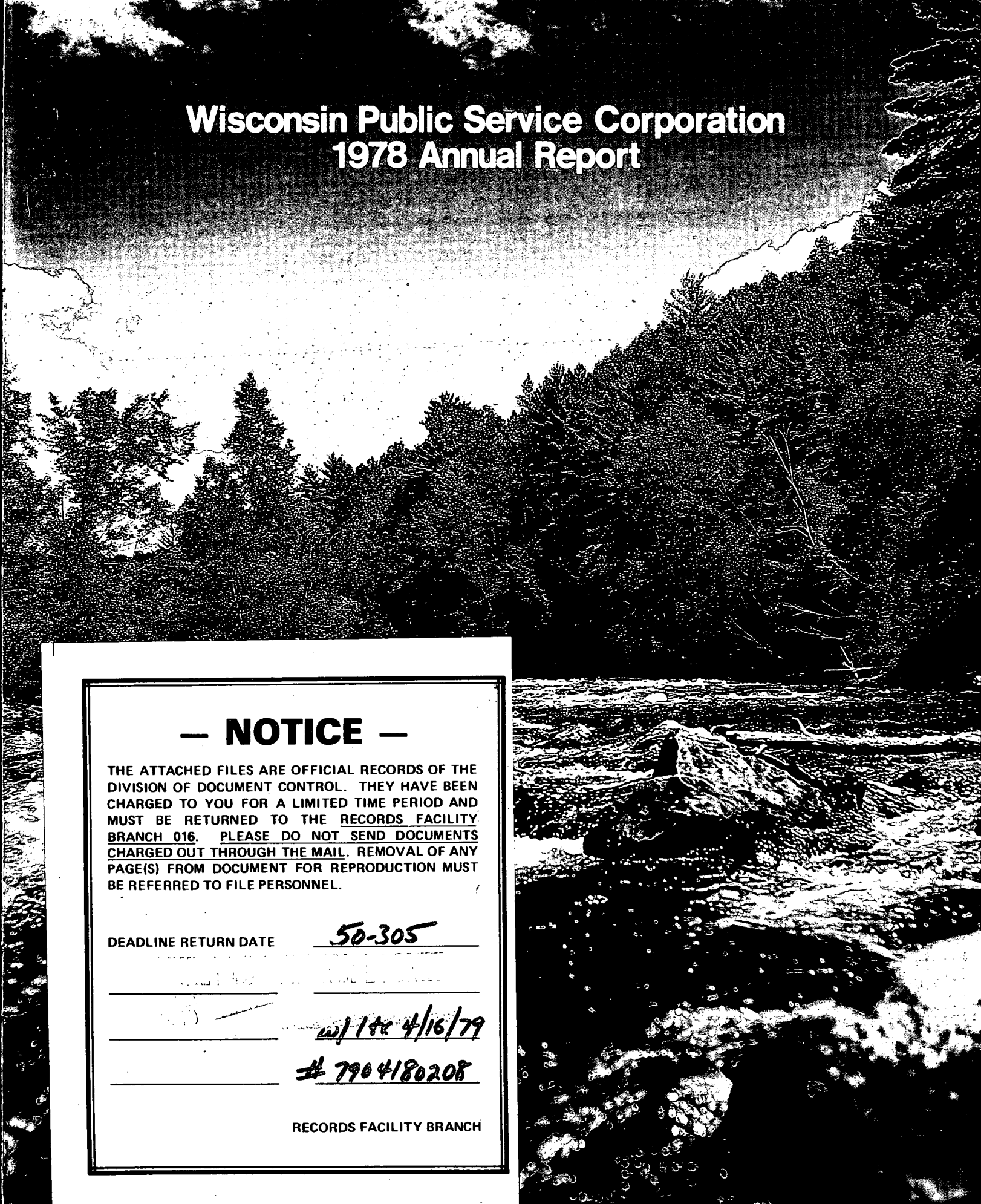
Wisconsin Public Service Corporation
1978 Annual Report



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Management Staff

Management Staff, from left, standing — Paul D. Ziemer, Evan W. James, Harold J. Van Groll, seated — James H. Liethen, Linus M. Stoll.

Paul D. Ziemer, (56) [30]
President and Chief Executive Officer of Wisconsin Public Service Corporation and member of its Board of Directors. He was elected to the Board of Directors in February 1970 and became President and Chief Executive Officer in January 1971.

Evan W. James, (64) [43]
Senior Vice President, Power Supply and Engineering and a member of the Board of Directors since May 1975. He has overall responsibility for all power generation, transmission and engineering activities.

Harold J. Van Groll, (58) [30]
Vice President, Operations, is responsible for operations, engineering and marketing for electric and gas in the company's seven operating divisions. He is also responsible for natural gas supply.

James H. Liethen, (51) [20]
Vice President, Finance, is principal financial officer. He is responsible for all accounting, purchasing, rates and budget activities. Mr. Liethen was elected to the Board of Directors in May 1978.

Linus M. Stoll, (52) [31]
Vice President, Administration, is responsible for staff marketing activities, industrial development, the personnel department functions, public affairs, company-wide public relations and advertising.

( ) age [ ] years of service

Officers

Paul D. Ziemer
President and Chief Executive Officer

Evan W. James
Senior Vice President,
Power Supply and Engineering

James H. Liethen
Vice President, Finance

Eugene R. Mathews
Vice President,
System Planning and Engineering

Linus M. Stoll
Vice President, Administration

Harold J. Van Groll
Vice President, Operations

Alfred E. Pearson
Assistant Vice President,
Rates and Budgets

Daniel A. Boliom
Treasurer

Robert H. Knuth
Secretary and Assistant Treasurer

Directors

Paul D. Ziemer
President and Chief Executive Officer of the Company

A. Dean Arganbright
President, Wisconsin National Life Insurance Company, Oshkosh, Wisconsin

Michael S. Ariens
President and Chief Executive Officer, Ariens Company, Brillion, Wisconsin (manufacturer of outdoor engine-powered equipment)

William V. Arvold
Retired President, Wausau Paper Mills Company, Brokaw, Wisconsin

Evan W. James
Senior Vice President of the Company

James H. Liethen
Vice President of the Company

John M. Rose
President, Kellogg-Citizens National Bank, Green Bay, Wisconsin

John S. Stiles
Chairman of the Board, Morley-Murphy Company, Green Bay, Wisconsin (wholesale distributors of appliances and industrial, plumbing and electrical supplies)

Dr. Neil J. Webb
President, St. Norbert College, De Pere, Wisconsin

Docket: 50-305
Control #: 7904180208
Date: 4-16-79
REGULATORY DOCKET FILE

COVER:
This wild river scene along the Peshtigo River in northern Wisconsin is an attraction that can be enjoyed by fishermen and sightseers alike. The company has granted public access to this stretch of the river known as the "Fly Fishing Only" area.

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Business

WISCONSIN PUBLIC SERVICE CORPORATION is engaged in the production, transmission, distribution and sale of electricity and in the purchase, distribution and sale of gas in northeastern Wisconsin and an adjacent part of upper Michigan. Executive offices are at 700 North Adams Street, Green Bay, Wisconsin 54305, phone (414) 433-1050.

Operating Highlights

	1978	1977	% Change
Revenues	$331,933,000	$298,129,000	11.3
Net Income	32,124,000	30,736,000	4.5
Earnings Per Average Share of Common Stock	2.53	2.41	5.0
Dividends Paid Per Share	1.58	1.50	5.3
Book Value Per Share	19.19	18.24	5.2
Construction Expenditures	56,629,000	55,762,000	1.6
Capitalization	467,442,000	460,549,000	1.5
Electric Customers	269,251	261,243	3.1
Electric Sales (Thousands Kwh)	6,124,585	5,833,370	5.0
Gas Customers	142,102	139,145	2.1
Gas Sales (Thousands Therms)	522,131	484,963	7.7

Common Stock (Listed on New York and Midwest Stock Exchanges)

TRANSFER AGENTS:
Irving Trust Company, New York
First Wisconsin Trust Company, Milwaukee

REGISTRARS:
The Chase Manhattan Bank (NA), New York
M&I Marshall & Ilsley Bank, Milwaukee

Preferred Stock (Over-the-counter markets)

TRANSFER AGENT AND REGISTRAR:
First Wisconsin Trust Company, Milwaukee

Annual Shareholders Meeting

Midway Motor Lodge, 780 Packer Drive, Green Bay, Wisconsin
Thursday, May 10, 1979, at 10:30 a.m. CDT

Annual SEC Report Form 10-K

This report (not including exhibits thereto) will be available without charge about April 1, 1979 to shareholders who make requests to Robert H. Knuth, Secretary, P.O. Box 700, Green Bay, Wisconsin 54305.

7904180211

To Our Shareholders

Our earnings per average share outstanding in 1978 were $2.53 as compared with $2.41 in 1977, resulting in a return on average equity of 13.7%. A strong economy, colder-than-normal weather and the addition of several municipal firm electric load customers contributed to this increase in earnings.

Effective with the September payment, the quarterly dividend on our common stock was raised from 38½¢ to 40½¢ per share. This was the 20th consecutive year in which dividends paid per share were increased.

Kilowatt-hour firm sales increased 8.8% which is somewhat higher than our forecast.

Therm sales of natural gas in 1978 were 7.7% higher than in 1977, following a decrease of 10.9% for the year 1977 compared to 1976. Significant conservation by our customers, along with a switch to other fuels by some large-volume users, freed up enough gas to allow us to connect new residential customers and high priority commercial and industrial firm customers for the first time since October 1975.

On November 1, 1978, our gas supply was improved further when our supplier, Michigan Wisconsin Pipe Line Company, announced that the development of new discoveries in the Gulf of Mexico and the Rocky Mountain area would allow it to eliminate the 5% reduction in allocation which had been imposed upon our company and other distribution companies starting in 1976. The new allocation applies to the contract year ending August 31, 1979; but indications are that it can be maintained for the next several years.

While the National Energy Act passed last year fell far short of establishing a constructive policy, we expect that the natural gas pricing section will help provide the incentive needed for producers to develop gas reserves.

The decisive role nuclear power has in maintaining the "balanced fuels strategy" of our company and the other utilities of Wisconsin Upper Michigan Systems (WUMS) was confirmed again in 1978.

In early 1978, with coal stockpiles running low at most of Wisconsin's coal generating plants during the 112-day strike by the United Mine Workers, it was fortunate that the companies had the option to control the date of annual refueling at their nuclear plants. By postponing refueling at our Kewaunee plant and the Point Beach Unit No. 2 owned by Wisconsin Electric Power Company, nuclear power replaced about 100,000 tons of coal that otherwise would have been burned during the period.

Since the start of commercial operation in June 1974 to the end of 1978, the Kewaunee nuclear plant has produced 16.6 billion kilowatt-hours. During this same period the plant was available for generating electricity 83% of the time, and reactor availability was 85%. According to statistical data released by the Nuclear Regulatory Commission, Kewaunee ranked third highest of all plants in the country in availability since beginning commercial operation. About 10% of the uranium used for the 1978 refueling was supplied by our mining subsidiary. This capability will be of greater importance in the future.

On April 30, 1978, Columbia Unit No. 2, a 527,000-kilowatt, coal-fired generating plant near Portage, went into commercial operation. We own 24.7% of the unit.

In response to our application filed in 1975, the Public Service Commission of Wisconsin (PSCW) approved on July 11 the construction of Weston Unit No. 3, a $238 million, 300,000-kilowatt, wholly-owned, coal-fired facility near Wausau. It will be located adjacent to two existing units and is scheduled to begin commercial operation in March 1982. This plant will have the capability to burn refuse pending the results of a study with Wisconsin's Solid Waste Recycling Authority. It also will have a steam extraction turbine, thereby making possible the sale of steam.

On August 13 two other Wisconsin utilities and we filed an application with the PSCW to build Haven Unit No. 1, a 900,000-kilowatt nuclear plant in Sheboygan County. The company will own an 18.4% share of the plant which is expected to cost $1 billion and to be in service by June 1987, assuming timely regulatory approvals.

This application followed an August 8 order of the PSCW approving the first two-year installment of the 20-year advance plan for the WUMS group of utilities as required by the Wisconsin Power Plant Siting Act of 1975. In its order, the Commission stated that it would consider only the application for a single nuclear unit at Haven until the questions of waste reprocessing and storage, economics and plant decommissioning are resolved.

Bringing Haven into commercial operation will require the companies to secure approvals for 50 permits and licenses from 13 local, state and federal government agencies.

The increasing burden of regulation prompted Edison Electric Institute, our national trade association, to undertake a nationwide cost-of-regulation survey among utilities. Our company must deal with about 100 government agencies. We estimate that our payroll costs associated with administering regulations are about $5 million annually.

Some of these regulations are necessary, and it is difficult to quantify that part of the costs attributable beyond that level. However, the survey provided some basic statistics that can be used to compare future costs and may prove useful to demonstrate that complying with regulations of dubious merit is a waste of customer money.

During the year several actions were taken in our continuing program to reduce costs and improve operational efficiency: Customer service functions which had been separated physically were consolidated at Marinette and Wausau, the Oconto office was closed, the Grand Rapids hydro plant was automated and a new repair shop for our substation and transmission department was constructed adjacent to our Green Bay service center.

Although we are not labor intensive, personnel requirements are closely monitored and evaluated. Our employee count is 5% less than it was six years ago, in spite of a 16% increase in customers and the need to staff our Kewaunee plant.

We initiated an electric water heater load control test involving 400 volunteer customers in the Antigo and De Pere areas. Equipment will be installed in early 1979, and the test will run for at least one year. We hope this project will help us determine whether our peak load can be reduced significantly by remotely controlling water heating loads without inconveniencing our customers.

As we start the new year, we have many unresolved questions and interesting projects to carry forward from past years, some of which are:

- Reprocessing, nuclear waste disposal and the expansion of interim spent fuel storage capacity at Kewaunee.
- The consequences of the de facto moratorium on the construction of nuclear plants imposed in 1978 by the PSCW.
- The benefits, if any, of instituting time-of-use electric rates and installing load control systems.
- The effect of the new natural gas pricing legislation on supply.
- The limits of energy conservation.
- The effect of continued inflation and high interest rates on the company's ability to attract new capital and provide service without frequent requests for rate relief.
- The impact of surface mining regulations and air emission standards on the expanded use of coal.
- The consequences of political and social controls on traditional cost-of-service rate design, facilities siting and generation mix.
- The compatibility of alternative energy systems with present systems.

These are some of the concerns we face in the future. We shall address these issues to the benefit of our customers and shareholders and in a manner that is consistent with our commitment to a quality environment.

Paul D. Ziemer
President and
Chief Executive Officer

February 23, 1979

Review Of 1978

Financial

The quarterly dividend on our common stock was raised to 40½¢ in September.

Cash dividends paid and the price range of common stock on the New York Stock Exchange in 1977 and 1978 were as follows:

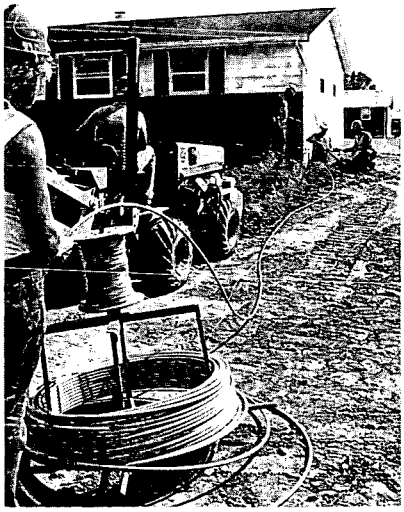
	Dividends Per Share	Price Range High	Price Range Low
1977			
1st Quarter	$ .36½	21¾	18¾
2nd Quarter	.36½	21¼	18¼
3rd Quarter	.38½	21⅛	19⅝
4th Quarter	.38½	21	19
Total	$1.50		
1978			
1st Quarter	$ .38½	19⅞	17⅝
2nd Quarter	.38½	19½	17⅝
3rd Quarter	.40½	21¼	19
4th Quarter	.40½	20⅝	17⅞
Total	$1.58		

In 1978, construction expenditures were $56.6 million. Based on our last forecast, expenditures of about $565 million will be required to meet our customers' energy requirements for the five-year period ending 1983. This is 114% more than for the previous five-year period. During this heavy construction period, we expect to generate approximately 58% of our cash requirements internally. A significant amount of external financing will be required during the next five years, the first being the sale of $40 million of first mortgage bonds in 1979. It will be necessary to sell additional first mortgage bonds, common and preferred stocks in 1980-81. Management's goal is to maintain a conservative capital structure with total debt below 50%. We have a policy of conservative accounting aimed at maintaining high quality earnings for the common stock shareholder.

The company received about $740,000 for the 36,568 shares of stock issued to the Employees' Tax Reduction Act Stock Ownership Plan and Trust. The Tax Reform Act of 1976 provided that the company could elect an additional 1/2% investment credit to the extent participants contribute annually. The Revenue Act of 1978 extended the program through 1983.

Seven seminars on current energy issues were held for teachers throughout our area. Guest speakers discussed such topics as energy conservation and legislation, solar heating, nuclear energy, how a utility operates, and the rising cost of energy.

Prospects for a long-term natural gas supply enable the company to restore the attachment of any new residential and high-priority commercial and industrial customers who apply for service. A service line was extended into a home in a new residential area in Green Bay.



The company must redeem 7,500 shares of its 10.50% Series of Preferred Stock annually commencing November 1, 1979. The price will be $100 per share plus accrued dividends to the redemption date. There is an option to redeem up to an additional 7,500 shares each year. Holders of those shares to be redeemed this year will be notified in September.

On August 1, 1978, the company used short-term funds to retire approximately $2.3 million of 3⅛% First Mortgage Bonds maturing on that date.

Rate Proceedings

The PSCW granted retail rate relief effective with interim rate schedules December 28, 1978 in the amount of $3,913,000 for electric and $3,352,000 for gas. The increases were 2.12% and 2.98%, respectively, and applied to the company's request of June 1977. Additional hearings will be held regarding final rate schedules.

The rate order stipulated that the company could not apply for rate relief in 1979. A petition for review was filed before the Circuit Court of Dane County to remove this condition on the basis that it is not legal.

The Federal Energy Regulatory Commission (FERC) suspended the effective date of the company's application of July 25, 1978 to increase annual billings to electric wholesale customers by $1,054,000 (6.7%), until January 25, 1979. Revenues derived under these new rates are subject to refund.

Electric System

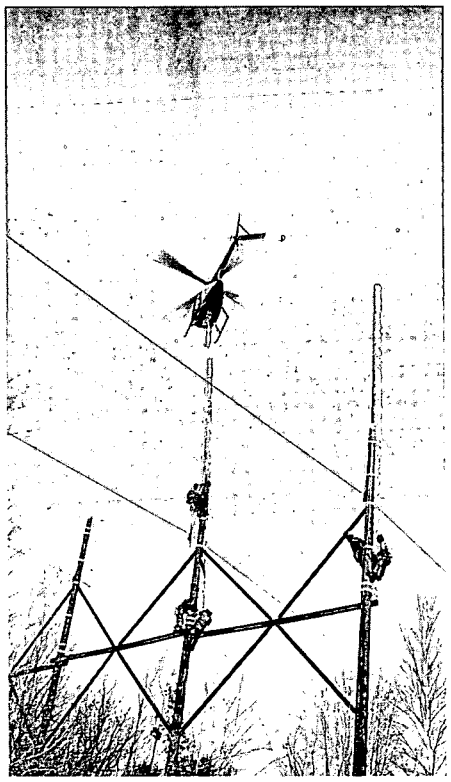
On December 19, 1978, we experienced a peak demand of 1,053,000 kilowatts, a 4.6% increase over the peak of 1,007,000 kilowatts set in July 1977, and about 1% higher than the summer peak of 1,038,000 kilowatts recorded August 14, 1978. A record peak of 1,081,000 kilowatts was recorded on January 4, 1979 which was forecasted by our company personnel in hearings before the PSCW last spring.

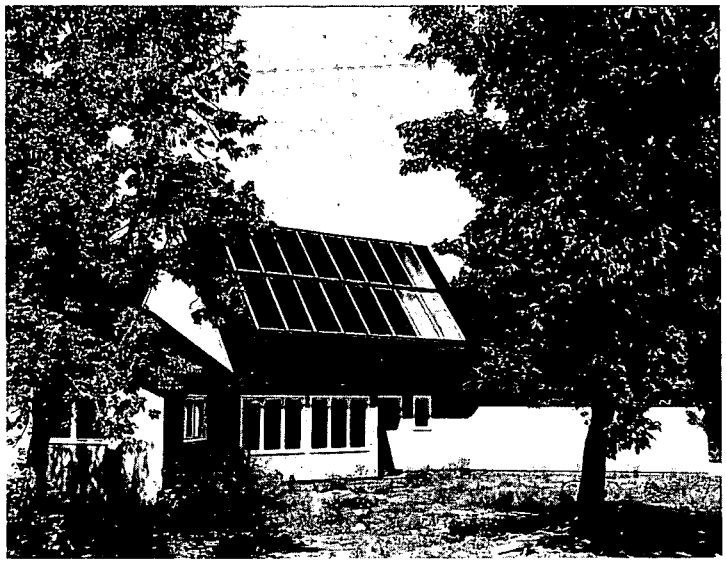
Our forecasts indicate that the annual growth rate in peak demand in our service area will be about 5% over the next decade. In addition to Weston Unit No. 3 and Haven Unit No. 1 generating units previously discussed, we will need additional capacity in the 1985-86 period.

There has been much speculation about whether these planned additions can be delayed by improving system load factor (the ratio of average load to peak load) using load management techniques such as interruptible and time-of-use rates and controlled water heating.

We are evaluating the merits of many load control methods and devices. However, it should be noted that our system differs from the industry average because of our balanced industrial load. In 1978, our annual load factor was 69% which is higher than the industry average.

Applications for authority to build two transmission lines totaling 47 miles were submitted to the PSCW. These lines are part of a long-range plan to strengthen the system in the upper western portion of our service territory.





The company has been involved in solar research during the past two years, monitoring several heating and water heating projects including sponsoring an open house at this Waupaca home to display the solar heating/storage system. The home will be monitored to determine the efficiency of the solar system for a heating season.

A helicopter aids workmen in a transmission line reconstruction project. Extension poles are lowered into position to linemen who banded them to the existing structure. An increase in sailboating activity prompted the adoption of new height standards for a greater margin of safety.

Generation Fuel

In 1978, our electric generation was 65.6% coal, 24.2% nuclear, 4.8% hydro and 5.4% gas, oil and purchased power. A generation mix, reflecting the use of several types of fuels, is a management objective that we hope to maintain in the future to provide reliable service to our customers.

Fuel costs in 1978 (in cents per million BTU) were 33.9 for nuclear, 114.1 for coal, 177.0 for gas and 251.4 for oil. This compares with 31.7 for nuclear, 102.6 for coal, 188.2 for gas and 252.5 for oil in 1977.

Following the coal strike, stockpiles at all coal generating stations were replenished to normal inventory levels. Supplies at Columbia, however, had not been restored to acceptable levels by year-end because of longer turn-around time for unit trains delivering western coal and the attrition of coal cars because of poor road beds. We intend to lease an interim unit train and to place an additional unit train in service about April 1979.

Our mining subsidiary is expected to provide 25% of the fuel requirements for the Kewaunee nuclear plant through 1981 and our full requirements in 1982 and thereafter. It is involved in projects in Colorado, Utah and Canada.

Gas Supply

As noted previously in this report, the amount of natural gas from our pipeline supplier, Michigan Wisconsin Pipe Line Company, was increased for the 1978-79 contract year and is expected to remain at that level for at least three years. It is aggressively developing new reserves. In 1978, for example, it completed a new pipeline system to the High Island gas field in the Gulf of Mexico offshore of Texas. Within the next two years the field will be producing at the rate of one billion cubic feet per day, or enough to supply about 1.8 million homes in the upper Midwest.

We are concerned with regulatory practices which would increase natural gas rates faster for industrial customers than for other customers. We will continue working to maintain rates that are equitable to all classes of customers consistent with available and projected supply.

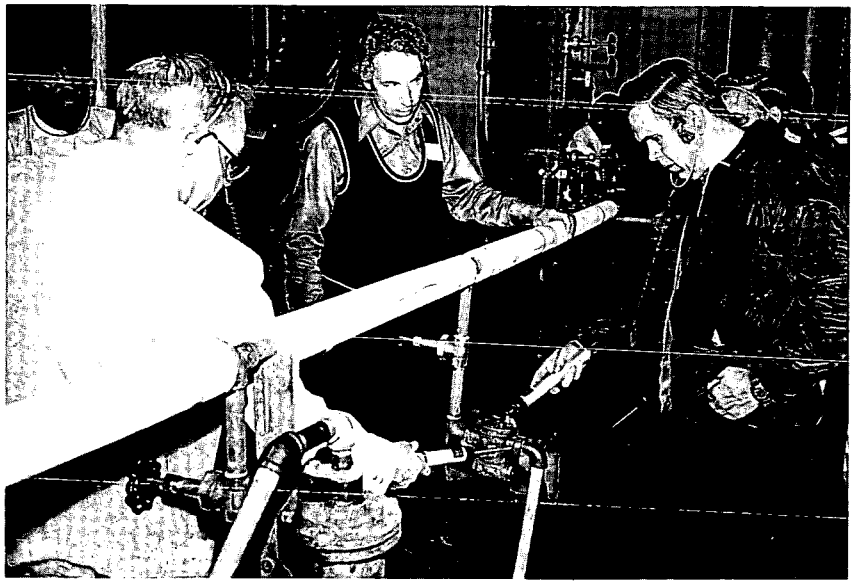
Energy Management

In 1978, a three-year research project costing $545,000 was initiated to investigate cost savings possible from the central control of electric water heaters. If the system proves successful, it could be offered to all electric water heating customers, possibly in 1982.

Test and evaluation work continues on the four-year time-of-use residential rate study that began in mid-1976. About 700 randomly selected electric customers are participating. Preliminary results indicate that the project will provide some much needed information about variable off-peak pricing and customer use.

The company sponsored several educational seminars for commercial and industrial customers and trade allies that covered such subjects as combustion testing, steam trap testing, housing codes and gas heating system retrofit devices.

During the 1977-78 heating season, the company conducted a test involving retrofitting natural gas heating systems. Several combinations of energy-saving devices and modifications were tested. The energy savings achieved by combining a vent damper, night set-back thermostat and input reducer were in the range of 10% to 20%.



An energy management training seminar especially designed for our large commercial and industrial customers who use steam in their manufacturing and heating operations was sponsored by the company. Defective steam traps waste energy and can result in a 15-percent steam loss. Participants were trained on the use of a microsonic stethoscope, a device used for detecting defective steam traps.

Economic Growth

The company's industrial development activities provide an important customer service that contributes to the economy of the area. This is implemented through our Partners in Regional Industrial Development Effort (PRIDE) program which is a private, non-profit group that was organized with the cooperation of the company to help new and expanding industries locate in areas best suited to their needs.

In 1978, PRIDE marked its 5th successful anniversary. The group now has 63 supporting members and a record of achievement that is recognized by business, civic and government leaders throughout the country.

Research/Development

The company spent about $1.7 million this year in support of research and development projects that seek to improve operational efficiency, provide for the wise use of energy and assure future supply.

A major portion of the funds, $848,000, was spent in support of the Electric Power Research Institute (EPRI), American Gas Association, Gas Research Institute and the Institute of Gas Technology. These research organizations, by using pooled funds from investor-owned utilities and others, can engage in significant research and development activities that individual companies could not afford to pursue on their own.

For example, EPRI has more than 1,300 research projects currently under way and a 1979 budget of $202 million.

The company is a major contributor to the Wisconsin Electric Utilities Research Foundation, Inc. which provides funding for research projects in Wisconsin which include fusion energy, superconductive energy storage and solar utilization.

In addition, the company has undertaken several in-house energy management research projects that will provide information specific to our service area.

People

At the annual shareholders meeting, James H. Liethen was elected a director to replace Lee G. Roemer who retired from the Board. All other directors were re-elected.

At the annual meeting of the directors immediately following, Robert H. Knuth, assistant secretary and assistant treasurer, was elected secretary and assistant treasurer and Alfred E. Pearson, manager-rates and budgets, was elected assistant vice president-rates and budgets.

The third year of a three-year labor agreement with union represented employees began November 1, 1978.

In February, the company conducted an employee opinion survey which sought to identify areas of concern among employees, the resolution of which might improve operational efficiency. The results were discussed with employees in a series of meetings.

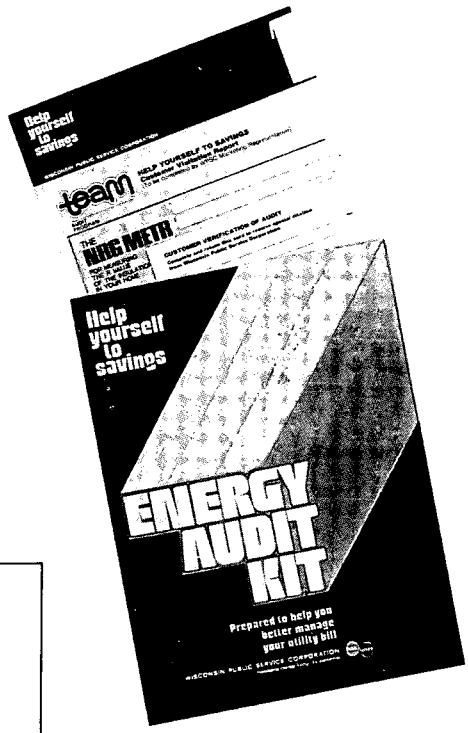
This year, the company initiated a Manpower Planning Program that allows employees to make their job career goals known. The program should help insure the development of a reservoir of potential candidates who are interested in promotion and thereby allow the company to meet its manpower needs in a timely and efficient manner.

Industrial development continues at a rapid pace in the territory we serve. One of the new industries is the Fiskars scissors manufacturing facility located in the Wausau Industrial Park. After a very extensive nationwide search, the Finnish-based firm decided to locate its first American plant in our area.

Presentations on the hazards of high voltage are offered throughout our service territory. The program, put on by our safety experts, provides understanding and demonstrates vividly what happens when people, equipment, and various materials make contact with overhead high voltage conductors.

Advertising

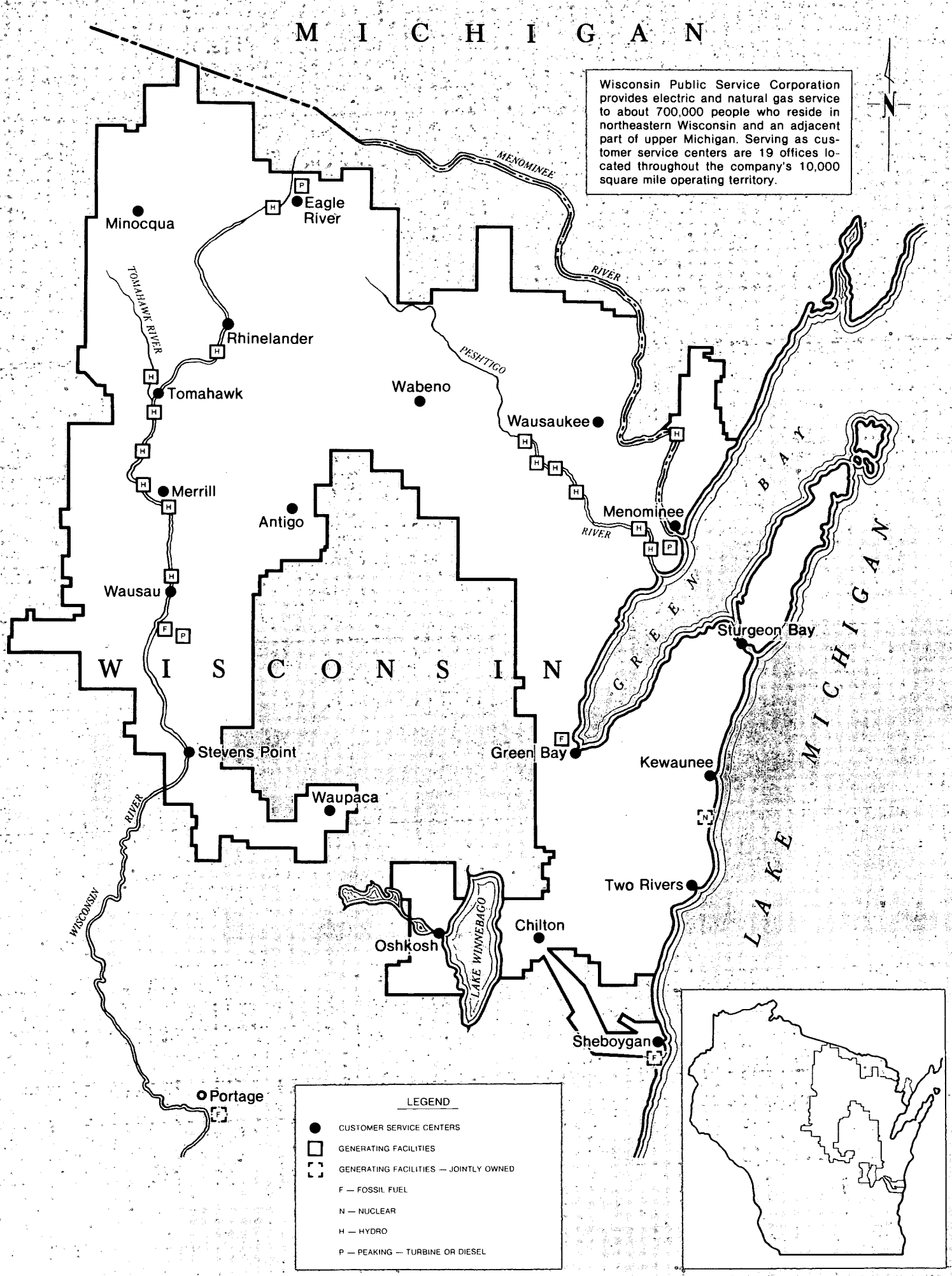
For the past five years, the company has done no advertising to promote the use of electricity and natural gas. Our advertising, through the use of mass media, has attempted to encourage the conservation of energy, to educate in the safe use of our products, to coordinate the industrial development of our service area, to provide information to customers about increasing operating expense and its effect on rates and other matters of concern to customers. We spend about one-eighth of one percent of our gross revenue for advertisements in the various media.



An intensive advertising program convinced 2,800 customers to request Self-Help Energy Audit Kits. Effective conservation measures covered in the audit help customers reduce their energy use and hold down the size of their service bills.

A series of advertisements like this "coal boat" ad points out how our higher electric and gas bills are affected by inflation on the costs we must incur to properly serve our customers.

President Ziemer appears in local TV commercials urging the use of our Self-Help Energy Audit Kit.


MICHIGAN
Wisconsin Public Service Corporation provides electric and natural gas service to about 700,000 people who reside in northeastern Wisconsin and an adjacent part of upper Michigan. Serving as customer service centers are 19 offices located throughout the company's 10,000 square mile operating territory.
N
MENOMINEE
RIVER
Minocqua
Eagle River
TOMAHAWK RIVER
Rhinelander
Tomahawk
PESHTIGO
Wabeno
Wausaukee
Merrill
Antigo
Menominee
RIVER
GREEN BAY
Wausau
Sturgeon Bay
WISCONSIN
LAKE MICHIGAN
Stevens Point
Green Bay
Kewaunee
Waupaca
WISCONSIN RIVER
Two Rivers
Chilton
Oshkosh
LAKE WINNEBAGO
Sheboygan
Portage
LEGEND
CUSTOMER SERVICE CENTERS
GENERATING FACILITIES
GENERATING FACILITIES — JOINTLY OWNED
F — FOSSIL FUEL
N — NUCLEAR
H — HYDRO
P — PEAKING — TURBINE OR DIESEL

Statements Of Income...Years Ended December 31

	1978	1977
	(Thousands)	
Operating Revenues (Note 1g):		
Electric	$217,576	$200,023
Gas	114,357	98,106
	331,933	298,129
Operating Expenses:		
Operation —		
Electric production fuels	63,881	55,402
Gas purchased for resale	89,360	73,862
Purchased power and (capacity sold), net	1,241	2,740
Other	37,648	33,427
Maintenance	17,178	16,728
Depreciation (Note 1b) —		
Straight-line provision	25,607	23,569
Additional depreciation	8,868	6,737
Taxes (Note 1d) —		
Current federal income	19,169	21,586
Investment credit deferral, net	5,291	3,231
Current state income	3,898	4,014
Property and other	13,302	13,308
	285,443	254,604
Operating Income	46,490	43,525
Other Income and (Deductions):		
Gains on bonds reacquired	333	438
Allowance for other funds used during construction (Note 1a)	—	440
Other, net	(3)	431
	330	1,309
Income Before Interest Expense	46,820	44,834
Interest Expense:		
Interest on bonds	14,290	14,484
Allowance for borrowed funds used during construction (credit) (Note 1a)	—	(593)
Other interest	406	207
	14,696	14,098
Net Income	32,124	30,736
Preferred Stock Dividend Requirements	4,812	4,812
Earnings On Common Stock	$ 27,312	$ 25,924
Earnings Per Share On Common Stock (Note 1f)	$2.53	$2.41
Dividends Per Share On Common Stock	$1.58	$1.50

The accompanying notes to financial statements are an integral part of these statements of income.

Auditors' Report

To the Board of Directors and Shareholders,
Wisconsin Public Service Corporation:

We have examined the balance sheets and statements of capitalization of WISCONSIN PUBLIC SERVICE CORPORATION (a Wisconsin corporation) as of December 31, 1978 and December 31, 1977, and the related statements of income, earnings reinvested in the business and sources of funds used for construction for the years then ended. Our examinations were made in accordance with generally accepted auditing standards and, accordingly, included such tests of the accounting records and such other auditing procedures as we considered necessary in the circumstances.

In our opinion, the financial statements referred to above present fairly the financial position of Wisconsin Public Service Corporation as of December 31, 1978 and December 31, 1977, and the results of its operations and the sources of funds used for construction for the years then ended, in conformity with generally accepted accounting principles applied on a consistent basis.

Milwaukee, Wisconsin,
February 2, 1979.

ARTHUR ANDERSEN & CO.

Balance Sheets...December 31

	1978	1977
	(Thousands)	
Assets		
Utility Plant (at original cost) (Notes 1a, 1c, 2 and 7):		
In service —		
Electric	$591,315	$531,713
Gas	98,602	94,640
	689,917	626,353
Less — Accumulated provision for depreciation	257,420	226,699
	432,497	399,654
Construction in progress	26,862	46,899
Nuclear fuel	34,950	28,672
Less — Accumulated provision for amortization	20,032	14,624
	14,918	14,048
Total utility plant	474,277	460,601
Investments (at cost or less) (Note 1c)	11,884	10,609
Current Assets:		
Cash and special deposits (Note 3)	2,756	2,584
Pollution control construction fund	—	942
Customer accounts and other receivables (less reserves of $470 and $452, respectively)	25,412	21,547
Accrued utility revenues (Note 1g)	17,418	15,763
Fossil fuel, at average cost	22,596	21,178
Materials and supplies, at average cost	5,396	5,319
Prepayments	966	580
	74,544	67,913
Deferred Charges:		
Koshkonong plant expenditures (Note 2)	5,682	5,658
Other (Note 5)	2,749	2,811
	8,431	8,469
	$569,136	$547,592
Capitalization and Liabilities		
Shareholders' Investment:		
Common stock equity (Note 6)	$207,552	$196,584
Preferred stock (Note 4)	65,450	66,200
Total shareholders' investment	273,002	262,784
First Mortgage Bonds (Note 5)	194,440	197,765
Total capitalization	467,442	460,549
Current Liabilities:		
Maturing first mortgage bonds (Note 5)	2,366	2,310
Commercial paper (Note 3)	8,700	8,800
Preferred stock sinking fund requirements (Note 4)	750	—
Accounts payable	25,025	19,586
Accrued taxes	8,548	6,456
Accrued interest	3,761	3,796
Accrued contributions to retirement plans	5,671	4,863
Other	1,467	1,286
	56,288	47,097
Other Credits:		
Accumulated deferred investment credit (Note 1d)	21,009	16,640
Unamortized unbilled revenues (Note 1g)	13,917	15,202
Contributions in aid of construction	6,814	5,726
Other	3,666	2,378
	45,406	39,946
	$569,136	$547,592

The accompanying notes to financial statements are an integral part of these balance sheets.

