

Orville Deuel

Public Service Commission of Wisconsin



Biennial Report July 1, 1942 to June 30, 1944

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W. F. WHITNEY
Commissioner

LYNN H. ASHLEY
Chairman

SAMUEL BRYAN
Commissioner

EDWARD T. KAVENY
Secretary

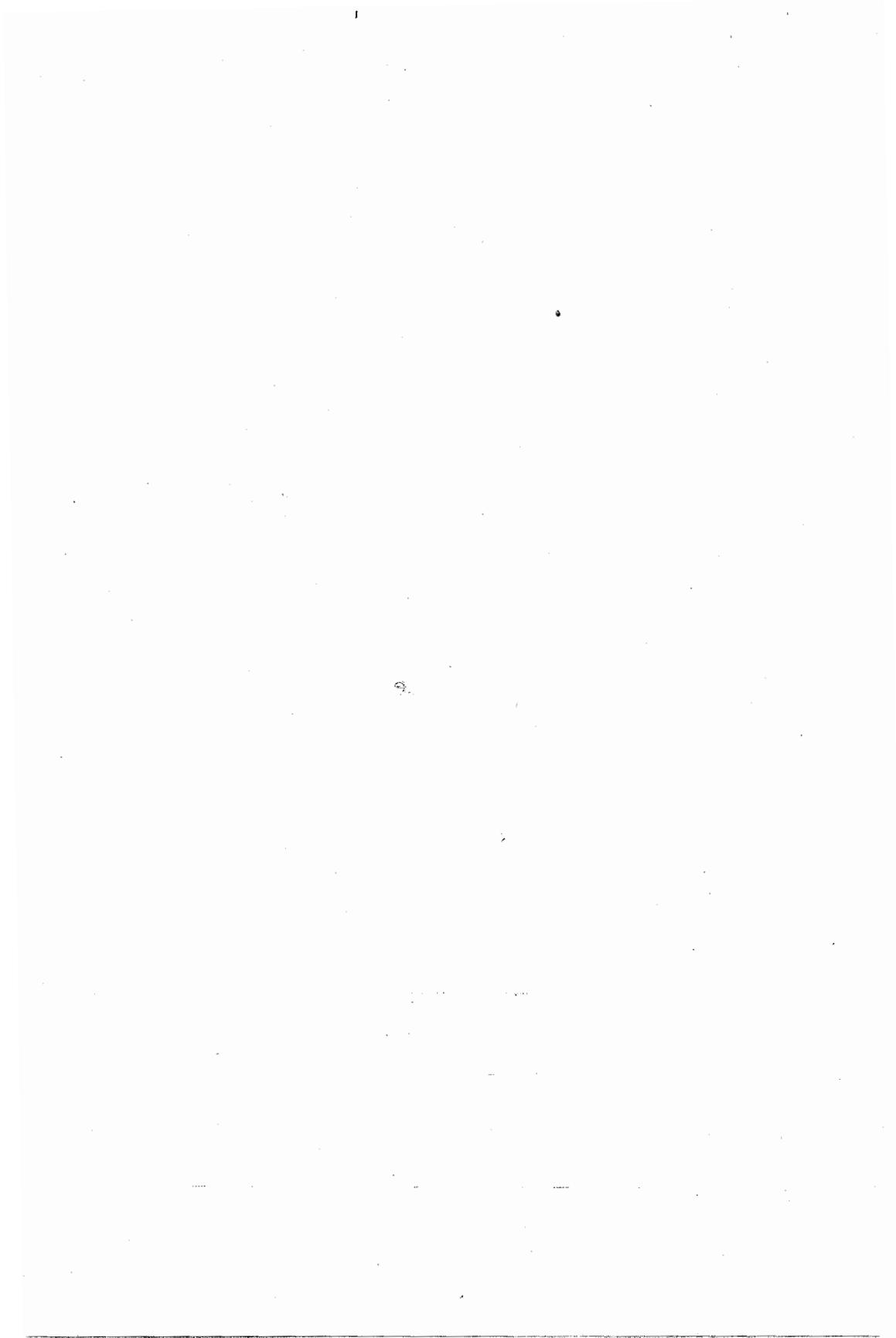


TABLE OF CONTENTS

	Page
Commission	
Biography of Commissioners	7
Departments	6, 11
Finances	12
History	8
Organization	5
Personnel	6
Work	9, 11
Commissioners	7, 8
Court Cases	10
Foreword	4
General state fund	14
Hearings	9, 10
Jurisdictional totals	11
Laws, New	11
Motor transportation	21
Rate cases	22
Organization chart	5
Railroads	21
Abandonments	23
Accidents	23
Crossings	23
Rates	22
Signals	24
Utilities	14
Acquisitions and sales	18
Annual reports	18
Depreciation	17
Interconnections	18
Number in state	16
Original cost	17
Rate reductions	14
Securities issues	16
Water powers	20
Dam inspections	20
U. S. G. S.	21

FOREWORD

Section 195.03(22), Wisconsin Statutes, provides that the Public Service Commission of Wisconsin "shall, on or before the first Monday in December in each even-numbered year, make a report to the governor of the transactions of its office for the two preceding fiscal years, and containing such information, suggestions, or recommendations in respect to the matters under its charge as it may deem proper."

