montana Power Co.</td>
<td>Kerr</td>
<td>Flathead</td>
<td>3</td>
<td>56</td>
<td>November 1954</td>
</tr>
<tr>
<td>City of Tacoma</td>
<td>Steam Plant No. 2</td>
<td></td>
<td>2</td>
<td>25</td>
<td>December 1954</td>
</tr>
<tr>
<td>City of Centralia</td>
<td>Yelm</td>
<td>Nisqually</td>
<td>3</td>
<td>5</td>
<td>December 1954</td>
</tr>
<tr>
<td>City of Seattle</td>
<td>Ross</td>
<td>Skagit</td>
<td>4</td>
<td>90</td>
<td>July 1957</td>
</tr>
<tr>
<td></td>
<td>Gorge</td>
<td>Skagit</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Notes:**

1/ Will add 18,000 kilowatts of peaking capacity.

2/ Will add 10,000 kilowatts of prime power at downstream plants.

3/ Will increase gross head by 88 feet and peaking capability by 47,000 kilowatts.
CHART 3
POWER GENERATED BY NORTHWEST UTILITIES

YEAR ENDED JUNE 30, 1964

Portland General Electric Company
1.7% - 0.6 BILLION KWH

Tacoma City Light
2.9% - 1.0 BILLION KWH

Pacific Power & Light Company
4.0% - 1.4 BILLION KWH

Puget Sound Power & Light Company
5.2% - 1.8 BILLION KWH

Idaho Power Company
6.3% - 2.2 BILLION KWH

Washington Water Power Company
6.6% - 2.3 BILLION KWH

Seattle City Light
7.5% - 2.6 BILLION KWH

Montana Power Company
7.8% - 2.7 BILLION KWH

U.S. COLUMBIA RIVER POWER SYSTEM
58.0% - 20.2 BILLION KWH

THESE UTILITIES ARE MEMBERS OF THE NORTHWEST POWER POOL.

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

REPRESENTS ONE BILLION KWH

SOURCE: WEEKLY OPERATING REPORT, N.W. POWER POOL.
CHART 4

NORTHWEST POWER POOL

NET OPERATIONS ENDING JUNE 30, 1954
BPA SUPPLIED 73% OF NET ENERGY REQUIREMENTS
BILLIONS OF KWH

BHA
British Columbia Elec. Co.

Washington Water Pwr. Co.
Idaho Power Co.

Puget Sound Pwr. & Light Co.
Montana Power Co.
Seattle City Light
Utah Power & Light Co.
Pacific Power & Light Co.
Tacoma City Light
Portland General Elec. Co.

SURPLUS POWER TO THE POOL
LOAD EQUALS GENERATION
GENERATION DEFICIT -- POWER FROM THE POOL

LEGEND

GENERATION BY UTILITY
SURPLUS TO POWER POOL
DEFICIT FROM POWER POOL

3.9 BILLION KWH

PERCENTAGE OF SYSTEM REQUIREMENTS FROM POOL

5% 4% 10% 19% 30% 44% 79%
### TABLE XII

*Generation by the principal electric utility systems of the Pacific Northwest*

**Fiscal year 1954**

<table>
<thead>
<tr>
<th>Utilities</th>
<th>Kilowatt-hours (Billion)</th>
<th>Percent of total generation</th>
<th>Utilities</th>
<th>Kilowatt-hours (Billion)</th>
<th>Percent of total generation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Publicly owned:</strong></td>
<td></td>
<td></td>
<td><strong>Privately owned:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bonneville Power Admin.</td>
<td>20.2</td>
<td>58.0</td>
<td>Puget Sound Power &amp; Light Co.</td>
<td>1.8</td>
<td>5.2</td>
</tr>
<tr>
<td>Seattle City Light</td>
<td>2.6</td>
<td>7.5</td>
<td>Washington Water Power Co.</td>
<td>2.3</td>
<td>6.6</td>
</tr>
<tr>
<td>Tacoma City Light</td>
<td>1.0</td>
<td>2.9</td>
<td>Pacific Power &amp; Light Co.</td>
<td>1.4</td>
<td>4.0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>68.4</td>
<td>Portland General Electric Co.</td>
<td>0.6</td>
<td>1.7</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Montana Power Co.</td>
<td>2.7</td>
<td>7.8</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Idaho Power Co.</td>
<td>2.2</td>
<td>6.3</td>
</tr>
<tr>
<td><strong>Total publicly owned</strong></td>
<td>23.8</td>
<td></td>
<td><strong>Total privately owned</strong></td>
<td>11.0</td>
<td>31.6</td>
</tr>
</tbody>
</table>

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

The Administration supplied 58 percent of the total energy generated by the major utilities of the region. In addition to the power requirements of industries and nonpool utilities served by the Administration approximately 3.9 billion kilowatt-hours of energy were provided for use by other pool utilities to meet their requirements.
CHART 5

TRANSMISSION LINES IN CIRCUIT MILES

TOTAL ALL VOLTAGES

LOWER VOLTAGES

115 KV

230 KV

FISCAL YEARS


7000

6500

6000

5500

5000

4500

4000

3500

3000

2500

2000

1500

1000

500

3500

3000

2500

2000

1500

1000

500

3500

3000

2500

2000

1500

1000

500

3500

3000

2500

2000

1500

1000

500

3500

3000

2500

2000

1500

1000

500
A new 96-mile, 230,000 volt transmission line from McNary Dam to the Big Eddy, Oregon, substation was energized in November 1953, providing the transmission facility necessary to integrate the initial power production from McNary Dam with the Bonneville Power Administration system. In December 1953 an additional 77-mile, 230,000 volt line, from Big Eddy to the Troutdale, Oregon, substation was energized, carrying McNary power to the Portland load center. To transmit the power from additional generating units placed in service at McNary Dam the 104-mile, McNary-Maupin 230,000 volt line was energized in June 1954. This line connected to the previously existing circuit from Maupin to the Alvey substation brings McNary generation to the Willamette Valley load center.

Energization of the 155-mile, Columbia-Olympia transmission line at 230,000 volts provided additional transmission capacity to the Puget Sound area. This line is connected to an existing Grand Coulee-Columbia line, providing a through circuit from Grand Coulee to Olympia. Installation was started during the year of terminal facilities at Grand Coulee and Olympia to raise the operating voltage of this line to 287,000 volts.

Twelve new customer service substations, ranging in capacity from 3,000 to 150,000 kilovolt-amperes, were energized during this fiscal year. Transformer capacity was increased at the G. H. Bell, Longview, Walla Walla, Redmond and Grandview substations with the addition of forced-cooling equipment to existing transformers.
CHART 6

SUBSTATION CAPACITY IN KVA

TRANSFORMER CAPACITY
(Forced Cooled)
Transmission Line Additions  During fiscal year 1954 a total of 670 circuit miles of transmission lines were added to the system, giving the Administration a total of 6,377 circuit miles of transmission lines. This total includes 3,627 circuit miles of 230,000 volt line, 2,517 circuit miles of 115,000 volt line, and 233 miles of lower voltage line.

Transformation and Reactive Additions  A total of 13 substations were added to the system during this fiscal year, and the substation transformer capacity was increased by 444,333 kilovolt-amperes. With these additions the Administration’s system includes 158 substations with 4,609,750 kilovolt-amperes of transformer capacity under self-cooled conditions, and a maximum of 6,153,417 kilovolt-amperes with forced-cooling. Static capacitors, with a capacity of 132,350 reactive kilovolt-amperes were installed, bringing the total on the system to 991,865 reactive kilovolt-amperes.

New Construction  Major construction activity during the fiscal year was concentrated on the facilities for bringing power from Chief Joseph Dam to the Puget Sound area, and on additional transmission lines from McNary Dam to the Portland and Willamette Valley load centers. To bring initial power from Lookout Point Dam into the Bonneville system in the fall of 1954, a 115,000 volt transmission line from Lookout Point Dam to the J. P. Alvey substation was constructed. Installation of microwave communication facilities from Portland to Spokane and from Portland to the J. P. Alvey substation was under way during the year, with completion of the facilities scheduled for the fall of 1954. Construction was started in May 1954 on the new power dispatching center in the Portland Department of Interior Building.
Auditors' Report

Columbia River Power System and Related Activities

FINANCIAL STATEMENTS FOR THE FISCAL YEAR ENDED JUNE 30, 194

BY THE COMPTROLLER GENERAL OF THE UNITED STATES
B-114858

December 1, 1954

Dear Mr. Secretary:

The Division of Audits, General Accounting Office, has made an audit of the activities of the Bonneville Power Administration and the Bureau of Reclamation, Department of the Interior, and the Corps of Engineers (civil functions), United States Army. In connection with these audits, an examination was made of the accompanying financial statements of the COLUMBIA RIVER POWER SYSTEM AND RELATED ACTIVITIES for the fiscal year ended June 30, 1954.

The Columbia River Power System consists of the Bonneville Power Administration, which is the transmitting and marketing agency, and the generating facilities for commercial power purposes of the multiple-purpose projects built and operated (or under construction) by the Bureau of Reclamation, Department of the Interior, and the Corps of Engineers, United States Army, in the Pacific Northwest. The transmission system of Bonneville Power Administration and the hydroelectric plants of these multiple-purpose projects are operated as an integrated power system. In addition to the generation of electric energy, other activities of these multiple-purpose projects consist of the operation of irrigation, flood control, and navigation facilities.

