# P U B L I C  S E R V I C E

# C O M M I S S I O N

# of

# W I S C O N S I N

## BIENNIAL REPORT

July 1, 1966 to June 30, 1968


Arthur L. Padrutt
Chairman

Walter J. Cole
Commissioner

Stanley E. Gilbertson
Commissioner

John F. Goetz
Secretary

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# FOREWORD

The attached report is an outline of the work of the Public Service Commission of Wisconsin from July 1, 1966 to June 30, 1968.

The report covers the transactions of the Commission for the two preceding fiscal years and contains information in respect to matters under the Commission's charge which it deems proper to submit, in compliance with section 195.03, Wisconsin Statutes, and to satisfy the requirements of section 15.04 (4), Wisconsin Statutes, as to annual reports.

PUBLIC SERVICE COMMISSION OF WISCONSIN

Arthur L. Padrutt
Chairman

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Commissioner

Stanley E. Gilbertson
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John F. Goetz
Secretary

Madison, Wisconsin
December 16, 1968

# I N T R O D U C T I O N

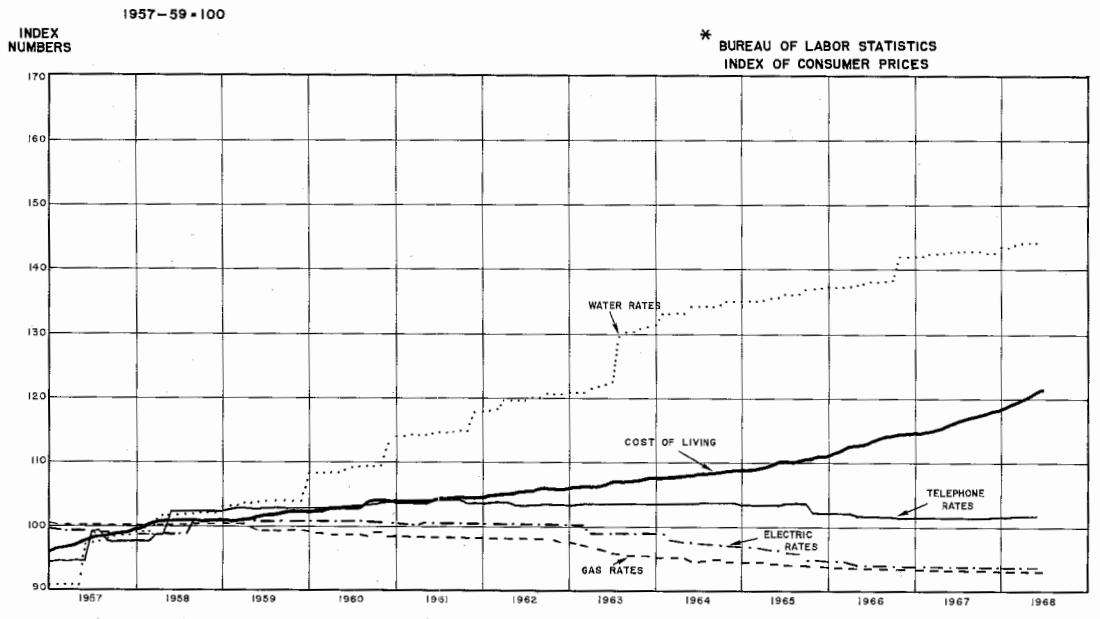
Regulation--Rates and service--Utilities--Transportation

The Public Service Commission of Wisconsin is a REGULATORY AGENCY. Its powers and duties, delegated to it by the Legislature, include the regulation of the rates and services of over 800 electric, gas, heating, telephone, water, and water-and-sewer utilities and the transportation of passengers and property: services daily affecting the convenience, health, business, and expenses of every individual and community.

Open competition as it functions in most business is not an adequate control when applied to utilities requiring large capital investment, duplication of which would clearly be an economic waste to customers who must pay the rates for such vitally necessary services. Utilities, as regulated monopolies, are required by law to provide "reasonably adequate service and facilities" at rates which are "reasonable and just."

Technical reports, continuing inventory studies, financial reports submitted as required by law--all contribute data valuable in determining rates low enough to make service economically available to everyone, yet high enough to provide investors a reasonable and just return on money invested.

**INDEX NUMBERS OF PUBLIC UTILITY RATES IN WISCONSIN AND COST OF LIVING (U.S.)***



When a financial report indicates that earnings are such that a reduction in rates should be considered, conferences with utility management are arranged to discuss a rate reduction. Revised rate schedules can be approved without hearing only when no customer will experience a rate increase.

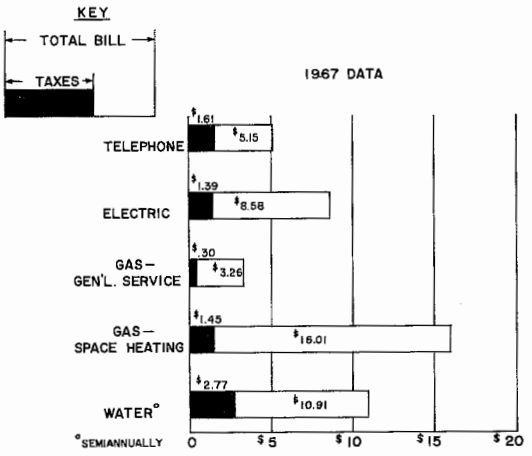
RATE CHANGES
Approved During Biennium

| Utility | Decreases | Increases |
|---|---|---|
| Electric utilities | $1,362,144 | $1,283,500 |
| Gas utilities | 896,400 | 430,539 |
| Sewer utilities* | 5,091 | 89,233 |
| Telephone utilities | 860,936 | 885,643 |
| Water utilities | 11,713 | 2,126,036 |

*Rates of sewer utilities are included in Public Service Commission jurisdiction only when the sewer and water utility are combined, or in cases of customer complaints made to this Commission on rates for service, or when a privately owned sewer utility elects to have the Commission establish suitable rates.

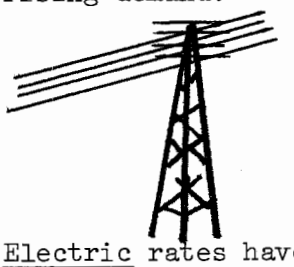
A substantial portion of the savings to gas customers represents refunds received by gas utilities from wholesale suppliers, as a result of proceedings before the Federal Power Commission, and passed on to retail customers. The telephone rate reductions include savings to customers through inauguration of toll-free extended-area service.

**TAXES INCLUDED IN TYPICAL UTILITY BILLS OF MADISON HOMES**




The trend is MORE--of everything: Expanding demand and plant to supply that demand and investment to construct that plant (with funds secured at currently higher interest rates) and that means a higher rate base and the possibility of a higher rate of return on such rate base; higher property taxes; increased depreciation expense; increased operating costs--all this requires more revenue and that involves more income taxes. The MORE cycle began with expanding demand which provides for additonal consumption and revenue, though there is a lag when plant construction must be started in advance of anticipated demand.

The operating characteristics (further illustrated by Revenue Dollar Pie Charts on page 4) and trends of each utility vary within the spiral of rising demand.



Electric rates have never risen above the 1939 level, chiefly because mass production and high volume, especially advantageous to power production, result in efficient use of plant and lower unit costs. To meet accelerating demand, including peak requirements, Wisconsin has joined the nuclear-energy, high-voltage-line, power-pool pattern.

High volume use of plant capacity is favorable to gas utility operation. Rates for natural gas show a slight gradual decline.

Natural gas, introduced in Wisconsin in 1946, is now available in most of the state with plant construction, including peak-shaving facilities, still in progress. Increasing demand for natural gas includes its use for power generation.

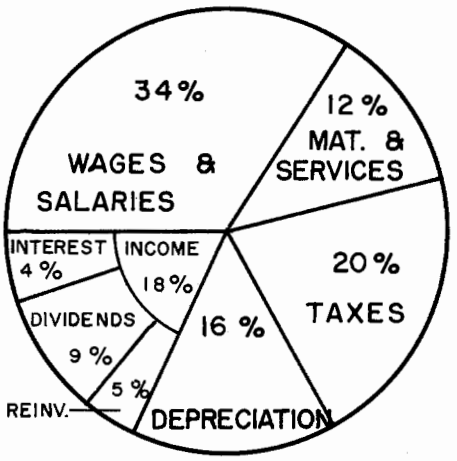
Wisconsin telephone service is converted to dial operation except for three small exchanges. In rural areas, multiparty service is giving way to four-party; urban four-party service is being discontinued; 7 of the 32 exchanges authorized to offer exclusively one-party service are now operating on that basis. Toll "bargains" are available at various times of the day and night.

Mounting demand for water often calls for disproportionate plant investment in extending facilities to outlying areas far from the source of supply. The estimated cost of water plant authorized or informally approved during the biennium totaled over $38 1/2 million. In the case of water supply dependent on rainfall, demand rises for the same reason that supply dwindles.

# THE UTILITY REVENUE DOLLAR

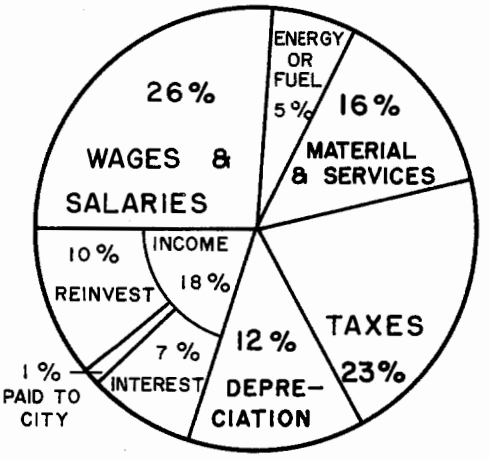
## 1967 DATA

### TELEPHONE

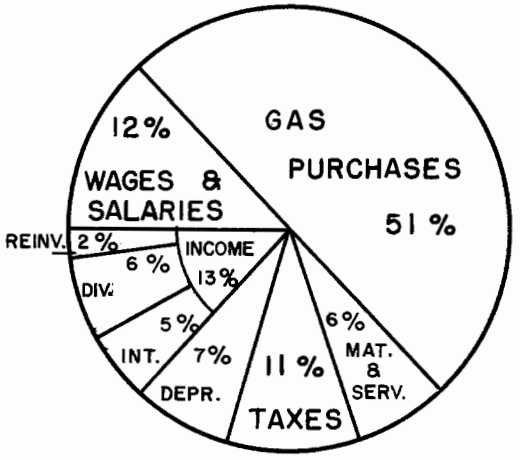



### WATER

MUNICIPAL UTILITIES

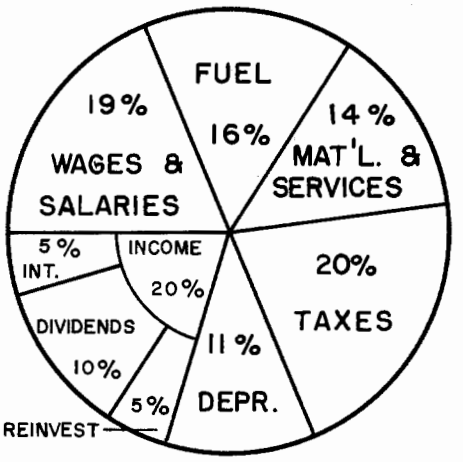



### GAS




### ELECTRICITY

PRIVATE UTILITIES




Again, charts and tabulations indicate varying operating characteristics and trends. Where, for example, labor costs are a substantial portion of operating expenses, wages and efficiency loom large.

While utilities are regulated monopolies operating within definite service areas, competition can exist between different types of utilities, as in the case of gas and electric utilities.

However, competition between modes of transportation of property is a much livelier picture. As the pie charts, below, indicate, labor is so considerable a portion of the operating expenses of common carriers of property that wages and efficient handling of freight are of pivotal importance.

W A G E S

| | Percent of Total Revenue | Year | Average Hourly Compensation |
|---|---|---|---|
| All Railroads[1] | 51.00 | 1957 | $2.2850 |
| | 49.40 | 1961 | 2.6880 |
| | 46.29 | 1965 | 2.9800 |
| | 46.47 | 1967 | 3.3020 |
| Intrastate Common Motor Carriers of Property[2] | 44.00 | 1957 | $2.5933 |
| | 51.90 | 1961 | 3.1312 |
| | 53.90 | 1965 | 3.5274 |
| | 56.10 | 1967 | 3.8502 |

[1] All employes.

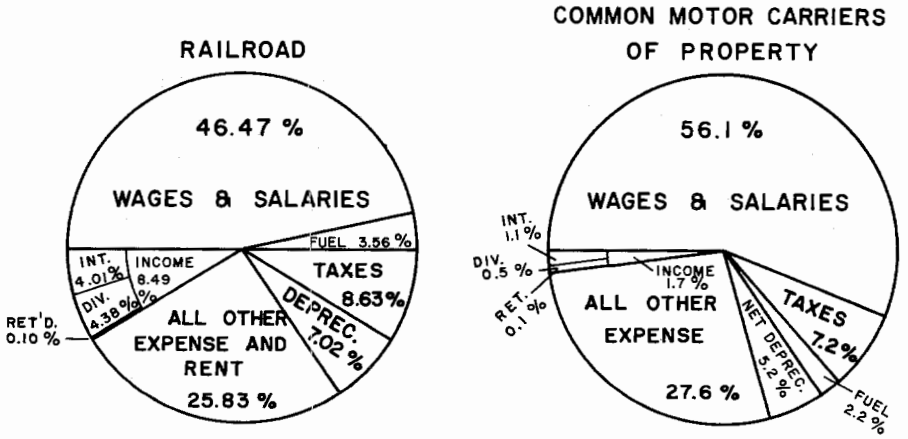
[2] Equipment, maintenance, and transportation employes, based on total man-hours paid for.

In the case of railroads, the labor force has diminished due to more efficient area-handling of freight through establishment of Central Agency Plans and elimination, with exceptions, of l.c.l. shipments.

A September 9, 1967 decision by the Circuit Court for Dane County found section 192.25 (4a), Wisconsin Statutes, unconstitutional and void insofar as it required the presence of a fireman in a crew engaged in switching cars and held that the Public Service Commission has jurisdiction

THE TRANSPORTATION REVENUE DOLLAR

1967 DATA



under section 192.26 to prescribe the reasonable number of employes in each switching crew. In exercising said jurisdiction, the Commission, subsequent to investigation of the Ahnapee and Western Railway Company's operation, ordered that the reasonable number of employes for the crew operating a switch run, as now performed for said railroad, is one engineman, one conductor, and one brakeman (no fireman). The financial statements of the company, showing operating losses in all but one year since 1960, suggested that the reduction in expenses resulting from operating with a three-man, rather than the previous five-man, crew could result in a continuation of the otherwise financially jeopardized operation which is an economic asset to the community and areas involved. (2-R-4983--September 20, 1967)

Man-hours per shipment of motor carrier freight have been cut down by improved highways, palletized operation, and trucks specially equipped to handle shippers' commodities.

First in an Interim Order of May 25, 1967, and later, February 13, 1968, on a permanent basis, common carrier truck operators were authorized to increase rates by 7% in order to recoup increases in labor costs resulting from a new 3-year contract with the Teamsters' Union, and thus to continue necessary and adequate intrastate service.

The Commission appointed a ten-man Transportation Advisory Committee under section 227.018, Wis. Stats., providing for committees of experts, interested persons, or representatives of the general public to advise state agencies with respect to rule-making. The committee, which held its first meeting May 22, 1968, will review current problems and trends associated with the rapid development of the regulated motor carrier industry and make recommendations to the Commission.

Common carriers of passengers (railroads and bus companies) have One Big competitor: The private automobile.

The urban bus is in trouble; so is the community which needs public passenger transportation but offers far too little patronage to pay for its operation.


On June 10, 1968, Racine Flash Cab, Inc., began urban bus service in Racine, using a fleet of ten new "Flexette" air conditioned buses. The buses can seat 19 persons and carry 16 standing.