Statements Of Capitalization...December 31

	1978		1977	
	(Thousands)			
SHAREHOLDERS' INVESTMENT:				
Common stock equity (Note 6) —				
Common stock, $8 par value, 16,000,000 shares authorized; 10,813,996 and 10,777,428 shares outstanding, respectively	$ 86,512		$ 86,219	
Premium on capital stock	39,361		38,915	
Earnings reinvested in the business	81,679		71,450	
Total common stock equity	207,552	44.4%	196,584	42.7%
Preferred stock, cumulative, $100 par value, 1,000,000 shares authorized (Note 4) —				
Series / Shares outstanding				
5.00% / 132,000	13,200		13,200	
5.04% / 30,000	3,000		3,000	
5.08% / 50,000	5,000		5,000	
6.76% / 150,000	15,000		15,000	
7.72% / 150,000	15,000		15,000	
10.50% / 150,000	15,000		15,000	
	66,200		66,200	
Sinking fund requirements	(750)		—	
Total preferred stock	65,450	14.0%	66,200	14.4%
Total shareholders' investment	273,002		262,784	
FIRST MORTGAGE BONDS (Note 5):				
Series / Year due				
3⅛% / 1978	—		2,310	
2⅞% / 1979	2,366		2,366	
2⅞% / 1980	2,380		2,380	
3¼% / 1984	9,246		9,277	
4⅜% / 1987	5,062		5,164	
4⅜% / 1993	10,801		10,929	
4½% / 1994	14,746		15,487	
6⅜% / 1997	23,482		23,482	
7¼% / 1999	24,039		24,039	
8¼% / 2001	25,000		25,000	
8⅛% / 2003	25,000		25,000	
7⅞% / 2005	11,000		11,000	
8.20% / 2012	45,000		45,000	
	198,122		201,434	
Sinking fund requirements and maturing first mortgage bonds	(2,366)		(2,310)	
Unamortized discount and premium on bonds, net	(1,316)		(1,359)	
Total first mortgage bonds	194,440	41.6%	197,765	42.9%
Total capitalization	$467,442	100.0%	$460,549	100.0%

The accompanying notes to financial statements are an integral part of these statements.

Earnings Reinvested In The Business...Years Ended December 31

	1978	1977
	(Thousands)	
Balance at Beginning of Year	$ 71,450	$61,734
Add — Net income	32,124	30,736
	103,574	92,470
Deduct —		
Cash dividends declared on preferred stock:		
5.00% Series ($5.00 per share)	660	660
5.04% Series ($5.04 per share)	151	151
5.08% Series ($5.08 per share)	254	254
6.76% Series ($6.76 per share)	1,014	1,014
7.72% Series ($7.72 per share)	1,158	1,158
10.50% Series ($10.50 per share)	1,575	1,575
Cash dividends declared on common stock	17,044	16,144
Other	39	64
	21,895	21,020
Balance at End of Year	$ 81,679	$71,450

Sources Of Funds Used For Construction...Years Ended December 31

	1978	1977
	(Thousands)	
Funds Generated Internally:		
Net income	$32,124	$30,736
Depreciation	34,475	30,306
Amortization of nuclear fuel	5,931	4,960
Investment credit deferral, net	5,291	3,231
Equity component of allowance for funds used during construction	—	(440)
Other	869	852
Funds provided from operations	78,690	69,645
Less — Cash dividends on common and preferred stock	21,856	20,956
Bond sinking fund retirements	1,002	1,617
Net funds generated internally	55,832	47,072
Funds Obtained From Outside Financing:		
Sale of first mortgage bonds	—	45,000
Redemption and maturities of first mortgage bonds	(2,310)	(47,801)
Sale of common stock	739	510
Increase (decrease) in commercial paper	(100)	8,800
Net funds obtained from outside financing	(1,671)	6,509
Changes In Other Net Current Assets:		
Temporary cash investments	—	8,875
Customer accounts and other receivables	(3,865)	2,554
Accrued utility revenues	(1,655)	(15,763)
Accounts payable	5,439	(2,640)
Accrued taxes	2,092	(7,950)
Other, net	(1,078)	3,445
Changes In Net Deferred Assets:		
Unamortized unbilled revenues	(1,285)	15,202
Other, net*	2,820	(1,542)
Total funds used for construction expenditures and nuclear fuel*	$56,629	$55,762

*Includes equity component of the allowance for funds used during construction.

The accompanying notes to financial statements are an integral part of these statements.

Notes To Financial Statements

(1) SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES: The financial statements reflect the application of certain accounting policies which are described in this note.

(a) Utility Plant — Utility plant is stated at the original cost of construction which includes indirect costs consisting of payroll taxes, retirement plans and other fringe benefits, administrative and general costs and an allowance for funds used during construction (AFUDC). AFUDC represents a portion of the cost of equity and borrowed funds used for construction purposes. The company, under established regulatory rate practices, is entitled to earn a fair return on such costs.

Pursuant to an order of the PSCW, since 1975 such indirect costs are no longer capitalized and AFUDC is recorded (at 7%) only on that portion of construction work in progress in excess of 10% of average annual net investment rate base for the then current calendar year. No AFUDC was recorded in 1978 because these conditions were not met. Effective January 1, 1977, the FERC prescribed a formula for computing separately the maximum rate to be used in capitalizing AFUDC applicable to borrowed funds and to other funds. That portion applicable to other funds is reported as Other Income while that portion applicable to borrowed funds is reported as a reduction of Interest Expense. Prior to 1977, all AFUDC (if applicable) was reported as Other Income. The maximum composite rate (7%) prescribed by the PSCW for capitalizing AFUDC is currently less than the maximum composite rate computed using the FERC formula. Accordingly, when applicable, the company capitalized AFUDC at a composite rate of 7% with the amount applicable to borrowed funds being computed using the FERC formula and with the residual being allocated to other funds. This presentation has no effect on the total amount of AFUDC reported or on net income.

Substantially all of the company's utility plant is subject to a first mortgage lien.

(b) Depreciation — Depreciation expense includes, in addition to provisions at straight-line rates, additional amounts equivalent to the estimated effect on federal and state income taxes due to the use of liberalized depreciation, the accelerated write-off of nuclear fuel and pollution abatement facilities, the deduction of removal costs in the year incurred, the election of the repair allowance and other timing differences as explained under "Income Taxes" below. The estimated reduction in federal income taxes amounted to $7,456,000 and $5,791,000, and the estimated reduction in state income taxes amounted to $1,412,000 and $946,000 for the years 1978 and 1977, respectively. Depreciation provisions, excluding such additional depreciation, were equivalent to annual composite rates for electric and gas property of 3.93% and 4.40% in 1978, and 3.87% and 4.39% in 1977, respectively. Such rates are based on the estimated lives of property. The company continually reviews the reasonableness of depreciation rates, and such rates have been accepted by the various regulatory commissions.

Estimated decommissioning costs being recovered through current depreciation rates are $14,900,000 (based on plant in service at December 31, 1978) for the company's 41.2% ownership share of the Kewaunee nuclear plant.

(c) Nuclear Fuel — The cost of nuclear fuel is being amortized to fuel expense based on the quantity of heat produced for the generation of electric energy by the Kewaunee plant. The tax effect of using a liberalized method of depreciating the fuel for income tax purposes is included as additional depreciation discussed in "Depreciation" above. Amortization of $20,629,000 and $14,699,000 less additional depreciation of ($597,000) and ($76,000) as of December 31, 1978 and 1977, respectively, are included in accumulated provision for amortization of nuclear fuel. The costs amortized to fuel expense (which assume no salvage values for uranium or plutonium) include an amount for estimated future storage and are being recovered through the fuel adjustment clause. Interim storage space for spent nuclear fuel is provided at the Kewaunee plant, and expenses associated with this storage are recognized as current operating costs.

The company has a wholly owned subsidiary which engages in various mining operations relating to procuring a reliable supply of uranium for the Kewaunee plant. The investment in this subsidiary ($5,491,000 and $4,031,000 at December 31, 1978 and 1977, respectively) is carried on the equity basis of accounting. The uranium obtained through this subsidiary is carried at cost, including the operation costs of the subsidiary.

(d) Income Taxes — (1) Depreciation for federal and state income taxes reflects the use of liberalized depreciation, and the estimated reductions in income taxes due to the use of this practice are provided as additional depreciation as discussed under "Depreciation" above. (2) Investment credits are being deferred and applied as a reduction of federal income tax expense over the estimated service lives of the related property. The net investment credit deferral amounts reflect the company's utilization of the 10% investment credit provided by the Tax Reduction Act of 1975 and an additional 1½% (1% for 1977) credit resulting from the establishment of a Tax Reduction Act Stock Ownership Plan and Trust (TRASOP) for its employees. (3) Certain capitalized indirect costs explained under "Utility Plant" above have been deducted as incurred for income tax purposes. The tax benefit of these items reduces income tax expense in the year the costs are incurred. (4) The effective income tax rates of 53.7% in 1978 and 54.0% in 1977 are computed by dividing total income tax expense, including net investment credit deferral and additional depreciation, as discussed under "Depreciation" above, by the sum of such expense and net income.

	1978		1977	
	AMOUNT	RATE	AMOUNT	RATE
	(thousands)		(thousands)	
Effective income tax	$37,203	53.7%	$36,014	54.0%
Allowance for funds used during construction not constituting current taxable income	—	—	496	.7
State income taxes and state additional depreciation, net	(2,843)	(4.1)	(2,814)	(4.2)
Other differences, net	(1,083)	(1.6)	(1,656)	(2.5)
Statutory federal income tax	$33,277	48.0%	$32,040	48.0%

(e) Retirement Plans — The company has employees' non-contributory retirement plans under which annual contributions are made to an irrevocable trust established to provide retired employees with a monthly payment if conditions relating to age and length of service have been met. It is the company's policy to fund retirement contributions to meet current costs of the plans and amortize the unfunded prior service costs over approximately 10 years. Retirement plan costs were $5,671,000 in 1978 and $4,863,000 in 1977. The December 31, 1978 market value of fund assets ($51,620,000) exceeded the actuarially computed value of vested benefits as of December 31, 1977 (the date of the latest actuarial valuation) by approximately $3,941,000. The unfunded prior service costs at December 31, 1978 were approximately $5,561,000.

(f) Earnings Per Share — Earnings per share of common stock are computed on the basis of the weighted average number of shares outstanding (10,785,142 and 10,760,366 shares for 1978 and 1977, respectively).

(g) Revenue — For years prior to 1977, the company recorded revenues at the time that monthly bills were rendered to customers. This method of recognizing revenues was reflective of the ratemaking processes under which the PSCW determined service rates. However, in a January 1977 rate order, the company was directed to record unbilled revenues at the end of each accounting period. Accordingly, effective January 1, 1977, the company began accruing revenues related to electric and gas service as rendered. This order also provided that the estimated amount of unbilled revenues as of January 1, 1977 was to be recorded as a deferred credit and amortized to income at a rate of $948,000 per year with appropriate ratemaking recognition. In December 1978, the company received an order from the PSCW allowing amortization of the remaining amount of original unbilled revenues ($13,917,000 at December 31, 1978, net of tax) to income, for book and ratemaking purposes, over the next eight years.

Effective in early 1978, the company resumed connecting new residential and small commercial and industrial gas customers to its system.

(h) Research, Development and Environmental Costs — These costs are normally charged to the appropriate operating expense on a current basis. However, such costs which are related to a construction project are capitalized as part of the cost of utility plant. Total costs were $1,717,000 and $1,496,000 for the years 1978 and 1977, respectively, of which approximately $351,000 and $286,000, respectively, were charged to construction.

(i) Property Additions, Maintenance and Retirements — The cost of renewals and betterments of units of property (as distinguished from minor items of property) is charged to utility plant accounts. The cost of units of property retired, sold or otherwise disposed of, plus removal costs, less salvage, is charged to accumulated provision for depreciation. No profit or loss is recognized in connection with ordinary retirements of property units. Maintenance and repair costs and replacement and renewal of items less than units of property are charged to operating expenses.

(2) JOINTLY-OWNED FACILITIES AND CONSTRUCTION COMMITMENTS:

Information with respect to the company's share of certain jointly-owned electric generating facilities in service at December 31, 1978 is as follows:

	Plants (thousands)		
	Columbia Energy Center	Edgewater Unit No. 4	Kewaunee
Ownership percentage	31.8%	31.8%	41.2%
Utility plant in service	$97,140	$14,542	$86,416
Accumulated provision for depreciation	$14,423	$ 5,591	$29,138
Construction in progress	$ 708	$ 8	$ 925

The company's share of direct expenses for these plants is included in the corresponding operating expenses in the income statements and the company supplies its own financing for all jointly-owned projects.

Information with respect to major construction projects in progress (including jointly-owned plants) is as follows:

		Construction in Progress — December 31 (thousands)	
Project	Capacity Ownership	1978	1977
Columbia Unit No. 2 (coal)	24.7%	—	$35,585
Koshkonong (nuclear)	16.0%	(a)	(a)
Haven (nuclear)	18.4%	$ 1,531	$ 450
Weston Unit No. 3 (coal)	100.0%	$17,478	$ 6,500

(a) See information below regarding the interim transfer of this project's expenditures to a deferred charge as of December 31, 1977.

The company has received a certificate of authority from the PSCW to construct the 300 megawatt Weston Unit No. 3.

In July 1977 the company and three other Wisconsin utilities withdrew their joint application for a certificate of authority to construct two 900 megawatt nuclear power plant units at Lake Koshkonong, Wisconsin. This action was primarily attributable to a notice given the joint applicants by the Wisconsin Department of Natural Resources that, in its opinion, the Koshkonong site was environmentally unacceptable because of water related concerns. The company and two of the

joint applicants filed an application in 1978 for a certificate of authority to construct a similar design nuclear plant with a single 900 megawatt unit at an alternative site near Haven, Wisconsin. The proposed unit at the Haven site is presently scheduled for completion in 1987. The company also agreed to increase its interest in the project from 16.0% to 18.4%. The PSCW had noted in a 1974 hearing related to the Koshkonong application that expenditures and commitments made by the joint applicants prior to approval of the project by regulatory authorities would be made at the risk of the applicants and that any losses incurred if the project were not approved, if found to be the result of imprudent or unreasonable expenditures, would not be allowed as an operating expense or included in rate base. Accordingly, precertification expenditures were limited to those necessary to secure requisite regulatory approvals, maintain the existing enrichment services agreements with the Energy Research and Development Administration and assure procurement of a reliable supply of natural uranium. Actual Koshkonong and Haven expenditures as of December 31, 1977, consisted primarily of engineering, design and site selection; no construction had begun. As of December 31, 1977, the company was directed by the PSCW to reclassify all Koshkonong expenditures (the company's share being approximately $5,700,000 which includes nuclear fuel expenditures) from construction in progress to a deferred charge pending further order or direction of the PSCW. The PSCW staff found that all expenditures were prudent and reasonable and have either been related to the securing of regulatory approval or resulted from necessary requirements for the project. In an open meeting held in January 1979, the PSCW declared it was preparing an order which would transfer about $4,500,000 to Haven and would require a write-off of the balance in the amount of $1,200,000 relating to site selection and the proposed second unit. A final order has not been received and the company's future action, if any, in this matter has not been determined. No recognition has been given in 1978 by the company to any potential write-off, since the amounts involved would not be significant to the accompanying financial statements.

Utility plant construction expenditures for 1979, which include substantial commitments for joint power facilities, are estimated to be about $90,000,000.

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(3) COMMERCIAL PAPER AND LINES OF CREDIT: The company borrows funds on a short-term basis as needed to finance its construction program. These funds are borrowed at the current commercial paper or bank prime rates. To support outstanding commercial paper, the company has arranged for bank lines of credit and is required to maintain deposits to support these lines of credit. There are no legal restrictions as to withdrawal of these funds which also serve to reimburse the banks for other services which they provide the company. Substantially all cash at December 31, 1978 and 1977 represented compensating balances for credit lines and bank services. In accordance with banking practice, these lines are normally reviewed annually and may be withdrawn at the discretion of the lenders.

The following information relates to commercial paper and lines of credit for the years indicated:

	1978	1977
	(thousands)	
As of end of year —		
Discount rate on outstanding commercial paper	10.1% to 10.5%	6.5% to 6.9%
Unused lines of credit	$34,340	$32,112
Compensating balance requirements	$ 2,490	$ 2,633
For the year ended —		
Maximum amount of borrowings	$10,035	$ 9,305
Average amount of borrowings	$ 4,564	$ 1,859
Weighted average interest rate on borrowings	8.2%	6.3%

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(4) PREFERRED STOCK: The Preferred Stock is subject to redemption in whole or in part at the company's option on any date, on 30 days' notice, at the following prices per share, plus accrued dividends: 5.00% Series, $107.50; 5.04% Series, $102.81; 5.08% Series, $101.00; 6.76% Series, $105.04 if redeemed prior to November 1, 1983, and thereafter at $103.35; 7.72% Series, $106.00 if redeemed prior to November

Notes To Financial Statements

1, 1982, $103.00 if redeemed on or after November 1, 1982, and prior to November 1, 1985, and thereafter at $101.00; 10.50% Series, $115.00 if redeemed prior to November 1, 1984 (subject until November 1, 1979 to limitations on refunding at a cost of money lower than 10.62% per annum), $106.00 if redeemed on or after November 1, 1984 and prior to November 1, 1989, and thereafter at $101.00.

The 10.50% Series Preferred Stock has a 5% annual sinking fund requirement, at a price of $100 per share plus accrued dividends, beginning November 1, 1979.

(5) FIRST MORTGAGE BONDS: Sinking fund requirements on First Mortgage Bonds may be satisfied by the deposit of cash or reacquired bonds with the trustee. For certain series, the requirements may also be satisfied by the application of net expenditures for bondable property in an amount equal to 166⅔% of the annual requirements. Sinking fund and maturity requirements on long-term debt outstanding as of December 31, 1978 are: $3,951,000 in 1979, including the payment at maturity of $2,366,000 of bonds of the 2⅞% Series due in 1979, $4,355,000 in 1980, including the payment at maturity of $2,380,000 of bonds of the 2⅞% Series due in 1980 and $1,975,000 in each of the years 1981 through 1983. As of December 31, 1978, the company had satisfied all of its sinking fund requirements due in 1979 and $1,462,000 of those due in 1980.

In February 1977, $45,000,000 of First Mortgage Bonds, 8.20% Series due February 1, 2012 were issued. In March 1977, the proceeds of the sale were used to refund $45,000,000 First Mortgage Bonds, 9¼% Series due 2000. Under accounting prescribed by the PSCW, the redemption premiums and expenses related to the bonds redeemed were recorded as a deferred charge net of tax and are being amortized to interest expense over approximately eight years.

(6) COMMON STOCK: During 1978 and 1977 increases in outstanding Common Stock, $8 par value, were as follows:

	Date	Number of Shares	Common Stock	Premium on Capital Stock
(a)	February 28, 1977	4,317	$ 34,536	$ 35,270
(a)	May 31, 1977	3,860	30,880	31,536
(a)	August 31, 1977	2,579	20,632	21,071
(b)	October 17, 1977	16,520	132,160	203,922
(b)	October 16, 1978	36,568	292,544	447,263

(a) Employee Installment Purchase Plan offer
(b) Tax Reduction Act Stock Ownership Plan and Trust (TRASOP)

(7) REPLACEMENT COST INFORMATION (Unaudited): The effect of inflation is that over an extended period, the cost of replacing long-lived productive assets exceeds the original cost of these facilities. The company's Annual Report on Form 10-K will include certain information, prepared in accordance with rules promulgated by the Securities and Exchange Commission, regarding the costs of replacing utility plant and the approximate effect of such costs on depreciation expense. The estimated replacement costs do not reflect the basis upon which rates are determined since under the current rate-making process, capital recovery and return are limited to amounts based on historical (original) costs.

(8) QUARTERLY FINANCIAL INFORMATION (Unaudited):

	Three Months Ended (thousands except for per share data) 1978			
	Mar.	June	Sept.	Dec.
Operating revenues	$94,045	$72,425	$73,211	$92,252
Net income	$ 8,084	$ 5,902	$ 9,096	$ 9,042
Earnings on common stock	$ 6,881	$ 4,699	$ 7,894	$ 7,838
Average number of shares of common stock outstanding	10,777	10,777	10,777	10,808
Earnings per average share of common stock	$ .64	$ .44	$ .74	$ .71

	Three Months Ended (thousands except for per share data) 1977			
	Mar.	June	Sept.	Dec.
Operating revenues	$86,414	$63,821	$65,353	$82,541
Net income	$ 6,192	$ 6,320	$ 8,161	$10,063
Earnings on common stock	$ 4,989	$ 5,117	$ 6,958	$ 8,860
Average number of shares of common stock outstanding	10,752	10,756	10,759	10,775
Earnings per average share of common stock	$ .46	$ .48	$ .65	$ .82

Because of various factors which affect the utility business, the quarterly results of operations are not necessarily comparable.

(9) SEGMENTS OF BUSINESS: The following table presents information pertaining to the company's operations segmented by lines of business. The company is a regulated public utility and such information does not fully reflect the rate-making treatment allowed by regulatory agencies.

	Year Ended December 31 (thousands)					
	1978			1977		
	Electric	Gas	Total	Electric	Gas	Total
Operating revenues	$217,576	$114,357	$331,933	$200,023	$98,106	$298,129
Operating expenses—						
Operation and maintenance	110,089	99,219	209,308	99,026	83,133	182,159
Straight-line depreciation	21,521	4,086	25,607	19,637	3,932	23,569
Property and other taxes	11,081	2,221	13,302	10,947	2,361	13,308
	142,691	105,526	248,217	129,610	89,426	219,036
Operating income before income taxes and additional depreciation (a)	74,885	8,831	83,716	70,413	8,680	79,093
Total allowance for funds used during construction	—	—	—	1,033	—	1,033
Provisions for income taxes and additional depreciation (a)	33,681	3,545	37,226	32,022	3,546	35,568
Operating income including allowance for funds used during construction	$ 41,204	$ 5,286	46,490	$ 39,424	$ 5,134	44,558
Other income and (deductions), net			330			869
Interest expense			14,696			14,691
Net income per statements of income			$ 32,124			$ 30,736
Identifiable assets at December 31 (b)	$476,352	$ 84,819	$561,171	$456,242	$82,414	$538,656
Assets not allocated (c)			7,965			8,936
Total assets at December 31			$569,136			$547,592
Other information —						
Construction and nuclear fuel expenditures	$ 51,236	$ 5,393	$ 56,629	$ 51,197	$ 4,565	$ 55,762

(a) See Note 1(b) for information with respect to amounts recorded as additional depreciation representing the estimated reduction in income taxes due to using liberalized depreciation for income tax purposes.

(b) Net of the respective accumulated provisions for depreciation.

(c) Primarily includes cash, non-utility property and other receivables.

Management's Analysis Of The Statements Of Income

1976 Compared to 1977

Operating Revenues

Electric Operating Revenues increased $17,553,000 or 8.8% over 1977 due primarily to increased consumption as a result of more customers and a higher average price per kilowatt-hour due to the company's fuel adjustment clause.

Gas Operating Revenues increased $16,251,000 or 16.6% over 1977 primarily as a result of increased consumption due to more heating degree days and more customers and a higher average price per therm due to the company's purchased gas adjustment clause.

Operating Expenses

Operating Expenses increased $30,839,000 or 12.1% over 1977. This change was primarily the result of increases of (a) $15,498,000 or 21% in Gas Purchased for Resale due to more MCF's purchased and increased prices from the company's gas supplier, (b) $8,479,000 or 15.3% in Electric Production Fuels due to the increased cost of steam generation as a result of higher fuel costs and more generation in 1978 to meet increased consumption, (c) $4,221,000 or 12.6% in Other Operation Expenses due to increased electric distribution operation costs, pension costs and payroll costs, (d) $2,131,000 or 31.6% in Additional Depreciation as a result of additional tax depreciation claimed on Columbia Unit No. 2 which was placed in service in 1978, higher repair allowance, and additional tax depreciation on new higher cost nuclear fuel, and (e) $2,060,000 or 63.8% in Investment Credit Deferral, Net due to the addition of Columbia Unit No. 2 in 1978 and also as a result of claiming an additional 1/2% investment tax credit for the company's 1978 TRASOP contribution. The increase in Operating Expenses was partially offset by decreases of (a) $2,417,000 or 11.2% in Federal Income Taxes as a result of claiming more investment tax credit and higher additional depreciation in 1978, and (b) $1,499,000 or 54.7% in Purchased Power and (Capacity Sold), Net primarily due to the addition of Columbia Unit No. 2 in 1978.

1977 Compared to 1976

Operating Revenues

Electric Operating Revenues increased $18,441,000 or 10.2% over 1976 after recording a positive $1,078,000 of unbilled revenues in 1977. No unbilled revenues were recorded in 1976. A higher average price per kilowatt-hour due to a rate increase and increased consumption due to normal growth accounted for the change.

Gas Operating Revenues increased $9,642,000 or 10.9% over 1976 after recording a negative $853,000 of unbilled revenues in 1977. No unbilled revenues were recorded in 1976. A higher average price per therm primarily due to rate increases from the company's gas supplier, partially offset by decreased consumption due to fewer heating degree days and fewer gas customers, primarily accounted for the increase.

Operating Expenses

Operating Expenses increased $27,093,000 or 11.9% over 1976. This change was primarily the result of increases of (a) $10,638,000 in Gas Purchased for Resale due to higher prices per MCF partially offset by fewer MCF's purchased, (b) $5,917,000 in Federal and State Income Tax Expense primarily due to a higher pre-tax income, (c) $4,786,000 in Purchased Power and (Capacity Sold), Net due to more purchases at a higher price as a result of scheduled and unscheduled downtime at some generating stations, (d) $1,739,000 of Maintenance Expense as a result of work performed at the Weston plant, the peaking plants, and storm damage in the company's northern district during 1977, and (e) $3,348,000 for Other Operation Expenses due to higher pension, payroll, and insurance costs and increased customer service expenses. The increase in Operating Expenses was partially offset by decreases of (a) $4,177,000 in Additional Depreciation because the 1976 amount includes adjustments for the repair allowance and a change to the Class Life System for depreciating pre-1971 property, while 1977 Additional Depreciation was lower due to less tax savings being taken on nuclear fuel and (b) $1,135,000 in Investment Credit Deferral, Net primarily because the 1976 amount includes an adjustment for investment credit taken on the Columbia plant.

Interest Expense

In 1977 the company began recording allowance for funds used during construction because the conditions of "Note 1" in "Notes to Financial Statements" were met. As a result, there is a $593,000 reduction in the Interest Expense section of the Income Statement.

Financial Statistics

Statements Of Income (Thousands)

	1978	1977	1976	1975	1974	1973	1968
Operating Revenues:							
Electric	$217,576	$200,023	$181,581	$151,442	$120,761	$ 99,825	$52,822
Gas	114,357	98,106	88,464	68,504	52,968	46,597	26,691
	331,933	298,129	270,045	219,946	173,729	146,422	79,513
Operating Expenses:							
Operation —							
Electric production fuels	63,881	55,402	51,518	43,198	37,064	25,654	10,891
Gas purchased for resale	89,360	73,862	63,224	45,305	33,120	29,528	14,862
Purchased power, net	1,241	2,740	(2,046)	167	4,541	4,341	946
Other	37,648	33,427	30,079	26,818	22,009	20,467	13,013
Maintenance	17,178	16,728	14,989	12,174	10,377	8,689	5,133
Depreciation —							
Straight-line provision	25,607	23,569	22,681	18,269	14,975	11,456	6,908
Additional depreciation	8,868	6,737	10,914	7,090	8,300	7,565	1,506
Taxes —							
Current federal income	19,169	21,586	16,837	11,391	3,370	(356)	6,210
Investment credit deferral, net	5,291	3,231	4,366	4,258	773	4,045	—
Current state income	3,898	4,014	2,846	2,070	(755)	(553)	995
Property and other	13,302	13,308	12,103	11,066	10,238	10,109	6,093
	285,443	254,604	227,511	181,806	144,012	120,945	66,557
Operating Income	46,490	43,525	42,534	38,140	29,717	25,477	12,956
Other Income and (Deductions):							
Gains on bonds reacquired	333	438	396	500	471	1	163
AFUDC, other funds*	—	440	—	—	5,143	6,253	796
Other, net	(3)	431	(28)	(74)	131	192	247
	330	1,309	368	426	5,745	6,446	1,206
Income Before Interest Expense	46,820	44,834	42,902	38,566	35,462	31,923	14,162
Interest Expense:							
Interest on bonds	14,290	14,484	14,522	13,811	13,778	12,382	4,464
AFUDC, borrowed funds*	—	(593)	—	—	—	—	—
Other interest	406	207	426	1,302	2,467	1,301	251
	14,696	14,098	14,948	15,113	16,245	13,683	4,715
Net Income	32,124	30,736	27,954	23,453	19,217	18,240	9,447
Preferred Stock Dividend Requirements	4,812	4,812	4,812	4,784	3,286	3,237	1,276
Earnings On Common Stock	$ 27,312	$ 25,924	$ 23,142	$ 18,669	$ 15,931	$ 15,003	$ 8,171
INCOME STATISTICS							
Common Stock:							
Shares outstanding, Dec. 31	10,813,996	10,777,428	10,750,152	9,589,734	9,589,734	8,589,734	5,589,734
Shares outstanding, Avg.	10,785,142	10,760,366	10,355,691	9,589,734	9,050,008	8,084,255	5,589,734
Earnings per share†	$2.53	$2.41	$2.23	$1.95	$1.76	$1.86	$1.46
Dividends paid per share	$1.58	$1.50	$1.42	$1.35	$1.28	$1.22	$1.06
Times Interest Earned:							
Before income taxes	5.72	5.51	5.21	4.19	2.90	3.12	4.85
After income taxes	3.19	3.09	2.87	2.55	2.18	2.33	3.00
Times Interest and Preferred Dividends Earned	2.40	2.33	2.17	1.94	1.82	1.89	2.36

*Allowance for funds used during construction (AFUDC) is split between debt and equity portions beginning in 1977.
†Based on weighted average shares outstanding.

Financial Statistics

Balance Sheets (Thousands)

	1978	1977	1976	1975	1974	1973	1968
Assets							
Utility Plant:							
Electric	$617,966	$578,347	$543,468	$513,304	$482,852	$437,647	$242,451
Gas	98,813	94,905	92,367	89,153	85,587	81,482	57,416
Bus	—	—	—	—	—	—	556
	716,779	673,252	635,835	602,457	568,439	519,129	300,423
Less — Accumulated depreciation	257,420	226,699	199,519	170,427	150,447	133,157	86,917
	459,359	446,553	436,316	432,030	417,992	385,972	213,506
Nuclear fuel, net	14,918	14,048	13,215	9,998	5,865	7,890	—
Net utility plant	474,277	460,601	449,531	442,028	423,857	393,862	213,506
Investments	11,884	10,609	5,559	5,325	5,354	5,193	4,719
Current assets	74,544	67,913	67,891	53,654	40,260	29,526	20,129
Deferred charges	8,431	8,469	1,337	1,713	2,775	3,158	407
Total assets	$569,136	$547,592	$524,318	$502,720	$472,246	$431,739	$238,761
Capitalization and Liabilities							
Common stock and premium	$125,873	$125,134	$124,624	$105,163	$105,163	$ 93,638	$ 44,797
Earnings reinvested in the business	81,679	71,450	61,734	54,245	48,347	44,395	29,302
Preferred stock	65,450	66,200	66,200	66,200	66,200	51,200	36,200
First mortgage bonds	194,440	197,765	201,688	205,746	196,584	197,996	105,681
Total capitalization	467,442	460,549	454,246	431,354	416,294	387,229	215,980
Notes payable to banks and commercial paper	8,700	8,800	—	20,900	26,500	15,700	11,400
Bond sinking fund requirements	—	—	57	—	102	164	41
Preferred stock sinking fund requirements	750	—	—	—	—	—	—
Other liabilities and credits	92,244	78,243	70,015	50,466	29,350	28,646	11,340
Total capitalization and liabilities	$569,136	$547,592	$524,318	$502,720	$472,246	$431,739	$238,761
Book Value Per Share, Dec. 31	$19.19	$18.24	$17.34	$16.62	$16.01	$16.07	$13.26
Return On Average Equity	13.7%	13.8%	13.1%	12.0%	10.9%	11.7%	11.2%
Capitalization Ratios							
Common stock and premium	26.9	27.2	27.4	24.4	25.3	24.2	20.7
Earnings reinvested in the business	17.5	15.5	13.6	12.6	11.6	11.5	13.6
Preferred stock	14.0	14.4	14.6	15.3	15.9	13.2	16.8
Bonds	41.6	42.9	44.4	47.7	47.2	51.1	48.9
Percent Debt to Net Utility Plant	41.0	42.9	44.9	46.5	46.4	50.3	49.5
Average Bond Rate	6.9	6.9	7.1	7.0	6.9	6.9	4.4
Average Preferred Stock Rate	7.3	7.3	7.3	7.3	7.3	6.3	5.7
Shareholders							
Common stock	38,412	38,949	40,041	38,574	39,250	35,860	22,351
Preferred stock	8,790	9,002	9,207	9,309	8,974	8,704	8,331
Number of Employees, Dec. 31	1,837	1,801	1,785	1,816	1,865	1,919	1,790

Operating Statistics

Electric Operations

	1978	1977	1976	1975	1974	1973	1968
Operating Revenues (thousands):							
Residential	$ 76,254	$ 69,994	$ 64,621	$ 56,157	$ 43,489	$ 37,284	$ 20,483
Commercial and industrial	112,716	102,256	93,067	80,324	66,651	55,427	27,649
All other	28,606	27,773	23,893	14,961	10,621	7,114	4,690
Total electric revenues	$217,576	$200,023	$181,581	$151,442	$120,761	$ 99,825	$ 52,822
Kwh Sales (thousands)	6,124,585	5,833,370	5,648,695	4,898,487	4,776,302	4,530,259	3,353,425
Number of Customers, Dec. 31:							
Residential	242,904	235,400	227,906	221,145	215,172	209,245	180,180
Commercial and industrial	25,387	24,907	24,656	24,389	24,287	24,035	22,995
All other	960	936	908	884	876	862	456
Total electric customers	269,251	261,243	253,470	246,418	240,335	234,142	203,631
Annual Average Use (Kwh):							
Residential	6,951	6,864	6,658	6,446	6,265	6,253	5,118
Commercial and industrial	134,490	130,102	125,635	115,771	117,840	116,073	85,731
Average Kwh Price (cents):							
Residential	4.52	4.33	4.26	3.94	3.23	2.85	2.22
Commercial and industrial	3.30	3.16	3.00	2.84	2.33	1.99	1.40
Production Data:							
System Capacity (Kw):							
Steam	967,640	837,440	837,440	837,440	632,440	632,440	537,500
Nuclear	221,000	221,000	221,000	221,000	221,000	—	—
Hydraulic	62,156	62,156	62,156	62,156	62,156	62,156	62,516
Combustion turbine	156,200	156,200	156,200	156,200	156,200	156,200	—
Diesel	4,000	4,000	4,000	4,000	7,000	7,000	7,000
Total	1,410,996	1,280,796	1,280,796	1,280,796	1,078,796	857,796	607,016
One-third interest in Wisconsin River Power Company	11,667	11,667	11,667	11,667	11,667	11,667	11,667
Total system capacity	1,422,663	1,292,463	1,292,463	1,292,463	1,090,463	869,463	618,683
Generation and Purchases (thousands of Kwh):							
Steam	4,348,475	4,164,132	4,203,975	3,431,616	3,600,419	4,024,337	3,081,315
Nuclear	1,606,997	1,462,607	1,392,660	1,376,927	658,296	—	—
Hydraulic	317,830	227,676	252,768	259,335	301,066	377,408	351,543
Purchases — Wisconsin River Power Company	79,960	49,661	53,223	64,864	62,952	77,797	75,237
Other generation and purchases	276,137	351,029	221,123	224,661	612,499	429,990	135,405
Total	6,629,399	6,255,105	6,123,749	5,357,403	5,235,232	4,909,532	3,643,500
System Peak — firm load (Kw)	1,053,100	1,007,000	935,000	866,000	842,000	824,000	582,000
Annual load factor	69.10%	65.86%	66.93%	66.54%	67.54%	66.39%	66.98%

Gas Operations

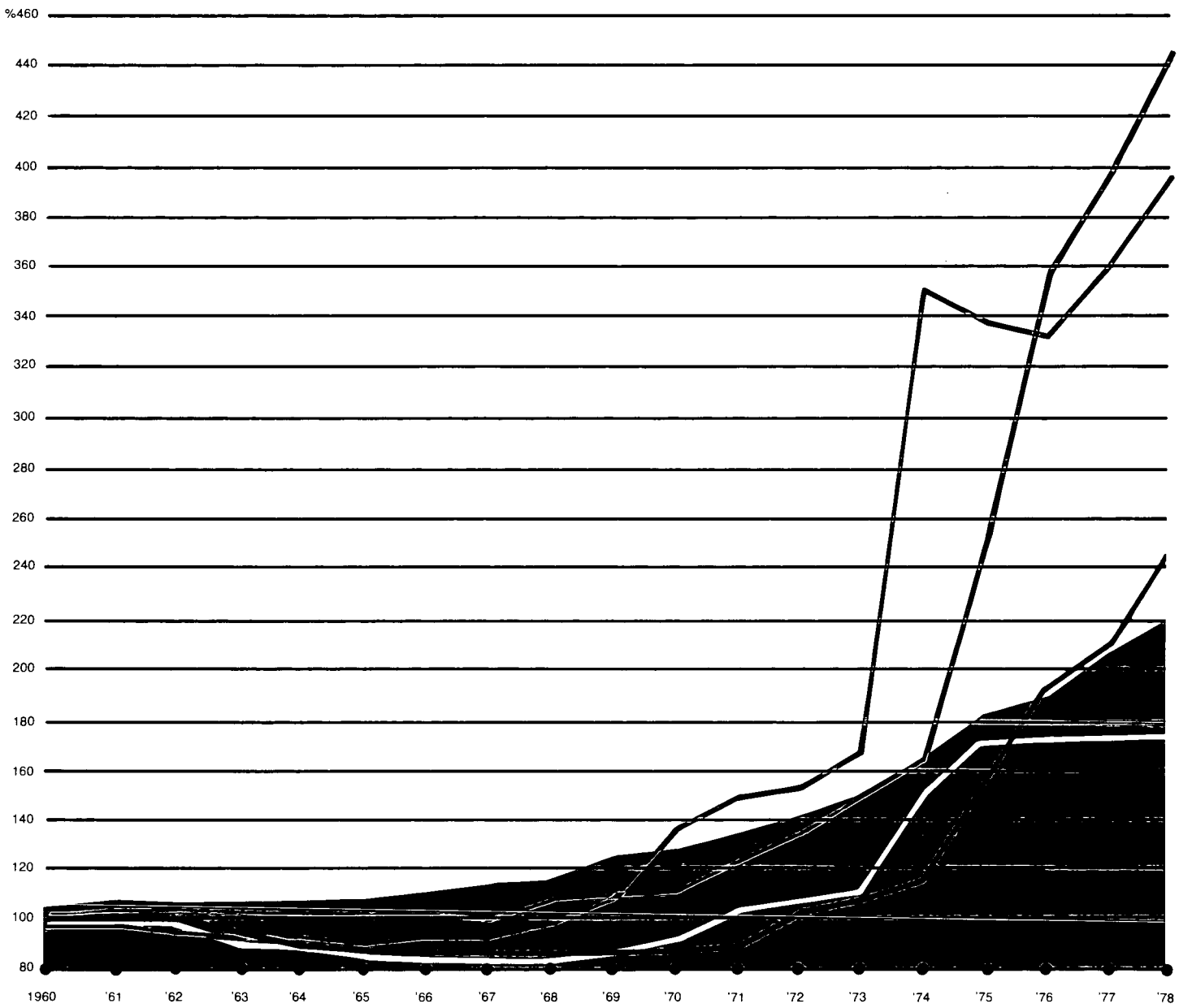
Operating Revenues (thousands):							
Residential	$ 45,386	$ 40,685	$ 37,232	$ 27,953	$ 23,178	$ 20,900	$ 13,910
Commercial and industrial	68,230	56,709	50,968	40,333	29,653	25,590	12,735
All other	741	712	264	218	137	107	46
Total gas revenues	$114,357	$ 98,106	$ 88,464	$ 68,504	$ 52,968	$ 46,597	$ 26,691
Therm Sales (thousands)	522,131	484,963	544,049	540,051	551,374	520,206	361,201
Number of Customers, Dec. 31:							
Space heating	126,750	123,402	123,160	122,250	117,892	112,444	81,758
All other	15,352	15,743	16,300	16,684	17,988	19,450	27,471
Total gas customers	142,102	139,145	139,460	138,934	135,880	131,894	109,229

Prices Are Up

Utility operations are highly visible. Prices for services are set at public hearings that are well publicized. Consequently, utility rates have become the focal point for criticism during this period of high inflation. The prices of most of our daily living needs have risen much faster than the price of electricity or gas, but are not subject to public hearings.