The accompanying financial statements present for the first time on a combined basis all the assets and liabilities of Bonneville Power Administration and the multiple-purpose projects (including those under construction) for which it is the power-marketing agent. In previous years, these financial statements have disclosed on a combined basis only the amounts allocated to commercial power activities for plants in actual operation. For purposes of comparison, combined financial data previously reported for the fiscal year 1953 has been restated to a basis comparable with that for the fiscal year 1954. This restatement consists of including in the combined financial statement (schedule 3) the assets and liabilities for the fiscal year 1953 applicable to nonpower activities (irrigation, flood control, and navigation).
The accounts on which these financial statements, insofar as they relate to commercial power activities, are based have been maintained to the extent practicable in accordance with the uniform system of accounts prescribed by the Federal Power Commission under the Federal Power Act.

The examination of the accompanying financial statements was made in accordance with generally accepted auditing standards and included such tests of the accounting records and such other auditing procedures as were considered necessary in the circumstances. In the opinion of the Division of Audits, General Accounting Office, these financial statements present fairly the assets and liabilities of the Columbia River Power System And Related Activities at June 30, 1954, and the financial results of such operations for the year ended that date in conformity with generally accepted accounting principles applied on a basis consistent with that of the preceding year, except for the following matters as to which it is not practicable to determine the full effect on the financial statements as of June 30, 1954.

1. A uniform policy has not been followed in all cases by the Bonneville Power Administration and the projects in the accounting treatment of property costs and operating expenses as described in notes 2, 3, and 4 of schedule 13. Although the Administration and the projects differ in their accounting treatment of these costs, the General Accounting Office does not believe that the stated results of commercial power operations have been materially affected for the fiscal year 1954 by these differences. The net loss from irrigation operations at the Columbia Basin Project, however, does not include an allowance for depreciation on any of the irrigation facilities. Interest on the Federal investment also is not considered as an item of cost in determining the results from irrigation operations. If these costs were included as a part of irrigation operations, the net loss for the fiscal year 1954 would be increased by several million dollars.

2. Construction costs of Hungry Horse Project have not been allocated to power and nonpower purposes by the Secretary of the Interior. A tentative allocation of these costs, made by the Bureau of Reclamation as explained in note 3 of schedule 13, has been used in preparing the accompanying financial statements. When a firm allocation of costs is made by the Secretary of the Interior, the accounts and financial statements relating to this project will be adjusted accordingly.
3. Final allocations of the Corps of Engineers construction costs of the Albeni Falls, Detroit-Big Cliff, and McNary Projects have not been made to power and nonpower purposes. As explained in note 3 of schedule 13, tentative allocations of these costs have been made which were used in preparing the accompanying financial statements. When a firm allocation of costs is made, the accounts and financial statements relating to these projects will be adjusted accordingly.

4. Interest and depreciation ($15,438,741) on the part of the cost of joint facilities at Columbia Basin, Hungry Horse, and Albeni Falls Projects allocated to future downstream river regulation have been deferred to future periods on the basis that the amounts will be recovered from the operations of additional downstream hydroelectric plants now under construction or contemplated. While deferment of the charges is consistent with the allocations of costs of the projects, the propriety of excluding the items from current power costs is dependent upon the construction of the contemplated downstream plants.

5. Potential reimbursements, if any, for benefits in fiscal year 1954 accruing to downstream non-Federal power plants from storage at Columbia Basin, Hungry Horse, and Albeni Falls Projects have also not been included in the accompanying financial statements for the reasons set forth in note 9 of schedule 13.

Sincerely yours,

[Signature]

Frank H. Wellman
Acting Comptroller General of the United States

The Honorable
The Secretary of the Interior

Enclosures
SCHEDULE 1

UNITED STATES OF AMERICA
COLUMBIA RIVER POWER SYSTEM AND RELATED ACTIVITIES (note 1)

STATEMENT OF COMBINED COMMERCIAL POWER OPERATIONS
FOR THE FISCAL YEARS ENDED JUNE 30, 1954 AND 1953

<table>
<thead>
<tr>
<th>Title</th>
<th>1954</th>
<th>1953</th>
</tr>
</thead>
<tbody>
<tr>
<td>OPERATING REVENUES:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sales of electric energy</td>
<td>$44,127,409</td>
<td>$38,383,475</td>
</tr>
<tr>
<td>Other electric revenues</td>
<td>1,190,284</td>
<td>791,734</td>
</tr>
<tr>
<td>Total operating revenues</td>
<td>45,317,693</td>
<td>39,175,209</td>
</tr>
<tr>
<td>OPERATING EXPENSES (notes 2 and 3):</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Purchased power</td>
<td>697,339</td>
<td>616,876</td>
</tr>
<tr>
<td>Operation:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Specific power facilities</td>
<td>6,701,152</td>
<td>7,364,308</td>
</tr>
<tr>
<td>Joint facilities</td>
<td>784,802</td>
<td>457,302</td>
</tr>
<tr>
<td>Maintenance:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Specific power facilities</td>
<td>2,846,941</td>
<td>2,229,509</td>
</tr>
<tr>
<td>Joint facilities</td>
<td>394,857</td>
<td>200,743</td>
</tr>
<tr>
<td>Depreciation (note 4):</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Specific power facilities</td>
<td>10,459,189</td>
<td>8,871,154</td>
</tr>
<tr>
<td>Joint facilities</td>
<td>1,583,132</td>
<td>810,025</td>
</tr>
<tr>
<td>Net loss or gain on sales and abandonment of property (note 11)</td>
<td>1,379,976</td>
<td>12,559</td>
</tr>
<tr>
<td>Total operating expenses</td>
<td>24,443,102</td>
<td>20,266,227</td>
</tr>
<tr>
<td>Net operating revenues</td>
<td>20,874,591</td>
<td>18,908,982</td>
</tr>
<tr>
<td>INTEREST AND OTHER DEDUCTIONS:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interest on Federal investment</td>
<td>20,524,288</td>
<td>12,526,703</td>
</tr>
<tr>
<td>Less:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Amount allocated to future downstream river regulation, recoverable from operations of future downstream hydroelectric plants (note 8)</td>
<td>1,776,255*</td>
<td>1,396,872*</td>
</tr>
<tr>
<td>Amount charged to construction</td>
<td>6,499,836*</td>
<td>2,146,722*</td>
</tr>
<tr>
<td>Miscellaneous income deductions (net)</td>
<td>11,316*</td>
<td>358,281</td>
</tr>
<tr>
<td>Total interest and other deductions</td>
<td>12,236,881</td>
<td>9,341,390</td>
</tr>
<tr>
<td>Net commercial power revenues</td>
<td>8,637,710</td>
<td>9,567,592</td>
</tr>
<tr>
<td>ADJUSTMENTS APPLICABLE TO PRIOR YEARS (net):</td>
<td>272,753*</td>
<td>263,740</td>
</tr>
<tr>
<td>Net commercial power revenues after adjustments</td>
<td>$ 8,364,957</td>
<td>$ 9,303,332</td>
</tr>
</tbody>
</table>

* Deduction

The accompanying notes (schedule 13) are an integral part of this statement.
### UNITED STATES OF AMERICA
COLUMBIA RIVER POWER SYSTEM AND RELATED ACTIVITIES (note 1)

STATEMENT COMBINING REVENUES AND EXPENSES OF COMMERCIAL POWER OPERATIONS

FOR THE FISCAL YEAR ENDED JUNE 30, 1954

<table>
<thead>
<tr>
<th>OPERATING REVENUES:</th>
<th>Combined (to schedule 1)</th>
<th>Eliminations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sales of electric energy</td>
<td>$44,127,409</td>
<td>-</td>
</tr>
<tr>
<td>Amounts allocated to generating projects by Bonneville Power Administration (note 6)</td>
<td>-</td>
<td>22,102,020*</td>
</tr>
<tr>
<td>Payment for river regulation</td>
<td>-</td>
<td>187,570</td>
</tr>
<tr>
<td>Other electric revenues</td>
<td>1,190,284</td>
<td>1,089,244</td>
</tr>
<tr>
<td>Total operating revenues</td>
<td>45,317,693</td>
<td>23,114,451</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>OPERATING EXPENSES (notes 2 and 3):</th>
<th>Purchased power</th>
<th>Operation:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Specific power facilities</td>
<td>6,701,152</td>
<td>5,036,385</td>
</tr>
<tr>
<td>Joint facilities</td>
<td>784,802</td>
<td>-</td>
</tr>
<tr>
<td>Payment for river regulation</td>
<td>-</td>
<td>124,250</td>
</tr>
<tr>
<td>Maintenance:</td>
<td>-</td>
<td>230,635</td>
</tr>
<tr>
<td>Specific power facilities</td>
<td>2,886,782</td>
<td>2,161,284</td>
</tr>
<tr>
<td>Joint facilities</td>
<td>394,857</td>
<td>-</td>
</tr>
<tr>
<td>Depreciation (note 4):</td>
<td>-</td>
<td>253,666</td>
</tr>
<tr>
<td>Specific power facilities</td>
<td>10,459,189</td>
<td>7,594,533</td>
</tr>
<tr>
<td>Joint facilities</td>
<td>1,583,132</td>
<td>-</td>
</tr>
<tr>
<td>Less amount allocated to future downstream river regulation, recoverable from operations of future downstream hydroelectric plants (note 8)</td>
<td>-</td>
<td>1,375,976</td>
</tr>
<tr>
<td>Net loss on sales and abandonment of property (note 11)</td>
<td>1,379,976</td>
<td>-</td>
</tr>
<tr>
<td>Total operating expenses</td>
<td>24,443,102</td>
<td>187,570</td>
</tr>
<tr>
<td>Net operating revenues</td>
<td>20,874,591</td>
<td>6,244,834</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>INTEREST AND OTHER DEDUCTIONS:</th>
<th>Interest on Federal investment</th>
<th>Less:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>20,524,288</td>
<td>5,870,805</td>
</tr>
<tr>
<td></td>
<td>-</td>
<td>995,769</td>
</tr>
<tr>
<td></td>
<td>-</td>
<td>4,391,356</td>
</tr>
<tr>
<td></td>
<td>-</td>
<td>2,124,989</td>
</tr>
<tr>
<td></td>
<td>-</td>
<td>876,980</td>
</tr>
<tr>
<td></td>
<td>-</td>
<td>5,380,072</td>
</tr>
<tr>
<td></td>
<td>20,524,288</td>
<td>5,870,805</td>
</tr>
<tr>
<td></td>
<td>-</td>
<td>995,769</td>
</tr>
<tr>
<td></td>
<td>-</td>
<td>4,391,356</td>
</tr>
<tr>
<td></td>
<td>-</td>
<td>2,124,989</td>
</tr>
<tr>
<td></td>
<td>-</td>
<td>876,980</td>
</tr>
<tr>
<td></td>
<td>-</td>
<td>5,380,072</td>
</tr>
<tr>
<td></td>
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<td>5,380,072</td>
</tr>
<tr>
<td></td>
<td>-</td>
<td>884,317</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>ADJUSTMENTS APPLICABLE TO PRIOR YEARS (net)</th>
<th>Interest on Federal investment</th>
</tr>
</thead>
<tbody>
<tr>
<td>20,524,288</td>
<td>5,870,805</td>
</tr>
<tr>
<td>-</td>
<td>995,769</td>
</tr>
<tr>
<td>-</td>
<td>4,391,356</td>
</tr>
<tr>
<td>-</td>
<td>2,124,989</td>
</tr>
<tr>
<td>-</td>
<td>876,980</td>
</tr>
<tr>
<td>-</td>
<td>5,380,072</td>
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<td>-</td>
<td>5,380,072</td>
</tr>
<tr>
<td>-</td>
<td>884,317</td>
</tr>
</tbody>
</table>