Patronage, about 3,300 passengers on the first day, has since been as high as 5,000 passengers a day.

A May 24, 1968 joint order authorized Lakeshore Transit-Racine, Inc., to abandon urban bus service in Racine and to assign its certificate to Racine Flash Cab, Inc., which was prepared to institute service with a fleet of new buses.

Struggling to maintain service, Lakeshore Transit-Racine had been granted interim emergency authority to eliminate adult token fares selling for less than single cash fare and to discontinue Sunday and holiday service after 6:30 p.m. except on Fridays when buses would be operated until 9:30 p.m. to accomodate shoppers at downtown stores, open until 9:00 p.m. The net operating losses of Lakeshore Transit-Racine for the first 9 months of 1966 and 1967 were $12,000 and $29,000 respectively. (Urban and interurban bus transportation and fares are further discussed on pages 25 to 28.

History--Jurisdiction

Wisconsin Railroad Commission, created in 1874, was part of the outgrowth of the Granger movement in the Middle West, through which farmers, supported by other groups with similar complaints, expressed their personal grievances as to railroad rates and rebates.

In 1874, the first year of their states' commissions, the railroad commissioners of Wisconsin, Minnesota, and Illinois met to discuss uniformity of action to "prevent the evils practiced by the railroads." And thus began the long and valuable tradition of active cooperation, and exchange of information, with other regulatory agencies and organizations.

Several more meetings were held with a growing number of participating states before the 2-year-old Interstate Commerce Commission invited railway Commissioners to a March 1889 conference in Washington, D. C. Twenty-one states, including Wisconsin and one territory (New Mexico), attended what turned out to be the first convention of the National Association of Railway Commissioners, now named National Association of Regulatory Utility Commissioners (NARUC).

The three commissioners of the Public Service Commission of Wisconsin and several of the staff serve on committees of regional or national associations, including NARUC.

Though not renamed "Public Service Commission of Wisconsin" until 1931, the Wisconsin Commission began vigorous regulation of the service, rates, and accounting practices of all utilities and street railways under the jurisdiction extended to it by Wisconsin's Public Utility Act of 1907, an Act which served as a model for many other states.

Half the states had established commissions of the modern type by 1913, when Wisconsin passed the so-called "Anti-Duplication Law" empowering the Commission to prohibit competing, duplicating utility facilities in an area.

For example, to insure that expanding service areas and construction did not overlap, Wisconsin Public Service Corporation's certificate to operate as a gas public utility in six towns was conditioned on service being provided in accordance with territorial agreements with two other utilities and an agreement entered into with a third. (CA-4820--Nov. 13, 1967--52 PSCW 570, 573-4.)

The Legislature added to the Commission's jurisdiction: In 1915, water powers, which, except for certain utility considerations were transferred on July 1, 1967 to Department of Natural Resources by Chapter 614, Laws of 1965; in 1927, common motor carriers as later included in a 1933 comprehensive truck and bus regulation law, the Motor Vehicle Transportation Act, Chapter 194, Statutes.

As of June 30, 1968, the Public Service Commission's regulatory powers include the rates and service of:

| | |
|---|---|
| 4 | common carriers of property by water |
| 308 | common motor carriers of passengers and property |
| 15,438 | contract motor carriers of property |
| 106 | electric utilities |
| 1 | express company |
| 20 | gas distribution utilities |
| 4 | heating utilities |
| 16 | railroads (other than electric railways) |
| 108 | sewer utilities (combined with water utilities) |
| 1 | sleeping car company |
| 1 | telegraph company |
| 129 | telephone utilities |
| 476 | water utilities |

The regulatory powers of the Commission also extend to the issuance of public utility securities and railroad-highway crossing protection.

In realizing its objective of adequate utility service under safe operating conditions commensurate with current and anticipated technological developments, the Commission prescribes and updates service standards as set forth in Wisconsin Administrative Code.

Such standards have specific application to the service of individual citizens. For example, standards for electric utilities require that the voltage level be maintained within stated limits so that a customer's (YOUR) utilization equipment will operate properly. Other requirements specify the accuracy limits for customers' meters and contain measures designed to assure that said meters are tested at prescribed intervals so that customers (YOU) are correctly and accurately billed for the service used.

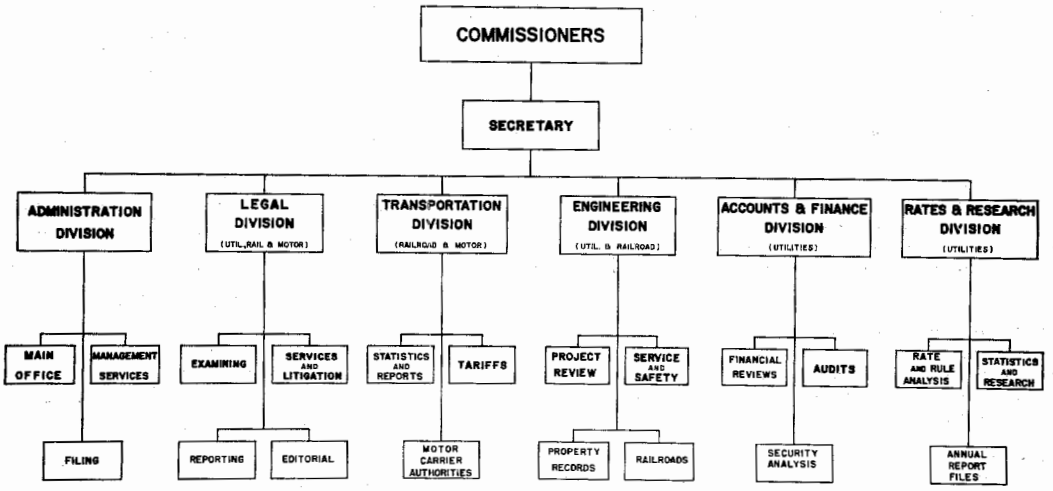
To administer these service standards, the engineering staff of the Commission conducts periodic investigations, on a continuing basis, into the service furnished by Wisconsin utilities. Where deficiencies are found, the utilities are pressed to correct the deficiencies.

In addition, staff engineers also investigate all types of complaints submitted to the Commission concerning utility service. Complaints as to rates and charges are handled by staff members of the Rates and Research Division, in the case of utilities, and by the Transportation Division in the case of transportation companies.

ORGANIZATION CHART

OF

PUBLIC SERVICE COMMISSION OF WISCONSIN



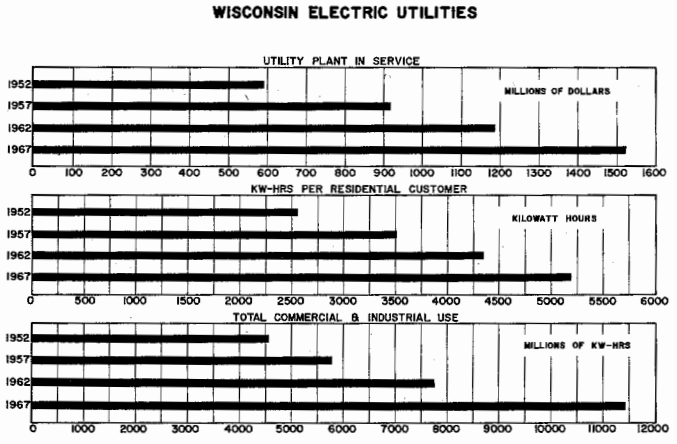
## ELECTRIC UTILITIES

Providing for the rapidly growing demand for more electric power for residential use and for commercial and industrial use (see bar graph below) is not just a matter of more but MORE WHEN it is wanted.

There's always been a peak load. Zillions of kilowatt-hours ago, in 1908, the Commission noted that:

> Electric current is not often in constant use throughout the day. The lights, for instance, with few exceptions, are only kept lighted during a short time each evening ... The greatest demand during this period is several times as great as the average demand during the twenty-four hours. (2 W.R.C. 319)

The uses of electricity have greatly multiplied since the day of the single light bulb dangling from the ceiling. Increased uses by industry, farms and homes introduced variations in peak patterns; for example, a period of hot weather with all air-conditioners going full tilt. Electric utilities must maintain a firm system capacity to meet the present demand, including the peaks, and plan and construct plants to cope with future demands.




During the biennium, 89 Certificates of Authority were issued authorizing plant estimated to cost $374,454,256, some of which is under construction, including three nuclear power plants:

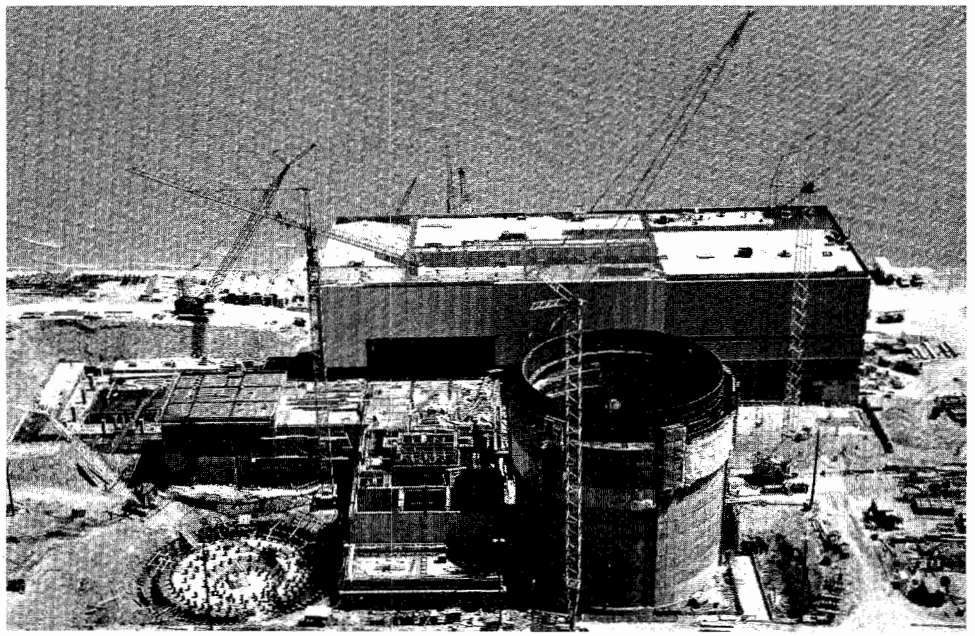
Wisconsin Public Service Corporation
Wisconsin Power and Light Company
Madison Gas and Electric Company

Kewaunee Generating Plant, 527-megawatt capacity
Tentative completion date: March 1972
Estimated cost: $83,000,000 (exclusive of nuclear fuel)
Docket No. CA-4759, October 17, 1967
(52 P.S.C.W. 461)

The 1970-'71 deadline for additional capacity of the three utilities (Wisconsin Public Service Corporation, Wisconsin Power and Light Company, and Madison Gas and Electric Company) which are interconnected with each other either directly or indirectly through other utility systems, will be met by the Point Beach nuclear plant owned jointly by Wisconsin Electric Power Company and Wisconsin Michigan Power Company. Public Service was to install the next unit under a pooling agreement, but was unable to undertake such project alone. A three-party venture, the Kewaunee Nuclear Generating Plant, was decided upon after comparison studies showed it as providing substantial savings over a comparably sized fossil-fueled plant or multiple smaller installations.

Wisconsin Electric Power Company and
Wisconsin Michigan Power Company

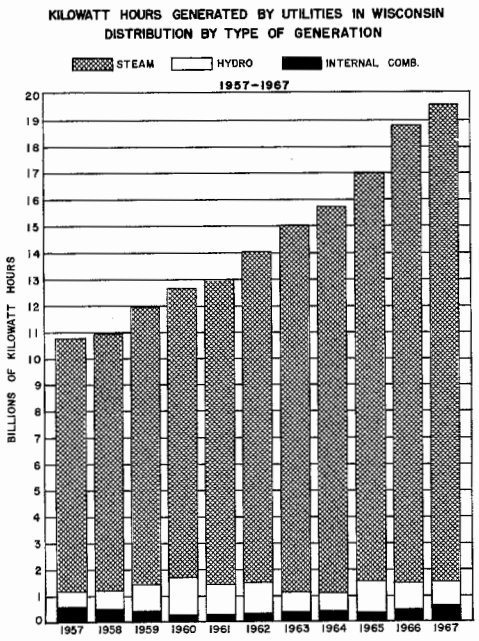
Point Beach Unit # 1, 455-megawatt capacity
Tentative completion date: April 1970
Estimated cost: $65,512,000
Docket No. CA-4689, January 1, 1967
(52 P.S.C.W. 20)

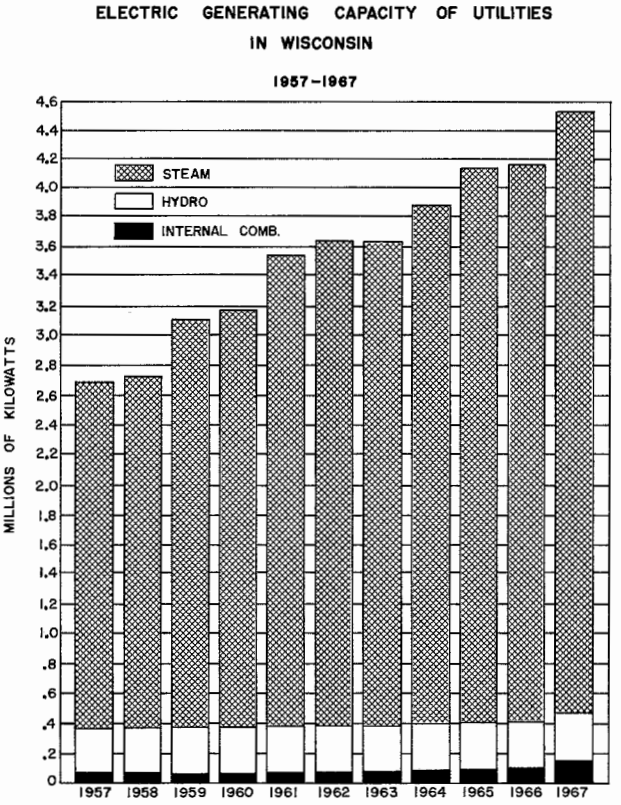


Construction of Point Beach nuclear power plant on Lake Michigan in the town of Two Creeks, Manitowoc County. Construction of reactor containment vessel of Unit No. 2 is just beginning at the left of that of Unit No. 1. There will be a second turbine generator building indentical to that of Unit No. 1

Point Beach Unit # 2, 455-megawatt capacity
Tentative completion date: April 1971
Estimated cost: $61,939,000
Docket No. CA-4827, October 26, 1967
(52 P.S.C.W. 501)

The proximity of the Point Beach nuclear power plant units offers several operational conveniences and economies including joint use of water intake facility, the service building, and emergency generating units as well as the harbor facilities required for water transportation of major items of equipment to the site. Studies of reserve capacity and plans for future generating capability are made on the basis of the combined systems of the affiliated Wisconsin Electric Power Company and Wisconsin Michigan Power Company.




Pools--Interconnections

Reliability of electric service and availability of power go beyond the additions to one utility's generating and transmission capacity to the consideration of power pools and interconnections whereby coordinated planning and operation promote mutual assistance during emergencies, greater flexibility in maintenance scheduling, and the possibility of high-efficiency units too large for the immediate needs of any one utility.

Several Wisconsin utilities are members of Mid-Continent Area Power Planners (MAPP), an organization of local power suppliers operating in 10 midwestern states and the Canadian province of Manitoba and of a large transmission network known as MAIN (Mid-America Interpool Network) including operation in several states.

During the 1966-68 biennium, in addition to the 14 authorized interconnections between utilities, there were several instances in which a utility was authorized to construct transmission lines between its substations or other facilities. For example, a Wisconsin Public Service Corporation 69-kv. line was necessary between its Shoto and Manrap substations when it was found that present transmission facilities to the Manitowoc area were becoming inadequate to serve the continuing increasing load of the area. Outages of a single line could result in low voltage situations which cannot be tolerated (CA-4847 September 19, 1967).

