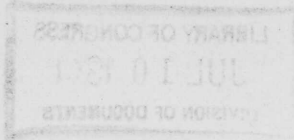


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Nineteenth Annual Report  
of the  
Federal  
Power Commission

Fiscal Year Ended June 30, 1939  
with additional activities  
to December 1939



United States  
Government Printing Office  
Washington : 1940

# FEDERAL POWER COMMISSION

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## MEMBERS

CLYDE L. SEAVEY, *Chairman*  
CLAUDE L. DRAPER, *Vice Chairman*  
BASIL MANLY  
LELAND OLDS  
JOHN W. SCOTT

---

LEON M. FUQUAY, *Secretary*

---

## PRINCIPAL OFFICE

Hurley-Wright Building  
1800 Pennsylvania Avenue NW.  
Washington

## REGIONAL OFFICES

*New York.*—New Federal Office Building, 90 Church Street  
*Chicago.*—The Merchandise Mart, 222 North Bank Drive  
*Atlanta.*—10 Forsyth Street Building  
*Denver.*—Central Savings Bank Building, 15th and Arapahoe Streets  
*San Francisco.*—Phelan Building, Market and O'Farrel Streets

## ANNUAL REPORT—1938-39

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DECEMBER 1, 1939.

*To the Senate and House of Representatives:*

The Federal Power Commission herewith submits to the Congress its annual report for the fiscal year July 1, 1938, to June 30, 1939, with additional activities to December 1939.

CLYDE L. SEAVEY, *Chairman.*  
CLAUDE L. DRAPER.  
BASIL MANLY.  
LELAND OLDS.  
JOHN W. SCOTT.

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# NINETEENTH ANNUAL REPORT OF THE FEDERAL POWER COMMISSION

## PART I

Restored to its full membership by the appointment of Mr. Leland Olds, of New York, as a Commissioner for the 5-year term ending June 22, 1944, the Commission, on July 8, 1939, elected Commissioner Clyde L. Seavey, of California, Chairman. Mr. Seavey had served as Acting Chairman of the Commission since the resignation on October 1 1937, of Mr. Frank R. McNinch. Mr. Olds had been successively assistant to the chairman and executive secretary of the Power Authority of the State of New York since 1931.

In performing the varied duties entrusted to it by Congress, there has been a marked increase during the past year in practically all of its activities. In fact, during the current year, under the leadership of Chairman Seavey, the Commission has enjoyed its most active and successful year. Among its many activities may be included the licensing and supervision of power projects and water-power development on lands of the United States and streams subject to Federal jurisdiction, together with numerous other duties under the Federal Water Power Act of 1920; regulating interstate commerce in electric energy and companies engaged therein, under the Federal Power Act of 1935; regulating the transportation and sale in interstate commerce of natural gas for ultimate public consumption, under the Natural Gas Act; investigating the power possibilities of flood-control dams and recommending the installation, where practicable and advisable, of facilities for power production, under the Flood Control Act of 1938 and other acts; passing upon proposed rates for power produced at the Bonneville project; performing various duties under the Tennessee Valley Authority Act; investigating power resources and requirements and compiling and publishing the rates for electric energy, statistics of power capacity and production, and other information concerning electric power and natural gas throughout the United States.

The Congress has consistently recognized the growing and vital interest of the American public in the disposition and widespread utilization of the fundamental public services of electric energy and natural gas. The Federal Power Act, the Natural Gas Act, the Bonneville Act, the Fort Peck Act, the Tennessee Valley Authority Act, and the Flood Control Acts of 1938 and 1939, the statutes pursuant to which the Federal Power Commission has operated during the year 1939, all contain explicit mandates to promote and safeguard the public interest in those public services. Under these

statutes and pursuant to that one underlying precept, the Commission has endeavored to function.

### MAJOR ACTIVITIES OF COMMISSION SUMMARIZED

The Commission's principal activities during the last year may be briefly summarized as follows:

**1. Encouragement of Orderly Development of the Country's Water Power Resources, under Federal Licenses Assuring Protection of the Public Interest in this Portion of the National Wealth.**

The Commission has continued its thorough engineering surveys in connection with all applications for preliminary permits and licenses for water power projects on streams subject to the jurisdiction of Congress, in order to promote technically sound developments in conformity with ultimate best possible utilization of the country's river basins. Periodic inspection of such projects by the Commission's agents, after licenses have been issued, assures construction and operation in conformity with the terms of the licenses and the provisions of the Federal Power Act.

During the last fiscal year 102 new applications for licenses or preliminary permits were received, making a total of 1,601 received during the 19-year period since the Commission was created. Six of the new applications were for preliminary permits, with proposed installation of 809,187 horsepower, one of which was later superseded by an application for a license; 14 were for licenses for major projects with a total proposed installation of 992,679 horsepower, and 14 were for minor projects.

The 124 major licenses for power projects granted by the Commission and now in force represent an installed capacity of 4,361,615 horsepower, a proposed ultimate capacity of 6,782,616 horsepower.

A total of \$730,978 was collected by the Commission from licensees during the fiscal year, the proceeds being distributed according to the act. Of the total, \$526,591 went to the general fund of the Treasury; \$134,385 to the War Department; \$25,864 to the reclamation fund, and \$26,895 to Indian Tribes.

Steady progress has been made in the survey of unlicensed projects on streams under the control of Congress. This survey was instituted by the Commission in 1937 in order to bring under Federal license all such projects which are properly subject to the Commission's jurisdiction.

The Commission has also actively pushed forward its work of determining the actual legitimate original cost of the many licensed hydroelectric projects, as directed under part I of the Federal Power Act. The original cost so determined is important in its relation to the rate-base, amortization reserves, the expropriation of excessive profits, and the price to be paid by the United States if it takes over

any project at or after the expiration of the license for such project. Hearings were completed in five cost cases.

## **2. Regulation of Wholesale Rates for Power and Natural Gas Moving in Interstate Commerce, Assuring Public Control of Important Elements in the Cost of These Services Outside the Jurisdiction of State Regulatory Bodies**

Hundreds of filed rate schedules of both electric and gas utilities, subject to the Commission's jurisdiction, have been analyzed, investigations have been ordered, show-cause orders issued, and utility-proposed rate increases suspended pending hearing, in cases where rates appeared unjust, unreasonable, or unduly discriminatory.

Administration of the Natural Gas Act has involved 44 formal proceedings, including 28 rate proceedings. These have involved extensive investigations of rates and properties in many States including Texas, Colorado, Wyoming, Montana, Ohio, Illinois, Minnesota, the Dakotas, West Virginia, Pennsylvania, and New York. Complaints have been filed by the State commissions of Pennsylvania, New York, Illinois, Missouri, Wyoming, and Louisiana, and by Akron, Cleveland, Columbus, Denver, and other cities, emphasizing the necessity of enforcement by this Commission of just and reasonable rates for natural gas transported in interstate commerce or sold in interstate commerce for resale on which local rates are largely based.

The Commission has also considered the possible effect on gas rates in connection with six applications for certificates of convenience and necessity for the construction of natural gas facilities comprising more than 2,000 miles of pipe lines, running to or through a dozen States. These applications have either been acted upon or are now under active consideration.

Issuance of show-cause orders to electric utilities and natural gas companies subject to the Commission's jurisdiction under the Federal Power and Natural Gas Acts has, in the last year, resulted in rate reductions.

The Commission has also approved revised wholesale rate schedules proposed by the Bonneville Administrator for sale of power from that project. Careful analysis showed that they represented a development in the rate policy which the Commission had previously approved and that they tended to carry out the broad public purposes of the Bonneville Act.

## **3. Uniform Systems of Accounts and Reclassification of Property Accounts on an Original Cost Basis**

During the last year the Commission, after hearing, prescribed a uniform system of accounts for natural gas companies subject to the provisions of the Natural Gas Act. This system of accounts, effective January 1, 1940, follows generally the uniform system prescribed by the Commission for companies holding licenses for water-power projects and public utilities subject to the Commission's jurisdiction under the Federal Power Act.

Marked progress has also been made in the reclassification of property accounts of electric utilities on the basis of original cost, that is, the cost of the properties when first devoted to public-utility service.

Activities of the Commission along both lines constitute an important contribution to the effectiveness of utility regulation throughout the United States.

#### **4. Surveys as a Basis for Assuring the Country Adequate and Economical Power Supply.**

The power requirements of the Nation and its basic industries have been studied continuously by the Commission since 1933-34, when it made, at the direction of the President, the first national power survey for the United States. During the last year the survey has devoted special attention to estimating the power requirements of the country in case of possible emergency and to determining the best methods of meeting such requirements.

The power possibilities of 116 flood-control projects were investigated during the last year under the provisions of the Flood Control and other acts, which charge the Commission with the duty of recommending to the Secretary of War the installation of such facilities for the generation of power, in connection with these projects, as will assure the people the ultimate full utilization of the power possibilities of multipurpose river basin undertakings.

The Commission's engineers have also been conducting intensive surveys to determine a sound basis for voluntary interconnection and coordination of power facilities to assure greater economy of power supply in various areas. It is expected that such surveys will be completed early in 1940 for the region east of the Mississippi River.

#### **5. Analysis and Publication of Essential Data Concerning the Power Industry.**

Rate reports covering typical bills paid for electric service in all parts of the United States have been issued annually by the Commission as a part of its regular work since 1934-35. These reports, contrasting the bills paid in different localities, have unquestionably had a profound effect in bringing about rate reductions.

Residential bills are reported for each community of 250 or more population, commercial rates in places of 2,500 upward, and rates for industrial service in cities of 10,000 or more population. Separate reports are issued for each state, and one for cities of 50,000 or more population.

For the first time in the history of the country there has been prepared by the Commission a publication called the National Electric Rate Book, containing more than 15,000 rate schedules under which electric energy is furnished by nearly 2,000 utilities to 10,000 communities, including all communities of 1,000 or more population, in the entire country.

Comprehensive financial and operating information on every important privately owned electric utility operating in the country has also been made available in a report entitled "Statistics of Electric Utilities in the United States for the year ended December 31, 1937."

The Commission also continued the issuance of monthly and annual reports of electric production, generating capacity, and other power statistics.

**6. Protection of the Public Interest in Mergers, Disposition of Properties, Security Issues, and Corporate Practices.**

In connection with mergers and sales of electric properties subject to its jurisdiction, the Commission has conducted thorough investigations to assure that such transactions are in the public interest.

During the last year the Commission has thus scrutinized and approved the acquisition by the Tennessee Valley Authority and associated municipalities of electric facilities previously operated by the Electric Bond & Share and Commonwealth & Southern Systems.

By an amendment to its rules and regulations relating to security issues proposed by electric utilities subject to its jurisdiction, the Commission has endeavored this past year to formulate a basis for sifting out any excessive underwriters' and finders' fees, insuring arm's length bargaining between the parties involved in securities transactions, and encouraging competitive bidding, where practicable, for the new issues.

Enforcement of provisions of the Federal Power Act, prohibiting interlocking directorates and the imposition of unreasonable charges against operating subsidiaries, has in many cases ended corporate abuses and simplified corporate structures.

Following examination by the Commission staff of books and papers of the so-called Hopson Service Companies, hearings are about to be resumed on the reasonableness and propriety of charges paid these companies by certain subsidiaries of the Associated Gas & Electric System. These hearings should be concluded at an early date.

**7. Marked Increase in Litigation to Assure the Effectiveness of Carrying Out the Federal Power and Natural Gas Acts.**

During the last year the Commission has been forced to carry an increasing burden of litigation to meet challenges to its jurisdiction and petitions for review of its orders. Successful prosecution of these cases is necessary to the successful performance of the many duties assigned to the Commission by Congress.

Among the more important cases now pending are those involving the Appalachian Electric Power Co., New Jersey Power and Light Co., Arkansas-Louisiana Gas Co., Montana Power Co., Canadian River Gas Co., et al., East Ohio Gas Co., and Pacific Power & Light Company and Inland Power & Light Company. The Commission is also directly or indirectly involved in other cases concerning questions of Federal jurisdiction.

**RATE WORK UNDER FEDERAL POWER AND NATURAL GAS ACTS**

During the past fiscal year, the Commission has been actively engaged in rate work pursuant to the terms of sections 205 and 206 of the Federal Power Act and sections 4 and 5 of the Natural Gas Act. More than 28 rate proceedings affecting the rates charged for the transportation or sale of natural gas in interstate commerce for resale are presently pending before the Commission, and a number of rate cases arising under the Federal Power Act have either been satisfactorily disposed of or are awaiting final action by the Commission. Rate cases under either Act may arise as a result of complaint filed with the Commission by municipalities, State regulatory bodies, or local distributing companies, or general investigation instituted by the Commission on its own motion, as a result of show-cause orders issued by the Commission, or on suspension by the Commission of proposed changes in rates.

**RATE PROCEEDINGS UNDER FEDERAL POWER ACT****Show-Cause Orders Have Proved Notably Successful in Achieving Reductions.**

On May 21, 1938, the Commission issued an order directing Southwestern Light & Power Co. to show cause why the rates and charges demanded by it for electric energy furnished to the town of Frederick, Okla., should not be made available to certain other towns and electric distributing companies operating in Oklahoma and served by the company. Following a return to this order to show cause, the matters involved were assigned for hearing on October 3, 1938. Following this hearing, the Southwestern Light & Power Co. voluntarily established rates which removed the apparent undue discrimination between the rates charged to the town of Frederick, Okla., and the rates charged to the towns and electric distribution companies enumerated in the show-cause order.

A show-cause order directed to the Sioux City Gas & Electric Co. concerning apparent discriminations in electric rates charged by that company was also disposed of without the completion of formal proceedings but by voluntary action on the part of the company in reducing certain discriminatory charges.

**Safe Harbor Water Power Corporation Case.**

Hearings have been completed on the pending rate case involving the Safe Harbor Water Power Corporation, which operates a hydroelectric project on the Susquehanna River under Federal Power Commission License No. 1025. The Safe Harbor Corporation sells its entire power output, under a long-term contract, to its parent companies, the Consolidated Gas, Electric Light & Power Co. of Baltimore and the Pennsylvania Water & Power Co.

This case is an important one because it is the first rate case involving a licensed project under part I of the Federal Power Act which prescribes that the main element in the rate base shall be the net investment not to exceed the fair value of the property. In addition, complex questions of depreciation and rate of return are involved.

#### **Chicago District Electric Generating Corporation Inquiry.**

An investigation into the rates and agreements under which the Chicago District Electric Generating Corporation sells its capacity and electric energy, an inquiry instituted in the fiscal year 1938, is nearing completion. This investigation was instituted after an analysis of schedules and reports filed with the Commission by the Generating Corporation, which is engaged in the generation and sale of power at wholesale to utilities serving the Chicago district area in Indiana and Illinois.

#### **Village of Albany, Illinois, and Interstate Power Co. Cases.**

On September 7, 1937, the Commission, upon its own motion following receipt of a complaint filed by the village of Albany, Ill., instituted an investigation to determine whether the wholesale rates charged the village of Albany, by the Albany Lighting Co. for electric energy were just and reasonable. Albany Lighting Co. is a transmission company which purchases electric energy from Interstate Power Co. in the city of Clinton, Iowa, and transmits the energy across the Mississippi River and resells it to the village of Albany. After investigation and hearing, the Commission, by its order of July 20, 1938, found that the rates charged the village of Albany by the Albany Lighting Co. were excessive and unreasonable and directed the Albany Lighting Co. to file a new schedule of rates designed to produce a gross revenue sufficient to cover operating expenses and a return of 6 percent upon the investment of the company in used and useful property. At the same time, the Commission indicated that it would prosecute an investigation of the rates and charges collected by the Interstate Power Co. from the Albany Lighting Co. to completion thus covering all phases of the rates ultimately charged the village of Albany.

Subsequently, the Commission completed its investigation of the rates and charges demanded by the Interstate Power Co. from the Albany Lighting Co. and after hearings during April and May, did, on November 18, 1939, approve and issue its order and opinion directing a 38-percent reduction in rates charged by Interstate Power Co. to Albany Lighting Co. The Interstate Power Co. has filed a provisional new rate schedule containing reduced rates to the Albany Lighting Co.

These decisions were predicated upon a determination of the original cost of the property involved and were based upon a rate of return of 6 percent on used and useful property.

**Otter Tail Power Co. Case.**

On March 7, 1939, the Federal Power Commission issued an order to the Otter Tail Power Co. directing that it show cause why the rates collected by it for electric energy furnished to the city of Fergus Falls, Minn., should not be made available to certain other villages, cities, and distributing companies in South Dakota and Minnesota. The company answered on April 15, 1939, asserting that special considerations justified the lower rate charged the city of Fergus Falls, Minn. On May 9, 1939, the Federal Power Commission issued a further order assigning the matters involved in the proceeding for hearing. This order directed the Otter Tail Co. to show further cause not only with regard to the matter of the apparent discrimination but also why the Commission should not find that the rates charged by the Otter Tail Co. to the villages, cities, and distributing companies other than the city of Fergus Falls, Minn., were unjust and unreasonable or unduly discriminatory. The Board of Railroad Commissioners of the State of North Dakota was granted the privilege of participating and did participate in the hearing. This matter is now before the Commission for final disposition.

**RATE PROCEEDINGS UNDER NATURAL GAS ACT**

Since the passage of the Natural Gas Act in June of 1938, the Commission has instituted more than 28 proceedings with regard to rates charged for the transportation or sale of natural gas in interstate commerce for resale. The number of complaints with regard to natural-gas rates received by the Commission, the number of investigations and proceedings which the Commission has found it necessary to institute upon its own motion, the number of rate suspensions and show-cause orders which the Commission has found it expedient to enter stand as eloquent testimony to the need for that Federal regulation of interstate natural-gas rates embodied in the Natural Gas Act.

**Hope Natural Gas and Affiliated Companies.**

The Commission's staff has about concluded its investigation of the interstate rates charged by the Hope Natural Gas Co. to its various interstate customers. These cases, involving one of the oldest and largest natural-gas companies in the country, arise not only out of action taken by the Commission on its own motion but on complaints of the cities of Cleveland and Akron, Ohio, and the Pennsylvania Public Utility Commission. At the same time, the Commission on its own motion following a request of the city of Cleveland, Ohio is investigating the cost of transportation of natural gas in interstate commerce by The East Ohio Gas Co., which distributes natural gas in the city of Cleveland. The East Ohio Gas Co. purchases a substantial portion of the natural gas which it distributes in Ohio from

the Hope Natural Gas Co. at the Ohio River on the border between Ohio and West Virginia.

**Natural Gas Pipe Line Co. of America and Texoma Natural Gas Co.**

Hearings on the complaint of the Illinois Commerce Commission against rates charged by the Natural Gas Pipe Line Co. of America and the Texoma Natural Gas Co., and upon the Commission's own proceedings against these companies are presently being conducted. At the conclusion of a recent hearing which marked the close of the presentation of a major portion of the case of the Natural Gas Pipe Line Corporation, a motion was made by counsel for the Illinois Commerce Commission and the Federal Power Commission that an immediate rate reduction order be entered by the Commission. The motion is based upon the company's own figures and testimony with regard to the cost of its property and the return presently earned by it on that property.

**Cities Service Gas Co.**

Following the receipt of an informal petition from the Public Service Commission of the State of Missouri requesting the Commission to institute an investigation of certain alleged discriminatory rates charged by the Cities Service Gas Co., the Commission issued an order to the company directing it to show cause why certain challenged discriminations should not be removed. Following receipt of the company's answer thereto, the Commission has instituted an investigation of the rates and charges presently demanded by the Cities Service Gas Co. and a further investigation of the matters of challenged discriminatory rates exacted by the company.

**Canadian River, Colorado Interstate, and Colorado-Wyoming Gas Companies.**

The Commission is presently conducting an investigation to determine the reasonableness of the rates and charges exacted by these various companies for natural gas sold in interstate commerce for resale in and around the city of Denver, Colo., and in the State of Wyoming. This investigation follows the receipt of complaints against one or all of the companies involved from the city of Denver, Colo., and the Public Service Commission of the State of Wyoming.

**New York State Natural Gas Corporation.**

The New York State Public Service Commission has filed a complaint against this company alleging that the rates charged by it for natural gas sold to the Central New York Power Corporation for resale are unjust and unreasonable. Sometime after the receipt of this complaint, the Commission upon its own motion entered an order instituting an investigation with regard to the reasonableness of all rates charged by the company for natural gas sold by it in interstate commerce for resale. A number of hearings have been held in this matter and further hearings designed to conclude the

proceeding are to be held in January of 1940. The company attempted to secure judicial review of the Commission's order instituting its investigation. The Second Circuit United States Court of Appeals refused to review that order.

**Columbian Carbon Co. and Columbian Fuel Corporation Rate Suspension.**

The Commission has recently suspended and set for hearing certain increased rates proposed to be charged by these companies. These increased rates are the result of automatic increases provided for in rate contracts between the companies involved and certain purchasers. Hearings on the suspension of these increased rates have recently been concluded, although no action by the Commission has been taken thereon as yet.

**Gas Rate Reduction Prompted by Show-Cause Order.**

A show cause order directed to the Baltic Operating Company, a natural gas company, concerning apparent discriminations in rates charged for gas by that company, was followed by the filing on the part of the company of new and lower rates.

**OTHER INTERSTATE GAS AND ELECTRIC RATE WORK**

Pursuant to the provisions of the Federal Power Act and the Natural Gas Act, all electric utility and natural gas companies subject to the jurisdiction of the Commission are under a duty to file with the Commission rate schedules, contracts, and other agreements, covering transportation or sale of electric energy or natural gas. Since 1935 an index of electric rate schedules placed on file with this Commission has been maintained. The latest edition, prepared as of September 15, 1939, contains over 1,250 instruments. On April 1, 1939, the first edition of a gas rate schedule index was compiled; this volume containing over 2,200 instruments has been revised as of September 1, 1939, and now includes over 3,000 rate schedules. Both the electric and gas rate schedules files of the Commission are at all times open to the public for inspection.

Electric utilities and natural gas companies are required to notify the Commission of proposed changes in any filed rate or contract. Each proposed change is analyzed by the Commission. A recent analysis of proposed changes in filed rate schedules or contracts discloses that some 1,286 such proposed changes in electric and gas rates have been made. Of these changes, 5 involved increases in electric rates and 52 involved increases in gas rates; 42 involved decreases in electric rates and 50 involved decreases in gas rates.

The Commission has collected from electric utilities and natural gas companies subject to its jurisdiction information with regard to transactions made under each filed rate schedule. These transactions are analyzed, tabulated by States and communities served, by name of the selling companies, etc., and generally provide a source of information of great value in dealing with rate problems.

**POWER REQUIREMENTS SURVEYED—INCREASED POWER CAPACITY  
URGED**

With power production breaking all records and demands constantly mounting, public attention has been sharply directed to the urgency of increasing electric facilities to supply the Nation's future power requirements. Events have more than justified the consistent policy of the Commission in urging continuously for years enlargement of generating capacity for normal needs with ample reserves for emergencies, and the coordination of power facilities to enable existing plants and systems to render more effective service.

Power supply to meet normal needs and emergencies requires not only the provision of ample generating capacity and transmission and distribution systems, but also the integration and coordination of electric facilities to link together the various existing sources of generation. By providing means of exchange, this will insure an abundant and continuous supply that isolated systems, no matter how large or numerous, could not provide.

This was the evident intention of the Congress when, in the Federal Power Act of 1935, section 202, "for the purpose of assuring an abundant supply of electric energy throughout the United States with the greatest possible economy," it empowered and directed the Federal Power Commission to divide the country into regional districts for the voluntary interconnection and coordination of electric facilities.

Congress also in that Act provided that in any national emergency, arising by reason of a sudden increase in demand or a shortage of electric energy or of generating or transmission facilities, the Commission may require by order such temporary connections of facilities and such generation, delivery, exchange, or transmission of electric energy as will best meet the emergency and serve the public interest. Thus the Commission is charged and empowered by the Congress to deal with any emergency that may arise.

Power resources and requirements have been studied by Commission engineers from the standpoint of power requirements in case of war or any other national emergency. Commission engineers have worked with representatives of the War Department, the National Defense Power Committee, and the National Power Policy Committee upon this important problem.

**WATER-POWER PLANTS IN THE UNITED STATES REPORTED TO THE  
SENATE**

Senate Resolution 164, Seventy-sixth Congress, first session, introduced by Senator LaFollette and adopted July 13, 1939, provided "That the Federal Power Commission be, and it is hereby, directed to transmit to the Senate a report showing the installed capacity,

ownership, and kilowatt-hour output for the calendar year of 1938, where available, for all waterpower plants in the United States having an installed capacity of 100 horsepower or more," and provided that the report when received be printed as a Senate document.

In response to this resolution the Commission's report was submitted on August 4, 1939, showing not only the data requested regarding plants of 100 horsepower or more capacity, but supplementing this with a list of the 200 largest water-power plants in the United States. This report, listing data for a total number of 2,797 water-power plants, was referred to the United States Senate Committee on Commerce and was published as Senate Document No. 125 of the Seventy-sixth Congress, first session.

#### **ELECTRIC GENERATING PLANTS' CAPACITY EXCEEDS 40,000,000 KILOWATTS**

Installed capacity of all electric generating plants in the United States reporting to the Commission exceeded 40,000,000 kilowatts by the end of last September. This represents the highest installed capacity ever reported to the Commission and is a 3 percent increase over the installed capacity reported on December 31, 1938. Hydroelectric plants had a capacity of 11,353,925 kilowatts and the capacity of steam and internal-combustion plants totaled 28,850,044 kilowatts, making a grand total of 40,203,969 kilowatts. Privately owned electric utilities had 8,928,870 kilowatts, or 78.6 percent, of the total hydro capacity and 25,530,571 kilowatts, or 88.5 percent, of the other types.

Those interested in the extent of the development of water power in the United States will find a report entitled "Total Installed Capacity of Water Wheels in the United States and Outlying Territories: January 1, 1939," of great value in giving the total installed capacity of water wheels and the number of plants in the United States. Over-all data, by years since 1927, is included in this report, showing a growth from a total of 11,720,983 installed horsepower capacity, as of January 1, 1927, to a total of 17,948,906 installed horsepower capacity, as of January 1, 1939, for the United States.

#### **PUBLIC AND PRIVATE UTILITIES' RATES, TAXES, AND CONSUMER SAVINGS**

Results of a Nation-wide fact-finding study of the comparative rates, taxes, and free services of publicly and privately owned electric utilities, and the rate reductions and consumer savings effected by both types of ownership, were presented last March by the Commission in a report entitled "Rates, Taxes, and Consumer Savings—Publicly and Privately Owned Electric Utilities—1935-1937."

**Rates of Public-Owned Electric Utilities Generally Lower.**

The rates of publicly owned electric utilities for residential, commercial, and industrial services were reported to be generally lower than those of privately owned utilities. Comparison of the rates, by classes of service according to community size groups, of the two types of ownership disclosed that the average typical bills charged in 1937 by privately owned utilities were, with but one exception, higher for all quantities of electricity in all communities of 2,500 or more population. The one exception was that bills of privately owned systems for 250 kilowatt-hours per month residential service in communities of 2,500 to 10,000, were reported as being 2 percent lower than those of publicly owned utilities. For communities of less than 2,500 population the privately owned utilities were reported as having lower average bills for residential service.

However, for other services, such as commercial light and commercial power, in communities of 2,500 or more population and industrial service in communities of 10,000 or more, the 1937 average typical bills of publicly owned systems in every case were lower than those of privately owned utilities. The report disclosed that the rates charged by privately owned utilities for these services were from 8 to 44 percent higher for commercial light, 11 to 62 percent higher for commercial power and 2 to 37 percent higher for industrial service than the rates charged by publicly owned utilities for similar services.

