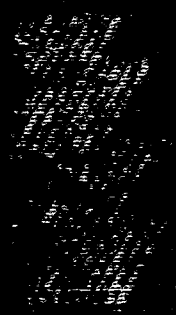
WISCONSIN PUBLIC SERVICE CORPORATION

1990 ANNUAL REPORT



Our concerns
for the environment...

...a progress report on Wisconsin Public Service's environmental agenda for the 1990s.

NUCLEAR

WATER QUALITY

AIR QUALITY

RECYCLING

FISH & WILDLIFE

FORESTS

RESEARCH/DEVELOPMENT

ENERGY EFFICIENCY

Concern for our environment is a Wisconsin heritage. Our preoccupation with outdoor activities — from fishing, hiking and bicycling to camping, boating and cross-country skiing — demands respect and protection of the environment by all our citizens, both individual and corporate.

Twenty years ago Gaylord Nelson, a former Wisconsin governor and U.S. senator, originated Earth Day to build awareness for the necessity of protecting our environment. He advanced a strategy to think globally, but act locally. Embracing those efforts, Wisconsin Public Service Corporation introduced programs to improve or preserve the natural resources we enjoy in our service area and state.

This annual report will give you an update on the current developments and blending of our major responsibilities of supplying electricity and natural gas to our customers and at the same time treating our natural resources and environment with respect. You will see by our review of recycling projects, air and water quality, nuclear proficiency, energy-use efficiency, in-depth research, forests and wildlife/fish preservation programs that we have been more active than many utilities for a long time.

Wisconsin Public Service employees and management are proud of their sharing participation in these programs to preserve our environment — and we pledge to continue our leadership role in the 1990s. The implementation of our Environmental Principles is evidence of our determination to live up to that pledge.

This entire report is printed on recycled papers.

ENVIRONMENTAL OPERATING PRINCIPLES

Maintaining the leadership role of industry protecting the environment, Wisconsin Public Service has formalized many traditional practices which both conserve and preserve the natural resources in our area. The adoption and publication of these principles commits the company and its employees to operate within these guidelines:

1. Protection of the Environment
We will continue our goal to be a leader in environmental stewardship. To the greatest extent practicable, we will limit our impact on the environment. We will continue to operate our facilities to meet or surpass environmental standards.

2. Use of Natural Resources
We will be responsible when using renewable natural resources, such as water, soils, and forests. We will conserve nonrenewable natural resources through efficient use and careful planning. We will protect wildlife habitat, open spoces, wilderness, and work to preserve a diversity of life.

3. Reduction and Disposal of Waste
We will minimize the creation of waste, especially hazardous waste, and whenever practicable, recycle materials. We will dispose of all wastes through safe and responsible methods.

4. Wise Use of Energy
As an energy supplier we will make every effort to provide environmentally safe energy sources to meet our customers' needs. We will invest in improved energy efficiency and innovation in our operations and will actively encourage customers to do the same.

5. Risk Reduction
We will strive to reduce the environmental, health, and safety risks to our employees and the communities in which we operate by employing safe technologies and operating procedures and by being prepared for emergencies.

6. Marketing of Safe Products and Services
We will supply our energy products in a manner that will minimize adverse environmental impacts. We will continue to stress safety concerns when using our products and continue to assist our customers to use these products safely.

7. Damage Compensation
We will take reasonable precautions to avoid harm to the environment. In the event of an accident, we will take responsibility for the harm caused and make a reasonable effort to mitigate or restore the environment.

8. Disclosure
We will inform our employees and the public of incidents relating to our operations that may cause environmental harm or pose health or safety hazards.

9. Environmental Directors and Managers
We will commit management resources to implement these principles, including the continuation of an office of environmental affairs or an equivalent executive position, reporting directly to senior corporate management to monitor and report on our implementation efforts.

10. Annual Environmental Report
We will conduct a self-evaluation relating to our progress in establishing these principles and of our efforts to comply with applicable environmental laws and regulations.

CONTENTS

BUSINESS

WISCONSIN PUBLIC SERVICE CORPORATION is an investor-owned electric and gas utility providing service to Northeastern Wisconsin and an adjacent part of Upper Michigan.

OPERATING HIGHLIGHTS

	1990	1989	% Change
Revenues (Thousands)	$588,973	$585,812	.5
Net Income (Thousands)	49,023	49,130	–.2
Earnings Per Average Share of Common Stock*	2.00	1.98	1.0
Dividends Paid Per Share*	1.64	1.60	2.5
Book Value Per Share	16.26	16.30	–.2
Common Stock Year-End Price	23⅝	23¾	–.5
Construction Expenditures (Thousands)	66,031	71,561	–7.7
Capitalization (Thousands)	696,681	680,242	2.4
Electric Customers	328,159	322,582	1.7
Electric Sales (Kwh–Thousands)	9,287,914	8,957,064	3.7
Gas Customers	176,429	172,519	2.3
Gas Deliveries (Therms–Thousands)	506,353	541,897	–6.6

COMMON STOCK Two Year Comparison

Share Data	Dividends Per Share	Price Range High	Price Range Low
1990			
1st Quarter	$ .405	24½	21
2nd Quarter	.405	22⅝	20⅝
3rd Quarter	.415	21⅞	19¾
4th Quarter	.415	24⅝	20¾
Total	$1.64		
1989			
1st Quarter	$ .395	22⅜	20½
2nd Quarter	.395	23¼	20¾
3rd Quarter	.405	24⅞	22¼
4th Quarter	.405	24¼	22⅛
Total	$1.60		

*Adjusted to reflect 2 for 1 common stock split in June 1987.

TO OUR SHAREOWNERS:

During the 20 years since the staging of the first Earth Day in 1970, Wisconsin Public Service has come to understand that preserving and protecting the quality of the environment is not only a good thing to do in and of itself, but is also good business.

That is why we selected an environmental theme for this year's annual report. As you read it, you will see examples in the photos and the text of some environmentally related activities that the company has undertaken over the years, and others that are just getting underway.

Indeed, we feel so strongly that we formally adopted a statement of ten environmental principles, shown on the previous page, to guide the way we will continue to do business.

Some operating and financial results for 1990 include:

- Electric sales were 3.7% greater than in 1989.
- Gas sales and transportation volumes decreased 6.6%.
- In 1990, earnings per average common share were $2.00 compared with $1.98 in 1989.
- Control of operation and maintenance costs helped earnings results.
- Quarterly dividends on common stock were increased to 41.5 cents with the September payment. This is up from 40.5 cents in 1989 and makes the 32nd consecutive year in which dividends paid per share were increased.
- Return on average common equity was 12.1% for both 1990 and 1989.

Natural gas sales decreased due to conservation and milder than normal weather. However, the number of gas customers added to the system increased.

Two years ago, we expected electric peak load growth of about 1% per year. The rate of growth in our load is now forecast at over 2.5% per year.

This growth is largely due to the performance of the paper industry and the general Wisconsin economy. Both have remained strong in our service area while the rest of the country is hinting at the possibility of recession.

The anticipated growth in electric demand prompted a careful look at generation planning. The company asked the Public Service Commission of Wisconsin (PSCW) for approval to add a total of three 75,000-kilowatt combustion turbines over the next few years.