The accompanying notes (schedule 13) are an integral part of this statement.
## SCHEDULE 3

### UNITED STATES OF AMERICA

### COLUMBIA RIVER POWER SYSTEM AND RELATED ACTIVITIES (note 1)

### STATEMENT OF COMBINED ASSETS AND LIABILITIES

**JUNE 30, 1954 AND 1953**

### ASSETS

<table>
<thead>
<tr>
<th>Description</th>
<th>1954</th>
<th>1953</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>FIXED ASSETS,</strong> at original cost, including interest during construction (notes 2 and 3):</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Commercial power</td>
<td>$ 990,678,061</td>
<td>$ 650,549,098</td>
</tr>
<tr>
<td>Irrigation</td>
<td>273,422,597</td>
<td>255,929,295</td>
</tr>
<tr>
<td>Flood control</td>
<td>48,206,722</td>
<td>19,288,520</td>
</tr>
<tr>
<td>Navigation</td>
<td>51,385,327</td>
<td>28,283,837</td>
</tr>
<tr>
<td>Multiple-purpose projects under construction</td>
<td>211,691,763</td>
<td>447,885,000</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>1,577,384,470</td>
<td>1,401,935,750</td>
</tr>
<tr>
<td>Less accumulated depreciation (note 4):</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Commercial power</td>
<td>63,777,062</td>
<td>52,999,506</td>
</tr>
<tr>
<td>Irrigation</td>
<td>3,005,647</td>
<td>2,630,684</td>
</tr>
<tr>
<td>Flood control</td>
<td>409,907</td>
<td>52,952</td>
</tr>
<tr>
<td>Navigation</td>
<td>2,061,091</td>
<td>1,075,129</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>69,304,707</td>
<td>57,386,271</td>
</tr>
<tr>
<td>Original cost, net</td>
<td>1,508,079,763</td>
<td>1,344,547,479</td>
</tr>
</tbody>
</table>

### INTEREST AND DEPRECIATION CHARGES ON JOINT FACILITIES ALLOCATED TO FUTURE DOWNSTREAM RIVER REGULATION—recoverable from operation of future downstream hydroelectric plants (note 8): | 15,438,741 | 13,189,147 |

### CURRENT ASSETS:

<table>
<thead>
<tr>
<th>Description</th>
<th>1954</th>
<th>1953</th>
</tr>
</thead>
<tbody>
<tr>
<td>Uncaptured funds in U. S. Treasury appropriated by the Congress for construction and for operation and maintenance (note 5)</td>
<td>76,977,332</td>
<td>57,575,788</td>
</tr>
<tr>
<td>Special deposits</td>
<td>1,505,258</td>
<td>5,171,229</td>
</tr>
<tr>
<td>Amounts receivable:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Customers</td>
<td>7,093,775</td>
<td>6,616,108</td>
</tr>
<tr>
<td>Other</td>
<td>990,331</td>
<td>905,009</td>
</tr>
<tr>
<td>Materials and supplies</td>
<td>10,310,655</td>
<td>9,621,354</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>96,877,351</td>
<td>79,889,488</td>
</tr>
</tbody>
</table>

### OTHER ASSETS AND DEFERRED CHARGES | $1,632,212,959 | $1,446,029,921 |

### LIABILITIES

<table>
<thead>
<tr>
<th>Description</th>
<th>1954</th>
<th>1953</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>INVESTMENT OF U. S. GOVERNMENT AND ACCUMULATED NET REVENUES:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total investment of U. S. Government (schedule 9)</td>
<td>$1,866,402,214</td>
<td>$1,646,231,965</td>
</tr>
<tr>
<td><strong>Less:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Funds returned to U. S. Treasury</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Repayment of Federal investment in the power program (schedule 5)</td>
<td>340,565,589</td>
<td>292,781,902</td>
</tr>
<tr>
<td>Repayment of Federal investment in the nonpower programs</td>
<td>3,416,013</td>
<td>2,160,138</td>
</tr>
<tr>
<td><strong>Total expense of flood control operations</strong></td>
<td>1,647,087</td>
<td>239,306</td>
</tr>
<tr>
<td><strong>Total expense of navigation operations</strong></td>
<td>16,379,661</td>
<td>14,547,950</td>
</tr>
<tr>
<td>Other nonreimbursable expenses</td>
<td>122,998</td>
<td>120,736</td>
</tr>
<tr>
<td><strong>Net investment of U. S. Government</strong></td>
<td>362,131,348</td>
<td>309,850,032</td>
</tr>
<tr>
<td>Accumulated net revenues:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Net revenues from commercial power operations since inception, including $8,364,957 and $9,831,332 for the years ended June 30, 1954 and 1953, respectively (schedule 1)</td>
<td>101,774,950</td>
<td>91,409,993</td>
</tr>
<tr>
<td><strong>Less net loss from irrigation operations since inception, including loss of $200,915 and $308,925 for the years ended June 30, 1954 and 1953, respectively (schedule 8)</strong></td>
<td>2,370,426</td>
<td>2,169,510</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>99,404,525</td>
<td>89,240,483</td>
</tr>
<tr>
<td><strong>CURRENT AND ACCRUED LIABILITIES:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Accounts payable</td>
<td>25,181,566</td>
<td>15,121,483</td>
</tr>
<tr>
<td>Employees' accrued leave</td>
<td>2,109,635</td>
<td>2,255,572</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>27,291,201</td>
<td>17,377,055</td>
</tr>
<tr>
<td><strong>DEFERRED CREDITS</strong></td>
<td>928,804</td>
<td>711,011</td>
</tr>
<tr>
<td><strong>CONTRIBUTIONS IN AID OF CONSTRUCTION</strong></td>
<td>315,563</td>
<td>313,439</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Description</th>
<th>1954</th>
<th>1953</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total</strong></td>
<td>$1,632,212,959</td>
<td>$1,446,029,921</td>
</tr>
</tbody>
</table>

The accompanying notes (schedule 13) are an integral part of this statement.
## UNITED STATES OF AMERICA

### COLUMBIA RIVER POWER SYSTEM AND RELATED ACTIVITIES (note 1)

#### STATEMENT COMBING ASSETS AND LIABILITIES

**JUNE 30, 1954**

#### ASSETS

<table>
<thead>
<tr>
<th>Assets Description</th>
<th>Combined (to schedule 3)</th>
<th>Elinations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bonneville Power Adminstration</td>
<td>$656,214,943</td>
<td>$335,171,962</td>
</tr>
<tr>
<td>Bonneville Dam Project</td>
<td>38,640,626</td>
<td>$112,166,558</td>
</tr>
<tr>
<td>Columbia Basin Project</td>
<td>26,356,704</td>
<td>$10,137,000</td>
</tr>
<tr>
<td>Hungry Horse Project</td>
<td>110,300,125</td>
<td>$15,383,674</td>
</tr>
<tr>
<td>McHenry Dam Project</td>
<td>$9,216,056</td>
<td>126,041,567</td>
</tr>
<tr>
<td>Detroit Big Cliff Project</td>
<td>23,117,542</td>
<td>-</td>
</tr>
<tr>
<td>Chief Joseph Dam Project</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>The Dalles Dam Project</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Lucky Peak Pumped Storage Dam Project</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