Extra-high-voltage (EHV) 345-kilovolt transmission line, reducing the amount of power normally lost in transmission, is also part of the program providing for the present and for future electric growth potential. The initial 345-kv. line authorization, in 1964, was for a line between the Minnesota-Wisconsin state line near Hudson and the Illinois-Wisconsin line west of Kenosha. The line, now in operation, totals about 404 miles, of which Northern States Power Company of Wisconsin owns 187 miles and Wisconsin Electric Power Company 217 miles. Other such line, totaling 167 miles, has been additionally authorized for Wisconsin Power and Light Company, Wisconsin Electric Power Company and Wisconsin Public Service Corporation, with more under consideration for future construction as the nuclear plants come into operation.

Wisconsin Michigan Power Company's $631,900 annual rate reduction, effective October 20, 1966, is related to economies resulting from construction of extra-high voltage transmission facilities, part of an interconnection system involving several states, between that utility and the generating plants of its affiliate, Wisconsin Electric Power Company.

Prompted by plant construction programs requiring attraction of material sums of capital in 1968 and subsequent years, with rising interest costs, and by the continuing trend of increasing costs for materials and labor, Madison Gas and Electric Company applied for new rates to produce increased annual revenues of $1,524,000. The Commission's May 21, 1968 order in 2-U-6598 authorized rate schedules estimated to provide for a $1,200,000 increase and a 7% rate of return.

Electric power generation by use of natural gas

Additional facilities are being provided for use of natural gas as a fuel for electric generation. In the case of the Lakeside plant, Wisconsin

Electric Power Company is changing to natural gas with oil as a standby fuel, for the complete elimination of coal. Considering the use made of the plant and its estimated remaining life, it is economical to change to the higher cost gas fuel rather than put in the necessary air pollution control facilities required by current air pollution control regulations. The use of natural gas as a fuel for power generation is increasing. Compare the 1965 usage of 14,394,357 Mc.f. (thousand cubic feet) with that indicated in the table below:

| Utility | Plant | Natural Gas Used - Mc.f. 1966 | 1967 |
|---|---|---|---|
| Lake Superior District Power Company | Bay Front | 822,428 | 1,488,670 |
| Madison Gas and Electric Company | Blount Street | 6,207,864 | 7,266,461 |
| | Nine Springs* | 102,055 | 44,289 |
| | Sycamore* | - | 57,978 |
| Superior, Water, Light and Power Company | Winslow | 1,508,193 | 1,424,409 |
| Wisconsin Electric Power Company | Commerce Street | 2,309,422 | 2,287,290 |
| Wisconsin Power and Light Company | Blackhawk | 1,437,047 | 1,398,974 |
| | Rock River* | - | 237,868 |
| Wisconsin Public Service Corporation | Weston | 3,444,121 | 5,640,022 |
| Cedarburg Light and Water Commission | Municipal** | 216,370 | 170,685 |
| Total | | 16,047,500 | 20,016,646 |

* Gas Turbine Unit
** Duel-Fuel Diesel Units

Oil is the standby fuel at Wisconsin Electric Power Company's Commerce Street plant and at all gas turbine and diesel installations shown in the Table, above.

A more unusual installation is the Lake Superior District Power Company installation of a 15-MW gas-turbine electric generating waste heat steam boiler facility at Park Falls for the furnishing of electric power and process steam to a paper company. This plant is to be in operation about January 1, 1969.

Peaking and emergency start-up gas turbine units are installed, or are being installed, as shown below:

| Company | Location | Rated Capacity in Megawatts |
|---|---|---|
| Wisconsin Electric Power Company | *Port Washington plant | 20 |
| | *Lakeside plant | 33.9 |
| | *Oak Creek plant | 20 |
| | *Point Beach Nuclear plant | 20 |
| Wisconsin Public Service Corporation | *Weston plant | 20 |
| Madison Gas and Electric Company | **Nine Springs | 13.5 |
| | **Sycamore | 15.25 |
| Wisconsin Power and Light Company | **Rock River | 27.5 |
| | ***Turtle substation | 17 |
| Kaukauna Municipal | *Kaukauna | 17.4 |

*Authorized
**In operation
***Application made

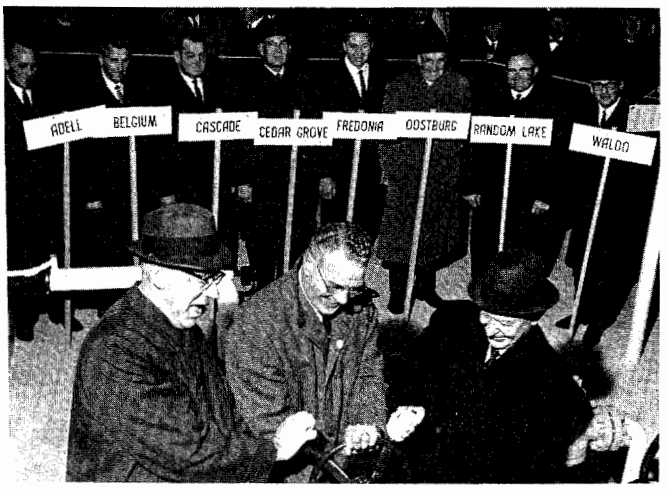
Administrative Code

Numerous changes in the Wisconsin Electrical Code, which is administered by the Public Service Commission and the Industrial Commission (now Department of Industry, Labor and Human Relations), were adopted to become effective February 1, 1968.

## GAS UTILITIES

Natural gas, which is cheaper than manufactured gas, was first introduced into Wisconsin in 1946, but not until 1949-1950, when Michigan Wisconsin Pipeline Company began supplying a substantial quantity of natural gas, did utility gas rates drop sharply. There were waiting lists for space-heating service for many years when the demand exceeded supply. The waiting lists have disappeared and the use of natural gas has increased from 186 million therms in 1950 to 2,467 million therms in 1967.

During the biennium, 40 Certificates of Authority were issued for plant estimated to cost $13,702,234; three previous Certificates were amended to cover costs of $3,953,374, a $758,545 increase over original estimates. Some of the new facilities are required to augment supply and maintain adequate pressure in areas where the demand has increased since original construction and some to provide natural gas for power generation (the use of natural gas for power generation is discussed on pages 13-15, inclusive), but the bulk of the authorization of the construction is for introduction of natural gas utility service into areas where it was not previously available.



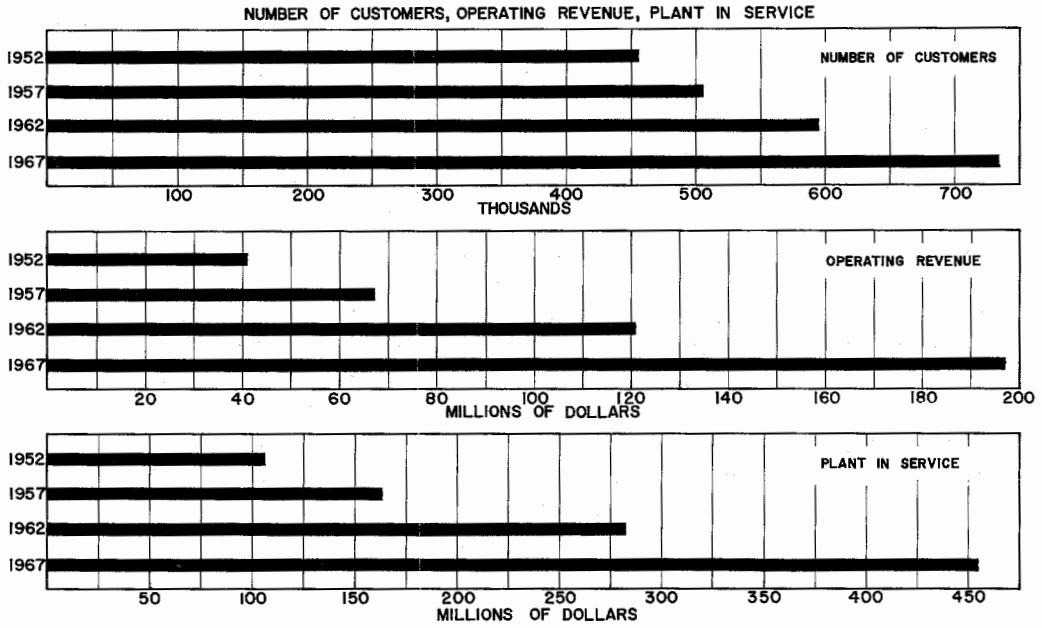

Commissioner Cole (center) participates in a valve ceremony when natural gas flows into distribution mains providing service to eight communities.

Since the ceremony at Lake Geneva in April 1946 when natural gas was introduced into the state, there have been many occasions on which communities welcomed the availability of the new service.

As of December 31, 1967, 93.4% of the cities and 58.4% of the villages in the state of Wisconsin were receiving natural gas as compared to 81% and 54%, respectively, at the end of 1966. In addition, service has been authorized to 40 more incorporated communities and a number of unincorporated communities. The Commission has pending before it as of July 1, 1968, utility applications for service to 3 more incorporated communities.

Numerous authorities to serve have been conditioned on competing gas utilities filing or abiding by existing, territorial agreements as to their respective service areas so that planning, installation, and securing gas supply can proceed unimpeded by disputes as to who is going to serve where.

**WISCONSIN GAS UTILITIES**




Another not uncommon condition imposed on authorizations to introduce natural gas service is the requirement that the applicant utility, before beginning construction, submit to the Commission a copy of a contract to serve a large consumer, revenue from which is vital to the economic feasibility of the project. According to section 196.49 (4), Wis. Stats., the Commission may refuse authorization of a project which

> (a) will substantially impair the efficiency of the service of such public utility; (b) provides facilities unreasonably in excess of the probable future requirements; or (c) will, when placed in operation, add to the cost of service without proportionately increasing the value or available quantity thereof unless the public utility shall waive consideration by the commission, in the fixation of rates, of such consequent increase of cost of service.

The provisions of 196.49(4)(c), just quoted, were applied to the application to provide service to, and plant in, the village of Reeseville and

the surrounding town of Lowell, Dodge County, where Wisconsin Natural Gas Company estimated the rate of return on investment would be 0.05% and 1.8% respectively, for the first and fifth years of operation. The Commission found that:

> Applicant considers that the area to be served has considerable potential for future growth and the feasibility study as presented was conservative. If this is the case, the proposed service should not be denied solely on the basis of the feasibility study as presented by the applicant in this case, but the utility should be afforded the opportunity to provide the service if the new service will not place an undue burden on existing customers. Therefore, to protect existing customers of the company and yet allow applicant an opportunity to provide the public in the area involved with proposed new gas service, the application herein will be granted on the conditions (a) that at the end of the developmental period, in this case, 5 years, the applicant will review the cost of providing gas service in the municipalities here involved, and (b) that when rates are prescribed or fixed for applicant, the applicant agrees to waive consideration of any increase in the cost of service resulting from the granting of this application. (CA-4684, January 6, 1967--52 P.S.C.W. 4, 6.)

Peak-shaving plant

As with all utility service, rapidly advancing demand is associated with peak periods of use. In the case of natural gas service, the most obvious peak is the winter space-heating season.

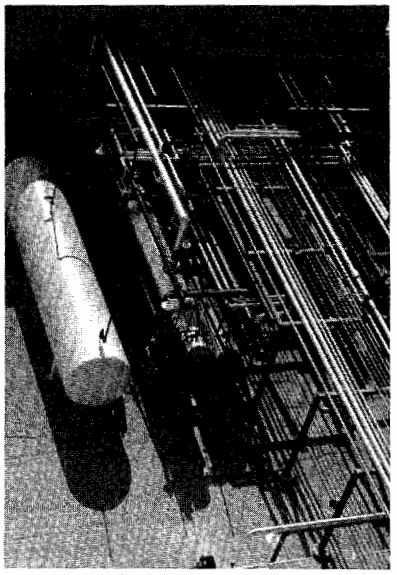
Propane gas utility service is now limited to emergency or peak-shaving operation. Another method of meeting peak demands is by a liquefied natural gas (LNG) peak shaving plant, such as Wisconsin Natural Gas Company put into operation in 1965, the first such plant in the United States.

Northern States Power Company (Wis.) is now constructing LNG storage tanks at Eau Claire and La Crosse, with liquid capacities equivalent to 270 and 130 million cubic feet of natural gas. Liquefication facilities will be installed only at Eau Claire and liquefied gas will be transported by highway cryogenic trailer to La Crosse for storage and regasifying. Midwestern Gas Transmission Company will deliver gas to the facility at Eau Claire under a joint billing procedure between the Wisconsin utility and its affiliate, Northern States Power Company (Minnesota), who will

mutually benefit from the common dispatching of peak-shaving gas and savings in costs. The Certificate authorizing such construction is conditioned on certain standards of materials and construction being met.

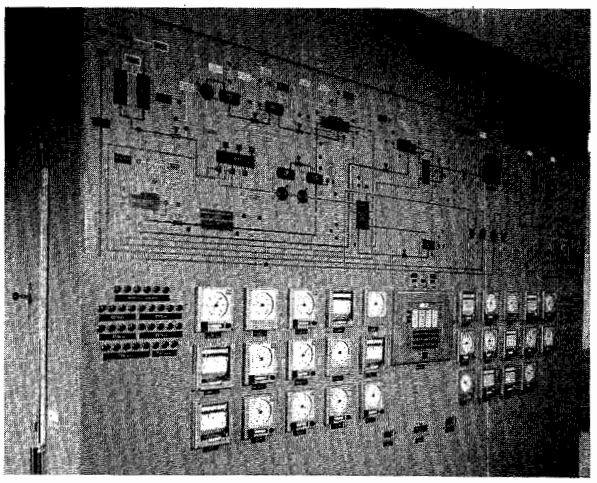
Gas Safety Code

The Commission adopted a revised Chapter PSC 135 Wis. Adm. Code, entitled "Gas Safety", which contains rules and regulations concerning the character of construction, maintenance, and operation of all gas transmission, distribution, and utilization equipment and facilities constructed, installed, operated, and maintained by gas utilities in this state. Effective March 1, 1968, the revision retained existing rules which had been in effect since 1952, such as those regarding gas leak detection programs, regulator inspection, odorization and certain construction requirements. In addition, it incorporated the USA Standard Code for Pressure Piping - Gas Transmission



Skid mounted outdoor liquefaction plant of Wisconsin Natural Gas Company. The long tank at the left is an ethylene expansion tank, part of the "cascade" refrigerating system utilizing propane, ethylene, and natural gas to achieve the minus-260-degree-Fahrenheit storage temperature of liquefied natural gas.

