

State of Wisconsin



# PUBLIC SERVICE COMMISSION

Biennial Report  
1975-77



PUBLIC SERVICE COMMISSION OF WISCONSIN

Biennial Report - July 1, 1975 to June 30, 1977

F O R E W O R D

This Biennial report covers the program scope, objectives, and accomplishments of the Public Service Commission for the period from July 1, 1975 to June 30, 1977, and contains information with respect to matters under the Commission's jurisdiction which it deems proper to subject in compliance with section 15.04(4), Wisconsin Statutes, regarding biennial reports.

The Public Service Commission is an independent quasijudicial regulatory body whose jurisdiction, powers and duties are delegated to it by the Wisconsin legislature. According to Wisconsin Statutes, it is the duty of the Public Service Commission to "supervise and regulate every public utility in this state" to the end that "reasonably adequate service and facilities," be made available at "rates that are reasonable and just." The general goal of the Commission is to carry out this mandate.

In recognition of dwindling energy supplies and rising energy costs, the Commission is committed to policies which encourage conservation. Rates that reflect cost of providing utility service, and are sensitive to time of use, are replacing rate structures that charged less per unit when high volumes were consumed. Load management methods and devices, because they reduce maximum demand at peak times, are being implemented. Rules for making service extensions are also being revised to reflect cost of making the extension, and charges for special services, such as directory assistance, are increasingly being assessed to those who actually use these services rather than absorbed by all ratepayers. More accurate demand forecasting helps to determine whether proposed new power plants are absolutely necessary; each such plant application is now more carefully screened for environmental impact. Past actions and future plans of the Commission to meet these goals are detailed in the Issues Sections of this report.

The Commission's goal to ensure rural telephone customers of better service is being realized. The Commission will continue to protect consumers by analyzing the cost impact on consumer classes, by providing accurate information about energy conservation, and by mediating and resolving consumer complaints.

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### PUBLIC SERVICE COMMISSION OF WISCONSIN

#### PERSONNEL

Charles J. Cicchetti

Chairman

Matthew Holden, Jr.  
Commissioner

John C. Oestreicher  
Commissioner

Steven M. Schur - Chief Counsel  
Lewis T. Mittness - Executive Secretary  
Rod Shaughnessy - Executive Assistant to the Chairman  
J. Robert Malko - Chief Economist  
William R. Brumfield - administrator, Transportation Division  
Frederick C. Huebner - administrator, Accounts and Finance Division  
Donald H. Hebl - administrator, Management Services Division  
Victor M. Mayer - administrator, Utility Rates Division  
William Sayles - administrator, Engineering Division  
Clarence B. Sorensen - administrator, Examining Division  
John H. Williams - administrator, Systems Planning, Environmental  
Review and Consumer Analysis Division

#### JURISDICTION, FUNCTIONS, AND ORGANIZATION of the PUBLIC SERVICE COMMISSION

The Public Service Commission is composed of three full-time Commissioners appointed by the Governor and confirmed by the Senate for staggered 6-year terms, and a staff of 177 full-time budgeted positions.

As of June 30, 1977, its regulatory powers and duties included the rates and service of:

- 5 common carriers of property and passengers by water
- 254 common motor carriers of passengers and property
- 19,377 contract motor carriers of property
- 105 electric utilities (86 are municipal)
  - 1 express company
- 18 gas distribution utilities (1 is municipal)
- 3 heating utilities
- 1 railroad (electric)
- 15 railroads (other than electric railways)
- 120 sewer utilities (combined with water utilities)
  - 1 telegraph company
- 117 telephone utilities (81 are REA financed)
- 533 water utilities (495 are municipal)

To carry out its duties, the Commission staff is organized into six divisions, the chief counsel's office, and a public affairs office, each with the following program assignments:

Chief Counsel's Office: The Chief Counsel represents the Commission before other state regulatory agencies, in hearings and in litigation.

Executive Secretary: The Chairman is the chief administrative officer of the agency. He/she may delegate some day-to-day management responsibility to the Executive Secretary.

Chief Economist: Consults with Commission and staff on economic factors and issues relating to public utility and transportation activities, and develops and presents expert testimony in rate and rule making proceedings.

Office of Public Affairs and Publications: This office performs three major functions. In response to growing consumer interest in utility rates and services, consumer mediators in this office handle approximately 300 complaints and questions per month at the end of the biennium, under the Commission's direction, this staff was preparing to conduct a statewide General Service Investigation on consumer problems and on utilities' responsiveness to these problems. Public information staff members provide state media and the public with information regarding Commission activities. Editing of orders and Notices, along with compilation of major orders in the annual volume Public Service Commission of Wisconsin Reports, is performed in the office by a publications editor.

#### Administrative Services

The Office of Administrative Services is responsible for providing support and assistance in Commission management in administrative areas. Areas of budget preparation, development and fiscal

control, personnel management and employe relations, data processing, management review, and central records management are responsibilities of this unit. Functions performed include planning and implementing Commission policies and procedures, and conducting management studies and analysis of agency questions to evaluate and ensure overall policy effectiveness.

The following units have been created within Administrative Services.

Management Services provides budget and fiscal services, personnel, employment relations and payroll services, training and employe development services, supplies and general support services to the Commission.

Management Data Services coordinates and supplies data processing and system analysis services to the Commission.