**Taxes and Tax Equivalents Furnished to Governments Compared.**

Comparing taxes paid and tax equivalents furnished in support of government by privately and publicly owned electric utilities, respectively, the Commission reported, on the basis of totals for the United States, that publicly owned utilities paid 17.3 percent and privately owned utilities paid 13.2 percent of their gross revenues in the form of net cash contributions and taxes during 1936, the last year for which complete figures were available for this study. Measured by "base revenues," being gross revenues adjusted to obtain comparability, publicly owned utilities were found to have paid 18 percent of their revenue in taxes and net cash contributions during the same year as against 14.4 percent for privately owned utilities.

In addition to taxes and net cash contributions publicly owned utilities were reported as rendering "free services" during 1936 having a value, estimated on the basis of rates charged by privately owned utilities in the same State for such services, equal to 8.5 percent of their gross revenues and 8.8 percent of their base revenues. Privately owned utilities reported "free service" amounting only to \$50,310 or 0.0024 percent of gross revenues during the same year.

Data from which this compilation was made were furnished by 691 privately owned utilities, with gross revenues amounting to 99.4

percent of such revenues of all privately owned utilities in the United States, and by 537 publicly owned utilities, with gross revenues representing 81.6 percent of such revenues of all publicly owned utilities.

**Rate Reductions Averaged 46½ Million Dollars Annually in 3½-Year Period.**

The total savings resulting from electric rate reductions for the 3½-year period from July 1, 1934, to December 31, 1937, it was estimated, amounted to \$162,761,490, an average of 46½ million dollars per year. These figures represent merely a total of the separate annual savings based on average consumption per customer for periods prior to rate changes as reported by utilities, and as such, do not reflect a cumulative total of all savings during the period. For example, the estimated savings given do not include savings on increases in the average consumption per customer which usually follow a rate reduction.

The savings to the customers of privately owned utilities for all services during the period, it is noteworthy, equaled 6.4 percent of the estimated total revenues of such utilities in 1934, as against 5.1 percent in the case of the publicly owned system. Though privately owned utilities in nearly all instances reduced their average typical bills more than publicly owned systems, the average typical bills of publicly owned utilities, as has already been noted, remain generally below those of privately owned utilities.

**TYPICAL NET MONTHLY BILLS FOR ELECTRIC SERVICE**

Continuing a public service which has been performed by the Commission for a number of years, a report of rates charged in each of the 48 States and one of rates charged in cities of 50,000 population or more, as of January 1, 1938, and January 1, 1939, were published during the last fiscal year.

Presenting typical net monthly bills for various electric services, comparing the highest and lowest bills by population size groups, as well as ranking communities of 1,000 population or more on the basis of their typical net monthly bills for residential service, these reports, as issued from year to year, permit a current comparison of the electric rates prevailing in incorporated communities of 250 or more population throughout the country.

"Average Electric Bills, 1939," a report comparing the average typical net monthly bills for electric service of publicly and privately owned utilities, was prepared and published during the year.

**RATE REPORTS SUPPLEMENTED BY NATIONAL ELECTRIC RATE BOOK**

In response to numerous and widespread requests from both public and private sources for a compilation of rate schedules, the Commission, with the cooperation of the Works Progress Adminis-

tration, has completed the publication of a National Electric Rate Book. Widespread and favorable comment has been accorded the issuance of this publication.

The Rate Book is a compilation containing, by States, abstracts of all electric rate schedules available in communities of 1,000 population or more, and, in addition, listing all communities of 250 population or over wherein the same rate schedules are available. It presents a digest, uniform in style and phraseology, of the rate schedules themselves; is a most comprehensive publication; and, when used as a companion to the typical net monthly bill reports, which numerically reflect the levels and trends of rates, is an invaluable work of reference. The report contains approximately 15,000 rate schedules under which electric energy is furnished by some 2,000 electric utilities in 10,000 communities.

#### **PRODUCTION OF ELECTRIC ENERGY REACHES ALL-TIME HIGH IN 1939**

Production of electric energy for public use for the 12 months ending October 31, 1939, reached 125,437,000,000 kilowatt-hours, as compared with a total for 1938 of 114,197,000,000 kilowatt-hours, far exceeding the highest previous annual total of 119,224,000,000 kilowatt-hours recorded in 1937.

In reporting that production in 1938 was 4 percent less than the output recorded in 1937 the Commission in its comprehensive report entitled "Electric Power Statistics—1938," published in May of 1939, pointed out that the last 8 months of 1938 had witnessed a steady upward trend in electric production, the output for December 1938, being at that time the largest for any month of record, totaling 10,882,094,000 kilowatt-hours.

For the first time in this report there was included the annual amounts of electric energy moving across State lines which during 1938, including international transfers, totaled 23,261,667,000 kilowatt-hours. In addition this report shows the number of electric plants by class of ownership and production of energy by type of prime mover yearly since 1920; installed capacity of generating plants, production of electric energy in relation to capacity, and consumption of fuel in production by type of prime mover and by class of ownership for each year since 1920.

#### **FINANCIAL STATISTICS OF ELECTRIC UTILITIES IN THE UNITED STATES**

Comprehensive financial information on every important privately owned electric utility operating in the country was contained in the report issued by the Commission last June entitled "Statistics of Electric Utilities in the United States for the Year Ended December

31, 1937—Classes A and B.” This report made readily available for the first time uniformly presented detailed information respecting assets and liabilities, revenues, operating expenses, classification of utility-plant accounts and related data on the physical characteristics of facilities for 385 principal electric utility companies which, on the basis of assets, comprise more than 90 percent of the entire industry.

**Utility Assets, Plant Accounts, and Securities Reported.**

The combined total assets of the 385 privately owned electric utilities operating in the United States whose electric revenues were \$250,000 or more, as of December 31, 1937, were reported as \$16,873,-384,102. Total 1937 revenues from all utility operations of the companies included in the compilation were \$2,532,444,360. The ratio of total combined assets to annual revenues approximated 6.7 to 1.

Utility plant accounts of the companies aggregated 82.1 percent of the total assets or \$13,851,583,019 which represented a book investment in utility property of about \$5.50 per dollar of annual revenue. Current assets of \$959,074,918 bore a ratio of 1.4 to the current liabilities amounting to \$692,383,959.

Outstanding securities of the companies aggregated \$13,378,579,835, of which 32.2 percent represented common stock; 15.9 percent, preferred stock; 0.7 percent, premiums, assessments, etc.; and 51.2 percent, long-term debt. Combined surplus accounts of the companies were reported as \$1,026,278,938. Of total capital, long-term debt and surplus common stock amounted to 29.9 percent; preferred stock, 14.8 percent; premiums, assessments, etc., 0.7 percent; long-term debt, 47.5 percent; and surplus, 7.1 percent.

The composite ratio of bonds to utility plant was 46.4 percent; and that of total long-term debt to utility plant, 49.5 percent. The combined reserve for depreciation was reported as \$1,495,249,546, or 10.8 percent of utility plant.

**Electric Operating Revenues From 24,378,401 Customers.**

Total electric operating revenues for 1937 of the companies included in this compilation were reported as \$2,157,277,266. Of this amount, \$2,126,938,114, or 98.6 percent, constituted revenues derived from sales of electric energy aggregating 120,835,397,000 kilowatt-hours to an average number of 24,378,401 customers. Other electric revenues amounted to \$30,339,152, or 1.4 percent of total electric revenues.

During 1937 the companies covered in the compilation served an average of 19,627,633 residential or domestic customers, constituting 80.5 percent of the total number of customers served. Revenues from this class of service aggregated \$645,748,799, or 29.9 percent of total electric operating revenues, and were derived from the sale of 14,821,890,000 kilowatt-hours, constituting 12.3 percent of total kilowatt-hour sales.

Commercial and industrial sales made to 3,763,308 customers, comprising 15.4 percent of the total number of customers served, accounted for 65,202,088,000 kilowatt-hours, or 54.0 percent of total kilowatt-hour sales. Revenues obtained from this class of service aggregated \$1,105,092,543, or 51.2 percent of total electric operating revenues.

Rural service was supplied to 899,931 customers, or 3.7 percent of the total number of customers served. Other customer groups included public street and highway lighting, other public authorities, railroads and railways, interdepartmental, and others. However, these 5 groups combined accounted for only 0.4 percent of total customers, 8.1 percent of total kilowatt-hours sold, and 6.8 percent of total electric operating revenues.

#### **GAS RATE REPORTS WIDELY DEMANDED**

Gas rates prevailing in communities throughout the country are nowhere reported as electric rates are presently being reported by this Commission. Among consumers, those engaged in management and regulation, and the general public, there is a widespread need and growing demand that rates for gas be reported with the same thoroughness by communities, cities, and States as are typical bills for electric service.

To compile and publish these rates and other gas information will require authorization and provision of additional funds for the increased personnel required. It is hoped that these will be granted at an early date so as to enable the Commission to perform the same rate service for gas consumers that it now does for those who purchase electric energy.

#### **FLOOD CONTROL PROJECTS AND RIVER BASIN SURVEYS**

In 1938 great responsibility concerning the future development of power at flood-control projects was delegated to the Commission in the Flood Control Act of that year, wherein it is provided: "That penstocks or other similar facilities adapted to possible future use in the development of hydroelectric power shall be installed in any dam herein authorized when approved by the Secretary of War upon the recommendation of the Chief of Engineers and of the Federal Power Commission." Under the Federal Power Act the Commission, in considering proposed water power projects, is charged with the responsibility of providing assurance that proposals for the development of any part of a river basin will, when completed, be an integral part of a comprehensive plan for conserving and utilizing in the public interest the water resources of the entire river basin or region.

In performing these duties, the Commission has endeavored to protect and conserve the power resources of the Nation to the end

that these resources shall be so utilized as to secure the greatest possible economic benefit to the public, and that their value shall not be impaired or destroyed either by partial development or in such a manner as to be inimical to the orderly development of such resources.

The experience gained by the Commission shows that dams and reservoirs primarily for flood control have in many instances been proposed at locations, which, though adapted for such purpose, may preclude further and more complete development of the potential values of the river basin as a whole. In order that the maximum utilization of the water resources of the river basin or area may be realized it is essential that broad plans be developed therefor, including flood control, power, conservation, and recreation, if economically practicable, the feasibility of the development of which can be properly determined only by a comprehensive study of the river basin.

#### **Studies Extend to More Than Half of the States.**

To more than half of the States in the Nation the Commission's studies of the power possibilities at flood-control projects have already extended in the comparatively short period that has elapsed since the enactment and the approval of the Flood Control Act of 1938. These studies have involved projects in various river basins scattered throughout the country, including the basins of such rivers as the Connecticut and Merrimac in the northeast; the Ohio, Susquehanna, Santee, and Savannah in the Central and Eastern States; the Arkansas, Brazos, Red, and Trinity in the Southwest; and in the far West the Columbia, White, and San Joaquin.

In order to carry out expeditiously its duties the Commission, shortly after the approval of the Flood Control Act of 1938, created the Division of Power-Flood Control Surveys. During the past fiscal year the Commission, through this new Division, has investigated and studied the power possibilities of 116 flood-control projects.

In protecting power value it is essential that cooperative consideration be given to water uses in any particular area by the various agencies whose interests involve the control and utilization of water. Accordingly, the Commission cooperates with the Departments of War, Interior, and Agriculture, the National Resources Planning Board, and other State or Federal agencies or political subdivisions having an interest in the conservation and utilization of water resources.

#### **UNIFORM SYSTEM OF ACCOUNTS FOR NATURAL GAS COMPANIES PRESCRIBED**

In accordance with the provisions of section 8 (a) of the Natural Gas Act and after public hearings were held, the Commission by order

dated November 3, 1939, adopted a "Uniform System of Accounts Prescribed for Natural Gas Companies Subject to the Natural Gas Act," to take effect January 1, 1940.

This system of accounts follows generally the uniform system prescribed by the Commission for licensees and public utilities subject to the Commission's jurisdiction under the Federal Power Act. It provides for special treatment of the subjects of gas exploration costs, delay rentals and gas acreage held in reserve for future use. It is expected that it will provide uniformity in the keeping of accounts by natural gas companies, the absence of which in the past has seriously hampered the regulatory work of State and Federal commissions. As under the Uniform System of Accounts for electric companies the Commission contemplates that many matters of mutual interest to both State and Federal commissions will be discussed and determined as a result of informal cooperative conferences held with representatives of the various commissions and the National Association of Railroad and Utilities Commissioners.

The uniform system of accounts for natural gas companies provides that within 2 years from the effective date of the system natural gas companies subject thereto shall reclassify and state the actual cost of natural-gas plants constructed or acquired under certain general groups such as production, transmission, distribution, etc., and under specific accounts within each group having appropriate titles descriptive of the property. Such studies will undoubtedly aid the Commission in its rate-making duties under the Natural Gas Act. The restatement and classification on the basis of original cost to the person first dedicating the property to the public service will serve as a basis for accounting, for depletion, depreciation, and retirements.

Provision is made in the System of Accounts for particular treatment of the subjects of depletion, depreciation, and retirements. The approach to these problems, as well as the problem of accounting for operating expenses, has been with a view to minimizing arbitrary allocation of charges and to achieve a uniformity in these fields.

Similar to the system of accounts for public utilities and licensees under the Federal Power Act, the Uniform System of Accounts for Natural Gas Companies will aid the Commission in the exercise of its general regulatory functions and lay a foundation for the compilation of statistical and other data useful and necessary in the administration of the Natural Gas Act. Such a system will also make available to regulatory bodies, investors, and consumers vital information which has not heretofore been obtainable.

#### **ELECTRIC PROPERTY RECLASSIFIED ON ORIGINAL COST BASIS**

Electric Plant Instruction 2-D of the Uniform System of Accounts for Public Utilities and Licensees under the Federal Power Act pro-

vides that each electric utility subject to the jurisdiction of the Commission should file by January 1, 1939, a statement showing the reclassification of its electric utility property on the basis of original cost.

In view of the immensity and difficulty of this program the results obtained in this matter have been extremely gratifying. It is estimated that approximately 275 electric utilities and licensees are subject to this direction and that these companies represent a total cost of electric property in excess of 8 billion dollars. By June 1939, 75 companies had filed their original cost statements and a vast majority of the remainder of the utilities were complying with the outstanding orders and directions. In some cases the Commission, recognizing the difficulties involved in such reclassification, has extended the period of time in which such studies are to be prepared.

In July of 1939 the Commission issued show-cause orders to 21 companies directing them to show cause why they had failed to make the directed original cost studies and restatement and why the Commission should not institute appropriate proceedings for failure to comply with its orders. Eleven of the companies so addressed have already signified their intention to comply with these orders.

The Commission has created a division within its Bureau of Accounts, Finance and Rates to perform the task of verifying these original cost statements. It has been engaged in making field examination of the studies submitted. Wherever possible such field examinations are made in cooperation with representatives of State regulatory commissions. As of June 30, 1939, 18 field examinations were completed or in progress.

In making the restatement of accounts on an original cost basis, provision is made for the setting up of an account entitled "Electric Plant Acquisition Adjustments," wherein is to be stated the difference between the original cost of the property involved and the acquisition costs of such property. Under applicable provisions of the uniform system of accounts these differences shall be depreciated, amortized or otherwise disposed of as the Commission may approve or direct. To facilitate the disposition of such accounts without the necessity of formal action in each case, the Commission adopted in July 1939 its general order No. 42-A, which permits a public utility or licensee to dispose of the debit amounts included in this account by charges to the company's surplus account in whole or in part or to amortize the amount over a reasonable period of years by charges to miscellaneous amortization. Where any other method of disposition is proposed by a public utility or licensee it is required to petition the Commission formally for permission to use such a method.

**CERTIFICATES OF CONVENIENCE AND NECESSITY UNDER THE  
NATURAL GAS ACT**

Six applications have been filed under the provisions of section 7 (c) of the Natural Gas Act for certificates of public convenience and necessity authorizing the construction and operation of facilities for the transportation or sale of natural gas to markets in which natural gas is already being served by another natural gas company. The projects proposed under these applications involve the transportation of gas from Louisiana into Arkansas, Kansas into Minnesota, Montana into North Dakota and Minnesota, Kentucky into Indiana, and Illinois into Indiana, and involve the construction of more than 2,000 miles of natural-gas pipe line. One certificate has been granted, one application withdrawn, two applications are awaiting further showing to be made by the applicants at the direction of the Commission, and two applications are presently pending before the Commission for final determination.

In its administration of section 7 (c) of the Natural Gas Act the Commission is aware of the limitations upon its jurisdiction to pass upon applications for certificates authorizing the construction of new facilities. Under the terms of that section the Commission's jurisdiction extends only to applications for certificates authorizing the construction of facilities for the transportation of natural gas to "a market in which natural gas is already being served by another natural-gas company." This limitation upon the Commission's jurisdiction and the lack of clear definition of the word "market" have made more difficult the Commission's administration of this section. With the growing utilization of natural gas it is not unlikely that the number of applications for certificates under section 7 (c) will increase.

**Certificate Issued to Louisiana-Nevada Transit Co.**

By order dated July 18, 1939, the Commission authorized the issuance of a limited certificate of convenience and necessity to the Louisiana-Nevada Transit Co., authorizing the construction of a natural-gas pipe line from the Cotton Valley gas field in Webster Parish, La., to Okay and Hope, Ark. The company proposes to serve certain industrial customers at Okay and Hope, and in its application stated that it stood ready, willing, and able to extend its natural-gas service or facilities to such other communities adjacent to its pipe line as the Commission may direct. The limited certificate issued contains conditions and terms which are designed to protect and further the interests of the natural-gas-consuming public in the area involved,

including a specific condition to the effect that the company extend its facilities or service to adjacent communities upon direction by the Commission. The Arkansas-Louisiana Gas Co. intervened and opposed the issuance of this certificate and has recently filed a petition to review the Commission's order in the United States Circuit Court of Appeals for the Fifth Circuit.

**Kansas Pipe Line and Gas Co. and North Dakota Consumers Gas Co.**

The Kansas company seeks a certificate authorizing the construction of a natural gas pipe line from the Hugoton gas fields located in Kansas and Oklahoma through the States of Kansas, Nebraska, South Dakota, and North Dakota to the Mesabi Iron Range in northern Minnesota. This project would include a branch line providing natural-gas service to certain cities and towns located in the Red River Valley in the States of North Dakota and Minnesota. The North Dakota Consumers Gas Co. seeks a certificate authorizing the construction of natural-gas pipe lines from Bismarck, N. Dak., across the State of North Dakota to ultimate termini located at the same cities and towns in the Red River Valley as the Kansas company seeks to serve. The latter company proposes to secure its natural gas from fields located in North Dakota and Montana through the medium of the Montana-Dakota Utilities Co., which presently transports gas from those fields.

Public hearings were held on the two applications in March and April 1939. In October of 1939 the Commission issued its opinion No. 39 dealing with these applications. By the terms of this opinion both applicants were required to make a further showing to the Commission with regard to the adequacy of their financial resources and plans for the construction of the respective pipe lines, as well as make further showing to the Commission with regard to particular matters incident to each application.

While this opinion did not make final disposition of the two applications to which it was directed, it did set forth certain standards which the Commission believes must be met by applicants seeking certificates. Applicants will be required to show, among other matters, that adequate sources of natural gas are available to them, that there is a potentially adequate market in the area which they seek to serve, that they have adequate financial resources with which to construct and maintain their proposed projects, that the rates proposed to be established by the applicants are both reasonable and adequate. The opinion discusses at length the question of the Commission's jurisdiction over applications for certificates authorizing the construc-

tion of new natural gas facilities to markets in which natural gas is presently being served by another natural-gas company. The opinion recognizes that the word "market" cannot be categorically defined and must rest for its definition upon the circumstances of each case as it arises. The opinion also discusses the position of coal, railway, and labor interests who sought to intervene to protest the granting of either of the two certificates. Although the coal, railway, and labor interests were granted the privilege of limited participation in the hearings held on these applications, the opinion states that the Commission does not feel that Congress intended it generally to weigh the broad social and economic effects of the use of various fuels in the light of the singular restriction upon the Commission's jurisdiction contained in section 7 (c) of the Natural Gas Act.

#### **Other Applications for Certificates.**

The General Gas Pipeline Corporation has pending before the Commission an application for a certificate authorizing the construction of a natural-gas pipe line from the gas fields of western Kentucky to central Indiana. Hearings have been completed on this application. The application of Public Service Gas Co. for a certificate authorizing the construction of a natural-gas pipe line from gas fields in Montana and Wyoming through North and South Dakota to Minnesota and Wisconsin was withdrawn by the applicant. The application of Ralph R. Willis for a certificate authorizing the construction of a natural-gas pipe line from gas fields in Illinois to the city of Vincennes, Ind., and surrounding territory is still pending.

#### **EXPORTATION AND IMPORTATION OF NATURAL GAS**

Under section 3 of the Natural Gas Act six applications for permits to export natural gas from the United States have been filed. Five of these involve the exportation of natural gas to Mexico and one to Canada. Public hearings have been held in each of these cases and temporary permits authorizing exportation have been granted. The Commission has received one application for the importation of natural gas from Canada. The applicant, Montana-Dakota Utilities Co., has abandoned its importation and withdrawn its application.

On July 13, 1939, President Roosevelt by Executive Order No. 8202 authorized the Commission to "receive all applications for permits for the construction, operation, maintenance, or connection at the borders of the United States of facilities for \* \* \* the exportation and importation of natural gas to or from foreign countries and after obtaining the recommendations of the Secretary of State and the Secretary of War thereon, to submit each such application to the

President with a recommendation as to whether the permit applied for should be granted and, if so, upon what terms and conditions."

Upon the publication of this Executive order and the prescription by the Commission of such rules and regulations as it deemed necessary to carry out the provisions of that order, requests for detailed information as to facilities employed at the borders of the United States in connection with exportation of natural gas to foreign countries were directed by the Commission to the applicant companies in pending export cases. The matters are now pending final disposition.

#### **ACQUISITION OF PROPERTIES BY TENNESSEE VALLEY AUTHORITY**

During the past year the Commission has considered and approved certain applications involving the sale of public utility properties to the Tennessee Valley Authority. On June 28, 1938, the Commission approved the sale by the Tennessee Electric Power Company of all of its electric facilities in the city of Knoxville, Tenn., to the city of Knoxville, the Tennessee Valley Authority and others. On December 30, 1938, the Commission approved the sale by the West Tennessee Power & Light Co. of certain of its facilities to the Authority and certain municipalities. On June 9, 1939, the Commission approved the sale by the Memphis Power and Light Company of certain of its electric facilities in the city of Memphis, Tenn., to the city and the Authority, and on June 29, 1939, the Commission approved a sale of substantially all of the electric operating facilities of Tennessee Electric Power Co., and Southern Tennessee Power Co. to the Authority in accordance with a contract between the Commonwealth and Southern Corporation, as seller, and the Tennessee Valley Authority, as buyer.

In all of these proceedings, marking the transfer to the Authority of electric facilities previously operated by the Electric Bond & Share and Commonwealth & Southern Systems, the Commission was alert to see that the public interest was advanced as well as to see that the selling companies received a fair price for their properties.

#### **NEW BONNEVILLE RATE SCHEDULES APPROVED BY THE COMMISSION**

Finding that revised schedules proposed by the Administrator on August 3, 1939, represented a development in the rate policy of the project earlier approved by the Commission and that such were in keeping with the purposes of the Bonneville Act, the Commission, on September 13, 1939, confirmed and approved, to be effective 5 days later, the new rate schedules submitted. In brief, two old schedules

were retained, two old ones eliminated, and two new schedules, providing principally for the addition of two new rates, "demand and energy" and "dump," were approved.

#### **Secondary Power Rates Discontinued.**

The "at-site" prime rate of \$14.50 per kilowatt-year, which applies to energy delivered within 15 miles of the dam generating plant, was retained, as was the prime transmission line rate of \$17.50 per kilowatt-year. The temporary experimental rate, which expires by its own terms on December 31, 1939, was also retained. Secondary power rates of \$9.50 per kilowatt-year "at-site" and \$11.50 per kilowatt-year transmission line were eliminated, since under practical operating conditions no secondary power is expected to be available, the generating capacity presently installed at the project being insufficient to utilize the minimum stream flow.

#### **New Rates Evolved Provide Greater Flexibility.**

Experience with the first rate schedules submitted by the Bonneville administration and approved by this Commission on June 8, 1938, has proved the correctness of the statement in the Commission's order of approval to the effect that those schedules would not cover all possible types of power or conditions of service that would in the future be available from the Bonneville project. As has been true with the earlier rates, doubtless it may be expected that as operating experience is acquired under the new schedules, the rates and provisions thereof may require further modification.

The new demand and energy and dump energy rates substituted for the secondary power rates represent a modification which gives promise of greater flexibility in their application than the earlier schedules first approved. The wholesale demand and energy rate, which is optional with the kilowatt-year rate, is adapted to the operation of low load factor consumers and as such was viewed as a potential source of power by a large number of municipalities, power districts, and rural cooperatives organized or being organized in the Bonneville area. The optional feature permits the transfer to kilowatt-year rates as improved load factors are attained.

The demand and energy rate provides for a demand charge of 75 cents per kilowatt, based on the monthly peaks, plus an energy charge of 2½ mills per kilowatt-hour. Under this schedule provision is made for a minimum billing, under which the customer is never billed for less than 75 percent of the highest demand charge created in any of the preceding 11 months and further, a minimum guaranteed load factor in the discretion of the Administrator may be required.

The other new schedule, classified as a "dump energy" rate, is applicable to energy generated from water which would otherwise be

wasted and is not needed to supply actual demands under contracts for prime power. This calls for a straight energy charge of 2½ mills per kilowatt-hour and energy under it can only be sold to customers who use it to replace energy which otherwise would be generated through the customer's own equipment.

#### **Public Bodies Given 2-Year Developmental Period.**

In accordance with the clear intent of Congress expressed in the act that monopolization by limited groups of the energy generated at Bonneville be prevented, that the widest possible use of the energy be encouraged and that preference and priority in the sale of the energy be given to public bodies and cooperatives, provision is made in the new prime power schedules for a developmental period of 2 years for public bodies or cooperatives purchasing their entire energy requirements from the Bonneville Administrator. The period commences with the date service is first rendered; moreover, monthly bills are not to exceed 5 mills multiplied by the number of kilowatt-hours delivered for the month.

#### **MERGERS, CONSOLIDATIONS, AND ISSUANCE OF SECURITIES**

Seventeen applications, seeking authority to merge, consolidate or otherwise dispose of facilities subject to the Commission's jurisdiction under section 203 of the Federal Power Act, were filed with the Commission. Nine applications, relative to the issuance of securities or for the approval of credit contracts, were filed with the Commission pursuant to the terms of section 204 of the Federal Power Act or section 12 (a) of the Tennessee Valley Authority Act.

By its opinions and orders, issued in these varying cases, the Commission has reiterated its policy of judging all such applications against the standard of whether such transactions will be in the public interest. The Commission has conceived of the public interest as embracing the interests of consumers of electric energy, investors in securities of electric utilities, and the electric utility or utilities involved in a proposed transaction. In passing on such applications the Commission has considered such fundamental matters as the effect of the proposed transaction upon rates for electric energy, whether the proposed transaction will affect operating economies or serve to simplify the applicant's corporate and financial structure, whether the proposed transaction will make for a coordination of generating and transmission facilities.

#### **UNDERWRITERS AND FINDERS FEES—COMPETITIVE BIDDING ENCOURAGED**

By its General Order No. 62, entered on May 23, 1939, the Commission took steps designed to eliminate excessive underwriters and

finder's fees, insure arm's length bargaining between the parties involved in securities transactions and encourage competitive bidding in the issuance of securities by electric utilities subject to its jurisdiction.