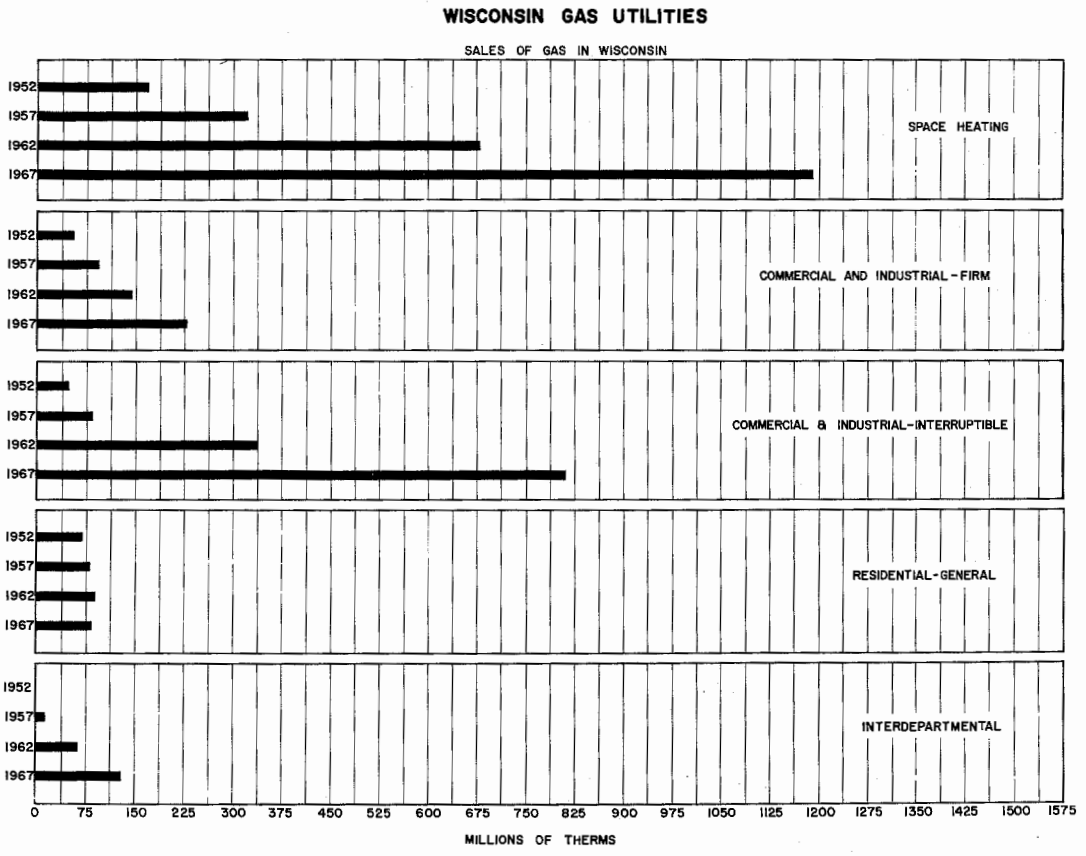
Natural gas, taken in off-peak periods, is liquefied, cooled, and stored, ready to be regasified and fed into distribution mains to meet peak demands.



Liquefied natural gas plant operations are shown in the process flow graphic across the top of the master control panel, above the pressure and temperature gauges, to pinpoint any malfunction immediately. In the event of serious malfunction, the plant will shut down automatically and safely in proper sequence. Wisconsin Natural Gas Company's LNG plant is designed for automatic, unattended operation.

and Distribution Piping Systems USAS, B31.8, compliance with which has, for many years, been a condition of certificates authorizing gas utility facilities. When adopting the B31.8-1967 Code and incorporating it as part of Chapter PSC 135, the Commission made numerous changes, omissions, and additions to make it compatible with existing rules; to reflect changes made by its sponsors in the 1967 version and published in a 1968 version several months after the Commission's adopting order of November 7, 1967; and to make the B31.8 code more positive in such important areas as corrosion control, brittle fracture of steel pipe, and operating and maintenance procedures.

The Commission also administers other rules and regulations (Chapters PSC 133 and PSC 134, Wis. Adm. Code) pertaining to such matter as authorizations for construction, meter accuracy, and various records to be maintained, such as pressure, heating value, interruptions to service, and customer complaints.




Because all residential use of gas is measured through one meter, the consumption attributed to the residential space heating consumer also includes gas used for other domestic purposes such as cooking and water heating. Therefore, the receding "Residential General" bar, in the above chart, indicates that customers are transferred to the space heating classification when they install gas space heating equipment, rather than any reduction in gas used for cooking and for water heating.

## TELEPHONE UTILITIES

### Standards for Telephone Service

After five formal hearings and five conferences attended by Commission staff members and representatives of the telephone industry, the Public Service Commission, on April 25 by order in Docket No. 2-U-912 repealed and recreated Chapter PSC 165, Wisconsin Administrative Code, entitled "Standards for Telephone Service".

Rehearing was requested and granted, an amending order issued. The new rules, which will become effective November 1, 1968, impose more stringent standards, expressed in technical specifics rather than the general terms of the previous rules. The rules state requirements in regard to such matters as filing tariffs, customer billing, refusal of service and disconnections, customer complaints and service interruptions, central office equipment, safety, and traffic and transmission engineering.

Staff member in central office of a telephone utility, using Commission electronic measuring equipment for testing outside plant to ascertain to what extent circuit performance meets PSC standards.

Such tests, prompted by customer complaints or scheduled staff inspections, measure noise levels and clarity of transmission on trunk circuits or subscriber lines.

### Dial conversion

At the close of the biennium, only six manual exchanges remained in the state. Two exchanges have since been converted to dial; two others have specific plans and authority to convert; another has general plans but no tentative date set. Only one remains, with no plans for conversion.

No more charts showing rapid strides in dial conversion. But there are other service improvements and innovations which have been making, and are continuing to make, "rapid strides."

1-party service

Tri-County Telephone Cooperative was the first to institute exclusively 1-party service when its Northfield exchange began offering such service in March 1966. Since then, the Commission has authorized 1-party service for the entire area of 32 exchanges, 7 of which are now so operating. Various telephone utilities have tentative plans to convert another 58 exchanges to all 1-party service. Authorization of such plans is dependent on a substantial majority of the customers responding favorably to the utility's post card canvass offering the service at stated rates.

4-party service

Coming

into rural areas in lieu of multiparty lines. About 16 exchanges discontinued multiparty rural service during the biennium. According to recently adopted rule in Chapter PSC 165, Wisconsin Administrative Code, all circuits now serving more than 4 main stations shall be cut back to four customers to a circuit by January 1974, unless exception is granted by the Commission for specified reasons.

and Going

The continuing trend to discontinue 4-party urban service follows from its being desirable to fewer and fewer people. With remaining 4-party customers scattered at random and distant locations, maintaining line fill presents difficulties such that many persons paying 4-party rates actually have 1- or 2- party service. In the biennium's 26 instances of discontinued 4-party urban service, not only will busy-line conditions and maintenance costs be reduced, but customers will pay for the service they receive on a nondiscriminatory basis.

Extended-area service--Metroplan

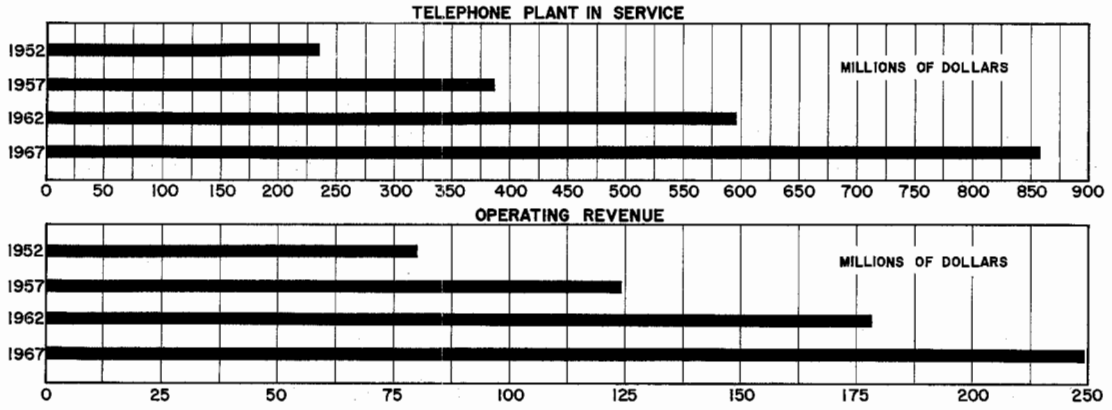
A community of interest justifying toll-free extended-area service beyond exchange boundaries is measured by toll usage, giving special weight to what percentage of the customers make the calls, and to what percentage of the calls are made by what percentage of the customers.

While it is important that a community have available the scope of telephone service it needs, it is not fair for all the customers to pay the costs of extended-area service used by only a few. Usually subscribers are canvassed as to whether or not they want extended-area service at the rates estimated to be necessary to cover the cost.

To report that over 90% of Wisconsin telephone exchanges have extended-area service does not convey the concept of service in the community of interest.

Convenience and adequate service may mean toll-free service to a small adjacent exchange having only three or four hundred phones; it may mean a cluster of communities; it may mean a large metropolitan area such as Madison, with 93,090 main stations, or Milwaukee Metroplan with 439,209 main stations.

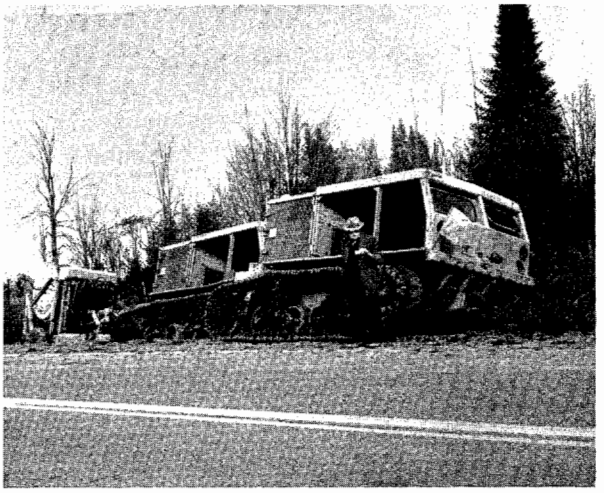
**WISCONSIN TELEPHONE UTILITIES**




The operating revenue shown in the bar chart, above includes intrastate toll charges and interstate toll billed to Wisconsin customers. Such is the increase in the use of long-distance calling that toll revenue is steadily advancing, in spite of lower rates and various special toll rates, such as "Tel-a-Visit" and the Family Plan.

New plant construction

Chapter PSC 162, Wisconsin Administrative Code, was revised, effective January 1, 1967. The principal changes in the rules, which relate to information on extensions and improvements of telephone plant and to switching agreements, are: lengthening the waiting period between submission of information and commencement of construction, giving the Commission staff more time to study utility proposals; raising the value of project to which rules apply from $10,000 to $25,000 (or when project is in excess of 25% of existing investment in the plant account of the same exchange); and introducing rules for submission of information on group projects, commonly known as "budget plans."



Standard ploughing-in equipment ready to bury trunk and subscriber circuits supplementing existing outside telephone plant near Prentice, Wisconsin

In addition to 29 Certificates authorizing telephone plant estimated to cost $11,288,815, the Commission, during the biennium, accepted gross figures in connection with annual calendar year budgets as shown below.

| Company | Gross Amount Accepted 1967 | 1968 |
|---|---|---|
| Wisconsin Telephone Company | $28,126,000 | $14,274,000 |
| General Telephone Company | 13,117,067 | 21,447,813 |
| Chibardun Telephone Cooperative | 111,100 | None |
| Mid-Plains Telephone Company | 239,348 | None |
| LaCrosse Telephone Corporation | 2,181,000 | 237,500 |
| North-West Telephone Company | 323,776 | 204,840 |
| Boscobel Telephone Company | 642,678 | 43,434 |
| Wood County Telephone Company | 1,847,819 | 732,420 |
| Midway Telephone Company | 164,222 | 119,007 |
| Milton Telephone Company | None | 36,300 |
| Monroe County Telephone Company | 27,086 | 137,620 |
| State Long Distance Telephone Company | 93,545 | None |
| Platteville Telephone Company | 177,627 | 120,000 |
| Badger State Telephone Company | 91,193 | 15,181 |
| United Telephone Company | 455,050 | None |
| | $47,597,511 | $37,368,115 |

As the figures on this page and the bar chart on the previous page indicate, upgrading and extending telephone service involves the annual expenditure of many millions of dollars.

## WATER UTILITIES

### Water rates

As the graph on page 1 shows, utility rates lie well below the cost-of-living curve, EXCEPT water rates, which have been stairstepping upward.

The nature of water utility operation is such that it has not appreciably benefited from automation and various modern, sophisticated operational techniques which are in part responsible for the advantages of mass production and high-volume use and the ensuing lower unit costs of other types of utilities, especially gas and electric.

According to a national study, the cost of mains almost doubled between 1949 and 1966, while in the same period, the cost of meters rose 108%; general construction costs, 118%; and common labor, 156%. These inflated costs apply to today's construction by utilities facing demands for service in an era of higher standards of living and municipal growth.

INDEX NUMBERS
1957 - 1959 = 100

| January | Cost of Living | Water Rates |
|---|---|---|
| 1957 | 96.3 | 90.8 |
| 1959 | 100.9 | 103.0 |
| 1961 | 103.8 | 114.1 |
| 1963 | 106.0 | 120.8 |
| 1965 | 108.9 | 135.3 |
| 1967 | 114.7 | 142.2 |
| June'68 | 120.9 | 144.2 |

### Water plant

The enormity of the problem of financing water plant at today's high costs is such that frequently both new and established utilities must depend on federal grants or loans.

The September 12, 1967 Order in Docket No. CA-4800 authorized the Appleton water utility to construct plant, including lake intake, pumping station, and 3 1/2 miles of 42-inch transmission main, to obtain raw water from Lake Winnebago and to construct additional treatment plant. The total cost of the two projects is estimated at $3,948,250.

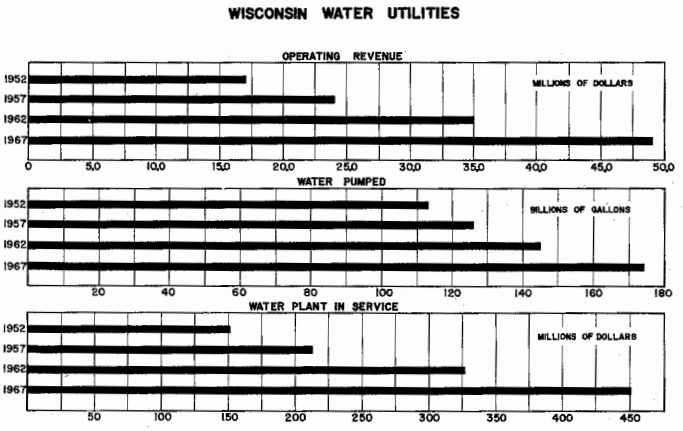
The 1967 Order mentioned that the $2,200,000 lake water source project depended on securing federal aid from Housing & Urban Development and that if such funds were not made available, the project would be delayed or abandoned and additional raw water obtained by enlarging the present Fox River intake facilities. Lake Winnebago has a substantially lower bacterial content than Fox River in the area of the utility. (52 P.S.C.W. 404)

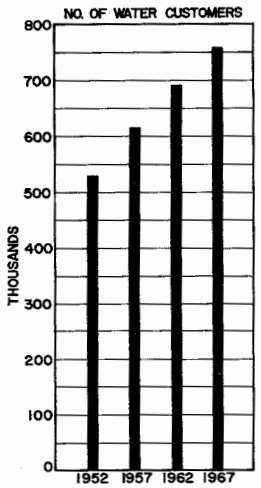
Federal funds have now been made available and bids on the project have been received.

The Appleton water utility project is also an example of problems associated with supply, especially as it is affected by pollution.

In 1966, about 48% of the 739,272 water utility customers were served from surface supplies or equivalent, accounted for in large part by Milwaukee water utility's retail and wholesale customers being served from Lake Michigan.

During the biennium, July 1, 1966 - June 30, 1968, the Commission issued 94 authorizations for water plant estimated to cost $21,800,805, in addition to 188 informal letter approvals, mostly for water main extensions, totaling $15,427,561. There are also many plant additions which do not require Commission approval under section PSC 184.03, Wisconsin Administrative Code, exempting gross property additions less than 25% of existing investment in the corresponding class of plant in the same municipality or less than $10,000, whichever is the smaller.