Electric and gas bills have been increasing since 1970 primarily due to factors over which the company has little or no control. Fuel for generation of electricity and wholesale purchases of natural gas are our largest expenses. In spite of the higher prices we are paying for these items, the graph below shows how closely our prices for electric and gas service match overall prices in the Consumer Price Index.

On the other hand, most wages and social security payments have risen faster than our prices so that utility bills today require a smaller portion of income than in years past. In other words, the percentage of one's income that goes to pay the electric and gas bill is less than it was in the days before we began experiencing the effects of rapidly increasing inflation.



Electric Fuel Cost/Million Btu
Monthly Electric Bill — 400 KWH
Cost of Purchased Gas/Cubic Foot
Monthly Gas Bill — 300 Therms
Consumer Price Index

A typical residential electric bill using 400 KWH, which was the average use in 1960, has risen less than the Consumer Price Index. Despite the fact that the wholesale cost of natural gas has risen 340% and constitutes 70% of our expenses of furnishing gas service, the typical bill has exceeded the Consumer Price Index for each of the last three years by 10% or less.

Electrical Energy For Today And Tomorrow

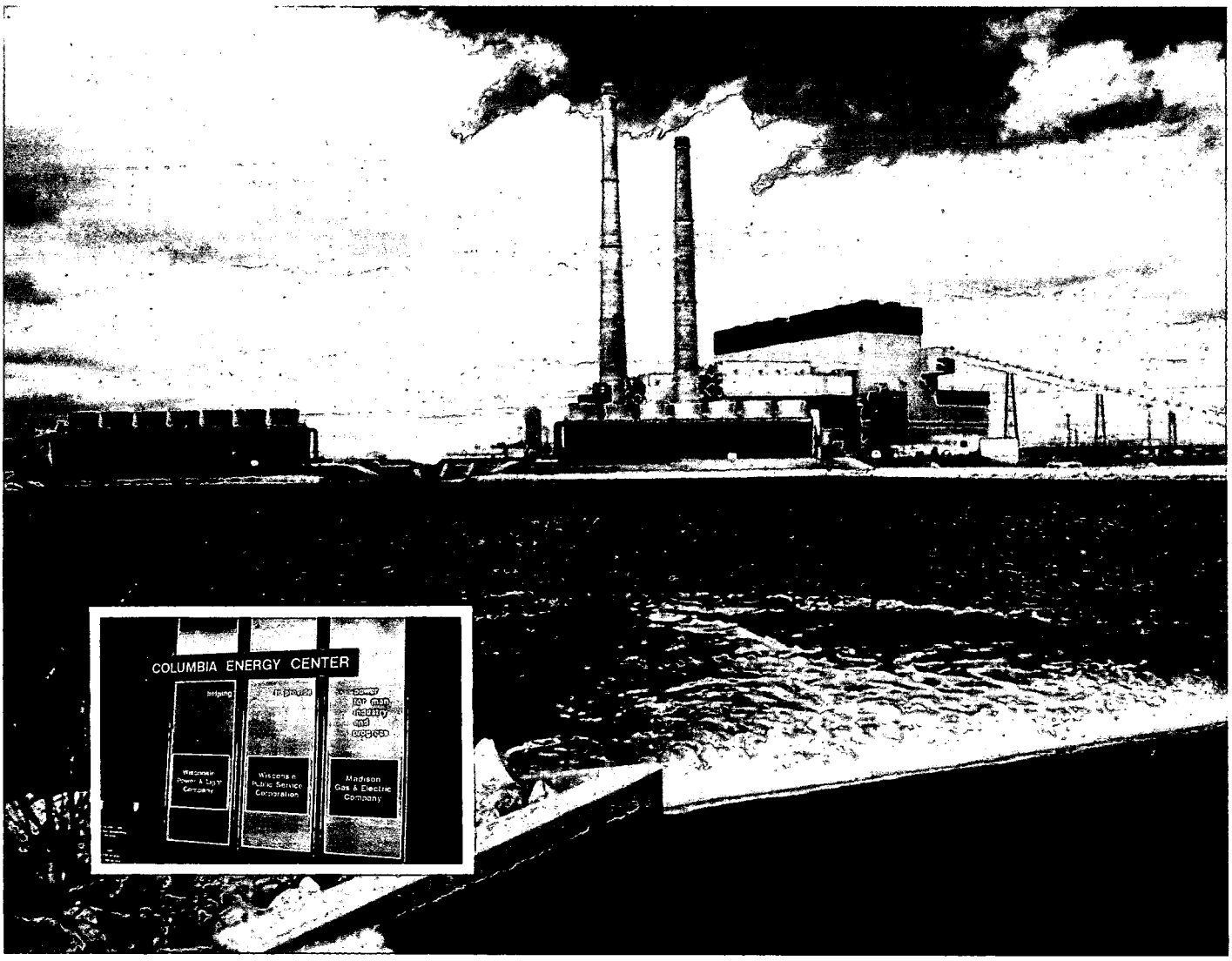
Nearly 100 years ago, Thomas Alva Edison, the holder of 1,100 patents and the man who conceived the idea of centralized electric utility systems, talked about his achievements: "Remember," said Edison, "nothing good works by itself, just to please you; you've got to make the darn thing work."

Today, the people at Wisconsin Public Service still subscribe to Edison's advice. We are pledged to make things work even though our efforts to supply a growing demand for electric energy are beset by problems including delays caused by special interest groups, restrictive administrative and environmental regulations, high interest rates and by severe inflation caused mainly by government fiscal and monetary policies.

Through long and careful study, we project that demand for electricity is growing and will continue to grow, faster than the state average, in our service area. We know that it is no longer wise to rely on oil and gas for generation fuel to meet Wisconsin's growing needs. So we've adopted a "balanced fuels strategy" which makes use of more abundant coal and uranium as fuel sources to generate all but a small percentage of our customers' electric needs.

That's why we own a 24.7% share of Columbia Unit No. 2. That's why we broke ground in 1978 for Weston Unit No. 3. And that's why we are committed to an 18.4% share of Haven Unit No. 1, a 900-megawatt nuclear unit in Sheboygan County, scheduled to begin commercial operation in 1987.

Like Edison, we know that nothing good works by itself, just to please us — we've got to *make* things work.



(Inset) Columbia Energy Center entrance lists the three joint owners of the facility.

The second 527,000 kilowatt generating unit at the Columbia Energy Center went into service in April. The cost of the plant addition is $155 million. The combined output of both units is over one million kilowatts, representing a total investment of $300 million.

Company's Cooperation Helps Protect An Endangered Species

A cooperative project with the Wisconsin Department of Natural Resources (DNR), area environmental groups, Wisconsin Public Service Corporation and several of its employees, to reconstruct nesting habitat for the double-crested cormorant, has helped to substantially increase its numbers. The bird is an endangered species in Wisconsin.

Over the years, a decline in the availability of suitable nesting habitat had reduced the state's breeding population to approximately 600 birds from about 2,000. The lower Green Bay colony, which numbers about 100, traditionally nested in dead trees on an islet off the mouth of the Fox River.

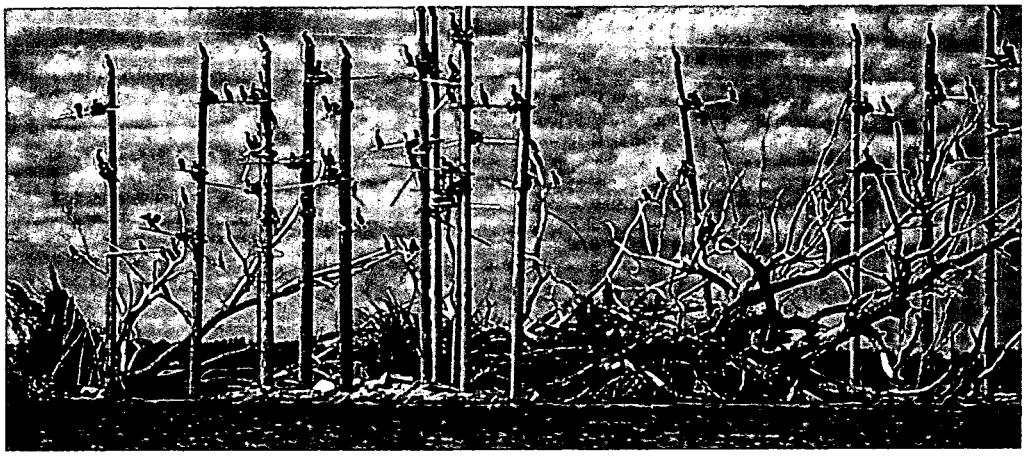
In the spring of 1977, the birds' natural nesting trees were uprooted by shifting ice and blown down in high winds. Most of that year's crop of nestlings had been killed. DNR personnel feared that if new nesting structures were not available when the cormorants returned for the 1978 season, they would either refuse to nest or choose a less suitable site nearby where predators might decimate the colony.

Since artificial nesting platforms, constructed of used utility poles, had proven suitable in a test conducted in another part of the state, DNR game managers proposed to try the idea here.

One windy, sub-zero Saturday in March, the volunteers assembled on the ice and using equipment loaned by the company and operated by Green Bay linemen who had donated their time, they set 15 utility poles each of which supported three artificial nesting platforms.

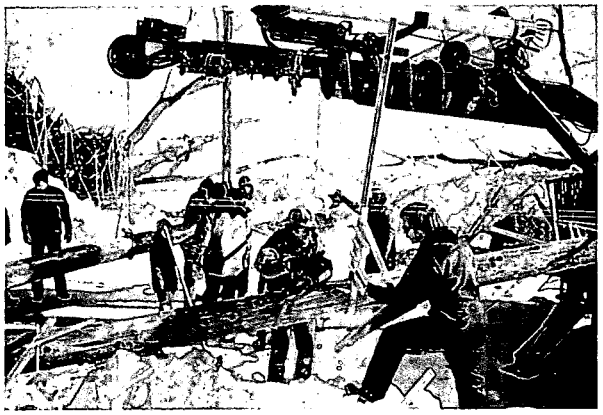
The cormorants readily accepted the man-made structures and DNR observers estimate that the colony hatched and raised between 90 and 135 young birds in the 1978 season, doubling its numbers.

Anthony S. Earl, secretary of the Wisconsin DNR, in letters to President Ziemer and to the company employees who were involved noted: "The Green Bay cormorant project is a success, and your contribution to that success is much appreciated."



By mid-summer 1978 it was apparent that the cooperative Green Bay cormorant project was a success. The birds were using most of the 45 artificial nesting platforms.

On a polar-bear Saturday in March, Green Bay linemen donated their time to set the utility pole nesting structures through 3-feet of ice.



The company loaned the equipment that helped volunteers make short work of reconstructing the cormorants' nesting habitat.

Wisconsin Public Service Corporation
700 North Adams Street
Green Bay, Wisconsin 54305

Public Service

Madison Gas and Electric Company 1978 Annual Report

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The Year At A Glance

	1978	1977	Percent increase (decrease) 1978-1977
Operating revenues	**$124,979,000**	$104,396,000	19.7
Operating expenses	**$103,590,000**	$ 84,621,000	22.4
Net income	**$ 13,359,000**	$ 12,771,000	4.6
Earnings on common stock	**$ 10,558,000**	$ 10,158,000	3.9
Earnings per common share outstanding*	**$ 1.96**	$ 2.13	(8.0)
Cash dividends paid per common share	**$ 1.44**	$ 1.36	5.9
Electric sales to consumers	**1,599,502 Mwh**	1,536,886 Mwh	4.1
Electric customers in service—year end	**93,458**	91,184	2.5
Average use per residential customer	**6,241 Kwh**	6,262 Kwh	(.3)
Electric system one-hour net peak demand	**370,000 Kw**	364,000 Kw	1.6
Gas sales to consumers	**17,780,000 Mcf**	16,201,000 Mcf	9.7
Gas customers in service—year end	**60,989**	58,752	3.8
Gas system peak day	**129,216 Mcf**	118,132 Mcf	9.4
Investment in plant	**$330,387,000**	$309,151,000	6.9
Total capitalization (incl. interim loans)	**$233,461,000**	$226,067,000	3.3
Number of employees—year end	**512**	494	3.6

*Based on weighted average number of shares outstanding.

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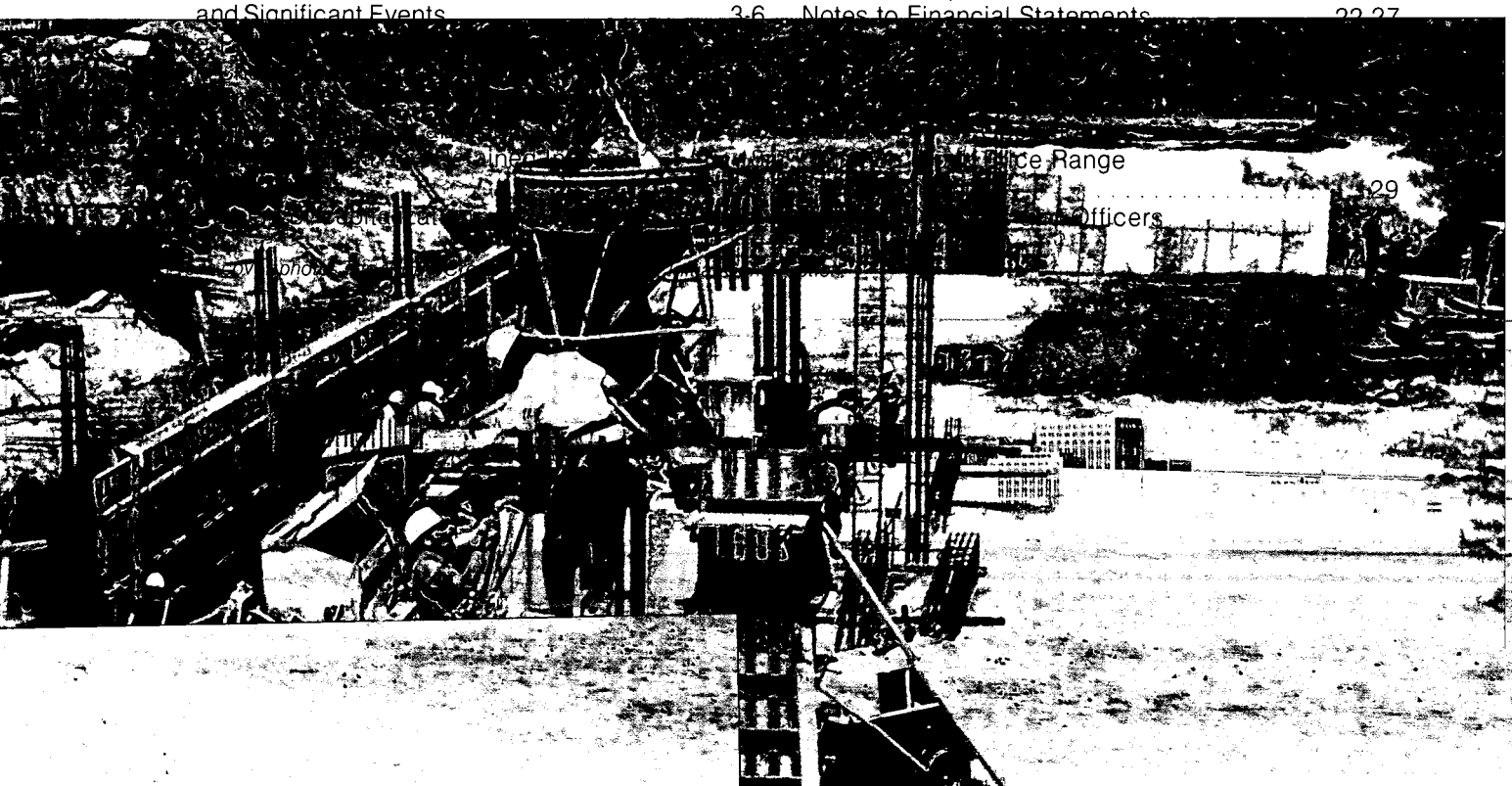

To Our Shareholders

We are pleased to report on a successful year for your Company in 1978. In the next several pages are brief comments covering various aspects of the year's activities.

Earnings Down Slightly

While not up to the high level experienced in 1977, earnings for 1978 were maintained at an acceptable level considering that inflationary pressures continued unabated. Earnings per common share were $1.96 compared to the $2.13 in 1977 and the $1.58 per share earned in 1976. Again, as in 1977, the 11.3 percent earnings on common stock equity did not equal the return of 13 percent authorized by the Public Service Commission of Wisconsin (PSCW). Dividends paid per common share were increased to $1.44 from $1.36 per year, an increase of just under 6 percent.

Revenues and Sales Up

1978 revenues totalled $124,979,000, an increase of 19.7 percent over 1977 revenues of $104,396,000. Increased revenues were mainly a result of increases in sales of electricity and gas, plus operation of a fuel adjustment on electric rates and a purchased gas adjustment on gas rates. Retail electric sales were up 4.1 percent, to 1,599,502 megawatt-hours (MWH) in 1978 compared to 1,536,886 MWH in 1977. The reasons were warmer weather resulting in increased air-conditioner use, plus approximately 2,300 more customers. Electric sales for resale were also up significantly (183.7 percent) in 1978 over 1977 as a result of commercial operation of additional generating capacity (Columbia II) and sales to Wisconsin Power Pool partners (Wisconsin Power and Light Company and Wisconsin Public Service Corporation) under Pool contracts, as well as to other interconnected utilities. Natural gas sales of 17,780,000 MCF were up 9.7 percent over 1977 sales of 16,201,000 MCF. The causes were the addition of approximately 2,200 new gas customers plus 7.8 percent colder weather in 1978 compared to 1977.

Dividend Reinvestment Plan

Interest in the Automatic Dividend Reinvestment and Stock Purchase Plan (the Plan), which started in November, 1977, continued with new subscribers joining throughout the year. At the end of 1978, 2,273, or 12.5 percent of our 18,130 stockholders, were participating in the plan and 441,210 shares, 8.1 percent of all common shares outstanding, were represented in the Plan. A total of 58,303 shares was purchased through the Plan in 1978.

The Plan provides present owners of the Company's common stock a simple, convenient, and economic method of investing cash dividends in more shares of stock at an advantageous price. Stockholders may also, if they choose, make cash payments toward the purchase of additional shares of stock on the dividend date.

Preferred Stock Sale

On August 31, 1978, 300,000 shares of new 8.70 percent, Series E Preferred Stock, $25 par value, were privately placed with an institutional investor. The $7,500,000 proceeds from the sale were used to retire short-term debt.

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As a result of the preferred stock sale, the issuance of common shares through the Dividend Reinvestment Plan, and other financial transactions, the capitalization of the Company at the end of 1978 was:

Long-Term Debt, 43.8 percent;
Preferred Stock, 14.6 percent; and
Common Stock Equity, 41.6 percent.

Gas Supply Outlook Brightens

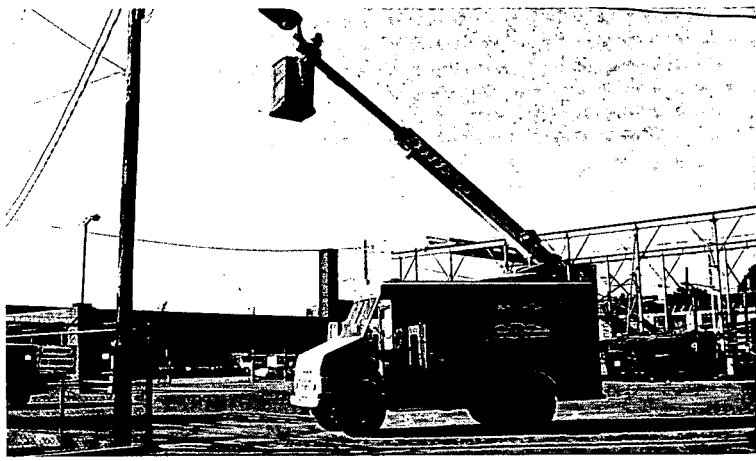
The Company's natural gas supplier, Michigan Wisconsin Pipe Line Company (the Pipe Line), continued its aggressive program of developing of new supplies. The High Island Offshore System (HIOS) in the offshore-Texas area of the Gulf of Mexico was completed in 1978 and is now delivering gas from this new source. Other offshore areas in the Gulf are also scheduled for exploration and development.

In addition, the Pipe Line has exploration efforts underway in the Texas-Oklahoma border area, the Rocky Mountains, the Canadian province of Alberta, the states of Mississippi, Alabama, and Michigan, and onshore coastal areas of Texas and Louisiana.

As a result mainly of newly developed supplies and conservation efforts of consumers, the Pipe Line, in November, 1978, made available to the Company the gas that had previously been curtailed in 1976. This gas, approximately 20 percent of the Company's authorized annual quantity, had previously been used as boiler fuel by the University of Wisconsin and Oscar Mayer & Co. and also for electric power generation by the Company. While these customers have converted some equipment to other fuels since the curtailment, they will still be able to use a portion of the restored supply. The remainder of the gas, which is expected to be available for several years, will help satisfy the requirements of other existing customers and make it possible to continue to add new customers.

Record Electric Peak Demand Set

On September 8, 1978, the Company set a one-hour peak demand of 370,000 kilowatts (KW). This exceeded the previous record demand of 364,000 KW which occurred in July, 1977. MGE's peak load is heavily influenced by weather conditions and scheduling of class sessions at the University of Wisconsin.



The "Lamplighter," MGE's new street light maintenance vehicle, is shown with telescoping boom extended. Replacement lamps and reflector-cleaning equipment are carried inside the van for convenient, efficient operation.

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Continued

Long-Range Demand and Energy Forecast

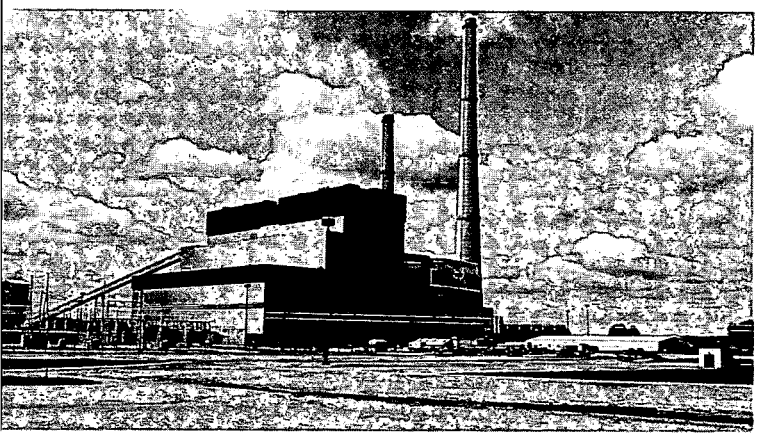
A new forecast of electric energy demand and consumption indicates that electrical requirements will definitely grow during the next 20 years. The study, completed in fall, 1978, predicted an increase in peak demand from 364,000 KW in 1977 to 766,000 KW in 2000, an annual growth rate of 3.25 percent. The consumption of electrical energy is expected to grow at an annual rate of 3.17 percent from 1.5 billion kilowatt-hours (KWH) in 1977 to over 3.5 billion KWH in the year 2000. These growth rates are less than the overall economic growth projected, which reflects energy conservation and increasing efforts to manage electric loads.

Future Generation Needs Studied

During 1978, a study of long-range generation capacity needs, covering the period 1978 to 1997, was completed. The alternatives considered included construction of additional units by ourselves, construction of new units jointly with other Wisconsin companies or groups, and refurbishing and re-rating existing units.

The recommendations of this study involved a combination of actions. Three units at Blount Station are suggested for refurbishing and re-rating upward during the period 1987 to 1989. The refurbishment of older generating units is economical by comparison with the present cost of constructing new generating units.

Starting in 1990, the study recommended sharing in several units currently planned for construction by the Wisconsin-Upper Michigan Systems (WUMS) companies. The exact size of these units and MGE's share are not precisely known at this time, but it is estimated that additional generating capacity of about 400 MW could be added if it were required. Also, no decision has been made regarding the type of fuel to be used in these new units.



Columbia Energy Center near Portage, Wisconsin, has two 527 MW generating units.

Columbia II Begins Service

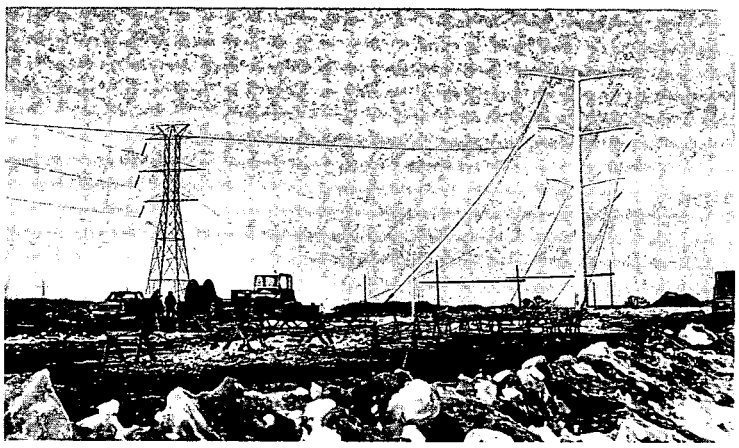
On April 30, 1978, the second 527-megawatt (MW) unit at the Columbia Energy Center (near Portage, Wisconsin) began commercial operation. MGE's share of this second unit is 115 MW (about 22 percent).

Completion of the second Columbia unit places MGE in an excellent position regarding generating capacity for the next decade. For the summer of 1978, the Company's total generating capability was 605 MW. At the present time, 112 MW is being sold to other members of the Wisconsin Power Pool in accordance with the Pool's reserve equalization agreement.

Also, the Wisconsin Power Pool has contracted with Wisconsin Electric Power Company to sell a portion of its capacity over the next several years. MGE's share of this sale was 45 to 50 MW during the summer of 1978.

345,000-Volt Line Completed

In May, a 27-mile segment of 345,000-volt (345 KV) line was completed and placed in service. This line, which runs south from near Columbus, Wisconsin, provides a link between a similar line originating at the Columbia Energy Center and an interconnection substation (Rockdale) southeast of Madison. This portion of the 345-KV transmission system was constructed during the winter so that power from the Columbia II plant could be distributed throughout the Madison and southern Wisconsin areas in the spring. This portion of transmission line was constructed along the same corridor as an existing WPL 138-KV facility that was rebuilt as part of the new facility. Completion of this facility permits the low-cost energy from Columbia to be fully used to make more economical and reliable service available to MGE customers and also those of neighboring utilities.



Conductors are installed on steel poles that are part of the 345/138 KV Academy to Rockdale transmission line. One of the lattice steel towers that is being replaced is at the left.

Power from Refuse Burning Starts

The use of city of Madison refuse, mixed with coal, to generate electricity started at Blount Station on a test basis in February, 1979. This is the culmination of a joint MGE-City effort that began with a feasibility study in 1974. In order to burn the refuse, the City expanded its refuse-processing facility where glass, metals, and other noncombustibles are removed, and where the remaining refuse is shredded to a uniform size for burning. A receiving facility for the shredded refuse was constructed at Blount Station and burner modifications are being made on two boilers. The refuse is burned with coal in a mixture of about four parts of coal to one part of refuse. When the system becomes fully operational, about 30,000 tons of Madison refuse (equivalent to 15,000 tons of coal) will be burned each year, utilizing a previously discarded energy source and slowing down the expansion of landfill sites.

Roxbury-Dane Gas Tie In Progress

Construction of a 10-mile-long tie between two radial arms of the natural gas distribution system was started in October, 1978. This six-inch diameter gas line will loop the western portions of the system in Dane County, starting from a point just north of the village of Dane and connecting with existing facilities that presently end at the village of Roxbury. The effect of this project will be to reinforce the western part of the gas system, where a significant amount of the new customer growth is taking place, permit stabilization of gas pressure conditions during wintertime peak gas use periods, and make service available to potential new customers. The project was approximately 40 percent done as of the end of 1978, and has already demonstrated its ability to improve system operating conditions. Completion of the project is scheduled for late spring, 1979.

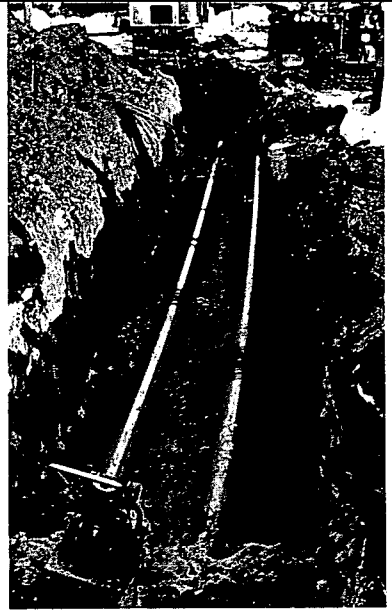
Worker completes a weld in six-inch pipe to be installed in the 10-mile-long Roxbury to Dane natural gas connecting line in western Dane County.

Gas System Expansion Continues

Over 25 miles of new gas main was added to the system during 1978. It is expected that a similar amount will be added during 1979. The program of replacing old bare steel and cast-iron gas mains in accordance with federal and state safety code requirements continued at a high rate with 17 miles being replaced during 1978.

Time-of-Day Rates Set

In the rate increase that became effective November 16, 1976, MGE was ordered to establish time-of-day electric service rates for large customers. On January 1, 1977, service to the University of Wisconsin and Oscar Mayer & Co. was placed on such rates. Proposals for similar rates for about 65 customers with electric demands exceeding 500 kilowatts (KW) were submitted to the PSCW on October 31, 1977. Hearings were held on the matter starting on January 30, 1978, and subsequent later dates during the year. At the same time, hearings were held on optional time-of-day service for small electric power consumers whose use patterns might make such rates advantageous. On January 19, 1979, the PSCW set firm time-of-day rates for all large users with demands of 300 KW and over and optional time-of-day rates for up to 300 small customers. These rates will be placed into effect during 1979 as the necessary special metering equipment becomes available.



Pipe for underground 69,000-volt electric transmission line being installed through the west side of Madison.

Transmission Line Matters

On August 3, 1978, the PSCW authorized MGE to construct overhead a 3.2-mile segment of the total 7.5-mile-long Walnut to West Middleton 69,000-volt line. The entire line will bring needed electric power capacity from the 138-KV transmission supply west of the city of Middleton into the near west side area of Madison that is experiencing substantial load growth, principally due to the completion of the new University of Wisconsin Clinical Science Center. The PSCW had previously approved construction of the other segments of the project, including an underground section approximately two miles long. The city of Madison and a group of Madison residents have opposed the overhead construction of a portion of the project. The city would not grant a conditional use permit required by a zoning ordinance to allow construction of the overhead portion. The Company has appealed the reasonableness of the city zoning ordinances to the PSCW and to the courts. Due to the emergency nature of the need for this line, in February, 1979, the PSCW modified its earlier decision to require that the 3.2-mile segment be installed underground instead of overhead.

Starting on August 7, 1978, hearings were conducted at the PSCW regarding 138-KV electric lines proposed to improve MGE's ability to deliver power from the Columbia Energy Center into the northeastern part of the Company's service area. MGE had proposed two lines, one from the North Madison Substation into the northern part of the service area, and the other from North Madison into the eastern section of the service territory. The PSCW staff has suggested several alternatives to MGE's proposals which were considered during the hearings. These hearings were concluded in October, 1978, and at the time of this writing a decision is pending from the PSCW.

Consumer Communication Efforts Expand

The efforts to satisfy our customers' needs and desires for more information on conserving natural gas and electricity expanded in 1978 over our previous efforts. In September, 1978, Louis Harris & Associates conducted a statewide customer opinion survey on behalf of five Wisconsin utilities, including MGE, that permitted us to keep aware of customers' concerns. During the year, Consumer Services personnel completed 3,257 house insulation and weatherization surveys and had 12,800 additional contacts by telephone, mail, or in person as a means

of informing customers about effecting energy savings. Our Customer Information Division furnished billing data via our automated data processing and Cathode Ray Tube terminal system for over 110,000 customer inquiries. The program of public appearances by Company personnel on the subject of energy conservation and other topics of interest before service, school, homemaker, church, and similar groups continued, as well as participation in radio and television programs. Direct communication on energy conservation through the various media, especially television, continued at the same level as in 1977. In addition, a monthly newsletter started going to individual customers, along with their bills, in February, 1978. This six-page publication features brief, timely articles on energy conservation techniques, good safety practices, rate matters, and various other subjects that would interest and benefit the customers. The effort to inform and advise the users of our services on safety matters will be further expanded in 1979.

Employees

At the end of 1978, there were 512 full-time employees at MGE, an increase of 18 from 1977. Their dedication and expertise are greatly appreciated. Discussion of renewal of two-year agreements, which expire on April 30, 1979, with representatives of two unions representing approximately 115 clerical and 260 operating employees commenced early in March, 1979.

Maintaining favorable relations and communications with our customers has always been a major concern of our employees. During 1978, over 100 personnel, mainly those in customer-contact areas but including high-level management persons, received special training designed to further assist in communications and customer relations. This effort was well received by the employees and was readily utilized as a means of expanding the present high level of good customer impressions. During 1979, a similar-sized group will be given the same training. During 1978, all levels of management attended various seminars and training sessions that will better equip them to carry out their duties efficiently and effectively.

In April of 1978, Frederick D. Mackie announced his retirement as Chairman of the Board of the Company. William A. McNamara was elected Chairman of the Board to succeed him. Mr. Mackie, who continues as a director of the Company, was honored for his 44 years of service to the Company at an employee dinner held on June 1, 1978. It is fitting that his many years of service within the utility industry be cited here. During 1978, the top management at the Company was expanded with the election of Beverly R. Duncan as Assistant Secretary–Corporate Affairs and Carol A. Bethke as Assistant Secretary–Administration and Investor Relations.

