Public Service Commission of Wisconsin

Biennial Report

July 1, 1940 to June 30, 1942

R. W. PETERSON Chairman W. F. WHITNEY Commissioner

EDWARD T. KAVENY Secretary

MADISON, WISCONSIN

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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, 1940 to June 30, 1942. 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

R. W. Peterson Chairman

W. F. WHITNEY

Commissioner

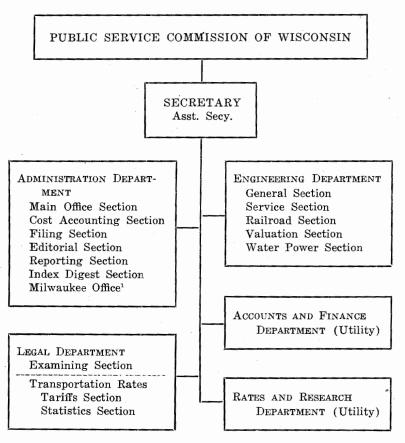
(Signed) EDWARD T. KAVENY Secretary

Madison, Wisconsin December 1, 1942

ORGANIZATION CHART

 \mathbf{of}

PUBLIC SERVICE COMMISSION OF WISCONSIN



¹ Now discontinued

PERSONNEL

General.

R. W. Peterson, chairman Robert A. Nixon, commissioner¹ W. F. Whitney, commissioner Edward T. Kaveny, secretary² Alvin H. Olson, assistant secretary

Administration Department.

Edward T. Kaveny, chief
Alvin H. Olson, assistant chief
Main Office Section—Margaret P. Willison
Cost Accounting Section—Anne E. Alinder³
Filing Section—Faye M. Robbins
Editorial Section—Henry H. Francisco
Reporting Section—Mrs. Lois A. Hart
Index Digest Section—Katharine M. Harrower
Milwaukee Office—R. R. Lynch⁴

Legal Department.

Philip H. Porter, chief⁵
Examining Section
Transportation Rates
Tariffs Section—Ivan A. Sherman
Statistics Section—C. E. Schreiber

Engineering Department.

George P. Steinmetz, chief°
Charles B. Hayden, assistant chief
General Section—Ralph E. Purucker
Service Section—W. H. Damon
Railroad Section—L. P. Atwood
Valuation Section—Warren Oakey
Water Power Section—Kenneth C. MacLeish¹

Accounts and Finance Department.

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

Rates and Research Department.

Henry J. O'Leary, chief

¹ Resigned on September 15, 1942 to accept position with Office of Price Administration.

² Assumed duties as secretary on July 1, 1941.

³ On leave of absence for military service since July 28, 1942.

⁴ Milwaukee office was discontinued on May 16, 1942.

⁵ Resigned on March 14, 1942. Department under temporary supervision of Secretary Edward T. Kaveny.

⁶On leave of absence for military service since October 17, 1942.

⁷ Deceased, August 6, 1941.

THE COMMISSION

During the 1940-42 biennium, the Commission's staff was reduced by approximately 17 percent, chiefly by resignation of staff members to accept employment with the federal government. Four staff members were given military leaves of absence. The staff consisted of 149 full-time employees on July 1, 1940; this had been reduced to 123 on June 30, 1942.

The Commission comprised R. W. Peterson, chairman, and Robert A. Nixon and W. F. Whitney, commissioners.

Chairman R. W. Peterson was born in Berlin, Wisconsin, was graduated from the Berlin High School, served in the United States Navy during the World War, and was graduated from Marquette University law school. He was elected Green Lake county district attorney in 1926 and was re-elected three times. He served as a member of the Wisconsin Assembly from January 1935 until October 1939 when he resigned to become a member of the Public Service Commission. He was named chairman of the Commission on October 11, 1939 and re-elected in March 1941 for an additional 2-year term.

Commissioner Robert A. Nixon was born in Viroqua, Wisconsin, where he attended high school. He was graduated from the law school of George Washington University at Washington, D.C. He practiced law at Washburn, Wisconsin, from 1927 to 1937. He served as a member of the Wisconsin Assembly from 1929 to 1935 and as district attorney of Bayfield county from 1935 to 1937 when he resigned to accept the appointment to the Commission. Mr. Nixon served as Commissioner during the biennium covered by this report but resigned on September 15, 1942 to become director of the division of utilities and transportation rates of the Office of Price Administration.

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 State Senate.

Edward T. Kaveny became secretary on July 1, 1941 when he was appointed by the Commission following competitive civil service examination for the post.

GENERAL

History.

The Public Service Commission of Wisconsin was created by the state legislature in 1874, when Ulysses S. Grant was president of the United States and William R. Taylor was governor of the state, by the creation of a board of three railroad commissioners. The Commission was made a one-man regulatory body in 1876 but in 1905 the one-man commission was succeeded by the Railroad Commission which was reorganized in 1931 and termed the Public Service Commission of Wisconsin. At this time substantial changes were made in the utility laws.

Early jurisdiction of the Commission concerned itself almost entirely with railroad rates. This jurisdiction has expanded until the present Public Service Commission regulates electric, gas, water, and telephone utilities; railroads and telegraph companies; water powers and navigation; and certain phases of motor transportation.