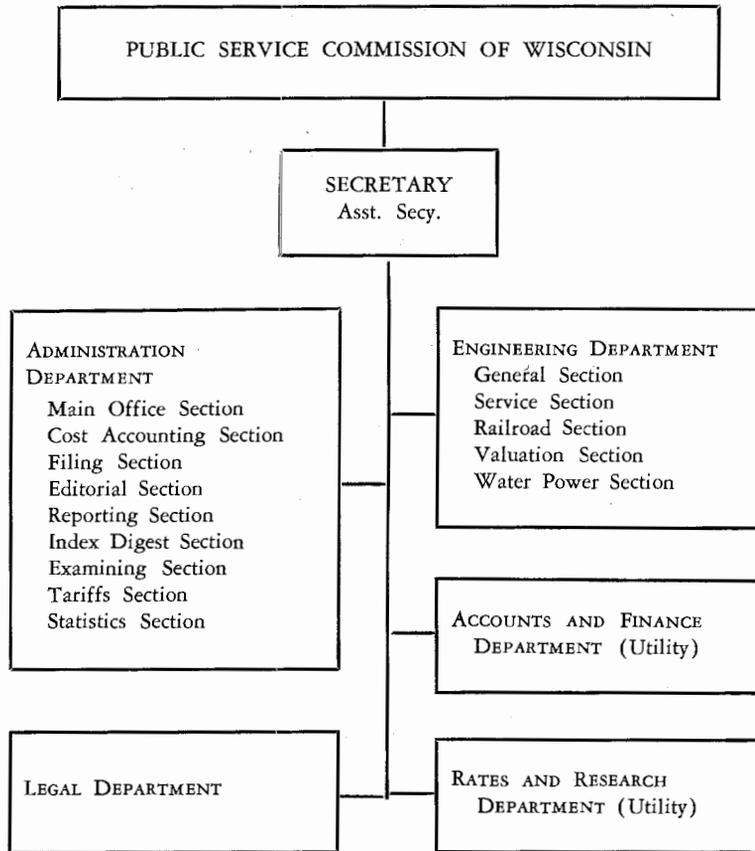
The attached report is an outline of the Commission's work from July 1, 1942 to June 30, 1944. As in previous years, a statistical report on public utilities, railroads, and motor transportation industries will be issued in a separate bulletin.

PUBLIC SERVICE COMMISSION OF WISCONSIN

(signed) EDWARD T. KAVENY
Secretary

Madison, Wisconsin
December 1, 1944

ORGANIZATION CHART
of
PUBLIC SERVICE COMMISSION OF WISCONSIN



PERSONNEL

General (See footnote)¹

Lynn H. Ashley, chairman
 W. F. Whitney, commissioner
 Samuel Bryan, commissioner
 Edward T. Kaveny, secretary
 Alvin H. Olson, assistant secretary

Administration Department

Edward T. Kaveny, chief
 Alvin H. Olson, assistant chief
 Main Office Section — Margaret W. Owen
 Cost Accounting Section — Anne E. Alinder²
 John F. Goetz, acting supervisor
 Filing Section — Faye M. Robbins
 Editorial Section — Henry H. Francisco
 Reporting Section — (Supervised by Secretary)
 Index Digest Section — Katharine M. Harrower
 Examining Section — (Supervised by Secretary)
 Tariffs Section — Ivan A. Sherman
 Statistics Section — C. E. Schreiber

Legal Department

H. T. Ferguson³

Engineering Department

George P. Steinmetz, chief⁴
 Charles B. Hayden, acting chief
 Warren Oakey, acting assistant chief
 General Section — Ralph E. Purucker
 Service Section — W. H. Damon
 Railroad Section — L. P. Atwood⁵
 Valuation Section — Warren Oakey
 Water Power Section — Walter Muegge, acting supervisor

Accounts and Finance Department

A. R. Colbert, chief
 Ralph S. Butler, assistant chief

Rates and Research Department

Henry J. O'Leary, chief
 E. M. Downey, assistant chief

¹ This list of general personnel is current at the time of printing this report. During the biennium Commissioners Robert A. Nixon and R. W. Peterson also served.

² On leave of absence for military service since July 28, 1942.

³ During the biennium the Legal Department functioned under the secretary. On September 1, 1944, H. T. Ferguson was appointed chief counsel.

⁴ On leave of absence for military service since October 17, 1942.

⁵ Deceased, October 29, 1944.

THE COMMISSION

The Public Service Commission of Wisconsin, created as the Railroad Commission 70 years ago, comprises three commissioners and a staff of 106 members. The Commissioners at the time of printing this report are Lynn H. Ashley, chairman, W. F. Whitney, and Samuel Bryan.

Chairman Lynn H. Ashley was born in Wisconsin, and during his early years lived in River Falls, attending elementary schools there. Later he attended Carleton College Academy and Carleton College, Northfield, Minnesota. He was graduated from Minnesota University Law School and moved to Hudson in 1912, where he practiced law until 1943. He was district attorney of St. Croix County 1921-1922 and was elected to the Wisconsin assembly from St. Croix County in 1928, serving the 1929-1930 term. He was appointed to the Public Service Commission of Wisconsin by Governor Goodland, and was unanimously confirmed by the senate in January 1943. In March of that year, at the expiration of the term for which he was appointed, he was reappointed by Governor Goodland for a full 6-year term, and again unanimously confirmed by the senate. He was elected chairman of the Commission in March 1945.

Commissioner W. F. Whitney was born in Whitewater, Wisconsin. He was graduated from Whitewater State Normal and the University of Wisconsin law school. For 4 years he served as principal of the Waukesha high school. He practiced law in Wenatchee, Washington, was state's attorney for Chelan County, Washington, for several years, and referee in bankruptcy there for 4 years. During the next decade, Mr. Whitney was active in the retail automobile business, and later founded a wholesale and retail automobile distributorship corporation in Wisconsin, which he headed. His term as Commissioner began on October 5, 1939. On March 5, 1941 his reappointment by Governor Julius P. Heil for an additional 6-year term was confirmed by the senate.

Commissioner Samuel Bryan was born in Washington, D. C. After graduation from high school in Washington he attended Leland Stanford Jr. University at Palo Alto, California, receiving the B.A. degree in 1910 and the M.A. degree in 1911. During the following year he was a graduate scholar at the University of Wisconsin. In the summer of 1912 he became an employee of the Railroad Commission of Wisconsin through civil service examination and continued in its employ as an examiner until 1930 when he became an assistant attorney general of Wisconsin. In 1933 he returned to the Commission, the name of which had been changed to the Public Service Commission, and continued his work as law examiner until appointed to the Commission by Governor Goodland in 1945. His appointment was unanimously confirmed by the senate.