Records Management maintains all documents and records and provides mail and duplicating services to the Commission.

Secretarial Services provides typing and clerical services to the Commission.

#### Transportation Division

The Statistics and Reports Bureau analyzes railroad and motor carrier costs and maintains files of general statistical data relating to transportation; prepares accounting, statistical, and general economic data for use in matters before the Commission and the Interstate Commerce Commission and participates in formal proceedings; audits books and reports, and designs reporting forms and systems of accounts for motor carriers.

The Tariffs Bureau investigates transportation rates or fares of express, truck, and bus lines and railroads; maintains complete file on freight tariffs and passenger fares; participates in Commission and Interstate Commerce Commission rate proceedings; investigates telegraph rates; and audits freight bills upon request.

The Motor Carrier Authorities Bureau handles motor carrier inquiries and preliminary work in connection with motor carrier authorities; maintains liaison with other bureaus of the Commission and other state agencies involving motor carrier regulations; and makes routine investigations of the records and investigates inquiries and complaints as to the service of motor carriers and rental companies.

The Railroad Safety Bureau investigates and processes applications or complaints relating to: closing, maintaining, establishing (at grade or separated), or improving protection at railroad-highway crossings, and apportionment of costs related to crossings; horizontal clearances between adjacent and parallel railroad tracks

and vertical and horizontal clearances between railroad tracks and adjacent structures; switch tangers, lights, and reflectorized markers on both branch and mainline railroad lines; removal of spur tracks;

As of January 1, 1978, the Transportation Division will become part of the Transportation Commission, in accordance with the Biennial Budget Act, Chapter 29, Laws of 1977.

#### Accounts and Finance Division

The Accounts and Finance Division conducts special and continuing studies on cost of capital, revenue requirements, and rate of return, and makes recommendations to the Commission in connection with rate proceedings; investigates financial arrangements between utility affiliated interests requiring Commission approval; audits the books, accounts, records and annual reports of public utilities; prescribes uniform systems of accounts and interpretations, and annual report requirements for utilities; reviews depreciation rates, practices and procedures of all utilities; assists utilities in establishing accounting systems and procedures; analyzes construction expenditures for continuing property record accounting; investigates proposals of utilities to purchase, consolidate, or merge with other utilities; investigates utility applications for authority to issue bonds, stocks, and all other forms of securities; and collects, analyzes, and furnishes information and financial and economic data on the utility industry.

#### Utility Rates Division

The Utility Rates Division is separated into the Telephone Bureau, the Electric and Gas Bureau, and the Water Sewer Bureau, each of which participates in all rate cases of the particular utilities under its jurisdiction. These bureaus make a thorough investigation of each rate case, which may include submission by the staff of evidence such as cost studies, rate designs and/or rule changes. New rates are filed with this division in compliance with orders of the Commission. Customer complaints received by the Commission are investigated and resolved by this division.

#### Engineering Division

The Electric and Water Bureau processes complaints concerning, electric and water utility service, operation, and facilities; reviews and makes recommendations on plans for plant addition; reviews and enforces service and safety standards; conducts continuing studies of adequacy of electric energy supply; represents Commission on state and national committees; maintains liaison with federal and other state agencies with concurrent jurisdiction; administers Volume 1 of the State Electrical Code; and administers the specific laws relating to the Wisconsin Valley Improvement Company and the Chippewa and Flambeau Improvement Company.

The Gas Bureau processes complaints concerning gas utility service, operation, and facilities; reviews and makes recommendations on plans for plant additions; reviews and enforces service and safety standards; conducts continuing studies of adequacy of gas supply; represents Commission on state and national committees; and administers the Gas Safety Standards of the state and, as an agent of the federal Department of Transportation, those of the federal government.

The Communications Bureau processes complaints concerning telephone utility service, operation, and facilities, reviews and makes recommendations on plans for plant additions; reviews and enforces service and safety standards; and represents Commission on state and national committees.

The Property Records Bureau reviews utility work orders, prudent investment, and associated costs relating to investment in, or retirement of, utility plant; maintains price indices of material and labor and a familiarity with construction standards; reviews methods and procedures in property record work and book entries of utilities acquiring transferred property; and represents Commission on state and national committees.

#### Examining Division

The Examining Division schedules and gives notice of public hearings, the objective being to set each hearing at a time and place most convenient to the parties and the public, consistent with efficient utilization of staff time and travel expense; conducts public hearings with a hearing examiner presiding; is responsible for the recording of verbatim testimony by a stenographic reporter and the preparation of typewritten transcripts of public hearings; issues proposed decisions on all class 2 and 3 proceedings, and class 1 when specified by the Commission, as set forth in s. 227.09, Wis. Stats. (class 1 is a normal agency case; class 2 imposes sanctions; class 3 is all others).

Systems Planning, Environmental Review and Consumer Analysis (SPERCA)  
(This division evolved from the Bureau of Energy and Environmental Systems)

Systems Planning is responsible for preparing evaluations of utility Advance Plans in accordance with s. 196.491(2); assessing the feasibility of future alternative energy options; evaluating the economics and reliability of alternative energy sources; and evaluating the reliability and economics of primary and alternative delivery systems. Included in these duties are specific projects related to transmission reliability and load flow, cost production analysis and system reserve requirements. The staff coordinates the implementation of s. 196.491(2)(3), and relevant PSC Administrative Codes in addition to maintaining liaison with other agencies and organizations similarly affected.