Commissioners who have served since the Railroad Commission was created in 1905 are:

		35 4 4040
Halford Erickson	June 21, 1905 to	
B. H. Meyer	July 5, 1905 to	Jan. 1, 1911
John Barnes		
John H. Roemer		
David Harlowe		
Carl D. Jackson		
Walter Alexander		
Henry R. Trumbower		
John S. Allen		
Lewis E. Gettle		
Adolph Kanneberg		
A. R. McDonald		
Philip H. Porter		
David E. Lilienthal		
Theo. H. Kronshage, Jr.		
Fred S. Hunt		
R. Floyd Green		
Robert A. Nixon		
R. W. Peterson	Oct. 5, 1939	now serving
W. F. Whitney	Oct. 5, 1939	now serving

Scope of work.

In the latter part of the biennium the war created new problems in public utility and transportation fields. With a reduced staff—17 percent fewer employees—the Commission was faced with the responsibility of solving wartime questions. What steps could it take to conserve transportation facilities? What should its policy be toward new construction by utilities; toward rate adjustments? It was in connection with the rate adjustment problem that the Commission issued a statement which has been widely quoted and which has been followed by many other regulatory bodies:

These are times of emergency. Drastic and far-reaching regulations and restrictions upon the ordinary course of business and economic activities of all kinds are being im-

posed. Such restrictions should be accepted with the willingness and loyalty which the necessity for them demands. Public utilities, in the present emergency, should be treated in the same spirit as an individual or corporation engaged in any other business.

We do not look with favor upon proposals to increase utility rates in these times. There may be instances where some increases are necessary in order to insure the financial ability of the utility to continue in the rendition of service. But rates should not be increased solely because the management may consider that its return is less than it is entitled to ask in normal times.

We believe that so far as possible within the range of reasonable requirements, present rates should be stabilized for the duration; and so long as there is a ceiling on prices of other human necessities, the rates for utility services if within the range of reasonableness should be "frozen" and certainly should not be regulated upon precisely the same considerations as prevail in normal times.

However, this does not mean that rates which may be shown to be unreasonably high shall be frozen at such levels. We shall decrease such rates as occasion may demand. Moreover, we recognize that it may be necessary from time to time to remove unjust discriminations. Such matters will be given attention as occasion may arise.

Approximately 2,500 public hearings, an average of nine each working day, were held by the Commission during the biennium. About 7,500 formal and informal cases involving utility, railroad, water power, and motor transportation problems were concluded during the period.

Public hearings were held in various parts of the state, largely dependent upon convenience to the public and efficient conduct of the Commission's work. At the hearings, more than 66,000 pages or 16,500,500 words of testimony were transcribed by reporters.

In tabular form there follow statistics on public hearings, formal cases, orders issued, and similar information:

INFORMAL CASES

	1940-41	1941-42
Informal railroad, utility, and water power cases	677	648

FORMAL CASES

	Ope during	ened biennium	Closed during biennium		
	1940-41	1941-42	1940-41	1941-42	
Railroad	164	89	196	110	
Utility General Securities New plants and additions	114 26 494	115 17 329	128 27 489	113 18 345	
Water Power	34	44	35	47	
Motor General Common carrier certificates Contract carrier licenses Amendment of operating rights	20 41 1030 696	34 43 1023 819	17 41 1021 664	37 45 1029 835	
Total	2619	2513	2618	2579	
			I .		

HEARINGS

	1940-41	1941-42
Railroad	242	89
Utility General Securities New plants and additions	100 1 69	121 1 46
Water Power	47	45
Motor General Common carrier certificates Contract carrier licenses	24 71 730	40 92 778
Total	1284	1212

ADDITIONAL ORDERS

	1940-41	1941-42
Railroad Utility Water Power Motor Carrier	56 69 18 375	22 61 16 400
Total	518	499

Court cases.

During the biennium 26 Commission cases—about one-half of one percent of those considered—were before the courts upon appeal.

New laws.

The only important change in the public utility law since the period covered by the previous report was that made by chapter 78 of the Laws of 1941, which amended section 196.80, Statutes, relating to the consolidation or merger of public utilities. This amendment prescribes procedure to be followed in effecting such consolidations and mergers; and also prescribes remedies for invasion of the rights of dissenting stockholders.

The motor vehicle law was amended in two minor respects. A section was created making it unlawful for a contract motor carrier to "unreasonably or unjustly discriminate in the furnishing of service or the charging of rates therefor with respect to the transportation of any such commodities or any such description or class of traffic as he is authorized by his license to furnish to the public or to any class thereof."

Another change provides that contract carrier applications for authority "to operate a motor vehicle for automobile wrecking or tow service when such motor vehicle is used to transport other vehicles for emergency repairs" should not be denied for failure of the applicant to show, or the Commission to find, convenience and necessity therefor.

Jurisdictional totals.

A total of 1,263 public utilities were under the Commission's jurisdiction at the close of the biennium. Included were 732 privately owned telephone utilities, and 146 electric, 23 gas, 353 water, and 9 heating utilities either privately or municipally owned.

Transportation service under the Commission's jurisdiction is furnished by 20 steam railroads, 1 express company, 2 interurban electric railways, 3 urban electric railways, 1 urban trackless trolley system, 73 common motor carriers of passengers, and 97 common motor carriers of property. In addition to the regular route common carriers, 7,461 contract motor carriers are licensed.

Urban passenger transportation is afforded in 24 urban areas by the 3 urban electric railways, the trackless trolley system, and 19 of the common motor carriers. Suburban service is given by 10 additional motor carriers. Six of these 19 common motor carriers, 39 additional common motor carriers, the 2 interurban electric railways, and 12 of the steam railroads give intrastate interurban transportation service. Three motor carriers performed limited contract type of service exclusively for steam railroad companies.