For the Board of Directors

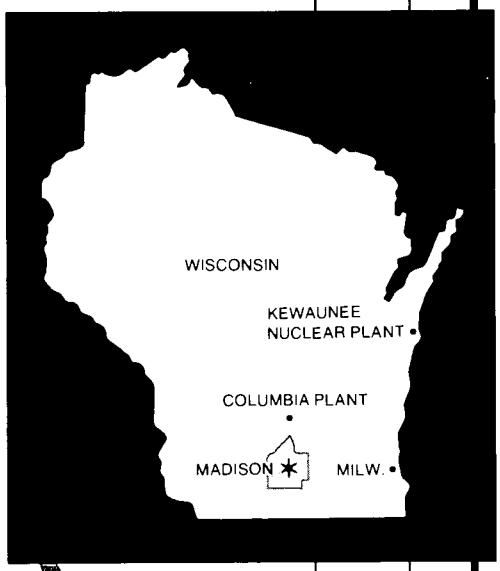
William A. McNamara
Chairman

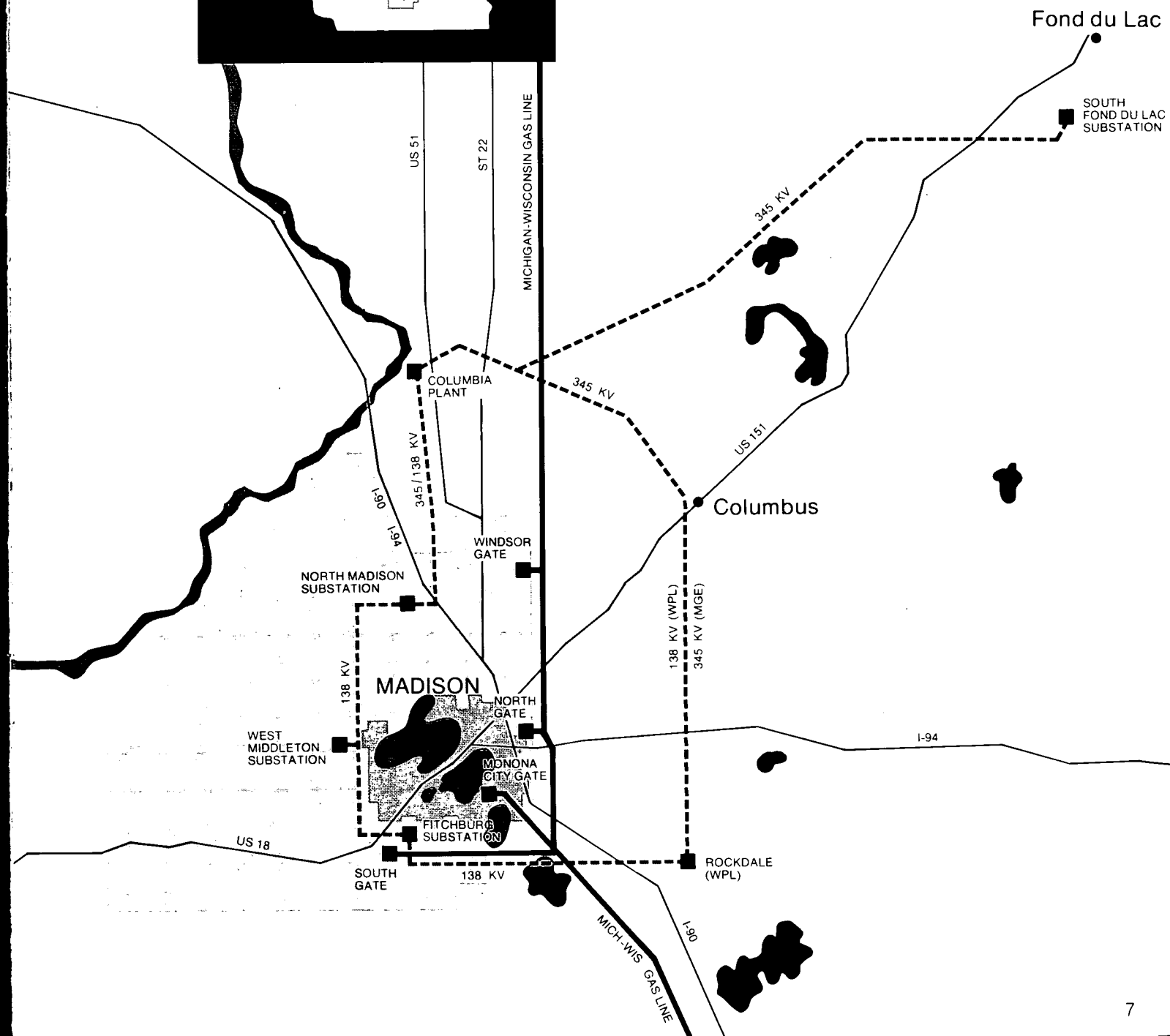
Donald J. Neffenbach
President

The Community We Serve

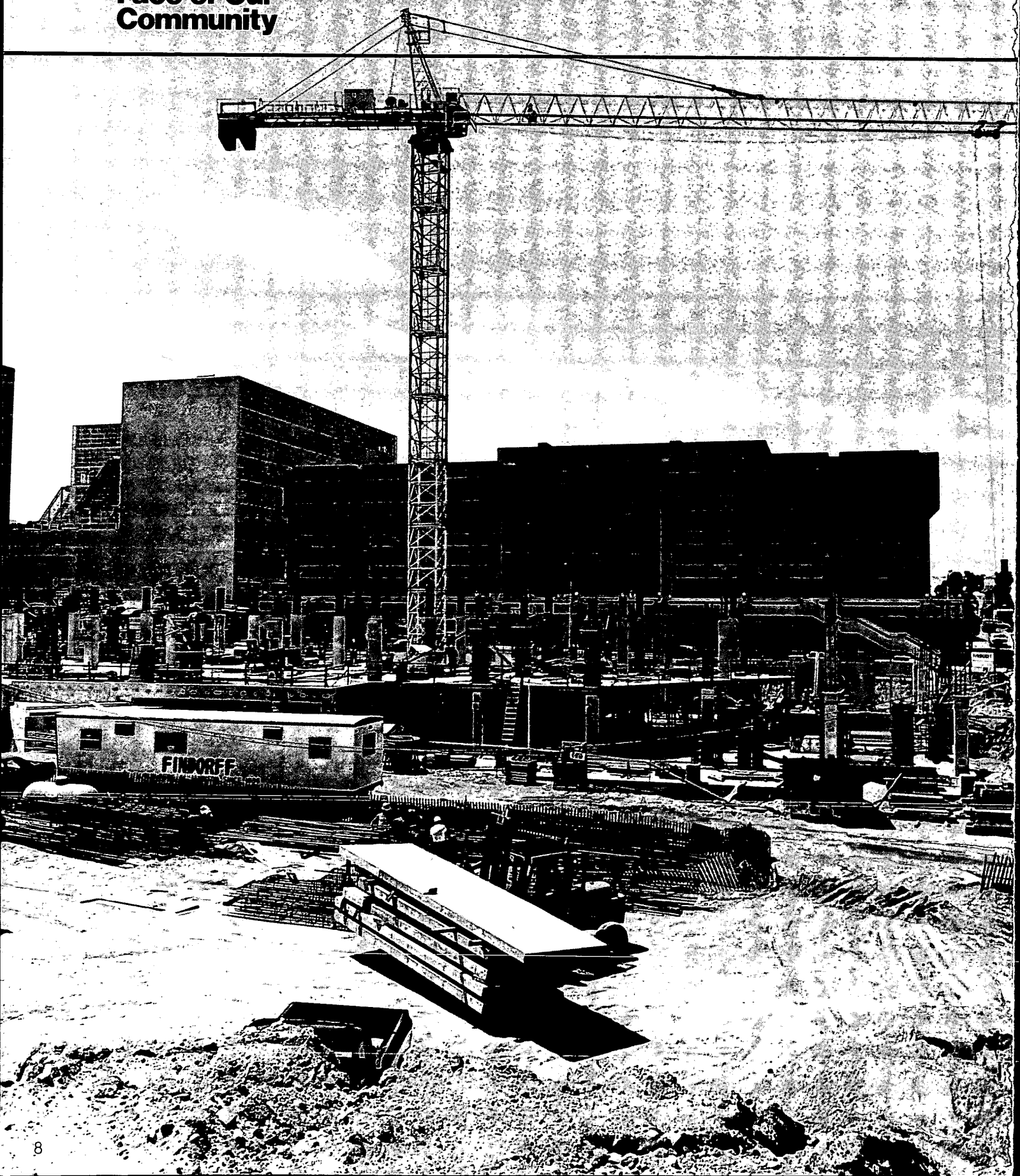
Madison Gas and Electric Company generates, transmits, and distributes electrical power, and purchases and distributes natural gas in the Madison trading area. The electric service area covers about 220 square miles, and natural gas is distributed throughout a 750-square-mile area. While its service area is compact, it is a growing community with a population of about 250,000 in the cities of Madison, Middleton, Monona, two adjoining villages, and surrounding areas, including 10 outlying villages and the cities of Lodi and Verona.

A special report on MGE's community is included in this annual report and will further disclose "The Changing Face of Our Community."





The Changing Face of Our Community

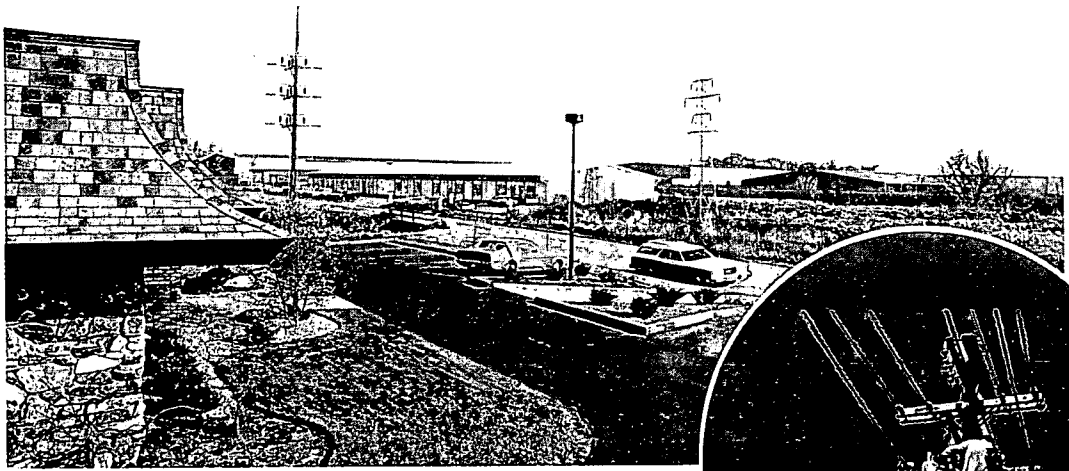


An Action Community with a Vital Future

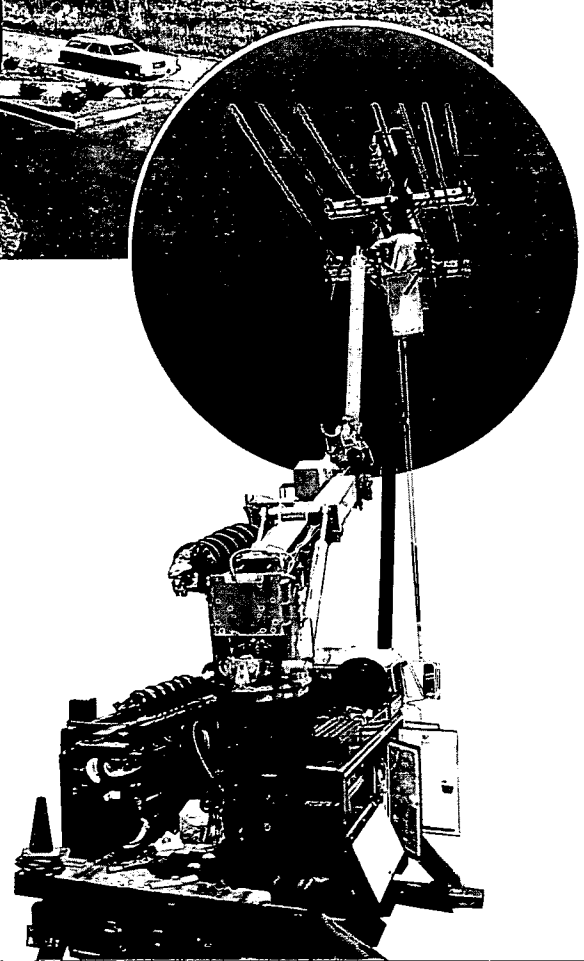
From downtown Madison to the new business and residential developments throughout its trading area, Greater Madison's face is changing. Those changes reinforce the very qualities that have combined over the years to give MGE's service area its unique character and strong, stable economy.

The renewed activity really is an expansion and enhancement of what already existed—a contemporary melding of the new and the old. An important acknowledgment of this successful effort is that Madison was selected as an "All-America" city by the National Municipal League in April, 1978.

Greater Madison's face is changing because of what is occurring in various economic, geographical, educational, and cultural areas. Some of the more significant changes are described in the following sections.

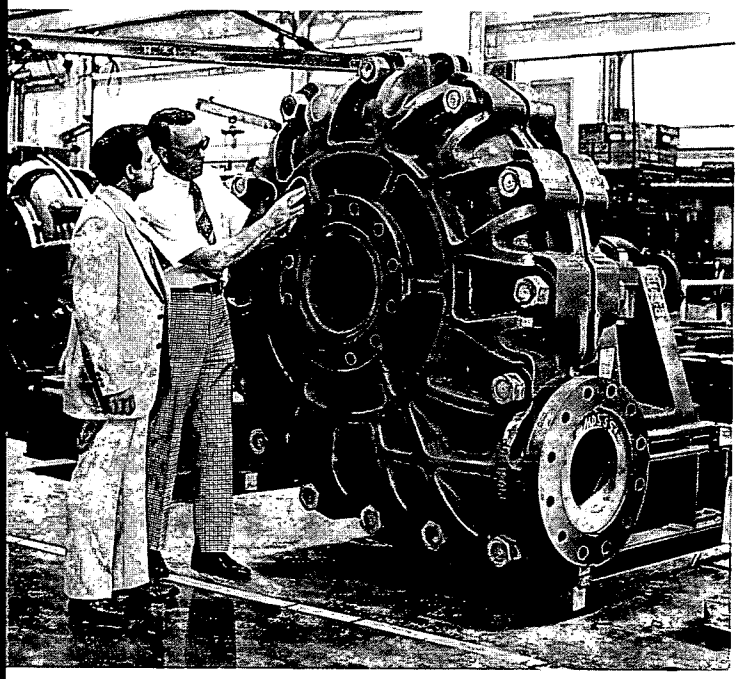


Waunakee Industrial Park

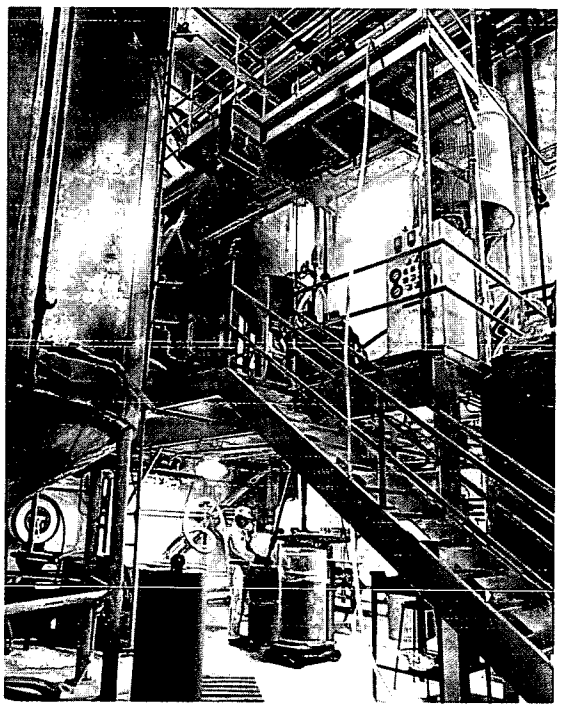


General Executive Facility phase 2—State of Wisconsin

The Changing Face of Our Community



Warman International—manufacturer of slurry pumps



Scientific Protein Laboratories—producers of animal-derived biologicals

Economy

Dane County (Madison is the county seat) had a 1978 estimated population of 319,105, nearly 29,000 higher than the 1970 census figure. Moderate population increases have occurred in each of the past five years.

Greater Madison's economic base is more dependent upon services than manufacturing. Government, post-high school education, and medicine, along with related enterprises, are the major services that support its economy.

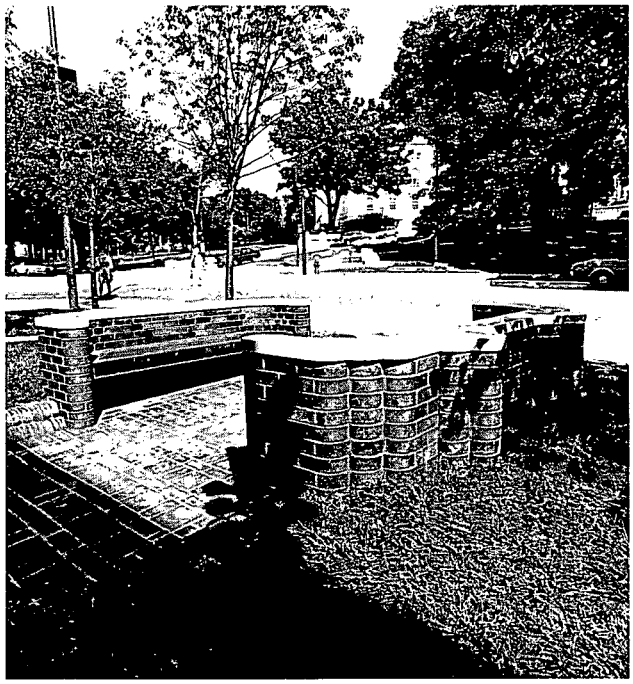
Because these services are not greatly affected by changing economic conditions and are relatively recession-proof, the area's economy is quite stable. Its unemployment rate is usually below the national average. Late in 1978, Dane County's unemployment rate was 4.2 percent, nearly 1½ percent below the national average.

Madison was called the most financially healthy city in the country, based on its strong economy and finances, by the Continental Illinois Bank and Trust Company of Chicago while advising investors in municipal securities late in 1978. The City was ranked first of the 14 cities which possess the highest (AAA) bond credit rating. The report stated that Madison's "strong economic base, buttressed by a large amount of government and service-oriented employment and its very favorable debt and financial factors, suggest excellent long-term credit prospects."

All units of government, including the University of Wisconsin, employ nearly 50,000 persons in the Madison area, or about a third of the work force. More than 39,000 students attend the University of Wisconsin-Madison, and the University's faculty and staff number about 13,000. They directly contribute about $350 million a year to Madison's economy. The "recycled" effect of those dollars totals more than $800 million.

Medical services employ more than 8,000 persons, including 1,200 doctors. More than 30 insurance companies employ over 5,000 persons, with more than 300 industries employing over 18,000 persons. Retail businesses in the area add another 30,000 jobs.

Placon Corporation—plastic thermoformers



Far left:
State Street Mall

Capitol Concourse

Downtown Madison

Like many other cities, Madison was faced with the problem of reversing the movement of businesses and people away from its downtown central-city area. Action had to be taken, and so several projects were initiated. Now nearing completion, they are starting to produce results in the way of new business and commercial activity.

The Capitol Concourse project, which is nearly completed, will remodel the Capitol Square into a mall with such amenities as wider sidewalks, plantings, improved lighting, and reduced vehicular traffic. A similar mall project is underway on State Street, the eight-block-long street that connects the State Capitol and University of Wisconsin.

Along State Street, a theater built in 1927 and an adjacent building (previously a retail establishment) are being remodeled into a Civic Center. The best features of the original buildings are being retained, while the most modern facilities needed to house the performing and visual arts are being added.

Already these efforts have spurred revitalization of long-established downtown businesses and resulted in the addition of over a dozen new ones. That same spirit of renewal—of looking back while moving ahead—has been the guiding force, not just downtown, but throughout Greater Madison, too. It has helped to make Greater Madison the growing, forward-looking area that it is.

Madison Civic Center

The Changing Face of Our Community

Tamarack Trails

Camelot Apartments

Housing

Newcomers to the Greater Madison area—and long-time residents, too—enjoy the opportunity of choosing the type of living unit that best suits their personal life style.

In 1978, the city of Madison issued building permits for 1,303 units of new residential housing. The breakdown of the 1978 total was: 579 single-family units; 196 two-family units; 37 three- and four-family units; and 491 five-or-more-family units. Estimated construction cost was $36.4 million, about $2.3 million more than in 1977.

The demand for rental housing in Madison continues. The number of apartment rental units in 1978 was estimated at about 62,000 with an occupancy rate of 95 percent, 10 percent higher than it was three years ago.

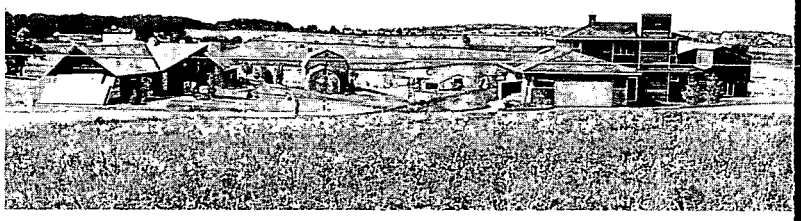
Two development projects now being planned would add needed housing in Madison's central area. A long-term urban renewal project (probably the largest ever attempted by the city) will be a joint public-private venture. As many as 1,300 new housing units plus commercial developments are possible. A downtown project, Capitol Centre, will include apartments—some specifically for the elderly—a senior citizens' center, a supermarket, and parking.

New-housing construction is indicative of the growth in the Madion area. In 1978 the city of Middleton issued permits for 98 single-family homes, 16 units of two-family housing, and 59 units of multiple-family housing. Estimated cost of the new construction was placed at about $7 million.

Other housing construction in the area last year included the village of Mount Horeb, which added 47 units; the village of Waunakee, 37 single-family homes and five duplexes; the city of Verona, 30 single-family homes, a duplex, and a nine-unit apartment building.

The Madison area's rapidly expanding condominium market offers buyers the combined advantage of home ownership and apartment living. This is an attraction for the many professionally employed people who make Greater Madison their home.

New residential communities



Office and Commercial

To provide new or expanded services, both private and public employers in Madison are building new office space or are converting older buildings into offices.

In 1978, the city of Madison issued 29 building permits for construction of new offices, banks, and professional buildings, costing an estimated $11.8 million. Twenty-six permits were issued for new buildings in those categories in 1977, with an estimated cost of $4.7 million.

In downtown Madison, a third State Office Building is nearing completion. Construction has begun on a fourth state building. A new Federal Office Building also is planned for downtown.

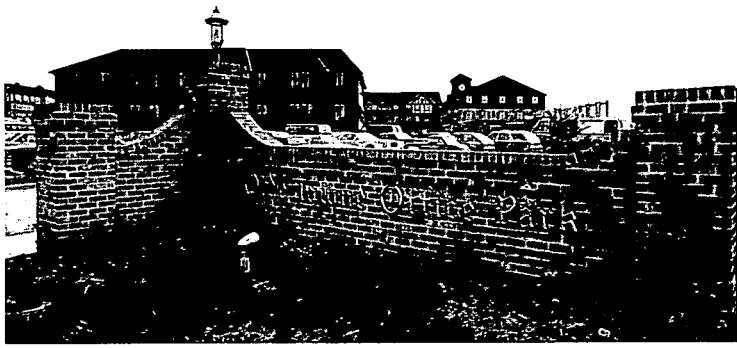
On the west side, office construction includes the new Credit Union Center, which will house the various trade and service associations working for credit unions in the United States and throughout the world. The $12.5-million project, which will be completed late this year, involves construction of two new buildings adjacent to the existing CUNA Mutual Insurance Group headquarters building.

On Madison's east side, American Family Insurance is constructing a new $7-million regional headquarters building for sales and service in Wisconsin, Illinois, and Indiana. The three-story structure, which will be completed at the end of the year, is the first project in an anticipated multi-phase development on a 45-acre site.

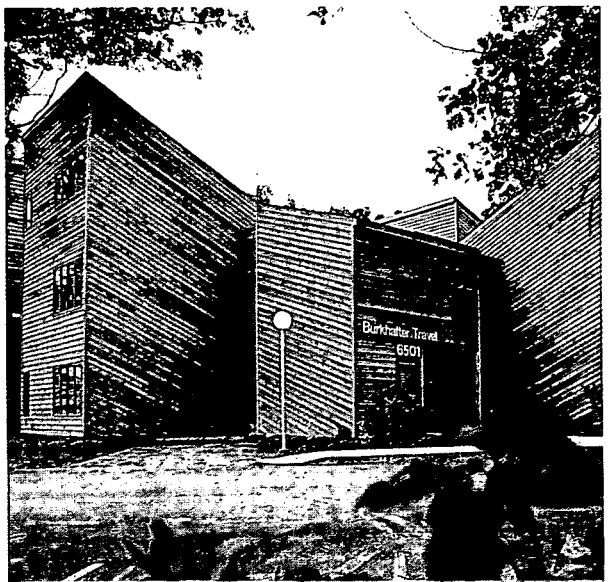
On the south side, the Wisconsin Department of Natural Resources plans a new Southern District headquarters building and laboratories for construction in the next biennium.

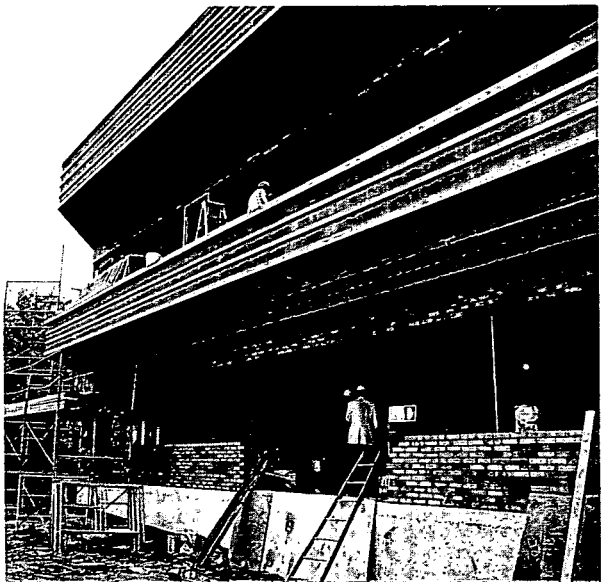
Besides construction activity within the city, new retail facilities are being added and industrial parks expanded throughout the Greater Madison area. New shopping centers—Middleton Springs in Middleton, with about 12 stores, and the Village Mall in Waunakee, with some 10 shops—opened in 1978.

Middleton Springs Shopping Center



Old Towne Office Center





Far left: Burkhalter Travel and office complex

Wisconsin Education Association Insurance Trust

The Changing Face of Our Community

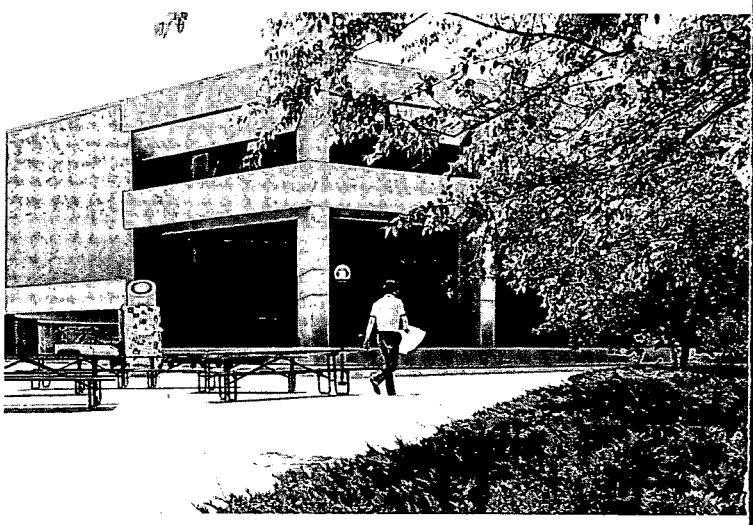
Education and Research

Several recent studies have ranked the University of Wisconsin among the top educational institutions in the country. A national survey released early this year evaluated faculty excellence by academic department. The University of Wisconsin College of Agricultural and Life Sciences was ranked second in the nation. Other departments ranking high were Biological Sciences, Foreign Languages, Sociology, and History.

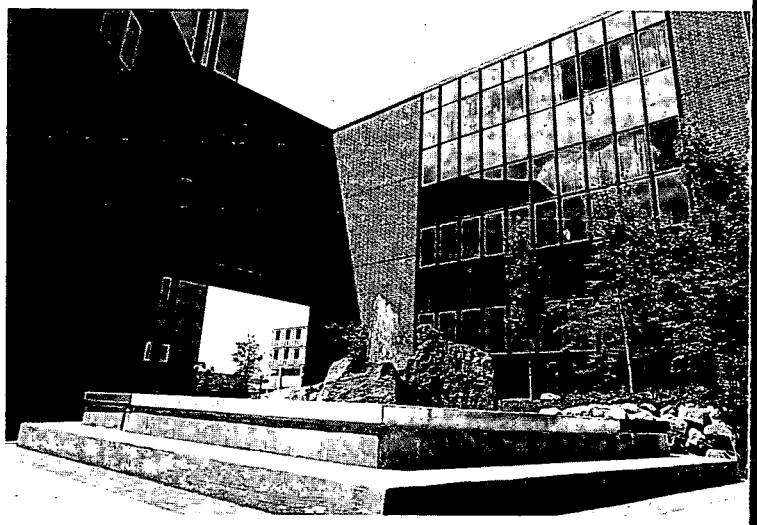
Long recognized for its service to agriculture, the University of Wisconsin will make even greater contributions when newly authorized facilities begin operation. A federal forage testing laboratory also is planned for Madison in 1981 and will be located on the campus. Funds to build the U.S. Department of Agriculture's North Central Regional Laboratory were included in the federal budget.

Other schools that attract students to Madison for post-high school education and training include: Edgewood College, a private, four-year, coeducational school with an enrollment of 587; Madison Area Technical College, which provides vocational and technical training and grants two-year associate degrees for persons in five counties; and several trade and professional schools, including business, electronics, and cosmetology.

Public schools in Dane County had a pre-kindergarten through high school enrollment of 56,411 in 1978-79. Another 5,250 students attended parochial and private schools. New school construction in the area includes a 13-classroom addition to Verona High School, which is scheduled to be completed for the 1979-80 school year.



University of Wisconsin Engineering Library



University of Wisconsin Geology Building

United States Fish and Wildlife Laboratories—Department of Interior

Electric Service

SALES—KWH

1978 Total 2,137,118,000
1973 Total 1,468,165,000

(figures below in Millions)

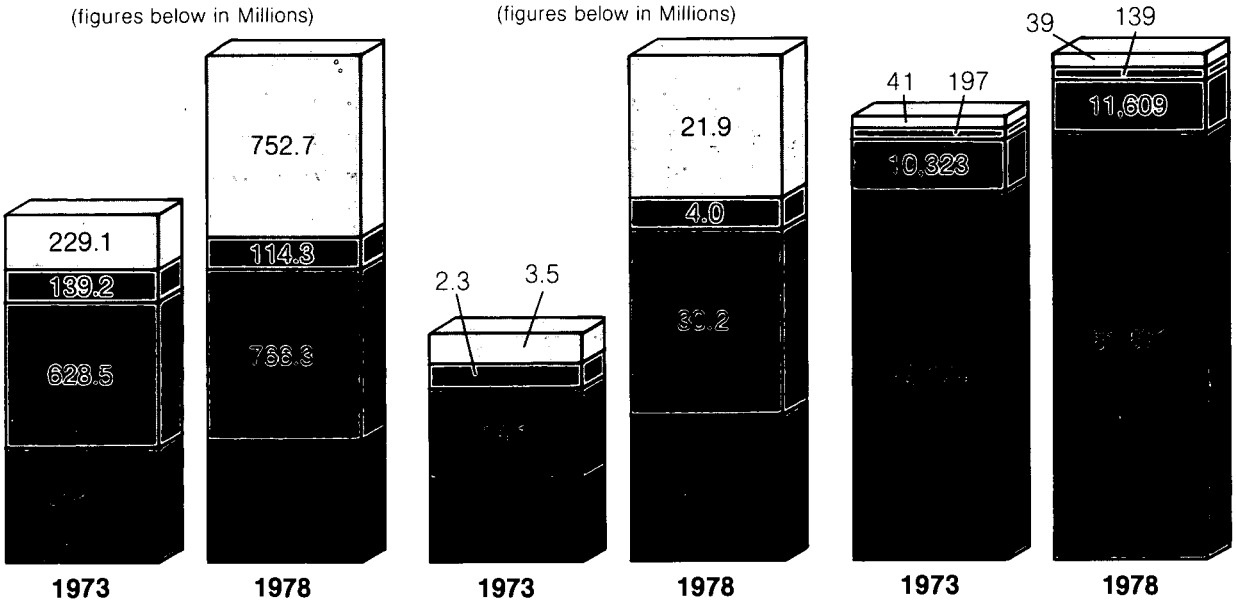
REVENUE FROM SALES

1978 Total $78,205,000
1973 Total $31,446,000

(figures below in Millions)

CUSTOMERS AT END OF YEAR

1978 Total 93,458
1973 Total 83,885



	1978	1973
Kilowatt-hours per residential customer—average	6,241	6,566
Average rate per kilowatt-hour—residential	4.39¢	2.43¢

Residential Commerical Industrial Other (street lighting, public authorities & other utilities)

Gas Service

SALES—MCF

1978 Total 17,780,000
1973 Total 17,216,000

(figures below in Millions)

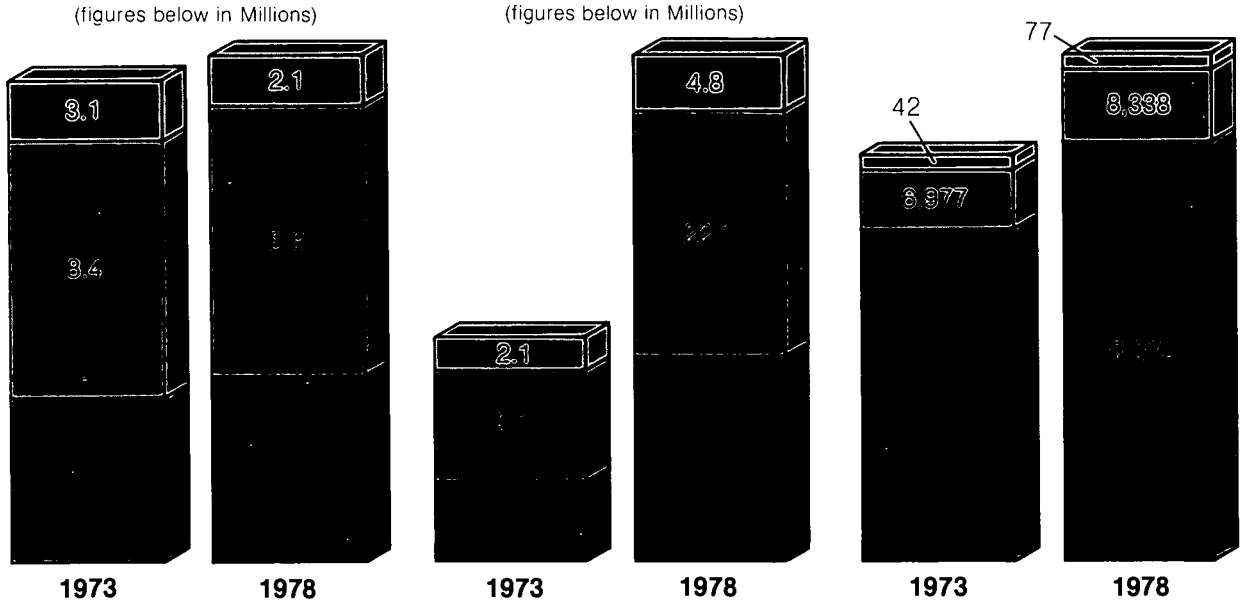
REVENUE FROM SALES

1978 Total $46,097,000
1973 Total $19,555,000

(figures below in Millions)

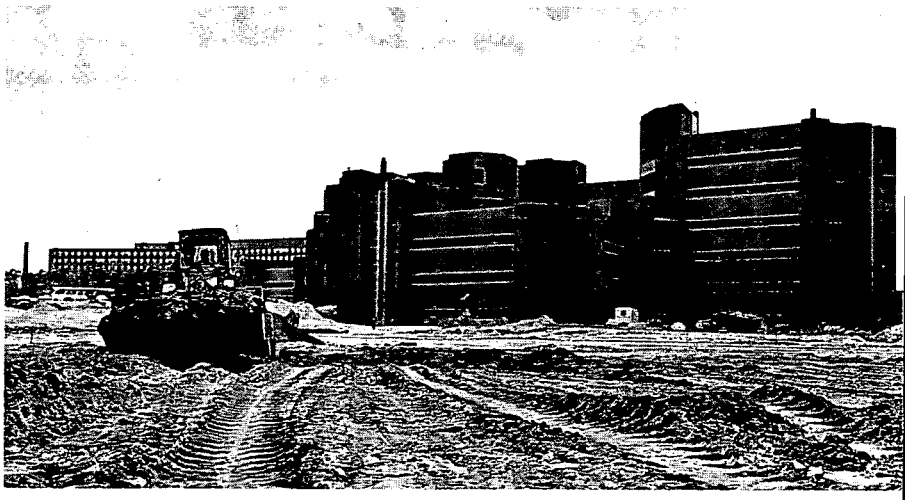
CUSTOMERS AT END OF YEAR

1978 Total 60,989
1973 Total 50,932



	1978	1973
MCF per residential customer—average	23.3	25.1
MCF per residential space-heating customer—average	152.1	164.4
Average rate per MCF—residential	$3.765	$2.050
Average rate per MCF—residential space-heating	$2.792	$1.438

Residential Commercial Industrial and interruptible boiler fuel



University of Wisconsin Clinical Science Center

Methodist Hospital Retirement Health Center

Medicine

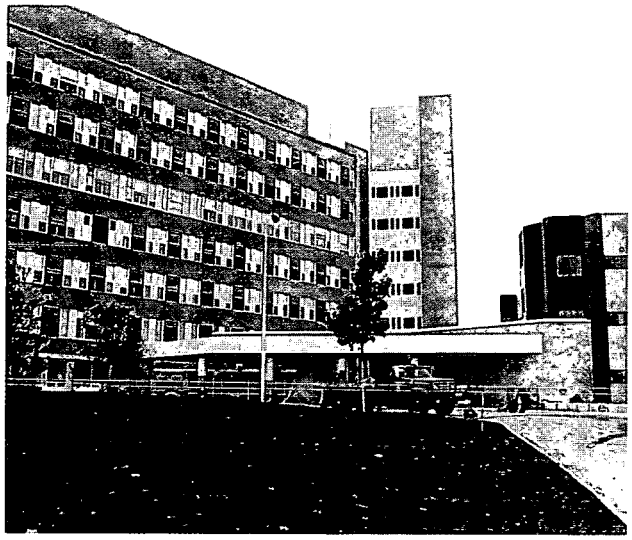
One of the most dynamic forces changing the face of Madison is the growth of a medical services complex, which combines public, private, and University resources. Every health service—from preventive medicine to the most sophisticated research program—is provided from five general hospitals, four specialized hospitals, 21 major medical clinics, and more than 100 research and testing laboratories in the Madison area.

The largest medical facility is the University of Wisconsin's new Clinical Science Center. When fully occupied this spring, it will house health-related programs in education, service, and research, including a 549-bed hospital. The $105-million Center, which is located at the west end of the campus, contains 1.5 million gross square feet.

The William S. Middleton Veterans Hospital, which also is being expanded, will be connected directly to the new University Center, and the two will be able to share in some patient services.

The present University Hospital will be used by the Medical School for nonclinical teaching.

Also under construction is a Methodist Hospital Retirement Health Center, located near the Methodist Retirement Center (which opened about three years ago) and Methodist Hospital in downtown Madison.