Environmental Review implements the Commission responsibilities for environmental impact analysis required under s. 1.11 and s. 196.491. Included in these duties are coordinating responsibilities in the development of environmental reports, impact statements and assessments. The staff screens proposals for determining environmental impact (PSC 2.90).

Consumer Analysis provides assessment and evaluation of consumer impacts resulting from utility expansion and development, develops sampling and survey methodologies for assessing socio-economic impacts of major utility facilities; provides evaluation of utility rate impacts on different user classifications (PSC 2.90) and conducts studies related to energy use and consumer acceptance.

Forecasting is responsible for providing indepth analysis of forecast demand and load shape for electricity in Wisconsin; conducting and coordinating research in load flow and load management; developing electrical energy forecasting models; and the development and implementation of econometric models directly related to electrical energy demand. These responsibilities also include the development and preparation of staff determinations on need for power for all major facilities.

The Wisconsin Environmental Policy Act Coordinator is located in the SPERCA Division. The responsibilities of this position include making determinations as to whether there will be significant environmental impact from utility programs subject to s. 1.11, Wis. Stats. and PSC 2.90.

## ISSUES BEFORE THE COMMISSION

### Conservation and Environment

The enactment of the Wisconsin Power Plant Siting Law in 1975, (s. 196.491, Wis. Stats.), structured the Commission's environmental review responsibilities in terms of advance planning and construction application. The Commission was already performing some of these responsibilities under the Wisconsin Environmental Policy Act, s. 1.11, Wis. Stats. The Division of Systems Planning, Environmental Review and Systems Planning evolved out of the Bureau of Energy and Environmental Systems to discharge these responsibilities and to provide increased attention to policy development relevant to energy and environmental review issues.

The Commission has carefully studied all utility advance plans and has environmentally screened numerous transmission lines, transportation cases, and rate increase requests. A study is being conducted to determine the economic and environmental practicability

of large versus small generating units. The Commission staff has developed forecasting models to refine analysis of energy demand and need for power. Moreover, a study has been initiated to investigate correlation between consumer income levels and energy use.

Through time-of-use pricing, load management, elimination of promotional rates, changing extension rules and developing conservation rates and measures, the Commission is emphasizing conservation of dwindling energy supplies. These methods will be more fully explained in succeeding pages. Increased attention to the environment means that proposed new power plants come under extensive scrutiny; use of natural gas is and must be carefully monitored through curtailment programs and priority-of-service programs.

Research into alternate fuels and ways of generating power will help, but conservation of existing supplies is essential. Conservation efficiently allocates existing energy, reduces the need for costly new power plants, protects the environment, and can save consumers money.

#### Gas Supply and Conservation

The natural gas supply situation is critical. Since 1970 volumes consumed have exceeded volumes produced. Therefore, the Commission has acted to ensure that available supplies be conserved and used efficiently.

During this biennium natural gas supplies to the state were further curtailed. Michigan-Wisconsin Pipe Line Company, which in 1976 supplied 89.4% of Wisconsin's natural gas, curtailed (cut back) all state utilities by 7.4%, starting in September 1975. In September 1976 Michigan-Wisconsin further curtailed Wisconsin utilities, based on its end-use curtailment plan on file with the Federal Power Commission; reductions varied from 22% to Madison Gas and Electric Company to 3.4% to City Gas Company. Wisconsin's other major, supplier, Northern Natural Gas Company, also curtailed the distribution utilities; there was varying impact from utility to utility, depending on size and type of consumer.

The natural gas shortfall is being absorbed by industries which have historically depended on interruptible supply contracts because these contracts were less expensive. These customers have been forced to rely more and more on alternate fuels, such as heating oil and coal. In addition, commercial and firm customers, for the first time, have found their supplies interrupted or curtailed.

To make sure that available gas was used to provide the greatest good to the greatest number, the Commission issued interim curtailment orders for Wisconsin Gas Company, Wisconsin

Fuel and Light, Wisconsin Public Service Corporation, Madison Gas and Electric Company, Lake Superior District Power Company, and Northern States Power Company. All of these curtailment orders are based on the end use of existing gas loads and on the curtailment plans of the pipeline companies. In both curtailment programs and priority of service programs, residential users are highest priority and, in most cases, boiler fuel use is the lowest. The amount of gas used for electric generation is rapidly decreasing. Most utilities now have priority of service programs to control attachment of new or additional loads so that gas can be conserved for sale for the most necessary and desirable purposes. In most areas served with gas from Northern Natural Gas Company, no additional service is being attached. However, in the Michigan-Wisconsin service area, only Wisconsin Public Service Corporation is not accepting any new loads. Most other companies are accepting at least new or additional residential loads.

The cost of Canadian gas has continued to increase, but supply has stabilized; it does not now appear that Canada will be making any curtailments in the supply of gas to the United States in the next few years.

In the case of Michigan-Wisconsin Pipe Line Company, the annual contract demand allocated to Wisconsin utilities is fixed by the Federal Power Commission in line with pipeline curtailments promulgated by that agency. This allocation must last through the whole year, and must be carefully monitored so that it is available to meet demand during the coldest days. Because November, December and January, 1976-77, were extremely cold, the gas supply situation became more critical than ever; there was serious question whether gas would be available to supply heating loads for cold March weather. Therefore, Michigan-Wisconsin requested that deliveries to all interruptibles on its system be suspended indefinitely so that storage balances could be maintained at sufficient deliverability levels.