Of the regular route common carriers giving intrastate service between points within Wisconsin, 10 steam railroads, 1 interurban electric railway, and 8 motor carriers also carry passengers between points in Wisconsin and in other states; and 12 steam railroads, 1 interurban electric railway, and 25 motor carriers transport freight between Wisconsin points and points outside the state. Two common motor carriers of passengers and 130 common motor carriers of property handle interstate business only. There are 1,083 contract motor carriers of property licensed to handle exclusively interstate freight from, to, or through the state.

UNDER COMMISSION JURISDICTION—JUNE 30, 1942

Bus lines (motor carriers of passengers)Common motor carriers of property	73 97
Contract carriers of property	7461
Dams in the state	
Electric utilities	146
Express companies	1
Heating utilities	9
Gas utilities	23
Interurban electric railways	2
Steam railways	20
Telephone utilities	732
Telegraph companies	2
Urban electric railways	3
Urban trackless trolley systems	1
Water utilities	353

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, and maintains the Commission library.

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

Examining Section: Conducts formal hearings; prepares and issues notices of hearings; 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. Representatives of this section 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.

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 receipts to finance its work in the utility, railroad transportation, water power, and motor transportation fields.

- 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 expense 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 % 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 \(\frac{1}{16} \) of 1 percent of the gross intrastate operating revenues for the previous year.
- To provide for regulation of truck and bus line authorities, rates, and service, a specific legislative appropriation is available.

Details of Commission finances are given in the following tables. The table below gives the receipts and disbursements of the Commission for the 1940-41 and 1941-42 fiscal years:

		194	0-41			1941	1-42	
Receipts:								
1. General legislative appropriation Emergency board allotment for U. S. G. S. rent	\$	142	500. 872.	. 00 . 88	\$	125,	000. 0 872. 8	00 88
Total appropriation	\$	143,	372	. 88	\$	125,	872. 8	38
2. Motor transportation legislative appropriation		100,	000.	. 00		85,	000.0	00
3. Direct charges against Utilities			497. 411.			65, 1,	097. 1 001. 0	16 07
4. Remainder assessment against utilities	1	159,	049.	97		161,	664. (8(
5. Fees for removal of material—outlying waters			582.	55			927. 8	50
Subtotal	\$	478,	914.	65	\$	439,	562. 6	39
Less Cuts in Appropriations					1			
Item 1 above, Emergency Board cut Item 2 above, Emergency Board cut	\$		375. 000.					
Total cuts	\$	36,	375.	00				
Net receipts less cuts	\$	442,	539.	65	\$ 4	139,	562. 6	9
Disbursements:								
Utility Railroad transportation Water power Motor transportation		36,	183. 055. 335. 105.	38 85	\$ 2	59, 31,	769. 5 241. 5 879. 6 241. 1	55
Total	\$	450,	679.	43	\$ 4	129,	131, 8	7

That the Commission is continuing its policy of reducing expenses whenever possible without sacrifice of service to the state, is indicated above. Total expenditures for the last year of the biennium were \$21,500 less than those for the first year.

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 \$173,000 which it paid into the general state fund.

COLLECTIONS FOR GENERAL STATE FUND

Motor transportation flat and mile-	
age taxes including interest\$ 4,768.63	\$ 48.00
Motor carrier filing fees 20,980.00	21,752.50
Utility securities fees (public service	,
corporations) 52,600.20	62,972.40
Water power fees and engineering	
fees 3,363.03	1,365.39
Copy work and sale of printed matter 1,978.39	3,535.79
	<u> </u>
Total\$83,690.25	\$89,674.08

UTILITIES

About 312,000 customers of public utilities in Wisconsin are saving approximately \$985,000 a year through rate reductions ordered or authorized during the biennium. Of the total, \$876,000 of rate cuts were made by electric utilities.

RATE REDUCTIONS

	Approximate reductions	Customers benefited
July 1, 1940 to June 30, 1941 Electric	\$611,843	200,187
Telephone	23,486	6,763
Gas		15,441
Water	28,452	18,914
Total	\$697,956	241,305
July 1, 1941 to June 30, 1942		
Electric		59,879
Telephone		179
Gas		. 3
Water	20,577	10,873
Total	\$287,293	70,934
Total for biennium	\$985,249	312,239

Under the Commission's jurisdiction at the close of the biennium were 1,263 public utilities. These comprised the following:

NUMBER OF UTILITIES OPERATING IN WISCONSIN

June 30, 1941	Private	Municipal	Total
Electric	61	87	148
Gas		1	23
Water		324	341
Heating		3	9
Telephone	741	0	741
Total	847	415	1,262
June 30, 1942			
Electric	58	88	146
Gas	22	1	23
Water	16	337	353
Heating	6	3	9
Telephone	732	0	732
Total	834	429	$1,\!263$

Security issues.

During the past 2 years the Commission considered 46 security applications and granted authority to issue a total of \$117,458,812 of securities for which the applicants paid fees of \$115,572.60 to the state, as required by section 184.10(1), Wisconsin Statutes.