This order requires applicants for authority to issue securities to provide the Commission with information concerning each underwriter or finder involved in the proposed transaction, the fee to be charged by or paid to such underwriter or finder, the amount of securities to be so underwritten, and the affiliation, direct or indirect, between such underwriter or finder and the utility involved, its officers and directors. It also requires such applicants to provide information bearing upon the nature, character and extent of the public competitive bids which were submitted for such securities, if any such bids were received or requested.

This requirement of the Commission represents an endeavor on its part to treat realistically certain practices incident to the issuance of securities which have been found in the past not to be in the public interest.

#### INTERLOCKING DIRECTORATES CLOSELY SCRUTINIZED

The Commission has continued its work under section 305 (b) of the Federal Power Act, which prohibits the holding of interlocking positions and directorates in one or more public utilities subject to the Commission's jurisdiction except upon approval obtained from the Commission. A number of hearings have been conducted concerning interlocking positions held in five large public utility holding company systems.

A recent order of the Commission denied approval to Shurly R. Irish to hold the positions of comptroller in the Union Electric Co. of Missouri and certain of its subsidiary and affiliated companies. The Commission found that Mr. Irish, as comptroller of the companies was directly charged with the keeping of the accounts of the various companies, and had not complied with the provisions of the Commission's uniform system of accounts, and, accordingly, found that his continued holding of his interlocking positions would not be in the public interest. The Commission has also set down for hearing the holding of interlocking positions by the entire group of directors and officers in the so-called Union Electric group.

The majority of formal orders issued by the Commission under section 305 (b) have granted temporary authorization to hold certain interlocking positions. Although the Commission has entered few orders denying approval for the holding of interlocking directorates and positions, the vigor and effectiveness of the Commission in its

administration of this section has resulted in the voluntary resignation of many individuals holding interlocking offices and directorates.

#### **SERVICE CHARGES PAID BY OPERATING COMPANIES INVESTIGATED**

In January of 1936 the Commission instituted an investigation into the reasonableness and propriety of certain charges paid by the Metropolitan Edison Co. and other operating public utility companies in Pennsylvania who were subsidiaries of or affiliated with the Associated Gas & Electric Co. system. These charges were paid by the Metropolitan Edison Co. and others to the so-called Hopson service companies and certain Associated Gas and Electric service companies.

The parties affected attempted to enjoin the Commission's continuance of this investigation. However, in May of 1938 the United States Supreme Court rendered its decision which denied the injunction requested. The investigation and hearings on this matter were resumed in December of 1938 and extended through February of 1939.

After issuance of subpoenas by the Commission and the imminence of further litigation counsel for the Associated Gas and Electric service companies and counsel for the so-called Hopson service companies agreed to make available to representatives of the Commission for examination all books, records, papers, memoranda, etc. relating to the charges assessed by these companies against the Metropolitan Edison Co. and affiliates.

The examination of these books and papers has been completed and this important matter is now awaiting the holding of final hearings. These hearings should be concluded sometime early in 1940.

#### **NIAGARA FALLS POWER CO. PROCEEDINGS**

The Niagara Falls Power Co., licensee of Project No. 16, has had pending before the Commission an application to amend its license so as to permit the company to divert an additional 275 c. f. s. of water through its existing licensed project works. Under the terms of its license the company is already permitted to divert and use 19,725 c. f. s. of water at Niagara Falls. This project involving the utilization of the water power resources at Niagara Falls is one of the largest and most important hydroelectric developments in the country. The Commission has conducted a long and intensive investigation into all phases of the use by the Niagara Falls Power Co. of the water which it is permitted to use under the terms of its license.

On March 15, 1939, a hearing was begun on the matters in connection with the company's application for amendment as well as other matters in connection with the operation of the project by the licensee.

Among the matters inquired into at this hearing were whether the plans of the Niagara company for the use of the additional 275 c. f. s. of water in connection with its use of the 19,725 c. f. s. already under license are best adapted to the most comprehensive plan for improving or developing the Niagara River for the use or benefit of interstate or foreign commerce and for the improvement and utilization of water-power development of that river and for other beneficial public uses; whether or not said plans are best adapted to developing, conserving, and utilizing in the public interest the navigation and water-power resources of the region; the terms and conditions of all contracts or agreements for the sale or lease of mechanical or electric energy from said project; and the operation and effect of the provisions of any such contracts or agreements particularly as they relate to the limitation of the output of electric energy, the restraint of trade, or the fixing, maintaining, or increasing of prices for electric energy or service sold from said project; the hearing on these matters of the Niagara company's stock ownership, intercorporate relationships, and affiliations; and whether the licensee has fully complied with the provisions of the Federal Power Act pursuant to which it holds its license.

Hearings were prolonged and were not concluded until September 1939. Briefs are to be filed in this matter early in 1940 and it is hoped that final determination by the Commission may be entered in these proceedings early in the coming year.

#### PROCEEDINGS RELATING TO UNLICENSED PROJECTS

The Commission has continued its investigation, begun in December 1937, of hydroelectric power developments that are being operated and maintained without a license or other valid permit from a Federal agency on the navigable waters of the United States and other waters of the United States subject to Federal jurisdiction. During the past year proceedings have been instituted with respect to certain completed but unlicensed projects which appear, upon preliminary investigation, to require a Federal Power Commission license under the Federal Power Act. Two important proceedings related to such projects have been undertaken.

##### **Holtwood Project on Susquehanna River.**

This proceeding relates to the Holtwood project of the Pennsylvania Water & Power Co. located on the Susquehanna River between the licensed Conowingo and Safe Harbor projects. An opinion and order, after investigation and hearings, have been issued by the Commission finding that the Susquehanna River at the site of the Holtwood

project is a navigable water of the United States and that the public interest requires that the project be placed under license.

On November 7, 1939, the Commission directed the company to apply for a license within 30 days from receipt of the order.

#### **Bellows Falls Project on Connecticut River.**

A project of the Bellows Falls Hydro-Electric Corporation on the Connecticut River is the subject of a similar investigation instituted, based upon data indicating that the Connecticut River is a navigable water of the United States at the site of the project and that the navigable capacity of navigable waters and the interests of interstate commerce generally will be affected by its operation. Extensive hearings have recently been held before a Commission trial examiner.

### **LITIGATION INVOLVING THE COMMISSION**

In carrying out its many duties under the various acts administered by it the Commission has become involved in considerable litigation. This litigation has put heavy demands upon the time of the staff. Certain of the cases involving the Commission are noted here.

*New York State Natural Gas Corporation v. Federal Power Commission* in the United States Circuit Court of Appeals for the Second Circuit involved a petition to review an order of the Commission instituting an investigation of rates charged for natural gas sold in interstate commerce for resale by the New York State Natural Gas Corporation. The Commission filed a motion to dismiss the petition for review and the Second Circuit Court of Appeals granted this motion in a memorandum decision to the effect that such orders were preliminary and procedural in character and not judicially reviewable under the authority of the United States Supreme Court decision in *Federal Power Commission v. Metropolitan Edison Company* (decided in 1938). Similar petitions to review similar orders instituting rate investigations under the Natural Gas Act have been filed against the Commission in the United States Circuit Court of Appeals for the Sixth and Tenth Circuits by The East Ohio Gas Co. and the Canadian River Gas Co., respectively. Neither of these latter two cases has been decided by the respective courts as yet.

*Pacific Power and Light Company, et al. v. Federal Power Commission.* On April 17, 1939, the United States Supreme Court held that the Commission's order refusing approval under section 203 of the Federal Power Act of a transfer by Inland Power & Light Co. of all its assets to the Pacific company was a reviewable order. The Commission had filed a motion to dismiss in this case alleging that its order was not

reviewable. The case has now been returned to the United States Circuit Court of Appeals for the Ninth Circuit and is pending in that court. Argument upon the case will be heard in January of 1940. The case involves in part the question of what standards are applicable in determining whether a merger or consolidation should be permitted under section 203 of the Federal Power Act.

*Arkansas-Louisiana Gas Company v. Federal Power Commission.* This case has recently been docketed in the United States Circuit Court of Appeals for the Fifth Circuit and involves a petition to review an order of the Commission authorizing the issuance of a limited certificate of public convenience and necessity pursuant to section 7 (c) of the Natural Gas Act to the Louisiana-Nevada Transit Co. The Arkansas-Louisiana Gas Co. appeared before the Commission and opposed the issuance to the Louisiana-Nevada Transit Co. of a certificate authorizing the latter company to build certain natural gas pipe lines.

*Montana Power Company v. Federal Power Commission,* now pending in the United States Circuit Court of Appeals for the Ninth Circuit, involves a petition to review a Commission order to the Montana company directing that a certain transmission line owned and operated by the company become and be made a part of project No. 5 for which the Montana company holds a major license under the Federal Power Act.

*New Jersey Power and Light Company et al. v. Federal Power Commission* is a case involving a determination by the Commission that New Jersey Power & Light Co. and Jersey Central Power & Light Co. are public utilities within the meaning of the Federal Power Act and that the acquisition by the former company of certain securities issued by the latter company without first having secured an order of the Commission authorizing the acquisition was an acquisition of securities in violation of section 203 (a) of the Federal Power Act. The case is now pending before the United States Circuit Court of Appeals for the Third Circuit on a petition to review the Commission's determination filed by the New Jersey Power & Light Co.

*United States v. Appalachian Electric Power Company,* the *New River case.* This highly important case involves the licensing power of the Commission under part I of the Federal Power Act over power projects located on nonnavigable tributaries of navigable streams. The Appalachian Electric Power Co. has maintained, since 1921, that its hydroelectric plant at Radford, Va., on New River, is beyond the Commission's licensing authority on the grounds that New River at the site of its plant is nonnavigable and that the plant there erected will not affect the navigable capacity of any lower streams actually

navigated. After failing in three successive Federal courts in a suit to compel the members of the Commission to rescind a Commission order requiring the company to accept a major part license for its Radford project, the Appalachian Co., about June 1, 1934, proceeded with construction of the project without procuring a license. Injunctive proceedings were begun against the company in May 1935, in the United States District Court for the Western District of Virginia. This court denied the bill for an injunction and found that the New River is not navigable, that the plant did not affect lower navigable capacity, that the Federal Power Act did not require licensing of the Radford project if constructed on a nonnavigable tributary and not affecting lower navigable capacity, but that if the Power Act were so interpreted, it was unconstitutional.

An appeal was taken from this decision to the United States Circuit Court of Appeals for the Fourth Circuit. That court rendered its decision affirming the decree of the district court on November 6, 1939. The majority decision of this court reaffirms the findings of the district court on the question of the navigable capacity of New River at Radford and on the question of the effect of the project on the navigable capacity of other navigable rivers and the interests of interstate and foreign commerce. On this factual basis the majority opinion held that a license for the Radford project was not requisite. The dissenting opinion of Judge Parker upheld the Commission's contention that New River, at the site of the Radford project, was navigable and that the operation of the Radford project will affect the navigable capacity of an interstate stream.

A petition for a writ of certiorari is being filed with the United States Supreme Court.

#### **Other Cases Decided or Pending.**

The Commission was either directly or indirectly involved in the following cases: *Kentucky Natural Gas Corporation v. Public Service Commission of Kentucky*, in the United States District Court for the Eastern District of Kentucky; the court held that an interstate natural gas company was subject to the exclusive jurisdiction of the Commission under the Natural Gas Act, at least so far as its interstate transportation and sales were concerned; *Grand River Dam Authority v. Going*, in the United States District Court for Oklahoma and *Central Nebraska Public Power and Irrigation District v. Harris*, in the United States District Court for the Western District of Nebraska; both cases involved condemnation proceedings for land to be used in connection with projects for which licenses had been issued by the Commission under part I of the Federal Power Act.

## ORIGINAL COST, LICENSING AND OTHER WORK UNDER PART I OF THE FEDERAL POWER ACT

**\$756,068,239.94 Represented by 124 Major Licenses in Force.**

Major licenses under Part I of the Federal Power Act are issued where the project, when complete, will have more than 100 horsepower of installed generating capacity. For those of less capacity, transmission lines, etc., minor or minor-part licenses are issued.

There were 124 major licenses in force on June 30, 1939, classified as follows:

Class of licensee	Number of projects	Horsepower capacity	
		Installed	Proposed ultimate
Private utility.....	85	4,018,254	5,838,047
Municipal.....	21	290,910	891,310
Industrial.....	18	52,451	53,259
Total.....	124	4,361,615	6,782,616

The cost of these projects, based upon licensees' figures, except as indicated, was as follows:

For 104 projects completed:

Costs determined by the Commission... \$98,246,273.34

Costs claimed by licensees but not yet approved by the Commission..... 526,243,599.50

----- \$624,489,872.84

For 20 projects, the total costs of which have not yet been reported by licensees (costs estimated):

9 projects completed but cost statements not filed..... \$38,201,454.00

8 projects under construction..... 84,250,063.10

3 projects, construction of which has not commenced..... 9,126,850.00

----- 131,578,367.10

Total cost (claimed by licensees except as indicated).....

----- \$756,068,239.94

#### Determining Cost of Major Projects Speeded Up.

Every major license issued by the Commission carries an option permitting the United States to purchase the project upon expiration of the term of the license, usually 50 years, at the then remaining net investment or the then fair value, whichever should be found to be the lower figure. This necessitates the determination of the actual legitimate original cost of the project, subsequent yearly additions thereto and retirements thereof, and accrued depreciation.

Companies and persons holding major licenses are required to file sworn statements with the Commission showing the items comprising the claimed cost of the original project and subsequent yearly changes in the investment. One of the chief functions of our accountants is to check these statements to the records of licensees and to render re-

ports on such examinations for the information of the Commission in determining amounts which may properly be approved as actual legitimate original cost.

As of June 30, 1939, the status of the accounting work for the 104 completed projects under major licenses was as follows:

APPROVED	
I. Accounts audited and cases settled.....	\$98, 246, 273. 34
CLAIMED	
II. Accounts audited, hearings held, opinions and orders issued and cases partially settled.....	53, 462, 560. 50
III. Accounts audited, hearings held, opinions and orders to be issued.....	111, 402, 885. 45
IV. Accounts audited, reports thereon prepared, cases awaiting hearing or other action.....	257, 240, 500. 23
V. Accounting work in progress.....	103, 889, 136. 22
VI. Awaiting assignment for field audit.....	248, 517. 10
<b>Total.....</b>	<b>\$624, 489, 872. 84</b>

For the settled cases (group I above), the costs as claimed by licensees amounted to \$108,576,493.28 or \$10,330,219.94 in excess of the total of \$98,246,273.34 allowed by the Commission. The extent of this reduction is concrete evidence of the importance of this phase of the Commission's work. Public utility regulatory commissions of the several States in which these projects are situated were informed of these determinations.

The following table shows the amounts claimed by licensees (group II above) and the Commission's findings with respect thereto in cases where the Commission has held hearings and issued opinions but which cases have not been finally settled:

Project No.	Licensee	Claimed by Licensee	Approved by Commission	Disallowed by Commission	Reserved for further consideration for reasons stated below
82	Alabama Power Co. <sup>1</sup> .....	\$10, 646, 056. 76	\$7, 094, 913. 69	\$3, 551, 143. 07	-----
485	Georgia Power Co., successor by consolidation to Columbus Electric & Power Co. <sup>2</sup> .....	7, 688, 544. 12	6, 956, 070. 01	732, 474. 11	-----
1175	Kanawha Valley Power Co. <sup>3</sup> .....	58, 687. 84	55, 320. 93	3, 366. 91	-----
1025	Safe Harbor Water Power Corp. <sup>4</sup> .....	25, 040, 001. 28	24, 839, 090. 68	127, 016. 74	\$73, 893. 96
597	Utah Light & Traction Co. <sup>5</sup> .....	518, 554. 75	360, 635. 41	78, 319. 15	79, 600. 19
20	Utah Power & Light Co. <sup>6</sup> .....	3, 560, 872. 19	3, 325, 226. 38	79, 140. 25	156, 605. 56
486	do. <sup>6</sup> .....	607, 080. 73	463, 007. 96	34, 617. 08	109, 455. 69
665	do. <sup>6</sup> .....	194, 533. 61	150, 428. 40	11, 106. 33	32, 998. 88
671	do. <sup>6</sup> .....	254, 008. 26	197, 072. 93	13, 733. 77	43, 201. 56
675	do. <sup>6</sup> .....	343, 329. 33	250, 279. 63	37, 948. 37	55, 101. 33
696	do. <sup>6</sup> .....	449, 395. 84	339, 359. 71	35, 496. 99	74, 539. 14
703	do. <sup>6</sup> .....	109, 053. 03	81, 858. 95	9, 341. 34	17, 852. 74
713	do. <sup>6</sup> .....	419, 815. 20	321, 882. 31	27, 192. 60	70, 740. 29
621	Washington Water Power Co., The <sup>5</sup>	3, 572, 627. 56	3, 195, 007. 05	131, 703. 36	245, 917. 15
	<b>Total.....</b>	<b>53, 462, 560. 50</b>	<b>47, 630, 153. 94</b>	<b>4, 872, 600. 07</b>	<b>959, 806. 49</b>

<sup>1</sup> Awaiting hearing pursuant to decision of United States Court of Appeals for District of Columbia.

<sup>2</sup> Awaiting opinion of Commission on rehearing.

<sup>3</sup> Reconsidered at hearing on postlicense costs.

<sup>4</sup> Licensee has appealed to courts.

<sup>5</sup> Awaiting rehearing on charges of associated companies, etc.

In the following table are listed the cases in which hearings have been held but no findings or orders issued (group III, above). Four of these cases have been reopened for further hearing, as indicated:

Project No.	Licensee	Amount claimed
271	Arkansas Power & Light Co. (Rommel Dam). <sup>1</sup> .....	\$2,085,712.80
432	Carolina Power & Light Co. <sup>1</sup> .....	13,764,856.51
1175	Kanawha Valley Power Co.....	2,761,160.00
346	Minnesota Power & Light Co.....	3,451,175.25
469	do. <sup>1</sup> .....	1,410,541.29
184	Pacific Gas & Electric Co. <sup>1</sup> .....	8,009,543.58
487	Pennsylvania Power & Light Co.....	9,148,755.88
943	Puget Sound Power & Light Co.....	15,904,514.57
405	Susquehanna Power Co., The, et al.....	54,866,625.57
	Total.....	111,402,885.45

<sup>1</sup> Reopened for further hearing.

#### Hearings Held and Cost Determinations Made.

On June 1, 1939, hearing was begun on the cost of Project No. 16, The Niagara Falls Power Company, licensee, to the license date, March 2, 1921, involving an amount of approximately \$45,000,000.

Hearings were concluded during the fiscal year on the original investment in the following major licensed projects:

Project No.	Licensee	Claimed cost
487	Pennsylvania Power & Light Co.....	\$9,148,755.88
943	Puget Sound Power & Light Co.....	15,904,514.57
405	Susquehanna Power Co., The, et al.....	54,866,625.57
1175	Kanawha Valley Power Co. (Post-license costs).....	2,761,160.00

On June 27, 1939, the Commission issued its Opinion No. 21-A and Order in the matter of the rehearing on the actual legitimate original cost of project No. 108, Northern States Power Co., licensee, to December 31, 1927, fixing such cost in the amount of \$910,270.28 and disallowing the other items of claimed cost totaling \$208,526.72.

The actual legitimate original cost of the net fixed capital additions for project No. 710, Wisconsin Power & Light Co., for the period January 1, 1929, to December 31, 1936, was fixed in the amount of \$7,001.12 by the Commission's order of October 5, 1938, in accordance with the recommendations of the Commission's accountant which were not protested by the licensee.

#### NEW APPLICATIONS FOR PRELIMINARY PERMITS AND LICENSES

One hundred and two new applications for licenses and preliminary permits for power projects were received during the fiscal year, making a total of 1,601 received during the 19-year period from 1920 to June 30, 1939. Six of the applications were for preliminary permit, with proposed total installation of 809,187 horsepower, one of which was

later superseded by an application for license. Fourteen of the new applications for license were for major projects, and 14 were for minor projects. The 14 applications for license for major projects had a total proposed installation of 992,679 horsepower.

In addition to the 102 new applications, 10 applications for renewal of licenses were filed.

*New applications for preliminary permits and licenses filed during the fiscal year ended June 30, 1939*

Project No.	Application for—	Name of applicant	State	Stream	Installation, estimated horsepower capacity
1500	License	R. W. Brooke	California	Whaler Creek	30
1501	do	The Montana Power Co.	Montana	(Transmission line)	
1502	do	Hidden Falls Lumber Co.	Alaska	Hidden Falls Lake and an unnamed creek flowing from lake into Kasnyka Bay, Chatham Strait.	440
1503	Preliminary permit.	State of Arizona	Arizona	Colorado River	800,000
1504	License	Consolidated Water Power & Paper Co.	Wisconsin	Wisconsin, Little Eau Pleine, and Fox Rivers.	109,600
1505	do	Mosinee Paper Mills Co.	do	Wisconsin River	(1)
1506	do	Consolidated Water Power Co.	do	do	15,300
1507	do	Arkansas Power & Light Co.	Arkansas	(Transmission line)	
1508	do	Idaho Power Co.	Idaho	do	
1509	do	Appalachian Mountain Club.	New Hampshire	Outler River	10
1510	Preliminary permit and license.	City of Kaukauna, Wis.	Wisconsin	Fox River	8,000
1511	License	Arkansas Power & Light Co.	Arkansas	(Transmission line)	
1512	do	Mrs. Cordelia Schrode Spencer.	California	Pyramid Creek	33
1513	do	Public Service Co. of New Hampshire.	New Hampshire	(Transmission line)	
1514	do	The Calso Co.	California	Canyon Creek	150
1515	do	California Public Service Co.	Oregon	(Transmission line)	
1516	do	George D. Rogers	New Mexico	Embudo River	20
1517	do	Monroe City Corporation	Utah	First left-hand fork of Monroe Creek and its tributary, Shingle Creek.	144
1518	do	Wisconsin Michigan Power Co.	Michigan	(Transmission line)	
1519	do	The Grand County Light, Heat and Power Co.	Colorado	do	
1520	do	Alpine Trading Co.	California	Whiskey Creek	32
1521	Preliminary permit.	Pelican Cold Storage Co.	Alaska	Unnamed stream on north shore of Lisianski Inlet, Chichagof Island.	500
1522	License	R. R. Sisac	Colorado	Mesa Creek	40
1523	do	Lewis C. Karrick	Utah	Green River	750,000
1524	do	Wisconsin Michigan Power Co.	Wisconsin	(Transmission line)	
1525	do	Consumers Power Co.	Michigan	do	
1526	do	do	do	do	
1527	do	Luke Williams	California	Deer Creek	10
1528	do	Ottawa-Allegan Electric Cooperative.	Michigan	(Transmission line)	
1529	do	Southwestern Gas and Electric Co.	Arkansas	do	
1530	do	West Penn Power Co.	Pennsylvania	do	
1531	do	City of High Point, North Carolina.	North Carolina	Yadkin River	30,000
1532	do	Public Service Co. of New Hampshire.	New Hampshire	(Transmission line)	

<sup>1</sup> Generating plant at this dam not included in application.

*New applications for preliminary permits and licenses filed during the fiscal year ended June 30, 1939—Continued*

Project No.	Application for—	Name of applicant	State	Stream	Installation, estimated horse-power capacity
1533	License	Swanson Mining Corporation.	California	Campbell Creek	2, 140
1534	do	Colorado-Montana Mines Association.	Montana	Belle Creek	200
1535	do	The Arizona Power Corporation.	Arizona	(Transmission line)	
1536	do	Charles G. Huber	Montana	do	
1537	do	Henry A. Scandrett, Walter J. Cummings, and George I. Haight, Trustees, Chicago, Milwaukee, St. Paul and Pacific Railroad Co.	Montana and Idaho.	do	
1538	do	B-A-R-C Electric Cooperative.	Virginia	do	
1539	do	Hardy County Light & Power Association, Inc.	do	do	
1540	do	Pennsylvania Electric Co.	Pennsylvania	do	
1541	do	Mrs. Ernestine Aufdermauer.	Oregon	Buck Creek	5
1542	do	Clay Electric Cooperative Association, Inc.	Florida	(Transmission line)	
1543	do	Mrs. Olive Blanche Tillotson.	California	Peavine Creek	5
1544	do	Pacific Gas & Electric Co.	do	(Transmission line)	
1545	do	Monongahela West Penn Public Service Co.	West Virginia	do	
1546	do	San Juan Ski Club of Ouray.	Colorado	do	
1547	do	Chief Ouray Consolidated Mines Co., Inc.	do	do	
1548	do	Southern California Edison Co. Ltd.	California	do	
1549	do	Larry Lucas	Oregon	Smith Creek	4
1550	do	Pacific Gas & Electric Co.	California	(Transmission line)	
1551	do	Uganik Fisheries, Inc.	Alaska	Crater Creek	71
1552	do	Sierra Pacific Power Co.	Nevada	(Transmission line)	
1553	do	The New Jersey Zinc Co.	Colorado	Fall Creek	480
1554	do	Shenandoah Valley Electric Cooperative.	Virginia	(Transmission line)	
1555	do	Mountain City Copper Co.	Nevada	do	
1556	do	Craig-Botetourt Electric Cooperative.	Virginia	do	
1557	do	do	do	do	
1558	do	Top O'Michigan Rural Electric Co.	Michigan	do	
1559	do	Oscar Sandstrom	do	do	
1560	do	Lake Superior District Power Co.	Wisconsin	do	
1561	do	Wisconsin Michigan Power Co.	do	do	
1562	do	do	Michigan	do	
1563	do	O. & A. Electric Co-Operative.	do	do	
1564	do	Consumers Power Co.	do	do	
1565	do	O. & A. Electric Co-Operative.	do	do	
1566	do	Lake Superior District Power Co.	Wisconsin	do	
1567	do	Consumers Power Co.	Michigan	do	
1568	do	O. & A. Electric Co-Operative.	do	do	
1569	do	Jackson County Rural Electric Membership Corporation.	Indiana	do	
1570	do	Lakeside Light & Power Co.	Arizona	do	
1571	do	Consumers Power Co.	Michigan	do	
1572	do	Ontonagon County Rural Electrification Association.	do	do	
1573	do	Plumas-Sierra Rural Electric Co-operative.	California	do	
1574	Preliminary permit.	Manti City Corporation	Utah	Manti Creek	533
1575	License	Liberty Metals Co.	Montana	(Transmission line)	
1576	do	Public Service Co. of Colorado.	Colorado	do	

*New applications for preliminary permits and licenses filed during the fiscal year ended June 30, 1939—Continued*

Project No.	Application for—	Name of applicant	State	Stream	Installation, estimated horse-power capacity
1577	License.....	Far North Packing and Shipping Co., Inc.	Alaska.....	Lake Suryan and its outlet, Chip Creek.	100
1578	.....do.....	Willard C. Oppy.....	Indiana.....	Salamonie River.....	756
1579	.....do.....	B-A-R-C Electric Cooperative.	Virginia.....	(Transmission line).....	
1580	.....do.....	Wisconsin Michigan Power Co.	Michigan.....	.....do.....	
1581	.....do.....	Clearwater Valley Light & Power Association, Inc.	Idaho.....	.....do.....	
1582	.....do.....	The Nevada-California Electric Corporation.	California.....	.....do.....	
1583	Preliminary permit.	Edna K. and Kenneth J. Bolles.	Montana.....	Mahoney Springs or Mahoney Creek.	7
1584	License.....	The Inland Utilities Co., Inc.	New Mexico.....	(Transmission line).....	
1585	.....do.....	Cal-Ore Mining and Development Co.	Oregon.....	South fork of Galice Creek.	5
1586	.....do.....	Anaconda Ski Club.....	Montana.....	(Transmission line).....	
1587	.....do.....	Cloverland Electric Co-Operative.	Michigan.....	.....do.....	
1588	.....do.....	O. & A. Electric Co-Operative.	.....do.....	.....do.....	
1589	.....do.....	Lyles Ford Tri-County Power Authority.	South Carolina.....	Broad River, Tiger River, Enoree River, Fair Forest Creek, and Padgett Creek.	72,000
1590	.....do.....	The Montana Power Co.	Montana.....	(Transmission line).....	
1591	.....do.....	Granite Butte Mines, Inc.	.....do.....	.....do.....	
1592	.....do.....	George Brodie.....	Michigan.....	.....do.....	
1593	Preliminary permit.	John P. Halliwell.....	Idaho.....	Pine Creek.....	144
1594	License.....	Showlow-Silver Creek Water Conservation and Power District.	Arizona.....	(Transmission line).....	
1595	.....do.....	O. & A. Electric Co-Operative.	Michigan.....	.....do.....	
1596	.....do.....	.....do.....	.....do.....	.....do.....	
1597	.....do.....	Onota Township Board.....	.....do.....	.....do.....	
1598	.....do.....	San Diego Consolidated Gas & Electric Co.	California.....	.....do.....	
1599	.....do.....	Orangeburg-Aiken Hydro-Electric Commission.	South Carolina.....	Edisto River.....	12,069
1600	.....do.....	Mrs. Jeannette Donnelly.....	California.....	Secret Creek.....	0.1
1601	.....do.....	Craig-Botetourt Electric Cooperative.	Virginia.....	(Transmission line).....	
	Total.....	.....	.....	.....	1,802,281.1

#### Declarations of Intention.

In accordance with the provisions of section 23 of the Federal Power Act, declarations of intention to construct power projects were filed during the year by Copper District Power Co., of Ontonagon, Mich., for a project on Middle Branch of Ontonagon River in Michigan; by the city of Kaukauna, Wis., for a project on Fox River in Wisconsin; by George A. Bell Power Co., of Logan, Utah, for a project on Logan River in Utah; by Nephi City Corporation, of Nephi, Utah, for a project on Bradley's Creek in Utah; by Lower Valley Power & Light, Inc., of Freedom, Wyo., for a project on Salt River in Wyoming and Idaho; and by W. Arnquist, of Hudson, Wis., for a project on Cannon River in Minnesota.