However, February 1977 was a normal month; March, April and May were warmer than normal. Thus, there was less need than usual for gas heating during the spring. Gas was also saved by effective consumer conservation and, as stated previously, by continuing interruption of large customers.

The surplus gas had to be used or sold; otherwise, under the terms of annual gas contracts, it would be lost. The Commission therefore set a price on this gas comparable to equivalent amounts of alternate fuels so that the true value of the gas would be reflected. The remaining gas was stored for use during the 1977-78 contract year.

Near the end of the Biennium, the Commission staff began a Generic Natural Gas Investigation regarding supply problems, curtailments, and priority of service.

In fall 1975, to encourage conservation, the Commission ordered all natural gas utilities to develop consumer educational and assistance programs. Wisconsin Gas Company, the state's largest gas utility, was ordered in December 1976 to expand its conservation programs and to assist local and governmental organizations and agencies with their conservation activities. In March 1977 the ten largest gas utilities were ordered to further develop with these programs and financing alternatives for customer ceiling insulation. At the end of the biennium, a comprehensive order was pending which outlined energy-efficient construction standards that would have to be met for new and existing homes to receive natural gas; set forth guidelines for desirable insulation levels and provided for pre- and post-inspection by utilities; directed utilities to increase the scope of consumer assistance and information programs; and outlined incentives that would strongly encourage landlords to improve the energy efficiency of rental units.

#### Gas Rates and Rules

The Commission's conservation efforts will also affect gas rate design. The Commission has directed its staff to prepare a generic natural gas investigation which includes gas rate and rate design matters. Rate design changes to encourage conservation include flattening of historical declining block rates to more appropriately reflect cost-of-service, and the development of conservation rates which encourage customers to use less gas. Promotional gas extension rules are being eliminated. Through reduction of free limits and increased footage charges, the burden of new extensions is placed on new customers rather than on existing customers. An April 1976 order revised the gas extension rules of Madison Gas and Electric and identified policy as regards future extension rule revisions for other utilities. Formerly, it was likely that several customers would eventually connect to a new extension; now, with gas in short supply, the number of new customers allowed to receive gas will steadily decline. Therefore, each new customer must pay the cost of his extension.

#### Electric Power Generation

In the past, when energy was cheap and thought to be plentiful, the demand for electricity increased steadily. In the present day, we are faced with problems of higher energy costs and declining resources. The task facing the Commission is to maintain system reliability so that Wisconsin residents can have the electricity they need, at reasonable prices, and at the same time to encourage conservation and protect the environment. Accordingly, each power-plant application must be rigorously scrutinized. The goal is to more efficiently utilize existing capacity and to construct new generation facilities only when absolutely necessary.

The Commission, through its SPERCA and Engineering Divisions, makes a careful and thorough study of each proposed power plant. In this biennium, Environmental Impact Statements were or are being prepared for the following proposed plants: Pleasant Prairie, Germantown, Weston Tyronne, and Edgewater. Utility Advance Plans have been submitted in July and August, 1976; the SPERCA division released one assessment of these plans, and hearings are being held to determine Wisconsin's long-run electricity generation plan.

During the biennium the Commission issued 58 certificates authorizing electric utility plant additions estimated to cost \$42,150,000. Largely because of postponements based on reduced load growth, no major generating additions were authorized; the largest new unit added was the 30-megawatt (MW) Cornell hydro-electric plant (Northern States Power Company). Total generating capacity for Wisconsin utilities as of June 30, 1977 was 8,307 MW.

Application for a nuclear plant at Koshkonong was made in the last biennium. On July 26, 1977, the Commission issued an order consenting to withdrawal of the application after a Wisconsin Department of Natural Resources letter to the Federal Nuclear Regulatory Commission in November, 1976 indicated that this site was not environmentally acceptable for a nuclear plant primarily because of water quality and quantity problems.

Transmission lines also receive careful screening and analysis. At issue in a particularly controversial proceeding was whether a 33-mile 345-kV line proposed by Madison Gas and Electric Company and Wisconsin Power and Light Company should be built alongside an existing Wisconsin Power and Light Company 138-kV tower line (the utilities' preference), or whether the 138-kV line should be retired and a joint 138-kV line be constructed on a single set of steel poles. The Commission decided in favor of the intervenors in order to minimize adverse environmental and agricultural impact, despite the fact that the joint line would cause higher construction costs. In transmission lines as well as in plants, long-term effects on consumers and the environment are carefully weighed and balanced by the Commission along with energy demands.

#### Electric Rates & Rules

Eighty-nine electric rate orders were issued by the Commission in this biennium. Electric rate cases have become more complex and wider in scope, involving such issues as load management, time-of-day pricing, seasonal price differentials, conservation-inducing rate designs and general energy conservation measures. Taking into account the continuing energy shortage, and ever-increasing concern for environmental impact, these methods of rate design help to use available power in the most efficient way.

Load management is encouraged through pricing and customer equipment controlled by the utility and refers to methods or devices that improve the system load factor by eliminating usage during the system's peak period and/or shifting on-peak consumption to off-peak periods; for example, a water heater could be interrupted during peak daylight hours and turned on again at night.