Our fossil-fueled power plants operated well despite an unfortunate accident at the Pulliam plant in Green Bay on June 15, which is discussed later in the report.

"We formally adopted a statement of ten environmental principles to guide the way we will continue to do business."

The Kewaunee nuclear plant, which is one of 112 commercial operating reactors producing electricity in the United States, marked the 7th time in its 16-year history of operating for more than 200-plus consecutive days.

The Clean Air Act signed into law on November 15 was a major piece of federal legislation that will affect all industries in varying degree. Our company will be able to meet the regulations for sulfur dioxide because of actions already taken to comply with Wisconsin's Acid Rain Law, which was enacted in 1986. These actions, which include switching to lower sulfur coals, will be completed by January 1993. The company will comply with the new nitrous oxide limitations by installing low nitrogen oxide producing burners on several units at a total cost of approximately $15 million.

We continue to look at cogeneration as part of our future energy mix. This year's cogeneration project with a Green Bay paper mill was canceled when the paper mill corporate headquarters decided that the funding would be better directed to its product production.

More cogeneration projects are still being considered. There are many paper mills in our service territory which are excellent candidates for cogeneration.

This was the second year we focused on total quality processes in every aspect of our operations. Total quality training programs continue as more employees get involved to work across organizational lines to meet and exceed our corporate goals.

By continuously improving the quality, reliability and price of our

Linus M. Stoll

Daniel A. Bollom

products and services, remain competitive. Our electricity rates remain among the lowest in Wisconsin and well below the national average. In fact, overall electric rates have had a net reduction of 8.5% since 1983.

During that same period, gas rates have had a net reduction of 19.7%.

Controlling costs resulted in being right on target with our forecasted budget for 1990, a significant achievement by our employees.

Quality improvement has been enacted at all management levels in the corporation. We will need to constantly improve our q[illegible]in order to remain c[illegible]itive in today's gas and electric markets. The heat is being turned up by the competition.

We're remaining competitive by offering innovative rate structures to help our customers control their costs. This gives customers options to keep their energy costs down.

Another integral part of our future energy plan is "demand-side management." We encourage customers in many ways, including incentives, to reduce electrical peak load demands on our system.

Demand-side management helps meet energy needs, deferring construction of new, more costly generation. This is an environmentally preferable way of meeting customer needs. This enables us and our customers to be more competitive. There are many marketing opportunities that accompany demand-side management.

To meet our customers' future energy needs, we will:
- Continue to pursue our aggressive conservation and load management programs. These programs will help customers use energy wisely.
- Implement enhanced maintenance programs to maintain reliability of our existing power plants.
- Promote cogeneration projects.

"We will work hard in the years ahead to improve our operating efficiency, control onr costs and enhance customer service."

- Construct three combustion turbine peaking units to be built over the next several years.
- Research several small renewable generation projects using landfill gas, hydro, solar, wind and solid waste as a fuel source.

We will work hard in the years ahead to improve our operating efficiency, control our costs and enhance customer service by keeping our focus on total quality.

Our past has been good to us, but the energy business is changing. Our dedicated team of skilled employees is ready to meet the challenges ahead.

We look forward to maintaining our tradition of success and extend special appreciation to our shareowners and ask for your continued support.

Linus M. Stoll
Chairman and
Chief Executive Officer

Daniel A. Bollom
President and
Chief Operating Officer

February 25, 1991

THE YEAR IN REVIEW

"Recycling to preserve our resources can extend the quality of life for the future."

WASTE ASH IMPROVES SOIL
At a central Wisconsin farm, a coal electric plant "waste" material is being tested for benefits to soil fertility. The sand-like ash was mixed with soil to improve soil texture.

FINANCIAL

A sale of $45 million of First Mortgage Bonds is anticipated in 1991. The proceeds will be needed in order to reduce short-term debt being incurred for the financing of construction. Additional financings are anticipated over the coming years to cover the $640 million construction and other investments forecast for 1991-1995. The increased level of construction reflects primarily a stronger sales growth over recent years.

A second loan for $28 million supplements a leveraged employee stock ownership plan that was implemented in 1988. To date a total of 1,364,083 additional common shares have been acquired for the plan. Benefits will be provided to the company through tax deductible dividends and by enabling it to reduce cost of service while also increasing employee stock ownership.

The company issued 150,000 shares of 10.50% series preferred stock in 1974. Under terms of the sinking fund provisions of this series, up to 15,000 shares have been redeemed each year beginning November 1, 1979. The final redemption of the remaining 6,410 shares occurred on November 1, 1990.

RATES

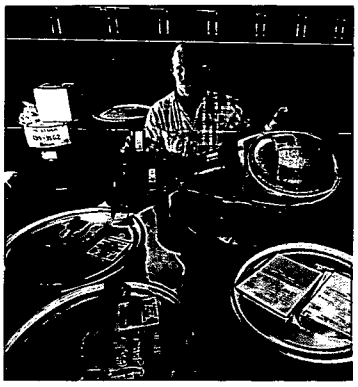
In January 1990, electric rates decreased $7.3 million and natural gas rates increased $1 million for our Wisconsin customers. The reduction resulted from successful efforts by the company to renegotiate contracts with coal suppliers. The gas rate increase was due primarily to higher operating costs on the company's gas distribution system.

In March 1990, a rate filing was made with the PSCW to increase electric rates by $10.2 million and gas rates by $2.6 million. An order was issued late in the year effective for January 1991, increasing electric rates by 2.4% as compared to a 2.6% request, and gas rates by 1.7%, the amount requested. A 13.1% rate of return on equity was allowed.

Natural gas customers received a refund in March following a $21 million settlement with the company's wholesale natural gas supplier. The refund was based on 1986-1989 charges.

In Michigan, rates for the company's 8,000 electric customers were reduced effective the beginning of 1991 to a level about $100,000 lower than 1990 while natural gas rates remained the same.

In a recent National Association of Regulatory Utility Commissioners survey, the company's residential electric rates ranked in the lowest 15% of the nation, based on 500-kilowatt hours per month in the summer over the last five years.



STREETLIGHT RECYCLING
Streetlights are disassembled and recycled when they are removed from service. The glass and metal parts are reused or commercially recycled. Ports containing PCBs ore removed ond handled safely according to hazardous waste regulations.

MANAGEMENT

At the Annual Shareholders' Meeting, A. Dean Arganbright, James L. Kemerling and Paul D. Ziemer were elected as directors for a term of three years.

Clark R. Steinhardt, formerly Assistant Vice President-Nuclear Power, became Vice President-Nuclear Power and Robert H. Knuth, Secretary and Assistant Treasurer, was promoted to Assistant Vice President-Secretary. A new officer elected was Glen R. Schwalbach, who became Assistant Vice President-Gas Engineering and Supply.

FLY ASH IN HIGHWAYS
Fly ash from our coal power plants is being used to make asphalt highways — another recycling effort. Through this and other efforts, the company is recycling much of its ash.

RECYCLING OF METALS
Recycling of metal has been going on at our company for more than 60 years. Short strands of power line, metal fuse arms and other pieces are sorted and sold to a commercial recycler.