Since the creation of the Commission in 1920, 150 declarations of intention had been filed, 4 of which remained unacted upon at the

close of the fiscal year. Eight were acted upon during the year, and jurisdiction was taken by the Commission in 2 of these cases.

#### **Status of Permits, Licenses, and Applications.**

One preliminary permit was issued during the year and three expired. Three preliminary permits were outstanding at the close of the fiscal year. During the year 11 major licenses, 21 minor licenses, and 27 licenses for transmission lines were issued.

Twenty-four licenses expired or were terminated or surrendered. On June 30, 1939, 124 major licenses (2 of which apply to one project), 145 minor licenses, 32 licenses for minor parts of complete projects exclusive of transmission lines, and 341 licenses for transmission lines, were outstanding.

One hundred and eighty-one applications for preliminary permit or license were awaiting action at the end of the fiscal year. Eight of the applications were for preliminary permit and 13 were for renewal of licenses (both major and minor) which had expired or which would soon expire. Of the remaining applications, 33 were for major license, 10 for minor license, 115 for licenses for transmission lines, and 2 for minor-part licenses for projects other than transmission lines.

The 645 permits and licenses outstanding, together with the pending applications, represent 822 projects with an estimated installation of 9,043,118 horsepower.

#### **Installation Contemplated in Projects for Which Preliminary Permits or Licenses are Outstanding.**

The power capacity of the projects covered by the three preliminary permits outstanding June 30, 1939, was estimated at 9,540 horsepower, and the possible ultimate installation at 18,180 horsepower. The total number of projects for which licenses were outstanding was 641 and represented a total present installed capacity of 4,383,391 horsepower, and an estimated possible ultimate installation of 6,805,134 horsepower. Descriptions of projects for which preliminary permits and licenses were issued during the year will be found in Appendix A of this report.

#### **Withdrawals and Determinations Under Section 24 of the Federal Power Act.**

Formal notifications were given in connection with 30 new project applications, and 4,228.24 acres of lands of the United States were listed as being withdrawn from entry because affected by proposed power projects. The total number of project applications pursuant to which withdrawal notifications have been issued is 1,072 affecting a total of 2,261,385 acres in 21 States and Alaska.

During the year, 74 applications were received for restoration to location, entry, or selection, in accordance with section 24 of the Federal Power Act, under conditions whereby such restoration will not result in injury to or destruction of the value of the lands for power purposes. Ninety-one such applications were acted upon, 29

of which were right-of-way cases, and favorable determinations were made affecting 3,683 acres. During the 19 years favorable determinations affecting 261,979 acres of power site reserve lands have been made by the Commission.

#### **Amendments to and Transfers of Licenses and Preliminary Permits.**

Examination of applications for amendments to licenses and preliminary permits, reports thereon, the preparation of orders of authorization and of instruments constitute a part of the work of the Commission. During the fiscal year 1939, 62 applications for amendments were filed, and 38 amendments were issued.

Applications for approval of transfer of 15 licenses were filed during the year, and 14 approved, and approximately 25 applications for amendments and transfers of licenses were under study or awaiting further information.

There were also received 38 miscellaneous applications for approval of exhibits, for surrender of license, for extension of time to file papers, for exemption from payment of annual charges, etc., 30 of which were disposed of.

#### **Field Supervision of Licenses and Preliminary Permits.**

Field supervision of licenses outstanding June 30, 1939, was divided as follows: War Department, 38; Department of the Interior, 163; Department of Agriculture, 428; Atlanta Regional Office, Federal Power Commission, 5; Chicago Regional Office, Federal Power Commission, 1; Denver Regional Office, Federal Power Commission, 1; New York Regional Office, Federal Power Commission, 1; San Francisco Regional Office, Federal Power Commission, 6; Washington office, Federal Power Commission, 2. Interior and Agriculture jointly supervised two projects, which are included in the totals for both; and Agriculture also supervised the transmission line of one project which was under War Department supervision, which is included in the totals for both. The supervision of preliminary permits was divided as follows: Chicago Regional Office, Federal Power Commission, 1; San Francisco Regional Office, Federal Power Commission, 2.

#### **COLLECTED FROM LICENSEES DURING FISCAL YEAR, \$730,978.19**

A total of \$730,978.19 was collected by the Commission from licensees during the fiscal year ended June 30, 1939. As provided by section 10 (e) of the Federal Power Act, charges are levied (1) to reimburse the United States for the costs of administering part I of the act; and (2) to recompense the United States for the use, occupancy, and enjoyment of its lands and other property included in licensed projects. Section 17 provides for the distribution of the funds thus obtained as follows: Charges fixed by the Commission for the purpose of reimbursing the United States for the costs of administration of part I of

the act, paid into the Treasury of the United States and credited to "Miscellaneous receipts"; all proceeds from Indian reservation lands, 100 percent to the credit of such Indians; charges for the use and occupancy of public lands, one-eighth to the "general fund" of the Treasury, one-half to the reclamation fund, and three-eighths to the respective public-land States and Territories in which the receipts originated; charges collected from navigable water projects, one-half to a special fund expended under direction of the Secretary of War in the construction, maintenance, and operation of dams and other structures on navigable waters, and one-eighth to the "general fund" of the Treasury under the provisions of the act, as well as three-eighths which were not specifically distributed by the act. In accordance with section 10 (f) of the act, charges were assessed to reimburse the United States for the cost of making headwater benefit determinations and the proceeds deposited to "Reimbursement, costs of administration, Federal Power Act."

The distribution of proceeds from licenses under the Federal Power Act for the fiscal year 1939 was as follows:

To Indian tribes.....	\$26, 895. 36
To the reclamation fund.....	25, 864. 16
To the War Department.....	134, 385. 25
To public-land States.....	19, 398. 11
To the "general fund" of the Treasury, representing 12½ percent of collections from public-land projects and 50 percent of collections from navigable water projects involving the use of dams, appurtenant lands, or other property.....	140, 851. 29
To the "general fund" of the Treasury, representing a direct levy for reimbursing the costs of administration of part I of the Federal Power Act.....	376, 182. 56
To the "general fund" of the Treasury, representing charges assessed for determination of headwater benefits.....	6, 556. 54
Total.....	<u>730, 133. 27</u>

As provided under section 17 (b) of the act, penalties were levied for delinquency in the payment of annual charges and the amount of \$123.43 collected and deposited to the credit of "Penalties for delinquencies of leases under Federal Power Act."

Collections from revested Oregon and California railroad grant lands and Coos Bay wagon-road grant lands situated in certain licensed projects and not subject to distribution under section 17 of the act but credited to the accounts involved, amounted to \$656.67 and \$56.95, respectively.

In addition to the receipts listed above, \$7.87 in interest was awarded in a suit for nonpayment of annual charges and deposited to "Miscellaneous receipts, interest on deferred collections or payments."

There will be found in appendix B of this report, under the heading of "Financial statements," tables showing collections by projects and the distribution thereof for the fiscal year 1939, as well as other tables showing total collections and distribution by fiscal years for the period beginning June 11, 1920, and ending June 30, 1939.

The Commission also collected and deposited to the credit of "Miscellaneous receipts" during the fiscal year ended June 30, 1939, the sum of \$493.79 from the sale of maps; \$4,773.71 from the sale of publications; \$1,461.57 for copying fees; and \$11.65 for work performed in connection with furnishing of copies.

## PART II

### APPENDIX A

#### PROJECTS UNDER MAJOR LICENSE AND PRELIMINARY PERMIT

##### FEDERAL POWER COMMISSION

*Projects under major license, June 30, 1939*

Project No.	Licensee	Stream	Horsepower		
			Power capacity	Installation	
				Present	Ultimate
82	Alabama:				
349	*Alabama Power Co.....	Coosa River.....	21,760	72,000	93,000
618	do.....	Tallapoosa River.....	37,750	135,000	180,000
	do.....	Coosa River.....	30,400	146,800	180,000
271	Arkansas:				
	*Arkansas Power & Light Co.....	Ouachita River.....	22,000	92,500	162,000
67	California:				
	*Southern California Edison Co. Ltd.	San Joaquin River and tributaries.	129,100	184,700	184,700
77	*Pacific Gas & Electric Co.....	Eel River.....	12,958	9,877	18,500
78	do.....	South Fork American River.	6,400	8,100	8,100
88	*Merced Irrigation District.....	Merced River.....	3,377	35,000	35,000
95	*Emma Rose & Hobart Estate Co.	Highland Creek.....	900	(1)	(1)
96	*San Joaquin Light & Power Corporation.	San Joaquin River.....	17,600	45,000	45,000
99	*Pacific Gas & Electric Co.....	Canyon Creek.....	292	2,700	2,700
120	*Southern California Edison Co. Ltd.	San Joaquin River.....	37,726	105,000	195,000
137	*Pacific Gas & Electric Co.....	North Fork Mokelumne River.	36,197	85,500	85,500
175	*San Joaquin Light & Power Corporation.	North Fork of Kings River..	6,055	41,500	207,400
176	*Esccondido Mutual Water Co....	San Luis Rey River.....	115	1,334	1,334
178	*San Joaquin Light & Power Corporation.	Kern River.....	4,171	12,000	12,000
184	*Pacific Gas & Electric Co.....	South Fork American River.	16,579	28,000	112,000
187	do.....	North Fork Yuba River.....	3,575	8,700	8,700
233	do.*.....	Pit River.....	45,360	99,000	99,000
	do.....	do.....	54,288	120,000	120,000
344	*San Geronio Electric Corporation.	San Geronio and White-water Rivers.	599	3,000	3,000
382	*Southern California Edison Co. Ltd.	Kern River.....	3,809	14,400	14,400
595	*The Nevada California Electric Corporation.	North, South, and Middle Forks of Bishop Creek.	1,900	(1)	(1)
619	*Pacific Gas & Electric Co.....	Bucks and other creeks.....	17,400	67,000	67,000
747	*California Public Service Co.....	Pine Creek.....	250	800	800
748	*Sierra Consolidated Mines, Inc..	Green Creek.....	380	500	500
1250	*City of Pasadena.....	San Gabriel River.....	450	2,400	2,400
1302	*California Fruit Exchange.....	Gray Eagle Creek and Long Lake.	205	485	485
1318	*Pacific Gas & Electric Co.....	South and Middle Forks Stanislaus River.	26,520	61,500	61,500
1333	*San Joaquin Light & Power Corporation.	Tule River tributaries.....	1,103	7,200	7,200
1350	*W. L. Leiland.....	Chippis Creek.....	89	200	200
1352	*Pacific Gas & Electric Co.....	North Fork Feather River..	76,028	90,000	90,000
1354	*San Joaquin Light & Power Corporation.	North Fork San Joaquin River and Willow Creek.	7,221	39,300	39,300
1389	*The Nevada-California Electric Corporation.	Rush Creek.....	4,551	16,000	16,000

Basis for jurisdiction:

\*Affects Government lands.

†Affects navigable waters.

<sup>1</sup> Reservoir only.

## Projects under major license, June 30, 1939—Continued

Project No.	Licensee	Stream	Horsepower		
			Power capacity	Installation	
				Present	Ultimate
400	Colorado: *The Western Colorado Power Co.	Animas and South Fork of San Miguel Rivers.	6,500	13,000	13,000
177	Florida: †Florida Power Corporation	Oklawaha River	320	700	700
682	do.*	Ochlockonee River	1,270	13,000	13,000
485	Georgia: †Columbus Electric & Power Co.	Chattahoochee River	28,000	66,000	80,000
659	†Crisp County	Flint River	4,080	9,000	18,000
1218	†Georgia Power Co.	do	4,605	8,250	8,250
18	Idaho: *Idaho Power Co.	Snake River	7,804	13,300	19,000
20	*Utah Power & Light Co.	Bear River	5,120	20,000	20,000
204	*The Washington Water Power Co.	South Fork Clearwater River.	860	860	860
386	*Unity Gold Production Co.	Elk Creek	480	600	600
457	*Idaho Power Co.	Snake River	9,265	9,265	9,265
472	*Utah Power & Light Co.	Bear River	10,000	40,000	40,000
492	*John C. Higgins	Big Boulder Creek	153	400	400
503	*Idaho Power Co.	Snake River	12,100	13,450	13,460
621	†The Washington Water Power Co.	Clearwater River	8,340	10,880	10,880
703	*Utah Power & Light Co.	Paris Creek	445	900	900
749	*Western States Utilities Co.	Birch Creek	200	270	270
1176	*Bradley Mining Co.	East and South Forks Salmon River.	250	520	520
1379	*City of Sandpoint	Priest River	650		1,400
287	Illinois: †State of Illinois and North Counties Hydro-Electric Co.	Fox River	900	5,300	5,300
925	Iowa: †City of Ottumwa	Des Moines River	728	4,200	4,200
289	Kentucky: †Louisville Gas & Electric Co.	Ohio River	36,176	108,000	135,000
539	†Kentucky Utilities Co.	Kentucky River	2,770	3,000	3,000
405	Maryland: †The Susquehanna Power Co. and Philadelphia Electric Power Co.	Susquehanna River	45,200	378,000	594,000
401	Michigan: †Michigan Gas & Electric Co.	St. Joseph River	630	2,300	2,300
785	†City of Allegan	Kalamazoo River	888	1,800	3,000
346	Minnesota: †Minnesota Power & Light Co.	Mississippi River	4,464	18,000	24,000
362	†Ford Motor Co.	do	7,250	19,200	19,200
460	*Minnesota Power & Light Co.	Kawishwi River	1,140	5,000	5,000
459	Missouri: *†Union Electric Co. of Missouri	Osage River	15,000	201,000	268,000
5	Montana: *†The Montana Power Co.	Flathead Lake and River	80,000	77,000	154,000
970	*Glacier Silver Lead Mining Co.	Granite Creek	230	350	350
1256	Nebraska: †Loup River Public Power District.	Loup River	19,635	63,600	63,600
1417	†The Central Nebraska Public Power & Irrigation District.	Platte and North Platte Rivers.	26,890		96,500
13	New York: †Henry Ford & Son, Inc.	Hudson River	3,640	8,100	8,100
16	†The Niagara Falls Power Co.	Niagara River	351,198	561,500	561,500
432	North Carolina: †Carolina Power & Light Co.	Big Pigeon River	23,760	147,000	147,000
693	*Town of Highlands	Cullasagee River	185	300	600
1531	†City of High Point	Yadkin River	8,540		30,000
415	Ohio: †Southern Ohio Public Service Co.	Muskingum River	800		800
738	†Fred and John F. Dover	do	123	123	123
135	Oregon: *Portland General Electric Co.	Clackamas River and Oak Grove Fork.	41,400	80,000	80,000
308	*Inland Power & Light Co.	East Fork Wallowa River and Royal Purple Creek.	870	1,100	1,100
669	*Crooked River Ranch Co.	Crooked River	432		700
1097	*John A. Zehntbauer	Jack Creek	115	115	115
1447	*Inland Power & Light Co.	Crooked River	1,470	1,470	1,470

Basis for jurisdiction:

\*Affects Government lands.

†Affects navigable waters.

Projects under major license, June 30, 1939—Continued

Project No.	Licensee	Stream	Horsepower		
			Power capacity	Installation	
				Present	Ultimate
Pennsylvania:					
309	†The Clarion River Power Co.....	Clarion River.....	1, 440	38, 400	51, 200
487	†Pennsylvania Power & Light Co.....	Wallenpaupack Creek.....	8, 148	57, 000	57, 000
1025	†Safe Harbor Water Power Corporation.	Susquehanna River.....	25, 707	255, 000	510, 000
South Carolina:					
199	†South Carolina Public Service Authority.	Santee and Cooper Rivers...	57, 888	-----	240, 000
516	†Lexington Water Power Co.....	Saluda River.....	34, 814	180, 000	270, 000
1267	†Greenwood County.....	do.....	4, 360	-----	20, 000
South Dakota:					
792	*The Dakota Power Co.....	Rapid Creek.....	1, 000	1, 600	1, 600
Texas:					
1490	†Brazos River Conservation and Reclamation District.	Brazos River.....	7, 600	-----	40, 000
Utah:					
190	*Utah Power & Light Co.....	Uinta River and Pole Creek	3, 070	800	3, 070
486	*Utah Power & Light Co.....	Logan River.....	1, 800	2, 800	2, 800
597	*Utah Light & Traction Co.....	Big Cottonwood Creek.....	710	2, 700	2, 700
665	*Utah Power & Light Co.....	Santaquin Creek.....	290	1, 250	1, 250
671	do.....	Alpine Creek and South Fork.	225	2, 620	2, 620
675	do.....	Battle Creek.....	225	3, 500	3, 500
696	do.....	American Fork Creek.....	1, 305	3, 150	3, 150
713	do.....	Mill and other creeks.....	625	2, 000	2, 000
814	*Telluride Power Co.....	Beaver River and tributaries.	2, 000	4, 350	4, 350
946	*Hyrum City.....	Blacksmith Fork.....	515	600	600
1273	*Parowan City.....	Center Creek.....	215	496	496
Virginia:					
1235	†City of Radford.....	Little River.....	509	1, 140	1, 140
Washington:					
553	*City of Seattle.....	Skagit River.....	34, 000	166, 000	320, 000
588	*Crown Zellerbach Corporation..	Elwha River.....	9, 000	17, 500	17, 500
637	*The Washington Water Power Co.	Chelan River and Lake.....	46, 816	68, 000	136, 000
719	*Royal Development Co.....	James and Phelps Creeks...	410	440	440
935	*Inland Power & Light Co.....	Lewis River.....	28, 375	55, 000	220, 000
943	*Puget Sound Power & Light Co.	Columbia River.....	125, 000	84, 000	210, 000
1393	†Pend Oreille Mines & Metals Co.	Clark Fork of Columbia River.	2, 000	2, 400	2, 400
1487	*Quinalt Light Co.....	Ziegler Creek.....	375	375	375
West Virginia:					
1175	†Kanawha Valley Power Co.....	Kanawha River.....	9, 420	42, 900	42, 900
1290	do.....	do.....	5, 324	26, 000	26, 000
Wisconsin:					
108	*Northern States Power Co.....	Chippewa River.....	16, 824	(1)	(1)
710	*†Wisconsin Power & Light Co.....	Wolf River.....	540	900	900
1510	†City of Kaukauna.....	Fox River.....	2, 360	-----	8, 000
Wyoming:					
1198	*Jackson Hole Light & Power Co.	Flat Creek.....	141	350	350
Alaska:					
201	*Town of Petersburg.....	Crystal Lake.....	1, 000	1, 240	1, 240
350	*Anchorage Light & Power Co., Inc.	Eklutna River.....	800	3, 000	3, 000
408	*Sitka Wharf & Power Co., Inc.....	Medvetcha River.....	150	300	300
420	*City of Ketchikan.....	Ketchikan Creek and Lakes.	900	3, 800	3, 800
917	*Portland Canal Power Co.....	Davis River.....	6, 900	-----	50, 000
951	*Chichagoff Mining Co.....	Rust Lake and outlet.....	624	1, 180	1, 180
1101	*Prince William Sound Water Power, Light & Telephone Co.	Solomon Gulch.....	334	427	427
1144	*S. M. Graff.....	Lowell Creek.....	186	700	700
1426	*Buchan & Heinen Packing Co.....	Upper and Lower Lakes.....	170	192	300
1432	*Kadiak Fisheries Co.....	Tributary to Dry Spruce Bay.	146	146	146
Puerto Rico:					
663	*Porto Rico Railway Light & Power Co.	Blanco River and tributaries.	1, 425	7, 000	7, 000
Total.....			1, 847, 650	4, 361, 615	6, 782, 616

Basis for jurisdiction:  
 \*Affects Government lands.  
 †Affects navigable waters.

<sup>1</sup> Reservoir only.

*Projects under preliminary permit, June 30, 1939*

Project No.	Permittee	Stream	Horsepower	
			Power capacity	Ultimate installation
1386	California: *Sisson Gold Mining Co.....	North Yuba River tributaries and Pekoe Creek.	180	180
1403	*Sacramento Valley Utility Co....	Yuba River.....	7,760	16,000
1442	Indiana: †The Acme Engineering Service, Inc.	Salamonie River.....	1,600	2,000
	Total.....	.....	9,540	18,180

Basis for jurisdiction:

\*Affects Government lands.

†Affects navigable waters.

**PERMITS AND LICENSES ISSUED UNDER THE FEDERAL POWER ACT DURING THE FISCAL YEAR ENDED JUNE 30, 1939, THE PARTIES THERETO, AND THE SPECIAL TERMS PRESCRIBED**

**PRELIMINARY PERMITS**

**PROJECT No. 1403—CALIFORNIA**

*Preliminary permit issued* December 19, 1938, for 18 months.

*Permittee:* Sacramento Valley Utility Co., San Francisco, Calif. -

*Location of project:* On the Yuba River in Nevada and Yuba Counties, Calif.

*Description of project:* The project will consist of a power plant containing an installation of approximately 12,000 kilowatts to be constructed at a point 1,000 feet below the proposed Upper Narrows Debris Storage Dam, for the purpose of utilizing the surplus water power created by the dam.

*Special terms prescribed:* (a) The permittee shall investigate and incorporate in its plans, if found equally feasible, provisions for the utilization of head to elevation 550 feet, United States Geological Survey datum. (b) The permittee shall submit a report on the progress of its engineering and other work to be performed under the permit regularly at 6-month intervals beginning 6 months from December 19, 1938. (c) The permittee shall obtain necessary water rights and submit satisfactory evidence of its compliance with the laws of the State of California as provided in section 9 (b) of the Federal Power Act. (d) If the license is issued, it may be subject to the following special provisions: (1) Reservation by the United States of the right to fill the reservoir with debris to such height and rate as it may desire. (2) Operations of the licensee, so far as they affect the use, storage, and discharge from storage waters of the Yuba River, shall at all times be controlled by such reasonable rules and regulations as the Secretary of War may prescribe in the interest of debris, flood control, and navigation, and as the Commission may prescribe in the interest of the fullest practicable utilization of such waters for power purposes. (3) A license, if issued, shall be for such limited period of time and contain such special terms and conditions pursuant to the act as may be necessary fully to protect the comprehensive development and utilization of the water resources of the Yuba River for power development and other purposes by and through the Narrows Dam and reservoir unit of the State Water Plan insofar as the project works thereby licensed are concerned.

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**LICENSES FOR MAJOR PROJECTS**

**PROJECT No. 415—OHIO**

*License issued* August 1, 1938, for a period of 1 year beginning May 2, 1938.

*Licensee:* Southern Ohio Public Service Co., Zanesville, Ohio.

*Location of project:* At the United States Dam No. 10 on Muskingum River, Muskingum County, Ohio.

*Description of project:* The project consists of a constructed combined hydroelectric and steam power plant, located on Government land adjacent to the dam and at one time operated under War Department lease. There are installed in the power house 2 horizontal 375-kilovolt-ampere generators driven through a

main shaft and bevel gears by 5 vertical water wheels, 3 steam turbo-generating sets aggregating 2,250 kilovolt-amperes, appurtenant boilers, and equipment. The average static head at the plant is 13 feet, and the power capacity of the hydraulic plant is 800 horsepower.

*Special terms prescribed:* This annual license is the ninth issued since the expiration of the original license May 1, 1930, and is issued under the terms and conditions of the original license, exclusive of the period thereof. The special terms prescribed in the original license are given on page 243 of the sixth annual report.

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PROJECT No. 1302—CALIFORNIA

*License issued* July 11, 1938, for the period of 50 years beginning July 25, 1935.

*Licensee:* California Fruit Exchange, Sacramento, Calif.

*Location of project:* On Gray Eagle Creek, Plumas County, Calif.

*Description of project:* The project consists of an unconstructed low rock-filled, concrete-faced dam about 13 feet high and 90 feet long at the outlet of Long Lake to provide about 1,500 acre-feet of storage; and a constructed low diversion dam in and across Gray Eagle Creek downstream from Long Lake; a wooden flume about 2,150 feet long; a 24-inch wood-stave pipe line about 1,220 feet long; an 18-inch and 20-inch steel penstock about 1,690 feet long; a powerhouse with installed capacity of 485 horsepower; and a transmission line about 7,250 feet long. The static head is 465 feet.

*Special terms prescribed:* (a) The licensee shall begin the construction of the storage dam at the outlet of Long Lake on or before July 11, 1939, and shall complete the same on or before July 11, 1940. (b) The high-water elevation and spillway crest elevation of Long Lake Reservoir shall not exceed 6,528 feet and the low-water elevation shall not be less than 6,518 feet. (c) The licensee shall maintain a flow of not less than 2 cubic feet per second in Gray Eagle Creek below the lower diversion dam, and a flow of not less than 0.5 cubic foot per second in Gray Eagle Creek between the proposed Long Lake Dam and the lower diversion dam.

*Annual charges:* 1 cent per horsepower on 485 horsepower installed capacity, plus 2½ cents per thousand kilowatt-hours of energy generated by the project during the preceding fiscal year ended June 30, plus \$180 for use of lands of the United States.

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PROJECT No. 1333—CALIFORNIA

*License issued* May 1, 1939, for 50 years.

*Licensee:* San Joaquin Light and Power Corporation, Fresno, Calif.

*Location of project:* On the North Fork of Middle Fork (Doyle Branch) of Tule River, Tulare County, Calif.