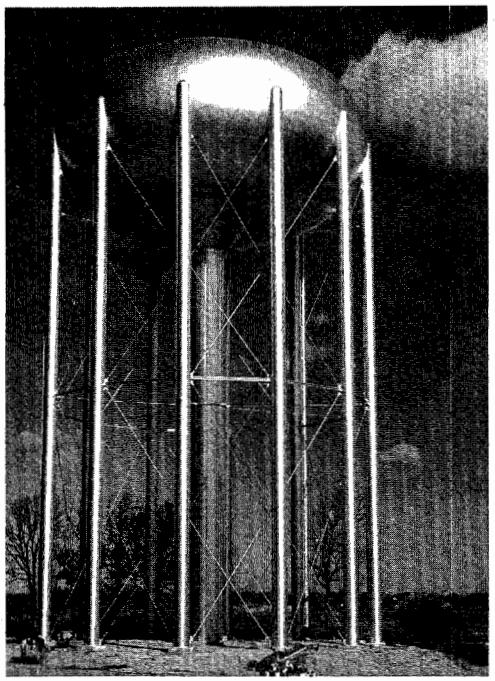



There were, during the biennium, 23 amending orders increasing estimates in previously issued Certificates of Authority by a total of $1,328,488. The 94 authorizations for water utility plant included 10 new municipal water utilities, 3 new private water utilities (Subdivision systems), and 5 new combined water-and-sewage systems, all of them starting construction at a time of inflated costs.

The municipal boundary

Annexation disputes are sometimes involved in water service beyond municipal boundaries. Sanitary District No. 2, Town of Shelby, La Crosse County, was authorized to operate as a water utility and to install facilities



1,500,000-gallon elevated storage reservoir constructed by West Allis water utility to improve water pressures and flows in the western part of the city which is at higher elevation.

The storage facility also enables West Allis to make a minimum maximum-demand on the water system of its wholesale supplier, the Milwaukee Water Works.

estimated to cost $71,538. The city of LaCrosse opposed the authorization on the ground that it expected to annex the area which it would then serve. However, until such annexation, the city had no intention of offering service either at retail or at wholesale to the District. The Skyline Subdivision, to which initial service will be confined though the system can be readily expanded, needs water Now for immediate development and "should not be forced to delay such development until the city deems itself in a position to provide water utility service to the area under discussion." (Docket No. CA-4763--August 8, 1967)

In a less typical case in which the municipality was declining annexation offers, the village of Combined Locks water utility was ordered to extend service to a complainant's lot abutting an existing main in a boundary street and adjacent to two lots receiving service from said main. Other than by reference to a wholesale agreement with its supplier, Kimberly water utility, limiting service outside corporate limits to those persons served at the time of said 1961 agreement, Combined Locks has never attempted to limit the area in which it may have an obligation of service outside the city. It has never passed and filed with the Commission an ordinance fixing the limits of service as provided for in section 66.069(2)(c), Stats.

The complainant was willing to participate in a proposed small annexation. The village board, opposed to any overexpansion, particularly in supplying water service outside present village limits, has refused all but one annexation request in the past 17 years. (Docket No. 2-U-6564--December 8, 1967)

## SEWER UTILITIES

Sewer utilities are not subject to Public Service Commission jurisdiction unless they are combined, by ordinance, with water utilities (section 66.077, Wis. Stats.) or unless a user of sewerage service complains that rates, rules or practices are unreasonable or unjustly discriminatory (section 66.076(9), Wis. Stats).

In authorizing increased rates to apply to the sewerage service which the city of Kaukauna furnishes the village of Combined Locks, the Commission mentions that though Kaukauna, in furnishing sewerage service, is not a "public utility," the Commission acquired continuing jurisdiction over rates herein when, in 1954, it prescribed rates in a proceeding in which Combined Locks filed a rate complaint under section 66.076 (9), Wis. Stats. (Docket No. 2-U-6617--May 3, 1968)

Mayville sewer rates, also revised under continuing jurisdiction derived from section 66.076 (9), Wis. Stats., will maintain a 3.7% rate of return, with the rate base increased from $338,825 to $555,110 due to plant expansion and improvement, including an enlarged disposal system. (Docket No. 2-U-6571--March 15, 1968)

The Commission certificated the village of Cleveland to operate as a combined water-and-sewer utility and authorized initial rates. One reason for the incorporation of the village, formerly three hamlets in the town of Centerville, was to facilitate dealing with serious pollution problems. Because of pollution of Centerville Creek which drains into Lake Michigan, the State Committee on Water Pollution, on January 31, 1964, ordered the village to construct adequate sewage collecting and treatment facilities.

Section 144.21, Wis. Stats., as created by Chapter 614, Laws of 1965 and amended by Chapters 96 and 291, Laws of 1967, administered by the Department of Natural Resources, deals with state financial assistance for construction and financing of pollution prevention and abatement facilities.

As of the end of the biennium, there were 108 combined water-and-sewer utilities. According to section 196.01 (1), Wis. Stats., any privately owned sewer utility may elect to have the Public Service Commission establish suitable and proper rates for its service.

## SECURITIES - ACCOUNTING - UTILITIES

### Security Issues

Under the provisions of Chapter 184, Wisconsin Statutes, a public service corporation must obtain a certificate of authority from the Public Service Commission before it can issue securities. In general, public service corporations, as defined in Section 184.01, Wisconsin Statutes, include privately owned public utility corporations, but not municipally owned utilities.

During the biennium covered by this report, the Commission considered 67 applications and granted authorizations to issue $264,264,149 par or face value of securities. Proceeds from the sale of such securities, exclusive of corporate issuance expense, aggregated $267,799,621. Classification of these amounts by types of securities is shown below:

| Type of Security | Par or Face Value | Proceeds Amount | Proceeds % |
|---|---|---|---|
| Common Stock | $ 43,693,149 | $ 46,322,793 | 17.30% |
| Preferred Stock | 120,000 | 120,000 | .04 |
| Bonds and Other Debt | 220,451,000 | 221,356,828 | 82.66 |
| | $264,264,149 | $267,799,621 | 100.00% |

About 97% of these security issues were to supply new capital to the utility industry of the state to finance construction of plant facilities as is indicated in the following tabulation:

| Proceeds Used For | Amount | % |
|---|---|---|
| Construction | $261,061,329 | 97.48% |
| Refunding of outstanding securities | 2,611,392 | .97 |
| Stock dividends | 3,951,050 | 1.48 |
| Merger or acquisition of property | 175,850 | .07 |
| Total | $267,799,621 | 100.00% |

In authorizing the issuance of securities of public service corporations, the Statutes require that the Commission must find that the financial condition, plan of operation, and proposed undertakings of the

corporation are such as to afford reasonable protection to purchasers of the securities to be issued. In making such a finding, the Commission must consider the statutory requirement that the amount of securities of each class which any public service corporation may issue shall bear a reasonable proportion to each other and to the value of the property. This means that the relative amount of senior securities which may be issued must be reasonable in relation to the common stock equity of the corporation.

Accounting

Administration of the various statutes applicable to financial and accounting activities of public utilities is done through the Accounts and Finance Division of the Commission. This activity involves design, preparation and review of the annual reports of all utilities required to be filed with the Commission; installation of new accounting systems; auditing of books and records; rendering of advice and assistance to both new and established utilities with respect to financial and accounting matters; determination of annual depreciation rates on utility property; review of contracts and transactions between utilities and affiliated organizations; investigation of compliance with prescribed accounting in financial practices of utilities; attendance at hearings and conferences; and presentations of evidence obtained in its investigations. As a result of this work, a vast amount of necessary facts and information about the operation of utilities is available to the Commission and its staff for guidance in regulatory matters.

An important function of the Accounts and Finance Division is to present evidence in rate cases with respect to cost of capital for consideration of the Commission in determining rates of return. Under this function, the Commission is furnished with up-to-date information as to the rates of return earned by the various Wisconsin utilities under its jurisdiction. Continuous studies are made of financial data relating to the securities of public utilities and other enterprises so as to furnish information and data for use in presenting cost-of-capital studies to the Commission.

In recent years, a number of new utilities have been established consisting of municipally owned water or joint water-and-sewer utilities, privately owned gas distribution utilities, and privately owned water utilities constituted in connection with building development projects. Advice and assistance has been offered to these utilities in establishment of accounting records required under the Uniform System of Accounts and development property records allocating the plant investment to the proper utility plant accounts and determining retirement units and average costs for use in recording future retirements of utility plant.

Contracts and arrangements between public utilities and affiliated interests, as defined by the statute, are reviewed for the reasonableness of such transactions and to ascertain the cost to the affiliated interest of rendering services or furnishing property to the public utility.

Depreciation Rates

Under Section 196.09, Wisconsin Statutes, the Commission is empowered to certify depreciation rates for utilities. When such rates are certified, the depreciation allowance computed thereby must be recorded in the utility's accounts and must be used by the Commission in proceedings involving rates for service.

Utilities are classified according to annual gross income and the Commission has certified depreciation rates for Class A and B electric, gas, water and telephone utilities representing the classes having the greatest amount of gross income. However, depreciation rates for the Class C and D utilities have not been certified by formal order of the Commission. The depreciation allowances recorded by each of these utilities are reviewed by the staff when the annual report of the utility is audited. At such time, calculations are made by the staff on the basis of general average depreciation rates, and the utility is informed of the result thereof, together with recommendations as to changes in its depreciation allowances. Through such annual review of the depreciation charges of the small utilities, it is believed that their depreciation charges can be kept reasonably in line without formal certification of class rates of depreciation for each utility.

During this biennium, formal investigation of depreciation rates for Class A and B electric, gas, and water utilities was started. Continuing studies are performed with respect to the depreciation rates of the various utilities.

The following table summarizes the depreciation rates in effect at the end of 1967 on plant investment as of December 31, 1967, and reflects a composite depreciation rate for the functional classes of utility plant determined from the rates certified for individual companies, as shown on the next page.

## COMPOSITE DEPRECIATION RATES

Class A and B Utilities
December 31, 1967

| Utilities | Cost of Plant 12-31-67 (Thousands of Dollars) | Service Life (Years) | Net Salvage (%) | Annual Depreciation Rate (%) |
|---|---|---|---|---|
| *Electric Utilities | | | | |
| Steam Production Plant | $ 489,446 | 38.09 | (.12)% | 2.63% |
| Hydraulic Production Plant | 69,432 | 61.40 | (2.91) | 1.68 |
| Other Production Plant | 9,762 | 22.26 | 3.91 | 4.32 |
| Total Production Plant | $ 568,640 | 39.44 | (.22)% | 2.54% |
| Transmission Plant | 206,156 | 37.71 | 2.13 | 2.60 |
| Distribution Plant | 540,391 | 32.78 | 4.00 | 2.93 |
| General Plant | 29,726 | 28.70 | .42 | 3.47 |
| Total Electric Plant | $1,344,193 | 35.92 | 1.87% | 2.73% |
| Gas Utilities | | | | |
| Production Plant | $ 4,046 | 27.07 | 1.14% | 3.65% |
| Storage Plant | 2,802 | 20.64 | (1.96) | 4.94 |
| Transmission Plant | 975 | 39.86 | - | 2.51 |
| Distribution Plant | 404,709 | 43.32 | (8.58) | 2.51 |
| General Plant | 23,643 | 28.57 | 6.16 | 3.28 |
| Total Gas Plant | $ 436,175 | 41.63 | (7.12)% | 2.57% |
| *Water Utilities | | | | |
| Source of Supply Plant | $ 24,706 | 65.41 | (.03)% | 1.53% |
| Pumping Plant | 22,274 | 32.77 | 3.72 | 2.94 |
| Water Treatment Plant | 32,920 | 46.13 | (.07) | 2.17 |
| Transmission and Distribution Plant | 205,907 | 94.39 | (.21) | 1.06 |
| General Plant | 4,356 | 22.39 | 1.50 | 4.40 |
| Total Water Plant | $ 290,163 | 69.97 | .56% | 1.42% |
| Telephone Utilities | | | | |
| Buildings | $ 70,066 | 42.40 | 3.49% | 2.28% |
| Central Office Equipment | 248,319 | 19.00 | 5.12 | 4.99 |
| Station Apparatus and PBX | 105,754 | 13.90 | 3.83 | 6.92 |
| Station Connection and Outside Plant | 366,441 | 22.61 | (9.49) | 4.84 |
| General Equipment | 9,466 | 15.36 | 18.36 | 5.32 |
| Total Telephone Plant | $ 800,046 | 20.43 | (1.05)% | 4.95% |
| Total Utility Plant | $2,870,577 | 31.47 | (.48)% | 3.19% |

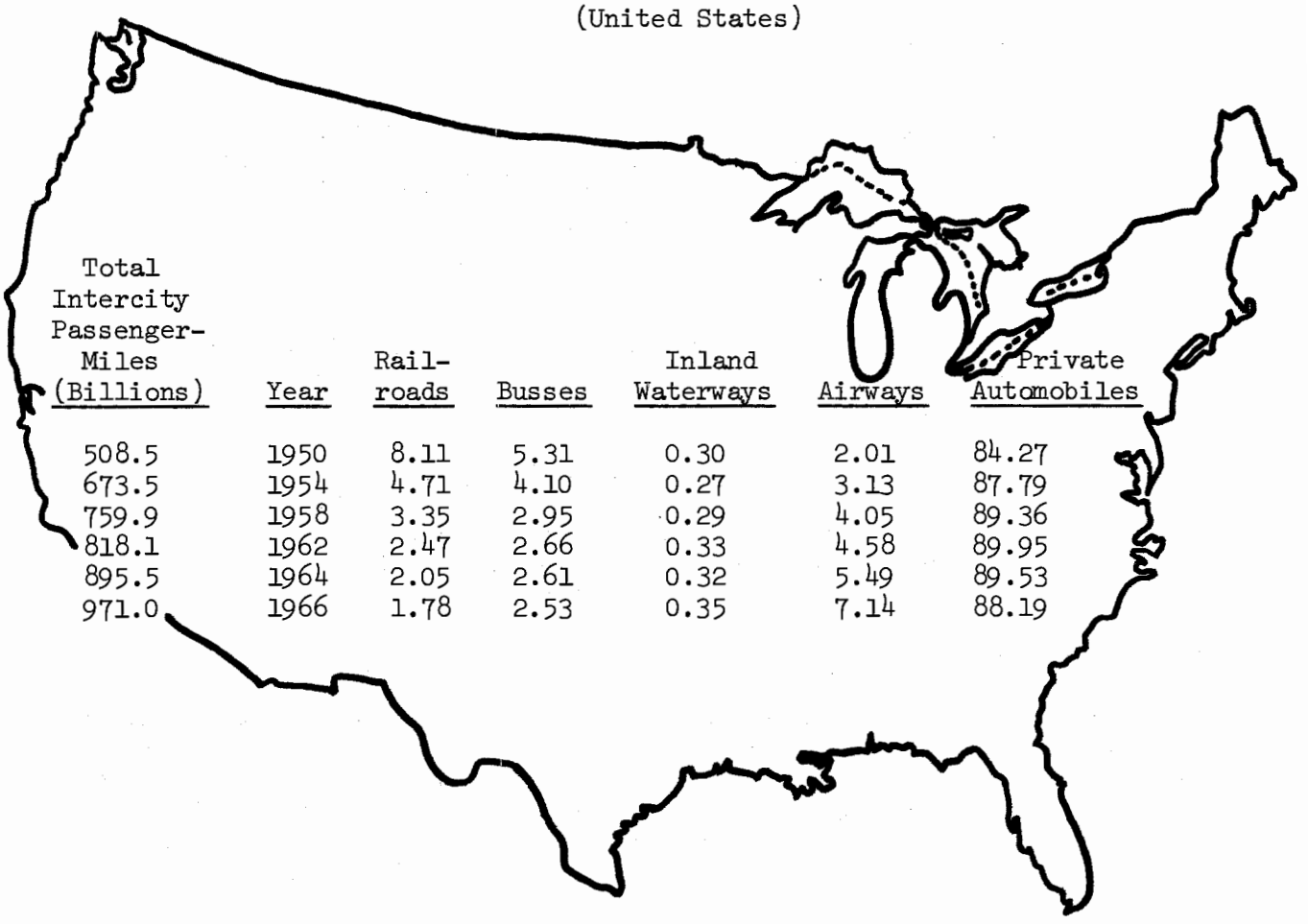
*Private and Municipal

() Denotes red figure.