### FIXED ASSETS, at original cost, including interest during construction (notes 2 and 3)

#### Commercial power (including future downstream river regulation):
- Specific facilities (powerhouses, generating equipment, and transmission plant) $334,423,118
- Joint facilities (dams, reservoirs, etc.) allocated to power $995,679,061
- Irrigation: Specific facilities $203,199,590
- Joint facilities $70,195,077
- Specific facilities for flood control $273,422,997
- Joint facilities $48,206,722
- Specific facilities for navigation $28,062,853
- Joint facilities $53,389,881
- Multiple-purpose project under construction $219,691,761
- Total $1,577,384,670

#### Less accumulated depreciation (note 4):
- Specific facilities - Commercial power $55,905,366
- Irrigation (construction facilities) $1,739,906
- Irrigation (pumping power) $137,610
- Flood control $640,860
- Navigation $197,881
- Total $60,104,707

#### Original cost, net $1,517,279,963

### INTEREST AND DEPRECIATION CHARGES ON JOINT FACILITIES ALLOCATED TO FUTURE DOWNSTREAM RIVER REGULATION - receivable from operation of future downstream hydraulic plants (note 8)

<table>
<thead>
<tr>
<th>Facilities Allocated</th>
<th>Interest and Depreciation Charges</th>
<th>7,148,271</th>
</tr>
</thead>
</table>

### CURRENT ASSETS

#### Unappropriated funds in U. S. Treasury appropriated by the Congress for construction and for operation and maintenance (note 5)
- $85,977,332
- Special deposits $1,505,268
- Material receivables $7,091,775
- Other $990,331
- Materials and supplies $18,358,555
- Total $96,877,353

### OTHER ASSETS AND DEPRECIATED CHARGES

<table>
<thead>
<tr>
<th>Assets Description</th>
<th>Payments to U. S. Treasury for the account of the Corps of Engineers in excess of costs charged to power operations</th>
</tr>
</thead>
<tbody>
<tr>
<td>$1,517,279,963</td>
<td>$12,982,755 $29,970,875</td>
</tr>
</tbody>
</table>

The accompanying notes (schedule 13) are an integral part of this statement.
### Schedule 4, page 3

**UNITED STATES OF AMERICA**

**COLUMBIA RIVER POWER SYSTEM AND RELATED ACTIVITIES** (note 1)

**STATEMENT OF COMMINGLED ASSETS AND LIABILITIES**

**JUNE 30, 1964**

<table>
<thead>
<tr>
<th>LIABILITIES</th>
<th>Combined (to schedule 3)</th>
<th>Eliminations</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Investment of U. S. Government and Accumulated Net Revenue</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Congressional appropriations (including allotments, WPA expenditures, and unexpended appropriations)</td>
<td>$1,687,821,469</td>
<td>-</td>
</tr>
<tr>
<td>Cost of materials and services furnished by other Federal agencies (net)</td>
<td>11,671,697</td>
<td>-</td>
</tr>
<tr>
<td>Interest on Federal investment</td>
<td>465,450,161</td>
<td>-</td>
</tr>
<tr>
<td>Revenues transferred to the continuing fund</td>
<td>1,456,707</td>
<td>-</td>
</tr>
<tr>
<td>Total Investment of U. S. Government</td>
<td>1,866,612,246</td>
<td>485,410,180</td>
</tr>
</tbody>
</table>

| Less: | | |
| Funds returned to U. S. Treasury: | | |
| Repayment of Federal investment in the power program (including amounts for operating expenses and interest) | 340,565,589 | - |
| Repayment of Federal investment in the navigation program | 3,416,013 | - |
| Total expense of flood control operations | 1,647,087 | - |
| Total expense of navigation operations | 16,379,661 | - |
| Other nonreimbursable expenses | 122,998 | - |
| Total | 162,131,346 | 179,546,138 |

| Net Investment of U. S. Government | 1,504,540,806 | 126,545,922 |

**Accumulated net revenue:**

Net revenue from commercial power operations since inception, including $8,364,957 and $8,311,352 for the years ended June 30, 1956 and 1953, respectively:

- 101,776,950

Less net loss from irrigation operations since inception, including loss of $200,915 and $364,927 for the years ended June 30, 1956 and 1953, respectively:

- 2,370,425

- 99,404,515

| Total | 1,405,136,291 | 126,545,922 |

**Current and Accrued Liabilities:**

| Accounts payable | 25,183,566 | - |
| Employees' accrued leave | 2,109,635 | - |
| Total | 27,293,201 | - |
| Deferred credits | 928,406 | - |
| Contributions in aid of construction | 315,563 | - |

| Total Payments to U. S. Treasury for the Account of the Corps of Engineers Projects in Excess of Costs Charged to Power Operations | 18,122,445 | - |

Total: $1,632,212,359

The accompanying notes (schedule 13) are an integral part of this statement.
### United States of America

#### Columbia River Power System and Related Activities (note 1)

**Analysis of the Total Investment of the United States Government**

**And the Net Investment in the Commercial Power Program for Operating Projects**

**For the Period from Inception to June 30, 1954**

#### Investment of U. S. Government:

<table>
<thead>
<tr>
<th>Description</th>
<th>Combined</th>
<th>Bonneville Power Admin</th>
<th>Bonneville Dam</th>
<th>Columbia Basin Project</th>
<th>Hungry Horse Project</th>
<th>Althea Falls Project</th>
<th>McNary Dam Project</th>
<th>Detroit-Huron Big Chisholm Project</th>
<th>Chief Joseph Project</th>
<th>The Dalles Dam Project</th>
<th>Lookout Point-Grant Project</th>
</tr>
</thead>
<tbody>
<tr>
<td>Expended</td>
<td>76,477,324</td>
<td>47,560,214</td>
<td>466,254</td>
<td>6,655,182</td>
<td>4,516,018</td>
<td>556,877</td>
<td>6,753,932</td>
<td>5,520,259</td>
<td>3,120,231</td>
<td>6,386,605</td>
<td>6,335,555</td>
</tr>
<tr>
<td>Total</td>
<td>1,609,859,089</td>
<td>425,482,566</td>
<td>84,540,999</td>
<td>447,537,716</td>
<td>102,358,509</td>
<td>27,230,085</td>
<td>247,617,000</td>
<td>63,102,592</td>
<td>88,245,760</td>
<td>82,623,707</td>
<td></td>
</tr>
<tr>
<td>Allotments of Public Works Administration funds</td>
<td>70,009,000</td>
<td>10,760,000</td>
<td>12,100,000</td>
<td>47,055,000</td>
<td>7,959,000</td>
<td>9,018,183</td>
<td>2,920,977</td>
<td>3,490,000</td>
<td>1,567,000</td>
<td>1,330,000</td>
<td>3,490,000</td>
</tr>
<tr>
<td>Expenditures of Works Progress Administration</td>
<td>70,009,000</td>
<td>10,760,000</td>
<td>12,100,000</td>
<td>47,055,000</td>
<td>7,959,000</td>
<td>9,018,183</td>
<td>2,920,977</td>
<td>3,490,000</td>
<td>1,567,000</td>
<td>1,330,000</td>
<td>3,490,000</td>
</tr>
<tr>
<td>Subtotal</td>
<td>1,687,823,489</td>
<td>441,191,039</td>
<td>96,740,099</td>
<td>497,513,693</td>
<td>102,858,509</td>
<td>27,230,085</td>
<td>247,617,000</td>
<td>63,102,592</td>
<td>88,245,760</td>
<td>82,623,707</td>
<td></td>
</tr>
<tr>
<td>Cost of materials and services furnished by other Federal agencies (net)</td>
<td>31,271,697</td>
<td>6,957,019</td>
<td>178,400</td>
<td>3,293,780</td>
<td>453,127</td>
<td>-</td>
<td>63,369</td>
<td>-</td>
<td>195</td>
<td>18,827</td>
<td></td>
</tr>
<tr>
<td>Interest on Federal investment:</td>
<td>70,361,832</td>
<td>3,359,858</td>
<td>28,936,187</td>
<td>31,176,741</td>
<td>3,500,087</td>
<td>161,958</td>
<td>967,466</td>
<td>1,100,645</td>
<td>5,540,095</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Charged to operations:</td>
<td>55,616,762</td>
<td>4,697,557</td>
<td>3,597,756</td>
<td>9,727,094</td>
<td>9,311,935</td>
<td>717,717</td>
<td>16,271,233</td>
<td>4,364,035</td>
<td>1,819,947</td>
<td>1,001,025</td>
<td></td>
</tr>
<tr>
<td>Charged to future downstream river regulation:</td>
<td>15,491,789</td>
<td>-</td>
<td>-</td>
<td>12,348,262</td>
<td>433,144</td>
<td>142,816</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Revenue transferred to the continuing fund:</td>
<td>986,707</td>
<td>755,707</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Unexpended</td>
<td>500,000</td>
<td>500,000</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
</tbody>
</table>

#### Lease:

<table>
<thead>
<tr>
<th>Amounts allocated to:</th>
<th>Bonneville Dam</th>
<th>Columbia Basin Dam</th>
<th>Hungry Horse Dam</th>
<th>Althea Falls Dam</th>
</tr>
</thead>
<tbody>
<tr>
<td>Irrigation.</td>
<td>284,166,612</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Flood control.</td>
<td>50,590,356</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Navigation.</td>
<td>67,947,933</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Construction in progress and other assets not allo-</td>
<td>222,992,162</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>cated to purposes.</td>
<td>525,612,882</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Investment allocated to commercial power.</td>
<td>1,240,790,132</td>
<td>485,410,180</td>
<td>128,549,822</td>
<td>556,105,244</td>
</tr>
</tbody>
</table>