*Description of project:* The project, which is constructed, consists of a concrete and rock-crib diversion dam about 6 feet high and 65 feet long; a conduit partly of tunnel and partly of wood-stave pipe about 3.2 miles long connected to a steel penstock about 0.6 mile long leading to the power house; a reinforced concrete powerhouse 48 feet by 65 feet containing 2 horizontal units of 3,600 horsepower capacity each with generators and appurtenant works; an 11,000-volt transmission line about 4 miles long extending from the diversion dam to the power house; a 70,000-volt transmission line about 28.3 miles long extending from the power house to Strathmore substation; a pumping station connected to the conduit line; a telephone line located along the transmission lines; and a short access road leading from the county road to the intake. The plant is a run-of-river plant.

and no storage is provided or contemplated. The static head is 1,532 feet. The energy generated by the project feeds directly into the general interconnected system of the licensee.

*Special terms prescribed:* The licensee shall furnish the United States Geological Survey, in accordance with its requirements, stream-flow records that will permit the accurate determination of the run-off from the watershed above the project diversion dam.

*Annual charges:* 1 cent per horsepower on 7,200 horsepower installed capacity, plus 2½ cents per thousand kilowatt-hours of energy generated by the project during the preceding fiscal year ended June 30, plus \$168.84 for the use of lands of the United States.

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PROJECT No. 1354—CALIFORNIA

*License issued* May 1, 1939, for 50 years.

*Licensee:* San Joaquin Light and Power Corporation, Fresno, Calif.

*Location of project:* On the North Fork of the San Joaquin River, Madera County, Calif.

*Description of project:* The project, which is constructed, consists of the Crane Valley Reservoir and Chilkoot Lake, of 45,410 and 336 acre-feet capacities respectively; a series of five powerhouses known as the Crane Valley plant and San Joaquin plants Nos. 1, 1-A, 2, and 3, said powerhouses having installed capacities of 1,300, 24,400, 600, 5,250, and 7,750 horsepower, respectively; and appurtenant diversion dams, conduits, forebays, transmission and telephone lines, a road, and other appurtenances. The prime mover installed capacity aggregates 39,300 horsepower.

*Special terms prescribed:* (a) The licensee shall provide and install, as required by the Department of Commerce, a screen suitable for preventing the passage of fish from Manzanita Lake, and shall in the future provide and install such screens and other fish-protective devices as may be required by the Department of Commerce. (b) The licensee shall allow the construction of a road along the east shore of the Crane Valley Reservoir as proposed by the Forest Service over project lands within the Sierra National Forest, provided that the minimum grade of such road be kept at least 10 feet above the high-water line of the Crane Valley Reservoir as indicated on exhibit K of the license; and provided further that all fills affecting the capacity of such reservoir shall be kept to a minimum consistent with good engineering practice and riprapped or otherwise suitably protected to prevent erosion. (c) The licensee shall protect from damage caused by operation of Crane Valley Reservoir for power purposes, the Forest Service recreational developments and former home-site improvements constructed by Forest Service permittees above elevation 3,380 feet prior to the filing of application for the license. (d) The project area and boundary for Crane Valley Reservoir shall be limited to the minimum required for its proper operation and maintenance.

*Annual charges:* 1 cent per horsepower on 39,300 horsepower installed capacity, plus 2½ cents per thousand kilowatt-hours of energy generated by the project during the preceding fiscal year ended June 30, plus \$2,450 for the use of lands of the United States.

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PROJECT No. 1389—CALIFORNIA

*License issued* May 1, 1939, for the period December 1, 1936, to November 30, 1986.

*Licensee:* The Nevada-California Electric Corporation, Riverside, Calif.

*Location of project:* On Rush Creek, a tributary to Mono Lake, Mono County, Calif.

*Description of project:* The project consists of the Rush Meadows, Gem, and Agnew dams and reservoirs, of 4,969.5, 17,604, and 851 acre-feet storage capacities respectively; a conduit from Gem Reservoir to the powerhouse; a conduit from Agnew Reservoir to the powerhouse; the Rush Creek powerhouse with an installed capacity of 16,000 horsepower; and a 2,300-volt transmission line from the powerhouse to Agnew and Gem dams.

*Special terms prescribed:* (a) The licensee shall permit such development of the reservoir and streams within the project area by the Forest Service for recreational purposes as will not be inconsistent with their use by the licensee for power purposes. (b) The licensee shall maintain, as at present, an adequate fish ladder between the stream bed and the outlet pipe on the downstream side of Rush Meadows Dam to allow the passage of fish upstream during periods when the reservoir is empty and the natural flow of the stream is passing through the outlet pipe.

*Annual charges:* (a) 1 cent per horsepower on 16,000 horsepower installed capacity, plus 2½ cents per thousand kilowatt-hours of energy generated by the project during the preceding fiscal year ended June 30, said charges to begin December 1, 1936; and (b) \$3,000 for the use of lands of the United States, said charges to begin May 1, 1939.

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PROJECT NO. 1426—ALASKA

*License issued* August 26, 1938, for the period of 20 years, beginning August 18, 1935.

*Licensee:* Buchan and Heinen Packing Co., Seattle, Wash.

*Location of project:* In and along Upper Lake, Lower Lake, and an unnamed stream from the outlet of Lower Lake into a small bay known as Port Armstrong at the southerly end of Baranof Island, Alaska.

*Description of project:* The project, which is partly constructed, consists of a low storage dam at the outlet of Upper Lake controlling the flow into Lower Lake; a diversion dam at the outlet of Lower Lake; a 12-inch wood-stave pipe line 1,250 feet long leading to the licensee's herring packing and reduction plant; and 18 water wheels coupled to plant machinery, two of which drive electric generators. The existing installed capacity of the project is about 192 horsepower and the aggregate proposed installed capacity is about 300 horsepower. The total head is 259.5 feet and the effective head is 177 feet.

*Special terms prescribed:* (a) The licensee shall complete the construction of the project works on or before December 31, 1939. (b) The licensee shall install and maintain at the dams or points of diversion of water such fish guards or screens as may reasonably be prescribed by the Secretary of Commerce.

*Annual charges:* \$25.

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PROJECT NO. 1432—ALASKA

*License issued* October 27, 1938, for 20 years.

*Licensee:* Kadiak Fisheries Co., Seattle, Wash.

*Location of project:* On an unnamed creek which flows into Dry Spruce Bay on Kadiak Island, Alaska.

*Description of project:* The project consists of a timber, rock, and sod diversion dam 30 feet long and 10 feet high; a 12-inch wood-stave pipe line 2,687 feet long; a 12-inch steel penstock 2,985 feet long; and a frame powerhouse containing a 24-inch Tuttle water wheel directly connected to an electric generator of 100-kilowatt capacity. The static head is 600 feet, and the installed capacity is

estimated to be 146 horsepower. The energy generated will be used to provide light and power for the licensee's salmon cannery.

*Special terms prescribed:* The licensee shall begin the construction of said project works on or before October 27, 1939, and shall complete the same on or before October 27, 1940.

*Annual charges:* \$34.

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PROJECT No. 1447—OREGON

*License issued* October 4, 1938, for 50 years.

*Licensee:* Inland Power & Light Co., Portland, Oreg.

*Location of project:* On Crooked River, about 2 miles above its confluence with Deschutes River, Jefferson County, Oreg.

*Description of project:* The project, which is constructed and known as the Cove project, consists of a low rock-fill diversion dam; an open conduit about 1,700 feet long extending from the dam to the powerhouse; a reinforced concrete powerhouse 30 feet by 100 feet housing two water wheels, one of 1,225 horsepower connected to a 700-kilowatt generator, and the other of 1,045 horsepower connected to a 400-kilowatt generator; and a 22,000-volt transmission line 1.9 miles long extending from the powerhouse to a junction with the transmission line of the Pacific Power & Light Co. No storage is contemplated, the plant being used only as a run-of-river plant. The static head is approximately 34 feet.

No special terms prescribed.

*Annual charges:* 1 cent per horsepower on 1,470 horsepower installed capacity, plus 2½ cents per thousand kilowatt-hours of energy generated by the project during the preceding fiscal year ended June 30, plus \$75.60 for the use of lands of the United States.

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PROJECT No. 1487—WASHINGTON

*License issued* April 1, 1939, for the period terminating June 16, 1987.

*Licensee:* Quinault Light Co., Quinault, Wash.

*Location of project:* On Ziegler Creek, Grays Harbor County, Wash.

*Description of project:* The project consists of a low, rock-filled, log-crib diversion dam, an 18-inch wood-stave pipe line 1,850 feet long, an 18-inch steel penstock 1,965 feet long, and a powerhouse with installed capacity of 375 horsepower with provision in the powerhouse for the installation of two additional generating units. The gross head is 876.5 feet. The energy generated by the project will be used to provide electric energy to farmers and agricultural communities in the vicinity of Aberdeen, Hoquiam, and Quinault, Wash.

*Special terms prescribed:* (a) The licensee shall complete the construction of the project on or before April 1, 1940. (b) The licensee shall allow at all times a stream flow of from ½ to 1 cubic foot per second to pass the dam and shall make provision at the powerhouse for by-passing the water at the time of shut-downs so that there will be no abrupt changes in the water flow in the spawning area below the dam during the months of October to December. (c) The licensee shall properly screen the intake of the power conduit for the protection of the downstream migrating fish.

*Annual charges:* 1 cent per horsepower on 375 horsepower installed capacity, plus 2½ cents per thousand kilowatt-hours of energy generated by the project during the preceding fiscal year ended June 30, plus \$16 for the use of lands of the United States.

## PROJECT No. 1510—WISCONSIN

*License issued* April 1, 1939, for 50 years.

*Licensee:* City of Kaukauna, Wis.

*Location of project:* On Fox River, a tributary to Lake Michigan in the St. Lawrence River Basin, Outagamie County, Wis.

*Description of project:* The project consists of a low concrete diversion dam extending in a general northeasterly direction from a point on the south bank of Fox River, downstream from the Badger plants, across the river to the old headrace of the former hydraulic power plant of the Outagamie Paper Co.; a channel just upstream from the dam and connecting the tailrace of the Badger plants to the headrace of the proposed plant; the headrace or power canal and its reconditioned masonry walls and sluiceways formerly a part of the plant of the Outagamie Paper Co.; a concrete powerhouse containing one generating unit with a capacity of 2,400 kilowatts representing the initial installation; an enlarged tailrace extending from the powerhouse to the channel of the river; a substation; and a transmission line extending therefrom to the project boundary. No storage is contemplated, the plant to be used as a run-of-river plant. The static head will be 22 feet.

*Special terms prescribed*

*Relating to construction:* (a) The licensee shall submit to the Commission plans of the sluice gate and Tainter gate sections of the dam and of the powerhouse substructure in sufficient detail to permit their safety and adequacy to be determined, and shall obtain the Commission's approval thereof before commencing construction of said sections of the dam and powerhouse. (b) The licensee shall begin the construction of the project works on or before July 1, 1939, and shall complete such construction, including the initial installation of one 2,400-kilowatt generating unit on or before March 1, 1941, and shall thereafter install additional units in such number and at such times as the Commission may direct so as adequately to supply the reasonable market demands for power. (c) Insofar as any material is dredged or excavated in the prosecution of the work authorized, it shall be removed and deposited so as not to interfere with navigation and to the satisfaction of the Chief of Engineers, War Department.

*Relating to operation:* The licensee, unless otherwise directed by the Secretary of War, shall so operate the project works that the discharge in the Fox River immediately below the power plant shall not be less than 1,000 acre-feet of water in each 24-hour period except that when the flow of the river available to the project is less than 1,000 acre-feet in 24 hours, the discharge required shall be equivalent to such lower flow. The distribution of said discharge over any 24-hour period shall be subject to such regulation as the Secretary of War may prescribe.

*Other special terms:* (a) For the purpose of determining the stage and flow of the Fox River, the average static head on the power plant, and the amount of water passing through the plant and through or over the dam, the licensee shall install, maintain, and operate a staff or recording gage in the forebay and in the tailrace of the power plant and shall report the daily average discharge through the plant. (b) The licensee, when so required by the Secretary of War, shall construct and install such appliances as are necessary for furnishing power for the operation of navigation facilities and for lighting and operating the sluice-gate hoist on the Government dam, for lighting the navigation locks and their approaches, and for lighting the Government warehouses and offices, all at Kaukauna, Wis., and shall furnish free of cost to the United States power for the operation of such facilities, provided that the United States will erect and maintain all necessary transmission lines, switches, etc., on United States property at such dam and locks. (c) The licensee, as a precautionary measure against the occurrence of ice pressure of

sufficient magnitude to cause failure of the power canal walls, shall install and maintain an air line under water along the north wall of the canal and shall in cold weather operate such line and manipulate the level of the pool in a manner satisfactory to the Commission to hold such pressure at a minimum.

*Annual charges:* 1 cent per horsepower on 8,000 horsepower, the proposed ultimate installed capacity, plus 2½ cents per thousand kilowatt-hours of energy generated by the project during the fiscal year ended June 30, all such charges being subjected to those provisions of the Federal Power Act relating to exemption from payment by a municipality selling power from a licensed project to the public without profit or using such power for municipal purposes.

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PROJECT NO. 1531—NORTH CAROLINA

*License issued* March 25, 1939, for the period of 50 years beginning January 1, 1939.

*Licensee:* City of High Point, N. C.

*Location of project:* On Yadkin River, near Styers Ferry, in Surry, Yadkin, Davie, and Forsyth Counties, N. C., with transmission lines extending through Forsyth and Davidson Counties to High Point, Guilford County, N. C.

*Description of project:* The project consists of: a dam about 80 feet high and 2,520 feet long, over-all, the end sections of which are earth-fill and the middle section of which is composed of a concrete spillway section, located on the Yadkin River about 26 miles northwesterly from the city of High Point; a reservoir extending about 24 miles upstream having a surface elevation of 14,600 acres and a usable storage capacity of approximately 231,000 acre-feet within a draw-down of 20 feet from the top of the spillway crest gates at elevation 750 feet; a reinforced concrete powerhouse built integrally with the bulkhead section of the dam, with initial and ultimate installation of 3 units of 10,000 horsepower each, making a total initial and ultimate installation of 30,000 horsepower; and two 69,000-volt, 3-phase, single-circuit transmission lines on separate rights-of-way extending about 26 miles in a general southwesterly direction from the substation at the power plant to the terminal substation in the city of High Point. The static head is 70 feet.

*Special terms prescribed*

*Relating to construction:* (a) The licensee shall submit the necessary additional data to enable the Commission to determine the adequacy of the embankment sections of the dam, and the construction of such sections shall be deferred until the plans therefor have been approved by the Commission. (b) The licensee shall provide a satisfactory and separate crane or other device satisfactory to the Commission for operating the spillway crest gates. (c) The licensee shall commence construction of the project works on or before June 1, 1939, and shall complete the same on or before June 1, 1942. (d) The licensee shall clear and keep clear the bottom and margins of the reservoir between elevations 750 and 724 feet above mean sea level and shall remove the tops of brush and trees growing at a lower elevation so that they shall not extend above said elevation 724.

*Relating to operation:* (a) After the dam is placed in operation, the licensee shall make such alterations to and shall provide additional protection for the dam, spillway, downstream apron, or other project structures as the Commission may require. (b) The operation of the project by the licensee, so far as such operation may affect the use of water, storage, and discharge from storage, shall at all times be subject to control of the Secretary of War under such reasonable rules and regulations as he may prescribe in the interests of navigation, and sub-

ject to the control of the Commission under such rules and regulations as it may prescribe for the safety of the dam and for the protection of life, health, and property. (c) In the interests of public health, the licensee shall control mosquito production in the project reservoir by distribution of oil or diluted paris green, or by other effective method, at such times and in such manner as may be directed by the Commission or by the appropriate State health official, and shall at all times be subject to the lawful jurisdiction of such State health official.

*Annual charges:* 1 cent per horsepower on 30,000 horsepower installed capacity plus 2½ cents per thousand kilowatt-hours of energy generated by the project during the preceding fiscal year ended June 30, all such charges being subject to those provisions of the Federal Power Act relating to exemption from payment by a municipality selling power from a licensed project to the public without profit or using such power for municipal purposes.

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### LICENSES FOR MINOR PROJECTS

#### PROJECT No. 871—WASHINGTON

*License issued* June 9, 1939, for the period of 10 years beginning February 10, 1938.

*Licensee:* Mount Baker Development Co., Bellingham, Wash.

*Location of project:* On Bagley Creek, a tributary of Nooksack River, in the Mount Baker National Forest, Whatcom County, Wash.

*Description of project:* The project, which is constructed, consists of a 16-foot concrete dam creating a small reservoir, a wood-pipe conduit 2,118 feet long, a frame powerhouse containing two generating units of 88.5 horsepower capacity, and a transmission line 1,500 feet long. The static head is 475 feet. The energy generated by the project is used for lighting, heating, power, and refrigeration purposes at the buildings and grounds owned by the licensee.

*Special terms prescribed:* The licensee shall interpose no objection to, nor in any way prevent, the use of water for domestic purposes, and of the reservoir and project area for boating, fishing, and other recreational purposes by the public when and to the extent that such public use is not in direct interference with power use.

*Annual charges:* \$35.20.

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#### PROJECT No. 898—CALIFORNIA

*License issued* May 25, 1939, for the period of 10 years beginning November 23, 1938.

*Licensee:* J. L. and M. C. Hooper, Hobo Hot Springs, Calif.

*Location of project:* On Kern River in the vicinity of Bodfish, in the Sequoia National Forest, Kern County, Calif.

*Description of project:* The project, which is constructed, consists of a diversion ditch approximately 1,200 feet long with a 50-foot right-of-way on each side of the center line, and a 14-foot by 8-foot powerhouse with installed capacity of 33 horsepower. The energy generated by the project is used in connection with the licensee's recreational development.

No special terms prescribed.

*Annual charges:* \$20.

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#### PROJECT No. 908—CALIFORNIA

*License issued* June 24, 1939, for the period of 10 years beginning January 13, 1939, unless the Forest Service special use permit authorizing the use of the project lands be sooner revoked, in which event the license shall terminate concurrently.

*Licensee:* W. F. Drew, Blairsden, Calif.

*Location of project:* In the vicinity of Little Grey Eagle Creek, in the Plumas National Forest, Plumas County, Calif.

*Description of project:* The project, which is constructed, consists of a diversion dam, a 12-inch pipe line about 225 feet long, a powerhouse containing a Pelton water wheel of 6 horsepower installed capacity, and a transmission line 745 feet long. The energy generated by the project is used by the nearby camp of Elwell.

*Special terms prescribed:* (a) The licensee shall not interfere in any way with the supply of water needed for domestic purposes at Camps Elwell and Lake Center. (b) The licensee shall not raise the height of the intake dam more than is necessary to divert the direct flow of the water into the penstock. (c) The licensee shall divert overflow water from the upper springs to the intake dam of the penstock by means of pipe line.

*Annual charges:* \$10.

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#### PROJECT No. 1080—OHIO

*License issued* July 12, 1938, for the period beginning May 2, 1938, and terminating May 1, 1939.

*Licensee:* The Hook-Aston Milling Co., Zanesville, Ohio.

*Location of project:* At United States Dam No. 10 on Muskingum River, Muskingum County, Ohio.

*Description of project:* The project, which has been constructed for many years, consists of intake works and a flour mill operated by two 39-inch Victor turbines located on lands of the United States adjacent to Dam No. 10. The turbines have a capacity of 206 second-feet at 12.5 feet head, which is equivalent to about 234 horsepower. The land and the right to use the water were at one time leased from the War Department under authority of an act approved August 11, 1888. The operation of the project is seasonal, and it is used about 10 hours daily.

*Special terms prescribed:* This annual license is the fourth issued since the expiration of the original license May 1, 1935, and is issued under the terms and conditions of the original license, exclusive of the period thereof. The special terms prescribed in the original license are given on page 184 of the eleventh annual report.

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#### PROJECT No. 1087—OHIO

*License issued* July 29, 1938, for a period beginning May 2, 1938, and terminating May 1, 1939.

*Licensee:* Rechsteiner Milling Co., Lowell, Ohio.

*Location of project:* In the vicinity of United States Dam No. 3 at Lowell on Muskingum River, Washington County, Ohio.

*Description of project:* The project works consist of a wooden culvert fitted with two wooden head gates, an unlined earth ditch about 140 feet long, a short wooden flume, two obsolete water wheels in a flour mill, and a short tailrace. Water is drawn from a canal used to pass navigation between the pool above the dam and the lock located about 1 mile downstream. The points of diversion from the canal and discharge into the river are located about 400 feet upstream from the lock. The wheels are rated, respectively, at 79.56 horsepower at 10-foot head and 53 horsepower at 11-foot head. The license authorizes the use of a strip of Government land along the canal and 125 second-feet of water therefrom. These privileges were enjoyed by the licensee under a lease granted by the War Department under authority given by an act approved August 11, 1888.

*Special terms prescribed:* This annual license is the fourth issued by the Commission since the expiration of the original license May 1, 1935, and is issued subject to sections 8 and 26 of the Federal Power Act and to all the terms and conditions of the original license, exclusive of the period thereof. The special terms of the original license are given on page 185 of the eleventh annual report.

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## PROJECT NO. 1284—WASHINGTON

*License issued* November 14, 1938, for 10 years.

*Licensee:* John H. Bruff, Yakima, Wash.

*Location of project:* On Telephone Creek in the Wenatchee National Forest, Kittitas County, Wash.

*Description of project:* The project, which is constructed, consists of a diversion dam, an intake, a wood-stave pipe line about 1,800 feet long, a concrete and wood powerhouse containing a 29-inch Pelton water wheel, and a transmission line approximately 700 feet long. The static head is about 280 feet, and the installed capacity is 20 horsepower. The energy generated by the project is used to provide light and power at a tourist park owned by the licensee.

No special terms prescribed.

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## PROJECT NO. 1371—OREGON

*License issued* September 9, 1938, for the period terminating August 29, 1946, coincident with Forest Service special use permit.

*Licensee:* E. W. Regnier, Union Creek, Oreg.

*Location of project:* On Union Creek, a tributary of Rogue River, in the Rogue River National Forest, Jackson County, Oreg.

*Description of project:* The project consists of an intake, a flume and pipe line about 1,315 feet long, a powerhouse with installed capacity of 60 horsepower, and a low-tension underground transmission line approximately 1,400 feet long. The static head is 50 feet. The energy generated by the project is to be used to supply light and power at the Union Creek tourist camp and summer resort owned by the licensee.

*Special terms prescribed:* The licensee shall begin the construction of the project works on or before September 9, 1939, and shall complete the same on or before September 9, 1941.

*Annual charges:* \$10.

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## PROJECT NO. 1409—WASHINGTON

*License issued* October 14, 1938, for 10 years.

*Licensee:* Mt. Baker Ski Club, Bellingham, Wash.

*Location of project:* On Galena Creek, in Mt. Baker National Forest, Whatcom County, Wash.

*Description of project:* The project consists of a low diversion dam, a 6-inch wood-stave pipe line 320 feet long, a timber powerhouse 6 by 8 feet, and an underground power line about 150 feet long. The static head is 69.5 feet and the installed capacity is 3 horsepower. The energy generated by the project is to be used for heating and lighting the licensee's ski cabin.

*Special terms prescribed:* The licensee shall begin the construction of the project works on or before October 14, 1939, and shall complete the same on or before October 14, 1941.

*Annual charges:* \$10.

## PROJECT NO. 1425—MONTANA

*License issued* June 16, 1939, for 10 years.

*Licensee:* Isaac Niemi, Luther, Mont.

*Location of project:* On Red Lodge Creek, in the Custer National Forest, Carbon County, Mont.

*Description of project:* The project, which is constructed, consists of an open conduit 448 feet long, a timber flume 173.6 feet long, and an 8-foot diameter wooden water wheel connected by a belt to the licensee's sawmill. The installed capacity is estimated to be approximately 10 horsepower.

No special terms prescribed.

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## PROJECT NO. 1438—CALIFORNIA

*License issued* August 26, 1938, for 10 years.

*Licensee:* J. E. Ducey, Dinkey Creek, Calif.

*Location of project:* On Rock Creek, a tributary to Dinkey Creek, in the Sierra National Forest, Fresno County, Calif.

*Description of project:* The project consists of a rock diversion dam 20 feet long and 4 feet high, a 6-inch steel pipe line 321 feet long, a ditch 891 feet long, a small forebay, a steel penstock 369 feet long, a frame powerhouse containing a 16-inch double Pelton water wheel with an installed capacity of approximately 3 horsepower, and a transmission line 400 feet long. The static head is 150 feet. The energy generated by the project will be used to furnish light at the licensee's summer resort.

*Special terms prescribed:* The licensee shall begin the construction of the project works on or before August 26, 1939, and shall complete the same on or before August 26, 1941.

*Annual charges:* \$10.

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## PROJECT NO. 1443—OREGON

*License issued* January 11, 1939, for 10 years.

*Licensee:* Breitenbush Hot Springs, Salem, Oreg.

*Location of project:* On the Breitenbush River, in the Willamette National Forest, Marion County, Oreg.

*Description of project:* The project, which is constructed, consists of a timber dam 4 feet high and 63 feet long, an open flume 6 feet wide by 4 feet high and 144 feet long, and a timber powerhouse containing a vertical 45-inch Leffel water wheel having an installed capacity of approximately 15 horsepower. The static head is 5 feet. The energy generated by the project is used to furnish light at the licensee's health resort.

*Special terms prescribed:* The licensee shall provide a suitable fishway at the dam.

*Annual charges:* \$10.

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## PROJECT NO. 1452—CALIFORNIA

*License issued* August 11, 1938, for 10 years.

*Licensee:* P. V. Burke, Sacramento, Calif.

*Location of project:* On Middle Creek, a tributary to Silver Fork of the South Fork of the American River, in the Eldorado National Forest, Eldorado County, Calif.

*Description of project:* The project consists of a timber diversion dam, a wood flume 18 inches high by 18 inches wide and 120 feet long, a frame powerhouse, a 10-foot overshot frame water wheel coupled to a 5-kilowatt generator, and an electric power line 500 feet long. The static head is 25 feet. The energy generated by the project is to be used for domestic purposes.

*Special terms prescribed:* (a) The licensee shall begin construction of the project works on or before August 11, 1939, and shall complete the same on or before August 11, 1941. (b) This license shall terminate if and when the Commission issues to the licensee or to another applicant a license for a more complete development of the water-power resources involved within the project area.

*Annual charges:* \$10.

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#### PROJECT NO. 1479—CALIFORNIA

*License issued* September 28, 1938, for 10 years, unless the Forest Service special use permit authorizing the use of the project lands, be sooner revoked, in which event the license shall terminate concurrently.

*Licensee:* Fred Simi, Sattley, Calif.

*Location of project:* On a tributary of the Yuba River, in the Tahoe National Forest, Sierra County, Calif.

*Description of project:* The project consists of a rock-fill dam 5 feet high by 20 feet long, a ditch about 1,400 feet long, a penstock consisting of a wooden tank 4 by 6 feet and a 12-inch riveted steel pipe 115 feet long, a frame powerhouse 10 by 12 feet containing a 48-inch Pelton water wheel belted to a generator of 7.5-kilowatt capacity, and a transmission line about 479 feet long. The static head is 30.3 feet, and the installed capacity is about 10 horsepower. The energy generated by the project is to be used to supply light and power to the licensee's tourist resort.

*Special terms prescribed:* The licensee shall begin construction of the project works on or before September 28, 1939, and shall complete the same on or before September 28, 1941.

*Annual charges:* \$10.

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#### PROJECT NO. 1482—CALIFORNIA

*License issued* November 5, 1938, for 20 years.

*Licensee:* Jack A. Crawford and Cyrus Bell, Los Angeles, Calif.

*Location of project:* On Fay Creek, in the Sequoia National Forest, Kern County, Calif.