## TRANSPORTATION--PASSENGERS

Wisconsin passenger traffic reflects the national trends shown in the table below:

TOTAL VOLUME AND PERCENT DISTRIBUTION OF
INTERCITY PASSENGER-MILES BY KIND OF TRANSPORTATION
(United States)



| Total Intercity Passenger-Miles (Billions) | Year | Rail-roads | Busses | Inland Waterways | Airways | Private Automobiles |
|---|---|---|---|---|---|---|
| 508.5 | 1950 | 8.11 | 5.31 | 0.30 | 2.01 | 84.27 |
| 673.5 | 1954 | 4.71 | 4.10 | 0.27 | 3.13 | 87.79 |
| 759.9 | 1958 | 3.35 | 2.95 | 0.29 | 4.05 | 89.36 |
| 818.1 | 1962 | 2.47 | 2.66 | 0.33 | 4.58 | 89.95 |
| 895.5 | 1964 | 2.05 | 2.61 | 0.32 | 5.49 | 89.53 |
| 971.0 | 1966 | 1.78 | 2.53 | 0.35 | 7.14 | 88.19 |

Americans are traveling more and more---in their private automobiles, but less and less on trains and buses. With passenger patronage declining and operating costs rising, the U. S. Post Office Department's withdrawal of mail contracts, and the associated loss in revenue, may prove to be the proverbial last straw with respect to rail passenger service.

Discontinuance of Passenger trains--ICC proceedings

The withdrawal of mail contracts was the significant and virtually the controlling factor which prompted five proposed passenger-train-discontinuance proceedings before the Interstate Commerce Commission. In each case, a portion of the interstate route lay in Wisconsin which caused the Commission to intervene in behalf of the state.

Northern Pacific Railway
was authorized to discontinue trains Nos. 65 and 66 operated between Superior, Wisconsin and St. Paul, Minnesota.

Milwaukee Road
was denied authority to discontinue trains Nos. 55 and 58 between Chicago and Twin Cities;

was denied authority to totally discontinue trains Nos. 117 and 118 between Chicago and Madison; however, the railroad was authorized to limit operations to Fridays, Saturdays, and Sundays and various holiday and University recess periods.

Milwaukee Road and Soo Line
were authorized to discontinue joint trains Nos. 9-47 and 48-10 operated between Milwaukee and Calumet, Michigan.

Chicago, Burlington & Quincy Railroad
was authorized to discontinue Chicago--St. Paul trains Nos. 22 and 23 by consolidation with other trains except that service of No. 23 is to be retained on Fridays and Sundays.

Chicago and North Western Railway--Discontinued service

On May 6, 1968 the Chicago and North Western Railway Company discontinued the operation of four passenger trains which collectively constituted a round trip between Chicago and Green Bay via Milwaukee and the Shoreline Route. This discontinuance of service involved the elimination of experimental operations conducted between these terminal points in the carrier's attempt to attract and encourage additional traffic in connection with other regularly scheduled service.

The experimental trains between Chicago and Milwaukee were placed in operation subsequent to the abandonment of the Chicago and North Shore Electric Railway in an effort to attract and accomodate former North Shore commuter patronage. The experminental trains between Milwaukee and Green Bay were initially instituted at the request of this Commission and tied into a through Chicago-Green Bay service to fulfill a need for service along the Lakeshore Route upon discontinuance of Chicago-Ashland trains in 1964.

Only two substitute bus-for-rail services remain in the state since the Chicago and North Western Railway Company was authorized to discontinue such connecting service between Fond du Lac and Wild Rose. Operated since the 1954 discontinuance of trains between Fond du Lac and Marshfield, the substitute bus service was at a consistently increasing net loss, which in 1965 amounted to $13,695. (Docket No. 2-R-4785--September 8, 1966)

Interurban service and fares

Also on September 8, the Commission granted Wisconsin-Michigan Coaches, Inc., which formerly furnished the substitute bus-for-rail service under contract with the railroad, additional authority to extend service westerly to Wisconsin Rapids and Marshfield and easterly to Milwaukee.

This additional authority was affirmed by a joint order which also denied the application of Greyhound Lines, Inc., for additional authority. Local service in Greyhound's proposal is contrary to its trend to gear its operation to long-haul, interstate traffic and would inconvenience long-haul patrons when schedules would be altered or rerouted.

Intensive study of the voluminous testimony taken at two public hearings and of the transportation needs of the Marshfield-Wisconsin Rapids area indicated that Wisconsin-Michigan's scheduled round trip, allowing 5 hours and 20 minutes in Milwaukee during business hours, is better adapted to public needs and will preserve service at points on its existing route. The Fond du Lac-Milwaukee closed-door restriction in the affirmed authority will afford ample protection for traffic of competing carriers in the area. (CC-922(2) and CC-937(4)--January 9, 1967--51 P.S.C.W. 291-298).

Milwaukee & Suburban Transport Corporation was denied authority to provide service between certificated points in Milwaukee County and the Brookfield Square Shopping Center since the proposed service would divert traffic from Wisconsin Coach Lines, Inc. (objector, whose routes include Milwaukee-Brookfield service) and thereby jeopardize the service it provides to points beyond this area. (CC-761--February 15, 1968)

When Wisconsin Coach Lines, Inc., according to authority in a June 28, 1968 order (MC-1792) was authorized to reduce discounts on round-trip and 10-ride books, Milwaukee-and-Beloit and Milwaukee-and-Fond du Lac round trips were allowed to remain at 180% of the one-way fare in order to continue competitive with other bus companies serving those points.

This preserving and extending the maximum intercity transportation in Wisconsin is obviously complex due to creation of duplicating routes and competition which can adversely affect essential operations.

Urban bus service and fares

As labor and material costs rise and riding declines, the plight of urban bus operations becomes more acute, sometimes to the point where investigation indicates that the Public Service Commission has no choice but to authorize discontinuance of service. In the case of Menomonie Bus Lines, Inc., the October 26, 1967 order approving abandonment of service noted that the 1951 bus used in urban service

> is in such a condition that it must be replaced. Replacement would cost $7,000, and the Menomonie Bus Lines, Inc., does not have nor can it obtain, sufficient funds to make this purchase.....the cessation of services by this company is inevitable. (52 P.S.C.W. 506,509)

In the struggle to survive, there have been cutbacks in service (though there have also been instances of inaugurated express routes to attract new patronage) and also fare increases, but in several cases it is, or appears on the way to becoming, a losing battle.

The Madison Bus Company in applying for an emergency interim five-cent increase in children's cash fares, granted by order of July 28, 1967, estimated that without such fare adjustment, its 1967 operating deficit would be over $21,000. In later applying for an emergency interim five-cent increase in adult cash fares, the company estimated that, giving effect to loss of riding because of the fare increase and employes' strike (September 19-November 21, 1967), even with the advance in adult fare there would be an annual $27,000 operating deficit.

The settlement of the 1967 labor dispute was contingent upon a fund (contributed to by the public) to pay the difference between mediator's recommended wage package settlement and that of the company's August 31, 1967 offer. Even after the fund's $30,000 contribution to employes' payroll for the first 6 months of 1968, the bus company's operating expenses during that period exceeded revenues by $41,178.

The city of Madison and Madison Bus Company have entered into an operating agreement whereby the city will provide the necessary money to enable the bus company to realize an operating ratio of 95% for the period of July 1, 1968 through November 11, 1969. Other provisions of the agreement relate to the city's purchase of the bus company.

A staff member of the Transportation Division of the Public Service Commission is a member of the Madison Transit Advisory Committee. The administrator of the Division is a member of the Mass Transit Study Advisory Committee of Milwaukee.

In recognition of the dilemma of urban bus transportation, the Wisconsin Legislature included provisions in Chapter 339, Laws of 1967, specifically authorizing cities and villages to contract for public transportation and further providing that when a privately owned transportation company fails to provide service for 30 days and the owners announce an intention to discontinue service, the municipality may provide or contract for other service.

In 1952, Janesville became the first Wisconsin municipally owned and operated urban bus system. It is not a profitable venture as statistics on the three municipal bus operations show:

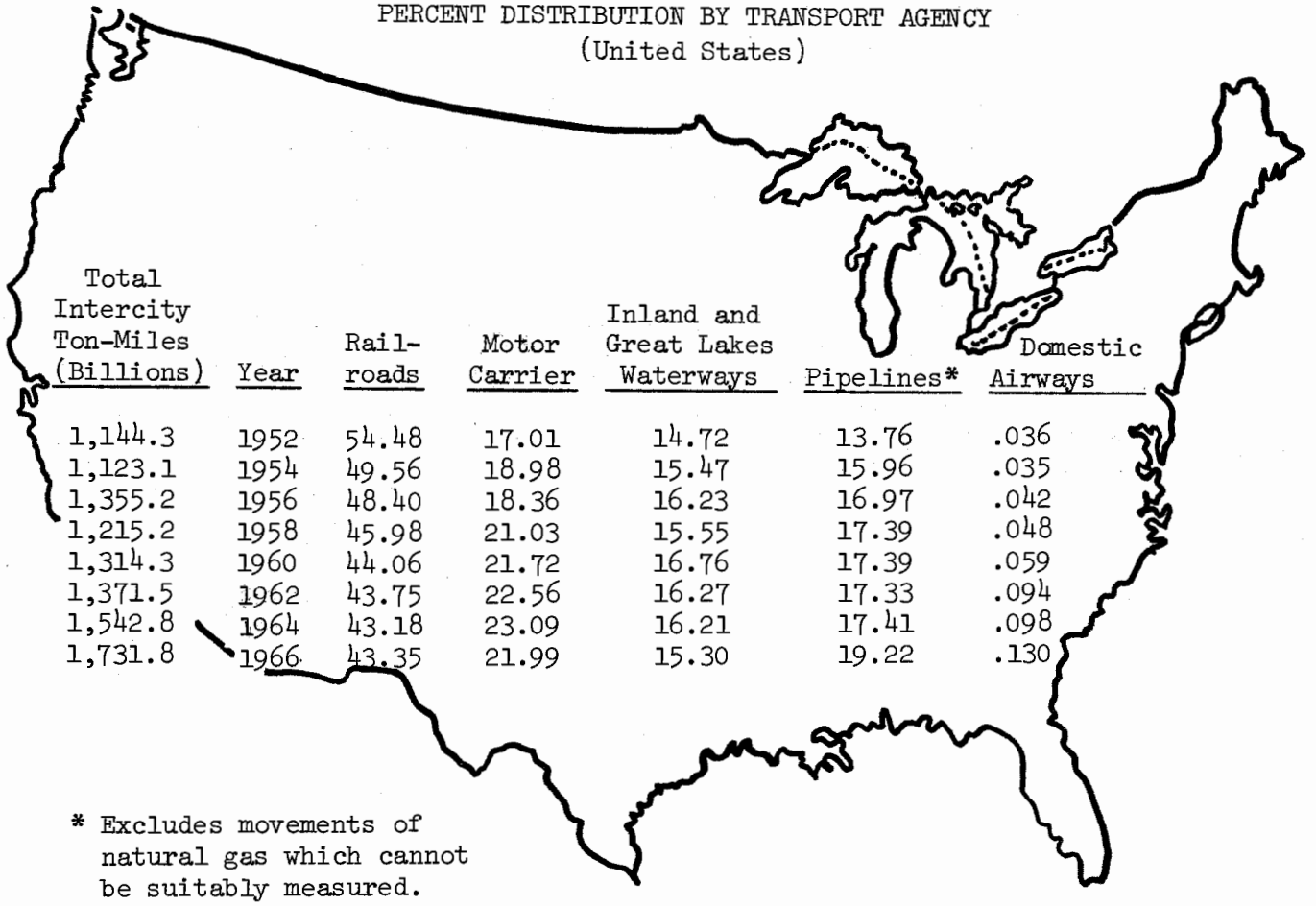
| Municipality | Initial Year | 1967 Revenues | 1967 Expenses |
|---|---|---|---|
| Janesville * | 1952 | 137,665 | 158,795 |
| Merrill | 1955 | 8,635 | 16,250 |
| Ashland | 1959 | 9,455 | 11,871 |

*The City of Janesville, as an urban common motor carrier of passengers was authorized by the Commission (MC-1769--February 23, 1967) to increase children's and adult's cash fares by five cents, to eliminate sale of adult tokens at discount rates, to eliminate one hour of evening service each day, and to eliminate morning tripper runs during the summer months. (52 P.S.C.W. 71, 75)

## TRANSPORTATION--PROPERTY

The movement of freight is a highly competitive industry, with Wisconsin traffic closely following the national pattern shown in the Interstate Commerce Commission statistics, below.

TOTAL INTERCITY TON-MILES AND
PERCENT DISTRIBUTION BY TRANSPORT AGENCY
(United States)



| Total Intercity Ton-Miles (Billions) | Year | Rail-roads | Motor Carrier | Inland and Great Lakes Waterways | Pipelines* | Domestic Airways |
|---|---|---|---|---|---|---|
| 1,144.3 | 1952 | 54.48 | 17.01 | 14.72 | 13.76 | .036 |
| 1,123.1 | 1954 | 49.56 | 18.98 | 15.47 | 15.96 | .035 |
| 1,355.2 | 1956 | 48.40 | 18.36 | 16.23 | 16.97 | .042 |
| 1,215.2 | 1958 | 45.98 | 21.03 | 15.55 | 17.39 | .048 |
| 1,314.3 | 1960 | 44.06 | 21.72 | 16.76 | 17.39 | .059 |
| 1,371.5 | 1962 | 43.75 | 22.56 | 16.27 | 17.33 | .094 |
| 1,542.8 | 1964 | 43.18 | 23.09 | 16.21 | 17.41 | .098 |
| 1,731.8 | 1966 | 43.35 | 21.99 | 15.30 | 19.22 | .130 |

* Excludes movements of natural gas which cannot be suitably measured.

As stated in section 194.02, Wis. Stats., the legislative intent of the Motor Vehicle Transportation Act, (Chapter 194) is that supervision and regulation of transportation of persons and property be such as

> ....to relieve the existing and all future undue burdens on the highways arising by reason of the use of the highways by motor vehicles; to carefully preserve, foster and regulate transportation to the end of developing and preserving each separate type of the transportation system by highway and rail adequate to meet public needs.

Highway restrictions--Rules

Chapter PSC 50, Wisconsin Administrative Code, imposes summer weekend highway restrictions on the operation of motor vehicles weighing more than 8,000 pounds total weight. The rules are revised to take into account highway construction and changing traffic conditions.

In 1966, when construction of the I-System was at a stage requiring certain traffic to be funnelled over that portion of two-lane Highway 12 between its junctions with Interstate Highway 94 at or near Tomah and at or near Eau Claire, the Commission adopted its first emergency rule. The emergency rule, added to other rules restricting traffic on specified segments of twelve highways for the period of May 28 through the second Sunday in September, was designed to relieve traffic

> to the greatest extent possible by keeping trucks of more than 8,000 pounds total weight off this segment of highway for the 1966 Labor Day weekend...thereby attempting to aid in reducing the possibility of motor vehicle accidents in this period to the greatest extent possible.
> (51 P.S.C.W. 270, 271)

Joint Board ICC hearings--Motor Carriers

Public Service Commission staff members participate in many ICC proceedings affecting Wisconsin shippers and motor carriers of property, including the almost 20 days of hearings on the application for interstate authority as filed by Bartz Cartage Co., a local freight hauler in Racine. The ICC responded to the complaints of several shippers in the Racine-Kenosha-Milwaukee area by granting Bartz Cartage temporary permission to haul interstate shipments between Racine, Kenosha and Chicago when the freight involved has an immediately previous or subsequent common carrier movement by motor vehicle, railroad, or air. Fourteen common carriers, previously reluctant to transport small freight shipments and party to disagreements as to division of joint-line revenue, are in opposition to the application.