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

	1936–193	8	1938–194	0	1940–194	2
	Amount	%	Amount	%	Amount	%
Common stock Preferred stock Bonds Notes	\$ 9,061,400 69,750 26,948,000 850,700 \$ 36,929,850	24. 5 .2 73. 0 2. 3 100. 0	\$ 60, 805, 730 42, 375, 400 86, 720, 000 18, 845, 800 \$208, 746, 930	29. 2 20. 3 41. 5 9. 0 100. 0	\$ 28, 083, 375 18, 477, 100 64, 210, 000 6, 738, 337 \$117, 458, 812	23. 9 15. 7 54. 7 5. 7 100. 0

There is set forth below a list of the security issues authorized by the Commission in excess of \$100,000 per issue:

	Par value of securities authorized					
Utility	Total	Common stock	Preferred stock	Bonds	Notes	
Central Wis, Gas Co. Wis, Valley Improvement Co. Wis, Michigan Power Co. Langlade Telephone Corp. Commonwealth Telephone Co.	\$ 165,000 1,900,000 575,000 106,000 2,750,000	\$ 80,000 800,000 575,000 6,000	\$	\$ 85,000 1,100,000 100,000 2,750,000	\$	
Lake Superior Dist. Pr. Co. Wis. Public Service Corp. Wis. Power and Light Co. La Crosse Telephone Corp.	3,500,000 41,700,000 1,000,000 320,800	2,000,000	3 ,500 ,000 13 ,200 ,000	26,500,000	1,000,000	
North-West Telephone Co Commonwealth Telephone Co	487,300 1,807,100	137,300 200,000	160,000 1,607,100	130,000	60,000	
Wis. Electric Power Co Wis. Power and Light Co Northwestern Wis. El. Co Wis. Michigan Power Co	12,650,000 33,000,000 105,600 2,000,000	12,650,000 1,000,000		30,000,000	3,000,000	
Superior Water, Lt. & Pr. Co Wis. Telephone Co	1,600,000 10,000,000	10,000,000			1,600,000	
Consolidated Water Pr. Co 22 other security issues of less than \$100,000 each	3 ,400 ,000 392 ,012	158,675	10,000	3 ,400 ,000 145 ,000	78,337	
Total	\$117,458,812	\$28,033,375	\$18,477,100	\$64,210,000	\$ 6,738,337	

While wartime conditions curtailed the need for the financing of new construction of property, a feature of the securities issued during this biennium is the increase in the total amount representing new capital. In the 1940 biennium, \$207,101,980 of securities were issued for refunding purposes and only \$1,644,950 for all other purposes. In comparison with this record, securities issued during the past 2 years were issued for the following purposes:

Refunding of own securities\$ \$5,028,45 Investment in securities of other	50 72. 39%
Wisconsin utilities 12,650,00 New financing 19,411,56	
Stock dividends 198,60 Merger or acquisition of properties 170,20	00 .17
Total \$117.458.81	12 100.00%

Practically all of the preferred stock issued during the 2 years was issued to replace outstanding 6, 6½, and 7 percent stock with issues bearing a 5 percent rate. The new issues of preferred stock generally have full voting power and the special right to elect a majority of the directors of the corporation if certain defaults occur in the payment of dividends. Only six of the larger companies now have preferred stock outstanding bearing dividend rates in excess of 5 percent.

The general decline in the dividend rates on preferred stocks and in the interest rates on debt securities, mentioned in our previous report, continued during this biennium. In some instances utilities, which refunded in the earlier stages of lower interest costs, have refunded a second time and have realized a further saving in the annual cost of money. These refunding operations, especially in debt securities, have frequently resulted in the marketing of the new securities at a premium thereby creating an effective interest rate or cost of money lower than the stated nominal rate. Among the larger issues were the following:

Commonwealth Telephone Company refunded its existing 4 percent first mortgage bonds with an issue of \$2,750,000 of 30-year, 3¼ percent first mortgage bonds, which were sold at a price of 104.92 percent of par. This resulted in an effective interest rate of 3.00 percent.

In addition, the company refunded its 6 percent preferred stock with an issue of \$1,607,100 of 5 percent cumulative preferred stock, which was sold at a price of 102.11 percent of par or a yield basis of approximately 4.90 percent.

Lake Superior District Power Company refunded its outstanding 7 percent and 6 percent preferred stock with an issue of \$3,500,000 of 5 percent cumulative preferred stock, which was marketed at a price of 102.50 percent of par or a yield basis of 4.88 percent.

Wisconsin Public Service Corporation refunded its existing 4 percent first mortgage bonds with an issue of \$26,500,000 of 30-year, 3¼ percent first mortgage bonds, which were sold at a price of 104 percent of par. This resulted in an effective interest rate of about 3.05 percent.

In addition, the company refunded its 7 percent, 6½ percent, and 6 percent preferred with an issue of \$13,200,000 of 5 percent cumulative preferred stock, which was marketed at a price of 105 percent of par or a yield basis of approximately 4.76 percent.

Wisconsin Power and Light Company refunded its existing \$33,000,000 of 4 percent first mortgage bonds with an issue of \$30,000,000 of 30-year, 3¼ percent first mortgage bonds and \$3,000,000 of serial maturity unsecured notes. These notes bear interest at 3 percent, 2¾ percent, and 2¼ percent, dependent on the maturity dates. The bonds were sold at a price of 105.5897 percent of par, which created an effective interest rate of about 2.95 percent while the notes were sold at prices equal to the par value thereof.

Consolidated Water Power Company refunded its existing 3% percent first mortgage bonds with an issue of \$3,400,000 of serial maturity 3% percent first mortgage bonds, which were sold at a price of par, which resulted in an effective interest rate equal to the stated nominal rate.