*Description of project:* The project, which is constructed, consists of a concrete diversion dam, a concrete settling box or sand trap, a steel pipe line 2,668 feet long and varying from 10 to 8 inches in diameter, a wood frame powerhouse having an installed capacity of about 14 horsepower, and a transmission line approximately 2,590 feet long. The static head is 290 feet. The energy generated by the project is used for light and power in the residences and ranch buildings of the licensees.

No special terms prescribed.

*Annual charges:* \$10.

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#### PROJECT NO. 1484—WASHINGTON

*License issued* September 23, 1938, for 10 years.

*Licensee:* Jake Francis Beattiger, Skykomish, Wash.

*Location of project:* On the North Fork of the Tye River, in the Snoqualmie National Forest, King County, Wash.

*Description of project:* The project consists of a concrete diversion dam 2 feet high, a wood and steel pipe line 1,104 feet long and varying from 10 to 6 inches in diameter, a small frame powerhouse with installed capacity of about 13 horse power, and an electric power line about 1,500 feet long. The gross static head is 130 feet. The energy generated by the project will be used for light and power at the Stevens Pass Resort tract now under lease from the Forest Service to the licensee.

*Special terms prescribed:* (a) The licensee shall begin construction of the project works on or before September 30, 1938, and shall complete the same on or before September 30, 1939. (b) The licensee shall properly screen the intake of the power conduit to prevent fish entering therein.

*Annual charges:* \$10.

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#### PROJECT No. 1493—COLORADO

*License issued* June 8, 1939, for 10 years.

*Licensee:* Peter J. Engelbrecht and Son, Troutville, Colo.

*Location of project:* On Lime Creek, a tributary of Frying Pan River, in the Holy Cross National Forest, Eagle County, Colo.

*Description of project:* The project, which is constructed, consists of a log crib diversion dam 37.3 feet long and 3.5 feet high, an 8-inch steel pipe line 633 feet long, a log and frame powerhouse 20 by 40 feet, a 48-inch tangential wheel used to drive a 15 kilovolt-ampere generator, and a transmission line 1.072 miles long. The static head under which the project will operate is 134 feet and the installed capacity is 32 horsepower. The energy generated by the project is to be used for domestic purposes in connection with the licensee's recreational development along the shores of Woods Lake.

*Special terms prescribed:* (a) The licensee shall provide a fish ladder or similar arrangement for the passage of fish over the diversion dam to the satisfaction of the Department of Commerce and the Commission. (b) During the period between 10 p. m. and 6 a. m. each day while the plant is being operated, the licensee shall provide a regulated flow of water through the pipe line to permit an overflow at the dam or through the fish ladder sufficient for the passage of fish between the diversion dam and Woods Lake.

*Annual charges:* \$10.

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#### PROJECT No. 1509—NEW HAMPSHIRE

*License issued* June 17, 1939, for 20 years, unless the Forest Service special use permit in connection with which the power is used, be sooner revoked, in which event the license shall terminate concurrently.

*Licensee:* Appalachian Mountain Club, Boston, Mass.

*Location of project:* On Cutler River, about 11 miles south of Gorham, N. H., in the White Mountain National Forest, Coos County, N. H.

*Description of project:* The project consists of a small concrete diversion dam, a 12-inch wood-stave pipe line about 465 feet long, a frame powerhouse 8 by 12 feet, and a transmission line 320 feet long. The static head is about 40 feet, and the installed capacity is 10 horsepower. The energy generated by the project is to be used to supply light and power in the Pinkham Notch Camp of the licensee.

*Special terms prescribed:* The licensee shall begin construction of the project works on or before December 17, 1939 and shall complete the same on or before June 17, 1942.

*Annual charges:* \$5.

## PROJECT NO. 1512—CALIFORNIA

*License issued* May 4, 1939, for 10 years, unless the Forest Service special use permit in connection with which the power is to be used, be sooner revoked, in which event the license shall terminate concurrently.

*Licensee:* Cordelia Schrode Spencer, Twin Bridges, Kyburz, Calif.

*Location of project:* On Pyramid Creek, a tributary of the South Fork of the American River, in the Eldorado National Forest, Eldorado County, Calif.

*Description of project:* The project consists of a small concrete diversion dam 4 feet high and 10 feet long, a 12-inch and 14-inch steel pipe line about 552 feet long, a frame powerhouse containing a 60-inch Pelton wheel, and a transmission line 1,333 feet long. The static head is 141 feet and the installed capacity is approximately 33 horsepower. The energy generated by the project is to be used to supply power for the licensee's mountain resort and summer cottages.

*Special terms prescribed:* The licensee shall begin construction of the project works on or before November 4, 1939 and shall complete the same on or before May 4, 1942.

*Annual charges:* \$12.60.

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## PROJECT NO. 1520—CALIFORNIA

*License issued* June 26, 1939, for 10 years.

*Licensee:* Alpine Trading Co., Los Angeles, Calif.

*Location of project:* On Whiskey Creek, a tributary to the North Fork of San Joaquin River, partly in the Sierra National Forest, Madera County, Calif.

*Description of project:* The project consists of a ditch 18 to 24 inches in width and about the same in depth, supplemented by short sections of flume and having a combined length of 1,587.2 feet; a 9-inch steel penstock 420 feet long; a galvanized iron powerhouse containing a 36-inch Pelton water wheel; and a transmission line about 1,500 feet long. The static head is 191.8 feet, and the installed capacity is about 32 horsepower. The energy generated by the project is to be used for domestic purposes on licensee's ranch property and in various other privately owned houses and cottages.

*Special terms prescribed:* (a) The licensee shall begin construction of project works on or before May 1, 1939, and shall complete the same on or before December 1, 1940. (b) The licensee shall install at the head of the diversion ditch a parallel bar screen with spaces between bars not greater than one-half inch wide, and shall install any fish screen, fish ladder, or other device which may be required by the Fish and Game Commission of the State of California under the applicable State law.

*Annual charges:* \$10.

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## PROJECT NO. 1522—COLORADO

*License issued* June 8, 1939, for 10 years, unless the Forest Service special use permit in connection with which the power is to be used, be sooner revoked, in which event the license shall terminate concurrently.

*Licensee:* R. R. Sisac, Skyway, Colo.

*Location of project:* On Mesa Creek, in the Grand Mesa National Forest, Mesa County, Colo.

*Description of project:* The project consists of a reinforced concrete dam 16 feet long and 6 feet high, an 18-inch welded steel penstock approximately 85 feet long, a concrete powerhouse, and a transmission line 3,135 feet long. The static head is 21.75 feet, and the installed capacity is approximately 40 horsepower. The

energy generated by the project is to be used to supply light and power in the licensee's resort.

*Special terms prescribed:* The licensee shall begin the construction of the project on or before September 8, 1939 and shall complete the same on or before June 8, 1942.

*Annual charges:* \$10.

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PROJECT No. 1543—CALIFORNIA

*License issued* June 16, 1939, for 10 years.

*Licensee:* Olive Blanche Tillotson, Auburn, Calif.

*Location of project:* On Peavine Creek, a tributary of the North Fork of the Middle Fork of the American River, in the Tahoe National Forest, Placer County, Calif.

*Description of project:* The project, which is constructed, consists of a low diversion dam 3 feet high; a conduit system approximately 3½ miles long composed of a ditch, several short sections of flume, one section of tunnel 144 feet long and a steel penstock 450 feet long; and a compressor house containing a 28-inch water wheel used to drive an air compressor. The static head is 200 feet and the installed capacity is about 5 horsepower. The hydromechanical power generated is used for the licensee's placer mining operations.

*Special terms prescribed:* This license shall terminate if and when the Commission issues to the licensee or to another applicant a license for a more complete development of the water-power resources involved within the project area.

*Annual charges:* \$10.

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LICENSES FOR MINOR-PART PROJECTS AND TRANSMISSION LINES

Transmission lines are considered "minor-part projects" and deemed to be subject to the waiver of conditions authorized by subsection (i) of section 10 of the Federal Power Act.

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PROJECT No. 1395—CALIFORNIA

*License issued* March 30, 1939, for the period of 50 years beginning December 1, 1936.

*Licensee:* The Nevada-California Electric Corporation, Riverside, Calif.

*Location of project:* In Inyo County, Calif., and Nye and Esmeralda Counties, Nev.

*Description of project:* (a) A constructed 55,000-volt, 3-phase, 60-cycle transmission line extending 109.65 miles from Bishop Creek control station in Inyo County, Calif., via Silver Peak and Alkali to Tonopah in Nye County, Nev., and from Alkali to Goldfield in Esmeralda County, Nev.; (b) A 55,000-volt, 3-phase, 60-cycle transmission line extending 107.57 miles from Bishop Creek control station in Inyo County, Calif., via Silver Peak and Millers to Tonopah in Nye County, Nev.; (c) A 55,000-volt, 3-phase, 60-cycle transmission line extending 37.99 miles from Millers in Esmeralda County, Nev., to Manhattan in Nye County, Nev.; (d) An 11,000-volt, 3-phase, 60-cycle transmission line extending 11.69 miles from Manhattan to Round Mountain, Nye County, Nev.; (e) An 11,000-volt, 3-phase transmission line extending 7.81 miles from Silver Peak substation to the Nivloc mine, Esmeralda County, Nev.; and (f) The Silver Peak substation site in Esmeralda County, Nev. The lines cross lands of the United States within the Inyo and Toiyabe (Nevada) National Forests and unreserved public lands for a distance of 240.70 miles.

No special terms prescribed.

*Annual charges:* \$1,899.41.

## PROJECT No. 1398—CALIFORNIA

*License issued* June 15, 1939, for the period of 50 years beginning December 1, 1936.

*Licensee:* The Nevada-California Electric Corporation, Riverside, Calif.

*Location of project:* In Mono and Inyo Counties, Calif.

*Description of project:* A constructed 88,000-volt, 3-phase, 60-cycle, single-circuit transmission line extending 54.07 miles from Rush Creek power plant on Rush Creek in Mono County, to a central control and switching station on Bishop Creek near Bishop, in Inyo County, together with parts of a generally parallel operating telephone line. The lines cross lands of the United States within Mono and Inyo National Forests, unreserved public lands, and patented land subject to reservation for a distance of 44.54 miles.

No special terms prescribed.

*Annual charges:* \$503.73.

## PROJECT No. 1405—ARIZONA

*License issued* December 9, 1938, for 50 years.

*Licensee:* City of Phoenix, Ariz.

*Location of project:* In Yavapai County, Ariz.

*Description of project:* An 11,000-volt transmission line extending 5.27 miles from a connection with an existing transmission line (project No. 1120) of The Arizona Power Corporation in sec. 11, T. 10 N., R. 1 W., to a transformer station adjacent to the Williams Reservoir in sec. 31, T. 9½ N., R. 1 E, Gila and Salt River meridian. The line crosses lands of the United States within the Prescott National Forest for a distance of 4.293 miles, and the right-of-way is 50 feet wide.

No special terms prescribed.

*Annual charges:* \$22.17.

## PROJECT No. 1412—CALIFORNIA

*License issued* August 8, 1938, for the period of 20 years beginning December 4, 1936.

*Licensee:* San Diego Consolidated Gas & Electric Co., San Diego, Calif.

*Location of project:* In San Diego County, Calif.

*Description of project:* A 2,300-volt, single-phase, 60-cycle transmission line crossing lands of the United States within the Cleveland National Forest, described as SW¼SE¼ sec. 18, T. 13 S., R. 4 E., San Bernardino meridian, for a distance of 0.253 mile. The right-of-way is 50 feet wide.

No special terms prescribed.

*Annual charges:* \$10.

## PROJECT No. 1414—NEVADA

*License issued* December 15, 1938, for the period of 25 years beginning January 31, 1937.

*Licensee:* Sierra Pacific Power Co., Reno, Nev.

*Location of project:* In Lyon and Mineral Counties, Nev.

*Description of project:* An 11,500-volt, 3-phase transmission line extending approximately 18.3 miles from a point on the licensee's existing transmission line in Mason Valley located in sec. 5, T. 13 N., R. 26 E., to a substation of the Walker

River Indian Agency located in sec. 35, T. 12 N., R. 28 E., thence easterly a distance of approximately 0.35 mile to a point in said sec. 35, T. 12 N., R. 28 E., Mount Diablo base and meridian. The line crosses vacant lands of the United States for a distance of 5.883 miles and crosses tribal lands located within the Walker River Indian Reservation for a distance of 7.473 miles. The right-of-way is 20 feet wide.

No special terms prescribed.

Annual charges: \$51.78.

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PROJECT No. 1440—WISCONSIN

License issued July 29, 1938, for 50 years.

Licensee: Lake Superior District Power Co., Ashland, Wis.

Location of project: In Ashland County, Wis.

Description of project: An 88,000-volt transmission line extending about 33 miles in a general easterly direction from Ashland, Wis. to Ironwood, Mich. The line crosses lands of the United States within the Bad River (La Pointe) Indian Reservation for a distance of approximately 1,330 feet, and the right-of-way is 100 feet wide.

No special terms prescribed.

Annual charges: \$10.

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PROJECT No. 1444—ARIZONA

License issued November 3, 1938, for the period of 25 years beginning January 17, 1938.

Licensee: The Arizona Power Corporation, Prescott, Ariz.

Location of project: In Yavapai County, Ariz.

Description of project: (a) *Beaver Creek transmission line*: A 6,900-volt line extending about 13 miles northerly from a point on the licensee's existing Camp Verda distribution system. (b) *V Bar V Ranch transmission line*: A line of unstated voltage connecting with the Beaver Creek line near Station 554+56 and extending northeasterly about 1.021 miles. (c) *Stewart Hall transmission line*: A line of unstated voltage connecting with the Beaver Creek line near Station 506+30 and extending northerly about 0.708 mile. The lines cross lands of the United States within the Coconino National Forest for a distance of 8.167 miles, and the rights-of-way are 50 feet wide.

Special terms prescribed: There is reserved to the United States, its successors, and assigns, the superior and dominant right at all times to construct, operate, and maintain a reservoir in which construction, operation, and maintenance the United States, its successors, and assigns shall have the right to use any or all of the lands within the rights-of-way without compensation therefor, and shall not be responsible for any damage resulting from such construction, operation, or maintenance, including damage from the presence of water thereon or on account of ordinary, extraordinary, unexpected, or unprecedented floods, and nothing shall be done under the rights-of-way to increase the cost of, or interfere in any manner with the construction, operation and maintenance of such reservoir.

Annual charges: \$37.67.

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PROJECT No. 1446—NEVADA

License issued December 16, 1938, for the period of 50 years beginning July 24, 1937.

Licensee: Sierra Pacific Power Co., Reno, Nev.

*Location of project:* In Pershing and Humboldt Counties, Nev.

*Description of project:* A 60,000-volt, 3-phase, 60-cycle transmission line extending from a point on the licensee's existing line in sec. 11, T. 33 N., R. 34 E., to the substation of the Western States Utilities Co. in sec. 29, T. 36 N., R. 38 E., and thence to the Gatchell mines in sec. 33, T. 39 N., R. 42 E., a total distance of about 64 miles, Mount Diablo base and meridian. The line crosses vacant public lands of the United States for a distance of 26.508 miles and crosses lands reserved for the Winnemucca and Shoshone bands of the Paiute Indians for a distance of 0.534 mile. The right-of-way is 50 feet wide.

No special terms prescribed.

*Annual charges:* \$113.70.

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#### PROJECT No. 1448—MONTANA

*License issued* July 1, 1938, for 20 years.

*Licensee:* Hidden Lake Mining Co., Anaconda, Mont.

*Location of project:* In Deer Lodge and Granite Counties, Mont.

*Description of project:* A 23,000-volt, 3-phase transmission line extending 2.36 miles from Southern Cross mining claim in sec. 4, T. 5 N., R. 13 W., to Hidden Lake mill in sec. 35, T. 6 N., R. 13 W., Principal meridian. The line crosses lands of the United States within the Deerlodge National Forest for a distance of 1.31 miles, and the right-of-way is 50 feet wide.

No special terms prescribed.

*Annual charges:* \$11.55.

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#### PROJECT No. 1449—IDAHO

*License issued* September 9, 1938, for 50 years.

*Licensee:* Idaho Power Co., Boise, Idaho

*Location of project:* In Twin Falls, Gooding, and Jerome Counties, Idaho.

*Description of project:* A 132,000-volt transmission line extending 30.891 miles from the licensee's generating station at Upper Salmon Falls, located in sec. 3, T. 8 S., R. 13 E., Boise meridian, to the licensee's generating station at Shoshone Falls located in sec. 36, T. 9 S., R. 17 E., Boise meridian, where it connects with the licensee's interconnected system. The line crosses vacant public lands of the United States for a distance of 12.532 miles, and the right-of-way is 150 feet wide.

No special terms prescribed.

*Annual charges:* \$155.38.

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#### PROJECT No. 1458—WASHINGTON

*License issued* December 8, 1938, for the period of 50 years beginning September 22, 1937.

*Licensee:* City of Tacoma, Wash.

*Location of project:* In Pierce County, Wash.

*Description of project:* A 50,000-volt inter-tie transmission line between two substations extending 155 feet across tract No. 10, Indian addition to Tacoma. The line crosses tribal lands within the Puyallup Indian Reservation.

No special terms prescribed.

*Annual charges:* \$10.

## PROJECT No. 1462—IDAHO

*License issued* August 13, 1938, for 50 years.

*Licensee:* The Washington Water Power Co., Spokane, Wash.

*Location of project:* In Latah, Nez Perce, and Clearwater Counties, Idaho.

*Description of project:* A 110,000-volt transmission line extending 50.51 miles from the licensee's substation in Moscow, Idaho, to a new substation in Orofino, Idaho. The line crosses lands of the United States for a distance of about 1.3 miles.

No special terms prescribed.

*Annual charges:* \$11.50.

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## PROJECT No. 1465—WASHINGTON

*License issued* September 13, 1938, for the period of 10 years beginning January 15, 1938.

*Licensee:* The Washington Water Power Co., Spokane, Wash.

*Location of project:* In Chelan County, Wash.

*Description of project:* A 110,000-volt transmission line extending approximately 52 miles from the licensee's substation in Chelan, Wash., in sec. 29, T. 27 N., R. 23 E., along and across Lake Chelan to the substation at Chelan copper mine in sec. 7, T. 31 N., R. 17 E., Willamette meridian. The line crosses public lands of the United States and lands within the Chelan National Forest for a distance of 32.718 miles, and the right-of-way is 100 feet wide.

*Special terms prescribed:* The licensee shall, upon the request of the forest supervisor, United States Forest Service, stain, paint, or treat the structures in such a manner as in the opinion of said forest supervisor will most effectively screen or otherwise make the line and structures inconspicuous to the view of travelers on the lake.

*Annual charges:* \$266.74.

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## PROJECT No. 1467—MONTANA

*License issued* October 27, 1938, for 50 years.

*Licensee:* The Montana Power Co., Butte, Mont.

*Location of project:* In Silver Bow County, Mont.

*Description of project:* A 6,600-volt, single-phase transmission line extending 2.1 miles from the terminus of the present distribution line in NE $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 22, T. 2 N., R. 7 W., in an easterly direction to a point in NW $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 24, T. 2 N., R. 7 W., principal meridian. The line crosses lands of the United States within the Deerlodge National Forest for a distance of 1.317 miles, and the right-of-way is 50 feet wide.

No special terms prescribed.

*Annual charges:* \$10.27.

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## PROJECT No. 1469—WYOMING

*License issued* June 8, 1939, for the period of 25 years beginning November 4, 1937.

*Licensee:* Wind River Power Co., Riverton, Wyo.

*Location of project:* In Fremont County, Wyo.

*Description of project:* A 6,600-volt, single-phase transmission line extending 12.33 miles from a substation at a connection with the power line of the Riverton project of the United States Bureau of Reclamation in sec. 34, T. 3 N., R. 1. E,

southerly to a point near St. Michaels Mission in sec. 28, T. 1 N., R. 1 E., Wind River meridian. The line crosses tribal lands within the Shoshone or Wind River Indian Reservation for a distance of 6.075 miles, and the right-of-way is 20 feet wide.

No special terms prescribed.

*Annual charges:* \$35.38.

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PROJECT NO. 1471—MONTANA

*License issued* July 2, 1938, for 25 years.

*Licensee:* Mineral Hill Leasing Co., Pony, Mont.

*Location of project:* In Madison County, Mont.

*Description of project:* A 2,400-volt transmission line extending 3.75 miles from the Mammoth substation of The Montana Power Co. in sec. 7, T. 2 S., R. 3 W., to the properties of the licensee in sec. 15, T. 2 S., R. 3 W., principal meridian. The line crosses public lands of the United States and lands within the Deerlodge and Gallatin National Forests for a distance of 3.14 miles. The right-of-way is 50 feet wide.

No special terms prescribed.

*Annual charges:* \$20.70.

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PROJECT NO. 1475—MONTANA

*License issued* March 4, 1939, for 15 years.

*Licensee:* Rilla G. Dexter, Helena, Mont.

*Location of project:* In Lewis and Clark Counties, Mont.

*Description of project:* An 11,000-volt, 3-phase transmission line extending 2.87 miles from a point on The Montana Power Co.'s transmission line in sec. 34, T. 11 N., R. 1 W., to Gruel Bar in sec. 6, T. 10 N., R. 1 W., principal meridian. The line crosses public lands of the United States and lands within the Helena National Forest for a distance of 2.27 miles. The right-of-way is 30 feet wide.

No special terms prescribed.

*Annual charges:* \$10.45.

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PROJECT NO. 1477—CALIFORNIA

*License issued* October 3, 1938, for the period of 18 years beginning June 21, 1938.

*Licensee:* Atolia Mining Co., San Francisco, Calif.

*Location of project:* In San Bernardino County, Calif.

*Description of project:* A 2,300-volt, 3-phase transmission line extending 7.41 miles from a point in the NE $\frac{1}{4}$  sec. 20, T. 30 S., R. 41 E., to a point in the SE $\frac{1}{4}$  sec. 20, T. 30 S., R. 42 E., Mount Diablo meridian. The line crosses public lands of the United States for a distance of 5.957 miles, and the right-of-way is 100 feet wide.

No special terms prescribed.

*Annual charges:* \$52.66.

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PROJECT NO. 1478—MONTANA

*License issued* October 28, 1938, for 50 years.

*Licensee:* Ralph E. Davis, Dillon, Mont.

*Location of project:* In Beaverhead County, Mont.

*Description of project:* A 4,000-volt transmission line extending 4.957 miles from the substation in NW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 8 to a point in the NE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 23, T. 8 S., R. 11 W., principal meridian. The line crosses public land of the United States for a distance of 1.655 miles, and the right-of-way is 50 $\frac{1}{2}$  feet wide.

No special terms prescribed.

*Annual charges:* \$11.62.

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PROJECT NO. 1483—NEVADA

*License issued* April 12, 1939, for 20 years.

*Licensee:* Mountain City Improvement Association, Mountain City, Nev.

*Location of project:* In Elko County, Nev.

*Description of project:* A 2,300-volt, single-phase transmission line extending 2.412 miles from a connection with project No. 1252 near Pottsville, to Mountain City and Pottsville, Nev., and a 60-kilovolt-ampere 4,400-volt to 2,300-volt outdoor type transformer. The line crosses lands of the United States within the Humboldt National Forest for a distance of 1.849 miles, and the right-of-way is 100 feet wide.

*Special terms prescribed:* In case of future conflict between the project and the Owyhee River highway, the licensee shall, at its own expense, make such relocation of its transmission line as may be found necessary.

*Annual charges:* \$19.79.

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PROJECT NO. 1485—CALIFORNIA-NEVADA

*License issued* September 22, 1938, for 25 years.

*Licensee:* Sierra Pacific Power Co., Reno, Nev.

*Location of project:* In Nevada and Sierra Counties, Calif., and Washoe County, Nev.

*Description of project:* A 60,000-volt, 3-phase transmission line extending about 21.5 miles from the licensee's Truckee substation in sec. 10, T. 17 N., R. 16 E., Mount Diablo meridian, Calif., to its Verdi powerhouse in sec. 8, T. 19 N., R. 18 E., Mount Diablo meridian, Nev. The line crosses public lands of the United States and lands within the Tahoe National Forest for a distance of 1.227 miles, and the right-of-way is 100 feet wide.

*Special terms prescribed:* (a) The licensee shall complete the construction of the project within one year from September 22, 1938. (b) The project shall be so constructed across private land in sec. 1, T. 17 N., R. 16 E., sec. 36, T. 18 N., R. 16 E., and sec. 31, T. 18 N., R. 17 E., that it does not endanger the use of the Truckee Intermediate Field and that it meets the requirements of the Bureau of Air Commerce. In the SW $\frac{1}{4}$  sec. 31, T. 18 N., R. 17 E., the pole heights shall not exceed 30 feet above the field elevation.

*Annual charges:* \$14.82.

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PROJECT NO. 1491—MONTANA

*License issued* February 9, 1939, for the period of 50 years beginning May 11, 1938.

*Licensee:* The Montana Power Co., Butte, Mont.

*Location of project:* In Jefferson and Silver Bow Counties, Mont.

*Description of project:* A 50,000-volt, 3-phase transmission line extending 12.46 miles from the terminus of the present Victoria Mines 50,000-volt line in SE $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 1, T. 2 S., R. 6 W., to a point in NW $\frac{1}{4}$  sec. 28, T. 1 N., R. 4 W., principal

meridian. The line crosses public lands of the United States in sec. 10, T. 1 S., R. 5 W., principal meridian, for a distance of 0.673 mile, and the right-of-way is 50 feet wide.

No special terms prescribed.

Annual charges: \$10.

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PROJECT NO. 1495—MONTANA

*License issued* February 27, 1939, for 50 years.

*Licensee:* The Montana Power Co., Butte, Mont.

*Location of project:* In Madison County, Mont.

*Description of project:* Part of a constructed 50,000-volt transmission line, known as the Victoria Mines line, which connects with the Mammoth Mines line in the SE $\frac{1}{4}$  sec. 34, T. 2 S., R. 6 W., and extends 5.47 miles in a northerly direction to a substation in the SW $\frac{1}{4}$  sec. 1, T. 2 S., R. 6 W., principal meridian. The line crosses public lands of the United States for a distance of 0.462 mile, and the right-of-way is 20 feet wide.

No special terms prescribed.

Annual charges: \$10.

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PROJECT NO. 1498—IDAHO

*License issued* June 16, 1939, for the period of 50 years beginning June 1, 1938.

*Licensee:* Idaho Power Co., Boise, Idaho.

*Location of project:* In Twin Falls County, Idaho.

*Description of project:* A 132,000-volt, 3-phase transmission line extending about 0.5 mile in a general southwesterly direction from the licensee's Upper Salmon Falls hydroelectric plant on Snake River to the Thousand Springs-Caldwell transmission line of project No. 282 in the NE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 4, T. 8 S., R. 13 E., Boise meridian. The line crosses public lands of the United States for a distance of 0.133 mile, and the right-of-way is 150 feet wide.

No special terms prescribed.

Annual charges: \$10.

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PROJECT NO. 1499—CALIFORNIA

*License issued* May 16, 1939, for the period of 50 years beginning June 30, 1938.

*Licensee:* Southern California Edison Co., Ltd., Los Angeles, Calif.

*Location of project:* In Tulare County, Calif.

*Description of project:* A 16,000-volt transmission line extending 6.08 miles from Fairview in the SE $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 12, T. 23 S., R. 32 E., in a general northwesterly direction to the mill of the Mt. Whitney Lumber Co. in the NE $\frac{1}{4}$  sec. 32, T. 22 S., R. 32 E., Mount Diablo base and meridian. The line crosses lands of the United States within the Sequoia National Forest for a distance of 5.27 miles, and the right-of-way is 75 feet wide.

No special terms prescribed.