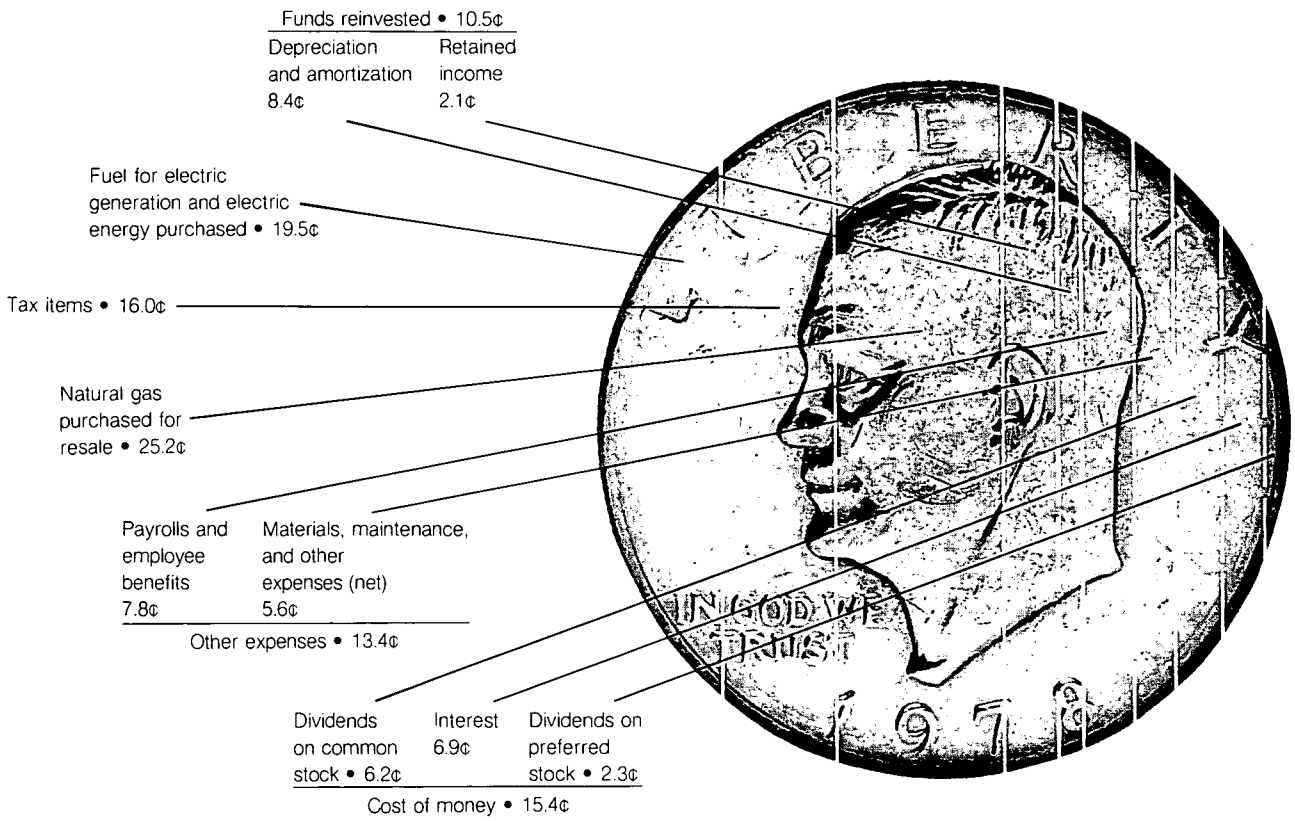
Veterans Hospital expansion

Construction Program

(Thousands of Dollars)

	1979 Estimated Construction Expenditures		Plant Additions (Including Allowance for Funds Used During Construction) 1978		Annual Average 1973-1977	
Electric Department						
Production Plant	$ 2,025	7%	**$ 4,589**	**18%**	$14,613	46%
Transmission Plant	7,566	26	**6,861**	**26**	7,110	22
Distribution Plant	5,011	18	**4,020**	**15**	2,649	8
General Plant	74	—	**30**	—	56	—
Nuclear Fuel	4,438	16	**3,627**	**14**	1,768	6
Total	19,114	67	**19,127**	**73**	26,196	82
Gas Department						
Distribution Plant	6,624	23	**6,104**	**23**	5,341	17
General and Other Plant	519	2	**20**	—	25	—
Total	7,143	25	**6,124**	**23**	5,366	17
Utility Plant Common to Both Departments	2,227	8	**1,010**	**4**	213	1
Total	$28,484	100%	**$26,261**	**100%**	$31,775	100%

How Each Dollar of Revenue Was Used in 1978



Consolidated Statement of Income

For the years ended December 31, 1978 and 1977

	1978	1977
Operating Revenues (Notes 1.f. & 7):		
Electric	**$ 78,588,601**	$ 65,256,068
Gas	**46,389,975**	39,139,444
	124,978,576	104,395,512
Operating Expenses:		
Fuel used for electric generation	**23,027,520**	15,272,211
Purchased power	**1,349,618**	2,048,777
Natural gas purchased for resale	**31,480,416**	25,524,931
Other operations	**12,925,748**	11,265,473
Maintenance (Note 1.e.)	**4,383,928**	3,738,939
Depreciation and amortization (Notes 1.d. & 6)—		
Straight-line depreciation and amortization	**10,495,666**	9,214,509
Additional depreciation, equivalent to estimated reduction in income taxes	**4,831,989**	2,741,000
Taxes (Note 1.i.)—		
Current federal income	**4,055,805**	5,905,960
Investment tax credit deferred	**4,469,720**	3,115,903
Investment tax credit restored (credit)	**(536,946)**	(313,411)
Current state income	**1,183,546**	975,732
Property, payroll, and other	**5,923,158**	5,130,792
	103,590,168	84,620,816
Net Operating Income	**21,388,408**	19,774,696
Other Income:		
Allowance for other than borrowed funds used during construction (Note 1.c.)	**29,308**	605,044
Other, net	**246,920**	76,509
	276,228	681,553
Income Before Interest Expense	**21,664,636**	20,456,249
Interest Expense:		
Interest on long-term debt	**8,179,390**	8,487,804
Other interest	**412,277**	234,074
Allowance for borrowed funds used during construction (credit) (Note 1.c.)	**(286,513)**	(1,036,421)
	8,305,154	7,685,457
Net Income	**13,359,482**	12,770,792
Preferred Stock Cash Dividend Requirements (Note 3.b.)	**2,801,756**	2,612,981
Earnings on Common Stock	**$ 10,557,726**	$ 10,157,811
Earnings Per Share of Common Stock (Based on 5,376,758 and 4,775,762 average shares outstanding, respectively)	**$1.96**	$2.13

Consolidated Statement of Retained Income

For the years ended December 31, 1978 and 1977

	1978	1977
Balance Beginning of Year	**$ 20,865,200**	$ 18,204,533
Add—Net income	**13,359,482**	12,770,792
	34,224,682	30,975,325
Deduct:		
Cash dividends on common stock	**7,742,421**	6,489,133
Preferred stock cash dividend requirements	**2,801,756**	2,612,981
Expense of issuing common stock	**91,494**	1,008,011
Expense of issuing preferred stock	**67,148**	—
	10,702,819	10,110,125
Balance End of Year	**$ 23,521,863**	$ 20,865,200

The accompanying notes are an integral part of the above statements.

Consolidated Balance Sheet

December 31, 1978 and 1977

	1978	1977
Assets		
Utility Plant, at original cost (Note 1.a.):		
In service—		
Electric (Note 1.b.)	**$249,503,288**	$197,172,964
Gas	**74,124,969**	68,296,944
	323,628,257	265,469,908
Less—Accumulated provision for depreciation (Note 1.d.)	**(96,668,826)**	(82,494,796)
	226,959,431	182,975,112
Construction work in progress—		
Jointly owned electric power production facilities (Note 1.b.)	**1,624,707**	34,901,429
Other	**5,133,717**	8,779,663
	6,758,424	43,681,092
Nuclear fuel, net (Note 1.g.)	**6,720,039**	6,005,329
Total utility plant	**240,437,894**	232,661,533
Investment in Future Nuclear Fuel (Note 1.k.)	**2,253,835**	1,644,264
Pollution Control Construction Fund (Note 3.c.)	**440,670**	1,258,559
Current Assets:		
Cash	**1,882,025**	3,072,295
Deposits for jointly owned electric power production facilities	**1,462,349**	500,031
Accounts receivable, less reserves of $179,773 and $149,174, respectively	**13,708,214**	10,583,611
Unbilled revenue (Note 1.f.)	**6,042,981**	—
Materials and supplies, at average cost	**3,677,366**	3,626,627
Fossil fuel, at cost (Note 1.h.)	**2,298,686**	3,116,243
Prepayments	**431,919**	261,593
	29,503,540	21,160,400
Deferred Charges (Notes 2 & 6)	**5,456,188**	5,609,098
	$278,092,127	$262,333,854
Capitalization and Liabilities		
Capitalization (see statement)(Note 3):		
Common shareholders' investment—		
Common stock	**$ 43,518,928**	$ 42,784,216
Amount received in excess of par value	**28,381,680**	27,616,811
Retained income	**23,521,863**	20,865,200
	95,422,471	91,266,227
Preferred stock	**33,350,000**	26,375,000
First mortgage bonds	**99,454,194**	102,345,526
Other long-term debt	**888,228**	2,263,950
	100,342,422	104,609,476
Total capitalization	**229,114,893**	222,250,703
Current Liabilities:		
Preferred stock sinking fund requirements (Note 3.b.)	**525,000**	525,000
1979 Series maturity and bond sinking fund requirements, respectively	**1,821,000**	291,000
Interim loans—commercial paper (Note 5)	**2,000,000**	3,000,000
	4,346,000	3,816,000
Accounts payable	**12,974,784**	12,521,774
Accrued interest	**1,478,024**	1,521,859
Accrued taxes	**1,813,280**	5,366,381
Other	**651,221**	571,798
	21,263,309	23,797,812
Other Credits:		
Contributions in aid of construction	**5,843,176**	5,179,020
Investment tax credit deferred (Note 1.i.)	**13,562,704**	10,162,339
Unamortized unbilled revenue (Note 1.f.)	**4,625,152**	—
Other (Note 6)	**3,682,893**	943,980
	27,713,925	16,285,339
Construction Commitments (Note 4)		
	$278,092,127	$262,333,854

The accompanying notes are an integral part of the above statement.

Consolidated Statement of Capitalization

December 31, 1978 and 1977

	1978	1977
Common Shareholders' Investment (Note 3.a.):		
Common stock—Par value $8 per share—		
Authorized 6,000,000 shares		
Outstanding 5,439,866 and 5,348,027 shares, respectively	**$ 43,518,928**	$ 42,784,216
Amount received in excess of par value	**28,381,680**	27,616,811
Retained income	**23,521,863**	20,865,200
Total common shareholders' investment	**95,422,471**	91,266,227
Preferred Stock, cumulative, $25 par value, authorized 1,655,000 and 1,676,000 shares, respectively; exclusive of current sinking fund requirements (Note 3.b.):		
Series A, 9 3/8%, 170,000 and 176,000 shares outstanding, respectively	**4,250,000**	4,400,000
Series B, 7.80%, 182,000 and 188,000 shares outstanding, respectively	**4,550,000**	4,700,000
Series C, 7.90%, 282,000 and 291,000 shares outstanding, respectively	**7,050,000**	7,275,000
Series D, 12%, 400,000 shares outstanding	**10,000,000**	10,000,000
Series E, 8.70%, 300,000 shares outstanding	**7,500,000**	—
Total preferred stock	**33,350,000**	26,375,000
First Mortgage Bonds (Note 3.c.):		
2 5/8%, 1979 series	**1,821,000**	1,821,000
4 5/8%, 1988 series	**7,574,000**	8,326,000
4 3/4%, 1991 series	**4,835,000**	4,835,000
5.45%, 1996 series	**8,000,000**	8,000,000
8%, 1999 series	**11,731,000**	11,785,000
7 3/4%, 2001 series	**14,195,000**	14,309,000
9 3/4%, 2004 series	**19,790,000**	19,990,000
9 3/4%, 2005 series	**24,750,000**	25,000,000
6 1/2%, 2006 series	**8,780,000**	8,780,000
	101,476,000	102,846,000
1979 Series maturity and current bond sinking fund requirements, respectively	**(1,821,000)**	(291,000)
Unamortized discount and premium on bonds, net	**(200,808)**	(209,474)
Total first mortgage bonds	**99,454,194**	102,345,526
Other Long-Term Debt (Note 3.d.)	**888,228**	2,263,950
Total long-term debt	**100,342,422**	104,609,476
Total capitalization	**$229,114,893**	$222,250,703

The accompanying notes are an integral part of the above statement.

Consolidated Statement of Sources of Funds Used for Construction

For the years ended December 31, 1978 and 1977

	1978	1977
Funds Generated Internally:		
Net income	**$ 13,359,482**	$ 12,770,792
Items not affecting current sources and uses of funds—		
Depreciation and amortization	**15,327,655**	11,955,509
Amortization of nuclear fuel	**2,562,368**	2,142,876
Investment tax credit deferred—net	**3,932,774**	2,802,492
Amortization of January 1, 1978, unbilled revenue	**(513,900)**	—
Equity component of the allowance for funds used during construction	**(29,308)**	(605,044)
Other	**163,338**	132,076
Funds provided from operations	**34,802,409**	29,198,701
Less—		
Cash dividends on common and preferred stock	**10,544,177**	9,102,114
Sinking fund and other bond retirements	**1,370,000**	402,000
Preferred stock sinking fund retirements	**525,000**	300,000
Net funds generated internally	**22,363,232**	19,394,587
Funds Obtained from Outside Financing:		
Withdrawals from pollution control construction fund	**817,889**	2,127,743
Issuance of other long-term debt	—	1,000,000
Refinancing of other long-term debt, principally with proceeds from sale of first mortgage bonds	**(1,375,722)**	(3,236,050)
Sale of common stock, less expense of issuance	**1,408,087**	24,402,798
Sale of preferred stock, less expense of issuance	**7,432,852**	—
Decrease in interim loans	**(1,000,000)**	(12,040,000)
Net funds obtained from outside financing	**7,283,106**	12,254,491
Decreases (Increases) in Other Net Current Assets (exclusive of interim loans and sinking fund requirements):		
Accounts receivable—net	**(3,124,603)**	(327,692)
Unbilled revenue	**(903,929)***	—
Accrued taxes	**(3,553,101)**	5,256,447
Other, net	**1,313,042**	(1,209,370)
Net decrease (increase)	**(6,268,591)**	3,719,385
Other—Net (includes equity component of allowance for funds used during construction)	**2,883,578**	1,068,493
Total Funds Used for Construction Expenditures and Nuclear Fuel	**$ 26,261,325**	$ 36,436,956

*Net of $5,139,052 unbilled revenue recorded January 1, 1978.

The accompanying notes are an integral part of the above statement.

Auditors' Report

To the Shareholders and Board of Directors,
Madison Gas and Electric Company:

We have examined the consolidated balance sheet and statement of capitalization of MADISON GAS AND ELECTRIC COMPANY (a Wisconsin corporation) and subsidiaries as of December 31, 1978, and December 31, 1977, and the related consolidated statements of income, retained income and sources of funds used for construction for the years then ended. Our examinations were made in accordance with generally accepted auditing standards and, accordingly, included such tests of the accounting records and such other auditing procedures as we considered necessary in the circumstances.

In our opinion, the financial statements referred to above present fairly the financial position of Madison Gas and Electric Company and subsidiaries as of December 31, 1978, and December 31, 1977, and the results of their operations and their sources of funds used for construction for the years then ended, in conformity with generally accepted accounting principles, which, except for the change (with which we concur) in the method of accounting for revenue as discussed in Note 1.f. to the consolidated financial statements, were applied on a consistent basis.

ARTHUR ANDERSEN & CO.

Chicago, Illinois,
February 16, 1979.

Notes to Consolidated Financial Statements

December 31, 1978 and 1977

1. Summary of Significant Accounting Policies

The consolidated financial statements reflect the application of certain accounting policies described in this note.

a. Utility plant

Utility plant is stated at the original cost of construction, which includes indirect costs consisting of payroll taxes, pensions and other fringe benefits, administrative and general costs, and an allowance for funds used during construction.

Substantially all of the Company's utility plant is subject to a first mortgage lien.

b. Joint plant ownership

The Company and two other Wisconsin utilities, Wisconsin Power and Light Company (WPL) and Wisconsin Public Service Corporation (WPSC), jointly own two electric generating facilites. Power from the facilities is shared in proportion to the companies' ownership interests. Each company provides its own financing and reflects the respective portion of facilities and operating costs in its financial statements.

With the 1978 addition of the second unit (Columbia II) at the Columbia Energy Center ("Columbia," operated by WPL), 54 percent (325 MW) of the Company's net generating capability is provided from its 22 percent ownership (232 MW) of Columbia and its 17.8 percent ownership (93 MW) of the Kewaunee Nuclear Plant ("Kewaunee," operated by WPSC). The Company's portions of these facilities were included in its utility plant in service as follows:

	December 31,	
	1978	1977
Columbia	**$ 73,065,000**	$35,255,000
Kewaunee	**38,066,000**	37,407,000
Total	**$111,131,000**	$72,662,000

The Company's portion of the costs of Columbia II at December 31, 1977, was $34,790,000. This amount was included in construction work in progress at that date.

c. Allowance for funds used during construction

The allowance for funds used during construction (Allowance) is recognized as a cost of utility plant because it constitutes an actual cost of construction and, under established regulatory rate practices, the Company is entitled to earn a fair return on such costs through utility rates. Pursuant to a rate order issued by the Public Service Commission of Wisconsin (the PSCW) in 1974, the Company capitalizes the Allowance (at 7 percent) only on that portion of construction work in progress which exceeds 10 percent of average net investment rate base for the respective calendar year. The annual revenue increase provided for in that order, as well as in subsequent orders (Note 7), included compensation for the reduction in the Allowance attributable to this revised computation.

d. Depreciation

Depreciation expense includes, in addition to provisions at composite straight-line rates, amounts equivalent to the estimated reduction in income taxes (federal—$4,463,000 and $2,463,000 and state—$369,000 and $278,000 for the years 1978 and 1977, respectively), due to the use of liberalized depreciation allowances permitted for income tax purposes. Such accumulated additional depreciation totaled $26,196,000 and $20,926,000 as of December 31, 1978 and 1977, respectively. Provisions at composite straight-line depreciation rates, excluding the additional depreciation, approximate the following percentages of the cost of depreciable property for each of the years 1978 and 1977: electric, 3.5 percent and 3.4 percent; gas, 3.1 percent and 3.7 percent. These rates are approved by the PSCW and are generally based on the estimated economic lives of property. The reasonableness of the depreciation rates is frequently reviewed by the Company.

The Company's portion of the estimated costs of decommissioning Kewaunee is $6,534,000, which is being recovered through depreciation rates.

e. Property additions, maintenance, and retirements

Normal repairs and the costs of minor items of property are charged to maintenance; whereas, the cost of renewals and betterments of units of property is charged to utility plant accounts. Property units retired or otherwise disposed of in the normal course of business are charged to the accumulated provision for depreciation, and salvage, less removal costs, is credited thereto. Under this method of accounting, which conforms to generally accepted accounting principles, no gain or loss is recognized in connection with ordinary retirements of depreciable property.

f. Revenue recogition

For 1977 and prior years, the Company recognized utility revenue at the time customers' meters were read. At the end of each accounting period, there was electricity and gas consumed, the cost of which was charged to operating expense, while the related revenue was not recorded until the following period when the meters were again read. As a result, unbilled revenues at the end of each accounting period were not recorded until the following accounting period. This method of recognizing revenues by the Company was reflective of rate-making processes.

The disparity between costs incurred and revenues based on meters read has increased significantly in recent years. In accordance with a PSCW directive, the Company began recording, as of January 1, 1978, unbilled revenue on the basis of service rendered. The directive also provided that the estimated amount of unbilled revenue ($5,139,052) as of January 1, 1978, be recorded as a deferred credit and amortized to income over a ten-year period beginning with 1978. The directive indicates that the amounts amortized are to be deemed reductions of annual revenue requirements in future rate proceedings. The accounting change increased 1978 earnings by $709,000, or 13 cents

per share of common stock.

g. Nuclear fuel

The cost of nuclear fuel (Note 1.k.) is being amortized to fuel expense based on the quantity of heat produced for the generation of electric energy by Kewaunee. Such costs include a provision for estimated future storage and disposal costs of spent nuclear fuel. The tax effect of differences between the fuel costs amortized and that deducted for income tax purposes is included in "Nuclear fuel, net."

h. Fossil fuel

The inventory of fossil fuel is recorded at average cost, except for the Company's Blount Plant coal which is recorded on essentially a last-in, first-out basis. Inventory amounts for Blount coal were $421,214 and $676,579 as of December 31, 1978 and 1977, respectively.

i. Income taxes

(1) Depreciation for federal and state income taxes reflects the use of liberalized depreciation allowances permitted for income tax purposes. The estimated reductions in income taxes due to the application of these statutes are provided as additional depreciation as discussed under "Depreciation" (Note 1.d.).

(2) The Company's policy is to defer the investment tax credit (including the 10 percent investment credit provided by the Tax Reduction Act of 1975, an additional 1 percent credit available from the establishment of an employee stock ownership plan, and an additional ½ percent for matching contributions to this plan) and to amortize the 10 percent deferred amount over the service lives of the related property.

(3) Certain capitalized indirect costs, explained under "Utility plant" (Note 1.a.) and certain capitalized research and development costs have been deducted as incurred for federal and state income tax purposes and the income tax provision is reduced in the year the costs are incurred.

(4) The Company's effective income tax rate, computed by dividing the total of current federal and state income tax expense, net investment tax credit, and additional depreciation by the sum of such expenses and net income, reconciles to the statutory federal income tax rate as follows:

	1978	1977
Effective income tax rate as computed	**51.2%**	49.5%
Restoration of investment tax credit	**2.0**	2.0
Allowance for funds used during construction, which does not constitute current taxable income	**.5**	3.1
Pension costs and taxes capitalized	**.2**	.3
State income taxes and state additional depreciation, net	**(3.7)**	(3.3)
Other differences, net	**(2.2)**	(3.6)
Statutory federal income tax rate	**48.0%**	48.0%

j. Rentals

Rentals charged to income, including rentals under noncancellable leases, were less than 1 percent of operating revenues in 1978 and 1977.

k. Subsidiaries

The consolidated financial statements include the accounts of the Company and two wholly owned subsidiary companies which were established for the purposes of holding title to properties to be acquired for future utility plant expansion and holding title to the Company's portion of the nuclear fuel for Kewaunee. All significant inter-company accounts and transactions have been eliminated in consolidation. The Company also has a wholly owned subsidiary established to acquire uranium reserves for Kewaunee and to support the related mining and production operations. The investment in this subsidiary is carried on the equity basis of accounting, and the uranium thus obtained is recorded at cost, including the operations of the subsidiary.

l. Pension plans

The Company has contributory retirement annuity plans for substantially all of its employees. It is the policy of the Company to fund accrued pension costs. As of December 31, 1977 (the date of the most recent actuarial report), the value of assets in the funds was adequate to cover the actuarial value of vested benefits. Past service costs are being amortized over a period of approximately ten years. Unfunded past service costs were $221,000 at December 31, 1977. The provisions for pension costs were $106,000 and $304,000 for 1978 and 1977, respectively; of these amounts, $83,000 and $233,000, respectively, were charged to operating expenses, and the balance was charged to construction and other accounts. The effect of a previous change in funding assumptions reduced pension expense for 1978.

2. Koshkonong Project

As previously reported, the Company (with a 6.3 percent interest), WPSC, WPL, and Wisconsin Electric Power Company (WE), the designated constructing company, had planned to construct a nuclear facility (Koshkonong) near Fort Atkinson, Wisconsin. Various regulatory approvals were sought for the project. In November, 1976, the PSCW ordered the Company (as a condition of rate relief then granted) to, subsequent to March 31, 1977, terminate its participation in Koshkonong. Subsequently, the Company represented to the PSCW and to the other utilities that it was making no further Koshkonong expenditures subsequent to March 31, 1977, other than as required to protect its investment theretofore made, and accumulated project costs would be (and currently are being) carried as a deferred charge by the Company after that date.

Company expenditures for Koshkonong total $2,043,000, exclusive of nuclear fuel and consist primarily of engineering design and site selection. No construction had commenced.

In July, 1977, the other utilities requested the PSCW to withdraw their application for Koshkonong and the PSCW accordingly ordered the termination of the application proceeding, retaining jurisdiction to determine the accounting treatment for the expenditures. In the request for withdrawal, the other

Continued on next page

utilities advised the PSCW of their intent to file an application for a nuclear facility at a site called "Haven," which they have since done. The utilities proposed to the PSCW that essentially all of the Koshkonong costs be transferred by these other utilities to the Haven project capital accounts.

Whether the Haven site for a nuclear facility would ultimately be determined acceptable to the PSCW and other regulatory agencies cannot now be predicted. The utilities have formally agreed among themselves that the Company may withdraw from the project and to the extent alternative projects are pursued (or the project is abandoned) that the Company will receive its proportionate share of salvageable investment.

The Company's management has been assured by WE that all expenditures to March 31, 1977, were prudent and reasonable and that such expenditures either related to the securing of regulatory approvals or resulted from necessary requirements of the project.

The PSCW in January, 1979, meetings discussed various accounting treatments of Koshkonong expenditures, including those proposed previously by its staff, and directed that an order be drafted. The proposed order apparently would transfer approximately two-thirds of the expenditures to the Haven project capital accounts, and would direct the recording of uranium enrichment payments for nuclear fuel for the proposed second unit, representing another one-tenth of the total expenditures, as a deferred charge. The remaining expenditures, consisting primarily of Koshkonong siting and other expenditures for the proposed second unit, the Company's share of which is about $480,000 (or $240,000, net of income tax effects), would be recorded, at the time the order became effective, as a non-operating expense without future recovery through rate adjustments. It is anticipated that the order, which would be subject to court review, will be issued in March, 1979.

In the opinion of Company management and of its legal counsel, it is extremely doubtful that the ultimate disposition of the amounts expended by the Company for Koshkonong will have a material effect on the Company's consolidated financial statements.

3. Capitalization Matters

a. Common stock

The following common stock transactions occurred, and allocations of proceeds were made, as a result of public sales, and issues pursuant to the Company's Tax Reduction Act Employee Stock Ownership Plan (TRASOP) and its Automatic Dividend Reinvestment and Stock Purchase Plan (Dividend Reinvestment) which was established in November, 1977:

		Common Stock		
	Shares	Par Value	Excess of Par	Retained Income
1978				
Dividend Reinvestment	**58,303**	**$ 466,424**	**$ 479,813**	
TRASOP	**33,536**	**268,288**	**285,056**	
	91,839	**$ 734,712**	**$ 764,869**	**$ (91,494)***
1977				
Public Sales	1,500,000	$12,000,000	$13,031,250	
Dividend Reinvestment	11,564	92,512	102,631	
TRASOP	10,848	86,784	97,632	
	1,522,412	$12,179,296	$13,231,513	$(1,008,011)*

*Represents expenses of issuing stock.

b. Preferred stock

On August 31, 1978, the Company privately sold 300,000 shares of Series E, 8.70% Cumulative Preferred Stock, $25 Par Value, for $7,500,000 to an institutional investor. The proceeds of the issue were used to repay commercial paper.

The Company, within each 12-month period commencing with the 12-month periods ending as shown below, is obligated to retire a fixed number of shares of each series of preferred stock by redemption, at $25 per share plus accrued dividends, or by purchase at a price not exceeding the optional redemption price then in effect:

	12-Month Period Ending	Number of Shares
Series A	November 1, 1975	6,000
Series B	May 1, 1977	6,000
Series C	November 1, 1978	9,000
Series D	August 1, 1981	26,000*
Series E	August 1, 1984	4,000**

* An additional 26,000 shares may be retired during each of any three 12-month periods commencing after August 1, 1980.

**For the 12-month periods ending August 1, 1994–1998, and August 1, 1999–2008, the Company's annual redemption obligation is 8,000 and 22,000 shares, respectively. The Company may also retire an additional number of shares equal to the annual redemption obligation during any 12-month period ending after August 1, 1984.

Prior to the above dates (except that such date is May 1, 1980, for Series D and August 1, 1983, for Series E), each series of preferred stock may not be redeemed from borrowed funds or proceeds of other preferred stock (i) having interest costs or dividend costs to the Company of less than each series' dividend rate, and (ii) having, in the case of Series E, a weighted average life less than the remaining weighted average life of the Series E stock. Series D may not be redeemed from proceeds of borrowed funds maturing earlier than May 1, 1995, or junior stock.

c. First mortgage bonds

In November, 1976, the Company issued $8,780,000 of 6½% First Mortgage Bonds, 2006 Series, to secure pollution control revenue bonds issued by the town of Carlton, Wisconsin. The proceeds of the issue were deposited in a construction fund held by a trustee and are intermittently disbursed to reimburse the Company for the cost of constructing certain pollution control facilities. Undisbursed balances are invested in U.S. Treasury Bills.

The sinking fund requirements of the outstanding first mortgage bonds are $980,000 for each of the years 1979 through 1983. In addition, $1,821,000 will be required to retire at maturity the 2⅝%, 1979 Series, First Mortgage Bonds. As of December 31, 1978, the Company had satisfied all of its 1979 and $99,000 of its 1980 bond sinking fund requirements.

d. Other long-term debt

In April, 1973, pursuant to the terms of a Bank Credit Agreement, the Company borrowed $15,000,000 from five banks. These borrowings were evidenced by unsecured seven-year notes repayable at any time without premium. In July, 1978, the final portion of this debt was repaid primarily with portions of the proceeds from the sale of first mortgage bonds.

In February, 1977, the Small Business Administration made a $1,000,000 loan to the Company in connection with the losses incurred in a 1976 ice storm. The ten-year loan is repayable in equal semi-annual installments (including interest at 6⅝ percent).

4. Construction Program

Utility plant construction expenditures for 1979, including the Company's proportional share of jointly owned electric power production facilities, are estimated to be $28,484,000 and substantial commitments have been incurred in connection with such expenditures.

5. Notes Payable to Banks, Commercial Paper, and Lines of Credit

Under a Revolving Credit Agreement with five banks, the Company is entitled to borrow and reborrow until August 31, 1979, up to:

a. $16,000,000 from the five banks in the form of 90-day notes which bear interest at the prime rate in effect at one particular bank three days prior to issuance;
b. $15,000,000 of commerical paper promissory notes; and
c. $5,000,000 of short-term borrowings with other banks.

Pursuant to an order of the PSCW, which type of order can be amended upon the request of the Company, 1979 short-term borrowings may not exceed $20,000,000. Unused lines of credit available to support commercial paper exceeded such commercial paper outstanding at December 31, 1978 and 1977. Commercial paper outstanding at December 31, 1978 and 1977, was issued at commercial paper discount rates prevailing at the time of issuance.

The following information relates to notes payable, commercial paper, and lines of credit for the periods indicated:

	1978	1977
As of end of year—		
Weighted average discount rate on commercial paper outstanding	**10.48%**	6.79%
Unused lines of credit	**$20,400,000**	$20,400,000
For the year ended—		
Maximum amount of borrowings	**$12,200,000**	$15,040,000
Average amount of borrowings (based on daily outstanding balances)	**$ 4,426,000**	$ 2,834,000
Weighted average interest rate on borrowings	**7.60%**	5.28%

In connection with certain lines of credit, the Company maintains average compensating balances ranging from 5 percent of the lines to 15 percent of the amounts borrowed. There are no legal restrictions on withdrawal of these funds.

6. Transmission Line Settlement

In January, 1975, 63 miles of transmission line between the North Madison and South Fond du Lac substations was almost completely destroyed during a severe windstorm. In accordance with PSCW directives, the Company recorded the estimated property loss of $2,045,000, net of income tax ($1,380,000) and salvage effects, as a deferred charge in 1975 and began amortizing the loss as an operating expense (Note 7) over a 60-month period commencing in December, 1976.

In August, 1978, the Company received $3,500,000 ($1,687,000 net of income tax) in full settlement of a lawsuit involving certain parties involved in the design, construction, and collapse of the line. The settlement, net of income tax, has been recorded as an "Other Deferred Credit" since the ultimate rate-making and accounting treatment to be accorded to this recovery has not been determined.

7. Rate Matters

An appeal involving certain procedural matters pertaining to rate increases received in 1973 and 1974 (and with respect to which the orders made no provision for refund) is pending before the Dane County Circuit Court. The appeal contends that the PSCW erred in failing to prepare an environmental impact statement and in ordering the 1974 revised computation of allowance for funds used during construction (Note 1.c.). In the opinion of Company management and of its legal counsel, the outcome of this appeal will not have a material effect on the consolidated financial statements.

On November 9, 1976, the PSCW authorized a permanent increase in rates designed to produce additional annual revenues of $6,796,000 for electric service and $1,448,000 for gas service. Two environmental groups and one individual instituted

Continued on next page

judicial review proceedings in two separate appeals. Among other things, the appeals challenge those portions of the order permitting amortization of the 1975 transmission line loss (Note 6) as an operating expense, including the cost of replaced sections of the transmission line in rate base and authorizing additional electric revenues of $1,640,000 as an "attrition allowance." In both cases, the PSCW moved to dismiss the petitions for review. After several court appeals and rulings, only one environmental group and its public affairs officer refiled their appeal in the Dane County Circuit Court, where the matter is now pending. In the opinion of Company management and of its legal counsel, the outcome of these appeals will not have a material effect on the consolidated financial statements.

The Company's rate schedules are permitted to be adjusted, from time to time after notice to the PSCW, to reflect changes, based on a one-month moving average, in the costs of fossil fuel and purchased energy in electric rates, and in gas rates to reflect changes in the costs of purchased gas. In general, such adjustments are effective within 30 days for electric rates and immediately for gas rates.

8. Segments of Business

The following table presents information pertaining to the Company's segments of business for 1978 and 1977. The data does not necessarily reflect rate-making treatment. The preceding Notes are an integral part of this footnote.

	1978			1977		
	Electric	**Gas**	**Total**	Electric	Gas	Total
	(Thousands of Dollars)					
Operating revenues	**$ 78,588**	**$46,390**	**$124,978**	$ 65,256	$39,140	$104,396
Operating expenses:						
Operation and maintenance	**37,140**	**36,027**	**73,167**	28,284	29,566	57,850
Depreciation and amortization, excluding additional depreciation (a)	**8,293**	**2,203**	**10,496**	6,816	2,399	9,215
Property, payroll, and other taxes	**4,550**	**1,373**	**5,923**	3,901	1,230	5,131
Operating expenses before income taxes	**49,983**	**39,603**	**89,586**	39,001	33,195	72,196
Pre-tax operating income	**28,605**	**6,787**	**35,392**	26,255	5,945	32,200
Current federal and state income taxes, net investment tax credit deferred, and additional depreciation (a)	**11,219**	**2,785**	**14,004**	10,425	2,000	12,425
Net operating income (b)	**$ 17,386**	**$ 4,002**	**$ 21,388**	$ 15,830	$ 3,945	$ 19,775
Identifiable assets at December 31 (c)	**$204,999**	**$57,071**	**$262,070**	$195,072	$49,966	$245,038
Assets not allocated (d)			**16,022**			17,296
Total assets at December 31			**$278,092**			$262,334
Construction and nuclear fuel expenditures	**$ 19,715**	**$ 6,546**	**$ 26,261**	$ 31,341	$ 5,096	$ 36,437

(a) Information regarding amounts recorded as additional depreciation is set forth in Note 1.d.
(b) Excludes Allowance for Funds Used During Construction ($315,821 and $1,641,465, respectively, applicable to electric).
(c) Includes allocated common plant and is net of the respective accumulated provisions for depreciation.
(d) Primarily includes cash, accounts receivable, prepayments, and a portion of deferred charges.

9. Quarterly Summary of Operations (Unaudited)

The following is a summary of consolidated operations (in thousands of dollars except earnings per common share) for 1978 and 1977:

	1978*				1977			
	(Three Months Ended)							
	Mar. 31	**June 30**	**Sep. 30**	**Dec. 31**	Mar. 31	June 30	Sep. 30	Dec. 31
Operating revenues	**$37,606**	**$23,761**	**$27,693**	**$35,919**	$32,836	$22,553	$22,536	$26,471
Net operating income	**6,686**	**3,776**	**5,549**	**5,377**	5,829	4,852	4,942	4,152
Net income	**4,693**	**1,596**	**3,473**	**3,597**	4,042	2,991	3,139	2,599
Earnings on common stock	**4,044**	**949**	**2,772**	**2,793**	3,386	2,337	2,486	1,949
Earnings per common share**	**76¢**	**18¢**	**52¢**	**52¢**	76¢	51¢	53¢	37¢

* The change in accounting for unbilled revenue in 1978 (Note 1.f.) decreased earnings and earnings per share of common stock, respectively, by $269,000 and 5¢ in the first quarter, and by $677,000 and 13¢ in the second quarter. The change increased earnings by $259,000 in the third quarter, and $1,396,000 in the fourth quarter, resulting in per-share increases of 5¢ and 26¢, respectively.

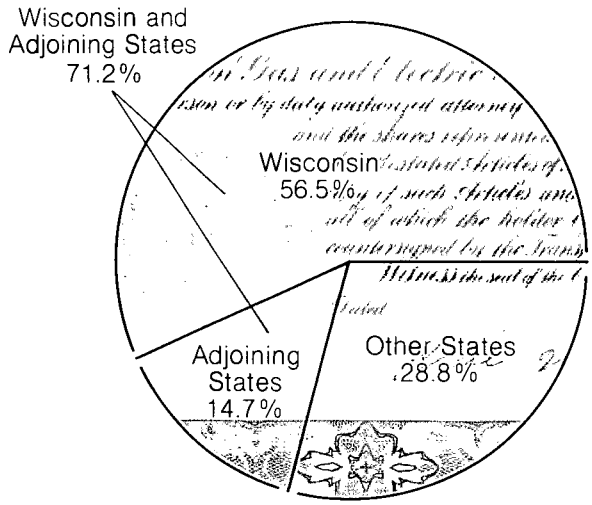
** Because of the mathematical effect of new common stock issues on average shares outstanding during specific periods, the sum of earnings per share of common stock for any four quarterly periods may vary slightly from the earnings per share for the equivalent 12-month period.

The quarterly results of operations within a year are not comparable because of seasonal and other factors.

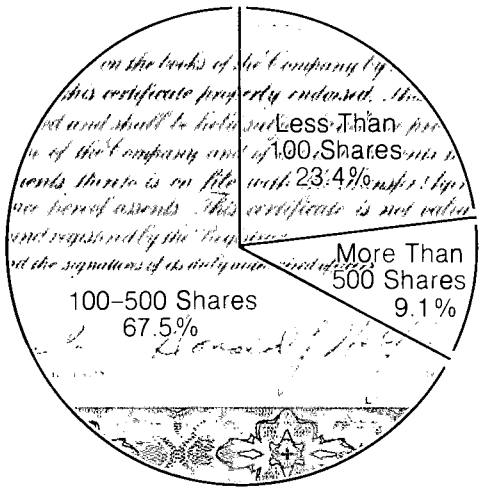
10. Replacement Costs (Unaudited)

The rate of inflation experienced in recent years has resulted in replacement costs that are much greater than the original costs of such assets. In compliance with reporting requirements of the Securities and Exchange Commission (SEC), estimated replacement cost information (unaudited) will be disclosed in the Company's annual report to the SEC on Form 10-K. Under present regulations, only historical costs are recognized by the PSCW in determining the Company's rates for utility service.

Distribution of 18,130 Madison Gas & Electric Co. Shareholders – January, 1979



BY LOCATION



BY SIZE OF HOLDINGS

Five-Year Summary of Operations

(Thousands of dollars except per share and shareholder figures)

	1978	1977	1976	1975	1974
Operating Revenues:					
Electric	**$ 78,588**	$ 65,256	$52,817	$47,407	$35,539
Gas	**46,390**	39,140	34,964	27,153	21,886
	124,978	104,396	87,781	74,560	57,425
Operating Expenses:					
Fuel used for electric generation and purchased power	**24,377**	17,321	13,766	12,787	13,491
Natural gas purchased for resale	**31,480**	25,525	22,720	16,651	11,769
Other operations and maintenance	**17,310**	15,004	12,837	11,236	9,753
Straight-line depreciation and amortization	**10,496**	9,215	8,496	7,378	5,455
Additional depreciation equivalent to estimated reduction in income taxes	**4,832**	2,741	3,345	3,059	2,658
Federal and state income taxes, including investment tax credit deferred—net	**9,172**	9,684	5,054	4,331	(81)
Property, payroll, and other taxes	**5,923**	5,131	4,607	4,037	3,567
	103,590	84,621	70,825	59,479	46,612
Operating Income	**21,388**	19,775	16,956	15,081	10,813
Other income and deductions—net	**276**	681	639	964	3,057
	21,664	20,456	17,595	16,045	13,870
Interest expense—net	**8,305**	7,685	8,939	8,041	7,412
Net Income	**13,359**	12,771	8,656	8,004	6,458
Preferred stock cash dividend requirements	**2,801**	2,613	2,635	2,252	1,445
Earnings on Common Stock	**$ 10,558**	$ 10,158	$ 6,021	$ 5,752	$ 5,013
Earnings Per Average Common Share	**$1.96**	$2.13	$1.58	$1.71	$1.57
Cash Dividends Paid Per Common Share	**$1.44**	$1.36	$1.23	$1.20	$1.20
Operating Income Before Income Tax Items:					
Electric	**$ 28,605**	$ 26,255	$19,690	$18,040	$ 8,885
Gas	**$ 6,787**	$ 5,945	$ 5,665	$ 4,431	$ 4,505
Number of Shareholders at End of Year	**18,130**	18,121	14,284	14,447	12,678

Management's Discussion and Analysis of the Five-Year Summary of Operations

The following factors have had a significant effect on the results of the Company's operations during the years 1978 and 1977.