Acquisitions and sales of utility property.

Municipal acquisition cases handled during the biennium included Edgerton and Medford, which were continued from the last biennium, and La Farge, Viola, Pardeeville, and Darlington. The sale price has been established for the Northwestern Wisconsin Electric Company property at Centuria.

The Wisconsin Power and Light Company acquired the electric property at Oregon, and the Madison Gas and Electric Company purchased the municipal electric property at Middleton.

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 Public Service Corporation and the Wisconsin Michigan Power Company connected systems at Green Bay.

The Wisconsin Power and Light Company and the Wisconsin Electric Power Company have connections between Whitewater and Janesville, and at Watertown. The latter was at 25 cycles which has been changed to 60 cycles, and there now has been added another interconnection at Plymouth.

The Wisconsin Gas and Electric Company and the Wisconsin Public Service Corporation have interconnected at 66,000 volts at Elkhart Lake.

The Interstate Light and Power Company and the Wisconsin Power and Light Company had one interconnection at Belmont and another has been completed at 33,000 volts between Browntown and Darlington.

Original cost work.

One of the most important facts to be determined in present-day utility regulation is the original cost (frequently synonymous with historical cost) of the property under consideration. This is defined to mean the original cost of property when it was first devoted to utility service. The present uniform system of accounts prescribed by the Commission for Wisconsin utilities, like those of many other state and federal commissions, requires that the utility plant shall be recorded on the books of the utility at the original cost. This does not mean that a utility is forbidden to record on its books any of its legitimate costs of property in excess of original cost. Specific provision is made in the accounting requirements that any such cost in excess of original cost shall be included in another account.

The work of determining the original cost of utility plant and of restating the plant records of utilities so as to make such original cost data readily available, involves study and analysis of records of hundreds of millions of dollars of utility property. The magnitude of the work and the limited personnel available has necessitated a spreading-out of such work over a longer period of time than would otherwise be desirable. During the current biennium the Commission accountants and engineers have cooperated with utility employees of 17 of the larger utilities in determining the original cost of their property and setting up adequate fixed capital records. For several of the utilities the work has now been completed. Others will require considerable additional time due, at least in part, to the draining of available personnel to other activities connected with the war.

As this work is completed, the regulation of rates, acquisitions of properties, and security issues will be greatly accelerated and simplified. Much time heretofore required to dispose of such cases has often been due to the necessity of making detailed appraisals of such properties. This valuation work will be greatly reduced when inventories can be obtained directly from the company's records and both the original cost and the cost to the company can be readily obtained.

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 1 or 2 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 extremely valuable to the Commission in the exercise of its regulatory duties. More than 600 of these reports are reviewed and checked annually.

Depreciation.

It was formerly the practice of electric, gas, and water utilities to account for the annual depreciation of their properties on a so-called retirement reserve basis, which was followed generally by such utilities throughout the country. In substance, this method merely required the accrual of sufficient annual amounts charged to retirement expense to provide for the ultimate retirement of property but gave little or no consideration to the age and life of the property and other factors entering into a determination of actual accrued depreciation. The general results were that the reserves of the utilities using this retirement accounting basis were in many instances inadequate as a measure of the accrued depreciation of their property.

Pursuant to the provisions of section 196.09, Statutes, and the instructions included in the uniform system of accounts prescribed by the Commission for classes A and B utilities, effective January 1, 1938, these utilities have been required to file with the Commission their estimates of the average annual rate of depreciation required for each class of plant used for public utility purposes, and of the composite annual rate of depreciation required for such plant as an aggregate. The statute provides that the depreciation rates filed shall constitute the utility's estimate of the amount which should be returned to it out of its rates for service to meet the depreciation of its property.

During the past 2 years the Commission has completed its review of the estimates of depreciation rates filed with it and has certified to such utilities the depreciation rates which the Commission determined to be reasonable and proper. Certifications of depreciation rates have been made to 45 electric, 15 gas, 52 water, and 7 telephone utili-

ties having an aggregate cost of depreciable plant of approximately \$484,000,000. These certifications were issued during the period from 1935 to 1941.

The essential data in these certifications were correlated and compiled by utilities and classes of plant. They were then reproduced in bulletin form and made available to such public utilities and others similarly interested.

The composite annual depreciation rates for the different utilities vary materially, dependent upon the type of property of each company, the ratio which each type of property bears to the total, and other factors entering into a determination of the probable life of each property. Thus, an electric utility with a predominant investment in land and hydroelectric plant facilities having a long life would require a lower composite annual depreciation rate than another whose property consisted principally of steam generating facilities with transmission and distribution plant, or one whose investment was composed entirely of distribution plant.

The table below shows the range of the composite depreciation rates heretofore certified by the Commission and the over-all composite rates for each class of utility:

		R	ang	ge	Composite annual depreciation rate
45	electric utilities	1.87%	to	4.56%	2.81%
15	gas utilities	1.52%	to	3.15%	2.10%
52	water utilities	.75%	to	2.11%	1.25%
7	telephone utilities	3.51%	to	4.84%	3.58%

This activity of the Commission in depreciation matters and the cooperative attitude of the utilities have resulted in substantial improvement in the amount of the reserves set up on the utility's books to reflect the accrued depreciation on the properties.

Miscellaneous activities.

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

For telephone utilities there have been line extensions including the purchase of small rural lines previously switched, and new switch-boards. Eight exchanges have been changed to automatic type of service.