RECYCLED ASH IN CONCRETE
Recycled ash is a well-proven concrete additive. The company's new addition to corporate headquarters was made with concrete using recycled ash.

CLEAN AIR ACT COMPLIANCE
Burning lower sulfur coal will allow the company to meet the 1990 Clean Air Act with small capital investments. When complete in 1993, the use of other coals will mean a 50% cut in total sulfur emissions from 1980 levels.

AIR EMISSIONS TESTING
Standing on a platform attached to a 377-foot stack near downtown Green Bay, a technician measures air emissions from the Pulliam coal electric plant. The stack test program helped engineers select the best of lower sulfur coals for use in the company's Pulliam and Weston Units 1 & 2 plants.

Linus M. Stoll is retiring at the end of February 1991, and Daniel A. Bollom, President and Chief Operating Officer, will become President and Chief Executive Officer.

ELECTRICAL SYSTEM/COGENERATION

Despite a cooler summer, a peak gross hourly electrical record was set on August 27 of 1,568,400 kilowatt-hours which exceeds the previous peak of 1,567,000 kilowatt-hours set in 1988, the hottest summer in more than 40 years.

Growing demand requires an investment of $12 million to improve the transmission system. This is a three-utility project, proposed for construction starting in 1992. The company's portion includes a new 138-kilovolt transmission line in the western part of our service area, two new distribution substations and the remodeling of a third.

The PSCW ordered the company to develop "cost use sharing agreements" containing 20 specific issues which would allow others to use the company's transmission system. The company contested the state regulators' authority to make such an order. In conjunction with this, the PSCW also ordered the company to file a wheeling tariff to charge users of the system and an agreement in principle has been achieved. The company will continue to address this issue of transmission access effect the reliability of system.

"Clean air, through pollution control and more efficient power generation, must be maintained."

Cogeneration negotiations continued with several larger industrial customers. Cogeneration could help in reducing power generation costs, increasing the efficiency of energy production and allowing the company to retain industrial customers.

NUCLEAR POWER

The Nuclear Regulatory Commission (NRC) has again pointed to the Kewaunee nuclear plant as one of the top operating plants in the country. The 535,000 kilowatt plant was one of five praised by the NRC for "sustained good performance," putting it in the top 5% of our nation's nuclear plants.

A recent evaluation by the Institute of Nuclear Power Operations resulted in a Category 1 assessment. Category 1 means that overall plant performance is excellent, with industry standards of excellence met in most areas.

HYDROELECTRIC POWER

The company continued work on obtaining license renewals for all 15 of its hydroelectric power plants. The new federal licenses are granted for 30 to 50 years. The company works with environmental agencies and private organizations to ensure that hydro operations will continue to balance energy production, fish and wildlife, recreational opportunity, timber products and public safety.

In February 1990, 15 employees from the company's western hydro operations were recognized for surpassing 13 years of work without a lost time accident.

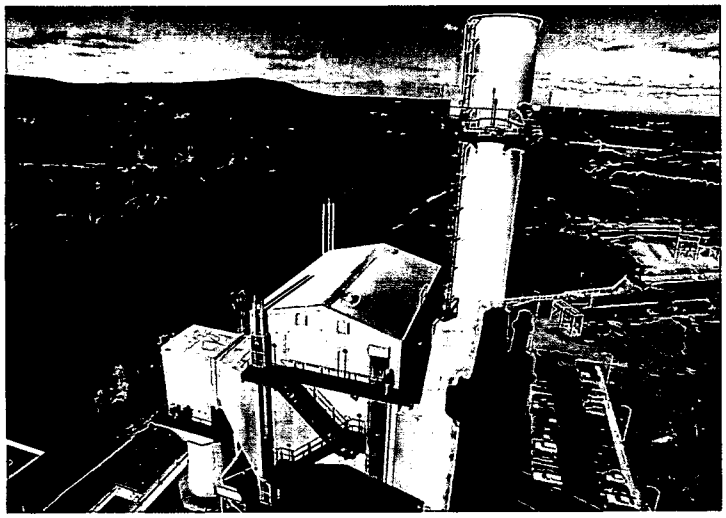
COAL POWER

In June, an explosion and fire occurred in a coal bunker at the company's Pulliam power plant in Green Bay. Three employees were injured. Two have since recovered and the third is expected to return to work in 1991. The $1.1 million damage caused by the explosion took the entire 373-megawatt plant off-line for five days although customers did not suffer any interruption of service. The last extended outage of all six units in the plant was more than 25 years ago. The company is very proud of the dedicated efforts of the many employees who helped out during the unfortunate Pulliam situation.

The upgrading of the Pulliam plant continues as the company realizes the long-term contribution the power plant must make as demand climbs.

The $8.5 million controls upgrade project highlights for 1990 included replacement of air-operated control components with modern "state-of-the-art" electronic microprocessors. The new control system has already helped enhance unit performance in the areas of heat rate, availability and reliability, as well as allow for increased operator efficiency.

At the company's Weston Units 1 & 2 coal power plants near Wausau, a flue gas conditioning system was installed. The new $1.5 million system will further improve the removal of fine ash particles from exhaust



EMISSIONS CONTROL An expansion of air emissions control equipment was made at the Weston Units 1 & 2 coal boilers. New flue gas conditioning equipment improves control of ash produced during burning of lower sulfur coals. The Weston plant is in the western part of our territory near Wausau.

MONITORING AQUATIC LIFE
To ensure that hydroelectric operations do not harm aquatic life, a comprehensive monitoring and assessment program is underway near eight compan dams.

DISCHARGED WATER TREATMENT
Water is treated before discharge to any river or lake. The discharged water is cleaner than water found there naturally.

gases. The two units, which were built in the early 1950s, will now be able to burn low sulfur coals, thereby reducing the sulfur dioxide emissions.

The Pulliam and Weston upgrades are just part of the overall company-wide "Enhanced Maintenance Program." The program's purpose is to keep all generating units available at full capacity as long as economically feasible, while assuring safety, reasonable reliability and reducing the number of forced outages. It is less expensive to continue operation of older generating units than it is to replace the units with new, higher cost plants.

In legal action, the company is awaiting a Dane County Court decision on an appeal by Wisconsin Power and Light Company (WP&L) of a decision by the PSCW. At issue is WP&L's alleged mishandling of a coal contract at the jointly-owned Columbia Unit 1 power plant near Portage. WP&L manages and operates the plant and is responsible for administering the coal contract. Our company owns 31.8% of the plant. The PSCW auditors concluded that WP&L should refund $2.8 million to the company for overpayments on the 20-year coal contract. Any refunding would be passed on to the company's customers. WP&L appealed the decision in September.

A Wisconsin state law enacted in 1986 required utilities to reduce air emissions from coal-fired power plants by 1993. This can be accomplished most cost-effectively by switching to coal with a lower sulfur content. Because of this, the company has taken action to terminate or modify contracts for some existing coal supplies and railroad transportation.

"Clean waters, at the surface or below ground, are vital to all life."

NERCO, an Oregon-based coal supplier, filed suit against the company in September over differences in a 20-year coal contract entered in 1985. Renegotiations of the contract began over a year ago. Both parties have agreed to negotiate and reach a settlement out of court.