#### Less Funds from Commercial Power Operations Returned to U. S. Treasury (note 2):

| Operations and Maintenance expenses                | 366,883,402 | 13,079,990 | 18,065,808 | 31,974,741 |
| Interest received on investment                     | 95,272,671 | 50,364,368 | 5,965,117 | 10,912,105 |
| Total expenditure                                   | 170,155,673 | 85,461,943 | 27,034,975 | 48,889,046 |
| Repayment of capital investment                     | 170,409,016 | 50,064,154 | 21,790,983 | 51,031,697 |
| Total funds returned to U. S. Treasury              | 340,565,589 | 179,526,138 | 48,826,958 | 99,926,743 |

#### Net Investment of the U. S. Government in the Commercial Power Program (Operating Projects only):

<table>
<thead>
<tr>
<th>Combined</th>
<th>Bonneville Power Administration</th>
<th>Bonneville Dam</th>
<th>Columbia Basin Dam</th>
<th>Hungry Horse Dam</th>
<th>Althea Falls Dam</th>
<th>McNary Dam</th>
<th>Detroit-Huron Big Chisholm Dam</th>
<th>Chief Joseph Dam</th>
<th>The Dalles Dam</th>
</tr>
</thead>
<tbody>
<tr>
<td>$900,024,643</td>
<td>$105,064,942</td>
<td>$38,255,410</td>
<td>$130,999,377</td>
<td>$86,730,460</td>
<td>$27,406,045</td>
<td>$334,878,792</td>
<td>$38,383,427</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

*Exclusive of $500,000 unexpended balance in the continuing fund. This item is included as a part of revenue transferred to the continuing fund.

The accompanying notes (schedule 13) are an integral part of this statement.
**SCHEDULE 6**

**UNITED STATES OF AMERICA**

**DEPARTMENT OF THE INTERIOR**

**BONNEVILLE POWER ADMINISTRATION**

**STATEMENT OF REVENUES AND EXPENSES**

**FOR THE FISCAL YEAR ENDED JUNE 30, 1954**

**OPERATING REVENUES:**

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sales of electric energy</td>
<td>$44,127,409</td>
</tr>
<tr>
<td>Less amounts allocated to generating projects (note 6):</td>
<td></td>
</tr>
<tr>
<td>Bonneville Dam Project</td>
<td>$2,788,289</td>
</tr>
<tr>
<td>Columbia Basin Project</td>
<td>12,347,430</td>
</tr>
<tr>
<td>Hungry Horse Project</td>
<td>4,286,210</td>
</tr>
<tr>
<td>Albeni Falls Project</td>
<td>233,911</td>
</tr>
<tr>
<td>McNary Dam Project</td>
<td>1,331,618</td>
</tr>
<tr>
<td>Detroit-Big Cliff Project</td>
<td>1,114,744</td>
</tr>
<tr>
<td>Total</td>
<td>22,102,202</td>
</tr>
<tr>
<td>Other electric revenues</td>
<td>22,025,207</td>
</tr>
<tr>
<td>Total</td>
<td>1,089,244</td>
</tr>
</tbody>
</table>

**OPERATING EXPENSES** (notes 2 and 3):

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Purchased power</td>
<td>697,339</td>
</tr>
<tr>
<td>Operation</td>
<td>5,036,385</td>
</tr>
<tr>
<td>Maintenance</td>
<td>2,161,284</td>
</tr>
<tr>
<td>Depreciation (note 4)</td>
<td>7,594,633</td>
</tr>
<tr>
<td>Total</td>
<td>1,379,976</td>
</tr>
<tr>
<td>Net operating revenues</td>
<td>6,244,834</td>
</tr>
</tbody>
</table>

**INTEREST AND OTHER DEDUCTIONS:**

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interest on Federal investment</td>
<td>5,870,805</td>
</tr>
<tr>
<td>Miscellaneous income deductions</td>
<td>4,984,325</td>
</tr>
<tr>
<td>Net revenues for the year</td>
<td>1,260,509</td>
</tr>
</tbody>
</table>

*Deduction

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

---

**SCHEDULE 7**

**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, 1954**

**OPERATING REVENUES:**

<table>
<thead>
<tr>
<th>Description</th>
<th>Total</th>
<th>Commercial</th>
<th>Navigation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Receipts from sales of electric energy by Bonneville Power Administration allocated to Bonneville Dam Project applied to the repayment of operating and interest expenses allocated to commercial power (note 6)</td>
<td>$2,788,289</td>
<td>$2,788,289</td>
<td>$-</td>
</tr>
</tbody>
</table>

**OPERATING EXPENSES** (notes 2 and 3):

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operation:</td>
<td>298,952</td>
</tr>
<tr>
<td>Specific power facilities</td>
<td>33,940</td>
</tr>
<tr>
<td>Joint facilities</td>
<td>248,500</td>
</tr>
<tr>
<td>Payment for river regulation</td>
<td>187,570</td>
</tr>
<tr>
<td>Maintenance:</td>
<td>230,635</td>
</tr>
<tr>
<td>Specific power facilities</td>
<td>36,605</td>
</tr>
<tr>
<td>Specific navigation facilities</td>
<td>507,333</td>
</tr>
<tr>
<td>Joint facilities</td>
<td>187,570</td>
</tr>
<tr>
<td>Depreciation (note 4)</td>
<td>567,034</td>
</tr>
<tr>
<td>Specific power facilities</td>
<td>40,203</td>
</tr>
<tr>
<td>Specific navigation facilities</td>
<td>131,347</td>
</tr>
<tr>
<td>Joint facilities</td>
<td>622,693</td>
</tr>
<tr>
<td>Total operating expenses</td>
<td>2,413,465</td>
</tr>
<tr>
<td>Net operating revenues</td>
<td>374,824</td>
</tr>
<tr>
<td>Interest on Federal investment</td>
<td>1,634,984</td>
</tr>
<tr>
<td>Less amount charged to construction</td>
<td>1,172*</td>
</tr>
<tr>
<td>Miscellaneous income deductions</td>
<td>436*</td>
</tr>
<tr>
<td>Net revenues for the year</td>
<td>$1,258,552</td>
</tr>
</tbody>
</table>

*Deduction

The accompanying notes (schedule 13) are an integral part of this statement.
**UNITED STATES OF AMERICA**  
**DEPARTMENT OF THE INTERIOR**  
**BUREAU OF RECLAMATION—COLUMBIA BASIN PROJECT**  

**STATEMENT OF REVENUES AND EXPENSES**  
FOR THE FISCAL YEAR ENDED JUNE 30, 1954

<table>
<thead>
<tr>
<th>Operating Revenues (note 9):</th>
<th>Amounts allocated to</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Commercial power</td>
<td>Irrigation</td>
<td>Navigation</td>
<td></td>
</tr>
<tr>
<td>Receipts from sale of electric energy by Bonneville Power Administration allocated to Columbia Basin Project (note 5)</td>
<td>$12,367,430</td>
<td>12,367,430</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Payments for river regulation</td>
<td>187,570</td>
<td>187,570</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other electric revenues</td>
<td>8,990</td>
<td>8,990</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Irrigation revenues</td>
<td>649,083</td>
<td>649,083</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total operating revenues</strong></td>
<td>13,271,073</td>
<td>12,621,990</td>
<td>649,083</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Operating Expenses (notes 2 and 3):</th>
<th>Amounts allocated to</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Commercial power</td>
<td>Irrigation</td>
<td>Navigation</td>
<td></td>
</tr>
<tr>
<td>Operation: Specific power facilities</td>
<td>1,072,502</td>
<td>1,056,529</td>
<td>16,002</td>
<td></td>
</tr>
<tr>
<td>Specific irrigation facilities</td>
<td>235,133</td>
<td>235,133</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Joint facilities</td>
<td>587,087</td>
<td>285,721</td>
<td>221,353</td>
<td>4,813</td>
</tr>
<tr>
<td>Maintenance: Specific power facilities</td>
<td>352,707</td>
<td>347,626</td>
<td>5,081</td>
<td></td>
</tr>
<tr>
<td>Specific irrigation facilities</td>
<td>174,617</td>
<td>174,617</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Joint facilities</td>
<td>151,252</td>
<td>86,031</td>
<td>66,594</td>
<td>1,149</td>
</tr>
<tr>
<td>Depreciation (note 4): Specific power facilities</td>
<td>1,473,400</td>
<td>1,468,346</td>
<td>25,054</td>
<td></td>
</tr>
<tr>
<td>Joint facilities</td>
<td>547,476</td>
<td>547,476</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less amount allocated to future downstream hydroelectric plants (note 8)</td>
<td>236,099*</td>
<td>236,099*</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total operating expenses</strong></td>
<td>6,278,375</td>
<td>5,529,695</td>
<td>743,556</td>
<td>5,210</td>
</tr>
<tr>
<td>Net operating revenues</td>
<td>8,992,698</td>
<td>5,092,383</td>
<td>94,412*</td>
<td>5,210*</td>
</tr>
</tbody>
</table>

| Interest and Other Deductions: Interest on Federal investment (note 2) | 4,391,356 | 4,391,356 |   |   |
| Less amount allocated to future downstream river regulation, recoverable from operations of future downstream hydroelectric plants (note 8) | 1,303,479* | 1,303,479* |   |   |
| Miscellaneous income deductions (incl): | 40,726* | 40,726* | 41,666* |   |
| **Total interest and other deductions** | 5,457,177 | 5,457,177 | 41,666* |   |
| Net revenues for the year | 5,445,521 | 6,003,758 | 52,937* | 5,210* |

| Adjustments Applicable to Prior Years (Net) | 295,480* | 272,735* | 22,735* |   |
| Net revenues for the year after adjustments | $5,650,055 | $5,733,005 | $79,140* | $5,210* |
| Net revenues after adjustments, distributed to: Nonreimbursable navigation expenses | $5,210* |   |   |   |
| Accounts with water users | $125,175 | $125,175 |   |   |
| Accumulated net revenues | 5,330,930 | 5,330,930 | 520,315* |   |
| **Total, as above** | $5,650,055 | $5,733,005 | $79,140* | $5,210* |