During the biennium Reuben W. Peterson served as chairman until his resignation on January 31, 1945, and Robert A. Nixon served as Commissioner until his resignation on September 15, 1942.

Edward T. Kaveny has served as secretary since July 1, 1941 when he was appointed by the Commission following competitive civil service examination for the post.

At the close of the biennium there were 106 members on the staff. This was a reduction of 14 percent from the total at the end of the preceding biennium. Thirteen employees were on leave of absence, ten of whom were serving with the armed forces. Included among these were a lieutenant colonel, two majors, a captain, two sergeants, a corporal, a warrant officer, and two lieutenants (j.g.)

GENERAL

History.

The following quotation from the journal of the Board of Railroad Commissioners, during the time when Ulysses S. Grant was president of the United States and William R. Taylor was governor of Wisconsin, announced the beginning of the regulatory body now known as the Public Service Commission of Wisconsin:

"On the 29th day of April 1874 the following named gentlemen were appointed and duly commissioned Railroad Commissioners for the state of Wisconsin in accordance with the provisions of Chapter 273 of the general laws of 1874 entitled 'An act relating to Railroads, Express and Telegraph Companies in the state of Wisconsin' approved March 11, 1874, viz; Joseph H. Osborn of Oshkosh for 3 years, George H. Paul of Milwaukee for 2 years, John W. Hoyt of Madison for 1 year."

This three-man commission functioned until 1876 when the law was changed to provide for a single commissioner to be appointed by the governor. In 1881, the office became elective. In 1905, a three-man railroad commission was again established. However, from July 10, 1905 to January 7, 1907 there were both a single railroad commissioner and a three-man commission since the term of office of John W. Thomas ran until the first Monday in January of 1907.

The present Public Service Commission of Wisconsin was created in 1931 when substantial changes were made in utility laws.

Early jurisdiction of the Commission concerned itself entirely with railroad rates. In 1907 public utilities were placed under its jurisdiction. In that year, New York also enacted a law having the same purpose. These two states blazed the trail for the rest of the nation until today practically every state has a similar regulatory commission, many of them with laws modeled after the Wisconsin and New York statutes.

During some periods, the Wisconsin commission exercised jurisdiction which is no longer necessary, for example, over the operation of "jitneys," and of toll bridges; the charging of rent for apartments in the city of Milwaukee; and over the acts of the state board of conciliation when it was settling disputes between public utilities and labor over working conditions or wages.

The present commission regulates electric, gas, water, and telephone utilities; railroads, express, and telegraph companies; water powers and navigation; and certain phases of motor transportation.

Officials.

Commissioners from 1874 to 1905 included John H. Osborn, George H. Paul, John W. Hoyt, Dana C. Lamb, A. J. Turner, N. P. Haugen, Atley Petersen, Thomas Thompson, D. J. McKenzie, Graham L. Rice, and John W. Thomas.

From 1905 to date, the commissioners were as follows:

Halford Erickson	June 21, 1905 to	May 1, 1916
B. H. Meyer	July 5, 1905 to	Jan. 1, 1911
John Barnes	July 7, 1905 to	Aug. 1, 1907
John H. Roemer	Aug. 6, 1907 to	Feb. 1, 1915
David Harlowe	Jan. 20, 1911 to	Feb. 8, 1915
Carl D. Jackson	Feb. 1, 1915 to	Jan. 1, 1923
Walter Alexander	Feb. 8, 1915 to	June 21, 1917
Henry R. Trumbower	June 1, 1916 to	Feb. 10, 1923
John S. Allen	June 25, 1917 to	Apr. 19, 1921
Lewis E. Gettle	May 5, 1921 to	Feb. 1, 1930
Adolph Kanneberg	Feb. 2, 1923 to	Apr. 1, 1931
A. R. McDonald	May 8, 1923 to	Jan. 31, 1937
Philip H. Porter	June 16, 1930 to	Jan. 14, 1931
David E. Lilienthal	Mar. 25, 1931 to	June 23, 1933
Theo. H. Kronshage, Jr.	Apr. 1, 1931 to	July 29, 1934
Fred S. Hunt	July 6, 1933 to	Oct. 4, 1939
Robert A. Nixon	Mar. 11, 1937 to	Sept. 15, 1942
R. Floyd Green	June 29, 1937 to	May 19, 1939
R. W. Peterson	Oct. 5, 1939 to	Jan. 31, 1945
W. F. Whitney	Oct. 5, 1939	now serving
Lynn H. Ashley	Jan. 25, 1943	now serving
Samuel Bryan	Feb. 16, 1945	now serving

Scope of work.

Nearly 1,800 public hearings were held during the biennium. Over 4,000 formal orders were issued and 5,000 formal and informal cases were closed. The extent of the hearings is indicated by the fact that nine million words of testimony were taken in shorthand by Commission reporters and transcribed for the use of commissioners and parties interested in railroad, utility, water power, and motor transportation cases.

Following are statistics on orders, cases, and hearings:

INFORMAL CASES

	1942-43	1943-44
Informal railroad, utility, and water power cases	386	430

FORMAL CASES

	Opened during biennium		Closed during biennium	
	1942-43	1943-44	1942-43	1943-44
Railroad	90	76	90	85
Utility				
General	67	61	75	68
Securities	8	26	9	26
New plants and additions	82	143	84	134
Water Power	20	14	28	19
Motor				
General	12	11	21	7
Common motor carrier certificates	53	47	58	44
Contract motor carrier licenses	880	1173	875	1144
Amendment of operating rights	554	583	581	562
Total	1766	2134	1821	2089

ORDERS ISSUED

	1942-43	1943-44
Railroad	108	91
Utility	87	91
Water Power	109	77
Motor Carrier	1746	1878
Total	2050	2137

HEARINGS

	1942-43	1943-44
Railroad	114	82
Utility		
General	74	50
Securities	1	0
New plants and additions	18	10
Water Power	25	15
Motor		
General	13	11
Common carrier certificates	78	49
Contract carrier licenses	559	667
Total	882	884

Court cases.