Operating revenues

The increases in operating revenues for 1978 and 1977 were attributable to the following factors (in Million $):

	Electric Revenues		Gas Revenues	
	1978	1977	**1978**	1977
Sales to other utilities	**$ 9.1**	$ 2.5	Not applicable	
Sales to consumers—				
Due to rate increases (rate adjustments and, for 1977, the November, 1976, rate increase order)	**1.4**	8.4	**$ 2.4**	$ 8.2
Due to sales increases (decreases)	**2.2**	1.5	**3.8**	(4.1)
Recognition of unbilled revenues and other	**.6**	—	**1.1**	.1
Net increases	**$13.3**	$12.4	**$ 7.3**	$ 4.2

Fuel used for electric generation, purchased power, and natural gas purchased for resale

The increased costs of fuel used for electric generation and purchased power and of gas purchased for resale, resulted from the following factors (in Million $):

	Fuel for Generation and Purchased Power		Gas Purchased	
	1978	1977	**1978**	1977
Due to changes in Kwh generated and purchased and in Mcf purchased	**$ 3.0***	$ .8	**$ 3.2**	$ (3.4)
Due to unit cost increases	**4.1**	2.8	**2.8**	6.2
Net increases	**$ 7.1**	$ 3.6	**$ 6.0**	$ 2.8

*Reflects the commercial operation of Columbia II on April 30, 1978.

Other operations and maintenance

The 1978 increase was primarily due to the commercial operation of the Columbia II plant. Both years reflected higher labor and material costs, as well as costs associated with serving additional customers.

Depreciation and amortization

The 1978 increase in depreciation resulted from additional facilities in service, including Columbia II, and the income tax effects of certain liberalized depreciation allowances permitted for tax purposes. A normal reduction in such liberalized depreciation allowances in 1977 was more than offset by an increase in straight-line depreciation due to normal system additions and the 1977 full-year amortization of property losses.

Income taxes and investment tax credits

Federal income taxes decreased in 1978 essentially because of decreases in taxable income as a result of depreciation on Columbia II and increases in investment tax credits resulting from asset additions. Federal income taxes increased in 1977 primarily because of increases in taxable income resulting from the rate increase received in November, 1976. The resulting amounts of federal income taxes payable permitted investment tax credits to be deferred.

The elimination in 1977 of the five-year amortization of the difference as of December 31, 1971, between federal and state depreciation bases increased state income taxes significantly in that year, as did the rate increase received in November, 1976. In addition, state taxes were affected in both years by the accelerated write-off of pollution abatement facilites.

Property, payroll, and other taxes

Taxes other than income taxes increased in both years primarily due to higher ad valorem (property) tax assessments.

Other income

The 1978 and 1977 changes in other income essentially reflected those of the allowance for funds used during construction (AFC) which was affected by the amounts of construction work in progress (Note 1.c.).

Interest expense

Changes in interest expense reflected fluctuations in debt securities outstanding (Notes 3 and 5), amounts of construction work in progress subject to AFC, and, for 1977, the revised presentation of AFC.

Common Stock Price Range and Dividends

The range of bid and asked prices of the Company's common stock, which is traded in the over-the-counter market, and the dividends paid for the years 1978 and 1977 are as follows:

	Bid		Asked		Dividends
Year	High	Low	High	Low	Paid
1978—					
First Quarter	17	16 1/8	17 1/2	16 5/8	35¢
Second Quarter	16 1/4	15 3/8	16 3/4	15 7/8	35¢
Third Quarter	16 3/4	15 3/8	17 1/4	15 7/8	37¢
Fourth Quarter	16 3/8	15 1/2	16 7/8	16	37¢

	Bid		Asked		Dividends
Year	High	Low	High	Low	Paid
1977—					
First Quarter	17	15 1/2	17 1/2	16	33¢
Second Quarter	16 3/4	15 5/8	17 1/4	16 1/8	33¢
Third Quarter	16 7/8	16	17 3/8	16 1/2	35¢
Fourth Quarter	17 1/8	16 1/4	17 5/8	16 3/4	35¢

Upon written request, the Company will furnish to any shareholder a copy of our 1978 annual report on Form 10-K filed with the Securities and Exchange Commission. If you desire a copy of this report, please address your request to G. Howard Phipps, Post Office Box 1231, Madison, Wisconsin 53701.

Board of Directors

	Director Since
Richard E. Blaney, Madison, Wis President, Blaney Farms, Inc.	1974
Robert M. Bolz, Madison, Wis Vice Chairman, Oscar Mayer & Co.	1972
Leo E. Brodzeller, Madison, Wis Executive Vice President	1977
Jon J. Gruber, Middleton, Wis President of Gruber Furniture, Inc., and Owner of Gruber Funeral Homes, Inc.	1978
Donald J. Helfrecht, Madison, Wis President and General Manager	1972
Stanley V. Kubly, Madison, Wis President of Kubly Enterprises, Inc.	1960
Frederick D. Mackie, Madison, Wis Retired Chairman of the Board	1964
William A. McNamara, Madison, Wis Chairman of the Board	1958
Frederic E. Mohs, Madison, Wis Partner, Schlotthauer, Johnson, Mohs, MacDonald & Widder, Attorneys at Law	1975
John L. Sonderegger, Madison, Wis Chairman and Chief Executive Officer, Rennebohm Drug Stores, Inc.	1971
Louise A. Young, Madison, Wis Professor Emeritus, Department of Home Management and Family Living, U.W.—Madison and Financial Consultant	1973

General Offices
100 North Fairchild Street
P.O. Box 1231
Madison, Wisconsin 53701
Telephone 252-7000 Area Code 608

Transfer Agent
Harris Trust and Savings Bank
111 West Monroe Street
Chicago, Illinois 60603

Registrar
The First National Bank of Chicago
One First National Plaza
Chicago, Illinois 60670

Annual Meeting
The 1979 annual shareholders' meeting will be held at the Sheraton Inn, 706 John Nolen Drive (across from the Dane County Coliseum), Madison, Wisconsin, on Thursday, April 19, 1979, at 7:30 p.m. Madison time. Formal notice and proxy material will be mailed about March 19.

Officers

William A. McNamara, Chairman of the Board
Donald J. Helfrecht, President and General Manager
Leo E. Brodzeller, Executive Vice President
Gerald A. Wilson, Group Vice President—Energy Supply
Frank C. Vondrasek, Vice President—Electric System Operation
Richard M. Lawrence, Vice President—Community Affairs
Dale W. St. John, Secretary and Assistant Treasurer
G. Howard Phipps, Treasurer and Assistant Secretary
B. C. Moore, Assistant Vice President and Manager—Consumer Services
Terrence J. Schuh, Assistant Vice President and Director of Rates
Beverly R. Duncan, Assistant Secretary—Corporate Affairs
Carol A. Bethke, Assistant Secretary—Administration and Investor Relations

Board of Directors: seated, Donald J. Helfrecht. first row (left to right): Leo E. Brodzeller, William A. McNamara, Stanley V. Kubly, John L. Sonderegger, Louise A. Young. second row: Richard E. Blaney, Frederic E. Mohs, Robert M. Bolz, Frederick D. Mackie, Jon J. Gruber.

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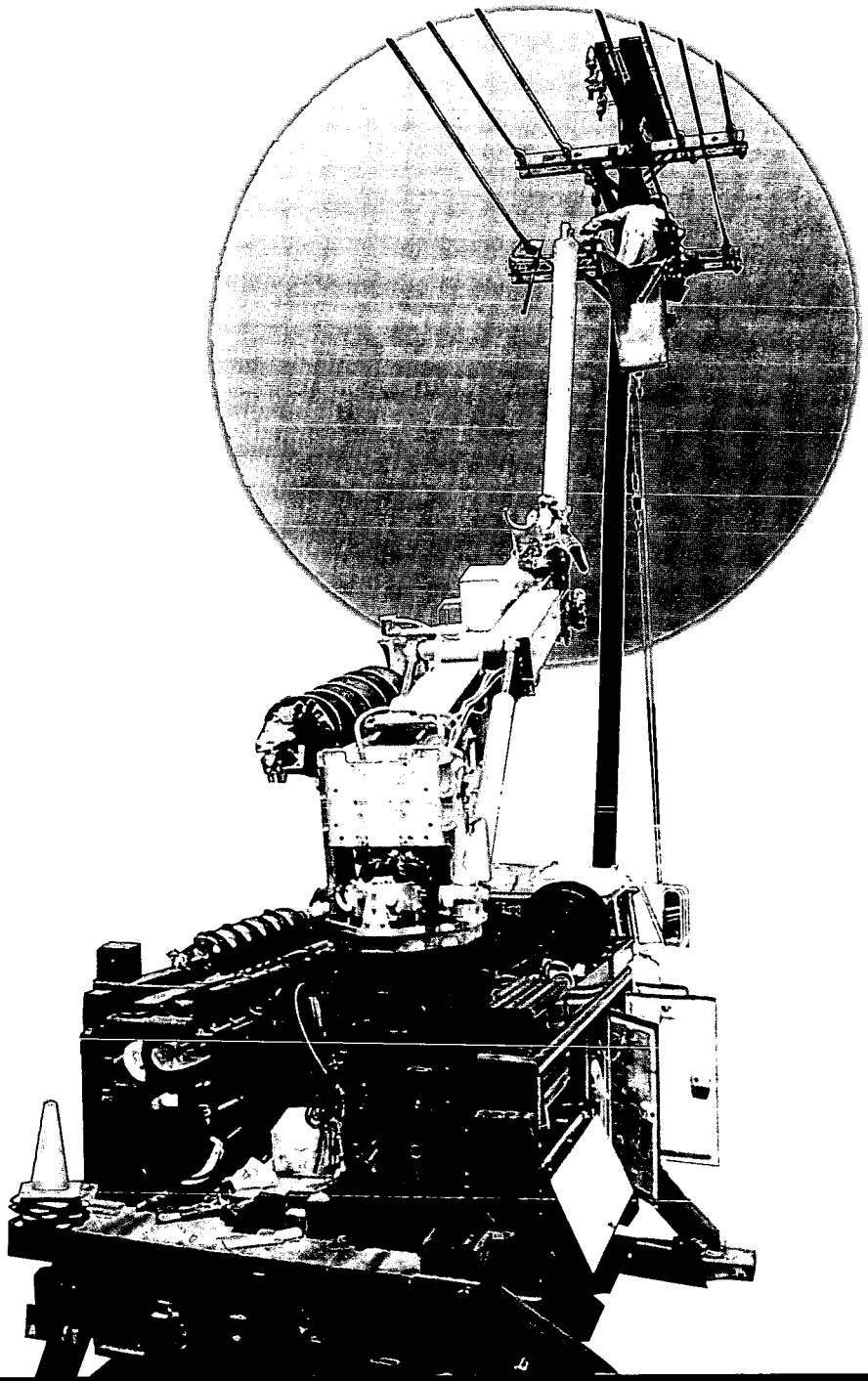

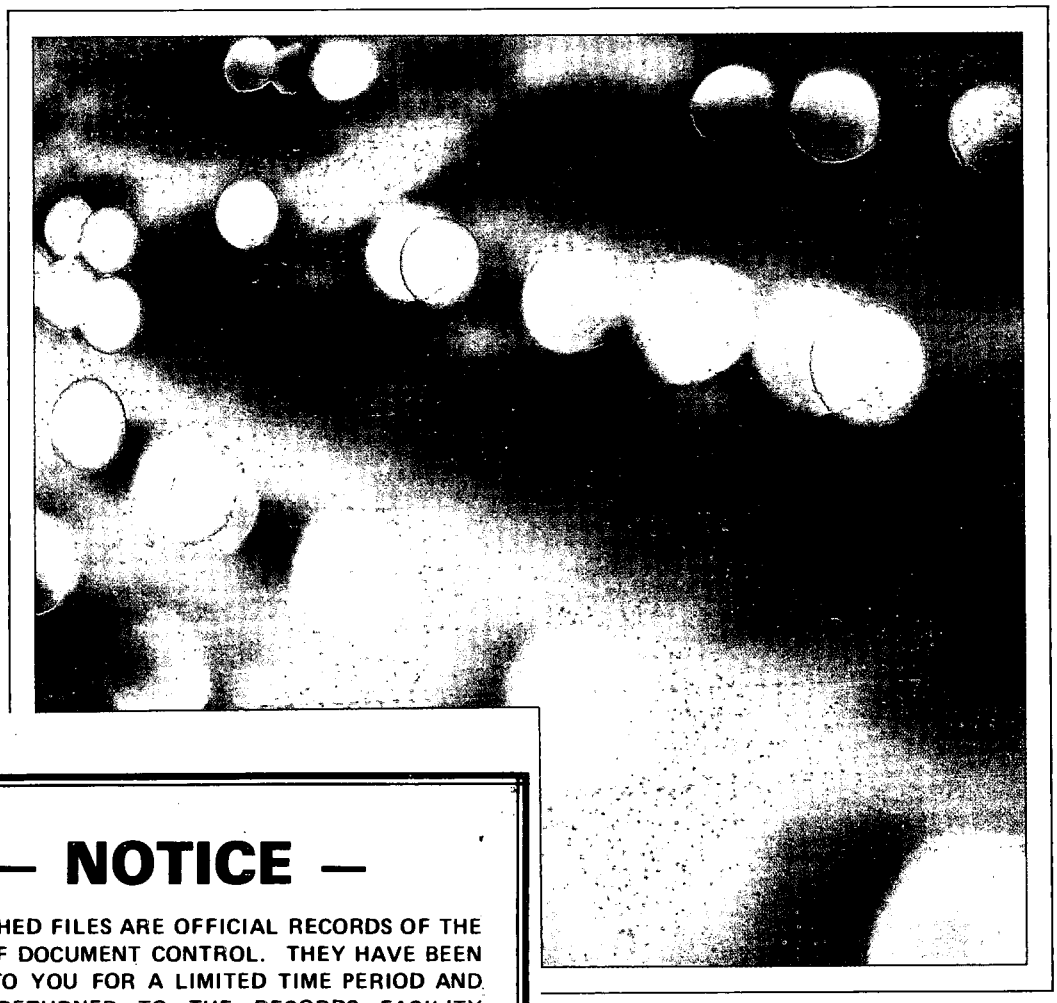

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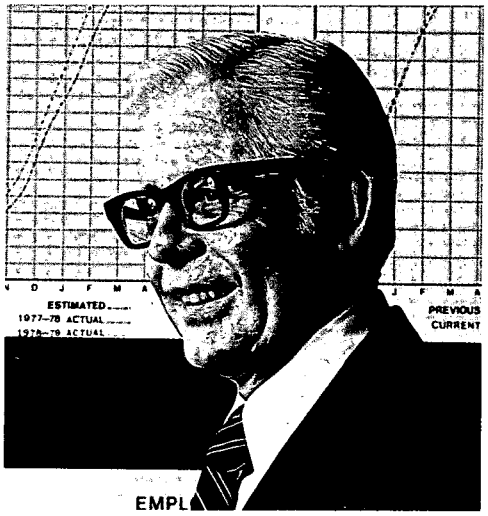
WISCONSIN POWER AND LIGHT COMPANY 1978 ANNUAL REPORT

BOARD OF DIRECTORS

Eugene O. Gehl



James R. Underkofler

Dr. Bernard S. Adams

Henry C. Prange

Shirley B. Thompson

Allan W. Adams

Carol T. Toussaint

Peter S. Van Nort

George F. Kasten

Edward A. Wiegner

Allan W. Adams
Attorney-at-law and Business Consultant, Beloit, Wisconsin

Dr. Bernard S. Adams
President, Ripon College, Ripon, Wisconsin

Eugene O. Gehl
Corporate Counsel for Wisconsin Power and Light Company and partner in the firm of Brynelson, Herrick, Gehl & Bucaida, Madison, Wisconsin

George F. Kasten
Former Chairman of the Board, First Wisconsin Corporation (a bank holding company), Milwaukee, Wisconsin

Henry C. Prange
Chairman of the Board and Chief Executive Officer, H. C. Prange Company (retail department stores), Sheboygan, Wisconsin

***Shirley B. Thompson**
Co-owner and Manager of Family Farm, Mt. Horeb, Wisconsin

Carol T. Toussaint
*Secretary of the Wisconsin Department of Local Affairs and Development, Madison, Wisconsin***

James R. Underkofler
President and Chief Executive Officer, Wisconsin Power and Light Company

***Peter S. Van Nort**
Senior Vice President, Wisconsin Power and Light Company

Edward A. Wiegner
Senior Vice President, Wisconsin Power and Light Company

*Elected to the Board in 1978
**Resigned as Secretary effective January 2, 1979

The Audit Committee oversees the review of Company operations and results. It recommends the independent auditors to be selected and determines with them the scope of the audit to be conducted. The Committee discusses with the independent auditors and Company management the accounting and reporting principles, policies and practices to be used. The Committee consists of Board members who are not employees or officers of the Company.

The Personnel Committee functions as an executive review group, evaluating overall management performance. The Committee also reviews human resource development programs, benefit plans and changes and major provisions of negotiated employment contracts. It reviews and approves salaries of officers and upper echelon management positions. The Committee consists of Board members who are not employees or officers of the Company and the President as a nonvoting member.

The Corporate Planning and Performance Committee examines corporate planning and performance, including the review of such items as sales and load forecasts, operating and construction budgets, financing programs and rate matters. The Committee consists of all members of the Board of Directors.

1978 FINANCIAL HIGHLIGHTS

	1978	1977
Operating Revenues	$306,835,000	$271,806,000
Operating Expenses	$259,202,000	$227,498,000
Net Income	$ 29,093,000	$ 30,499,000
Earnings on Common Stock	$ 23,480,000	$ 24,886,000
Earnings Per Share of Common Stock	$2.15	$2.30
Dividends Per Share of Common Stock	$1.72	$1.62
Total Capitalization	$550,768,000	$511,522,000
Electric Sales (Thousand Kilowatt-Hours)	6,617,000	6,240,000
Gas Sales (Thousand Therms)	300,309	268,904

Docket # 50-305
Control # 7904180208
Date 4/16/79 of Document:
REGULATORY DOCKET FILE

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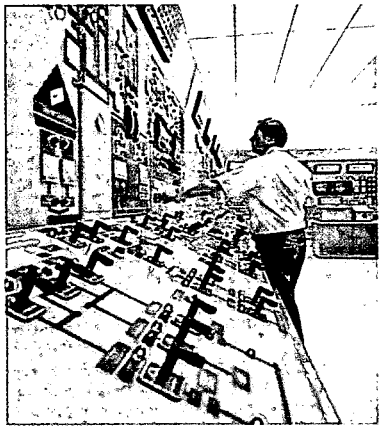
ON OUR COVER

The control panel at WP&L's Columbia Energy Center, enlarged several times on the cover, is continually aglow with colored indicator lights. At capacity, the twin coal-fired units generate more than one million kilowatts to serve Wisconsin people at home, on their farms, and in their businesses and industries.



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Wisconsin Power and Light Company is an investor-owned electric, gas and water utility serving central and southern Wisconsin.

THE PRESIDENT COMMENTS

1978–PROBLEMS, PROGRESS, PROMISE

In my comments to shareowners in the past several annual reports, I have stressed that your Company and the utility industry were facing a variety of difficult circumstances that required new management skills and responsive, decisive actions. Nineteen seventy-eight has continued that pattern of increasingly intense challenges. In many respects the past year was a tough one for all parts of our society, not just the utility industry. Continued inflation, several prolonged strikes affecting our industry, the changing work force and political restlessness created difficult problems.

We have taken decisive, responsive action and have turned some challenges into opportunities, including innovative conservation programs, load forecasting techniques and construction management. At the same time, we have been able to maintain reliable service for our customers.

James R. Underkofler
President and Chief Executive Officer

One of our key, continuing problems is the financial well-being of your Company. We are becoming increasingly concerned about regulatory responses to the financial realities facing Wisconsin's utilities. This has been a major factor leading to inadequate earnings levels over the past several years.

This was most apparent in our 1978 results. Earnings on common stock for the year totaled $2.15 per share, substantially below an adequate level. Our application to increase electric and water rates filed with the Public Service Commission of Wisconsin (PSC) in the summer of *1977* was approved in late December *1978* on an interim basis and at a level below that requested.

While we expect earnings to improve in 1979, we will continue to feel the pressures of rising costs since the increases granted by the PSC in December were based on anticipated expenses for 1978 and do not reflect the higher costs we will experience in 1979.

We also are becoming increasingly concerned about the change in attitude by the Commission which results in assigning certain financial risks to shareowners for regulatory costs in the early stages of plant construction. We have seen this attitude in the Commission's recent delibrations on the Koshkonong nuclear project and we are concerned over the impact that this shift may have on our ability to achieve realistic earnings so that we can continue to meet customer needs. We believe strongly that in order to continue to attract investors, any increased exposure to risks must be accompanied by an increase in the opportunity to achieve higher earnings levels.

As we indicated in a recent *Quarterly Report* to shareowners, one of our basic financial goals is to provide earnings and dividend stability. Although the delay in obtaining rate relief adversely impacted earnings, we did increase our dividend in the third quarter in recognition of the need to strengthen our shareowners' cash return on their investment.

Obviously, the federal government's efforts to bring inflation under control also will have an impact. Because the interim order granted in December was our first increase in basic electric rates in *three full years,* we anticipate that, on an average annual increase basis, we will remain in compliance with the voluntary price guidelines established by the President last year.

Our bargaining unit employees have another year remaining on their contract and are not presently affected by the guidelines. Wage increases for executive and other employees will be within the President's suggested limits. The guidelines have not had a significant impact on Company operations at this time.

This past year witnessed the passing of the National Energy Act. The final version was much changed from what was originally proposed and from what the energy and utility industries had recommended. It was at best a painful compromise and it remains to be seen whether it can be constructively implemented by federal regulatory agencies. Your Company will continue to urge responsible measures that will enable our country to reduce its dependence on foreign oil and assure adequate energy in the future. This will include efforts to point out that the failure to deregulate the price of domestic oil results in underdevelopment of available resources and artificial, imposed underpricing.

In many parts of the country, adequate energy supplies were a major concern for a good portion of 1978 because of the prolonged strike by coal miners and a shorter railroad workers strike. WP&L was able to

weather the effects of the strikes largely because we anticipated the problems and took the early, necessary steps to stretch our existing coal supplies. A major factor in meeting needs not only in 1978 but during the severe cold of 1977 was the availability of substantial amounts of energy from the nuclear facilities in Wisconsin, including our jointly owned Kewaunee nuclear plant. An early, smooth start-up of the second unit at the Columbia Energy Center in 1978 also enabled us to meet the needs of our customers and provide some assistance to other utilities.

During these strikes, the need for a balanced generating mix utilizing both coal and nuclear became most obvious. At the same time, the obstacles to the continued development of nuclear power became more frustrating. The Wisconsin PSC indicated that it would not consider any of our additional nuclear units beyond the proposed first Haven unit scheduled for 1987. The Commission believed that not enough progress was being made toward resolving waste disposal, fuel supply and decommissioning issues. We believe that these issues are being resolved to an extent that continued development of nuclear operating facilities is in the public interest. Legislation is under study by Congress to develop waste disposal facilities by the 1980s. Adequate short-term fuel supplies are available in the U.S. and the development of fuel reprocessing plants and the breeder reactor could provide added fuel for a longer term. The cost of decommissioning is incorporated in nuclear plant planning from the start, while the technology to safely handle retired plants is available and tested.

The nuclear units presently operating in Wisconsin have had outstanding performance records and have helped to hold down the pace of rate increases. Nuclear power continues to be cost competitive with fossil fuel generation. And along with these factors, our state has a newly elected governor who supported nuclear development during his campaign. We believe that nuclear power must remain a viable option for meeting future energy needs. The federal government must resolve its own indecisiveness and address the socio-political issues that have frustrated and could eliminate nuclear energy in our future.

The emphasis of this year's annual report is Energy: A Matter of People —our customers, our shareowners, our employees—and our efforts directed at meeting the interrelated needs of each of these groups. As you read through the balance of this report you will see how Power and Light people meet present problems and face the challenges of the years ahead.

We shall meet those challenges with planning and programs that are "pro-active" rather than reactive, with continued emphasis on conservation and load management, and with sound construction and financing schedules.

Wisconsin Power and Light Company has grown and prospered because we have always been mindful of our basic responsibilities to our customers, our shareowners and our employees. And while changing or tougher circumstances may demand more from all of our employees, we have the skills, experience and stability to move confidently into the years ahead.

1978 HIGHLIGHTS

An interim electric and water rate increase was granted by the Public Service Commission in December. WP&L revised in January 1978 its July 1977 request based on new financial data. The January application called for a 15 percent increase in electric revenues and a minor increase in water revenues. The interim order granted 11.2 percent toward electric revenues. The delay in action on the 1977 case led WP&L to adopt an internal austerity program in mid-1978.

The new System Operations Control Center southeast of Madison was completed. The **advanced monitoring and control facility** responds to the increasingly complex demands of the Company's electric and natural gas systems.

Members of the International Brotherhood of Electrical Workers Local 965 **ratified a two-year wage and benefits contract** between the Union and Company in May.

The second unit at the Columbia Energy Center began commercial operation in May. Columbia 2 was dedicated in July at ceremonies attended by Portage area dignitaries, legislative officials and media representatives. An open house in August was attended by more than 3,000 WP&L employees and members of the public. With the addition of the second unit, the Center is the second largest generating facility in the state. Combined capacity of both generators totals more than one million kilowatts, enough to meet the needs of 500,000 families.

WP&L produced and sponsored four television commercials to help customers understand the relationship between energy and a clean environment, the importance of conservation and the necessity of planning now for tomorrow's energy needs. The commercials were the Company's first effort in television advertising.

Anticipation and planning well before the country was hit by the **nationwide coal strike** allowed WP&L to provide stable, uninterrupted service to its customers while other utilities were struggling with shortages. The Company stretched its coal supplies and relied on nuclear facilities in the state to meet customer needs.

Service area development continued last year with 34 new industries locating in WP&L territory, while 79 expanded their operations here. These new and expanded industries created 2,000 additional jobs. More than 6,600 new customers were added to the Company's electric system and new natural gas customers totaled almost 3,000.

A Pre-Retirement Counseling Program for WP&L employees was initiated in 1978. Counseling topics include health maintenance, financial planning, insurance, Company benefits and leisure time activities.

An application to build the Haven nuclear generating facility near Sheboygan was filed with the PSC by WP&L and its joint owners. The utilities decided to file for one unit rather than the originally planned twin 900-megawatt units following a PSC order in mid-August stating that only one unit would be considered. Following approval, the new power plant would not be operational before 1987, at the earliest.

A new **20-year electric base load forecast** issued in August predicts an annual average growth rate of 2.7 percent for WP&L. This is down from the 3.9 percent figure forecast in 1976 and reflects the Company's ongoing efforts to encourage energy conservation and plans for further aggressive steps to manage electric load and reduce future demand.

Residential and most commercial and industrial gas customers are paying more per unit as their gas usage increases under **an "inverted" rate design ordered by the PSC** in October. The order was part of WP&L's 1976 gas rate case. WP&L had proposed a "flat" design with customers paying the same unit cost for all gas used. It further proposed that residential customers who meet conservation standards would pay less per unit after an initial base amount was used. This proposal was not approved.

The Kilbourn and Prairie du Sac **hydroelectric plants set annual capacity records** in 1978 by generating more kilowatt-hours than in any year previously. Unusually heavy rainfall allowed the Wisconsin River to remain at above-average level during months when it normally drops, leading to the record production. WP&L meets about 3 percent of its electric demand with hydro generation.

During 1978 WP&L expanded its sources of short-term funds by establishing new lines of credit with Heritage Bank of Milwaukee and with a group of minority banks led by the Independence Bank of Chicago. Lonnie S. Radcliffe, Independence Assistant Vice President (right), and Ted Gurzynski, Heritage Vice President (center), meet with WP&L Treasurer Rick Remeschatis.

KNOWING AND SERVING CUSTOMERS

Wisconsin Power and Light Company's goal to know and serve its customers took on special meaning for Gene and Joe Nelson of North Fond du Lac, Wis., in October 1978. The Company's city-wide natural gas system upgrading project was literally at the Nelson's doorstep.

Elmer Collar, a WP&L employee who has been assigned since the beginning of the gas project in 1973 to contact customers before the pipeline crews arrive, stopped in at the Nelson's Village Beverage Mart.

"He told us that WP&L would move our gas meter from the basement to the outside for easier reading. He let us know exactly when they would shut off our gas and that they would restore the parkway when they were finished," Joe Nelson said. "They did a beautiful job."

"We really didn't even notice when the gas was off," Gene added.

"And they repaired the downstairs wall where the old meter had been as well as I would have myself," Joe said.

The Fond du Lac gas project will continue through 1980. It's one example of how important it is for a utility to take its business, and its customers, seriously.

"The job that WP&L is doing here is difficult," stated Fond du Lac Director of Public Works Jim Vollstedt. "It can't be done without some mess and uproar."

"We know what it's like to go through this—to have streets torn up and people unhappy," added City Manager Myron Medin. "Through it all we've been in close contact with Lyle Coates (WP&L Division Manager at Fond du Lac). He always did something helpful. The Company made sure everyone was notified personally when the crews would be around and worked hard to keep people up-to-date," Medin said.

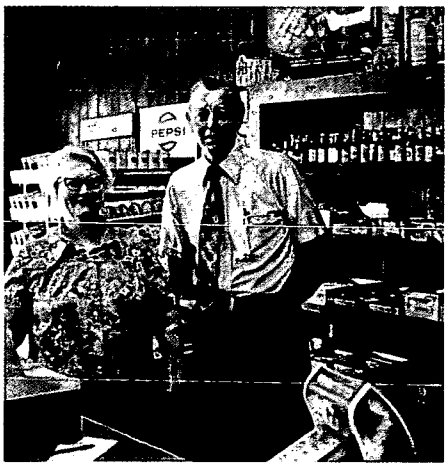
The Fond du Lac gas upgrading is unusual in that it's a seven-year project. It's common in that it typifies WP&L's high standard of service and reliability to its customers.

Reliability means minimizing gas service interruptions and also having the electrical power there when it's demanded by customers. Generating stations must be kept at maximum repair, both to make the most efficient use of equipment and to provide needed service. It's no accident that in 1978 WP&L's major generating units recorded "serviceability factors" above the national average for similar size units.

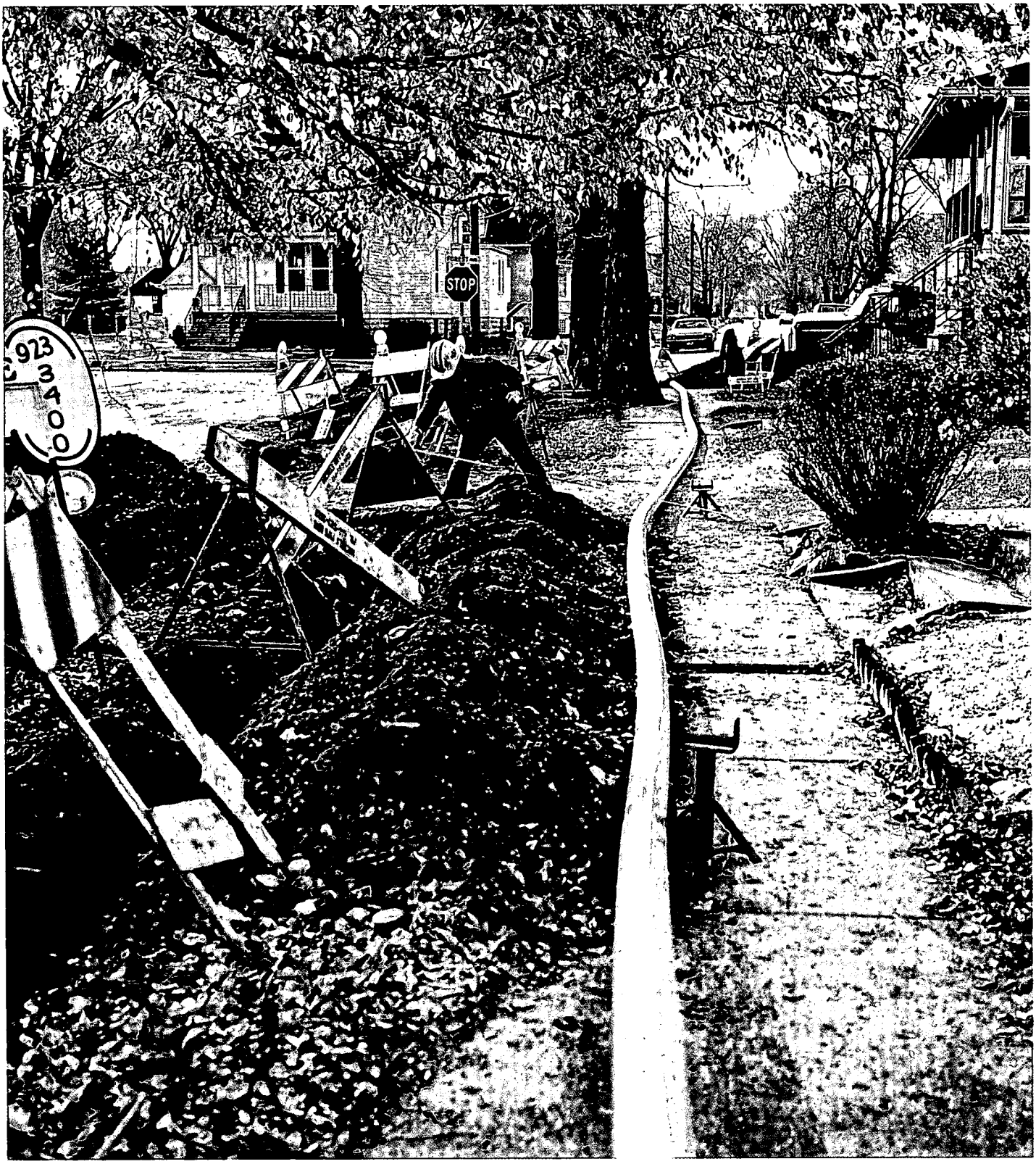
But a large part of serving customers is knowing what their needs are.

At WP&L, load forecasts are developed from extensive data on how users themselves anticipate their future needs. A Farm Advisory

Gene and Joe Nelson own a package goods store in North Fond du Lac. They got to know WP&L better when a Company representative visited them as part of the gas system upgrading there.



Primary concern is being given customer service throughout the gas distribution system upgrading project. Crews begin lawn, sidewalk and street restoration immediately after completion of the underground work. "In my neighborhood," said City Manager Myron Medin, "they came in the next day to fix the street."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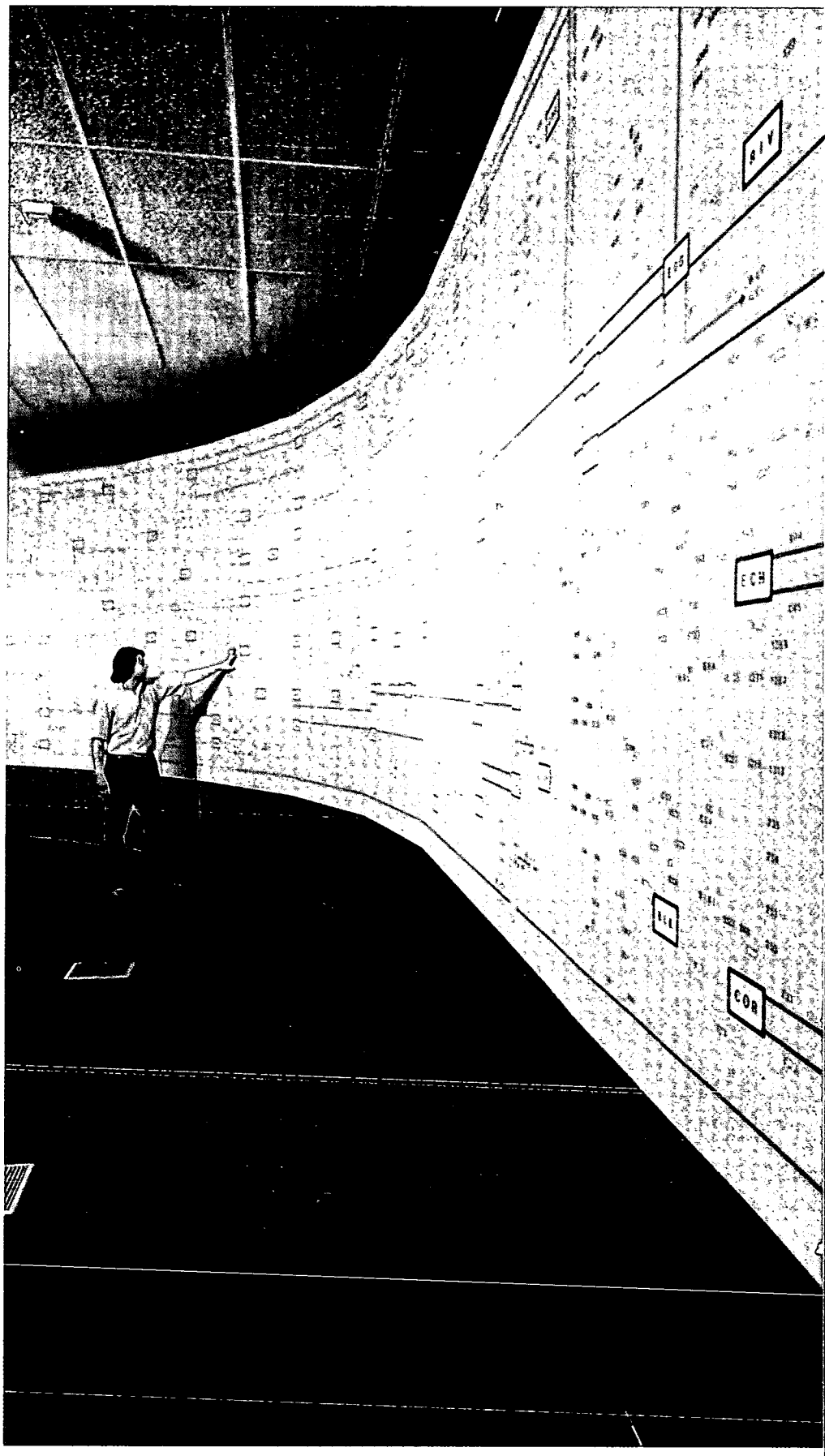


From the control room of the System Operations Center, personnel can monitor and control the Company's expansive gas and electric operations. Computerization relieves operators of manual record-keeping, allowing human resources to be maximized.

Council meets with President Underkofler and other WP&L executives regularly to offer the opportunity for guidance on energy matters related to agriculture. And service representatives throughout WP&L's territory work with customers daily to understand their energy demands and to find the best ways to meet them.

Obtaining information about customers and putting it to the best possible use is the reason WP&L is planning its Customer Information System. This on-line computer system will provide immediate answers to customer billing inquiries, and enable Company personnel to provide accurate, efficient service.

The Customer Information System will store data important to maintaining good service and fair costs to all customers when rate request cases are compiled. The computer will easily provide information about WP&L customers as a group.

Further, details on special conditions in customer homes, such as life-sustaining equipment and the presence of elderly and infants, can be kept in accessible files. This information, for example, would affect possible disconnections for nonpayment.