FUEL COST AND GENERATION

Because of the increased requirements for electrical generation due primarily to economic growth and increased air conditioning load, the PSCW received a request from all the major utilities in the state to construct 17 combustion turbines to supply that need for electricity. In order to review these projects in an orderly manner, a modified advance plan called Son of Advance Plan (SOAP), was initiated. After hearings, the PSCW ruled in September giving conditional approval pending review of criteria for specific sites.

To meet rising summer peak demand, the company requested PSCW approval to add three 75,000 kilowatt combustion turbines in 1992, 1994 and 1995. The first unit would be located at the company's West Marinette substation and peaking plant facility. Site identification for the 1994-1995 units would be reviewed at a later date in order to allow the company to evaluate all the options at that time.

The company is also considering coal fired capacity by the year 2001.

Fuel costs in 1990 compared with 1989, expressed in dollars per million Btu, were: nuclear, $.50, up from $.45; coal, $1.69, down from $1.89; natural gas, $2.95, down from $3.10; and No. 2 fuel oil, $4.89, up from $4.20.

The generation mix of fuels needed to operate our power plants in 1990 compared to 1989 was: coal, 67.0%, up from 63.6%; nuclear, 16.2%, up from 16.0%; hydro, 2.6%, up from 2.0%; combined natural gas and fuel oil, .4%, down from .7%; and power purchased from other utilities, 13.8%, down from 17.7%.

The company signed an open-ended agreement to purchase ten megawatts of firm capacity electricity from one of its industrial customers. Capacity purchases help to balance power supply.

The unsettled situation in the Middle East is having a minor impact on the company. The direct impact on increased generation fuel costs should be minimal.

Natural gas prices are expected to increase about 5% to 7% per year. This is the same increase that was expected before the Iraqi invasion.

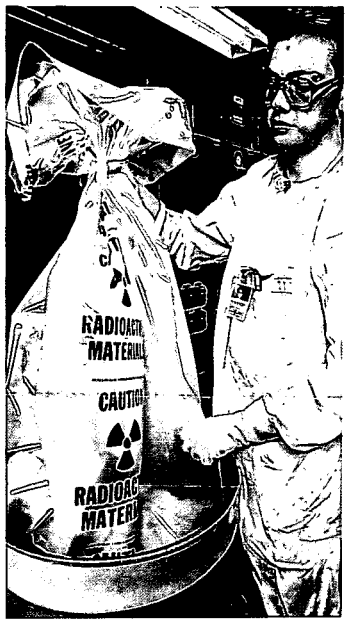
Rail transportation costs are also expected to rise slightly for coal shipments.

Nuclear fuels are not expected to be affected by the Mideast crisis.

NATURAL GAS

The gas distribution system underwent significant growth during 1990. About 118 miles of gas main were installed, and nearly 4,000 new gas services were connected to the company's system. Prospects for continued growth over the next several years are very good.

FISH HABITAT PROTECTION River flows are affected by hydroelectric operations. To ensure fish habitat protection, a study was conducted by an independent environmental firm.



REDUCING RADIOACTIVE WASTE The company's Kewaunee nuclear plant is renowned for its program of reducing the amount of low-level radioactive waste generated.

After two years of negotiations, the company's gas supplier is now offering new transportation and storage services. The traditional services were replaced with a more flexible, pick-and-choose approach. This enables the company to select the best combination to meet the changing needs of its customers.

Future gas supply looks good. During 1990, the company finally received regulatory approval to import Canadian gas. Agreements with Canadian suppliers are being negotiated.

The new computerized facilities management and mapping system was used extensively in this year's gas extension projects. The system's land maps and land data base information was used both by the company and the PSCW to evaluate proposed routes and environmental impacts as a result of the gas extensions. The company is considering marketing the land based data and mapping information now that it is complete and is operational.

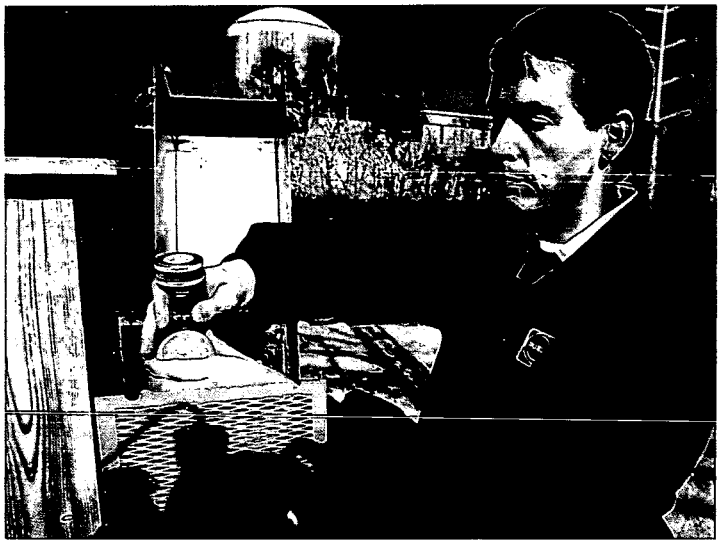
"Nuclear power is the cleanest and least polluting means of energy generation and helps conserve our fossil fuel supplies."

ENVIRONMENT

To further enhance its commitment to environmental stewardship, the company adopted ten environmental principles which will guide the way business is conducted in the future. The goal in company operations is to meet or exceed all environmental rules and regulations. The company sets guidelines so operating personnel allow adequate margins of safety to ensure compliance with the rules. In rare cases where equipment has malfunctioned and rules are in danger of being broken, units have been backed down or stopped completely so that repairs can be made and environmental compliance maintained.

An internal task force was established this year to implement and oversee the company's recycling program. The task force's purpose is to reduce the generation of wastes and increase recycling opportunities.

Four thousand tree seedlings were planted by students this year in a school forest area next to the Kewaunee nuclear power plant. The school forest, provided and maintained by the company, features a shelter, nature trails, and outdoor classroom.

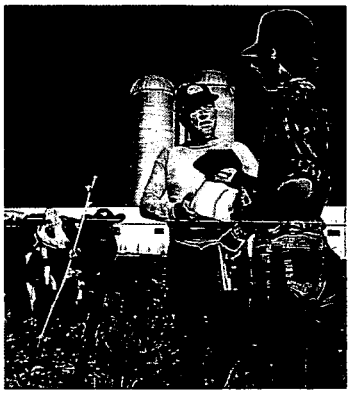


ASSURING AIR QUALITY To assure that air quality is not adversely affected by plant operations, continuous sampling for radioactivity is performed.