Time-of-day prices can be considered a form of load management. They refer to pricing incentives to customers to shift electricity off-peak, thereby reducing the need for costly new generating facilities, which must be built to meet peak demand. Seasonal rates accomplish this purpose to some extent; for example, Madison Gas and Electric Company is a summer-peaking utility, which means that its heaviest demands occur during the summer. Thus, customers pay higher summer rates to offset the higher costs of providing service during these months.

Major electric utilities and the Commission staff have been involved in designing tariffs to meet the Commission's commitment to time-of-day tariffs. Specific time-of-day electric rates for large industrial customers were first authorized to Wisconsin Power and Light Company and Madison Gas and Electric Company in November, 1976. Studies regarding time-of-day tariffs for residential and commercial customers are being conducted by the Commission and Wisconsin Public Service Corporation, under auspices of the Federal Energy Administration.

In late 1976, the Commission initiated a major project to develop a standard methodology of all the procedures and analyses used in drafting municipal electric rate orders. The study involves cost-of-service computation and is being computerized to reduce staff time to process proceedings. In addition to encouraging accuracy and quality in these proceedings, the study will help municipal utility managers to better understand cost-based pricing concepts.

The Commission staff completed a Generic Environmental Impact Statement on Electric Utility Tariffs in 1977.

The renewed emphasis on cost-of-service has carried over into the Commission's treatment of electric extension rules. Free limits of extensions have been reduced or eliminated, and foot-age charges have been increased so that the investment burden rests appropriately with new customers rather than on existing customers.

#### Communications

To further its goal to insure better telephone service to rural customers, the Commission directed, previous to this biennium, that there be no more than 4 parties on any one line. At

present, 115 of the state's 116 telephone utilities have complied with this mandate; the remaining utility is constructing facilities to provide 1-party service to all of its customers. Only .2% of the telephones in this state are connected to lines with five or more parties.

The continued conversion of exchanges to 1-party service is shown as follows:

	<u>Biennium Ending:</u>			
	June '71	June '73	June '75	June '77
Utilities	40	61	76	81
1-Party exchanges in service	57	101	150	212
(598 exchanges in service as of 3-21-76)				

Moreover, Wisconsin telephone utilities have steadily increased their capital expenditures to provide better service.

1973	\$105,173,388
1974	131,400,986
1975	122,353,037
1976	175,017,081
1977*	107,814,658

\* First 6 months only

In September, 1975 the Commission on its own motion instituted proceedings to investigate service of the 15 subsidiary utilities of Universal Telephone Company. The Commission ordered that a Customer Service Center be established at each utility to resolve complaints, and that the utilities report to the Commission on the level of service provided.

Also in this biennium, the Commission has been investigating the service complaints and affiliated-interest arrangements of the La Crosse Telephone Corporation.

Telephone utilities, to meet customer calling demands, are operating 34 electric and 23 common control central offices. Digital central offices have also been authorized; indications are that digital equipment will result in future plant savings.

During the Biennium the Commission ruled on 70 interim and final rate orders. In addition to telephone utilities, the Commission regulates radio common carriers and Western Union Telegraph Company.

Wisconsin Telephone Company was authorized interim, supplemental and final rate increases totalling \$34,731,000. As in other utility areas, telephone tariffs have tried to recover, as far as possible, the costs of providing service by appropriately charging those customers who use the service.

To counteract the historical bias against women in our society, the Commission ordered all telephone companies to provide, beginning January 1978, "dual listing" for persons with the same surname residing at the same address.

A number of petitions for extended-area service were carefully considered by the Commission in this biennium. Extended-area service (EAS) charges a flat monthly rate for calls between exchanges instead of assessing a per-call toll charge. In the past, EAS provided some cost savings to utilities by reducing the need for operator assistance and manual billing. However, technological developments have reduced human input and hence nullified these savings. Moreover, general inflation has caused rising costs for providing this utility service.

#### Water

In light of water supply problems that occurred in many parts of the country in 1976, there has been an increased interest in appropriate water rate design. The long-used "declining block" rate structure, which provides a lower per-gallon price as consumption increases, has been the subject of serious review. The staff is studying water regulatory policies in other states, and alternative cost allocation and rate design methods. These studies will help the Commission recommend tariffs that appropriately reflect changing state and national policies regarding the proper use of water -- and its conservation as a natural resource.

In December 1976, the Commission issued a rate increase order for Milwaukee Water Utility, following an interim authorization of a 12.13% surcharge. Final rates produced an additional 3.53% increase to retail customers and a 7.13% decrease to wholesale customers. The utility was also ordered to conduct and submit a study determining updated relative demand characteristics of its retail customers prior to any further rate increase requests. The Commission issued 175 water and 32 sewer rate orders in the biennium.

To speed up the process of rate proceedings, the Commission requires utilities to submit supporting rate increase request information prior to the hearing. Staff analyzes this data, recommends rates, and provides them to the utilities, which can accept the recommendations or be prepared to add evidence to support their own positions at the hearing. Computer output of such data as revenue requirement, income statement, cost allocations, and rate design for class D (smallest) utilities helps reduce

staff time on these cases, and plans to expand the program to class C utilities are being carried through.