Annual charges: \$36.62.

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PROJECT NO. 1501—MONTANA

*License issued* March 29, 1939, for 46 years.

*Licensee:* The Montana Power Co., Butte, Mont.

*Location of project:* In Madison County, Mont.

*Description of project:* A 4,000-volt, 3-phase, single-circuit transmission line extending 2.72 miles in a general southwesterly direction from a point on licensee's existing Madison-Butte transmission line in the NW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 9, T. 3 S., R. 1 W., to the Galena Mine in the SW $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 19, T. 3 S., R. 1 W., principal meridian. The line crosses public lands of the United States for a distance of 0.22 mile, and the right-of-way is 20 feet wide.

No special terms prescribed.

*Annual charges:* \$10.

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PROJECT No. 1508—IDAHO

*License issued* June 5, 1939, for the period of 25 years beginning July 1, 1938.

*Licensee:* Idaho Power Co., Boise, Idaho.

*Location of project:* In Lemhi County, Idaho.

*Description of project:* A 6,900-volt distribution line extending 1.347 miles from a point in the SW $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 19, T. 21 N., R. 22 E., in a general westerly direction to a point in the SW $\frac{1}{4}$  sec. 24, T. 21 N., R. 21 E., Boise meridian, and called the Edwards Extension. The line crosses public lands of the United States for a distance of 0.253 mile, and the right-of-way is 60 feet wide.

No special terms prescribed.

*Annual charges:* \$10.

## APPENDIX B

### FINANCIAL STATEMENTS

TABLE NO. 1.—*Proceeds derived from licenses issued by authority of the Federal Power Act*

[Collected in the fiscal year ended June 30, 1939]

Project No.	Licensee	Amount received	For use of Indian lands	From public lands and national forests	From other sources (improvements of navigable waters)	Administrative fees
5	The Montana Power Co.....	\$23,000.00	\$23,000.00	-----	-----	-----
13	Henry Ford & Son, Inc.....	5,910.00	-----	-----	\$5,000.00	\$91.00
16	The Niagara Falls Power Co.....	87,799.50	-----	-----	-----	87,799.50
18	Idaho Power Co.....	1,928.33	-----	\$318.19	-----	1,610.14
20	Utah Power & Light Co.....	1,333.94	-----	53.94	-----	1,280.00
38	Portland General Electric Co. and Crown Zellerbach Corporation.....	250.00	-----	-----	-----	250.00
67	Southern California Edison Co., Ltd.....	38,730.30	-----	6,455.30	-----	32,275.00
77	Pacific Gas & Electric Co.....	2,972.23	-----	441.36	-----	2,530.87
78	do.....	1,857.76	-----	257.76	-----	1,600.00
82	Alabama Power Co.....	5,545.00	-----	105.00	-----	5,440.00
87	Pacific Gas & Electric Co.....	45.15	-----	45.15	-----	-----
88	Merced Irrigation District.....	922.93	-----	78.68	-----	\$44.25
95	Emma Rose and Hobart Estate Co.....	146.70	-----	39.00	-----	107.70
96	San Joaquin Light & Power Corporation.....	5,620.28	-----	1,220.28	-----	4,400.00
99	Pacific Gas & Electric Co.....	354.33	-----	281.33	-----	73.00
108	Northern States Power Co.....	5,411.64	1,200.00	5.64	-----	4,206.00
120	Southern California Edison Co., Ltd.....	12,900.89	-----	3,469.39	-----	9,431.50
135	Portland General Electric Co.....	14,102.45	-----	3,752.45	-----	10,350.00
137	Pacific Gas & Electric Co.....	11,594.90	-----	2,545.65	-----	9,049.25
144	Idaho Power Co.....	45.00	45.00	-----	-----	-----
150	Central Arizona Light & Power Co.....	231.00	-----	231.00	-----	-----
174	Southern California Edison Co., Ltd.....	52.00	-----	47.00	-----	5.00
175	San Joaquin Light & Power Corporation.....	2,255.07	-----	741.32	-----	1,513.75
176	Escondido Mutual Water Co.....	34.15	-----	5.40	-----	28.75
177	Florida Power Corporation.....	180.00	-----	-----	100.00	80.00
178	San Joaquin Light & Power Corporation.....	1,098.41	-----	55.66	-----	1,042.75
180	Pacific Gas & Electric Co.....	7.60	-----	7.60	-----	-----
181	do.....	6.60	-----	6.60	-----	-----
184	do.....	5,084.56	-----	939.81	-----	4,144.75
187	do.....	928.96	-----	35.21	-----	893.75
190	Uintah Power & Light Co.....	762.92	327.12	20.00	-----	415.80
199	Columbia Railway & Navigation Co.....	1,443.23	-----	-----	-----	1,443.23
201	Town of Petersburg, Alaska.....	430.00	-----	180.00	-----	250.00
204	The Washington Water Power Co.....	303.79	-----	88.79	-----	215.00
233	Pacific Gas & Electric Co.....	12,725.18	-----	299.42	-----	12,425.76
245	Wagner Assets Realization Corporation.....	86.60	-----	86.60	-----	-----
255	The Nevada-California Electric Corporation.....	57.75	-----	57.75	-----	-----
271	Arkansas Power & Light Co.....	5,503.05	-----	3.05	-----	5,500.00
281	The California Oregon Power Co.....	16.35	-----	16.35	-----	-----
282	Idaho Power Co.....	1,458.62	-----	1,453.62	-----	5.00
287	State of Illinois and North Counties Hydro-Electric Co.....	225.00	-----	-----	-----	225.00
289	Louisville Gas & Electric Co.....	104,044.00	-----	-----	95,000.00	9,044.00
292	The California-Oregon Power Co.....	8.00	-----	8.00	-----	-----
298	Southern California Edison Co., Ltd.....	170.00	-----	170.00	-----	-----
308	Inland Power & Light Co.....	271.45	-----	53.95	-----	217.50
309	The Clarion River Power Co.....	360.00	-----	-----	-----	360.00
321	Public Service Co. of Colorado.....	63.10	-----	63.10	-----	-----
322	The Montana Power Co.....	22.75	-----	6.50	-----	16.25
325	The Nevada-California Electric Corporation.....	21.56	19.65	1.91	-----	-----
326	do.....	5.00	-----	5.00	-----	-----
327	do.....	5.80	-----	5.80	-----	-----
329	Southern California Water Co.....	38.40	-----	38.40	-----	-----
335	Pacific Gas & Electric Co.....	18.03	-----	18.03	-----	-----

TABLE NO. 1.—Proceeds derived from licenses issued by authority of the Federal Power Act—Continued

Project No.	Licensee	Amount received	For use of Indian lands	From public lands and national forests	From other sources (improvements of navigable waters)	Administrative fees
338	Nevada Irrigation District	\$270.00		\$270.00		
339	Puget Sound Power & Light Co.	2.66		2.66		
344	San Geronimo Electric Corporation	212.59		62.84		\$149.75
346	Minnesota Power & Light Co.	1,116.00				1,116.00
349	Alabama Power Co.	9,437.59		.09		9,437.50
350	Anchorage Light & Power Co., Inc.	399.35		199.35		200.00
352	Idaho Power Co.	3.15	\$2.50	.65		
357	Bonner Lumber Co.	2.28		2.28		
362	Ford Motor Co.	97,252.50			\$95,440.00	1,812.50
364	Idaho Power Co.	44.45		44.45		
374	The Nevada-California Electric Corporation	3.55		3.55		
378	Beaver Gold Mining Co.	12.08		12.08		
382	Southern California Edison Co., Ltd.	1,299.15		346.90		952.25
386	Unity Gold Production Co.	286.50		102.16		184.34
388	Pacific Gas & Electric Co.	7.85		7.85		
390	Southern California Edison Co., Ltd.	47.79		47.79		
393	San Diego Consolidated Gas & Electric Co.	5.00		5.00		
400	The Western Colorado Power Co.	1,968.85		343.85		1,625.00
401	Michigan Gas & Electric Co.	157.50				157.50
405	The Susquehanna Power Co. and Philadelphia Electric Power Co.	11,300.00				11,300.00
408	Sitka Wharf & Power Co., Inc.	88.50		51.00		37.50
415	Southern Ohio Public Service Co.	3,200.00			3,000.00	200.00
420	The city of Ketchikan, Alaska.	286.73		79.96		206.77
421	The California Oregon Power Co.	31.35	30.78	.57		
423	Pacific Gas & Electric Co.	70.00		70.00		
429	Minnesota Power & Light Co.	26.40		26.40		
431	Idaho Power Co.	8.50		8.50		
432	Carolina Power & Light Co.	5,940.00				5,940.00
438	Southern California Edison Co., Ltd.	2.59		2.59		
439	Idaho Power Co.	47.17		47.17		
440	The Nevada-California Electric Corporation	20.35		20.35		
444	Pacific Gas & Electric Co.	107.49		102.49		5.00
447	The Arizona Power Corporation	72.70		72.70		
455	Mountain States Power Co.	20.00	20.00			
457	Idaho Power Co.	2,514.62		198.37		2,316.25
459	Union Electric Co. of Missouri	3,750.74		.74		3,750.00
461	Southern California Edison Co., Ltd.	32.87				
466	Idaho Power Co.	64.00		32.50		31.50
469	Minnesota Power & Light Co.	288.44		3.44		285.00
471	San Joaquin Light & Power Corporation	101.10		101.10		
472	Utah Power & Light Co.	3,244.90		744.90		2,500.00
474	The Nevada-California Electric Corporation	17.00		17.00		
477	Portland General Electric Co.	53.18		53.18		
478	The Montana Power Co.	12.08		12.08		
479	do.	65.75		60.75		5.00
480	The Nevada-California Electric Corporation	2.60		2.60		
481	do.	5.29	5.29			
485	Columbus Electric & Power Co.	7,000.00				7,000.00
486	Utah Power & Light Co.	529.87		79.87		450.00
487	Pennsylvania Power & Light Co.	2,037.00				2,037.00
488	Thermalito Irrigation District and Table Mountain Irrigation District	7.00		7.00		
490	San Diego Consolidated Gas & Electric Co.	10.00	8.50	1.50		
492	Lewis Twyman	91.55		53.30		38.25
501	Public Service Co. of Colorado	23.90		23.90		
502	Pacific Gas & Electric Co.	11.00		11.00		
503	Idaho Power Co.	3,372.65		347.65		3,025.00
505	The Washington Water Power Co.	9.00		9.00		
506	F. D. Edwards	2.00		2.00		
508	The Nevada-California Electric Corporation	20.00		20.00		
510	The Washington Water Power Co.	25.00		25.00		
516	Lexington Water Power Co.	8,703.50				8,703.50
517	The Montana Power Co.	20.00		20.00		
518	Public Service Co. of Colorado	33.00		33.00		
519	do.	23.00		23.00		
520	do.	8.00		8.00		
522	Southern California Edison Co., Ltd.	5.00		5.00		
523	do.	29.10		29.10		

TABLE NO. 1.—Proceeds derived from licenses issued by authority of the Federal Power Act—Continued

Project No.	Licensee	Amount received	For use of Indian lands	From public lands and national forests	From other sources (improvements of navigable waters)	Administrative fees
525	Pacific Gas & Electric Co.	\$700.00		\$200.00		\$500.00
532	The Nevada-California Electric Corporation	57.50		57.50		
539	Kentucky Utilities Co.	5,400.50			\$4,708.00	692.50
543	The Washington Water Power Co.	5.30		5.30		
544	The Nevada-California Electric Corporation	400.00	\$48.00	352.00		
548	San Diego Consolidated Gas & Electric Co.	2.00		2.00		
555	The Washington Water Power Co.	12.00		12.00		
558	The Montana Power Co.	30.00		30.00		
559	San Diego Consolidated Gas & Electric Co.	13.00	13.00			
560	The California Oregon Power Co.	23.00		23.00		
562	Pacific Power & Light Co.	3.50		3.50		
572	Great Northern Railway Co.	48.34		43.34		5.00
574	The Montana Light & Power Co.	14.00		14.00		
579	Pacific Power & Light Co.	7.50		7.50		
584	The Red River Lumber Co.	675.00		675.00		
587	The Washington Water Power Co.	37.00		37.00		
588	Crown Zellerbach Corporation	2,947.87		697.87		2,250.00
589	The Nevada-California Electric Corporation	88.20	88.20			
590	Montana Light & Power Co.	89.30		12.17		77.13
595-607	The Nevada-California Electric Corporation	192.60		44.20		148.40
596	Utah Power & Light Co.	75.00		75.00		
597	Utah Light & Traction Co.	228.61		51.11		177.50
601	Utah Power & Light Co.	6.00		6.00		
606	Pacific Gas & Electric Co.	76.12		27.41		48.71
614	Southern California Edison Co., Ltd.	2.00		2.00		
616	Pacific Gas & Electric Co.	500.00		472.00		28.00
618	Alabama Power Co.	7,608.33		8.33		7,600.00
619	Pacific Gas & Electric Co.	5,229.36		879.36		4,350.00
621	The Washington Water Power Co.	2,085.00				2,085.00
629	The California Oregon Power Co.	13.50	13.50			
636	West Penn Power Co.	57.00		57.00		
637	The Washington Water Power Co.	12,573.79		869.79		11,704.00
639	do	13.45		13.45		
655	Pennsylvania Electric Co.	37.00		37.00		
657	Wisconsin Public Service Corporation	5.00	5.00			
658	Pacific Power & Light Co.	28.00		28.00		
659	Crisp County, Ga.	1,020.00				1,020.00
663	Porto Rico Railway, Light & Power Co.	391.58		35.33		356.25
665	Utah Power & Light Co.	87.17		14.67		72.50
669	Crooked River Ranch Co.	8.64				8.64
671	Utah Power & Light Co.	71.06		14.81		56.25
673	The Montana Power Co.	7.50	7.50			
675	Utah Power & Light Co.	65.69		9.44		56.25
677	San Geronio Electric Corporation	7.50		7.50		
679	Southern California Edison Co., Ltd.	1.00		1.00		
682	Florida Power Corporation	317.57		5.07		317.50
696	Utah Power & Light Co.	360.28		34.03		326.25
697	Great Northern Railway Co.	14.75		14.75		
703	Utah Power & Light Co.	120.38		9.13		111.25
704	The California Oregon Power Co.	28.87		28.87		
707	Pacific Gas & Electric Co.	40.01		40.01		
708	do	130.62		5.62		125.00
710	Wisconsin Power & Light Co.	1,635.00	1,500.00			135.00
711	The Nevada-California Electric Corporation	19.00	19.00			
713	Utah Power & Light Co.	207.39		51.14		156.25
719	Royal Development Co.	143.50		41.00		102.50
721	Virginia Public Service Co.	15.00		15.00		
722	Southern California Edison Co., Ltd.	55.00		55.00		
731	Alaska Pacific Salmon Company	50.00		10.00		40.00
733	The Western Colorado Power Co.	30.00		8.48		21.54
734	do	424.00		424.00		
737	Pacific Gas & Electric Co.	262.50		262.50		
738	Fred and John F. Dover	470.75			440.00	30.75
740	Pacific Power & Light Co.	5.00		5.00		
742	Fred Schwarz	5.00	5.00			
743	Sierra Pacific Power Co.	70.00		70.00		
747	California Public Service Co.	75.00		12.50		62.50
748	Sierra Consolidated Mines, Inc.	204.43		109.43		95.00
749	Western States Utilities Co.	65.82		15.82		50.00
752	Carolina Power & Light Co.	80.00		80.00		

TABLE NO. 1.—Proceeds derived from licenses issued by authority of the Federal Power Act—Continued

Project No.	Licensee	Amount received	For use of Indian lands	From public lands and national forests	From other sources (improvements of navigable waters)	Administrative fees
754	The California Oregon Power Co.	\$5.00		\$5.00		
759	Public Service Co. of Colorado	37.00		37.00		
760	do	5.00		5.00		
762	The Washington Water Power Co.	6.50	8.50			
764	Utah Light & Traction Co.	8.50		6.50		
765	Utah Power & Light Co.	747.79		729.41		\$18.38
768	City of Colorado Springs	10.00		10.00		
772	Pacific Gas & Electric Co.	57.00		57.00		
773	The California Oregon Power Co.	5.00	5.00			
774	The Arizona Power Corporation	161.31		156.31		5.00
776	Pacific Gas & Electric Co.	21.50		21.50		
777	Puget Sound Power & Light Co.	76.00		76.00		
778	Utah Power & Light Co.	63.28	41.44	21.84		
779	Southern California Edison Co., Ltd.	9.00		9.00		
782	The Nevada-California Electric Corporation	15.00	6.38	8.62		
785	City of Allegan, Mich.	88.80				88.80
786	Idaho Power Co.	450.00		450.00		
790	The Montana Power Co.	7.09		7.09		
791	The Washington Water Power Co.	10.00		10.00		
792	The Dakota Power Co.	319.39		69.39		250.00
795	The Washington Water Power Co.	138.12		133.12		5.00
796	City of Phoenix, Ariz.	35.00	35.00			
800	Southern California Edison Co., Ltd.	5.00		5.00		
801	King's Hill Epworth League Association	3.00		3.00		
802	San Joaquin Light & Power Corporation	144.50		144.50		
803	Pacific Gas & Electric Co.	1,300.00		379.00		921.00
810	Pacific Power & Light Co.	6.15		6.15		
813	The Arizona Power Corporation	12.15		12.15		
814	Telluride Power Co.	683.08		183.08		500.00
815	Sierra Pacific Power Co.	9.56		5.00		4.56
819	Montana Consolidated Mines Corporation	5.00		5.00		
820	Eastern Oregon Light & Power Co.	20.00		20.00		
825	Idaho Power Co.	15.20		15.20		
828	The California Oregon Power Co.	10.22		10.22		
830	The Nevada-California Electric Corporation	61.25		61.25		
832	Lost Pilgrim Mining Co. and Hall Inter-State Mining Co.	225.00		75.00		150.00
838	Conejos Recreation Association, Inc.	5.75		5.75		
844	City of Los Angeles, Calif.	5.80		5.80		
846	Southern California Edison Co., Ltd.	35.70		35.70		
855	Public Service Co. of Colorado	14.00		14.00		
856	City of Los Angeles, Calif.	9.85		9.85		
859	Mountain States Power Co.	10.00		10.00		
867	Virginia Public Service Co.	19.62		19.62		
869	San Joaquin Light & Power Corporation	19.00		19.00		
879	The California Oregon Power Co.	25.25	25.25			
881	Pacific Gas & Electric Co.	5.00		5.00		
882	The Nevada-California Electric Corporation	12.50		12.50		
886	Public Service Co. of Colorado	6.35		6.35		
889	Pacific Gas & Electric Co.	1,500.00		428.57		1,071.43
892	Public Service Co. of Colorado	5.00		5.00		
906	Hydro-Electric Corporation of Virginia	6.60		6.60		
909	Idaho Power Co.	6.65		6.65		
911	Pacific Gas & Electric Co.	9.25		9.25		
913	Virginia Public Service Co.	9.30		9.30		
914	Southern Utah Power Co.	292.90		292.90		
917	Portland Canal Power Co.	138.00				138.00
918	Southern California Edison Co., Ltd.	5.00		5.00		
921	Idaho Power Co.	33.50		33.50		
923	Southern California Edison Co., Ltd.	19.65		19.65		
925	City of Ottumwa, Iowa	182.00				182.00
926	Pacific Gas & Electric Co.	7.04		7.04		
927	Virginia Public Service Co.	5.00		5.00		
929	Southern California Edison Co., Ltd.	5.00		5.00		
931	The Washington Water Power Co.	5.00	5.00			
933	Mountain States Power Co.	212.50		212.50		
935	Inland Power & Light Co.	7,208.46		114.71		7,093.75
938	Sierra Pacific Power Co.	51.70		51.70		
940	West Coast Power Co.	36.75		12.50		24.25
943	Puget Sound Power & Light Co.	21,455.00		95.00		21,360.00

TABLE No. 1.—Proceeds derived from licenses issued by authority of the Federal Power Act—Continued

Project No.	Licensee	Amount received	For use of Indian lands	From public lands and national forests	From other sources (improvements of navigable waters)	Administrative fees
946	Hyrum City, Utah	\$148.92		\$20.17		\$128.75
949	Mountain States Power Co.	154.15		154.15		
951	Chicagoff Mining Co.	243.40		87.40		156.00
957	Idaho Power Co.	5.00		5.00		
958	Sierra Pacific Power Co.	5.00		5.00		
959	do.	8.15		8.15		
960	The California Oregon Power Co.	5.95		5.95		
961	Matt Carey & Julian A. Knight	9.10		9.10		
965	Eastern Oregon Light & Power Co.	63.30		53.30		10.00
966	Southern California Edison Co., Ltd.	93.67		88.67		5.00
970	Glacier Silver Lead Mining Co.	75.03		17.53		57.50
973	Public Service Co. of Colorado	30.12		30.12		
977	Southern California Edison Co., Ltd.	23.53		23.53		
978	Sierra Pacific Power Co.	55.95		55.95		
981	The California Oregon Power Co.	5.00	\$5.00			
982	Sierra Pacific Power Co.	12.90		12.90		
983	The California Oregon Power Co.	25.87		18.35		7.52
984	Mountain States Power Co.	75.00	69.50	5.50		
985	Idaho Power Co.	50.60		45.60		5.00
991	Southern California Edison Co., Ltd.	5.00		5.00		
993	Zenda Gold Mining Co.	14.15		14.15		
994	Telluride Power Co.	710.65		705.65		5.00
995	The California Oregon Power Co.	5.83		5.83		
998	The Washington Water Power Co.	13.40		13.40		
1000	Louisville Gas & Electric Co.	7.50			\$7.50	
1001	Mt. Hood Electric Co.	60.70		60.70		
1002	Southern California Edison Co., Ltd.	13.50		13.50		
1004	The Nevada-California Electric Corporation	15.25		15.25		
	do.	30.80	20.00	10.80		
1009	Southern California Edison Co., Ltd.	5.00		5.00		
1011	do.	5.25		5.25		
1015	The Arizona Power Corporation	6.30		6.30		
1016	The California Oregon Power Co.	13.26		13.26		
1017	Pacific Gas & Electric Co.	9.50		9.50		
1018	do.	11.90		11.90		
1020	Pacific Power & Light Co.	5.00		5.00		
1022	Dan Rovero	5.00		5.00		
1024	Highland Utilities Co.	5.00		5.00		
1025	Safe Harbor Water Power Corporation	6,426.75				6,426.75
1026	The California Oregon Power Co.	12.20		12.20		
1028	Idaho Power Co.	13.70		13.70		
1029	The California Oregon Power Co.	50.00		50.00		
1030	do.	9.30		9.30		
1031	Pacific Gas & Electric Co.	31.50		31.50		
1033	Idaho Power Co.	5.00		5.00		
1035	The California Oregon Power Co.	5.30		5.30		
1037	Sierra Pacific Power Co.	29.30		29.30		
1040	The California Oregon Power Co.	5.00		5.00		
1042	The Arizona Power Corporation	41.39		5.00		5.00
1047	The California Oregon Power Co.	4.90		36.39		
1055	Sierra Pacific Power Co.	5.00		4.90		
1057	The California Oregon Power Co.	1.05		1.05		
1059	do.	1.39		1.39		
1061	Pacific Gas & Electric Co.	50.00		24.40		25.60
1063	Public Service Co. of Colorado	83.30		83.30		
1064	The Montana Power Co.	5.00		5.00		
1065	do.	40.00		40.00		
1066	do.	35.10		35.10		
1069	Pacific Gas & Electric Co.	5.70		5.70		
1070	The California Oregon Power Co.	7.85		7.85		
1071	Arkansas-Missouri Power Co.	5.00		5.00		
1072	The Washington Water Power Co.	13.25		13.25		
1074	Pacific Power & Light Co.	100.00	98.70	1.30		
1076	do.	21.50		21.50		
1077	The Arizona Power Corporation	92.39		92.39		
1078	Southern California Edison Co., Ltd.	64.55		64.55		
1080	The Hook-Aston Milling Co.	635.00			635.00	
1081	The Cliffs Power & Light Co.	45.05		45.05		
1082	Pacific American Fisheries, Inc.	10.00		5.00		5.00
1084	The Montana Power Co.	5.00		5.00		
1086	Turlock Irrigation District and Modesto Irrigation District	56.00		56.00		
1087	Rechsteiner Milling Co.	440.00			404.00	
1096	Puget Sound Power & Light Co.	5.25		5.25		
1097	John A. Zehntbauer	39.79		11.04		28.75

TABLE NO. 1.—Proceeds derived from licenses issued by authority of the Federal Power Act—Continued

Project No.	Licensee	Amount received	For use of Indian lands	From public lands and national forests	From other sources (improvements of navigable waters)	Administrative fees
1101	Prince William Sound Water-power, Light & Telephone Co	\$134.40	-----	\$50.90	-----	\$83.50
1102	East Tennessee Light & Power Co	5.00	-----	5.00	-----	-----
1103	Southern California Edison Co., Ltd	18.70	-----	18.70	-----	-----
1104	San Diego Consolidated Gas & Electric Co.	5.00	-----	5.00	-----	-----
1109	The Nevada-California Electric Corporation.	163.50	-----	163.50	-----	-----
1111	The Montana Power Co	36.50	\$35.05	1.45	-----	-----
1112	Southern California Edison Co., Ltd	20.50	-----	20.50	-----	-----
1113	Public Service Co. of Colorado	7.00	-----	7.00	-----	-----
1116	The California Oregon Power Co	2.40	-----	2.40	-----	-----
1118	The Montana Power Co	20.50	-----	20.50	-----	-----
1120	The Arizona Power Corporation	16.00	-----	16.00	-----	-----
1121	Pacific Gas & Electric Co	135.00	-----	135.00	-----	-----
1122	Grimes Pass Power Co	68.25	-----	68.25	-----	-----
1123	The Nevada-California Electric Corporation.	42.10	-----	42.10	-----	-----
1127	Northern Virginia Power Co	10.50	-----	10.50	-----	-----
1130	York Mines	5.00	-----	5.00	-----	-----
1133	Public Service Co. of Colorado	12.25	-----	12.25	-----	-----
1136	The California Oregon Power Co	41.80	40.00	1.80	-----	-----
1138	New England Fish Co	19.15	-----	19.15	-----	-----
1139	Southern California Edison Co., Ltd	5.00	-----	5.00	-----	-----
1144	John H. Graff	53.14	-----	6.64	-----	46.50
1148	The Montana Power Co	16.30	-----	16.30	-----	-----
1151	Thompson Gold Milling Co	45.65	-----	45.65	-----	-----
1153	San Joaquin Light & Power Corporation.	120.75	-----	120.75	-----	-----
1154	California Public Service Co	26.95	-----	26.95	-----	-----
1157	The Montana Power Co	51.48	-----	51.48	-----	-----
1160	Pennsylvania Electric Co	6.66	-----	6.66	-----	-----
1163	The California Oregon Power Co	1,083.95	-----	309.70	-----	774.25
1167	The Arizona Power Corporation	76.13	-----	76.13	-----	-----
1171	The Nevada-California Electric Corporation.	39.80	-----	39.80	-----	-----
1174	Boss Tweed Clipper Gold Mines, Inc.	52.99	-----	52.99	-----	-----
1175	Kanawha Valley Power Co	66,355.00	-----	-----	\$64,000.00	2,355.00
1176	Bradley Mining Co	114.49	-----	51.99	-----	62.50
1177	San Diego Consolidated Gas & Electric Co	11.70	-----	11.70	-----	-----
1180	The California Oregon Power Co	1.48	-----	1.48	-----	-----
1181	The Western Pacific R. R. Co	5.63	-----	5.63	-----	-----
1183	Pacific Gas & Electric Co	5.00	-----	5.00	-----	-----
1184	The California Oregon Power Co	222.50	-----	222.50	-----	-----
1187	Pacific Gas & Electric Co	5.44	1.80	3.64	-----	-----
1190	do	5.00	-----	5.00	-----	-----
1191	Sierra Pacific Power Co	155.21	-----	150.21	-----	5.00
1193	City of Los Angeles, Calif	16.00	-----	16.00	-----	-----
1194	Pacific Gas & Electric Co	5.00	-----	5.00	-----	-----
1195	do	5.00	-----	5.00	-----	-----
1198	Jackson Hole Light & Power Co	98.75	-----	73.75	-----	25.00
1201	The Arizona Power Corporation	8.30	-----	8.30	-----	-----
1205	Southern California Edison Co., Ltd	5.00	-----	5.00	-----	-----
1206	West Coast Power Co	5.55	-----	1.25	-----	4.30
1208	Idaho Power Co	5.00	-----	5.00	-----	-----
1215	City of Seattle, Wash	5.00	-----	5.00	-----	-----
1218	Georgia Power Co	1,151.25	-----	-----	-----	1,151.25
1220	Public Service Co. of Colorado	5.00	-----	5.00	-----	-----
1223	Puget Sound Power & Light Co	13.45	13.45	-----	-----	-----
1224	The Montana Power Co	135.65	-----	135.65	-----	-----
1225	do	308.47	-----	298.47	-----	10.00
1231	Mountain States Power Co	5.00	-----	5.00	-----	-----
1235	City of Radford, Va	127.25	-----	-----	-----	127.25
1247	Bessie M. Byrnes	15.64	-----	15.64	-----	-----
1248	The Arizona Power Corporation	41.50	-----	36.50	-----	5.00
1250	City of Pasadena, Calif	147.20	-----	19.72	-----	127.48
1252	Idaho Power Co	145.00	-----	145.00	-----	-----
1253	Lion Coal Corporation	5.00	-----	5.00	-----	-----
1255	The Washington Water Power Co	49.52	34.71	4.30	-----	10.51
1257	Public Service Co. of Colorado	61.10	-----	61.10	-----	-----
1258	Pacific Gas & Electric Co	5.00	-----	5.00	-----	-----
1259	The Montana Power Co	21.04	-----	21.04	-----	-----
1261	Public Service Co. of Colorado	38.60	-----	28.60	-----	10.00
1262	Sierra Pacific Power Co	31.27	-----	26.27	-----	5.00
1264	Southern California Edison Co., Ltd	5.00	-----	5.00	-----	-----