During the biennium 16 Commission cases — less than two-fifths of one percent of the orders issued — were before the courts upon appeal.

New laws.

The only important changes in the statutes affecting the jurisdiction of the Commission since the period covered by the previous report, were made by chapters 439 and 375 of the Laws of 1943.

Chapter 439 authorizes the dual permitting of motor vehicles under two or more certificates or under two or more licenses. This change opens the way for motor carriers to institute the operation of trailers over more than one line without transfer of lading in the same manner as railroad freight cars are transferred from one railroad line to another. There has been some development of this type of service since the law went into effect.

Chapter 375 creates chapter 227 of the statutes relating to the procedure of administrative bodies. It makes a number of procedural changes and the Rules of Practice of the Commission embodied in General Order No. 2 have been amended to bring these rules into conformity with the new statutes.

Jurisdictional totals.

A total of 1,251 public utilities, 7,347 motor carriers, 20 steam railroads, and other businesses as set out in the following table, were under jurisdiction of the Commission on June 30, 1944:

Bus lines (motor carriers of passengers)	82
Common motor carriers of property	79
Contract motor carriers of property	7,186
Dams in the state	1,110
Electric railways	4
Electric utilities	143
Express companies	1
Heating utilities	9
Gas utilities	23
Steam railways	20
Telephone utilities	720
Telegraph companies	1
Urban trackless trolley systems	1
Water utilities	356

Division of staff work.**ADMINISTRATION DEPARTMENT**

Main Office Section: Functions as the administrative office and general information bureau of the Commission both for the public and the staff.

Cost Accounting Section: Keeps finance and personnel records of the Commission, co-ordinates travel of staff members, issues and inventories supplies and equipment, and audits expenditures.

Filing Section: Keeps all files and records of the Commission's work except finance and personnel, employs a follow-up system on files and correspondence, handles mailing and distribution of Commission notices and orders.

Examining Section: Conducts formal hearings; prepares and issues notices of hearings. Representatives of this section and Commissioners also sit as members of Interstate Commerce Commission joint boards.

Statistics Section: Audits books and reports and analyzes costs of railroads and motor carriers and maintains files of general statistics and data on the transportation industry.

Tariffs Section: Investigates freight tariffs and passenger fares of express, truck, and bus lines, streetcar and trackless trolley systems, and electric and steam railroads; maintains a complete file of freight tariffs and passenger fares; represents the state in Interstate Commerce Commission rate proceedings; investigates telegraph rates; and audits freight bills upon request.

Editorial Section: Prepares material for publication.

Reporting Section: Records official word-by-word proceedings at hearings.

Index Digest Section: Digests and indexes the Commission's orders for publication in book form.

ENGINEERING DEPARTMENT

This department provides general engineering services for the Commission in transportation, water power, and general utility matters; furnishes estimates and specifications for steam heating, ventilation, and refrigeration for the State Department of Engineering; and makes building valuations for the Department of Securities and miscellaneous estimates for other departments on request.

The work consists of valuations of utility property for rate, security issue, and acquisition purposes; investigations of complaints and inquiries concerning telephone, gas, electric, streetcar, bus, truck, and railroad service as well as the safety of electric lines and equipment; investigations of utility applications to add facilities; and investigations of water power and navigation matters such as lake levels, navigable stream obstructions, measurement of stream flow, and proposed plans for water power structures.

LEGAL DEPARTMENT

Handles matters involving operating rights of utilities, truck and bus lines, streetcar systems, railroads, and dam operators; and renders general legal service to the Commission and the staff.

ACCOUNTS AND FINANCE DEPARTMENT

The accounts and finance department audits books and reports of electric, telephone, gas, and water utilities; investigates and studies applications of utilities to issue stocks, bonds, and other securities; and investigates financial practices of utilities.

RATES AND RESEARCH DEPARTMENT

This department investigates and designs rates and rules and analyzes costs of telephone, electric, gas, and water utilities; prepares technical reports and recommendations for the examining section and the Commissioners in connection with formal utility cases; handles complaints involving utility rates and rules and extension of service to prospective customers in the existing territory of utilities; investigates applications of electric utilities to extend rural distribution lines; collects, analyzes, and furnishes information and data on the utility industry; makes investigations of economic conditions affecting the utility industry; and maintains a file of electric, telephone, gas, and water rates.

FINANCES

The Commission has four principal sources of revenue with which it finances its work:

1. To pay expenses for which no other provision has been made, the state makes a general legislative appropriation to the Commission.
2. To defray the expenses of regulating the rates, service, construction, finances, and securities of telephone, electric, gas, and water utilities, whether privately or municipally owned, the Commission may assess costs of particular investigations against the investigated utility up to 4/5 of 1 percent of the gross intrastate operating revenues of the utility in the previous calendar year. A similar assessment is made in railroad investigations.
3. To meet costs incurred in utility regulation that cannot be ascribed to a particular investigation, the Commission makes a so-called remainder assessment each year against all Wisconsin utilities which may not exceed 1/5 of 1 percent of the gross intrastate operating revenues for the previous year.
4. To provide for regulation of truck and bus line authorities, rates, and service, a specific legislative appropriation is available.

Details of finances are given in the following tables:

	1942-43	1943-44
Receipts:		
1. General legislative appropriation	\$125,000.00	\$115,000.00
Bonus appropriation	2.99	1,128.46
Total appropriation	125,002.99	116,128.46
2. Motor transportation legislative appropriation	85,000.00	80,000.00
Bonus appropriation	600.97	2,011.53
Total appropriation	85,600.97	82,011.53
3. Direct charges against		
Utilities	51,594.78	50,761.63
Railroads	1,133.94	548.28
4. Remainder assessment against utilities	158,665.13	145,467.20
5. Fees for removal of material		
Outlying waters	785.08	803.60
Total	\$422,782.89	\$395,720.70
Disbursements:		
Utility	\$217,465.79	\$214,618.18
Railroad transportation	60,432.47	56,992.04
Water power	29,229.34	30,611.37
Motor transportation	85,494.69	88,097.07
Total	\$392,622.29	\$390,318.66

The Commission's program of economy of operation is indicated by the average annual expenditure which is nearly \$50,000 or 11 percent less than that reported for the preceding biennium.