*Depression

The accompanying notes (schedule 13) are an integral part of this statement.
### SCHEDULE 10

**UNITED STATES OF AMERICA**

**CORPS OF ENGINEERS--U. S. ARMY**

**ALBENI FALLS PROJECT**

**STATEMENT OF REVENUES AND EXPENSES**

**FOR THE FISCAL YEAR ENDED JUNE 30, 1954**

<table>
<thead>
<tr>
<th>Amounts allocated to</th>
<th>Total</th>
<th>Commercial power</th>
<th>Flood control (note a)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>OPERATING REVENUES</strong> (note 9):</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Receipts from sales of electric energy by Bonneville Power Administration allocated to Albeni Falls Project applied to the repayment of operating and interest expenses allocated to commercial power (note 6)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>$233,911</td>
<td>$233,911</td>
<td>$ -</td>
</tr>
<tr>
<td><strong>OPERATING EXPENSES</strong> (notes 2 and 3):</td>
<td>$17,987</td>
<td>$17,525</td>
<td>$462</td>
</tr>
<tr>
<td>Operation of joint facilities</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Depreciation of joint facilities (note 4)</td>
<td>114,761</td>
<td>111,811</td>
<td>2,950</td>
</tr>
<tr>
<td>Less amount allocated to future downstream river regulation, recoverable from operation of future downstream hydroelectric plants (note 8)</td>
<td>49,921*</td>
<td>49,921*</td>
<td>-</td>
</tr>
<tr>
<td><strong>Total operating expenses</strong></td>
<td>82,827</td>
<td>79,415</td>
<td>3,412</td>
</tr>
<tr>
<td><strong>Net operating revenues</strong></td>
<td>151,084</td>
<td>154,496</td>
<td>3,412*</td>
</tr>
<tr>
<td><strong>INTEREST DEDUCTIONS:</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interest on Federal investment</td>
<td>900,113</td>
<td>876,980</td>
<td>23,133</td>
</tr>
<tr>
<td>Less:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Amount allocated to future downstream river regulation, recoverable from operations of future downstream hydroelectric plants (note 8)</td>
<td>124,616*</td>
<td>124,616*</td>
<td>-</td>
</tr>
<tr>
<td>Amount charged to construction</td>
<td>613,639*</td>
<td>597,868*</td>
<td>15,771*</td>
</tr>
<tr>
<td><strong>Total interest deductions</strong></td>
<td>161,858</td>
<td>154,496</td>
<td>7,362</td>
</tr>
<tr>
<td><strong>Net expense for the year</strong></td>
<td>$10,774</td>
<td>$ -</td>
<td>$10,774</td>
</tr>
</tbody>
</table>

*Includes some navigation expenses

*Deduction

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

### SCHEDULE 11

**UNITED STATES OF AMERICA**

**CORPS OF ENGINEERS--U. S. ARMY**

**MCNARY DAM PROJECT**

**STATEMENT OF REVENUES AND EXPENSES**

**FOR THE FISCAL YEAR ENDED JUNE 30, 1954**

<table>
<thead>
<tr>
<th>Amounts allocated to</th>
<th>Total</th>
<th>Commercial power</th>
<th>Navigation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>OPERATING REVENUES:</strong></td>
<td>$1,331,618</td>
<td>$1,331,618</td>
<td>$ -</td>
</tr>
<tr>
<td>Receipts from sales of electric energy by Bonneville Power Administration allocated to McNary Dam Project applied to the repayment of operating and interest expenses allocated to commercial power (note 6)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>OPERATING EXPENSES</strong> (notes 2 and 3):</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Operation:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Specific power facilities</td>
<td>109,328</td>
<td>109,328</td>
<td>-</td>
</tr>
<tr>
<td>Specific navigation facilities</td>
<td>34,558</td>
<td>-</td>
<td>34,558</td>
</tr>
<tr>
<td>Joint facilities</td>
<td>243,053</td>
<td>236,976</td>
<td>6,077</td>
</tr>
<tr>
<td>Maintenance:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Specific power facilities</td>
<td>30,086</td>
<td>30,086</td>
<td>-</td>
</tr>
<tr>
<td>Specific navigation facilities</td>
<td>11,355</td>
<td>-</td>
<td>11,355</td>
</tr>
<tr>
<td>Joint facilities</td>
<td>39,766</td>
<td>30,772</td>
<td>994</td>
</tr>
<tr>
<td>Depreciation (note 4):</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Specific power facilities</td>
<td>184,041</td>
<td>184,041</td>
<td>-</td>
</tr>
<tr>
<td>Specific navigation facilities</td>
<td>179,981</td>
<td>-</td>
<td>179,981</td>
</tr>
<tr>
<td>Joint facilities</td>
<td>119,933</td>
<td>116,935</td>
<td>7,998</td>
</tr>
<tr>
<td><strong>Total operating expenses</strong></td>
<td>952,101</td>
<td>716,138</td>
<td>235,963</td>
</tr>
<tr>
<td><strong>Net operating revenues</strong></td>
<td>379,517</td>
<td>615,480</td>
<td>235,963*</td>
</tr>
<tr>
<td><strong>INTEREST DEDUCTIONS:</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interest on Federal investment</td>
<td>5,994,654</td>
<td>5,380,072</td>
<td>614,582</td>
</tr>
<tr>
<td>Less amount charged to construction</td>
<td>5,047,188*</td>
<td>4,764,592*</td>
<td>282,596*</td>
</tr>
<tr>
<td><strong>Net interest deduction</strong></td>
<td>$947,466</td>
<td>$615,480</td>
<td>$331,986</td>
</tr>
<tr>
<td><strong>Net expense for the year</strong></td>
<td>$557,949</td>
<td>$ -</td>
<td>$557,949</td>
</tr>
</tbody>
</table>

*Deduction

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

The Bonneville Power Administration will also market electric energy excess to project needs from the Chandler hydroelectric plant of the Kennewick Division of the Yakima (Irrigation) Project under construction by the Bureau of Reclamation. Construction costs relating to this project are not included in the statements of combined assets and liabilities. Because of the relatively small amounts involved, the omission is not significant.

2. Cost accounting practices

Under governmental accounting procedures the costs of administrative and other services rendered by other Federal agencies are not distributed among or charged to the agencies or projects benefiting from such services. It is not practical to make a constructive determination in all cases of the amounts of such costs applicable to an individual project or agency, but Bonneville Power Administration has recorded actual or estimated costs for many of these services. The Administration includes in its accounts amounts for rentals, materials, and other services and supplies charged by the Bureau of Reclamation and other Federal agencies, death and disability claims on account of the Administration's employees paid by the Bureau of Employees' Compensation, Department of Labor, and the amounts applicable to the Administration's operations of the cost of the Civil Service Retirement System. It is not the practice of the Corps of Engineers or the Bureau of Reclamation to include in their accounts amounts incurred by other Federal agencies and not assignable to the projects pursuant to law or administrative policy. Similarly, general administrative expenses of regional offices and of the Washington, D. C., and Denver offices are not included in project property costs and operating expenses by the Bureau of Reclamation and the general administrative expenses of the Office of Chief Engineers, Washington, and division offices of the Corps of Engineers are not included in costs.

Expenditures for preliminary surveys and investigations are included in property costs by the Administration and the Bureau of Reclamation but not by the Corps of Engineers.

The Administration and the Corps of Engineers include in property costs and operating expenses provision for accrued annual and sick leave of employees. Such provisions have not been made by the Bureau of Reclamation at the Columbia Basin and Hungry Horse Projects, but at both projects the amounts of wages and salaries paid to employees while on sick or annual leave were charged to property or operating expense accounts.

The Administration and the Corps of Engineers have included interest at the rate of 2.5 percent on the net unpaid Federal investment allocated to all purposes with appropriate charges to expense and to property costs (interest during construction). The accounts for interest at the Columbia Basin and Hungry Horse Projects are maintained on a memorandum basis under an agreement with Bonneville Power Administration for the purpose of providing data for statements on the results of power operations. At the Columbia Basin Project interest is computed at the rate of 2.5 percent only on the property costs and operating expenses allocated to commercial power. Accordingly, interest is not included as an item of expense in determining the net loss from irrigation operations at the Columbia Basin Project. At the Hungry Horse Project interest is computed at the rate of 2.5 percent on the net unpaid investment allocated to all purposes.

3. Allocation of joint costs and expenses

Bonneville Power Administration. All of the property costs and expenses of the Bonneville Power Administration are considered specific commercial power costs.

Bonneville Dam Project. Property, plant, and equipment determined to be jointly useful for power generation and for other purposes, consisting principally of the dam, reservoir, and fishways, has been allocated 50 percent to power and 50 percent to nonpower purposes by the Federal Power Commission under the provisions of 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.

Columbia Basin Project. Property, plant, and equipment costs determined to be jointly useful for power generation and for other purposes, consisting principally of the dam, reservoir, and general service facilities, have been allocated 56 percent to commercial power (including future downstream river regulation) and 44 percent to nonpower purposes after assigning $1,000,000 to general service (equipment), exclusive of the cost of the 3 generating units and related electrical facilities installed in addition to the original 15 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. These allocations have been made by the Secretary of the Interior under the provisions of the Reclamation Project Act of 1939 (43 U.S.C. 485b); however, other methods of allocating costs between commercial power and irrigation pumping power are being considered. The expenses of operating and maintaining the joint facilities have been allocated in the same proportions as the related property costs for the purposes of the presentation of the financial statements of the commercial power operation. The Bureau of Reclamation, however, considers that substantially all of such expenses are costs of commercial power operations.