"Our job," said Coates, "is to provide trouble-free, safe and dependable gas and electric service. It's really the only reason we have for being in the community."

HELPING CONTROL ENERGY COSTS

In spring 1977 when the American public was only beginning to recognize the realities of an energy crisis, Wisconsin Power and Light Company proposed one of the most aggressive gas conservation programs in the nation to the Wisconsin Public Service Commission. In October of that year, the Company was authorized to move ahead with its extensive plans to begin helping customers control their energy costs.

The Company trained home energy auditors, set weatherization guidelines, identified target areas, developed demonstration resources and intensified educational efforts.

Beatrice Loos, a 90-year-old widow in Winneconne, Wis., didn't know anything about WP&L's conservation program. But in August 1978, she was having her turn-of-the-century house weatherized as a direct result of it. Mrs. Loos was part of a pilot project in that area which brought together the Company, the local community action agency—ADVOCAP, and Jaycee volunteers to help the elderly confront rising energy costs.

"WP&L and ADVOCAP have a common agenda," said Phil Hahn of ADVOCAP. "And that's to help people conserve energy. Through communication and cooperation, we are doing just that.

"The weatherization portion of the project," he continued, "is second in importance to getting the community, the utilities and community action agencies to work together. The Jaycees' contribution was essential. I really feel good about what has developed, especially the relationship between our agency and WP&L. We've received excellent cooperation."

This spirit of cooperation has enabled WP&L to provide energy conservation ideas specifically tailored to its Wisconsin customers.

In cooperation with local realtors, the Company has completely weatherized vacant existing houses in towns throughout its service area and opened them to the public for viewing. All insulation, caulking and other materials used were purchased locally to insure that residents, too, can get the supplies they need to do their own work.

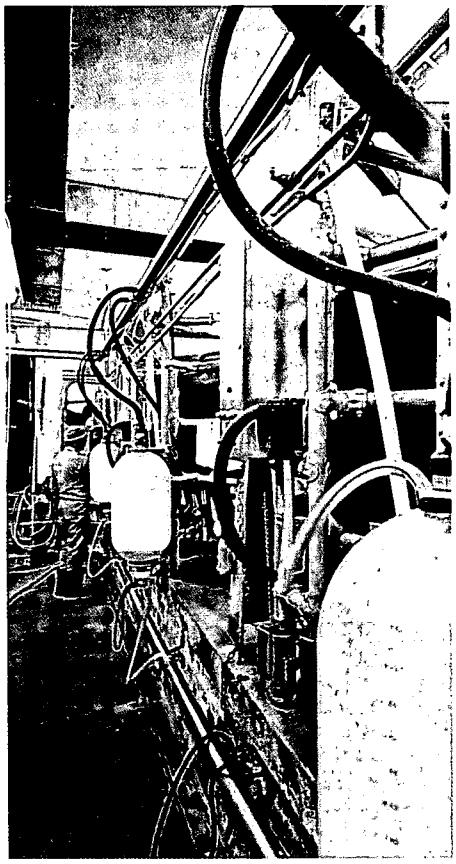
For those who will be constructing a new home, WP&L is gathering data on the energy-saving potential of direct gain, or passive solar, homes in the variable northern Midwest climate. It is constructing three such homes that offer customers solar energy at less cost and maintenance than some "active" systems.

While working with residential customers to help them control costs, the Company also is acutely aware of the tremendous burden rising energy costs have on business and industry.

At The Parker Pen Co.'s Arrow Park Plant in Janesville, Wis., capacitors were installed to increase the plant's power factor from 88 to 98 percent. This means that for the same amount of power from WP&L, the customer requires less current. The 10 percent correction has meant a savings of more than $400 a month for the customer.

WP&L Industrial Services Engineer Herman Green worked with Parker

Some modern dairy operations in Wisconsin are using equipment that harnesses the heat from milk just taken from the cow and are using the energy to heat water. WP&L's testing of the equipment helped determine its efficiency and payback period.



Pen to design and justify the modifications.

"The total cost of the installation, which exceeded $20,000, had to be economically justified within our corporate guidelines," said Maintenance Engineer Wm. Dave Brookhiser of The Parker Pen Co. "Candidly discussing pending rate increases with Wisconsin Power and Light provided information indicating the potential for a return on investment within 36 to 48 months."

During 1978 WP&L offered a variety of seminars for service area customers on heat recovery, gas maintenance, equipment efficiency and ventilating and air conditioning equipment maintenance.

Utility counseling and sharing of expertise, as well as pricing structures such as time-of-day rates, have enabled industry and business to get the most for their energy dollar.

In line with efforts to control costs, WP&L continues to seek out and implement the most effective management of its internal operations. Long-term fuel contracts attempt to insure both adequate supplies and the best prices. Manageable construction schedules are designed to meet future needs without unreasonable deficiencies. And perhaps most importantly, valuable human resources are maximized through safety, training and technology.

In 1978, efforts that were begun in earlier years came to fruition. A Construction Management System, proposed in 1976, moved toward start-up. Designed to better utilize personnel by computerizing complex record-keeping, the system tracks customer requests for service from first contact through completion. Mike Hewitt of WP&L has been working with the system since 1976.

"With the Construction Management System we'll be able to better schedule our crews, standardize construction methods and equipment throughout the Company and better manage all materials," Hewitt said. "The bottom line is that our people will be relieved of time-consuming paper shuffling which will allow quicker and more effective responses to customer inquiries."

Responding to customers economically and with the assurance of continuity is the day-to-day goal of WP&L. Complex operating requirements put special demands on the utility. To meet those demands and to anticipate rising fuel costs, the Company began planning in 1974 a System Operations Center. In operation today, the center allows operations personnel to accomplish their work faster and with better information for decision making than ever before. And the new facility makes a real contribution to holding down customer bills.

Fully weatherized demonstration homes offered extensive do-it-yourself information for homeowners. More than 5,000 people visited a Janesville house in the four-month period it was open. They were invited to sign up for energy-saving audits of their own homes conducted by WP&L personnel.

When Phil Hahn of ADVOCAP (right) and Lyle Murton of WP&L told Beatrice Loos that insulation, caulking and weatherstripping would reduce her heating bill as much as 30 percent, she said, "Good, that's the best part." Hahn is using the Winneconne project as a model for a manual to guide other community action agencies in planning their own programs.

SERVING OUR COMMUNITIES RESPONSIBLY

"The key to serving communities is learning who the community really is and what its specific needs are. We can't belong to only the Chamber of Commerce and the Rotary Club and think that that will keep us in touch with the entire community."

Don Goiffon, WP&L Division Manager, related his own experiences.

"I'm working with a Beloit neighborhood group as both a citizen and a utility representative in an effort to help form a Neighborhood Housing Service. Included in the Service's program of revitalization and improvement will be WP&L's conservation audit and inspection program. We want to encourage conservation through retrofitting and weatherization," Goiffon said.

Communities change. And anticipating the changes often means reaching out to new organizations. In the southeastern part of Wisconsin Power and Light territory, Company managers work closely with the Tri-County Spanish Centers, a minority placement agency. Phil Crawford, District Manager at Lake Geneva, serves on the Board of the Centers.

A miniature electric distribution line helps Hank Rathjen, WP&L Operating Superintendent, Baraboo, demonstrate electrical safety. Rathjen gives presentations more than 75 times a year to volunteer fire departments, service clubs and law enforcement agencies, as well as to schools.

"Mr. Crawford knows the community," said Anita Herrera, Spanish Centers Executive Director. "He's interested in the total community and we see his participation as a real plus for the placement work we're doing."

During 1978 WP&L reached out to another constituency—the religious community—to discuss the "Ethics of the Energy Issue." The seminar attracted nationally known speakers and provided a framework for future discussions, according to Willis Merriman, Director of the Wisconsin Council of Churches.

"I think we accomplished what we set out to do," he said. "We intended to build bridges of communication between the utility and the religious community and to devise a program that could go beyond the initial meeting. As a result of the seminar, I think both groups can put future energy debates on a high enough plane to leave the community with food for thought." Such a cooperative effort helps to reconcile conflicts in a community when energy questions are raised.

Similarly, WP&L shares with communities the need to minimize the impact of energy production on their land, water and air. Solutions go beyond meeting regulatory stipulations, often requiring new approaches to old problems.

"Fly ash, the fine residue from burning pulverized coal in a power plant, has been studied for years," according to Dr. Emmett E. Schulte, Professor of Soils at the University of Wisconsin–Madison. "The study Wisconsin Power and Light is funding and we are implementing specifically looks at how fly ash from Wisconsin power plants can be used to upgrade Wisconsin soils. We're among the first to use field applications in our research, as far as I know."

By finding local uses for its solid wastes, WP&L hopes to reduce the overall cost of its operations and pass the economic benefits on to ratepayers.

"We're working for the well-being of our communities," said Henry Hosterman, Edgewater Plant Manager at Sheboygan. "Their quality, to a great extent, determines WP&L's future."

Ramiro Gonzalez, a meter reader in Lake Geneva, said he learned of a Company opening through the Spanish Center in Walworth County. WP&L notifies the Center when positions are available and the Center refers minority candidates to the Company. Eight Hispanics were hired in 1977 and 1978.

PREPARING FOR FUTURE GENERATIONS

At no time in the past has the burden for the future been as great as it is today. Conscientious Americans know that their decisions do not belong to them alone, but impact their children, their children's children, and generations yet to be imagined.

Wisconsin Power and Light Company is a leader in the utility industry in not only acknowledging the impacts of its actions on the future but in consciously undertaking positive efforts with its customers today to shape tomorrow.

Conservation and load management programs defer additional new fuel and generating requirements to allow time to develop additional resources, including non-traditional generating methods. While moving ahead aggressively with these efforts, the Company is studying and testing a variety of energy alternatives both directly and through institutional funding.

Solar energy systems for space and water heating have the potential to affect electric load sufficiently to make them realistic study areas. WP&L is testing the marketability in Wisconsin of solar water heating systems and offers a special rate to customers who supplement their energy supply with wind, solar, wood or other resources. Through the Electric Power Research Institute, the Company also supports the study of generating electric power directly from the sun's light.

Agricultural applications for solar power are of particular interest to WP&L and its rural customers. Solar grain drying, for instance, can be adapted for a low-temperature drying bin.

Dairy farmers can draw on another form of nature's energy. New equipment can harness heat from milk just taken from the cow and use that energy for heating water — an important item in a dairy operation. WP&L's on-the-farm testing of the equipment helped determine its efficiency and payback period.

The farm and the dairy are also the testing grounds for energy from "biomass" — renewable organic material in trees, farm crops and wastes from these sources. Alcohol produced from whey, a by-product of cheesemaking, could supplement gasoline for our cars. Animal waste, too, could prove to be a future energy source. But these new technologies are limited because they still do not produce energy as economically as conventional methods.

Economics guide energy decisions. Business and industries, as well as individuals, are looking for

For 26 consecutive years, WP&L has provided scholarships for high school students to attend a four-day workshop at the Trees for Tomorrow Environmental Center in Wisconsin. Here they learn how planting alfalfa and clover under power lines can attract wildlife to needed open space in dense forests.

ways to maximize their energy efficiency. WP&L is working with its customers to study how heat that is generated simultaneously with electricity might best be used. Thermal energy from a power plant, for example, might provide heat for the plant as well as for nearby facilities.

The Company also is looking at the feasibility of a small, multi-purpose generating unit in its service area. It might be located near an industrial park and supply heat as well as electricity. The unit could burn municipal refuse as well as more conventional fuels. In addition, refuse-derived fuel can be burned in some existing Company plants.

Unfortunately, the positive environmental and social aspects of refuse generation are, today, quite costly. While this does not deter WP&L from investigating non-traditional generating possibilities, it does illustrate the kinds of decisions and trade-offs that face energy utilities.

A realistic, economically responsible approach is required to hold down bills and provide reliable service. And this is what leads WP&L to believe that a diverse, yet balanced, mix of generating methods is critical to both short- and long-term energy supplies.

In Wisconsin about one-third of the electrical demand is met through nuclear generation. WP&L is seeking to continue that balance while the search for alternatives goes on.

The need for power is real. WP&L's 20-year load forecast, while lower than in the past, anticipates continued growth in the Company's service area that must be met with adequate energy supplies.

WP&L is a proponent of moderate growth, not for its own sake, but because it recognizes growth as the way out of such miseries as hunger, disease and illiteracy. Every citizen must have the opportunity to improve his or her quality of life, not only for today, but for tomorrow.

Eagles roost in the bluffs along the Mississippi River where WP&L's Nelson Dewey power plant is located. The Company requested and received an exemption from a Wisconsin Department of Natural Resources order that now allows fish captured in the plant's intake screens to be washed back into the river during winter as food for the eagle community.

1978 FINANCIAL REVIEW

Report on the Financial Information

Wisconsin Power and Light Company management is responsible for all the information appearing in this Annual Report and for the accuracy and internal consistency of that information. The consolidated financial statements which follow have been prepared in accordance with generally accepted accounting principles. In addition to selecting appropriate accounting principles, management is responsible for the manner of presentation and for the reliability of the financial information. In fulfilling that responsibility, it is necessary for management to make estimates based on currently available information and judgments of current conditions and circumstances.

Through a well-developed system of internal controls, management seeks to assure the integrity and objectivity of the financial information being presented in this Report. This system of internal controls provides reasonable assurance that the assets of the Company are safeguarded and that the transactions are executed according to management's authorizations and are recorded in accordance with the appropriate accounting principles.

The Board of Directors participates in the financial information reporting process through its Audit Committee, whose composition and duties are described on page 1 of this Annual Report.

Discussion and Analysis of the Consolidated Statements of Income

Net income in 1978 decreased slightly compared with 1977. This decline reflected both continued inflation and increased operating expenses as well as regulatory delays in receiving adequate rate relief. An electric rate increase was initially requested in July 1977, yet no relief was received until the final days of 1978. As a result, the 1978 impact of the interim rate increase finally granted was negligible. Despite concerted efforts on the part of the Company's management and its employees to keep costs down in the absence of rate relief, earnings per share of common stock were $2.15 in 1978, down 6.5 percent, or 15 cents, from the $2.30 earned in 1977. Return on equity also declined, from 12.2 percent in 1977 to 11.1 percent in 1978, still below the 13.0 percent return authorized for the Company by the PSC in 1976. Book value per share of common stock, however, remained stable at $19.22 per share in 1978 and $18.78 in 1977, while dividends paid to our common shareowners were increased from $1.62 per share in 1977 to $1.72 per share in 1978. At year-end, dividends were being paid at a $1.76 annual rate.

The following factors have had a substantial effect upon the Company's results of operations during the years 1978 and 1977.

OPERATING REVENUES

Operating revenues have increased significantly in each period primarily as a result of recovery of increased fuel costs through the electric fuel adjustment clause; recovery of increased purchased gas costs through the purchased gas adjustment clause; in 1977, the change in the method of accounting for revenues earned but not yet billed, which is discussed in Note 4 of "Notes to Consolidated Financial Statements"; and increases in both the number of electric and gas customers and a slight increase in average consumption for electric customers.

The following table sets forth the amounts by which the Company's electric and gas revenues during each of the last two years exceeded the revenues for the preceding year together with the estimated increases and decreases attributable to the major factors.

	Increase (Decrease) From Prior Year (millions of dollars)	
	1978	**1977**
Electric Revenues:		
Fuel adjustment clause and rate changes	$ 8.1	$ 7.6
Sales volume	11.7	10.6
Accounting change	—	3.1
Net increase	$19.8	$21.3
Gas Revenues:		
Purchased gas adjustment clause and rate changes	$ 7.9	$11.9
Sales volume	7.3	(6.7)
Accounting change	—	1.0
Net increase	$15.2	$ 6.2

OPERATING EXPENSES

The increases and decreases in operating expenses during 1978 and 1977 were as follows:

	Increase (Decrease) From Prior Year (millions of dollars)	
	1978	**1977**
Electric production fuels	$10.0	$ 9.1
Purchased power	(.1)	4.1
Purchased gas	10.7	4.9
Depreciation	4.8	.2
Maintenance	1.1	2.7
Other operating expenses	7.0	4.7
Income taxes	(2.6)	(.5)
Property, payroll and other taxes	.8	1.6
	$31.7	$26.8

The expense of fuel used in electric production increased in both 1978 and 1977 consistent with the greater quantities of electricity being generated. Higher prices charged by suppliers of fuel compounded that increase. With the addition of increased generating capacity in 1978 at the Columbia Energy Center, the need for purchased power decreased.

Although the quantity of gas purchased decreased in 1977 due to warmer weather and conservation efforts, the higher prices charged by the Company's major suppliers resulted in increased purchased gas expense. The steady increases in the cost of gas purchased continued into 1978 and these increases were magnified by the need to use natural gas as fuel for electric generation in order to stretch the Company's coal supply during the coal miners' strike early in the year.

With the addition of Unit 2 at Columbia in 1978, both straight-line depreciation expense and additional depreciation have increased significantly. The 1977 increase reflects minor additions to "plant in service" and depreciation rate changes.

"Plant in service" refers to all of the Company's generating, transmission and distribution facilities. The Company's depreciation rates and practices are further discussed in Note 1 of "Notes to Consolidated Financial Statements."

As "plant in service" increases and gets older, maintenance costs continue to increase. The relatively small increase in 1978 maintenance is primarily a result of the revision of certain maintenance schedules and the timing of the work performed.

The addition of new employees and the steadily increasing costs of labor and materials associated with the production and distribution of electric and gas service have contributed to the increases in other operating expenses for both years.

Fluctuations in federal and state income taxes are due to fluctuations in pre-tax income during 1978 and 1977. The availability of the investment tax credit relating to new construction also affects income tax expense and varies with the levels of construction on which the credit is allowed.

Increases in property, payroll and other taxes for both years were due to more property subject to *ad valorem* taxes, increased amounts of wages and salaries subject to payroll taxes and increases in the FICA rates. In 1978 the increase in property subject to *ad valorem* tax was offset somewhat by a decrease in *ad valorem* rates.

OTHER INCOME AND INTEREST EXPENSE

The significant changes in other income and interest expense for 1978 and 1977 are set forth in the table below:

	Increase (Decrease) From Prior Year (millions of dollars)	
	1978	**1977**
Allowance for funds used during construction		
Borrowed funds	$(1.4)	$ 1.8
Equity funds	(1.1)	1.4
All funds — prior to January 1, 1977	—	(.7)
Interest on bonds	1.6	1.3
Other interest expense	.3	(.6)

The increase in the allowance for funds used during construction in 1977 reflected the large investment in Columbia Unit 2 which was then under construction. The transfer of that plant from "construction work in progress" to "plant in service" in April 1978 was the most significant factor causing the decrease in the allowance for 1978.

The issuance of First Mortgage Bonds in May 1976 and May 1978 and the gradual maturities of older bonds with lower interest rates caused interest on bonds to increase in both years.

Rising interest rates during 1978 and the need for additional short-term borrowing during the first half of the year caused a slight increase in other interest expense in 1978. The decrease in 1977 was due generally to lower amounts of short-term debt outstanding.

AUDITORS' REPORT

To the Shareowners and Board of Directors,
Wisconsin Power and Light Company:

We have examined the consolidated balance sheet and statement of capitalization of WISCONSIN POWER AND LIGHT COMPANY (a Wisconsin corporation) and subsidiaries as of December 31, 1978 and December 31, 1977, and the related consolidated statements of income, reinvested earnings and sources of funds used for construction expenditures for each of the five years in the period ended December 31, 1978. Our examinations were made in accordance with generally accepted auditing standards and, accordingly, included such tests of the accounting records and such other auditing procedures as we considered necessary in the circumstances.

In our opinion, the financial statements referred to above present fairly the financial position of Wisconsin Power and Light Company and subsidiaries as of December 31, 1978 and December 31, 1977, and the results of their operations and their sources of funds used for construction expenditures for each of the five years in the period ended December 31, 1978, in conformity with generally accepted accounting principles which, except for the change in 1977 (with which we concur) in the method of accounting for revenue as discussed in Note 4 to the consolidated financial statements, were applied on a consistent basis.

ARTHUR ANDERSEN & CO.

Milwaukee, Wisconsin,
February 9, 1979.

CONSOLIDATED STATEMENTS OF INCOME

	Year Ended December 31,				
	1978	1977	1976	1975	1974
	(In Thousands Except For Per Share Data)				
OPERATING REVENUES (Notes 1 and 4):					
Electric	$230,320	$210,541	$189,198	$155,329	$122,364
Gas	74,504	59,257	53,080	39,659	34,462
Water	2,011	2,008	2,003	1,580	1,431
	306,835	271,806	244,281	196,568	158,257
OPERATING EXPENSES:					
Electric production fuels	66,613	56,617	47,470	39,741	32,514
Purchased power	11,830	11,927	7,849	5,009	7,307
Purchased gas	52,849	42,145	37,243	26,656	21,970
Other operation	42,826	35,814	31,154	26,002	22,895
Maintenance	16,249	15,156	12,452	10,073	10,030
Depreciation (Note 1) —					
Straight-line	24,242	20,978	19,915	18,152	14,806
Additional depreciation	8,592	7,078	7,907	7,801	7,327
Taxes (Note 1) —					
Current Federal income	9,292	15,569	17,614	9,568	2,021
Investment tax credit —					
Deferred	9,871	6,205	4,168	5,176	1,098
Restored (credit)	(1,068)	(660)	(497)	(328)	(210)
Current State income	2,965	2,580	2,952	635	3
Property, payroll and other	14,941	14,089	12,447	11,214	10,534
	259,202	227,498	200,674	159,699	130,295
NET OPERATING INCOME	47,633	44,308	43,607	36,869	27,962
OTHER INCOME AND (DEDUCTIONS):					
Allowance for funds used during construction (Note 1) —					
All funds — prior to January 1, 1977	—	—	742	—	5,458
Equity funds — since January 1, 1977	277	1,417	—	—	—
Discount on reacquired bonds	708	544	902	798	722
Other, net	133	582	637	(113)	(117)
INCOME BEFORE INTEREST EXPENSE	48,751	46,851	45,888	37,554	34,025
INTEREST EXPENSE:					
Interest on bonds	19,055	17,430	16,179	13,158	12,484
Allowance for borrowed funds used during construction — since January 1, 1977 (credit) (Note 1)	(382)	(1,782)	—	—	—
Other	985	704	1,336	3,278	3,761
	19,658	16,352	17,515	16,436	16,245
NET INCOME (Note 4)	29,093	30,499	28,373	21,118	17,780
CASH DIVIDENDS ON PREFERRED STOCK	5,613	5,613	5,613	5,613	4,253
EARNINGS ON COMMON STOCK (Note 4)	$ 23,480	$ 24,886	$ 22,760	$ 15,505	$ 13,527
EARNINGS PER SHARE OF COMMON STOCK (Notes 1 and 4)	$2.15	$2.30	$2.24	$1.93	$1.74
CASH DIVIDENDS PER SHARE OF COMMON STOCK	$1.72	$1.62	$1.56	$1.52	$1.48
PRO FORMA ASSUMING APPLICATION OF CHANGE IN RECORDING REVENUE TO PERIODS PRIOR TO JANUARY 1, 1977 (Note 4):					
EARNINGS ON COMMON STOCK	$ 23,480	$ 24,886	$ 23,429	$ 16,894	$ 14,304
EARNINGS PER SHARE OF COMMON STOCK	$2.15	$2.30	$2.30	$2.10	$1.83

The accompanying notes are an integral part of the consolidated financial statements.

CONSOLIDATED BALANCE SHEET

ASSETS	December 31, 1978	1977
	(In Thousands)	
UTILITY PLANT (Notes 1, 3 and 10):		
Plant in service —		
Electric	$679,808	$558,956
Gas	73,656	70,010
Water	9,900	9,207
General	20,689	13,649
	784,053	651,822
Less — Accumulated provision for depreciation	267,036	237,872
	517,017	413,950
Construction work in progress —		
Jointly-owned electric power production facilities	3,678	74,909
Other	15,103	21,862
	18,781	96,771
Nuclear fuel, net	14,698	13,703
Total utility plant	550,496	524,424
INVESTMENTS, at cost or less (Note 1)	9,780	8,044
POLLUTION CONTROL CONSTRUCTION FUND HELD BY TRUSTEE	—	2,828
CURRENT ASSETS:		
Cash and special deposits (Note 6)	3,399	4,366
Temporary cash investments, at cost which approximates market	—	1,500
Accounts receivable, less allowance for doubtful accounts of $283 thousand and $123 thousand, respectively	30,049	22,039
Unbilled revenue (Note 4)	19,902	18,039
Fossil fuel, at average cost	19,097	15,953
Materials and supplies, at average cost	8,140	7,403
Prepayments	535	399
	81,122	69,699
DEFERRED CHARGES:		
Koshkonong project expenditures (Note 2)	6,913	6,900
Other	2,802	3,593
	9,715	10,493
	$651,113	$615,488

CAPITALIZATION AND LIABILITIES		
CAPITALIZATION (see statement on page 21):		
Common shareowners' investment	$211,710	$204,321
Preferred stock	74,250	75,000
First mortgage bonds, net	264,808	232,201
Total capitalization	550,768	511,522
CURRENT LIABILITIES:		
Maturing first mortgage bonds (Note 5)	—	3,195
Sinking fund requirement on preferred stock (Note 5)	750	—
Commercial paper (Note 6)	6,000	31,440
Accounts payable	23,954	15,386
Accrued payroll and vacations	3,952	3,315
Accrued taxes	8,989	5,893
Accrued interest	4,902	3,478
Dividends payable or accrued	468	468
Other	5,642	2,805
	54,657	65,980
OTHER CREDITS:		
Accumulated deferred investment tax credits (Note 1)	26,848	19,486
Unamortized unbilled revenue (Note 4)	10,266	11,550
Other	8,574	6,950
	45,688	37,986
CONSTRUCTION COMMITMENTS AND PENDING LEGAL MATTER (Notes 3 and 7)		
	$651,113	$615,488

The accompanying notes are an integral part of the consolidated financial statements.

CONSOLIDATED STATEMENTS OF SOURCES OF FUNDS USED FOR CONSTRUCTION

	Year Ended December 31,				
	1978	1977	1976	1975	1974
			(In Thousands)		
FUNDS GENERATED INTERNALLY:					
Net income	$ 29,093	$ 30,499	$ 28,373	$21,118	$17,780
Depreciation	32,834	28,056	27,822	25,953	22,133
Investment tax credit deferred, net	7,362	4,933	2,889	4,848	888
Amortization of nuclear fuel	5,902	4,936	4,204	3,555	1,933
Other	1,194	1,035	852	1,110	655
Common equity component of the allowance for funds used during construction (Note 1)	(191)	(1,005)	(175)	—	(1,250)
Funds provided from operations	76,194	68,454	63,965	56,584	42,139
Less —					
Cash dividends on stock	24,382	23,149	21,314	17,462	15,788
Bond sinking fund retirements	2,430	2,322	3,074	2,335	2,574
Net funds generated internally	49,382	42,983	39,577	36,787	23,777
FUNDS PROVIDED FROM FINANCING:					
Sale of first mortgage bonds	35,000	—	52,875	—	35,000
Sale of preferred stock	—	—	—	—	15,000
Sale of common stock	2,701	1,822	26,062	23,250	—
Increase (decrease) in short-term borrowings, net	(25,440)	31,440	(38,375)	(2,105)	(12,266)
Net funds provided from financing	12,261	33,262	40,562	21,145	37,734
BOND MATURITY PAYMENTS	(3,195)	(1,889)	—	—	—
(INCREASE) DECREASE IN CONSTRUCTION FUND HELD BY TRUSTEE	2,828	5,040	(7,868)	—	—
CHANGES IN OTHER NET CURRENT ASSETS (a)	5,139	(16,593)	(6,641)	(994)	(4,263)
UNAMORTIZED UNBILLED REVENUE, NET	(1,284)	11,549	—	—	—
OTHER — NET (b)	1,259	(815)	477	(404)	326
TOTAL FUNDS USED FOR CONSTRUCTION EXPENDITURES AND NUCLEAR FUEL	$ 66,390	$ 73,537	$ 66,107	$56,534	$57,574
(a) (INCREASE) DECREASE IN OTHER NET CURRENT ASSETS IS ACCOUNTED FOR BY:					
Cash and special deposits	$ 967	$ (1,341)	$ 958	$ (699)	$ 1,076
Temporary cash investments	1,500	15,423	(16,923)	—	—
Accounts receivable	(8,010)	40	(5,602)	(4,787)	1,217
Unbilled revenue	(1,863)	(18,039)	—	—	—
Fossil fuel	(3,144)	256	(669)	(6,367)	(5,454)
Accounts payable	8,568	(2,034)	6,151	3,597	(696)
Accrued taxes	3,096	(9,267)	7,523	6,942	419
Other changes, net	4,025	(1,631)	1,921	320	(825)
Total	$ 5,139	$(16,593)	$ (6,641)	$ (994)	$ (4,263)

(b) Includes common equity component of the allowance for funds used during construction.

The accompanying notes are an integral part of the consolidated financial statements.

CONSOLIDATED STATEMENT OF CAPITALIZATION

	December 31, 1978		1977	
	(In Thousands)			
SHAREOWNERS' INVESTMENT (Note 5):				
Common shareowners' investment —				
Common stock, $5 par value, authorized 18,000,000 shares; issued and outstanding, 11,014,018 and 10,882,389, respectively	$ 55,070		$ 54,412	
Premium on capital stock	75,302		73,259	
Capital surplus	1,747		1,747	
Reinvested earnings	79,591		74,903	
	211,710	38.4%	204,321	39.9%
Preferred stock —				
Cumulative, without par value, authorized 3,750,000 shares, maximum aggregate stated value $150,000,000; issued and outstanding 750,000 shares, $100 stated value.				
4½% series, 100,000 shares outstanding	10,000		10,000	
4.80% series, 75,000 shares outstanding	7,500		7,500	
4.96% series, 65,000 shares outstanding	6,500		6,500	
4.40% series, 30,000 shares outstanding	3,000		3,000	
4.76% series, 30,000 shares outstanding	3,000		3,000	
8.48% series, 150,000 shares outstanding	15,000		15,000	
7.56% series, 150,000 shares outstanding	15,000		15,000	
12% series, 150,000 shares outstanding	15,000		15,000	
	75,000		75,000	
Sinking fund requirement on 12% series	(750)		—	
Total preferred stock, net	74,250	13.5	75,000	14.7
Total shareowners' investment	285,960		279,321	
FIRST MORTGAGE BONDS (Note 5):				
Series C, 3⅛%, due 1978	-		3,195	
Series D, 2⅞%, due 1980	5,902		6,002	
Series E, 3⅜%, due 1981	2,859		2,859	
Series F, 3¼%, due 1982	5,213		5,228	
Series H, 3¼%, due 1984	13,182		13,337	
Series J, 4⅝%, due 1989	8,761		9,063	
Series K, 4¼%, due 1992	4,946		6,621	
Series L, 6¼%, due 1998	22,877		23,060	
Series M, 8%, due 1999	24,515		24,515	
Series N, 8⅞%, due 2000	24,900		24,900	
Series O, 8%, due 2001	29,995		29,995	
Series P, 8⅞%, due 2004	35,000		35,000	
1975 Series A, 7¾%, due 1991-2005	16,000		16,000	
1975 Series B, 7¾%, due 2000	875		875	
1975 Series C, 7¾%, due 2000	1,000		1,000	
Series Q, 8⅞%, due 2006	35,000		35,000	
Series R, 9⅛%, due 2008	35,000		—	
	266,025		236,650	
Unamortized discount and premium, net	(1,217)		(1,254)	
Maturing first mortgage bonds	—		(3,195)	
Total first mortgage bonds, net	264,808	48.1	232,201	45.4
TOTAL CAPITALIZATION	$550,768	100.0%	$511,522	100.0%

The accompanying notes are an integral part of the consolidated financial statements.

CONSOLIDATED STATEMENTS OF REINVESTED EARNINGS *(In Thousands)*

For the year ended December 31,	1978	1977	1976	1975	1974
REINVESTED EARNINGS					
Balance At Beginning Of Year	$74,903	$67,694	$61,615	$59,026	$57,301
Add — Net income	29,093	30,499	28,373	21,118	17,780
	103,996	98,193	89,988	80,144	75,081
Deduct —					
Cash dividends on preferred stock	5,613	5,613	5,613	5,613	4,253
Cash dividends on common stock	18,769	17,536	15,701	11,849	11,535
Expense of issuing additional preferred stock	—	—	—	—	267
Expense of issuing additional common stock	23	141	980	1,067	—
	24,405	23,290	22,294	18,529	16,055
Balance At End Of Year	$79,591	$74,903	$67,694	$61,615	$59,026

The accompanying notes are an integral part of the consolidated financial statements.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

NOTE 1 SOMMARY OF SIGNIFICANT ACCOONTING POLICIES:

The consolidated financial statements reflect the application of certain accounting policies described in this note.

Utility Plant—As prescribed by the Public Service Commission of Wisconsin (PSC) and the Federal Energy Regulatory Commission (FERC), utility plant is stated at the original costs of construction which include material, labor, certain indirect costs and an allowance for funds used during construction (discussed below). The cost of renewals and betterments of units of property is charged to utility plant accounts, whereas normal repairs and the cost of minor items of property are charged to maintenance expense. Property units retired or otherwise disposed of in the normal course of business are removed from utility plant and, together with removal costs less any salvage, are charged to accumulated depreciation; thus no profit or loss is recognized in connection with ordinary retirements of depreciable property.

Substantially all of the Company's utility plant is subject to a first mortgage lien.

Allowance for Funds Used During Construction (AFUDC)—AFUDC is defined in the Uniform System of Accounts as the net cost for the period of construction of borrowed funds used for construction purposes and a reasonable rate of return on other funds when so used. AFUDC is a non-cash item and does not contribute to current cash flow of the Company. The rate prescribed by the PSC for AFUDC is 7% for each of the periods presented. For qualifying construction work in progress not subject to PSC jurisdiction, AFUDC is also capitalized at 7%.

Pursuant to a PSC rate order, effective January 1, 1975, the Company records AFUDC only on that portion of applicable weighted average construction work in progress which exceeds 10% of applicable net investment rate base. The annual revenue increase provided for in that rate order, and in subsequent rate orders, includes additional revenue to offset the effect of this revised computation.

Effective January 1, 1977, the FERC prescribed a formula for computing separately the equity (preferred and common) and borrowed funds components of the AFUDC rates, the sum of which is the maximum rate at which AFUDC may be capitalized. This maximum rate exceeds the 7% rate currently in use. The FERC further provided that the equity funds portion be reported as Other Income and that the borrowed funds portion be reported as a reduction of Interest Expense. For the allocation of the equity and borrowed funds portions for periods since January 1, 1977, the Company computes the individual component rates prescribed by the aforemen-

NOTES (continued)

tioned formula and these component rates are then related to the actual rate of accrual (7%) as follows: borrowed funds, preferred equity funds and the residual to common equity funds. This separation of AFUDC has no effect on the total amount of AFUDC reported or on Net Income.

The Company has not reclassified AFUDC into its equity and borrowed funds portions for periods prior to January 1, 1977 because the Company believes that such a reclassification would be inappropriate since that allocation would not be comparable to the allocation determined after December 31, 1976.

For periods prior to January 1, 1977, no separate rates were identified for the cost of equity or debt funds devoted to construction because this requires arbitrary cost allocation. However, the common equity component of AFUDC was determined by assuming that funds used to finance construction were supplied in the same proportion as the Company's average capitalization ratios during those periods, and that the cost of financing, other than common equity financing, was equivalent to the then current cost of first mortgage bonds (before income tax effect) and the weighted average dividend rates of preferred stock outstanding.

Nuclear Fuel — The cost of nuclear fuel is amortized to fuel expense based on the quantity of heat produced for the generation of electric energy by the Kewaunee Nuclear Plant. Amortization of $20,529,000 and $14,628,000 and the income tax effect from the use of liberalized depreciation of the fuel have been deducted from the original cost of nuclear fuel at December 31, 1978 and 1977, respectively. Rates charged for electric service recognize, as a cost of nuclear fuel, amounts necessary for the estimated future storage costs of spent nuclear fuel. No plutonium or uranium residual values have been assumed in determining the cost of nuclear fuel amortized to fuel expense.

Revenue Recognition — See Note 4.

Research and Development Costs — Research and development costs are normally charged to the appropriate operating expense on a current basis. However, those costs which are related to a construction project are capitalized as part of the cost of utility plant. The totals of such costs were $2,739,000, $2,392,000, $1,839,000, $1,422,000 and $1,647,000 for the years 1978 through 1974, respectively. Of these amounts, $1,102,000, $1,330,000, $782,000, $422,000 and $618,000 were charged to utility plant accounts in 1978 through 1974, respectively.

Earnings Per Share — Earnings per share of common stock are computed on the basis of the weighted average number of shares outstanding which were 10,932,266, 10,836,108, 10,170,608, 8,045,608, and 7,795,608 shares for the years 1978 through 1974, respectively.

Interdepartmental Sales of Gas — Included in gas operating revenues and in electric production fuels are $3,430,000, $1,277,000, $2,322,000, $2,097,000 and $3,600,000 for the years 1978 through 1974, respectively, for interdepartmental sales of gas. The cost of such gas, which is used primarily as fuel for electric generation, is included in the purchased gas expense account and approximates the amounts included in gas operating revenues.

Depreciation —

a. Straight-line — Provisions for straight-line depreciation were computed on the average balance of depreciable property at individual straight-line rates applied to the various classes of

NOTES (cootinued)

property. These were substantially equivalent to annual composite rates as follows:

	Electric	Gas	Water	General
1978	3.4%	4.2%	1.7%	6.3%
1977	3.3	4.1	1.6	6.4
1976	3.3	3.6	1.6	6.3
1975	3.4	3.0	1.6	6.1
1974	3.3	3.0	1.6	5.9

All straight-line rates are based on the estimated lives of property and have been approved by the PSC. The Company's share of the currently estimated cost of decommissioning the Kewaunee Nuclear Plant at the end of its useful life is $14,817,000. Current rate-making treatment allows for the recovery of such cost through depreciation rates approved by the PSC.

b. Additional depreciation — See "Income Taxes — a." below.

Income Taxes —

a. Depreciation for Federal and State income taxes reflects the use of liberalized depreciation methods, including the Class Life Asset Depreciation Range System, the deduction of removal costs in the year incurred, the percentage repair allowance, the accelerated write-off of waste treatment and pollution abatement facilities and nuclear fuel and other timing differences. In accordance with authorization of the PSC, the estimated reduction of income taxes due to the use of these practices is recorded as additional depreciation, which is comparable to the provision for deferred income taxes recorded by utility companies in other regulatory jurisdictions.