For gas utilities, one new large water-gas set was authorized, one utility was permitted to change from water gas to Butane, and one to introduce Butane to increase capacity. The introduction of natural gas into the state was authorized, and later revoked. Another utility was authorized to build a transmission line to the Illinois state line for the purchase of natural gas at that point.

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. Steam turbine and boiler installations amount-

ing to approximately 200,000 kilowatts and Diesel engines amounting to 5,230 kilowatts were authorized. Not all of these were installed.

For water utilities, a large number of main extensions, reservoirs, wells, pumps, pump houses, and water purification systems were authorized; also complete new waterworks systems for 10 communities which were estimated to cost \$829,800.

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.

A transmission and rural distribution line map was completed by the engineers of the Commission supervising the field and office work by the WPA. 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.

There are no Commission or general legal requirements regulating radio interference. However, since this interference is frequently caused by defective utility power and telephone equipment, the service department has been active in investigating complaints. The Commission has followed the policy of handling cases of inductive interference from power circuits on telephone lines by agreements between the electric and telephone utilities after the actual conditions have been determined.

The revision of the Wisconsin Electrical Safety Code has been under way. A change has been planned in the separation of part 2, dealing with utilization wiring and equipment, from the remainder of the code and publishing the two parts in separate volumes.

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.

Appraisals made	31
Natural gas cases reviewed	3
Street lighting equipment estimates	11
Examinations for other departments	148
Specifications checked for Bureau of Engineering	32
Utility routine and special inspections	2,008
Standards Laboratory tests	493
Referee meter tests	5
Formal and informal matters handled	1,391
Steam railroad inspections	1,949
Supervisory inspections	34
Miscellaneous	33

Important utility cases.

Many important utility cases were decided by the Commission during the biennium. Included were the following:

Order prescribing revised electric service rules issued under docket 2-U-911 dated July 29, 1941. The new rules were adopted after many conferences with public utility representatives and after public hearings.

Order in the natural gas cases dated January 2, 1942, whereby a certification was granted to the Wisconsin Gas Transmission Company subject to certain conditions. Also subsequent order in the same docket dated March 13, 1942 rescinding the order of January 2, 1942 due to the granting of jurisdiction over certifications to the Federal Power Commission under new federal legislation.

Supplementary temporary opinion and order in docket 2-U-911 whereby electric utilities were granted authority, subject to certain terms and conditions, to seek permission to read electric meters once every 3 months and to render estimated bills for the two intervening months.

Revision of general order 2-U-20 dated April 13, 1942, which relates to the extension of electric transmission and distribution lines, and additions or changes of utility facilities. The purpose of this revision was to simplify and clarify these rules, particularly with reference to rural extensions in view of the decreased activity of rural electric cooperatives.

WATER POWER

At the end of the 1940-42 biennium there were 1,110 dams under the Commission's jurisdiction. Of these, 875 were used for hydroelectric, industrial, water conservation, and level control purposes.

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

Permits and contracts issued	44
Formal cases decided	
Special investigations	
Plans checked and approved	80
Informal water power cases investigated	
Stream gaging stations maintained	73
Lake gaging stations maintained	29
Stream measurements made	1,304

New construction.

During the 2-year period the Commission issued 13 permits to construct dams and 7 permits to raise and enlarge existing structures. Of these 13 permits, 2 were for dams for hydroelectric utilities. The Du Bay Dam on the Wisconsin River near Knowlton is being constructed by the Consolidated Water Power Company at a cost of approximately \$2,055,000 and the other on the Clam River by the Clam River Dam Company at a cost of about \$110,000.

Work was completed in this period at the Kaukauna, Ladysmith, and Saxon Falls Dams. All were public utility major construction projects.

Diversion projects.

The Clam River-Shell Lake project, sponsored by Washburn County with the aid of federal funds, is in the process of construction with a canal about 2½ miles long.

The Gile Reservoir Dam, which has a storage capacity of 1,290 million cubic feet, was put into operation on April 1, 1941 but was not filled until the flood of September 1, 1941.

Permits were issued to the Wisconsin Valley Improvement Company for the raising and enlarging of the Big Eau Pleine and Willow River Reservoirs so as to increase their capacities.

Important cases.

Decisions were made as to normal water levels of the Pike Chain of Lakes in Bayfield County, Beaver Dam Lake at Cumberland, Big Sand Lake in Burnett County, Turtle Lake in Walworth County, Fish and Hancock Lakes in Waushara County, and Round Lake in Sawyer County.

Application was denied for permit to construct a bridge between Big Lake and West Bay Lake in Vilas County. It is the first case to come up under section 31.23(3) of the statutes.

Trout Creek in Columbia County was declared navigable.

Inspections.

Annual inspections have been made of each of the 84 dams having over 750 theoretical horsepower. Wherever necessary, sounding data below the dam were requested of the owners to determine the amount of scouring. Inspections were also made of 300 smaller dams.

Flood damage.

An investigation was made as to cause of failure of dams which occurred during the flood of August 3 and September 1, 1941. There was a failure of 12 dams which are classified as two hydroelectric utility, two reservoir, two paper mill, two lake control, and four recreational dams. The most serious of these were the Jim Falls Dam on the Chippewa River, Brokaw and Mosinee Dams on the Wisconsin River, and the Spirit Reservoir Dam on the Spirit River. These floods were due to abnormal rainfall amounting to 13.86 inches at Hayward in less than 36 hours and 12 inches at Mellen in less than a week.

Removal of material.