During the biennium the Commission authorized water utilities to undertake 119 construction projects at an estimated total cost of \$42,619,000. Included in this amount are authorizations to 9 municipalities and 5 sanitary districts to establish new water public utilities and construct water system facilities at an estimated cost of \$6,318,000. The continued availability of state and federally-funded grants and loans was an important source of financing for water projects.

Record cold weather during early 1977, with associated frost of unusual depth, caused numerous problems throughout Wisconsin for the utilities and customers alike. Many service laterals and mains froze, causing service interruptions and attendant severe problems in restoring service. The Commission, when requested, furnished consumers with instructions on thawing services; it also informed utilities of their statutory obligations to thaw services. The Commission permitted the usual costs incurred by this situation to be amortized over a period of time.

#### Finances

Wisconsin Statutes require that a public hearing be held and a formal order issued whenever a proposed utility rate revision includes any increase in rates to any customer, and require that a privately-owned utility obtain Commission approval before it can issue securities.

#### Securities Authorized July 1, 1975 - June 30, 1977

<u>Type of Security</u>	<u>Par Value</u>	<u>Net Proceed</u>	<u>Percent</u>
Common Stock	\$ 76,805,246	\$159,547,012	28.06%
Preferred Stock	28,000,000	28,000,000	4.92
Bonds & Other Debt	286,746,900	284,572,850	50.05
Pollution Control Revenue Bonds	<u>97,655,000</u>	<u>96,478,337</u>	<u>16.97</u>
Total	<u>\$489,207,146</u>	<u>\$568,598,199</u>	<u>100.00%</u>

Short-term indebtedness, maturing less than 1 year from issue in total amounts not exceeding \$264,200,000 at any one time, was authorized by the Commission during the 1975-1977 biennium.

The types of securities each utility may issue must bear a reasonable proportion to each other. Before authorizing the issuance of securities, the Commission must find that the financial condition, plan of operation and proposed undertaking of the utility are such as to afford reasonable protection to purchasers of the securities to be issued. Attention is also

paid to times interest coverage. These considerations significantly affect a utility's investment rating, its cost of capital, and ultimately rates paid by customers for utility service.

An important function of the Accounts and Finance Division is to present evidence in rate cases in regard to total cost of service. This includes evidence with respect to overall operating revenues, operating expenses and evidence with respect to cost of capital for consideration by the Commission in determining rates of return. Continuous studies are made of financial data relating to securities of public utilities and money-market conditions in general so as to furnish current information and data for use in presenting cost of capital studies to the Commission. The Commission, through its Accounts and Finance Division, has presented testimony in various proceedings before the Federal Power Commission establishing wholesale rates for electric power sold to municipalities.

Contracts and arrangements between public utilities and affiliated interests, as defined by statutes, are reviewed for the reasonableness of such transactions and to determine the cost to the affiliated interest of rendering service to the public utility.

The Commission prescribes Uniform System of Accounts to be used by public utilities in maintaining their financial records. For electric, gas and water utilities the Commission has adopted, with modifications appropriate for Wisconsin, Uniform System of Accounts as adopted by the National Association of Regulatory Utility Commissioners. For Class A and B telephone utilities, this Commission has adopted, with modifications, the Uniform System of Accounts for Class A and B telephone utilities prescribed by the Federal Communications Commission.

During this biennium, the Commission completed the development of a new and more comprehensive Uniform System of Accounts for Municipally Owned Sewer Utilities to replace the system of accounts effective since 1950. The revised Uniform System of Accounts for Sewer Utilities was adopted by Order issued December 5, 1975, to be effective January 1, 1976. Also during this biennium minor revisions were made in the systems of accounts for privately-owned utilities and in the systems of accounts for municipally-owned utilities. The system of accounts for privately-owned utilities, through collaboration with the NARUC, was revised to incorporate a new series of accounts for Customer Service Expenses which provides distinct accounts for the classification of expenses associated with the promotion of safe, efficient and economical use of the utility's service.

SUMMARY OF PSC RATE ACTIONS

BIENNIUM

July 1, 1975 - June 30, 1977  
(Columns defined on next page)

Utility Service and Type of Ownership	Formal Cases in Which a Specific Dollar Amount is Requested by Applicant	Formal Cases in Which a Specific Dollar Amount is Requested Amt. Request. Amt. Auth.	Formal Cases in Which No Specific Amt. is Requested	Cost of Power-Gas Adjustment Changes and Other Informal Actions	Total Dollar Effect of Rate Actions	Total Rate Actions	
						Formal	Informal
Electric Private Municipal	\$91,575,785	\$83,406,355	\$ 5,274,826	\$18,323,381	\$101,729,736	9	90
				12,423,733	17,698,559	50	535
Total	\$91,575,785	\$83,406,355	\$5,274,826	\$30,747,114	\$119,428,295	59	625
Gas Private Municipal	\$33,188,905	\$17,453,515	\$ 8,381,328	\$225,199,524	\$242,653,039	11	84
				93,195	93,195	--	3
Total	\$33,188,905	\$17,453,515	\$ 8,381,328	\$225,292,719	\$242,746,234	11	87
Water Private Municipal	\$ 508,700	\$ 468,700	\$ 26,027	\$ ----	\$ 494,727	3	--
	7,476,000	3,012,731	8,381,328	----	11,394,059	137	--
Total	\$ 7,984,700	\$3,481,431	\$ 8,407,355	\$ ----	\$ 11,888,786	140	--
Sewer Municipal	----	----	\$ 870,427	----	870,427	30	--
Telephone Private	\$67,310,109	\$35,432,748	\$ 501,458	\$ ----	\$ 35,934,206	47	--
Grand Total	\$200,059,499	\$139,774,049	\$15,054,066	\$256,039,833	\$410,867,948	287	712

1/ Interim Order & Final Order counted as one.