Because the Commission is often reimbursed for expenses a year after expenditures are made, the recorded receipts for any one fiscal year do not exactly equal the total expenditures for that year. For example, the preceding tables indicate receipts from remainder assessments against utilities. These amounts were in payment of expenditures during previous years.

As shown below, the Commission collected more than \$50,000 which it paid into the general state fund:

COLLECTIONS FOR GENERAL STATE FUND	1942-43	1943-44
Motor transportation flat and mileage taxes including interest	\$ 5.75	\$.....
Motor carrier filing fees	18,285.00	22,110.00
Utility securities fees (public service corporations)	4,496.65	557.38
Copy work and sale of printed matter	544.58	510.13
Witness fees	5.20
Total	\$24,212.54	\$26,223.91

UTILITIES

Rate reductions.

Rate revisions during the biennium saved 2,344,000 customers of Wisconsin public utilities about \$1,140,000 annually. There is some duplication in the counting of customers because in certain instances more than one reduction was made to the same customer. The largest reduction, \$689,000, was made by electric utilities; telephone utilities were second with \$313,000; water utilities third with \$135,000; and gas utilities fourth with \$3,000. A summary of the reductions follows:

	Approximate reductions	Customers benefited
July 1, 1942 to June 30, 1943:		
Electric	\$ 103,842	1,156,914
Telephone	1,551	303
Water	102,671	17,314
Gas		
Total	\$ 208,064	1,174,531
July 1, 1943 to June 30, 1944:		
Electric	\$ 585,238	179,596
Telephone	311,186	982,549
Water	31,742	925
Gas	3,327	6,178
Total	\$ 931,493	1,169,248
Total for biennium	\$1,139,557	2,343,779

The Wisconsin Power and Light Company had the largest revision in electric rates, estimated to save \$326,000 annually for 98,300 customers. The next largest reduction was by the Wisconsin Public Service Corporation, which saved 63,100 customers an estimated \$160,700 per year. This corporation now has an application before the Commission which, if authorized, will save an additional \$220,000 per year for commercial and power customers and will bring the total reduction to \$380,700 per year. Other large reductions during the biennium were filed by the Marshfield Municipal Electric Utility, \$30,114; the Manitowoc Municipal Electric Utility, \$30,308; and the Kaukauna Municipal Electric Utility, \$18,700.

Other rate reductions.

The Wisconsin Telephone Company made several major revisions in its toll rate structure which affected all subscribers using toll service. Most of the changes were concurred in by connecting carriers and thus the benefits were

extended to practically all Wisconsin telephone users. These changes were estimated to reduce the Wisconsin Telephone Company's revenues \$305,000 per year. The effect was to bring the basic toll schedules for intrastate service more nearly in line with the interstate schedule.

The Green Bay Municipal Water Utility reduced its water rates \$73,000 per year to 10,600 customers and the Manitowoc Municipal Water Utility revised its water rates to save 5,400 customers \$25,000 per year.

The Commission, through its rates and research department, has continued the program of simplifying utility rate structures by eliminating optional rates which tend to confuse customers and by converting various residential and small commercial type rates to the fixed charge type. The latter rate provides for a separate fixed charge (usually 60 cents for residential and 75 cents for commercial customers) to cover certain costs which do not vary with consumption.

Wisconsin and national rates.

The average cost of electricity consumed by Wisconsin residential customers in 1943 was 15 percent below the average for the entire country. While both averages have steadily declined, the Wisconsin average has remained less in every year since 1936. Wisconsin residential customers also used 15 percent more kilowatt hours per customer than the nation as a whole in 1943. The average annual bill for electric service in the state is slightly below the United States average in spite of the greater use per customer.

Wisconsin residential rates, consumption, and revenue per customer are compared with national averages in the following table:

Residential Revenue and Consumption Ratios
Wisconsin and United States
1935 - 1943

Year	Revenue per Kilowatt-Hour		Kilowatt-Hours per Customer		Revenue per Customer	
	Wis.	United States ¹	Wisconsin	United States ¹	Wisconsin	United States ¹
1935	4.26c	5.01c	716	677	\$30.53	\$33.92
1936	4.11	4.67	754	735	30.99	34.30
1937	3.81	4.30	844	805	32.14	34.62
1938	3.60	4.14	916	853	32.97	35.31
1939	3.42	4.00	984	897	34.24	35.88
1940	3.34	3.84	1,064	952	35.51	36.56
1941	3.23	3.73	1,123	986	36.30	36.78
1942	3.18	3.67	1,168	1,022	37.13	37.51
1943	3.11	3.64	1,229	1,069	38.26	38.91

¹Data from the Edison Electric Institute.

Extension of service.

In addition to its normal activities in connection with utility rates and service, during the past biennium the Commission has been engaged extensively in assisting prospective utility customers in getting service. The introduction of wartime restrictions on these extensions has opened a new field of endeavor. There has been a considerable volume of work for customers who met the rigid requirements of the War Production Board. Efforts have been made to expedite extension of electric service to farmers and substantial producers of food who have been hard-hit by the manpower shortage.

Number of Utilities Operating in
Wisconsin as of July 1, 1943 and 1944

	Private	Municipal	Total
<u>July 1, 1943</u>			
Electric	57	89	146
Gas	22	1	23
Telephone	726	0	726
Water	16	338	354
Electric railway	5	0	5
Heating	6	3	9
Total	832	431	1,263
<u>July 1, 1944</u>			
Electric	54	89	143
Gas	22	1	23
Telephone	720	0	720
Water	16	340	356
Electric railway	4	0	4
Heating	6	3	9
Total	822	433	1,255

Security issues.

During the past 2 years the Commission considered 35 security applications and granted authority to issue a total of \$7,485,320 of securities for which the applicants paid fees of \$7,543.05 which was remitted to the state general fund.