Twenty-two contracts were awarded for the removal of marl, sand, and gravel from beds of lakes.

United States Geological Survey-Water Resources Branch.

The federal government and the Commission cooperate in water power survey work which includes stream gaging and the maintenance of discharge records for use of federal and state agencies. A staff member of the Commission, as chairman of the Water Regulatory Board, has been active with this board which has control of the operation of about 230 dams in the central part of the state.

RAILROAD TRANSPORTATION

The past 2 years have witnessed a tremendous increase in railroad traffic. In part, this is a continuation of the labored upward trend that has been in progress, with several setbacks, since 1932 when railroad gross earnings were less than half of what they had been in 1929. Primarily, however, the increase is traceable to the stimulation of war conditions.

In 1941, Wisconsin freight revenues of class I railroads were \$83,599,077. Although this amount was considerably below 1929, it was 29 plus percent more than 1939 and 19 plus percent more than 1940.

Passenger revenues for 1941 were \$9,042,083, just half of those for 1929, but showed an increase of nearly 15 percent over 1939 and 10 plus percent over 1940.

Railroad reports indicate that despite material increases in expenses, gross revenue increases have been sufficient to result in net revenues. Net railway operating income earned in Wisconsin in 1941 amounted to \$15,895 which was nearly 110 percent greater than for 1939 and 56 percent greater than for 1940.

The rising trend of railroad traffic has continued into 1942. The freight revenues in Wisconsin for the first 6 months of 1942 were \$45,044,114 or 16.9 percent above those for the corresponding months of 1941, and passenger revenues, \$5,507,616, were 39.5 percent greater. Mounting operating expenses, however, cut into net earnings so that the reported net railway operating income for the first half of 1942 was only \$8,405,666 as compared with \$8,845,015 for the corresponding part of 1941.

Generally speaking, the trends of Wisconsin railroad traffic as outlined have followed fairly closely the national trends.

Although freight traffic is equalling or exceeding the 1929 peaks, a large part of the traffic is demanding expedited handling for war purposes, and passenger traffic is rapidly mounting, the steam railroads have available only about three-fourths of the rolling equipment they had in 1929. The resulting strain on facilities has necessitated coordination of rail and truck service, curtailment of the movement of certain commodities such as gasoline and fuel oil in some parts of the country, and cooperation on the part of shippers to secure maximum loading of cars and the elimination of terminal delays.

Intrastate railroad rate adjustments.

The Commission authorized general increases in freight rates and accessorial charges in 1942 similar to those authorized on interstate traffic by the Interstate Commerce Commission. Certain circumstances were found to exist to justify special treatment of particular commodities, including cheese and lake-cargo coal. Although a 10 percent increase was asked by the carriers, an increase of only 6 percent was found justified except on products of agriculture, livestock and

animal products, and specified products of mines where an increase of 3 percent was authorized. Specific increases were authorized on coal and coke, but the proposed increase on iron ore was not found justified.

During the biennium the Railway Express Agency, Inc., was authorized to assess and collect a 10-cent emergency charge per shipment on less-carload express traffic moving on class rates. The increase was authorized following an investigation wherein it was shown that the emergency charge was necessary to meet increased operating costs resulting from wage increases as well as changes and adjustments of hours of labor under arbitration awards and mediation agreements.

Various other formal proceedings involving rail transportation rates on bituminous coal, crude rubber, etc. between particular points in Wisconsin, have been concluded by the Commission during the 1940–1942 biennium.

Interstate railroad rate adjustments.

The Commission participated in an Interstate Commerce Commission investigation of a proposal by the railroads to make a general revision of the rates on paper from Wisconsin and the northwest to southwestern territory. This Commission took an active part in opposing the many increases in rates from points in Wisconsin which would have resulted from the proposal. The Interstate Commerce Commission ordered the cancellation of the proposed rates.

The Commission also participated in the reopened proceeding before the Interstate Commerce Commission involving the charges for protective service to perishable freight—opposing the application of separate charges for ice haulage, supervision, station and auditor's accounting, and switching on shipments of dairy products, fresh meats, beer, and bananas. An unfavorable report has been issued by the examiner.

The Interstate Commerce Commission has instituted a general proceeding involving the readjustment of class rates within that portion of the United States lying east of the Rocky Mountains, and also a nationwide review of the freight classifications. This case is the most extensive ever attempted by the Interstate Commerce Commission, as it involves both the intraterritorial and interterritorial class rates within a major portion of the country. It is of great importance to the entire state in that it involves the level of the freight rates and competitive adjustment of practically all industries located in Wisconsin. The Commission is participating in this proceeding with a view of improving, or at least maintaining as far as possible, our present rate relationship with respect to other territories.

Railroad abandonments.

All of the abandonments listed as pending or ordered in the biennial report ending June 30, 1940 have been completed during this period, as follows:

Railroad	Branch	Miles
Chicago and North Western	Hazel Green	5.2
Wisconsin Central (Soo)	Cylon	11.5
Chicago, Milwaukee, St. Paul and		
Pacific	Prairie du Sac	
The Milwaukee Electric Railway & Transport (Electric)	TT 1 0	
& Transport (Electric)	Hales Corners-	150
mi 34'1 1 731 4-2 To-11	Mukwonago	17.0
The Milwaukee Electric Railway	D - + 117 - 1 !	
& Transport (Electric)	Port washington-	00.7
	Sheboygan	Z0.7

Additional physical abandonments are Robbins Railroad, 6 miles; the Dodgeville Branch of the Illinois Central Railroad, 57.2 miles; the Silver Lake Branch of the Laona and Northern Railroad, 8.9 miles. The following abandonments are proposed or pending: 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, Koepenick to Pearson, 8.7 miles.