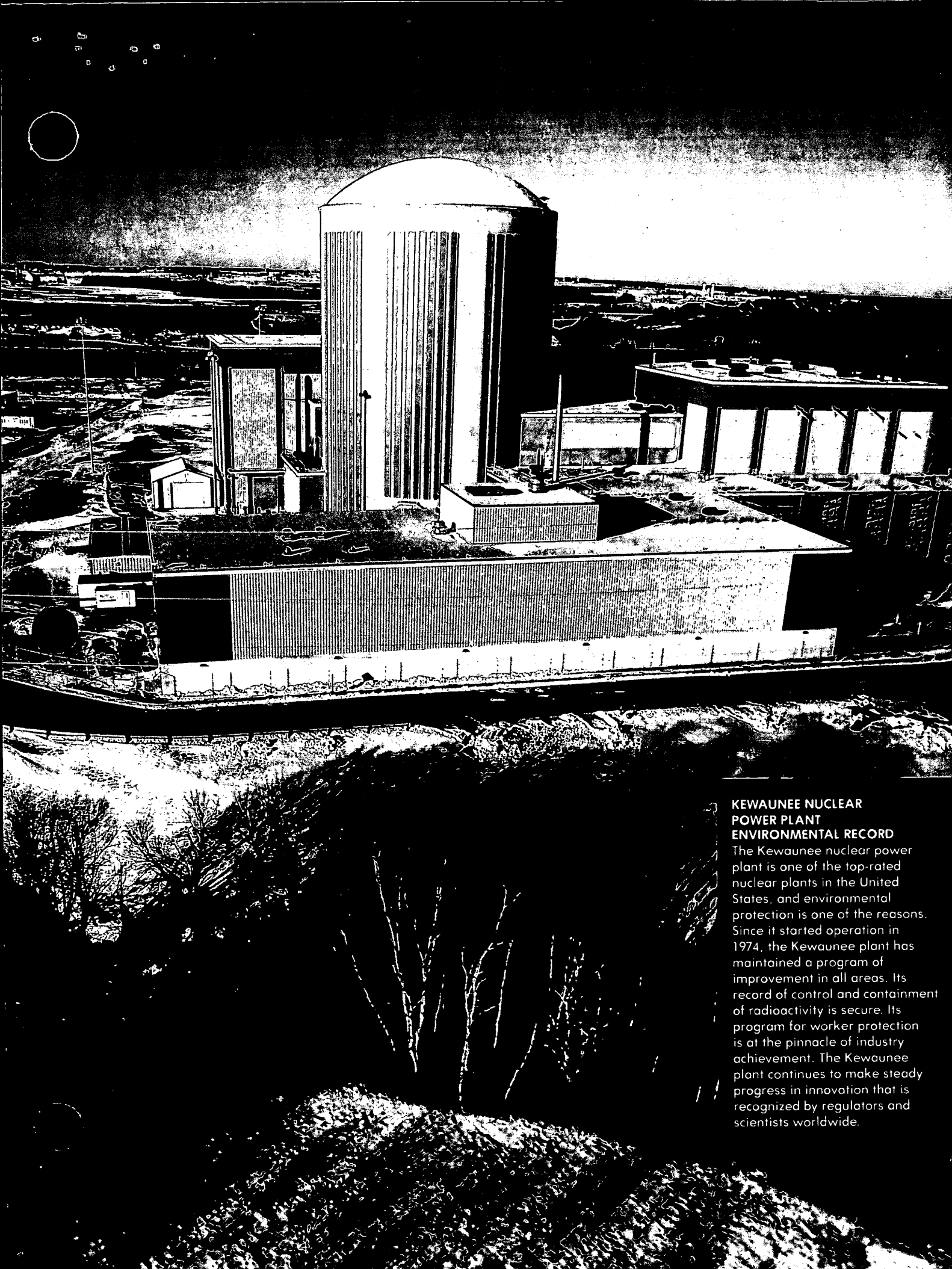
In Wausau, a new fly ash disposal site was approved for the Weston plant. The site passed all environmental regulations and will be able to handle all Weston fly ash for the next 20 years.

BUSINESS VENTURES

The company hosted the first field demonstration of a newly developed superconductivity storage device (SSD). The company helped fund development of the SSD through Superconductivity, Inc. of Madison. This new corporation is directing the research that could lead to the manufacture and marketing of SSDs that would compensate for microsecond lags in the flow of electricity. During the next year, the prototype SSD demonstration trailer is traveling around the country giving superconductivity demonstrations to attract customers. Companies expressing interest include paper mills, chemical plants, computer and electronic equipment users and other manufacturers.



MONITORING MILK SAMPLES As part of a wide-range monitoring program, Kewaunee workers collect milk samples from area dairy farms. The milk is routinely anolyzed to insure its purity.

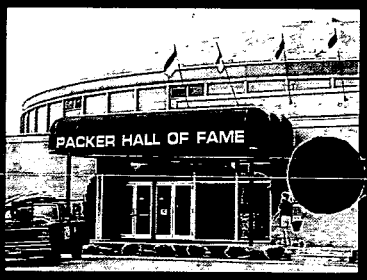


KEWAUNEE NUCLEAR POWER PLANT ENVIRONMENTAL RECORD

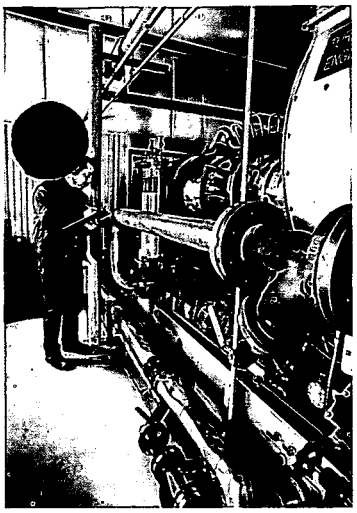
The Kewaunee nuclear power plant is one of the top-rated nuclear plants in the United States, and environmental protection is one of the reasons. Since it started operation in 1974, the Kewaunee plant has maintained a program of improvement in all areas. Its record of control and containment of radioactivity is secure. Its program for worker protection is at the pinnacle of industry achievement. The Kewaunee plant continues to make steady progress in innovation that is recognized by regulators and scientists worldwide.

WEATHERIZATION PROGRAM
Company-financed year round weatherization is helping conserve natural gas heating resources and reduce air conditioning peak demand.

HIGH EFFICIENCY LIGHTING REBATES
Energy efficiency is promoted by giving cash rebates to commercial and industrial customers who install high-efficiency lighting. The cost of offering rebates is less than the cost of expanding company substations, transformers and generating plants.



ICE-STORAGE AIR CONDITIONING
A new approach to make the electric system more efficient is the area's first ice-storage air conditioning system. Located at the Green Bay Packer Hall of Fame, it uses off-peak electricity to make ice which is stored for cooling at on-peak times. The company funded the design effort and gave the county a cash rebate for reducing peak demand.



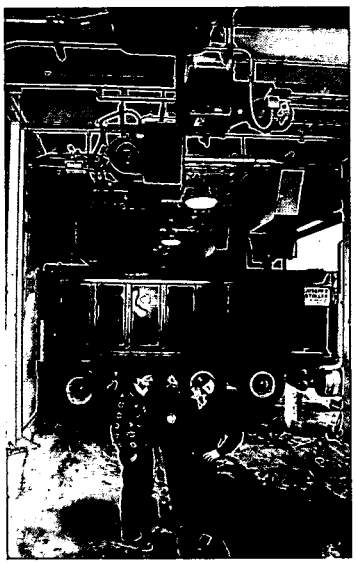
ELECTRICITY FROM GARBAGE
Gas from buried garbage is being turned into electricity at a county landfill in Oshkosh. The resource would be wasted if not used in this manner.

"Efficient use of energy, by residential and industrial customers, is essential to ensure low cost fuel for the future."