The number of security cases coming before the Commission during this biennium was less than for the preceding 2 years and the aggregate amount of securities involved was considerably smaller, as shown in the following table:

	1940 - 1942		1942 - 1944	
	Amount	Percent	Amount	Percent
Common stock	\$ 28,033,375	23.9	\$ 831,520	11.1
Preferred stock	18,477,100	15.7	2,000,000	26.7
Bonds	64,210,000	54.7	3,495,000	46.7
Notes	6,738,337	5.7	1,158,800	15.5
Total	\$117,458,812	100.00	\$ 7,485,320	100.00

The marked reduction in the volume of securities has been due, in part, to wartime conditions which have curtailed the need for the financing of new construction of property, and also to the fact that during the previous biennium most of the larger companies refunded their outstanding bonds and preferred stock with new securities bearing lower interest and dividend charges. The following table indicates that additional refunding of outstanding securities accounts for a large portion of the securities issued during the past 2 years:

Purpose of issues	Amount	Percent
Refunding of securities	\$6,140,133	82.0
New financings	190,380	2.5
Stock dividends	48,500	0.7
Merger or acquisition of properties	565,217	7.6
Validation of void securities	541,090	7.2
Total	\$7,485,320	100.0

The validation of void securities was a feature of the securities authorized during this period. Formerly, the statutes provided that only void securities issued prior to 1919 might be validated by the Commission upon application of the interested public service corporation. However, on June 17, 1943, the legislature amended the statutes to empower the Commission to issue a validating certificate under certain conditions with respect to void securities outstanding. Since June 17, 1943, twelve corporations have received the validating certificates contemplated by this statute.

The low level of interest rates on debt securities and on the dividend rate on preferred stocks, mentioned in the previous report, has continued with no indication of decided change other than a possible leveling out of the present low cost of capital. The weighted average coupon rate of interest for the larger companies is now 3.51 percent and only four of the larger companies now have preferred stock outstanding bearing dividend rates in excess of 5 percent.

Depreciation.

In a previous report, the Commission commented on the fact that it had certified depreciation rates to all of the classes A and B public utilities pursuant to the provisions of section 196.09 of the statutes and the instructions included in the uniform systems of accounts prescribed by the Commission for such utilities.

During the biennium, some of these utilities requested and received a supplementary certification or a modification of depreciation rates previously certified. In addition, certain of the class C utilities which had grown into class B utilities, were given new certifications of depreciation rates. These reviews and certifications affected the property of 16 utilities.

Other financial and accounting investigations.

The Commission undertakes many different kinds of financial and accounting investigations. Seven cases involved investigations of financial arrangements with affiliates, two were concerned with the existing financial conditions and practices of utilities, and two involved the acquisition or consolidation of utilities.

Many small utilities, mostly municipally owned, have requested that the Commission staff render assistance to them in connection with the installation of new accounting systems, auditing of books, or the preparation of the annual reports required by statute. The Commission performs this work only at the request of the utility and by agreement of the utility to pay the cost. It is believed that such assistance has been of benefit to the utilities concerned and to the public.

Original cost and continuing property records.

The task of determining the original cost of utility plant and of restating the plant records of utilities to record such original cost was continued during the current period. As this work is completed the question of the proper disposition of amounts of cost of plant in excess of original cost, generally comprised of intangibles, has been before the Commission for decision. The staff has worked in cooperation with the particular companies affected in respect to this problem and in six cases the Commission has approved plans for the ultimate elimination of intangibles from the books of the companies, generally by amortization over a reasonable period as the earnings of the company might warrant.

Annual reports.

The statutes require that all public utilities submit annual reports to the Commission in such detail as the Commission may prescribe. These reports range from one or two pages to more than 100 pages dependent upon the size of each utility. They set forth a substantial amount of detail relative to assets and liabilities, revenues and expenses, statistical information relative to the physical characteristics and the operations of the properties and contain a vast store of information available to the public and extremely valuable to the Commission in the exercise of its regulatory duties. More than 600 of these reports are reviewed and checked annually to determine, in some measure, whether the utility appears to have kept its accounts in compliance with the Commission's accounting requirements, and to assure the submittal of all data required.

Acquisitions and sales of utility property.

Municipal acquisition cases handled during the biennium included Medford and Pardeeville, which were continued from the last biennium. The sale price has also been established for the Northwestern Wisconsin Electric Company property at Centuria, for the property of the Polk-Burnett Light and Power Company, and for the property of the Sand Rock Water Company.

Interconnection of electric utilities.

The construction of interconnecting lines between Wisconsin utilities has been continued and, under the Commission's General Orders, certificates of authority have been issued for several such lines.

The Wisconsin Electric Power Company and the Wisconsin Power and Light Company interconnected their 132,000-volt transmission lines at Plymouth.

The Wisconsin Public Service Corporation and the Wisconsin Gas and Electric Company constructed a 3,000-kv.-a. substation at Elkhart Lake to provide for emergency interchange of power between the two companies.

The Wisconsin Electric Power Company and the Public Service Company of Northern Illinois constructed an 80,000 kw. substation at the state line to provide an interconnection for the 132,000-volt systems. The Wisconsin Gas and Electric Company connected with the facilities of the Lake Mills utility to provide additional capacity to the latter utility.

The Wisconsin Gas and Electric Company connected with the facilities of the Cedarburg electric utility to provide additional capacity.

Miscellaneous activities — Engineering.

The Commission has issued many specific orders relative to extensions or added facilities for telephone, gas, electric, and water utilities.

For telephone utilities reports have been prepared covering numerous line extensions, acquisitions, abandonments, and new equipment authorizations, particularly those relating to new switchboards and dial conversions to permit the affected utilities to meet wartime demands for service.