Common Motor Carriers--Rate increase

By order dated February 13, 1968, the Commission made permanent the 7% increase in common motor carrier of property intrastate rates and charges (except C.O.D. charges) granted on an interim emergency basis in a May 25, 1967 Order. It was estimated that the rate revision, which included increased minimum charges per shipment, would offset increased labor costs for the first 18 months of the 3-year contract with the Teamsters' Union (April 1, 1967--March 31, 1970).

Household goods carriers--Maximum rates--Types of service

Revised tariff definitions and maximum rates authorized for intrastate, long-distance (other than local) movements of used household goods and business equipment recognize the present need for different types of service: In addition to the formerly available (1) Normal service and (2) Exclusive use of a single vehicle, there can now be offered, under specific tariff provisions (3) Space Reservation of a portion of a vehicle and (4) Expedited Service.

Carriers electing to file rates and charges under the revised maximum scale are subject to requirements dealing with such matters as cargo insurance; carrier's maximum liability on declared value; acknowledgement and handling of loss or damage claims; and information on bill of lading. The Commission denied authority to impose certain charges including proposed additional transportation charges from designated populous areas.

The new scale of maximum rates, in addition to generating necessary increased revenue, eliminated certain inequities found in local and interstate rates as compared to intrastate long-distance rates.

Railroad switching rates

Though the railroads had proposed flat per-car increases of $7.50 on intra- or inter-terminal and $3.00 on intra-plant switching, the Commission's August 10, 1967 Order authorized a 5% increase over switching charges which had been placed in effect in Wisconsin on August 27, 1965.

As the Findings of Fact pointed out, the railroad's flat-charge principle does not give effect to the cost of performing service in a large, high-cost, and complex switching district, such as Milwaukee, compared with smaller more typical Wisconsin cities. For example, with the per-car charges on inter-terminal switching ranging as low as $20.54 at Neenah-Menasha as compared to $90.00 at Green Bay and Milwaukee, and with intra-plant switching charges ranging from $8.87 at Phillips to $41.35 at Milwaukee, the railroad's proposal would have imposed increases ranging from 1.2% to 71.3%. (52 P.S.C.W. 327-333)

Railroads--Freight rates

Increased railroad rates and charges, which became effective on interstate traffic on August 19, 1967, were authorized to apply to intrastate traffic, effective November 1, 1967, by an Interim Order dated October 27, providing for refunds, with 4% interest, of differences between said rate increases and any rates approved after subsequent hearings.

> The Commission has held that intrastate railroad rates cannot practically, nor indeed lawfully, be made wholly independent of interstate adjustments. In this connection, the Commission has required that there must be a

> specific showing that intrastate transportation characteristics of a commodity require special treatment. (52 P.S.C.W. 517)

Since there was no showing that intrastate movement of scrap iron or steel and agricultural limestone is peculiarly different from that in interstate commerce, protestants' requests for suspension of rates involved were denied.

Railroad Freight--Service--Railway Express Agency, Inc.

During the last two bienniums, conventional less-than-carload railroad freight service has virtually come to an end in Wisconsin. The only exceptions are the few stations served by the Northern Pacific and the Great Northern Railway Companies in the uppermost northwestern part of the state. The very limited l.c.l. service performed by the North Western Railway, one of the initial rail carriers to restrict handling of such traffic, is on a "when the traffic exists" basis rather than as a regular service.

There has been only a nominal reduction in the number of stations afforded agency service, due to the operation of central agency plans, dualization or "on-call" agency service.

Begun in 1958, piggyback carloadings (trailers and containers 20 or more feet in length on railroad flat cars) continue to constitute an increasing proportion of total carloadings in the United States with Wisconsin sharing in this type of traffic. A comparatively new series of ICC data on containers and trailers of all sizes, shows the number of containers, as differentiated from trailers, amounting to about 10% of total piggyback loadings and indicates the trend in containerization for coordinated movements between modes of transportation in both domestic and foreign traffic.

As discussed in a November 9, 1967 Order of the Commission authorizing Railway Express Agency, Inc., to discontinue agency service at 36 Wisconsin stations:

> In recent years the railroads operating in Wisconsin have reduced passenger train operation, over-the-road truck operations, local agency service, and depot facilities. The foregoing changes in operation by the railroads have resulted in a curtailment of express service in some communities either because an acceptable transportation medium is not available, or a local agent cannot be obtained. (52 P.S.C.W. 557, 558)

The following table depicts the adjustment of express service to the discontinuance of railroad operation and facilities:

| End of Year | Total Communities Served | P & D* Only | Agency Service | Substitute Motor Carrier Mileage |
|---|---|---|---|---|
| 1963 | 458 | 112 | 346 | 2,684 |
| 1964 | 426 | 114 | 312 | 3,084 |
| 1965 | 422 | 114 | 308 | 3,770 |
| 1966 | 419 | 118 | 301 | 4,959 |
| 1967 | 383 | 118 | 265 | 5,334 |

*Pickup and delivery

Railroad mergers--PSC participation in ICC proceedings.

On February 6, 1967 hearings commenced before the Interstate Commerce Commission on the applications of Chicago and North Western Railway and Milwaukee Road to consolidate as the Chicago, Milwaukee and Northwestern Transportation Company. As an intervenor, the Wisconsin Commission participated extensively in the proceedings which were completed in January of 1968, subject to reopening for inquiry into financial arrangements of the possible control of the proposed merged company by a non-carrier. The hearings were re-opened in July 1968 limited to further inquiry and effects on the interim control of North Western by Northwest Industries, Inc. It is anticipated that the presiding examiner will issue and submit a recommended report and order sometime during the ensuing year.

The ultimate position adopted by the Wisconsin Commission in the proceedings was that of sanctioning the unification of North Western and Milwaukee Road if specific conditions are imposed for the protection of Soo Line and the preservation and enhancement of rail competition within Wisconsin which would otherwise be severely impeded. The conditions sought include entry of Soo Line into the industrial areas of Green Bay and the Upper Fox River Valley, Wausau and Wisconsin River Valley, and the Eau Claire industrial parks. Also sought is the complete removal of all traffic and operating restrictions imposed on Soo Line in the Milwaukee Terminal Area so as to enable Soo Line to compete on an equal basis with the unified company and afford shippers the benefits derived from competitive rail service.

On April 20, 1967 the Interstate Commerce Commission issued its order in the North Western - Great Western merger application. The order authorized merger subject to but very limited conditions for protection of the Soo Line Railroad whose traffic would be vulnerable to substantial diversion and whose competitive posture would be adversely affected.

The ICC's order provided for materially less protection than recommended by the Examiner's proposed report to which this Commission filed exceptions.

Petitions for reconsideration were filed by the Public Service Commission of Wisconsin, among others, but were ultimately denied and the ICC order affirmed on September 27, 1968, with but a modification of the provisions for adversely affected employes. Following such disposition of petitions for reconsideration, Soo Line brought suit into U. S. District Court to enjoin the merger, contending that Soo Line, the public it serves, and its employes would be injured by the merger. The Court set aside the order and remanded the case of ICC for further proceedings. The ICC ultimately issued its order on remand on May 23, 1968 approving the merger subject to additional protective conditions for Soo Line, including access to Roseport, Minnesota, industrial complex as urged by this Commission. The merger of North Western - Great Western was consummated and became effective July 1, 1968.

The authority to merge the Northern Pacific, Great Northern, and the Chicago, Burlington & Quincy Railroads subject to the conditions sought by both North Western and Milwaukee Road as finally authorized by the ICC is being contested in the courts.

Hearings continued throughout the biennium in the hotly contested Union Pacific-Rock Island merger application and the embraced North Western application for control of Rock Island. The Wisconsin Commission is an intervenor in this complex proceeding involving varied and numerous interests.

## RAILROADS--SAFETY

### Highway-railroad crossings

Of the July 1, 1966--June 30, 1968 biennium's 149 formal crossing orders,
- 76 pertain to signal protection
- 18 to grade separations (highway under- or overpasses)
- 8 to relocation of crossing
- 38 to new crossings
- 9 to closing crossings.

In the absence of a statutory petition, the Commission, on its own motion, initiated an investigation as to the need for additional protection of 3-Mile and 4-Mile Roads and Chicago and North Western Railway in the town of Caledonia, Racine County, where December 1966 and January 1967 accidents resulted in five deaths.

The Commission ordered flashing-light signals with short-arm gates substituted for wigwags installed in 1934 at the Three-Mile Road crossing and for the flashing lights installed in 1936 at the Four-Mile Road crossing. Both heavily trafficked crossings, situated in what is now a growing industrial, commercial, and residential area, involve a double-track main line, where more than one train could be at, or near, either track crossing at the same time. (2-R-4899--May 2, 1967--52 P.S.C.W. 173)

The Commission denied the petition of the city of Oconomowoc to reopen the crossing of 2-block-long Wood St. and Milwaukee Road tracks, chiefly, according to the city's petition, to relieve traffic congestion. The crossing would involve a double-track main line and five side tracks used for storage of cars (which would additionally obstruct motorists' view; there are buildings and trees in both north and south quadrants) and switching (which would excessively block the crossing). The establishment of the crossing would not promote public safety and is not advisable. Since the installation of short-arm gates at seven Oconomowoc crossings and the closing of the other four crossings (including Wood St.), as required by an October 1964 Commission order, there has been only one minor accident involving trains and vehicles at crossings where previously there had been numerous serious accidents. A May 30, 1966 Dane County Circuit Court judgment affirmed that portion of the order relating to closing the Wood St. crossing. (2-R-4950--March 22, 1968)

In an order requiring the Chicago and North Western Railway to move crossing signals, at its own expense, outside the traveled roadway of

Decorah Road which the city of West Bend is widening from 19 1/2 to 40 feet, the Commission concluded that

> ...The original signals at the Decorah Road crossing were installed pursuant to the Order of the Commission requiring the railway to install and maintain suitable automatic signals. The Commission has a continuing jurisdiction under section 195.28, as well as under numerous other statutes; and if today's automatic signal protection, which had been required by Order some time ago, becomes inadequate and the crossing dangerous to human life, the Commission can then make an Order which will correct the situation. This kind of continuing jurisdiction must necessarily exist because what might be an adequate warning device today may not be one tomorrow under changed conditions. (2-R-4859--September 29, 1967--52 P.S.C.W. 431, 435)

On August 16, 1966, the Commission issued its first order under Chapter 476, Laws of 1965, which amended section 84.05, Wis. Stats., to include maintenance costs of grade separations, as well as the previously involved construction costs, in expenses to be apportioned by the Public Service Commission between the railroad and the Highway Fund.

The order found the construction cost of a U. S. Highway 41 underpass in Milwaukee to be at the sole expense of the Highway Commission, with the maintenance costs, however, entirely at the expense of the Chicago and North Western Railway. The railroad company has appealed the decisions of the Dane County Circuit Court, affirming this and two similar orders, to the Supreme Court of Wisconsin. (2-R-4751, 2-R-4753, 2-R-4823)

Of grade separations, which are usually federal projects, the Commission said, in the above cited orders:

> Railroads and highways are a necessary part of the transportation system. In many instances, it is required that they cross with each other to perform their respective functions. The separation of grades as proposed herein permits the unimpaired operation of each. The potential hazard of railroad train-highway vehicle accidents is eliminated. (51 P.S.C.W. 257 and 52 P.S.C.W. 60)

When new or improved crossing protection is being considered, staff members of the Commission's Engineering Division study such particulars as

HIGHWAY-RAILROAD CROSSINGS
in Wisconsin

| Protection | 1966 | 1968 |
|---|---|---|
| Statutory Signs* .... | 6,447 | 6,270 |
| Flagman ..... | 9 | 9 |
| Gates ..... | 152 | 176 |
| Bell ..... | 103 | 100 |
| Wigwag ..... | 513 | 486 |
| Flashing Lights ..... | 988 | 1,034 |
| Highway overhead .... | 463 | 465 |
| Highway underpass ... | 419 | 414 |
| Total | 9,094 | 8,954 |

*Unprotected by train-actuated devices

angle and grade of crossing; traffic counts; speed of trains and legal speed of vehicular traffic; traffic patterns, including use of the street or highway involved as to schools, churches, and fire-fighting equipment; obstructions to the view of approaching trains, and any previous accidents at the crossing.

Most of the grade crossings unprotected by train-actuated devices are in open country and subject only to light traffic.

Highway-Railroad Grade Crossing Accident Data*
in the State of Wisconsin

| | 1963 | 1964 | 1965 | 1966 | 1967 |
|---|---|---|---|---|---|
| Total No. of accidents | 375 | 397 | 416 | 391 | 447 |
| Protected crossings | 174 | 196 | 200 | 185 | 230 |
| Unprotected crossings | 201 | 201 | 216 | 206 | 217 |
| Total No. of fatalities | 38 | 52 | 57 | 54 | 59 |
| Protected crossings | 20 | 25 | 22 | 28 | 24 |
| Unprotected crossings | 18 | 27 | 35 | 26 | 25 |
| Total No. injured | 209 | 183 | 219 | 221 | 221 |
| Protected crossings | 70 | 94 | 93 | 104 | 108 |
| Unprotected crossings | 139 | 89 | 126 | 117 | 113 |

* Excerpted from the Commission's file of statistical information on each crossing, including its accident records begun in 1911 and kept up to date.

The total number of crossings is decreasing. The number of crossings protected by train-actuated devices is increasing. Not surprisingly, the number of motor vehicle miles traveled in Wisconsin is increasing, from 15,602 million in 1961 to 20,920 million miles in 1967. However, many variables, the human element not the least of these, interact to effect statistical fluctuations from year to year. The records of accidents by calendar months showing the greater number occuring in the October-March period, suggests that weather is an important factor.

But the overall picture is all too clear. Highway-railroad grade crossing accidents are part of an appalling increase in highway accidents in Wisconsin which, according to figures released by the Division of Motor Vehicles, has risen from 63,481 (908 persons killed) in 1961 to 97,387 (1,149 persons killed) in 1967.

Spur tracks--clearances

In addition to investigations involving railroad-highway crossings and crossing protection, the Railroads section of the Commission's Engineering Division's work load includes investigations associated with applications to remove spur tracks (34 Orders issued during the biennium) and also with applications to maintain horizontal or vertical clearances between railroad tracks and structures or installations which are less than the clearance requirements of the Statutes or the Commission's Wisconsin Administrative Code rules designed to administer said Statutes under current conditions (63 Orders issued between July 1, 1966 and June 30, 1968).

Reporting railroad accidents--New rule

A new rule was added to Chapter PSC 72, Wisconsin Administrative Code, relating to the form and method of reporting train and train-service accidents to the Commission. The new rule, section PSC 72.04(3), extends the grade-crossing accident report requirements to apply to the reporting of industrial rail movements across highway grade crossings. Such movements are, characteristically, intra-plant switching, with on- or off-track equipment in plants which have expanded across streets.

Reflectorized switch lamps

Use of reflectorized materials on switch stands in lieu of oil-burning switch lamps was started on a small scale in 1942, since which time reflectorized materials have improved. Said conversion has increased in recent years, primarily on railroad lines where train volumes have been reduced and passenger trains discontinued.

Retaining jurisdiction with respect to any switch that may prove inadequate under actual operating conditions, the Commission authorized the Milwaukee Road to substitute reflectorized banners for 279 oil-burning lamps at specified locations in its LaCrosse Division. (2-R-4893--September 21, 1967--52 P.S.C.W. 420)

By order of April 1, 1968, the Commission also approved the proposal of the Green Bay and Western and the Kewaunee, Green Bay and Western Railroads to substitute reflectorized switch lamps for oil-burning or electrically lighted switch lamps within yard limits, but denied the application as to 21 switch lamps outside yard limits and on or near curves. There was no testimony on the degree of reflectivity of said reflectorized lamps on curves when outside the direct beam of the locomotive headlight.