Amounts recorded as additional depreciation are as follows:

	Federal	State
1978	$7,850,000	$ 742,000
1977	6,182,000	896,000
1976	6,903,000	1,004,000
1975	6,612,000	1,189,000
1974	6,589,000	738,000

b. The Company utilizes the service life amortization method for the investment tax credit. Such credit is amortized over the average useful life of the property subject to the credit. In connection with the Company's employee stock ownership plan, there is included in investment tax credit deferred, with a concurrent reduction in current Federal income taxes, additional investment tax credit of $1,321,000, $612,000 and $790,000 in the years 1978 through 1976, respectively.

c. Certain capitalized indirect costs and certain capitalized research and development costs have been deducted for income tax purposes as incurred. The tax benefit of these items is used to reduce the income tax provision in the period the costs are incurred.

d. The total income tax expense, investment tax credit deferred, net, and additional depreciation, as set forth in the foregoing notes and in the Consolidated Statements of Income, produced effective income tax rates as set forth below. These percentages are computed by dividing total income tax expense, investment tax credit deferred, net and additional depreciation by the sum of such expense and net income. The following table reconciles these effective income tax rates to the statutory Federal income tax rate:

	1978	1977	1976	1975	1974
Effective income tax rate as reported	50.6%	50.8%	53.8%	52.3%	36.8%
Allowance for funds used during construction, which does not constitute current taxable income	.6	2.5	0.6	—	9.3
State income taxes and State additional depreciation, net	(3.9)	(3.7)	(4.2)	(3.4)	(2.6)
Other differences, net	.7	(1.6)	(2.2)	(0.9)	4.5
	48.0%	48.0%	48.0%	48.0%	48.0%

Retirement Plans — The Company has contributory and noncontributory retirement plans for substantially all of its employees. The Company's policy is to fund the retirement plans and amortize unfunded prior-service costs over a period of approximately 30 years. As of December 31, 1977, the date of the most recent actuarial report, the unfunded prior-service cost was approximately $13,343,000 and the market value of the assets in the funds exceeded the actuarial value

NOTES (continued)

of vested benefits. The total retirement plan provision for each of the years 1978 through 1974 was $2,564,000, $2,140,000, $1,903,000, $1,118,000 and $1,037,000, respectively. The increase in the retirement plan provisions for 1978, 1977 and 1976 was largely a result of liberalized plan eligibility requirements, plan modifications and changes in actuarial assumptions.

Leases — All leases are accounted for as operating leases. The Company has no material capital leases.

Subsidiaries — The consolidated financial statements include the accounts of the Company and its wholly owned subsidiaries. All significant intercompany accounts and transactions have been eliminated in consolidation. The Company also owns all of the common stock of NUFUS Resources, Inc., which engages as a limited partner in mining operations relating to the fuel supply for the Kewaunee Nuclear Plant; this investment ($5,187,000 as of December 31, 1978) is accounted for by the equity method. Nuclear fuel obtained from the subsidiary is recorded at cost, which includes the cost of operation of the subsidiary.

NOTE 2 NUCLEAR POWER PLANT CONSTRUCTION:

In July 1977, the Company and three other Wisconsin utility companies (the "joint applicants") withdrew their application for a Certificate of Public Convenience and Necessity (filed with the PSC in July 1974) to construct a nuclear power plant (two 900,000 kilowatt units) to be sited at Lake Koshkonong, Wisconsin ("Koshkonong"). The withdrawal of the application followed notice to the joint applicants by the Wisconsin Department of Natural Resources that, in its opinion, the Koshkonong site was environmentally unacceptable for the operation of the proposed nuclear power plant because of water related concerns. The Company and two of the joint applicants now plan to construct a single 900,000 kilowatt nuclear power plant of similar design at an alternate site near Sheboygan, Wisconsin (see "Haven" in Note 3 below).

In October 1977, the joint applicants proposed to the PSC that substantially all charges associated with the Koshkonong project be transferred to the Haven project and in January 1978, the joint applicants were directed by the PSC to reclassify Koshkonong expenditures (the Company's share being $6,913,000, including nuclear fuel) from construction work in progress and nuclear fuel to deferred charges as of December 31, 1977, pending further direction by the PSC.

Hearings have been held by the PSC for the purpose of determining the ultimate disposition of the deferred charges. In January 1979, the PSC indicated that it was considering an order which would require the Company to write off an amount ranging from about $10,000 to $1,446,000 before taxes and to transfer the remaining deferred charges to the Haven Project. Although the actions of regulatory bodies cannot be predicted with any certainty, the Company believes that its decisions and expenditures with respect to the Koshkonong/Haven Project were prudent and reasonable, and any loss, if incurred, would not be material.

NOTE 3 JOINTLY OWNED ELECTRIC UTILITY PLANTS AND CONSTRUCTION COMMITMENTS:

The Company participates with other Wisconsin utilities in the construction and operation of several jointly owned electric power production facilities as detailed in the following table. The dollar amounts shown represent only the Company's share of each jointly owned plant.

Facility	Energy Source	% Ownership	Plant in Service	Accumulated Provision for Depreciation	Construction Work in Progress	
			December 31, 1978		December 31, 1978	December 31, 1977
			(In Thousands)			
Columbia Energy Center	Coal	46.2%	$143,333	$16,906	$ 1,047	$73,948
Kewaunee Nuclear Plant	Nuclear	41.0	87,761	28,959	923	263
Edgewater Unit 4	Coal	68.2	36,055	12,812	35	164
Edgewater Unit 5	Coal	100.0 (a)	—	—	5,775	3,211
Haven Project	Nuclear	19.1 (b)	—	—	1,673	533

(a) A Certificate of Public Convenience and Necessity for the construction of the proposed 400,000 kilowatt Unit 5 at the Edgewater Plant has been requested from the PSC. Expenditures to date consist primarily of environmental studies and engineering; no construction has begun. During 1978 the Company accepted a letter of intent from another utility to purchase up to 50% of the Edgewater Unit 5 Plant. Negotiation of terms and conditions is in progress.

(b) During 1978 the Company and two other joint owners requested a Certificate of Public Convenience and Necessity for the construction of a 900,000 kilowatt nuclear powered generating unit near Sheboygan, Wisconsin ("Haven"). The expenditures to date consist primarily of environmental studies and engineering. No construction has begun.

The Company provides its own financing during the construction period for its share of the jointly owned plants. The Company's shares of direct operations and maintenance expenses are included in the appropriate expense categories appearing in the Consolidated Statements of Income.

Utility plant construction expenditures for 1979, including expenditures for the above facilities under construction, are estimated to be $66,700,000 and substantial commitments have been incurred in connection with such expenditures.

NOTE 4 CHANGE IN ACCOUNTING:

Prior to January 1, 1977, the Company recognized revenue for service at the time monthly bills were rendered to customers. Pursuant to an accounting order of the PSC, effective January 1, 1977, the Company changed to a method which accrues the estimated amount of unbilled revenue relating to energy consumed but not billed at each month end. Also pursuant to this order, the amount of unbilled revenue as of January 1, 1977 ($15,416,000, before income taxes) was recorded as a deferred credit and is being amortized to income over a 10-year period beginning with 1977, with appropriate provision for income taxes. Amounts so amortized are recognized in rate proceedings for the determination of revenue requirements.

The effect of the foregoing change in accounting, including amortized amounts, was to increase Earnings On Common Stock $2,207,000; and Earnings Per Share of Common Stock $.20 for the year ended December 31, 1977.

NOTE 5 CAPITALIZATION MATTERS:

In November 1975, the Company sold 1,500,000 additional shares of its common stock for $23,250,000. In May 1976, the Company sold 1,500,000 additional shares of its common stock for $26,063,000. During 1977 the Company issued 86,781 additional shares of common stock for $1,822,000 through its Automatic Dividend Reinvestment and Stock Purchase Plan.

During 1978 the Company issued 131,629 additional shares of common stock for $2,701,000 through its Automatic Dividend Reinvestment and Stock Purchase Plan, Employee Stock Ownership Plan and Employee Stock Purchase Plan.

In October 1974, the Company sold 150,000 shares of 12% Series cumulative preferred stock, $100 stated value, for $15,000,000. There were no other changes in common stock or preferred stock during the five years ended December 31, 1978.

The 12% Series is entitled to a sinking fund sufficient to redeem 7,500 shares during each 12-month period commencing with the 12 months ending August 31, 1979, at a redemption price of $100 per share plus accrued dividends. The Company has the non-cumulative option to redeem an additional 7,500 shares during each such period at such price.

Sinking fund requirements on First Mortgage Bond issues outstanding as of December 31, 1978, have been satisfied for 1979. Sinking fund requirements on First Mortgage Bond issues outstanding as of December 31, 1978 are $2,730,000 for 1980 (of which $60,000 has been satisfied as of December 31, 1978), $2,650,000 for 1981, $2,610,000 for 1982 and $2,540,000 for 1983. Bond maturity payments are estimated at $5,840,000 for Series D in 1980, $2,859,000 for Series E in 1981 and $4,970,000 for Series F in 1982.

During 1979 the Company tentatively plans to issue up to 1,500,000 shares of common stock subject to necessary regulatory approval and market conditions.

NOTE 6 COMMERCIAL PAPER ANU LINES OF CREDIT:

Commercial paper outstanding during the respective years was issued at prevailing commercial paper discount rates.

	1978	1977
As of end of year —		
Weighted average discount rate on outstanding commercial paper	10.32%	6.76%
Unused lines of credit	$45,200,000	$40,200,000
Average compensating balance requirements	$ 4,520,000	$ 4,020,000
For the year ended —		
Maximum month-end amount of short-term borrowings	$24,236,000	$31,440,000
Average amount of short-term borrowings (based on daily outstanding balances)	$ 9,246,000	$ 8,186,000
Weighted average interest rate on short-term borrowings	7.14%	6.32%

The weighted average interest rate was computed by dividing interest expense on commercial paper by the average amount of such borrowings for the year.

In connection with certain bank lines of credit, the Company is required to maintain, as compensating balances, average bank deposits equivalent to 10% of the line and, for certain banks, an additional 5% or 10% of borrowings. There are no legal restrictions on withdrawal of these funds. In accordance with normal banking practice, such unused lines of credit may be withdrawn at the discretion of the lenders.

NOTE 7 PENDING LEGAL MATTER:

In June 1977, certain of the Company's municipal wholesale electric customers filed a suit against the Company alleging violations of antitrust laws and the Wisconsin Public Utility Law and requesting up to $22,500,000 in damages and other relief. Certain of the Company's other municipal wholesale electric customers have joined in the complaint.

Although the ultimate outcome cannot be predicted with certainty at this time, the Company's management, based upon the facts known to it at this time and the opinion of its counsel, believes that the Company will not, as a result of this action, incur a liability which would adversely and materially affect its financial statements.

NOTE 8 SEGMENTS OF BUSINESS:

The following table sets forth certain information relating to the Company's operations; however, this information does not fully reflect prescribed rate-making treatment for determining rates charged for utility services.

	Year Ended December 31,				
	1978	1977	1976	1975	1974
	(In Thousands)				
Operation information—					
Customer sales—					
Electric	$229,756	$209,880	$188,676	$154,504	$122,069
Gas	71,074	57,980	50,758	37,562	30,862
Water	2,008	2,005	2,001	1,578	1,428
Interdepartmental sales—					
Electric	564	661	522	825	295
Gas	3,430	1,277	2,322	2,097	3,600
Water	3	3	2	2	3
Total operating revenues	$306,835	$271,806	$244,281	$196,568	$158,257
Operating profit—					
Electric	$ 69,074	$ 68,933	$ 68,794	$ 54,475	$ 32,974
Gas	7,484	5,398	5,987	4,620	4,652
Water	727	749	970	626	575
Income taxes including additional depreciation (a)	(29,653)	(30,772)	(32,144)	(22,852)	(10,239)
Other income and deductions, net	1,119	2,543	2,281	685	6,063
Interest expense, net	(19,658)	(16,352)	(17,515)	(16,436)	(16,245)
Net income per consolidated statements of income	$ 29,093	$ 30,499	$ 28,373	$ 21,118	$ 17,780
Investment information—					
Identifiable assets at Dec. 31 (b)—					
Electric	$563,095	$529,701	$481,329	$438,234	$404,150
Gas	64,825	61,495	53,655	50,002	47,559
Water	8,806	7,619	7,096	6,853	6,739
Assets not allocated (c)	14,387	16,673	31,219	14,130	12,529
Total assets	$651,113	$615,488	$573,299	$509,219	$470,977
Other information—					
Construction and nuclear fuel expenditures—					
Electric	$ 59,799	$ 68,283	$ 61,545	$ 52,511	$ 53,188
Gas	5,899	4,535	4,122	3,777	3,912
Water	692	719	440	246	474
Total construction and nuclear fuel expenditures	$ 66,390	$ 73,537	$ 66,107	$ 56,534	$ 57,574
Provision for straight-line depreciation—					
Electric	$ 21,042	$ 17,975	$ 17,399	$ 16,132	$ 12,902
Gas	3,036	2,854	2,375	1,885	1,775
Water	164	149	141	135	129

NOTES (continued)

(a) See Note 1 for information with respect to amounts recorded as additional depreciation.

(b) Includes allocated general plant and is net of the respective accumulated provisions for depreciation.

(c) Includes investments, cash and special deposits, prepayments and other deferred charges.

NOTE 9 CONSDLIUATER UUABTERLY FINANCIAL DATA (Unaudited):

Since seasonal factors significantly affect utilities, the following quarterly financial data are not comparable between periods and are not necessarily indicative of the results which may be expected for an annual period. The following amounts, not examined by independent public accountants, reflect, in the opinion of the Company, all adjustments (which include only normal recurring adjustments) necessary to present fairly the financial data for the respective quarters.

	Quarter Ended			
1978	**March 31**	**June 30**	**September 30**	**December 31**
	(In Thousands Except For Per Share Data)			
Operating revenues	$87,584	$66,876	$70,181	$82,194
Net operating income	13,873	9,053	11,485	13,222
Net income	9,267	4,837	6,417	8,572
Earnings on Common Stock	7,864	3,433	5,014	7,169
Earnings Per Share of Common Stock	$.72	$.32	$.46	$.65
1977				
Operating revenues	$80,215	$57,841	$60,892	$72,858
Net operating income	11,782	9,489	10,941	12,096
Net income	8,327	5,882	7,716	8,574
Earnings on Common Stock	6,924	4,478	6,313	7,171
Earnings Per Share of Common Stock	$.64	$.41	$.58	$.66

NOTE 10 REPLACEMENT COSTS (Unaudited):

The rate of inflation experienced in recent years has resulted in estimated replacement costs of productive capacity that are significantly greater than the original costs of construction of such assets reported in the Company's consolidated financial statements.

In compliance with reporting requirements of the Securities and Exchange Commission (SEC), quantitative estimated replacement cost information is disclosed in the Company's annual report to the SEC on Form 10-K.

Estimated replacement costs are not currently considered in the rate-making processes to which the Company is subject; however, as existing utility property is replaced, the actual replacement cost has been and will continue to be included in the rate base.

FIVE-YEAR COMPARATIVE DATA

	Year Ended December 31,					Four Year Change	
	1978	1977	1976	1975	1974	Amount	Percent
CONSOLIDATED ELECTRIC STATISTICS							
Area Served (end of period):							
Population — Retail (estimated)	789,000	772,000	765,000	759,000	753,000	36,000	4.8
Cities, Villages and Towns Served — Retail	600	599	600	598	599	1	.2
Customers Served (end of period):							
Residential and Rural	256,713	249,420	243,265	237,961	233,623	23,090	9.9
Industrial	710	703	706	654	635	75	11.8
Commercial	31,199	30,436	29,768	29,096	28,596	2,603	9.1
Utilities	97	89	88	84	81	16	19.8
Other	910	906	899	913	882	28	3.2
Total	289,629	281,554	274,726	268,708	263,817	25,812	9.8
Sales — Kilowatt-hours (in thousands):							
Residential and Rural	1,998,773	1,919,237	1,832,304	1,778,010	1,683,697	315,076	18.7
Industrial	2,099,163	2,015,014	1,840,161	1,609,349	1,675,694	423,469	25.3
Commercial	916,632	863,427	820,060	773,301	732,814	183,818	25.1
Utilities	1,512,231	1,341,956	1,262,674	1,077,258	958,905	553,326	57.7
Other	90,399	100,164	91,842	125,844	103,159	(12,760)	(12.4)
Total	6,617,198	6,239,798	5,847,041	5,363,762	5,154,269	1,462,929	28.4
Electric Operating Revenues (in thousands):							
Residential and Rural	$ 85,021	$ 80,088	$ 74,239	$ 63,575	$ 50,736	$ 34,285	67.6
Industrial	57,575	53,849	47,861	37,518	31,086	26,489	85.2
Commercial	38,710	35,920	33,198	28,244	22,595	16,115	71.3
Utilities	43,156	34,500	29,116	20,543	13,744	29,412	214.0
Other	5,858	6,184	4,784	5,449	4,203	1,655	39.4
Total	$230,320	$210,541	$189,198	$155,329	$122,364	$107,956	88.2
System Capacity — At time of System Peak (Kw's):							
Company Plants (including jointly-owned)	1,653,300	1,392,800	1,384,200	1,334,500	1,201,300	452,000	37.6
Firm Purchased Power	63,700	83,700	104,700	64,700	145,700	(82,000)	(56.3)
Total	1,717,000	1,476,500	1,488,900	1,399,200	1,347,000	370,000	27.5
System Peak Demand	1,234,000	1,189,000	1,102,000	1,052,000	1,015,000	219,000	21.6
Reserve margin at time of peak	483,000	287,500	386,900	347,200	332,000	151,000	45.5
CONSOLIDATED GAS STATISTICS							
Area Served (end of period):							
Population — Retail (estimated)	346,300	345,700	334,800	332,200	329,400	16,900	5.1
Cities, Villages and Towns Served — Retail	181	181	181	181	177	4	2.3
Customers Served (end of period):							
Residential	85,124	83,336	81,848	80,293	78,907	6,217	7.9
Commercial Firm	9,135	9,011	8,848	8,736	8,624	511	5.9
Industrial Firm	361	360	349	342	326	35	10.7
Interruptible	121	125	127	123	143	(22)	(15.4)
Total	94,741	92,832	91,172	89,494	88,000	6,741	7.7
Sales-Therms (in thousands):							
Residential	115,562	110,043	117,167	110,330	110,136	5,426	4.9
Commercial Firm	64,088	59,357	64,686	61,070	56,985	7,103	12.5
Industrial Firm	27,832	25,338	30,021	25,451	24,995	2,837	11.4
Interruptible	80,491	69,014	85,499	80,622	86,833	(6,342)	(7.3)
Interdepartmental Sales	12,336	5,152	15,083	24,848	63,264	(50,928)	(80.5)
Total	300,309	268,904	312,456	302,321	342,213	(41,904)	(12.2)
Gas Operating Revenues (in thousands):							
Residential	$ 30,887	$ 27,268	$ 23,886	$ 17,854	$ 15,493	$ 15,394	99.4
Commercial Firm	15,537	13,108	11,455	8,134	6,532	9,005	137.9
Industrial Firm	6,618	5,222	4,765	3,112	2,520	4,098	162.6
Interruptible	16,203	11,574	10,463	8,319	6,229	9,974	160.1
Interdepartmental Sales and Other	5,259	2,085	2,511	2,240	3,688	1,571	42.6
Total	$ 74,504	$ 59,257	$ 53,080	$ 39,659	$ 34,462	$ 40,042	116.2
Maximum Daily Sendout — Therms (in thousands)	2,216	2,069	1,959	2,055	2,023	193	9.5

INFORMATION FOR SHAREOWNERS

DIVIDEND REINVESTMENT

The Company has an Automatic Dividend Reinvestment and Stock Purchase Plan which enables participating shareowners to purchase common stock of the Company with their cash dividends and with optional cash payments. Purchases are made at the market price of the common stock on the dividend payment date. You may obtain a copy of the Prospectus relating to the plan by writing or telephoning our Company at the General Offices location shown on this page.

FINANCIAL INFORMATION

Two additional financial and statistical reports are available to shareowners without charge. The Company's Form 10-K, as filed with the Securities and Exchange Commission, and a statistical supplement to this Annual Report may be obtained through the Treasury Department, Wisconsin Power and Light Company, P. O. Box 192, Madison, Wisconsin 53701.

SHAREOWNERS' CALENDAR

Dividend Payment Schedule

Common	Preferred
1978	
February 15	March 15
May 15	June 15
August 15	September 15
November 15	December 15
1979	
February 15	March 15
May 15	June 15
August 15	September 15
November 15	December 15

ANNUAL MEETING

All shareowners are cordially invited to attend the corporate annual meeting at 10 a.m. local time, Wednesday, April 25, 1979, at the Lake Lawn Lodge, located one and one-half miles east of Delavan, Wisconsin on U.S. Highway 50. If you are unable to attend, please sign and mail your proxy vote as soon as it is received. Proxy vote forms will be mailed to shareowners on or about March 19, 1979.

TRANSFER AGENTS

Illinois Stock Transfer Company
223 West Jackson Boulevard
Chicago, IL 60606

Irving Trust Company
One Wall Street
New York, NY 10015

REGISTRANTS

Continental Illinois National Bank & Trust Company of Chicago
Chicago, IL 60690

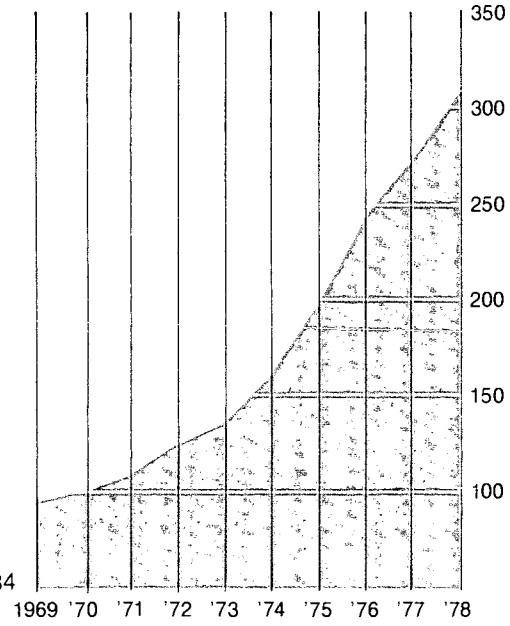
Irving Trust Company
One Wall Street
New York, NY 10015

GENERAL OFFICES

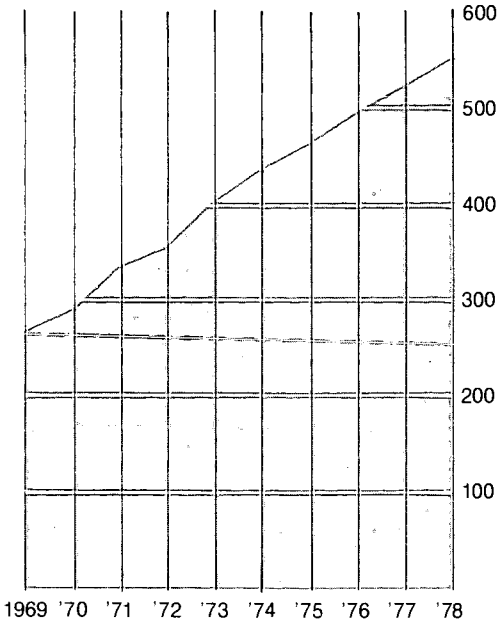
Wisconsin Power and Light Company
222 West Washington Avenue
P.O. Box 192
Madison, WI 53701
Telephone (Treasury Dept.)
608/252-3108

This Annual Report to shareowners is published primarily for their use by Wisconsin Power and Light Company, Public Information Department, 222 West Washington Avenue, Madison 53703. It is not submitted in connection with the sale, offer to sell or offer to buy any security.

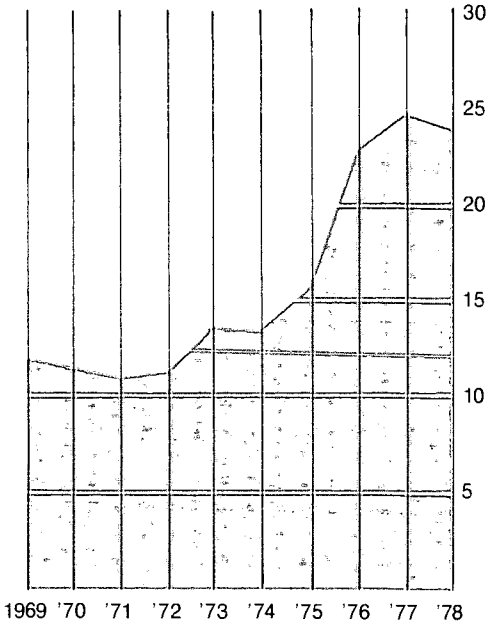
Total Operating Revenue
(in millions of dollars)



Total Net Utility Plant
(in millions of dollars)



Earnings On Common Stock
(in millions of dollars)



MARKET AND DIVIDEND INFORMATION

The common stock of the Company has been traded on the New York Stock Exchange (symbol: WPL) since March 30, 1976. Prior to that date, the common stock was traded in the over-the-counter market and the prices were reported on NASDAQ (the National Association of Securities Dealers Automated Quotation System) under the symbol WPWR. The 4½ percent preferred stock is traded on the American Stock Exchange; the other series of preferred stock are traded in the over-the-counter market, but prices are not reported on NASDAQ. The following table shows the high and low sales prices for common stock as reported by the New York Stock Exchange; the 4½ percent preferred stock as reported by the American Stock Exchange, and the high and low bid prices for the additional series of preferred stock. The market for the unlisted preferred stock is limited and relatively inactive.

	Common Stock	Preferred Stock							
1978		4½%	4.80%	4.96%	4.40%	4.76%	8.48%	7.56%*	12%*
1st Quarter	21¼ - 19⅝	53⅞ - 51¼	56 - 54½	58 - 56	50½ - 49	55½ - 53	95½ - 95		
2nd Quarter	21½ - 18⅜	53 - 48	55¾ - 50	57½ - 52	49 - 46½	55¼ - 50	95 - 89½	87¼ - 83	
3rd Quarter	21⅞ - 20⅜	50¾ - 47½	52⅞ - 50	54½ - 51½	47¾ - 46	52⅜ - 50	89 - 88	84 - 81	
4th Quarter	21⅜ - 19	51 - 46⅞	50½ - 48	52⅛ - 50¼	46 - 45	50 - 48	88 - 87	83½ - 79	
1977									
1st Quarter	22⅝ - 19½	54 - 51¾	54½ - 53½	56 - 56	50 - 50	54 - 54	97½ - 95	88 - 87	
2nd Quarter	22¾ - 20⅛	57 - 53¾	56 - 55	58 - 57	50 - 50	54½ - 54	98½ - 98	88¼ - 88	
3rd Quarter	23 - 20¼	55½ - 52	57¼ - 56	59¼ - 57	52¼ - 50	57½ - 55½	100 - 98	90 - 89	123 - 123*
4th Quarter	23 - 20¼	52¾ - 51¼	57¾ - 54¾	59¼ - 56¾	52¼ - 50½	57 - 54¼	100½ - 98	91 - 87	

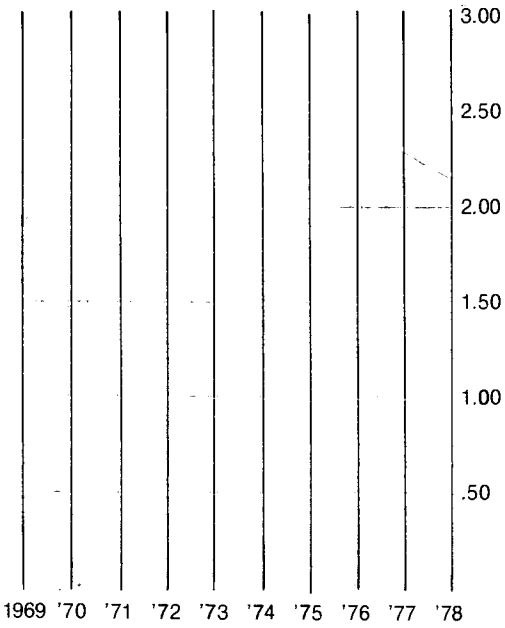
*No trades reported in 1977 and 1978 where blanks appear.

CASH DIVIDENDS

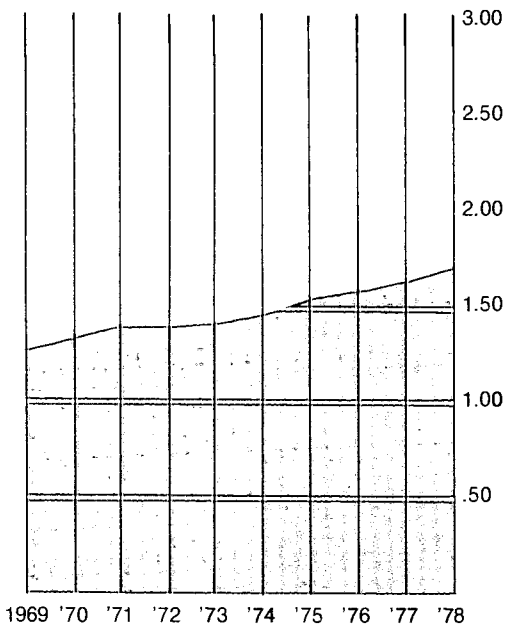
Cash dividends on the common stock of the Company have been paid quarterly since January 1946. Cash dividends per share paid during 1978 were $.42, $.42, $.44, and $.44 for the first, second, third and fourth quarters, respectively, for a total of $1.72 for the year. Cash dividends per share paid during 1977 were $.40, $.40, $.40 and $.42 for the first, second, third and fourth quarters, respectively, for a total of $1.62 for the year.

Preferred stock dividends paid per share for each quarter during 1978 and 1977 were as follows: 4½ percent, $1.125; 4.80 percent, $1.20; 4.96 percent, $1.24; 4.40 percent, $1.10; 4.76 percent, $1.19; 8.48 percent, $2.12; 7.56 percent, $1.89; and 12 percent, $3.00.

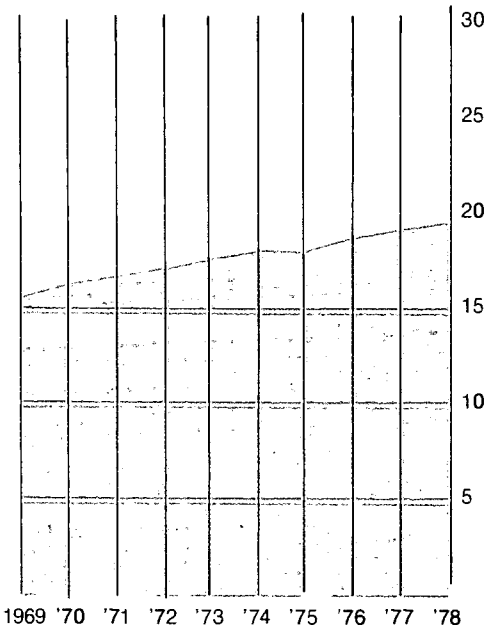
Earnings Per Share of Common Stock
(in dollars)



Dividends Per Share of Common Stock
(in dollars)



Book Value Per Share of Common Stock
(in dollars)



A COMPANY PROFILE

Wisconsin Power and Light Company serves 38 counties, 600 cities, villages and towns and over 400,000 electric, gas and water customers in a 16,000 square mile area. The industrial, agricultural and recreational attractions found in our service area make it a thriving region. Almost 2,300 people work throughout our system in offices, generating plants and other locations. Our territory is divided into seven divisions with 14 district offices. We also maintain large engineering and warehouse facilities at Fond du Lac in the north and between Beloit and Janesville in the south. Our corporate offices are located in Madison.

Our system includes five large generating stations fueled by coal. The largest (two 520,000 kilowatt units) began operations at the Columbia site just south of Portage with the completion of the first unit in 1975. The second unit was completed and began commercial operations in 1978. The Columbia Energy Center is a joint project with two other utilities and uses low-sulfur coal shipped from mines in Montana and Wyoming. The four-unit Edgewater complex lies on the shores of Lake Michigan at Sheboygan. (An additional unit in the intermediate load range will be built at Edgewater for 1983 operation, while two of the smaller present units will be retired.) Two other plants are located on the Rock River—one at Beloit and one a few miles north. Another major facility is situated in the southwest corner of the state on the Mississippi River at Cassville.

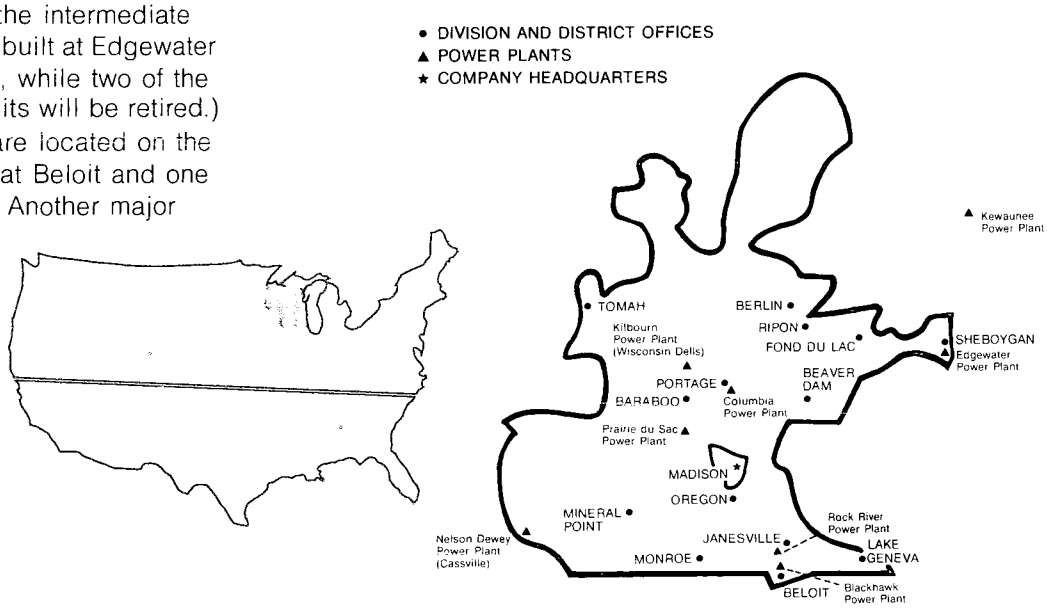
In addition, the first nuclear plant contributing to our system began commercial operation on the Lake Michigan shoreline near Kewaunee in 1974. The 535,000-kilowatt unit is owned by the same utilities involved in Columbia. WP&L also has joined two other Wisconsin utilities in planning a large nuclear center with a 900,000-kilowatt generator near Haven in Sheboygan County. The unit is scheduled for operation in the late 1980s.

Two large hydroelectric units operate on the Wisconsin River at Prairie du Sac and Wisconsin Dells. Additional peaking units and small hydro facilities bring our combined system capacity to 1.7 million kilowatts.

Our natural gas distribution lines form a network of more than 2,000 miles. About 24 percent of our total revenues come from the sale of gas to 94,700 customers in 181 cities, villages and towns. Our gas supplies come from two sources, Michigan Wisconsin Pipe Line Company and Northern Natural Gas Company. Our water operations serve customers in three cities—Beloit, Ripon and South Beloit (Illinois).

More than 54,000 shareowners own the Company. People from every state in the nation and several foreign countries have invested in WP&L. Most of our shareowners, however, live right here. About 60 percent of the common and 78 percent of the preferred shareholders are Wisconsin residents.

Our average common stock holding amounts to 243 shares—a figure that includes both individual and institutional shareholders. Holdings by individual investors represent about 71 percent of the total, with the remainder owned by institutional and similar types of accounts.



COMPANY PERSONNEL

OFFICERS

(as of December 31, 1978)

JAMES R. UNDERKOFLER
President and Chief Executive Officer

EDWARD A. WIEGNER
Senior Vice President-Consumer, Public and Financial Affairs

PETER S. VAN NORT
Senior Vice President-Division and System Operations

JOHN C. ACOMB
Vice President, Corporate Communications

BURTON C. PETERS
Vice President, Division Operations-Northern

ROBERT A. CARLSEN
Vice President, Division Operations-Southern

EDWARD F. KILLEEN
Vice President, Employee Relations

CHARLES G. KERNDT
Vice President, Engineering and Procurement

***ERROLL B. DAVIS, JR.**
Vice President, Finance

WILLIAM L. KEEPERS
Vice President, Power Production

HOMER J. VICK
Vice President, Rates and Consumer Services, and Secretary

THOMAS L. CONSIGNY
Assistant Vice President, Public Affairs

GEORGE A. GOFF
Controller

FREDERICK A. REMESCHATIS
Treasurer

DUAINE L. MOSSMAN
Assistant Secretary

DONALD L. VAN BRUNT
Assistant Secretary

EDWARD M. GLEASON
Assistant Treasurer

*Joined WP&L in this position during 1978

MANAGEMENT

General Office Department Heads

JOHN G. FABIE
Director of Safety

GEORGE E. GIBERT
Director of Gas Operations and Real Estate

RICHARD M. GREGORY
Director of Purchases and Stores

FRANK A. HANSEN
Director of Generating Station Operations

MERLIN E. HORN
Director of Environmental Affairs

THEODORE J. ILTIS
Director of Advanced Technology and Nuclear Affairs

JOHN W. LAUB
Director of Information Systems and Services

ROBERT G. LINDENAU
Director of Community Relations and Development

JAMES G. MILLER
Director of Customer Accounting and Rates

DALE G. MOODY
Director of Consumer Services

DUAINE L. MOSSMAN
Director of Financial and Revenue Requirements Planning

DONALD R. PIEPENBURG
Director of Public Information

WILLIAM C. REGISTER
Director of Transmission and Distribution Engineering

GEORGE L. RICHARDSON
Director of Generating Station Engineering and Construction

MARJATTA STRANDELL
Director of Human Resource Planning and Development

JACK E. ZWETTLER
Director of Internal Audits

Division Managers

RICHARD E. BARRY
Northern Division (Berlin)

DANIEL L. BARTEL
Northeast Division (Fond du Lac)

GEORGE R. BYINGTON
Southwest Division (Mineral Point)

LYLE R. COATES
Northwest Division (Baraboo)

DONALD P. GOIFFON
Southern Division (Beloit)

DAVID W. THOMPSON
Central Division (Janesville)

GEORGE E. WENNERLYN
Eastern Division (Sheboygan)

District Managers

PHILIP E. CRAWFORD
Lake Geneva

JAMES E. JOHNSON
Dane County (Oregon)

FELIX J. MATARRESE
Portage

STEPHEN F. STANUL
Beaver Dam

Generating Station Managers

JAMES H. DUDLEY
Blackhawk and Rock River (Beloit)

WILLIAM D. ENGEL
Columbia (Portage)

HENRY R. HOSTERMAN
Edgewater (Sheboygan)

BERNARD LATAKAS
Nelson Dewey (Cassville)

NEW DIRECTORS NAMED

Peter S. Van Nort, WP&L Senior Vice President, Division and System Operations, was elected to the Board of Directors in April. He had joined the Company in October 1977.

Shirley B. Thompson was elected to the Board of Directors in November. She is an agri-businesswoman in Mt. Horeb, Wis.

VICE PRESIDENT APPOINTED

Erroll B. Davis, Jr. joined WP&L in August as Vice President, Finance. Davis had been Manager of Financial Services and Corporate Long Range Planning for the Xerox Corporation.

MANAGEMENT CHANGES

Duaine L. Mossman was named Director of Financial and Revenue Requirements Planning in March. He previously served as Northwest Division Manager.

Theodore J. Iltis was named Director of Advanced Technology and Nuclear Affairs in March. He had been a Senior Representative in energy research and development with the Department of Energy, Washington, D.C.

George A. Goff was named Controller in April. He had been Assistant Controller.

Marjatta Strandell was named Director of Human Resource Planning and Development in November. She had been a Project Manager at Pacific Power and Light Company, Portland, Ore.

Lyle R. Coates was transferred to Northwest Division Manager at Baraboo from Northeast Division Manager at Fond du Lac in November.

Daniel L. Bartel was named Northeast Division Manager at Fond du Lac in January 1979. He had been Manager at Tomah.

Wisconsin Power & Light Company
P. O. Box 192 Madison, Wisconsin 53701

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