For gas utilities the heavy industrial demands due to the war required the authorization of three new water-gas sets and the increased use of liquefied petroleum gas to augment existing production capacity. One utility was authorized to construct a pipe line to connect with the facilities of a natural gas supplier at the state line. Gas meter standards have been revised to conform to OPA requirements. Studies relating to possible curtailment of gas service and to the

possibility of emergency use of natural gas in southeastern Wisconsin were prepared.

For electric utilities, authority has been given for line extensions, substation installations, and changes; transmission lines for interconnection of utilities and for the interconnection of power centers of the same utility.

During the period, one complete hydro development was authorized. This has not yet been started because of the shortage of men and material. Another utility was authorized to install a new water wheel and generator. Three Diesel-driven generators were also authorized and will be installed at an early date.

For water utilities, 26 authorizations were issued, covering main extensions, additions to reservoirs, wells, pumps, pump houses; the installation of water purification systems, iron-removal plants, and water-softening plants.

The enlargement of Camp McCoy and the construction and operation of the Badger Ordnance Works at Merrimac have made necessary the authorization of electric transmission lines and the extension of telephone facilities.

Additional work was done in bringing up to date the transmission and rural distribution line map which was noted in the previous report. This map is complete in detail for all transmission and rural lines and includes the lines of the rural cooperatives as well as of the utilities.

Radio interference.

There are no Commission or general legal requirements regulating radio interference. Since this interference is very frequently caused by defective utility power and telephone equipment, the service department has been very active in following up complaints and has received excellent cooperation from the utilities. The Commission has continued the policy of handling cases of inductive interference from power circuits on telephone lines by agreements between the electric and telephone utilities, arrived at either voluntarily by the utilities or following suggestions by the engineering staff after the actual conditions have been determined.

Electrical code.

The revision of the Wisconsin Electrical Safety Code is now completed. It is presented in two volumes, the first relating to electric and communication lines, stations and substations; and the second relating to interior wiring, operating rules, etc. These volumes are sold by the State Bureau of Purchases.

The Commission maintains jointly with the University of Wisconsin the Standards Laboratory at the university, for the testing of electrical equipment and the checking of Commission and utility electric meters and equipment.

Engineering activities, including the supervision of utility conformity to the Commission's general telephone, gas, and electric service orders, also Commission and legal requirements for railroads, are set forth in the following tabulation:

Appraisals Made:	
Electric properties	3
Combined properties	0
Telephone properties	6
Water properties	1
Gas properties	0
Department of Securities	1

Street-lighting equipment estimates	8
Examination for Rates and Research Dept.	74
Specifications checked for Bureau of Engineering	10
Depreciation cases	17
Electric cases	26
Miscellaneous general reports	4
Electric extension estimates	5
Telephone cases	33
Gas cases	8
Water cases	26
Service Department Activities:	
Utility routine and special inspections	1,018
Standards Laboratory tests	522
Referee meter tests	4
Formal and informal matters handled	713
Steam railroad inspections	1,888
Supervisory inspections	3
Miscellaneous	14

WATER POWER

The following table indicates the function of the 1,020 dams which were under the jurisdiction of the Commission at the end of the 1942-1944 biennium.

Over 750 Theoretical Horsepower	
Public utility hydroelectric developments	47
Private power developments	28
Combined utility and private power developments	4
Reservoir	5
Under 750 Theoretical Horsepower	
Public utility power developments	86
Private power developments	202
Combined utility and private power developments	4
Reservoir	8
Miscellaneous Nonpower	
Lake reservoirs	18
Lake control	169
Recreational	152
Occupational	86
Drainage control	211
Total	1,020

The Commission's work on water powers for this period is indicated by the following tabulation:

Formal cases decided and permits issued	77
Special investigations	181
Plans checked and approved	18
Informal water power cases investigated	68
Stream gauging stations maintained	93
Lake gauging stations maintained	28
Stream measurements made	1,239

Because of restrictions caused by the war, little more than necessary maintenance work was done on hydraulic structures during this period. Two permits were issued for the raising and enlarging of dams. One permit was given for the abandonment of a dam. Decisions were made as to the normal level of three lakes. Annual inspections for the determination of safety were made at each

of the 84 dams having over 750 theoretical horsepower and similar inspections were made at about 200 smaller dams. Eight contracts were awarded for the removal of material from the beds of lakes.

U. S. Geological Survey — Water resources branch.

The federal government and the Public Service Commission cooperate in the water power-work which includes stream gauging and maintenance of discharge records for use of federal and state agencies as well as for the general public.

RAILROAD AND MOTOR TRANSPORTATION

The biennium has witnessed the creation of various federal agencies with broad powers conferred upon them to facilitate the prosecution of the war and to prevent inflation. Many of the orders and regulations issued by these bodies have been applicable to intrastate as well as interstate commerce. For example, the Office of Price Administration has frozen the rates of contract carriers, both interstate and intrastate, at levels not higher than those maintained by the carrier during the month of March 1942 for the same or similar services. In connection with common carriers, notices of all increases in rates and charges must be filed with the Office of Price Administration 30 days prior to their effective date and consent must be given to the intervention of the Price Administrator in any proceeding before the Interstate Commerce Commission or state commissions resulting from the proposed increases in rates and charges. The Interstate Commerce Commission has issued various service orders dealing with the furnishing of railroad equipment, train operation, and congestion of traffic which are applicable on both interstate and intrastate traffic; and the Office of Defense Transportation has issued orders restricting the transportation of various commodities and requiring the coordination of rail and highway transportation facilities used in both interstate and intrastate commerce.

This Commission has cooperated with the federal agencies in many ways, and in particular by the issuance of certain orders affecting Wisconsin intrastate carriers. The rules of procedure and practice before this Commission prescribed by General Order No. 2 were amended December 15, 1942 by the addition of rule 9 (a) which requires that proof of compliance with the rules and regulations of the Office of Price Administration be submitted with all common carrier applications for increased intrastate rates and charges. By order in docket MC-1161, dated October 17, 1942, the Commission prescribed rules and regulations similar to those issued by the Office of Defense Transportation intended to conserve and utilize the transportation system in furtherance of the war effort.