REBATES FOR ENERGY-EFFICIENT APPLIANCES
Energy efficiency in the home is encouraged by cash rebates to customers who select higher-thon-average efficiency water heaters and other appliances.

The company continued expansion of fiber optic telecommunications through its partial ownership in NorLight fiber optic network. WPS Communications, Inc., our telecommunication subsidiary, is now one-third owner of NorLight. Revenues are improving and cash flow is positive, however it has not yet earned a profit. The 900-mile regional fiber optic network also allows the company to lessen its dependence on other long distance commercial carriers.

Geographic Systems Corporation, a computer software company, continued its marketing efforts directed at municipal and utility clients. The corporation was formed last year through a joint venture of IBM and the company's software sales subsidiary. Sales are improving but it has not yet earned a profit.



BUILDING ENERGY EFFICIENCY
Company programs are encouraging business to build energy efficiency into new facilities. Efficient motors were installed at a new paper recycling mill in Green Bay because of cash rebate incentives.

Rapidly changing technologies have been associated recently with the electric and gas utility industry. That is why the company continued its support of UTECH, a venture capital partnership which invests in new technologies that could be applied to utility operations. To date the company has $2.5 million invested. Some ventures have been profitable but no cash dividends have been distributed to date.

EMPLOYEES

The company continued its Total Quality Focus program. The program is designed to achieve long-term benefits that will improve company products and processes, reduce costs, stabilize rates and improve customer service. The company is committed to an effective cost management program by eliminating low priority activities, reducing management layers and reassigning personnel and positions.

Because of escalating health care costs, the company instituted programs that require each employee to accept more responsibility in selecting health care providers and treatment options. A spousal medical plan change was implemented this year, offsetting increases in costs by an estimated $568,000 per year.

The current drug and alcohol testing program was fully implemented. Around 700 employees and contractors are randomly tested per year.

The company's "restricted smoking policy" in company buildings went into effect this year. The goal is to encourage employees and their spouses to stop smoking.

The "Taking Care" wellness program for employees wrapped up its third year featuring programs

SHADE TREES REDUCE SUMMER PEAK LOAD To reduce summer peak demand from air conditioning, the company began a campaign to encourage the planting of shade trees near buildings. Trees can significantly reduce the cooling needs of a building.

on alcohol, blood pressure and mental health.

A job rotation program began this year to give supervisors the opportunity to work in departments other than their own for up to two years. The program will prepare the company for the future through a well-trained and experienced work force.

The company awarded its "Service To Life" award to employee Gerald Jossart, a gas service mechanic in Green Bay. The award recognized Jossart for his swift rescue of an eight member family from a burning home last winter.

The company remodeled its division office in Rhinelander and its district office in Chilton. The new design improves customer service and helps promote energy efficiency. A three-story addition to the company's annex building was also completed at the general offices in Green Bay.

MARKETING EFFORTS/ EDUCATION/COMMUNITY

The company continued to expand its energy efficiency programs to help all customers use electricity and natural gas more wisely.

That effort is being expanded to include more options and greater flexibility in conservation programs that have been identified through customer research. These programs are part of the overall effort to capture cost effective conservation.

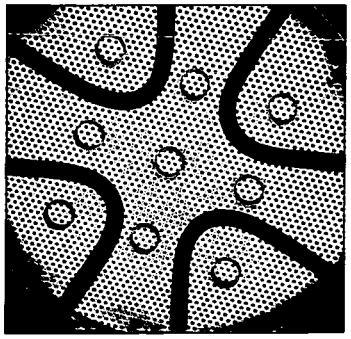
Over 12,000 "energy check-ups" were conducted in customer homes this year, well surpassing the goal of 10,000. A residential marketing representative inspects a customer's home and offers advice on how to conserve energy.

About 1,200 "check-ups" were also performed on farms and on commercial and industrial buildings.

A new rebate program for farm customers who install energy efficient electrical ventilation equipment was initiated this year. The company has more than 10,000 farm customers.

In the year ahead, conservation efforts will expand. A direct load control program of central air conditioners in the residential market will be tested in Green Bay. If successful, plans are to expand the system company-wide over the next several years. Air conditioners would be automatically controlled by radio from the system operating office at the company. About 15 megawatts of peak load is the expected amount of electricity to be saved. A similar control program is being considered for water heaters and other household appliances.

"Research, development, study and planning to keep pace with progress and change is essential in serving the public now and in the future."



LOW POLLUTION GAS BURNER
One environmental benefit from the company's support of the Gas Research Institute is a low-pollution gas range burner. It burns gas 50% more efficiently and reduces nitrogen oxide emissions as well.

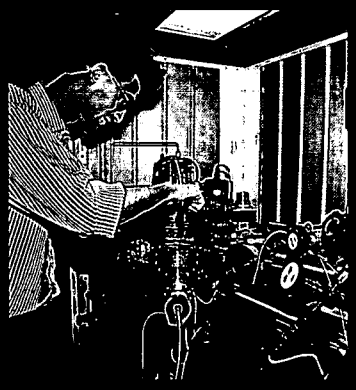
The annual Energy Educator seminars for teachers and administrators in the company's service territory focused on environmental issues. Eleven different seminars were held and 1,340 attended.

Over 165 presentations were given to 7,000 people as a result of this year's "Speaker Bureau" efforts. The bureau, which began in 1983, features 42 company employees who volunteer their time to speak to area service, church, sports, social and professional groups on a wide range of topics.

The company continually looks for ways to keep customers more informed. The company initiated a monthly newsletter called "The Customer Connection" which accompanies a customer's bill. It includes conservation, safety and other information and eliminates most of the bill inserts. Research shows the newsletter is read more thoroughly than individual bill inserts. The company benefits as the newsletter also saves time as well as postage and printing costs.

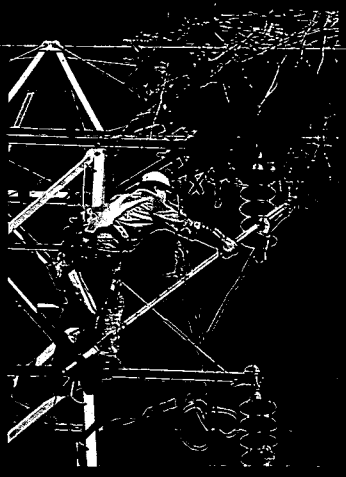
ELECTRO-MAGNETIC FIELD STUDY
Employees wore belt-clip monitors both at work and at home as part of a national study of EMF — electric and magnetic field exposure. The study complements a customer relations program in which trained personnel visit concerned customers at their homes.

CLEANER COAL RESEARCH
Fluidized bed combustion, the burning of coal with limestone, is a clean coal technology now being refined in large-scale projects by the Electric Power Research Institute. Such research is intended to make electricity safer, more economical and more environmentally compatible.

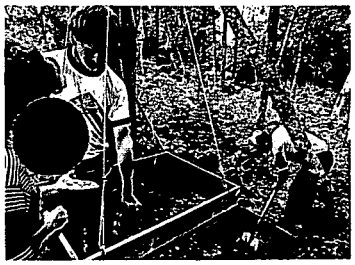


SOLAR CELL RESEARCH
Research into solar electricity may produce significant environmental improvements. Research on solar cells is being conducted at Princeton University through funding by the Electric Power Research Institute. The company provides annual funding to the Electric Power Research Institute, and in 1990 contributed about $1.5 million.