TABLE NO. 1.—Proceeds derived from licenses issued by authority of the Federal Power Act—Continued

Project No.	Licensee	Amount received	For use of Indian lands	From public lands and national forests	From other sources (improvements of navigable waters)	Administrative fees
1268	Roaring Fork Water, Light & Power Co.	\$99.10		\$94.10		\$5.00
1271	The California Oregon Power Co.	5.80		5.80		
1272	Southern California Edison Co., Ltd.	11.61		6.61		5.00
1273	Parowan City, Utah	72.30		18.55		53.75
1278	Nantabala Power & Light Co.	13.75		13.75		
1279	Pacific Gas & Electric Co.	5.00		5.00		
1280	Red Bluff Water Power Control District	48.12		9.12		39.00
1285	Southern California Edison Co., Ltd.	7.04		2.04		5.00
1287	do	10.74		5.74		5.00
1288	Canyon Mines Corporation	10.81		10.81		
1292	Puget Sound Power & Light Co.	5.00		5.00		
1295	Pacific Gas & Electric Co.	70.98		65.98		5.00
1298	General Public Utilities, Inc.	11.54		6.54		5.00
1300	Vosburg Mining Co.	10.02		5.06		4.96
1301	George W. Shedd	2.64				2.64
1302	California Fruit Exchange	719.75		618.90		100.85
1304	Puget Sound Power & Light Co.	5.00		5.00		
1306	Butte Highlands Mining Co.	28.00		28.00		
1314	The J. W. Howell Co.	10.00		5.00		5.00
1318	Pacific Gas & Electric Co.	12,706.82		6,076.82		6,630.00
1320	Sumpter Valley Dredging Co.	20.72		15.72		5.00
1332	Pacific Gas & Electric Co.	125.07		89.84		35.23
1335	San Joaquin Light & Power Corporation	8.20		4.10		4.10
1337	Morning Glory Mines, Inc.	10.39		5.39		5.00
1338	The Montana Power Co.	5.00		5.00		
1339	do	5.00		5.00		
1350	W. L. Leland	13.32		7.35		5.97
1351	American Western Mines, Inc., of Montana	24.14		19.14		5.00
1352	Pacific Gas & Electric Co.	19,572.86		565.86		19,007.00
1353	The Nevada-California Electric Corporation	61.35		56.35		5.00
1355	The Montana Power Co.	10.00		5.00		5.00
1356	do	10.00		5.00		5.00
1357	Storfold & Grondahl Packing Co.	10.00		5.00		5.00
1361	Pacific Gas & Electric Co.	10.00	\$5.00			5.00
1363	The Arizona Power Corporation	188.63		183.63		5.00
1371	E. W. Requier	3.12		1.56		1.56
1372	Quartz Hill Mining Co.	30.26		26.41		3.85
1375	G. W. Moore and Rollie D. Morris	10.00		5.00		5.00
1376	The Montana Power Co.	12.02	7.02			5.00
1381	The Nevada-California Electric Corporation	5.00				5.00
1382	Louise Kane	10.00		5.00		5.00
1383	The Arizona Power Corporation	10.00		5.00		5.00
1384	R. B. Caswell	34.15		29.15		5.00
1387	The California Oregon Power Co.	10.00		5.00		5.00
1392	Pacific Gas & Electric Co.	6.43		1.43		5.00
1393	Pend Oreille Mines & Metals Co.	183.46		5.00		178.46
1400	Walter E. Ingersoll	8.56		4.28		4.28
1402	The Arizona Power Corporation	10.00		5.00		5.00
1404	Climax Molybdenum Co.	11.25		6.25		5.00
1405	City of Phoenix, Ariz.	1.40		1.08		.32
1408	Pacific Gas & Electric Co.	10.00		5.00		5.00
1409	Mt. Baker Ski Club	2.16		1.08		1.08
1411	San Diego Consolidated Gas & Electric Co.	10.00	5.00			5.00
1412	do	20.76		10.38		10.38
1414	Sierra Pacific Power Co.	99.31	71.67	18.05		9.59
1418	Public Service Co. of Colorado	19.54		9.77		9.77
1419	H. F. Villiger	9.28		4.64		4.64
1421	George R. Winslow et al.	5.54		2.77		2.77
1422	Mississippi Power Co.	19.04		9.52		9.52
1423	J. C. Spencer	5.62		2.81		2.81
1426	Buchan & Heinen Packing Co.	84.32		33.73		50.59
1427	Wisconsin-Michigan Power Co.	23.72		14.64		9.08
1429	W. P. Studdert	10.00		5.00		5.00
1430	H. L. Bradley, C. O. Bradley, and L. K. Wrenwick	7.26		3.63		3.63
1432	Kadiak Fisheries Co.	6.15		4.34		1.81
1437	Republic Power Co.	7.93		4.94		2.99
1438	J. E. Ducey	3.50		1.75		1.75
1440	Lake Superior District Power Co.	4.28		2.14		2.14
1444	The Arizona Power Corporation	36.02		31.24		4.78
1445	Public Service Co. of Colorado	6.46		3.23		3.23

TABLE NO. 1.—Proceeds derived from licenses issued by authority of the Federal Power Act—Continued

Project No.	Licensee	Amount received	For use of Indian lands	From public lands and national forests	From other sources (improvements of navigable waters)	Administrative fees
1446	Sierra Pacific Power Co.....	\$163.86	\$3.85	\$152.80	-----	\$7.21
1447	Inland Power & Light Co.....	82.33	-----	18.44	-----	63.89
1448	Hidden Lake Mining Co.....	5.82	-----	3.30	-----	2.52
1449	Idaho Power Co.....	48.53	-----	46.97	-----	1.56
1452	P. V. Burke.....	3.92	-----	1.96	-----	1.96
1462	The Washington Water Power Co.....	4.44	-----	2.51	-----	1.93
1465	do.....	256.51	-----	251.70	-----	4.81
1467	The Montana Power Co.....	1.85	-----	.95	-----	.90
1471	Mineral Hill Leasing Co.....	10.38	-----	7.87	-----	2.51
1477	Atolia Mining Co.....	27.99	-----	25.33	-----	2.66
1478	Ralph E. Davis.....	2.07	-----	1.18	-----	.89
1479	Fred Simi.....	2.60	-----	1.30	-----	1.30
1482	Jack A. Crawford and Cyrus Bell.....	1.56	-----	.78	-----	.78
1484	Jake Francis Beattiger.....	2.74	-----	1.37	-----	1.37
1485	Sierra Pacific Power Co.....	4.10	-----	2.72	-----	1.38
	Total.....	723,576.73	26,895.36	51,728.31	\$268,770.50	376,182.56

Proceeds derived from revested Oregon and California railroad grant lands situated in projects under license by authority of the Federal Power Act

[Collected in the fiscal year ended June 30, 1939]

Project No.	Licensee	Amount	Project No.	Licensee	Amount
135	Portland General Electric Co.....	\$152.53	1045	The California Oregon Power Co.....	\$5.00
281	The California Oregon Power Co.....	81.78	1047	do.....	1.70
477	Portland General Electric Co.....	196.82	1057	do.....	12.10
603	The California Oregon Power Co.....	5.00	1059	do.....	6.31
704	do.....	36.83	1116	do.....	2.60
828	do.....	59.78	1152	do.....	5.00
995	do.....	35.82	1180	do.....	9.12
1001	Mount Hood Electric Co.....	9.55	1365	Mountain States Power Co.....	5.00
1001	Portland General Electric Co.....	1.49			
1016	The California Oregon Power Co.....	30.24		Total.....	656.67

Proceeds derived from Coos Bay wagon-road grant lands situated in projects under license by authority of the Federal Power Act

[Collected in the fiscal year ended June 30, 1939]

Project No.	Licensee	Amount
281	The California Oregon Power Co.....	\$56.95

Proceeds derived from penalties assessed for delinquency in payment of annual charges

[Collected in the fiscal year ended June 30, 1939]

Project No.	Licensee	Amount	Project No.	Licensee	Amount
386	Unity Gold Production Co.....	\$42.92	1350	W. L. Leland.....	\$0.67
506	F. D. Edwards.....	.10	1371	E. W. Regnier.....	.43
590	Montana Light & Power Co.....	42.04	1400	Walter E. Ingersoll.....	.69
742	Fred Schwarz.....	.25	1405	City of Phoenix, Ariz.....	.11
748	Sierra Consolidated Mines, Inc.....	22.48	1409	Mount Baker Ski Club.....	.11
796	City of Phoenix, Ariz.....	1.75	1429	W. P. Studdert.....	.50
961	Matt Carey and Julian A. Knight.....	.46	1448	Hidden Lake Mining Co.....	.29
1235	City of Radford, Va.....	6.36	1479	Fred Simi.....	.13
1273	Parowan City, Utah.....	3.62			
1337	Morning Glory Mines, Inc.....	.52		Total.....	123.43

*Interest on deferred collections awarded in judgment entered against licensee*

[Collected in the fiscal year ended June 30, 1939]

Project No.	Licensee	Amount
1174	Boss Tweed Clipper Gold Mines, Inc. ....	\$7.87

*Proceeds derived from determination of headwater benefits*

[Collected in the fiscal year ended June 30, 1939]

Project No.	Licensee	Amount
67)	Southern California Edison Co., Ltd. ....	\$3,278.27
120)		
96	San Joaquin Light & Power Corporation .....	3,278.27
		6,556.54

TABLE NO. 2.—*Distribution and credit on the books of the Treasury Department of proceeds of licenses, fiscal year 1939*

## To general fund of the Treasury:

Reimbursement, costs of administration, Federal Power Act ..	\$376,182.56
Reimbursement, costs of administration, Federal Power Act (derived from costs of determination of headwater benefits) .....	6,556.54
12½ percent of fees from public lands and national forests; 50 percent of fees from improvements of navigable waters ..	140,851.29
To the indefinite appropriation (under administration of the War Department): Maintenance and operation of dams and other improvements of navigable waters .....	134,385.25
To the reclamation fund .....	25,864.16
To payments to States under Federal Power Act, special funds ..	19,398.11
To—	
Alabama .....	\$42.53
Alaska .....	278.43
Arizona .....	363.79
Arkansas .....	3.02
California .....	11,983.07
Colorado .....	509.29
Florida .....	.03
Idaho .....	1,639.62
Michigan .....	22.38
Minnesota .....	11.19
Mississippi .....	3.57
Missouri .....	.28
Montana .....	414.18
Nevada .....	265.66
New Mexico .....	3.42
North Carolina .....	35.16
Oregon .....	1,815.08
Pennsylvania .....	37.75
Puerto Rico .....	13.25
South Dakota .....	28.47

TABLE No. 2.—*Distribution and credit on the books of the Treasury Department of proceeds of licenses, fiscal year 1939—Continued*To payments to States under Federal Power Act, special funds—  
Continued.

To—Continued.

Tennessee.....	\$1. 88	
Utah.....	835. 29	
Virginia.....	23. 41	
Washington.....	889. 83	
West Virginia.....	1. 35	
Wisconsin.....	2. 92	
Wyoming.....	173. 26	
To Indian funds.....		\$26, 895. 36
To proceeds of labor—		
Agua Caliente Indians.....	\$19. 65	
Augustine Indians.....	2. 45	
Camp McDowell Indians.....	18. 06	
Colfax Indians.....	5. 00	
Crow Indians.....	7. 50	
Flathead Indians.....	23, 035. 05	
Fort Belknap Indians.....	7. 02	
Fort Hall Indians.....	88. 94	
Klamath Indians.....	119. 53	
Lac Court Oreilles Indians.....	1, 200. 00	
La Jolla Indians.....	39. 00	
Menominee Indians.....	1, 500. 00	
Morongo Indians.....	22. 84	
Nez Perce Indians.....	48. 21	
Pachanga Indians.....	1. 00	
Pala Indians.....	13. 38	
Potawatomi Indians.....	5. 00	
Rincon Indians.....	27. 50	
Rosebud Indians.....	5. 00	
Salt River Indians.....	16. 94	
Shoshone or Wind River Indians.....	89. 50	
Soboba Indians.....	19. 00	
Tulalip Indians.....	13. 45	
Tuolumne Indians.....	1. 80	
Uintah Indians.....	327. 12	
Walker River Indians.....	71. 67	
Indians of Winnemucca Colony.....	3. 85	
Yakima Indians.....	98. 70	
Yuma.....	88. 20	
Total distribution under section 17 of the Federal Power Act.....		730, 133. 27
To penalties for delinquencies of leases under the Federal Power Act (proceeds from penalties assessed under section 17 (b) of the Federal Power Act).....		123. 43
To Oregon and California land-grant fund.....		656. 67
To Coos Bay wagon-road land-grant fund.....		56. 95
To interest on deferred collections or payments.....		7. 87
Grand total.....		730, 978. 19

TABLE NO. 3.—Analysis of receipts collected from licensees under the Federal Water Power Act

Collections accrued over the period	Collections made in fiscal year	Collections were made—				Receipts totaled	Receipts were distributed by credits to the following—					
		For use of Indian lands	From public lands and national forests		From other sources (improvements of navigable waters)		Indian funds	Reclamation fund	Indefinite appropriation: Maintenance and operation of dams, etc., War Department	Payments to States under the Federal Water Power Act: Special funds	General fund of the Treasury	
			Administrative fees	Fees for use of lands	Administrative fees							Fees for use of Government dams
June 11, 1920, to Dec. 31, 1921.....	1922	\$4.83	\$2,749.37	\$217.09	\$5,992.28	-----	\$8,963.57	\$4.83	\$1,483.23	\$2,996.14	\$1,112.42	\$3,366.95
Calendar year 1922.....	1923	1,236.00	6,683.65	3,454.24	17,595.67	\$493.50	29,463.06	1,236.00	5,068.94	9,044.59	3,801.71	10,311.82
Calendar year 1923.....	1924	1,368.44	11,320.84	5,425.02	35,029.10	493.50	53,636.90	1,368.44	8,372.93	17,761.30	6,279.70	19,854.53
Calendar year 1924.....	1925	1,422.19	22,752.49	11,606.53	88,124.29	5,493.50	129,399.00	1,422.19	17,179.51	46,808.90	12,884.64	51,103.76
Calendar year 1925.....	1926	1,466.51	32,465.93	15,125.78	94,719.05	100,933.50	244,710.77	1,466.51	23,795.86	97,826.28	17,846.88	103,775.24
Calendar year 1926.....	1927	1,538.62	50,901.29	26,243.81	103,672.85	104,033.50	286,390.07	1,538.62	38,572.56	103,853.17	28,929.40	113,496.32
Calendar year 1927.....	1928	2,418.18	70,164.76	20,693.23	109,243.23	104,033.50	306,552.90	2,418.18	45,429.00	106,638.36	34,071.73	117,995.63
Calendar year 1928.....	1929	3,451.38	90,456.26	33,283.35	114,995.68	104,315.58	346,502.25	3,451.38	61,869.81	109,655.63	46,402.35	125,123.08
Calendar year 1929.....	1930	3,419.90	97,667.42	38,654.16	132,524.50	203,873.50	476,139.48	3,419.90	68,160.79	168,199.00	51,120.60	185,299.19
Calendar year 1930.....	1931	11,302.59	134,535.53	52,986.88	146,444.56	298,859.95	644,179.51	11,302.59	93,786.21	222,652.26	70,339.65	246,098.80
Calendar year 1931.....	1932	15,403.73	155,091.01	50,413.92	159,843.75	204,264.24	585,016.65	15,403.73	102,752.47	182,053.99	77,064.34	207,742.12
Calendar year 1932.....	1933	15,593.08	149,998.13	51,031.74	162,382.81	205,466.00	584,471.76	15,593.08	100,514.94	183,924.40	75,386.20	209,053.14
Calendar year 1933.....	1934	15,205.05	129,872.90	43,293.95	175,857.70	205,885.53	570,115.13	15,205.05	86,583.42	190,871.61	64,937.57	212,517.48
Calendar year 1934.....	1935	12,904.89	133,382.18	40,143.56	191,698.42	205,280.50	583,409.55	12,904.89	86,762.87	198,489.46	65,072.15	220,180.18
Total.....		86,735.39	1,088,091.76	392,573.26	1,538,123.89	1,743,426.30	4,848,950.60	86,735.39	740,332.54	1,640,775.09	555,249.34	1,825,858.24

In addition to the receipts shown in the above table, there were collected from revested Oregon and California railroad-grant lands and credited to the Oregon and California land-grant fund the following sums: Fiscal year 1923, \$56.17; 1924, \$76.52; 1925, \$76.52; 1926, \$274.34; 1927, \$328.75; 1928, \$487.40; 1929, \$964.56; 1930, \$626.07; 1931, \$606.83; 1932, \$630.75; 1933, \$662.51; 1934, \$792.97; 1935, \$652.48; total, \$6,235.87.

TABLE NO. 4.—*Analysis of receipts collected from licensees under the Federal Power Act*

Collections accrued over the period—	Collections made in fiscal year—	Collections were made—				Receipts totaled—	Receipts were distributed by credits to the following—					
		For use of Indian lands	From public lands and national forests: Use of lands	From other sources (improvements of navigable waters: Use of Government dams)	Administrative fees		Indian funds	Reclamation fund	Indefinite appropriation: Maintenance and operation of dams, etc., War Department	Payments to States under the Federal Power Act, special funds	General fund of the Treasury: From use of lands and Government dams	General fund of the Treasury: Reimbursement, cost of administration, Federal Power Act
Calendar year 1935 ----	1936	\$3,572.98	\$38,801.66	\$205,280.50	\$335,786.11	\$583,441.25	\$3,572.98	\$19,400.83	\$102,640.25	\$14,550.62	\$107,490.46	\$335,786.11
Calendar year 1936 ----	1937	40,929.73	41,067.21	269,280.50	370,135.18	721,412.62	40,929.73	20,533.60	134,640.25	15,400.20	139,773.66	370,135.18
Calendar year 1937 ----	1938	22,947.14	44,647.86	268,939.57	372,253.47	708,788.04	22,947.14	22,323.94	134,469.78	16,742.95	140,050.76	372,253.47
Calendar year 1938 ----	1939	26,895.36	51,728.31	268,770.50	382,739.10	730,133.27	26,895.36	25,864.16	134,385.25	19,398.11	140,851.29	382,739.10
Total -----		94,345.21	176,245.04	1,012,271.07	1,460,913.86	2,743,775.18	94,345.21	88,122.53	506,135.53	66,091.88	528,166.17	1,460,913.86

In addition to the receipts shown in the above table, there were collected from revested Oregon and California railroad-grant lands and credited to the Oregon and California land-grant fund the following sums: Fiscal year 1936, \$643.37; 1937, \$669.05; 1938, \$655.18; 1939, \$656.67; from Coos Bay wagon road lands, credited to the Coos Bay wagon road grant fund, for the fiscal year 1936, \$38.07; 1937, \$56.95; 1938, \$56.95; 1939, \$56.95; also, for delinquency in payment of annual charges, credited to "Penalties for delinquencies of leases under Federal Power Act," for the fiscal year 1937, \$6.29; 1938, \$8.42; 1939, \$123.43; and interest awarded in judgment entered against licensee, credited to "Interest on deferred collections or payments," for the fiscal year 1939, \$7.87.

TABLE NO. 5.—Amounts which have accrued to public-land States under section 17 of the Federal Power Act; special funds

Accrued in the calendar year Collected in the fiscal year	1921 1922	1922 1923	1923 1924	1924 1925	1925 1926	1926 1927	1927 1928	1928 1929	1929 1930	1930 1931
Beneficiary State:										
Alabama	\$0.48	\$0.94	\$0.93	\$39.37	\$39.37	\$39.38	\$39.37	\$39.38	\$39.37	\$39.51
Alaska	7.50	36.50	59.88	242.67	370.28	274.32	354.60	449.79	512.48	627.11
Arizona		58.14	86.62	97.30	127.29	129.56	119.84	135.77	138.06	145.60
Arkansas			148.26	165.00	216.75	303.00	561.75	561.75	561.75	1,201.20
California	1,028.89	3,452.77	5,714.26	11,313.23	14,990.06	20,637.32	24,442.57	29,202.76	38,391.36	45,848.15
Colorado	1.66	8.22	30.94	46.46	69.13	72.10	163.42	256.74	263.11	280.72
Florida										.04
Idaho	9.67	40.76	94.66	154.67	386.08	3,589.19	2,135.77	5,159.66	4,896.86	5,072.23
Michigan										5.51
Minnesota			1.81	9.90	9.90	9.90	9.90	9.90	9.90	9.90
Mississippi						.36	.56	.56	.66	
Montana	25.80	63.69	20.74	32.19	100.72	87.03	95.13	227.50	307.37	137.34
Nevada	6.72		.82	.98	.98	28.98	34.72	34.73	39.35	58.01
New Mexico			2.41	6.04	9.59	11.09	18.33	14.63		
North Carolina		.60	1.16	1.16	.88	.64	17.25	34.06	37.53	47.93
Oregon		62.89	6.79	461.32	937.43	1,932.28	3,655.52	6,550.03	1,230.29	7,577.39
Pennsylvania						1.18	26.53	35.25	35.25	35.25
Puerto Rico								1.61	10.69	39.97
South Dakota	1.57	1.88	1.88	1.87	1.87	1.88	1.88	1.87	1.88	32.06
Tennessee										.86
Utah					5.55	28.12	429.75	712.86	716.40	1,358.97
Virginia						2.64	5.63	11.54	20.85	20.82
Washington			.67	1.00	21.27	349.57	597.09	1,586.22	2,367.85	6,285.91
Wisconsin	30.13	75.32	97.24	272.14	542.46	1,353.41	1,353.40	1,353.40	1,413.01	1,429.80
Wyoming			10.63	39.34	16.09	52.10		22.34	128.58	85.37
Total	1,112.42	3,801.71	6,279.70	12,884.64	17,846.88	28,929.40	34,071.73	46,402.35	51,120.60	70,339.65

Accrued in the calendar year ----- Collected in the fiscal year -----	1931 1932	1932 1933	1933 1934	1934 1935	1935 1936	1936 1937	1937 1938	1938 1939	Total credits to the indi- vidual States
Beneficiary State:									
Alabama -----	\$48.78	\$42.53	\$42.53	\$42.53	\$42.53	\$42.53	\$42.53	\$42.53	\$624.50
Alaska -----	713.47	628.88	613.02	674.56	155.41	308.79	289.51	278.43	6,597.20
Arizona -----	190.20	211.45	223.64	220.05	210.45	220.51	321.10	363.79	3,005.37
Arkansas -----	1,201.88	1,314.37	1,501.87	2,064.37	1.88	1.88	8.74	3.02	9,817.47
California -----	54,924.64	52,146.71	40,266.74	42,498.30	9,153.01	9,138.00	9,757.76	11,983.07	424,889.60
Colorado -----	302.06	306.84	309.22	326.88	321.29	528.57	502.72	509.29	4,299.37
Florida -----	.05	.05	.05	.03	.03	.03	.03	.03	.34
Idaho -----	5,107.23	5,008.40	5,259.61	5,210.74	1,412.36	1,628.07	1,542.69	1,639.62	48,348.27
Michigan -----	16.89	16.89	16.89	16.89	16.89	16.89	16.89	22.38	146.12
Minnesota -----	9.90	20.22	11.19	11.19	11.19	11.19	11.19	11.19	168.37
Mississippi -----								3.57	5.71
Missouri -----		.28	.28	.28	.28	.28	.28	.28	1.96
Montana -----	187.43	143.56	250.02	399.44	182.62	327.72	376.50	414.18	3,378.98
Nebraska -----						12.57			12.57
Nevada -----	54.40	63.81	65.40	86.94	117.30	118.91	184.83	265.66	1,162.54
New Hampshire -----	1.54	2.73							4.27
New Mexico -----								3.42	65.51
North Carolina -----	47.93	39.00	76.88	39.95	35.16	35.16	35.16	35.16	467.61
Oregon -----	4,273.49	5,135.70	6,608.45	3,860.81	1,129.02	1,164.82	1,804.13	1,815.08	48,205.44
Pennsylvania -----	33.56	37.75	37.75	37.75	37.75	37.75	37.75	37.75	469.52
Puerto Rico -----	66.69	146.84	146.84	146.84	13.25	13.25	13.25	13.25	612.48
South Dakota -----	121.63	121.63	121.65	121.65	26.02	29.77	26.84	28.47	646.30
Tennessee -----	1.88	1.88	1.88	1.88	1.87	1.87	1.88	1.83	15.88
Utah -----	1,297.29	1,483.38	1,541.37	1,494.68	723.77	751.27	779.35	835.29	12,158.05
Virginia -----	23.27	23.41	23.41	23.41	23.41	23.41	23.41	23.41	248.62
Washington -----	6,727.23	6,774.83	6,073.78	6,054.84	769.33	812.57	790.43	889.83	40,102.45
West Virginia -----	1.27	1.35	1.35	1.35	1.35	1.35	1.35	1.35	10.72
Wisconsin -----	1,579.36	1,579.37	1,579.36	1,579.36	2.11	2.11	2.11	2.92	14,247.01
Wyoming -----	123.24	143.34	164.39	166.43	162.34	164.93	172.52	173.26	1,628.90
Total -----	77,064.34	75,386.20	64,937.57	65,072.15	14,550.62	15,400.20	16,742.95	19,398.11	621,341.22