2/ Sum of Quarterly Totals

3/ Sewer Counted Separately in Orders having both Water and Sewer Increases

The systems of accounts for municipally-owned utilities was revised to allow amortization of certain contributions in aid of construction provided by grant funds. Any amortization of this nature would require prior Commission authorization. The Commission has also been working with the NARUC to develop a new Uniform System of Accounts for Radio Common Carriers.

Under the authority of s. 196.09, Wis. Stats., the Commission is empowered to certify depreciation rates for utilities. Depreciation expense recorded in the utilities' accounts and allowance for depreciation expense in proceedings establishing rates for service must be computed on the basis of certified rates. The Commission certifies depreciation rates for the larger Wisconsin utilities. Generally, depreciation rates for electric, gas, water and sewer utilities are certified at 5- to 10-year intervals and for telephone utilities at 4- to 5-year intervals. Depreciation rates for smaller utilities are reviewed routinely in connection with review of utility annual reports filed with the Commission and recommendations for changes are made, if appropriate.

#### PSC Rate Actions:

Are annual increases authorized and recorded for the Biennium.

#### Formal Cases in Which no Specific Amount is Requested:

In most cases in this category, requests are for a specific percent return on rate base.

#### Cost of Power, Gas Adjustments

##### Electric

Are authorized automatic rate adjustments due to changes in cost of generation and purchased power.

##### Gas

Are due to wholesale increases by the pipeline companies, authorized by the FPC.

#### Consumer Protection

##### Information

The Commission has addressed itself to consumer concerns in several important ways. Greater public awareness of energy issues has caused a correspondingly increased demand for information. The staff has compiled brochures on public hearings and utility customers' rights and has disseminated this information. A study currently being conducted to investigate correlations between income levels and energy use has the

partial goal of determining how to direct public information programs so that customers can best be made aware of ways to save money in their use of electric energy. Insulation and conservation measures before the Commission at the end of the biennium will result in orders offering further direction. Also at the end of the biennium the staff was preparing to conduct a General Service Investigation on consumer problems with utilities and utilities' responsiveness to these problems of consumers.

### Billing

In April 1976, the Commission issued an order establishing guidelines for net and gross billing. Telephone utilities were prohibited from using late payment charges; other utilities were permitted to apply them to all customer classes. Customers were given a 20-day period to pay without penalty; the charge was assessed at 3% of the bill (30¢ minimum) and no waivers of properly-assessed late payment charges were to be permitted. The Commission recognized the net-gross differential as an incentive to prompt payment; late payment causes increased costs which are properly assessed to those customers who create this cost burden. The order, clarifying as it does the principle and application of these charges, should lend greater understanding to the public with regard to billing.

### Complaints

The Commission staff handles a great volume of consumer complaints each year. The complaints involve service problems, disconnections, payment arrangements, billing disagreements, and the like. The Public Affairs office receives and resolves most of these complaints; more technical questions are referred to other Divisions.

### Rail and Motor Transportation Issues

As of June 30, 1977, there were 23 urban bus authorities, 17 held by municipally- or county-owned urban carriers. One municipally-owned system, Ashland, applied for abandonment of its urban authority. Wisconsin Coach Lines, Inc., an unsubsidized carrier, has made application for abandonment of its urban authority. On July 1, 1975, the county of Milwaukee acquired by condemnation the bus system serving Milwaukee County.

As of June 30, 1977, there were 27 interurban, intrastate common motor carriers of passenger authorities. Several new concepts in interurban bus service did not prove successful. The first subsidized interurban bus system, Land O' Lakes Bus Company, Inc., provided service 6 days a week between Rhinelander and Land O' Lakes. During the first year of operation, the service was subsidized by several communities along the route and by the State Department of Local Affairs. Ridership was low during the first year, reducing subsidy available for the second year and thus forcing the

operator to abandon the service. Another innovative bus service, was tried Wisconsin Cycle Shuttle, provided weekend shuttle service for bicyclists and their bicycles on highways, closely paralleling the Wisconsin Bikeway between Beloit and LaCrosse which covers 460 round-trip miles. Very low ridership during the first summer (1976) made the service economically unfeasible.

Commuter service between Sun Prairie and Madison was discontinued in June of 1976 by McCarthy Transportation Ltd. A major improvement in bus service to southwest Wisconsin was initiated on a trial basis by Allied Underwriters, Inc., doing business as Scenic Trails. A daily round-trip service between Dubuque, Iowa, and LaCrosse via Platteville, Lancaster, Fennimore, and Prairie du Chien commenced on July 16, 1976. The Commission is considering the application of River Trails Transit Lines, Inc., for abandonment of its 2-day-per-week bus service between Madison and Dubuque, Iowa, via Fennimore and Lancaster.

Two of the State Class I railroads have had difficulty meeting operating expenses. They have requested authority to reduce station employes, realign workloads and remove unused depot buildings at various locations in efforts to reduce costs. Some of the requests involve stations on branch lines; reduction of expenses might prolong the life of the branch. The Commission has authorized the requests only when the public convenience and necessity permitted doing so.