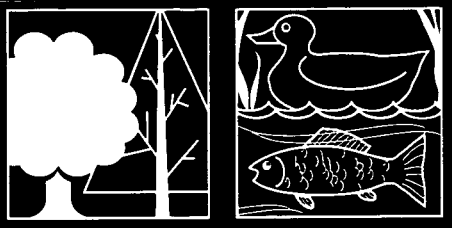
FISH SURVEY
Environmental staff conduct a fish survey near a company dam on the Wisconsin River. As part of an environmental management program for hydro operations, the company had stocked several areas with fish in previous years and surveys have shown these to be successful.



BIRD PROTECTION
Protecting birds such as the osprey is a well-established procedure in our transmission area. When ospreys or eagles build a nest on a power line tower, workers erect a safer platform nearby and transfer the nest.



SAFEGUARDING THE CULTURAL HERITAGE
Environmental protection also means protecting the cultural heritage on company properties. Archaeologists surveyed hydroelectric flowage lands to identify sites in need of protection.



"Intelligent management of all living natural resources, forests and wildlife is a necessary ingredient to ensure our future life quality."

A new computerized commercial and industrial information system is being developed by the company. The new system is scheduled to be implemented in 1991. The system will give service representatives more information for dealing with customer concerns regarding rates, billing options, c[illegible]vation and load m[illegible]ement.

The company took part in "Energy Expo '90" which provided commercial and industrial decision makers with key strategies in energy efficiency. It is the largest energy management conference in the Midwest and one of the largest in the nation.

GOVERNMENTAL AFFAIRS

The passing of the Federal Clean Air Act will not have as significant an impact on the company as was first expected. The new bill means that:

- New burners to reduce nitrogen oxide emissions must be installed at some coal plants that do not already have them. Modifications to three existing generating units will most likely be required at a cost of about $15 million.
- Sulfur emissions must be reduced beyond state defined limits, but it is likely that scrubbers will not be required at any of the company's coal plants. Had scrubbers been required, it would have cost $50 million in equipment costs plus substantially increasing annual operating costs.

NEW SUPERTREE PLANTING
The world's first spruce supertrees were planted on campony lands by campany executives and the locol scientist who developed the tree through biotechnology. The supertrees grow at twice the normal rate and are expected to benefit bath the paper industry and the environment.

The bill's passage means the company will not be penalized for getting a head start in the 1980s on cleaning up air emissions.

Several aspects of the legislation were turned over to the Environmental Protection Agency (EPA) for rule making. The company is now waiting for the EPA's decision.

RESEARCH AND DEVELOPMENT

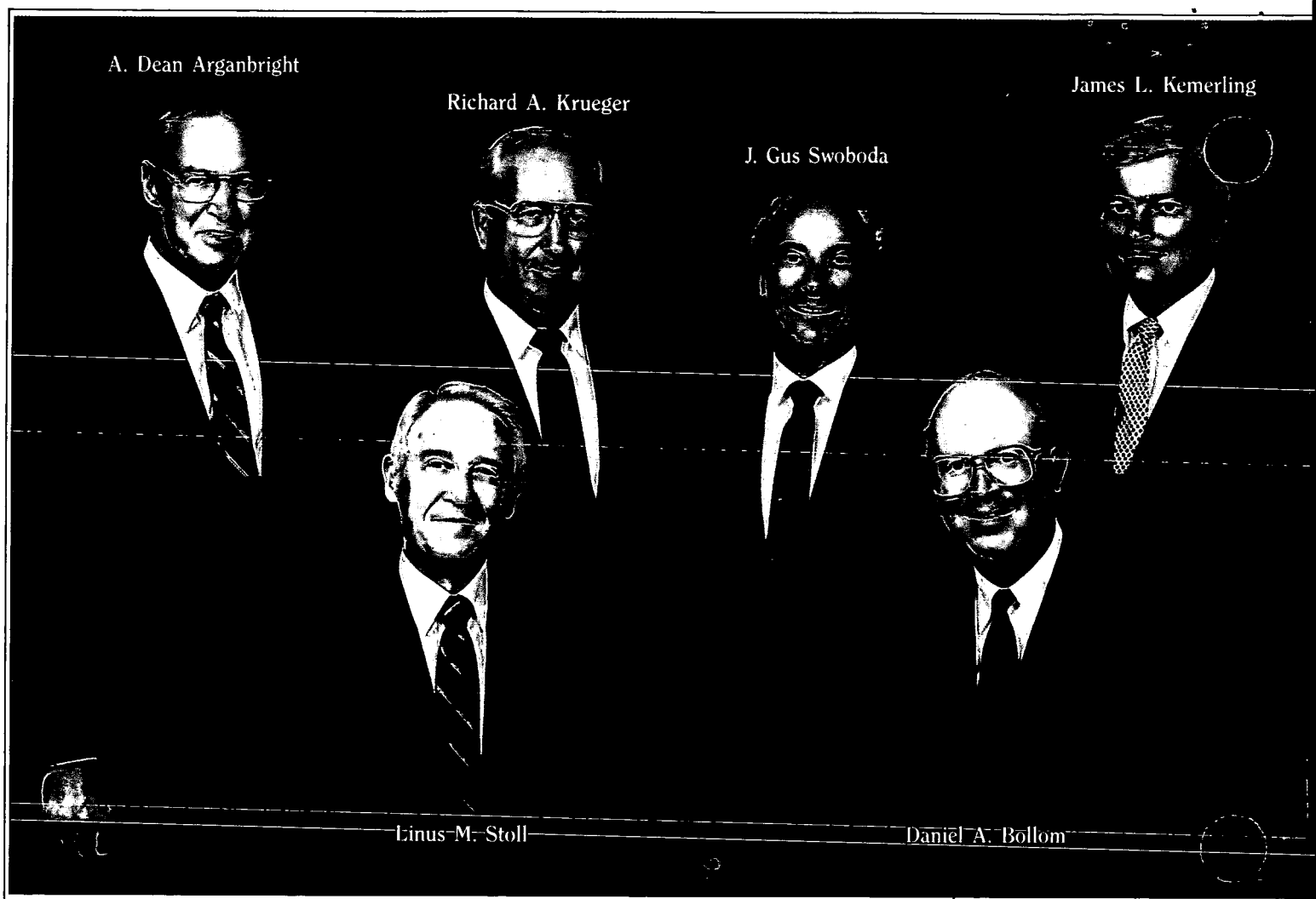
The company continues to address the concerns of possible health dangers from electric and magnetic fields (EMF).

In response to the EMF concern, the company has: 1) formed an EMF committee to review EMF data, 2) supported the Electric Power Research Institute's (EPRI) $26 million EMF research budget for the next three years, 3) volunteered for two EPRI projects to record company employee's EMF exposure at home and at work, 4) completed personal visits to measure EMF levels in some customers' homes, 5) furnished customers with EMF information and 6) made numerous public presentations on the subject.