The memorandum of agreement between the Administration and the Bureau provides that all of the expenses of operating and maintaining the Grand Coulee Dam, reservoir, appurtenant works, and the power plant, except the portions of the latter allocated to irrigation works as pumping power, shall be returned from commercial power revenues together with that portion of the construction costs, including the construction costs of the irrigation works not repayable by water users. It is estimated that over the repayment period for the Columbia Basin Project commercial power revenues will return about $471,200,000 of construction costs and expenses allocated to irrigation.

Hungry Horse Project. An allocation of the construction costs of Hungry Horse Project has not been made by the Secretary of the Interior. A tentative allocation has been made by the Bureau of Reclamation of the estimated total construction costs of $101,660,000, exclusive of interest during construction. That allocation is as follows:

<table>
<thead>
<tr>
<th>Direct power</th>
<th>Joint</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Dollars</td>
<td>Percent</td>
</tr>
<tr>
<td>Downstream power:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Grand Coulee Dam . .</td>
<td>$ -</td>
<td>$20,033</td>
</tr>
<tr>
<td>Bonneville Dam . .</td>
<td>5,172</td>
<td>6.79</td>
</tr>
<tr>
<td>Chief Joseph Dam . .</td>
<td>3,442</td>
<td>4.52</td>
</tr>
<tr>
<td>McNary Dam . .</td>
<td>9,102</td>
<td>11.96</td>
</tr>
<tr>
<td>Total . . .</td>
<td>37,749</td>
<td>49.59</td>
</tr>
</tbody>
</table>
Construction costs, together with related interest and depreciation expenses, allocated to downstream river regulation at the Chief Joseph and McNary Projects are deferred for return from the sale of electric energy to be generated at those projects in future years when the benefits are realised. For the purposes of this report, property costs have been allocated in accordance with the percentages shown in the tabulation above. Operating expenses allocated to flood control for fiscal year 1954 have been limited to the amount budgeted therefor and the balance has been allocated to power, but no part of the operating expenses has been allocated to future downstream river regulation; however, depreciation and interest on this project have been allocated to future downstream river regulation. When an allocation of costs has been made by the Secretary of the Interior it will be applied retroactively and the accounts will be revised to show such allocation.

Albeni Falls and Detroit–Big Cliff Projects

Under the provisions of section 5 to the Flood Control Act of 1944 (16 U.S.C. 825s), the Secretary of the Interior became the marketing agent for surplus energy generated by projects constructed and operated by the Corps of Engineers. The Bonneville Power Administration has been designated the marketing agent for these projects in the Columbia River Basin. The act, however, does not specify who shall make an allocation of the construction costs. Tentative allocations of the joint costs have been made by the Corps of Engineers as follows:

<table>
<thead>
<tr>
<th>Percent</th>
<th>Albeni Falls</th>
<th>Detroit–Big Cliff</th>
</tr>
</thead>
<tbody>
<tr>
<td>Commercial power ...........</td>
<td>97.27</td>
<td>45.90</td>
</tr>
<tr>
<td>Flood control and navigation.</td>
<td>2.73</td>
<td>54.10</td>
</tr>
<tr>
<td>Total ........................</td>
<td>100.00</td>
<td>100.00</td>
</tr>
</tbody>
</table>

For the purposes of this report, the joint property costs have been allocated in accordance with the above percentages. For the Albeni Falls Project, operation and maintenance expenses applicable to joint facilities have been allocated to commercial power and to nonpower operations in the same proportion as the related property costs. For the McNary Dam Project, the operation and maintenance expenses of the joint facilities of the Detroit–Big Cliff Project were allocated 57 percent to power and 43 percent to flood control.

Bonneville Power Administration

Depreciation of the property of Bonneville Power Administration and Albeni Falls, McNary Dam, and Detroit–Big Cliff Projects of Corps of Engineers and Hungry Horse Project of Bureau of Reclamation has been computed on the straight-line method. Depreciation of most of the property of Bonneville Dam Project (Corps of Engineers) has been computed on the compound interest method using an interest factor of 2.5 percent. Depreciation of the property allocated to commercial power at the Columbia Basin Project (Bureau of Reclamation) has also been computed on the compound interest method using an interest factor of 2.5 percent, except the straight-line method is used for deprecating a small amount of general property. The Bureau of Reclamation makes no provision for depreciation of the property of Columbia Basin Project allocated to irrigation and navigation purposes. In fiscal year 1954 the Bureau of Reclamation adopted a policy of maintaining depreciation accounts only on a memorandum basis.

Estimated service lives of the various classes of property have been determined by engineering studies. No item of property has been assigned a service life in excess of 100 years, except for a maximum of 150 years at the Hungry Horse Project. Costs of land, land rights, surveys, and clearing are included in the base for computing depreciation, except that the Bonneville Power Administration and Corps of Engineers do not make any charge to depreciation expense for amounts paid to former owners for fee title to lands acquired from them. Costs of land, land rights, surveys, and clearing are not included in the base for computing depreciation at the Hungry Horse Project.

As stated in the previous year a uniform depreciation policy, including method and maximum service lives, is under consideration by the Department of the Interior for application by the several power agencies of the Department.

Unexpended appropriations

Funds in the United States Treasury represent unexpended appropriations by the Congress as follows:

<table>
<thead>
<tr>
<th>Appropriations for</th>
<th>Total</th>
<th>Construction</th>
<th>Operation and maintenance</th>
<th>Continuing fund</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bonneville Power Administra-</td>
<td>$48,180,291</td>
<td>$47,279,405</td>
<td>$400,886</td>
<td>$500,000</td>
</tr>
<tr>
<td>tion . . . . . . . . . . . .</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corps of Engineers:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bonneville Dam Project . .</td>
<td>464,954</td>
<td>10,839</td>
<td>454,115</td>
<td>-</td>
</tr>
<tr>
<td>Albeni Falls Project . . .</td>
<td>856,477</td>
<td>85,564</td>
<td>1,913</td>
<td>-</td>
</tr>
<tr>
<td>McNary Dam Project . . . .</td>
<td>6,753,832</td>
<td>6,654,795</td>
<td>99,037</td>
<td>-</td>
</tr>
<tr>
<td>Detroit–Big Cliff Project</td>
<td>1,520,206</td>
<td>1,502,110</td>
<td>18,096</td>
<td>-</td>
</tr>
<tr>
<td>Chief Joseph Project . . .</td>
<td>3,136,231</td>
<td>3,136,231</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

Page 3
SCHEDULE 13

<table>
<thead>
<tr>
<th>Project</th>
<th>Total</th>
<th>Construction</th>
<th>Maintenance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bonneville Dam Project</td>
<td>$1,149,296</td>
<td>$10,512</td>
<td>$1,138,784</td>
</tr>
<tr>
<td>Albeni Falls</td>
<td>3,429,095</td>
<td>3,295,815</td>
<td>133,280</td>
</tr>
<tr>
<td>McNary Dam</td>
<td>22,292,500</td>
<td>21,300,000</td>
<td>992,500</td>
</tr>
<tr>
<td>Detroit-Big Cliff</td>
<td>602,204</td>
<td>405,836</td>
<td>196,368</td>
</tr>
<tr>
<td>Chief Joseph</td>
<td>20,600,000</td>
<td>20,600,000</td>
<td>-</td>
</tr>
<tr>
<td>The Dalles Dam</td>
<td>51,082,000</td>
<td>51,082,000</td>
<td>-</td>
</tr>
<tr>
<td>Lookout Point-Dexter</td>
<td>5,675,300</td>
<td>5,543,000</td>
<td>132,300</td>
</tr>
<tr>
<td>Total</td>
<td>$104,830,395</td>
<td>$102,237,163</td>
<td>$2,593,232</td>
</tr>
</tbody>
</table>

Funds that have been appropriated for construction remain available until expended. Except for the Corps of Engineers, funds appropriated for operation and maintenance may be obligated only for the year for which the funds are appropriated. The continuing fund is maintained in the United States Treasury for Bonneville Power Administration to defray emergency expenses and to insure continuous operation. The fund was authorized by the Bonneville Project Act, as amended (16 U.S.C. 812j), to be derived from receipts from sale of electric energy.

Under the Interior Department Appropriation Act, 1955 (68 Stat. 362), additional funds of $24,314,000 for construction and $6,200,000 for operation and maintenance became available to Bonneville Power Administration on July 1, 1954. Appropriations for the Corps of Engineers are not segregated by projects. Tentative project allotments have been made for fiscal year 1955 as follows:

- **Operation and maintenance**

Bonneville Dam Project. Under the terms of an agreement between the Corps of Engineers and Bonneville Power Administration, the Administration is required to deposit in the United States 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 power 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 the plant costs of Bonneville Dam Project allocated to power, including necessary replacements, over a 50-year period beginning July 1, 1944, together with interest at 2.5 percent per annum and annual operating and maintenance expenses allocated to power.