In June 1976 the Chicago and North Western Transportation Company requested authority to remove 48 stations to clarify tariffs. In some instances no service had been provided at the stations for 30 years or more. The Commission held hearing to investigate five stations because objections were received regarding the abandonment. Ultimately, the Commission found that all 48 stations were no longer necessary and authorized their removal from tariff.

On August 26, 1976 the Soo Line Railroad Company was authorized to institute a traveling agent working from the central agency at Park Falls to provide service at Mellen, Marengo and Hurley. The expansion of the traveling agency program allowed the Soo Line to remove its resident agents and depot buildings at Marengo and Mellen while continuing agency service.

During the biennium, the Commission was involved in 61 I.C.C. proceedings--14 motor carrier Joint Board proceedings and 47 rail proceedings. With the enactment of the Railroad Reorganization and Regulatory Reform Act (4R Act) by Congress in 1976, the branch line abandonment programs of Wisconsin railroads have accelerated.

In conformance with the 4R Act, Wisconsin Railroads have supplied system maps indicating their Wisconsin abandonment programs. There are 464 miles of line in category I (abandonment applications which will be filed within 3 years of September 1, 1977), 300 miles of line in category II (marginal lines potentially subject to abandonment), and 688 miles of line in category III (proposed line abandonments presently pending before the I.C.C.).

Following investigation and hearing, the I.C.C. denied the Milwaukee Road request for inclusion in the Burlington Northern (BN) System and approved the BN take-over of the Green Bay and Western (GBW). The Order in the GBW proceeding has been stayed on appeal of the Milwaukee Road, C&NWT and the Soo Line. A non-rail corporation (A&K Railroad Materials, Inc.) has also made a bid for the common shares of the GBW.

In 1976 there were 313 motor carriers that filed annual reports with the Commission, and this group of carriers includes 190 with annual revenues over \$500,000. As of July 1, 1977 there were 6,848 intrastate contract carriers (LC), 13,632 interstate contract carriers (IC), 93 intrastate common carriers (CC) and 167 interstate common carriers (OS) with authorities registered in Wisconsin.

Motor Carriers

	1975-1976	1976-1977
Normal Cases Opened	3,960	4,045
Hearings Held	430	442
Orders Issued	1,645	2,528
Amendments Issued	1,288	1,170
New Authority Issued	2,397	2,429
Authorities Cancelled	1,327	1,215
Active Authorities At End of Year	19,750	20,842

In this biennium, the Tariff Bureau audited 7,800 freight bills for the shipping public and as a result found approximately \$13,314 in overcharges assessed through improper application of motor carrier and railroad rates on file with this Commission. The audit covered freight bills involved transportation services for various state departments and bills submitted by the Public Carrier Investigation Unit of the Motor Vehicle Department in connection with its compliance checks of common and contract motor carrier transportation of property and package express.

The Bureau participated in 34 formal hearings on applications filed by public contract carriers and common motor carriers involving mostly passenger fare increases. At the direction of the Commission, the Bureau processed and issued informal approval on 213 applications for tariff publication authority made by common motor carriers of property and passengers, railroads and public

contract carriers of household goods. Informal approvals were also issued to Wisconsin municipalities operating bus authorities so they could implement state operating programs assistance providing reduced fares for qualified elderly and/or handicapped to encourage the use of public mass transportation systems. The Bureau also handled 89 complaints filed with the Commission by the public against common motor carriers of property and passengers and contract carriers of household goods on loss and damage claims, services, and rates.

Formal highway-railroad crossing orders  
issued in July 1, 1973-June 30, 1975 biennium

Ordered signals at crossings	129	*Some orders denying instal-
*Denied signals at crossings	13	lations of signals required
Ordered closing of crossings	6	other safety measures.
Denied closing of crossings	3	
**Ordered establishment of crossings	21	**Private crossings made public
**Denied establishment of crossings	5	are included in "Establish-
Ordered alteration of crossings	14	ment of crossings."
Ordered new (or alteration of) separated structures	22	
Field investigations	603	
Highway crossing plans	148	

When the Commission considers establishment of a crossing or new or improved crossing protection, it investigates obstructions to view; approaches to and angle of the crossing; vehicular and pedestrian traffic counts; number of freight and passenger trains; speed of trains and legal speed of vehicles; traffic patterns, including use of the street or highway relative to business establishments, schools, churches, and fire-fighting equipment; such seasonal factors as tourist traffic or fog conditions; and the accident history at the crossing.

The Commission's file of statistical information on each rail-highway crossing includes accident records begun in 1911 and kept up to date. This information can be the basis for Commission investigations or proceedings on its own motion and action on complaints, petitions, or applications. The Commission also considers safety aspects of railroad-industrial operations. During the biennium, 22 orders were issued on applications to maintain vertical or horizontal clearances at less than statutory limits between railroad tracks and structures in accordance with Wisconsin Administrative rules designed to administer said statutes under current conditions.

There were 21 Orders issued relating to the removal of spur tracks no longer utilized by industry; 3 orders relating to railroad right-of-way fences, 1 order relating to drainage across railroad right-of-way; and 73 supplemental orders apportioning the cost of previously-ordered railroad installation and maintenance for signals.