During the period covered by this report, the tariffs section has audited 16,312 rail and truck freight bills and acted informally upon 445 railroad and motor carrier applications for rate and tariff changes.

As a result of the increased federal regulation of common and contract motor carrier rates and charges, the formal case work of the Commission's tariffs section during the biennium has dealt principally with rate adjustments of individual carriers or communities rather than on cases having general application throughout the state.

One proceeding, however, instituted by order of the Commission on August 11, 1943, is of general interest. In docket MC-1168 the Commission considered

the matter of the establishment of a general policy with respect to the authorization of convenience routes for common motor carriers.

Certificates granted by the Commission to such carriers outline specific routes over which operation is permitted, and rates to be charged for the transportation of property between the various points served are based on the shortest distance between the points over its certificated routes. The use of certain routes for the operating convenience of the carrier without also using them for rate making purposes was found to violate the spirit, if not the letter, of the general rate order of the Commission, and that such departures should only be made upon a showing of special circumstances and conditions in justification thereof.

No affirmative order was issued as the Commission found that each situation should be met as it arose and determination based upon the facts at issue in each specific case.

Intrastate railroad rates.

Suspension of the 6 percent general increase in railroad freight rates authorized in 1942 was ordered by the Interstate Commerce Commission for the period May 15, 1943 to January 1, 1944, following a hearing at which it was shown that the general increase was no longer needed because of the increased earnings of the carrier due to the handling of greatly increased traffic under war conditions. Similar action was taken by this Commission. The period of suspension has been continued beyond the original expiration date of January 1, 1944 and is now set to expire January 1, 1945 unless otherwise ordered by the Commission.

Various other formal proceedings involving rail transportation rates on coal, livestock, scrap iron, wood sawdust, etc. have been concluded by the Commission during the past biennium.

Interstate rates.

This Commission participated in a proceeding before the Interstate Commerce Commission during the past biennium involving the freight rates on low grade oils (Diesel oil, tractor fuel, heating oil, burning oil, furnace oil, gas oil, distillate unsuitable for illuminating purposes, fuel oil) and other low grades of petroleum products including road oil and asphalt from origins in Kansas, Oklahoma, Arkansas, Louisiana, and Texas to destinations in Iowa, Minnesota, North and South Dakota, and Wisconsin. The rates on these commodities were alleged to be unjust and unreasonable insofar as they exceeded 80 percent of the contemporaneous rates on refined oils when shipped in tank cars between the same points. A favorable decision has been received from the Interstate Commerce Commission and the reduced rates became effective July 31, 1944. This will result in a substantial saving in the transportation bill of the state which uses large quantities of these materials for highway construction, as well as benefiting industrial users throughout the state.

Further hearing has been held by the Interstate Commerce Commission in the general investigation of class rates and freight classifications which was instituted in 1939. This proceeding involves a nationwide review of the intraterritorial and interterritorial freight rate structures and classifications and is of great importance to the entire state. This Commission has participated in these hearings and presented rate and statistical evidence designed to retain, to as great an extent as possible, the present rate relationship and competitive ad-

justment with other sections of the country. No order has as yet been issued in this proceeding.

The Commission has also participated during the biennium in an investigation conducted by the Interstate Commerce Commission of freight rate increases proposed by the railroads on iron and steel articles originating in Illinois territory and destined to points in Iowa, Michigan, Minnesota, and Wisconsin. The proposed increases, in some instances, would have amounted to \$2.80 per ton. This Commission, in cooperation with various Wisconsin industries, participated in the proceeding and presented evidence and testimony in opposition to the proposed increases. No report has as yet been issued in this proceeding.

Railroad abandonments.

All of the railroad abandonments listed as pending or ordered in the biennial report ending June 30, 1942 have been completed as follows:

Chicago and North Western Railway	
Hiles Branch	9.1 miles
Chicago and North Western Railway	
Benton to Strawbridge	2.2 miles
Chicago and North Western Railway	
Koenpnick to Pearson	8.7 miles
Total main line mileage	20.0

Several miles of industry spurs and sidetracks were abandoned and removed during the period.

The Dells and Northeastern, during this period filed, an application for abandonment but later the application was withdrawn.

The Wisconsin Central, operated by the Minneapolis, St. Paul and Sault Ste. Marie, filed an application with the Interstate Commerce Commission, Finance Docket No. 14418, to abandon what is known as Portage, Montello and Stevens Point branch, a distance of 76.9 miles. This is still pending before the Interstate Commerce Commission. This Commission acted as a protestant in this case.

Railroad highway crossings.

The only increase in crossing matters has been in accidents and resultant casualties. The protection of crossings with automatic and manual devices has been slowed down, because of war conditions, to the point where practically no materials are now available for that purpose. Such crossing protection as was installed during this biennium was done almost entirely by the State Highway Commission with federal funds made available for that purpose.

During the biennium the following accidents have been reported by the railroad companies:

	Number of Accidents
Nontrain accidents	975
Employees killed	16
Employees injured	806
Nonemployees killed	5
Nonemployees injured	99
Train and train service accidents	1,843
Employees killed	18
Employees injured	524
Nonemployees killed	114

Nonemployees injured	717
Trespassers killed	54
Trespassers injured	30

Of the above accidents 587 were at grade crossings and involved the death of 88 persons and injuries to 415 persons. Of these grade crossing accidents, 575 involved motor vehicles and resulted in 84 deaths and 409 injuries.

Railroad signals.

Railroad plans were checked and approved for new installations or revision of old installations in accordance with the following tabulation:

Revision of interlocking plants	132
Revision of block signals	113
Revision of crossing protection	31
New crossing protection	18
Reflector lenses for switch lights	218
Revision of traffic control	1
Moving dispatcher office	1
Relocation of crossover switches	8
Station train order locks	2
Abandonment of interlocking plants	1
Removal of switch indicators	1
Gates and signals	2
Track changes	7
Spring switches	6
Rock-slide fence	2
Railroad crossings	1

Total plans approved for biennium	
July 1, 1942 to June 30, 1944	544