The Bonneville Project Act provides that rate schedules shall be drawn having regard to the recovery of the cost of producing electric energy at the Bonneville Dam Project, including the amortization of the capital investment allocated to power over a reasonable period of years. 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 estimated service lives). Accordingly, the excess of such payments over costs charged to power operations at the project has been treated in the accounts of Bonneville Power Administration as advance payments to the United States Treasury for the account of the project. These payments have been recorded by the project as excess payments to the United States Treasury by the Administration over costs charged to power operations. The amounts in these accounts will be transferred to 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 deposits in the United States Treasury by Bonneville Power Administration for the account of the Bonneville Dam Project will be equal to power-operating expenses, exclusive of provisions for depreciation.

During 1954 Bonneville Power Administration deposited $3,537,570 in the United States Treasury for the account of Bonneville Dam Project in accordance with the terms of the agreement. Of this amount $2,788,289, equivalent to operating expenses (including depreciation) and interest on the Federal investment allocated to power, has been treated as current year's revenue and the excess, $749,281 ($14,277,738 in total to June 30, 1954), was recorded as excess of payments by Bonneville Power Administration over costs charged to power operations. This excess, together with the amount represented by the provision for depreciation expense, has been applied to the repayment of the capital investment of the Bonneville Dam Project allocated to power.

Of the $3,537,570 deposited for 1954 fiscal year, $3,350,000 was covered into the general fund (miscellaneous receipts) and $187,570 into the reclamation fund in the Treasury. The latter amount constitutes payments for river regulation benefits received from storage operations of the Columbia Basin Project.

Columbia Basin Project. Reclamation laws, as supplemented by the act of August 30, 1935, and Executive Order 8526, require that payments be made, from time to time, into the reclamation fund in the United States Treasury 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 Bonneville Power Administration and the Bu-
reus of Reclamation, 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. These payments are designed to pay into the reclamation fund over a period of years, not in excess of 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 about $471,200,000); and an annual amount equal to 3 percent of the unrepaid 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 show 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. The amounts paid into the reclamation fund for the project each year are not in repayment of specific expenses applicable to specific years but represent lump-sum payments against the total amounts provided for in the agreement. Accordingly, the amount payable for the year ended June 30, 1954, under the terms of the agreement has been treated in the accompanying financial statements as current year's revenues.

Hungry Horse Project. A definitive agreement between the Bonneville Power Administration and the Bureau of Reclamation covering the delivery of energy generated at Hungry Horse Project and the allocation of revenues to that project has not been executed. An interim memorandum of understanding provided for the Administration to deposit in the Treasury of the United States to the credit of the reclamation fund, Hungry Horse Dam Project, $5,067,210 on account of operation of the project to June 30, 1954. Of this amount $781,000 has been allocated to revenues for operation of the project in fiscal year 1953 and the balance ($4,286,210) has been allocated to project revenues for fiscal year 1954.

Albeni Falls, McNary Dam, and Detroit-Big Cliff Projects. A definitive agreement between the Bonneville Power Administration and the Corps of Engineers covering the allocation of revenues to the Albeni Falls, McNary Dam, and Detroit-Big Cliff Projects has not been executed. An interim agreement provided for the Administration to deposit in the Treasury to the account of the projects the following amounts covering operations to June 30, 1954.

<table>
<thead>
<tr>
<th>Project</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Albeni Falls</td>
<td>$ 475,000</td>
</tr>
<tr>
<td>McNary Dam</td>
<td>4,560,000</td>
</tr>
<tr>
<td>Detroit-Big Cliff</td>
<td>1,590,000</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$6,625,000</strong></td>
</tr>
</tbody>
</table>

Of the above amount $2,680,273, equivalent to operating expenses (including depreciation) and interest on the Federal investment allocated to power, has been treated as current year's revenue and the excess, $3,944,727, was recorded as payments by Bonneville Power Administration in excess of costs charged to power operations. This excess, together with the amount represented by provision for depreciation expenses, has been applied to the repayment of the projects' capital investment allocated to power.

7. Amount and repayment of the investment of United States Government allocated to commercial power (including future downstream river regulation)

All funds expended by the Columbia River Power System and related activities for property, plant, equipment, or other assets and for expenses of operation and maintenance are obtained from congressional appropriations, except that Bonneville Power Administration may use the continuing fund to defray emergency expenses and to assure continuous operation. The continuing fund, however, is regarded as continuing appropriation and is accounted for in the same manner as other appropriations in reports to the Bureau of the Budget and the Congress.

Receipts from the sale of electric energy or from miscellaneous sources are not available to the power system for expenditure except to the extent of funds transferred to the Administration's continuing fund. To June 30, 1954, receipts transferred to the continuing fund totaled $1,456,707, of which $996,707 had been expended and $500,000 of unexpended and unobligated cash remained in the fund.

The investment of the United States Government allocated to commercial power (including future downstream river regulation) includes, in addition to the congressional appropriations and the continuing fund: (1) allotments from Public Works Administration funds, (2) Works Progress Administration expenditures for clearing of rights-of-way and reservoir areas and similar work, (3) the actual or estimated cost of materials and services furnished by other Federal agencies without charge, less the amount of such items furnished to other agencies by the power system, and (4) interest at 2.5 percent on the net unpaid balance of the Federal investment.

The composition of the investment of the United States Government allocated to commercial power is shown in schedule 5. This schedule shows the total Federal investment in the power system and the status of repayment of that investment.

The capital investment is represented by property, plant, and equipment, materials, supplies, unexpended appropriations and other assets, with interest during construction included in property and plant costs. The remainder of the investment is represented by expenses incurred for operation, maintenance, marketing, administration and other costs, and interest expense, other than interest during construction and interest charged to operations. The capital investment is represented as future downstream river regulation deferred for recovery from the operations of future downstream hydroelectric plants as explained in note 8. Such deferred interest is a part of the Federal investment, but it is included as an item among the assets of the System as a deferred charge against future power operations.

Plans for repayment of construction costs from power receipts provide for such repayment over a period of years. Neither those plans nor applicable laws require the repayment of specific or fixed amounts in any one year. On the other hand, the repayment schedules contemplate that expenses for operation, maintenance, and interest charged to operations are repayable annually as incurred. Accordingly, for the purpose of schedule 5 it has been determined that power receipts returned to the United States Treasury shall be applied to repayments in the following order of priority: (1) the expenses of operation, maintenance, and other costs of commercial power, (2) interest expense, exclusive of interest during construction and deferred interest on investment allocated to future downstream river regulation on the investment in commercial power, and (3) capital investment in commercial power.
Interest and depreciation charges on the cost of joint facilities allocated to future downstream river regulation have been deferred to future periods on the basis that these charges will be recovered from the operations of additional downstream hydroelectric plants now under construction or contemplated. The deferment of these charges is consistent with the allocation of costs of these projects.

The downstream hydroelectric plants to which the allocation to future downstream river regulation is related include both Federal and non-Federal plants. The one downstream non-Federal plant for which an allocation of the costs of the Columbia Basin Project was made by the Secretary of the Interior in 1945 did receive river regulation benefits from the project in fiscal year 1954. No part of the deferred charges for interest and depreciation at the Columbia Basin Project for this downstream non-Federal plant, however, was charged to operations in 1954 because no decision has been rendered by the Federal Power Commission on the amounts payable by the plant for river regulation benefits and no revenues on account of such benefits were accrued in the accounts of the Columbia Basin Project.

Downstream non-Federal plants will benefit also from storage operations of Hungry Horse and Albeni Falls Projects, and the Federal Power Commission may determine that such benefits were received in fiscal year 1954 and require payments therefor by the beneficiaries. No allocation of costs of the Hungry Horse and Albeni Falls Projects has been made to downstream non-Federal plants. Accordingly, no part of the depreciation or interest at the Hungry Horse and Albeni Falls Projects has been deferred for river regulation benefits to non-Federal plants and no revenues have been accrued for such benefits.

Revenues from downstream non-Federal plants

The Federal Power Act (16 U.S.C. 804f) provides that a licensed project receiving benefits from the upstream improvements of another licensed project or of the Federal Government shall make payments to the upstream project on account of such benefits. It is the responsibility of the Federal Power Commission to determine the amount, if any, that non-Federal power installations in the Columbia River and tributaries will have to pay for downstream benefits received or to be received from the Federal storage projects; namely, Hungry Horse Project, Albeni Falls Project, and Columbia Basin Project (Grand Coulee Dam) of the Columbia River Power System. During the fiscal year 1954 benefits were received by the non-Federal projects, but no revenues have been accrued in the accounts of the Columbia River Power System for such benefits because the Federal Power Commission has not rendered a decision as to the amounts payable, if any, by the beneficiaries.

Contingent liabilities

The Administration and the projects are contingently liable under pending litigations which, in some instances, involve claims of substantial amount. In the opinion of legal counsels for the Administration and for the projects, any actual liability which may result from such litigations will not be material in relation to the size and scope of the System's operations.

Loss on sale and abandonment of property

The $1,379,976 net loss on sales and abandonment of property on the Statement of Revenues and Expenses of the Bonneville Power Administration for the fiscal year ended June 30, 1954, consists of the following components:

Unrecoverable costs resulting from the abandonment of construction in progress on a cable under Puget Sound between President Point and Richmond Beach to serve the Kitsap area and the Olympic Peninsula in the State of Washington. This underwater cable was abandoned in favor of overland transmission lines around the south end of the Sound $ 553,010

Costs, including clearing, of unused portions of rights-of-way paralleling existing transmission lines between Chehalis, Kelso, and Vancouver, Washington, for which no utilization is now anticipated. An extra wide right-of-way was originally acquired in anticipation of additional transmission lines between these cities 323,559

Total charges, including cost of closed preliminary surveys and engineering studies, incurred on various projects which have been abandoned or have become inactive due to revision of the construction program 503,407

$1,379,976
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