## COMMISSION PROCEEDINGS

Under the direction of the Commission, hearing examiners held 2,596 hearings in various parts of the state.

| HEARINGS | 1966-67 | 1967-68 |
|---|---|---|
| Railroad | 118 | 151 |
| Utility | | |
| General | 102 | 148 |
| Securities | 0 | 3 |
| New Plants & Additions | 78 | 57 |
| Water Power | 138 | 3 |
| Motor | | |
| General | 21 | 36 |
| Common Carrier Certificates | 25 | 16 |
| Contract Carrier Licenses | 266 | 237 |
| Amendments | 534 | 658 |
| Registrations | 2 | 3 |
| Total | 1,284 | 1,312 |

| FORMAL CASES | Opened during biennium | | Closed during biennium | |
|---|---|---|---|---|
| | 1966-67 | 1967-68 | 1966-67 | 1967-68 |
| Railroad | 138 | 172 | 114 | 152 |
| Utility | | | | |
| General | 137 | 155 | 101 | 165 |
| Securities | 31 | 35 | 32 | 37 |
| New Plants & Additions | 148 | 144 | 142 | 148 |
| Water Power | 255 | 2 | 240 | 3 |
| Motor | | | | |
| General | 14 | 23 | 12 | 19 |
| Common Carrier Certificates | 22 | 20 | 23 | 19 |
| Contract Carrier Licenses | 1,658 | 1,580 | 1,632 | 1,609 |
| Amendments | 1,447 | 1,429 | 1,407 | 1,397 |
| Registrations | 27 | 28 | 28 | 28 |
| Total | 3,877 | 3,588 | 3,731 | 3,577 |

| ORDERS ISSUED | 1966-67 | 1967-68 |
|---|---|---|
| Railroad | 185 | 212 |
| Utility | | |
| General | 123 | 184 |
| Securities | 34 | 58 |
| New Plant & Additions | 177 | 172 |
| Water Power | 470 | 4 |
| Motor | | |
| General | 18 | 27 |
| Common Carrier Certificates | 42 | 36 |
| Contract Carrier Licenses | 119 | 1,291 |
| Amendments | 942 | 935 |
| Registrations | 2 | 8 |
| Total | 2,112 | 2,927 |

| INFORMAL CASES OPENED DURING BIENNIUM | 1966-67 | 1967-68 |
|---|---|---|
| Railroad | 40 | 28 |
| Utility | 634 | 726 |
| Water Power | 27 | 0 |
| Total | 701 | 754 |

Informal cases are resolved through correspondence or conference. There is, besides the tabulated proceedings, work of a continuing nature: field investigations of utility and transportation service and facilities, review of financial and operating reports submitted to the Commission, continuing property records, and statistical reports.

## FINANCES OF THE COMMISSION

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

1. To defray the expenses of regulating the rates, service, construction, finances, and security issues of telephone, electric, gas, and water utilities, whether privately or municipally owned, the Commission makes an assessment of costs of specific, formal investigations against the investigated utility limited by 4/5 of 1% of the gross intrastate operating revenues of the utility in the previous calendar year. A similar assessment is made in specific, formal railroad investigations.

2. To recover costs incurred in utility regulation that cannot be ascribed to a specific investigation, the Commission makes a so-called remainder assessment after the close of each fiscal year against all Wisconsin utilities which may not exceed 1/5 of 1% of the total gross intrastate operating revenues of the previous calendar year.

3. To recover costs incurred in railroad regulation that cannot be ascribed to a particular investigation, the Commission makes a remainder assessment at the close of each fiscal year against all railroads operating in Wisconsin. This assessment may not exceed 1% of the total gross intrastate operating revenues for the previous calendar year.

4. To provide for water resources regulation (transferred to Department of Natural Resources, effective as of July 1, 1967) and for emergency resource management and miscellaneous administrative expenses, a specific legislative appropriation is made from the State General Fund.

5. To provide for the regulation of motor carrier operating authorities, rates, and service, a specific legislative appropriation is made from the State Highway Fund.

Details of Commission finances are shown in the following table. It should be noted that the receipts and disbursements are not equal for a given year because the amounts available as legislative appropriations are seldom spent in full, but allowed to lapse. Also, reimbursement for some utility and railroad expenditures is not received until the subsequent fiscal year.

SUMMARY OF FINANCES

| Item | 1966-67 | 1967-68 |
|---|---|---|
| Appropriations and receipts | | |
| General legislative appropriations | $ 676,500.00 | $ 508,068.00 |
| Supplement appropriations | 68,188.00 | 1,409.52 |
| Non-lapsed balances | 3,099.62 | 3,505.26 |
| Total appropriations | $ 747,787.62 | $ 512,982.78 |
| Utilities receipts | | |
| Direct assessments | $ 81,577.88 | $ 92,925.05 |
| Remainder assessments | 595,359.74 | 652,768.12 |
| Total | $ 676,937.62 | $ 745,693.17 |
| Railroad receipts | | |
| Direct assessments | $ 5,655.27 | $ 8,973.18 |
| Remainder assessments | 149,598.65 | 106,326.97 |
| Total | $ 155,253.92 | $ 169.300.15 |
| Miscellaneous receipts | $ 2,733.78 | $ 3,154.41 |
| Total appropriations and receipts | $1,582,712.94 | $1,431,130.51 |
| Disbursements | | |
| Utility | $ 741,199.48 | $ 804,996.78 |
| Railroad transportation | 167,900.86 | 172,244.40 |
| Water power and navigation | 234,434.31 | 2,957.23* |
| Motor transportation | 493,857.27 | 475,794.82 |
| Emergency resource management | 1,523.53 | 1,665.57 |
| Total disbursements | $1,638,915.45 | $1,457,658.80 |
| Collections for state general fund | | |
| Utilities securities fees | $ 109,729.37 | $ 154,568.79 |
| Water power and engineering fees | 2,041.94 | 10.00* |
| Copy work and sale of printed matter | 3,076.11 | 3,314.35 |
| Penalties | 759.06 | 500.31 |
| Total | $ 115,606.48 | $ 158,393.45 |
| Collections for state highway fund | | |
| Motor carrier filing fees | $ 68,735.00 | $ 65,105.00 |

*Decrease due to transfer of most of water resources activity by Chapter 614, Laws of 1965.

## COMMISSION--ORGANIZATION

The Public Service Commission of Wisconsin is composed of three full-time Commissioners who meet daily to transact Commission business, a secretary, and a staff of 134 full-time budgeted positions, including the Commissioners. The Commissioners are Arthur L. Padrutt, chairman, and Walter J. Cole, and Stanley E. Gilbertson.

CHAIRMAN ARTHUR L. PADRUTT was born in Huron, South Dakota. In 1939 he received the degree of Bachelor of Science from the Wisconsin State University, Eau Claire, and for a short time thereafter taught in Wisconsin public schools. Subsequently he received his LL.B. from the University of Wisconsin and was admitted to the practice of law. He was elected a member of the Wisconsin Assembly for Chippewa County in 1940 and served in that capacity for four consecutive terms. In 1948 he was elected to serve in the Wisconsin State Senate and was re-elected in 1952. First appointed to the Public Service Commission in April 1956 to fill an unexpired term, Mr. Padrutt was subsequently appointed chairman by Governor Warren P. Knowles in 1965. He has since served in that capacity. He is a member of the Executive Committee of the National Association of Regulatory Utility Commissioners and serves as Chairman of its Committee on Administration and Personnel. In this capacity he has supervised a short course in public utility regulation presented by the University of Wisconsin Extension Division, School of Commerce, for the past several years. In 1961-1962, he was President of the Great Lakes Conference of Railroad and Utilities Commissioners. He is the immediate past president of the Midwest Association of Railroad and Utilities Commissioners.

COMMISSIONER WALTER J. COLE received a Bachelor of Science degree from the University of Wisconsin in 1938 and was graduated from the University of Wisconsin Law School and was admitted to the practice of law in 1940. He served as Platteville, Wisconsin, city attorney and conducted a private law practice there following his graduation from law school. He is a Navy veteran of World War II. He served as deputy to former Attorney General George H. Thompson from March 1964 until he was appointed by Governor Knowles to the Public Service Commission in January 1965 to fill an unexpired term ending in 1967. He was reappointed to the Commission by Governor Knowles for a six-year term expiring in 1973. Commissioner Cole is a member of the Executive Committee and Secretary-Treasurer of the Great Lakes Conference of Public Utilities Commissioners.

COMMISSIONER STANLEY E. GILBERTSON is a native of Black River Falls, Wisconsin. He attended the University of Wisconsin from 1940 to 1943 before entering the armed forces. He returned to Wisconsin and received a degree from the University in 1947, with a major in accounting. Mr. Gilbertson is a certified public accountant and from 1956 until his appointment to the Commission, he was in the partnership of a CPA firm. He is a member of the American Institute of Certified Public Accountants and the Wisconsin Society of CPA's. He was named by Governor Knowles to the Public Service Commission of Wisconsin to fill the term expiring 1971. Commissioner Gilbertson is chairman of the National Association of Regulatory Utility Commissioners Committee on Accounts.

JOHN F. GOETZ, Secretary of the Commission was born in Middleton, Wisconsin and later moved to Madison and attended the public schools. He attended the University of Wisconsin and graduated from the School of Commerce with a Bachelor of Arts degree in 1931. He has been a member of the Commission staff since 1933 and was supervisor of the Cost Accounting Section from 1946 to 1963. He is a member of the Subcommittee of State and Federal Secretaries of the Committee on Administration and Personnel of the National Association of Regulatory Utility Commissioners.

# PUBLIC SERVICE COMMISSION OF WISCONSIN

## PERSONNEL

Arthur L. Padrutt, chairman
Walter J. Cole, commissioner
Stanley E. Gilbertson, commissioner
John F. Goetz, secretary

### Administration Division

John F. Goetz, administrator

Management Services--Stanley B. Nebel
Filing--Francesca A. di Lorenzo

### Transportation Division

William R. Brumfield, administrator
Judd H. Justesen, assistant

Tariffs--Harold C. Heublein
Statistics and Reports--Richard V. Maves
Motor Carrier Authorities--Miles Fenske

### Legal Division

William E. Torkelson, administrator

### Engineering Division

Ralph E. Purucker, administrator
William A. Kuehlthau, assistant

Project Review--William A. Kuehlthau
Service and Safety--Clarence F. Riederer
Railroads--Rex A. Montgomery
Property Records--John E. Rosecky

### Accounts and Finance Division

Frederick C. Huebner, administrator
Joseph R. Brady, assistant

### Rates and Research Division

Orville P. Deuel, administrator
Robert G. Dudley, assistant

## DIVISIONS OF THE COMMISSION

For the efficient conduct of its business, the Commission staff is divided into six divisions, each with specifically assigned duties, as described in the following pages:

### 1. Administration division

Main Office: Operates as the administrative office and general information bureau of the Commission.

Management services: Prepares monthly and annual assessments of regulatory expense against the utilities or railroads involved, prepares budgets and payrolls, audits expenditures, collects and deposits receipts, maintains records of the Commission finances and personnel, coordinates travel of staff members, and issues and inventories equipment and supplies.

Filing: 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.

### 2. Legal division

Performs three principal functions: (1) It acts as a law office for the Commission and its staff with respect to matters arising out of their official duties; (2) It supplies hearing examiners and fixes the date and place for hearings and is responsible for stenographic reporting of the record in cases where hearing is held; and (3) It makes arrangements for printing decisions and orders of the Commission as provided by law.

The law-office function consists in giving legal advice and service to the Commission and its staff with respect to matters arising out of their official duties, and in representing the Commission in proceedings in Circuit Court for Dane County and the Supreme Court of Wisconsin, as well as other courts and tribunals.

Scheduling of hearings is done under the supervision of a Supervisor of Hearings who, after selecting a specific date for each case, designates a hearing examiner and reporter to conduct the hearing. An attempt is made to set each hearing at a time and place most convenient to the parties and the public, consistent with a minimum of travel and the obtaining of a most efficient utilization of the time of the hearing examiner and reporter, as well as other members of the staff.

The statutes require that the Commission print its decisions and all general orders. The work of editing the decisions and general orders preparatory to printing is done in the legal department as well as proofreading, indexing, and other like taskes needed to turn out the completed publication.

WILLIAM E. TORKELSON, immediately prior to his serving as Chief Counsel of the Commission as administrator of its Legal Division, was an Assistant Attorney General of the State of Wisconsin from 1944 to 1949. He is a member of the Gas Subcommittee, Public Utility Section, of the American Bar Association; of the Staff Subcommittee of the Gas Committee of the National Association of Regulatory Utility Commissioners; and of the Federal Power Bar Association's Committee on Practice and Procedure.

3. Transportation division

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

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

Motor Carrier Authorities: Handles motor carrier complaints and preliminary work in connection with motor-carrier authorities and maintains liaison with other sections of the Commission and state departments involving motor-carrier regulations; makes routine investigations of the records and investigates complaints and inquiries relating to the service of motor-carriers and rental companies; centralizes and coordinates motor-carrier functions.

WILLIAM R. BRUMFIELD, has been administrator of the Transportation Division since January 1, 1967. He is a member of the Mass Transit Study Advisory Committee of Milwaukee and of the Transportation Advisory Committee of the Public Service Commission.

4. Engineering division

Provides engineering services for the Commission in transportation and utility matters.

The work includes valuations of utility property for rate, security issue, and acquisition purposes; establishment of continuing property records of utility property for use by the utilities and the Commission in many regulatory matters; investigations of complaints and inquiries concerning, and periodic inspections of, telephone, gas, electric, and railroad service, as well as the safety of electric and gas lines and equipment; investigations of railroad safety matters such as closing,

establishing (at grade or separated) or improving protection at, highway-railroad crossings, vertical and horizontal railroad clearances, switch lamps, and brush and snow removal on railroad right-of-way; and investigations of utility applications to add facilities, to make interconnections, and to integrate operations.

RALPH E. PURUCKER has been administrator of the Engineering Division since May 1, 1963. He is a member of two National Association of Regulatory Utility Commissioners committees: Legislative Council Committee on Nuclear Energy and Committee on Engineering, Depreciation and Valuation; a member of four American Standards Association committees: Committee on National Electric Safety Code, Committee on Interpretation of Electric Code, Committee on Electricity Metering and Pole Strength Committee; a member of Federal Power Commission Committee on Bulk Power Supply, of the Upper Mississippi River Comprehensive Basin Study Committee, and of the Wisconsin Emergency Resources Planning Committee. He is also a member of an American Society of Mechanical Engineering Conference Group.

5. Accounts and finance division

Audits the books, accounts and annual reports of electric, telephone, gas, and water public utilities; designs uniform systems of accounts and annual reports prescribed for all classes of utilities; prepares any required interpretations of those systems of accounts; investigates and studies applications of utilities for authority to issue stocks, bonds; and all other forms of securities; 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 other utility companies; investigates financial arrangements between utility affiliated interests which require Commission approval; and makes recommendations to the Commission on matters pertaining to accounting and finance.

FREDERICK C. HUEBNER, Certified Public Accountant, a member of the Commission staff since 1952 and assistant administrator of the division since 1959, was appointed administrator in September 1966. He is a member of the National Association of Regulatory Utility Commissioners Committee on Communication Problems and Committee on Accounts and is chairman of the latter's subcommittee on Manufacturing and Service Affiliates of Telephone Utilities.

6. Rates and research division

Investigates and recommends rates and rules and analyzes costs of telephone, electric, gas, sewer, and water utilities; prepares technical reports and recommendations for the Examiners 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; maintains a file of electric, telephone, gas, sewer, and water rates; and reviews matters involving Federal agencies' proceedings and makes recommendations to the Commission on such utility matters.

ORVILLE P. DEUEL, the administrator of the Rates and Research Division has been head of the division since November 1, 1961, and previously served as a rate analyst in the division for 19 years. He is a member of the Education Committee of Natural Resources Council of State Agencies.