Several miles of industry spurs and side tracks were abandoned and removed.

Railroad-highway crossings.

The only increase in railroad crossing problems 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.

Reports received from the railroads indicate that during this biennium there were 734 crossing accidents resulting in the death of 107 persons and in the injury of 437 persons. The major proportion of these accidents and casualties involved motor vehicles.

Signals.

Railroad plans were checked and approved for 74 new crossing signal installations, 187 plans for revisions in crossing signal installations, 226 sets of plans for revisions in interlocking plants, and 98 plans or sets of plans in connection with signals and other track appliances for the safeguarding of train operations.

More than 350 field inspections were made of interlocking and signal apparatus during this biennium.

MOTOR TRANSPORTATION

The regulation of motor transportation comprises several functions. The most important from the viewpoint of work required is that of passing upon applications for common carrier certificates, contract carrier licenses, amendments, and assignments. The volume of this work has not greatly changed in the past biennium. However,

a somewhat larger number of contract carrier applications have been disposed of without hearing, subject to the request of any interested party for hearing within 30 days. Relatively few requests for hearing in such cases have been received, the jurisdictions to grant without hearing having been limited to cases where the facts indicate little likelihood of objection. This work has also been facilitated by the fact that carriers have become more familiar with procedure before the Commission and with the nature of evidence necessary to inform the Commission as to the proposed operations.

With the substitution of bus operation for street railway service in urban centers, many cases have arisen with respect to the adequacy of urban bus service, extension of bus routes, and other related service matters. Hearings in urban bus cases, although fewer in number, generally consume more time and effort than cases involving the granting of certificates and contract carrier licenses. Much work of the technical staff is required in assembling reliable data on urban bus traffic demands.

Still fewer are the cases involving the adequacy of service of common motor carriers of freight. One reason may be that the public has not become fully aware that the Commission has power to require a common motor carrier to render reasonably adequate service. A more probable explanation is that competitive conditions have resulted in a high class service on the part of such carriers. The power of the Commission in this field has been rarely invoked.

The volume of interstate motor carrier hearings set before joint boards in which this Commission participates in cooperation with the Interstate Commerce Commission has not greatly increased. This work continues to be of importance in securing sympathetic consideration for Wisconsin truckers and others who seek authority from the Interstate Commerce Commission to operate in this and adjoining states in interstate commerce.

Effect of war conditions.

Because of the rationing of tires and automotive equipment and the establishment of other war regulations affecting transportation, numerous problems have presented themselves for solution. Certain types of truck transportation, such as that of petroleum products, have been greatly expanded because of the withdrawal of railroad tank-car service in the area including Wisconsin. Population changes caused by the construction of large war plants have necessitated new bus and truck operations and the expansion or readjustment of existing services. Motor carriers and railroads have for the time being buried their competitive feud and are cooperating to make the transportation system more efficient. These war activities have naturally resulted in the granting of new certificates and licenses and the additional work of the Commission has offset in a large measure the decrease in normal work caused by the curtailment of industrial activity not directly a part of the war effort.

Motor carrier rate cases.

In one of the most important and far-reaching rate orders issued during the 1940-42 biennium, the Commission prescribed a general revision of the rates to be charged by contract carriers transporting property intrastate in Wisconsin.

This order, effective March 15, 1941, prescribed distance scales of reasonable minimum rates on commodities generally with certain exceptions; on cheese and casein; on cement; on brick, tile, and mortar cement; on empty containers returned; on fertilizer and fertilizer materials; on lumber; and on coal and coke.

Contract carriers whose authority was limited to certain types of operation such as local cartage within one municipality or to the transportation of merchandise from retail stores to purchasers incidental to retail sales, as well as those carriers whose authority was limited to the transportation of such commodities as fluid milk and cream, livestock, lime sludge, sand, gravel, crushed stone, etc., were exempted from rate regulation and were not required to file tariffs naming their rates with the Commission.

In order to facilitate the filing of the required rates, a tariff was compiled and distributed by the Commission to all contract carriers other than those specifically exempted by the order.

A general increase of 6 percent in common motor carrier class rates was granted upon a showing by the carriers for the need of additional revenue. The order also authorized a 6 percent increase in truckload volume rates. This increase corresponded in general with increases made effective for motor carriers engaged in interstate traffic.

In addition to these general proceedings, a great number of rate changes have been acted upon informally. Approximately 30 formal cases involving the rates and charges of individual motor carriers of property and passengers have been adjudicated by the Commission during the past biennium.

Total Wisconsin revenues of common motor carriers of property engaged in intrastate traffic in 1941 were \$6,933,869, and of corresponding carriers of persons \$5,237,041. For the truck operations this was an increase of 48.9 percent over 1939 and 35.5 percent over 1940. For bus operations, 1941 revenues were 32.2 percent above those for 1939 and 14.5 percent above those for 1940.

CONCLUSION

In conclusion, the biennium has been an active one for the Public Service Commission of Wisconsin. The volume of work, although changed in character by the national crisis, has been about the same and has been completed with a reduced staff and at an economy of operation. To meet whatever emergencies may arise, the Commission will continue to direct its activities toward every change which may contribute to the welfare of a nation at war.