The company continues its active participation in the Wisconsin Center for Demand-Side Planning. The center was established to gather research on the way Wisconsin residents use energy. The center also provides a forum for exchanging energy information and conducting workshops with Wisconsin utilities, the PSCW and the University of Wisconsin. Some of the center's projects include: standardizing a state-wide energy data base, assessing the feasibility of new technologies, standardizing customer programs and considering flexible pricing schedules.

The company continued to support the many research efforts being conducted by the EPRI and the Gas Research Institute with payments of $1,538,000 and $369,000, respectively.

S[illegible]TS STUDY NATURAL RESOURCES For 40 years, the company has been supporting environmental education at the Trees for Tomorrow Natural Resources Education Center, Eagle River. High school students attend intensive three-day workshaps led by forest managers and wildlife experts from government and industry.



BOARD OF DIRECTORS

A. Dean Arganbright
Chairman, President and CEO, Wisconsin National Life Insurance Company, Oshkosh, WI

Michael S. Ariens
President and Chief Executive Officer, Ariens Company, Brillion, WI

Richard A. Bemis
President, Bemis Manufacturing Company, Sheboygan, WI

Daniel A. Bollom
President and Chief Operating Officer of the Company

Kathryn M. Hasselblad-Pascale
Partner and General Manager, Hasselblad Machine Company, Green Bay, WI

James L. Kemerling
President and Chief Executive Officer, Shade Information Systems, Inc., Green Bay, WI

James H. Liethen
Senior Vice President of the Company

Linus M. Stoll
Chairman and Chief Executive Officer of the Company

Paul D. Ziemer
Retired Chairman and President of the Company, Green Bay, WI

OFFICERS

Linus M. Stoll*
Chairman and Chief Executive Officer

Daniel A. Bollom*
President and Chief Operating Officer

Richard A. Krueger*
Senior Vice President, Power Supply and Engineering

James H. Liethen*
Senior Vice President, Finance

Patrick D. Schrickel*
Senior Vice President, Operations

J. Gus Swoboda*
Senior Vice President, Marketing and Corpor[illegible] Services

*Senior Staff

MANAGEMENT

Clark R. Steinhardt*
Vice President,
Nuclear Power

Daniel P. Bittner
Vice President, Treasurer

Robert D. Valesano
Vice President,
Human Resources

Robert H. Knuth
Assistant Vice President,
Secretary

David W. Schonke
Assistant Vice President,
Electric Distribution
Engineering

Glen R. Schwalbach
Assistant Vice President,
Engineering
Supply

Larry L. Weyers
Assistant Vice President,
Energy Supply

James A. Derbique
Division Manager,
Green Bay

James L. Dobratz
Manager,
Pulliam Plant

Kenneth H. Evers
Manager,
Nuclear Power

Ronald K. Grosse
Manager,
Customer Accounts

Charles K. Heidemann
Manager,
Substation and
Transmission

Richard E. James
Manager,
Rates and Economic
Evaluation

Randall G. Johnson
Manager,
Quality Implementation

Roger W. Lange
Manager,
Fossil Operations

Paul J. Liegeois
Manager,
Retail Marketing

Mark L. Marcbi
Manager,
Kewaunee Plant

John J. Mattila
Division Manager,
Sheboygan

Dennis J. Maki
Manager,
Weston Plant

Gerald L. Mroczkowski
Manager,
Fossil Operations
(Designate)

Leonard B. Pehlke
Division Manager,
Rhinelander

Jack A. Picard
Division Manager,
Lakeshore

Jack C. Rasmussen
Manager,
Purchasing and Stores

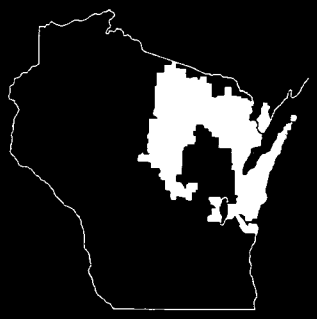
John E. Ruppenthal
Division Manager,
Oshkosh

Walter G. Sandberg
Governmental Affairs
Director

Wally T. Shier
Division Manager,
Marinette
and Menominee

Peter J. Van Beek
Division Manager,
Wausau

ENVIRONMENTAL MAP OF WISCONSIN PUBLIC SERVICE CORPORATION SERVICE AREA



The area in Northeast Wisconsin and Upper Michigan served by Wisconsin Public Service includes expansive forests, large sections of wet lands, numerous lakes and extensive agricultural land. Each area represents a challenge to maintain the proper environmental balance and economic blend of these resources.

Indicated within the 10,000 square mile territory are our 19 customer service centers and electrical generating facilities.

COMPANY SERVICE FEATURES

- CUSTOMER SERVICE CENTERS
- GENERATING FACILITIES
- GENERATING FACILITIES JOINTLY OWNED
  - F - FOSSIL FUEL
  - N - NUCLEAR
  - H - HYDRO
  - P - PEAKING TURBINE OR DIESEL

ENVIRONMENTAL FEATURES

- FORESTS
- WET SOILS
- AGRICULTURAL AREAS
- WATER

MICHIGAN
MENOMINEE RIVER
Minocqua
Eagle River
OCONTO RIVER
Rhinelander
PESHTIGO RIVER
Tomahawk
Wabeno
Wausaukee
Merrill
Antigo
Menominee
GREEN BAY
Wausau
Sturgeon Bay
Stevens Point
Green Bay
Kewaunee
Waupaca
WISCONSIN RIVER
Two Rivers
LAKE MICHIGAN
Oshkosh
LAKE WINNEBAGO
Chilton
Sheboygan
WISCONSIN
Portage

MANAGEMENT'S DISCUSSION AND ANALYSIS

RESULTS OF OPERATIONS

1990 Compared to 1989

Electric operating revenues increased a moderate 1% during 1990 compared to 1989. This change can be attributed to an increase in kilowatt-hour sales of approximately 4%. These increases helped to offset the 2% rate decrease for our Wisconsin retail electric customers that became effective January 1, 1990.

Residential kilowatt-hour sales increased approximatley 2% during 1990 due primarily to increased customers. Both heating and cooling degree days decreased during 1990 compared to 1989.

Kilowatt-hour sales to commercial and industrial customers increased approximately 4%. Although some of the sales increase was tempered due to the effect of mild weather during 1990, a stable economy within our service territory resulted in customer growth along with load additions by existing customers.

Kilowatt-hour sales to wholesale customers increased approximately 5% during 1990 compared to 1989, due primarily to a customer's internal generation problems that resulted in this customer contracting 100% of its load from the company. Previously, the company supplied only a portion of this customer's energy requirements.

Gas operating revenues decreased 2% during 1990 compared to 1989. The most significant factor influencing gas revenue was the mild weather which caused a 14% decrease in heating degree days and lowered gas therm sales by approximately 7% during 1990. Residential therm sales decreased approximately 12% and commercial and industrial sales decreased approximately 14% during 1990. In addition, the average cost of gas declined approximately 9% between years. Offsetting these declines was a $21.1 million one-time adjustment made in 1989 to record a refund from the company's primary gas supplier, which reduced 1989 revenues and expenditures.

Electric production fuels decreased approximately 4%, even though generation increased by 7%. The decline in electric production fuel is due to lower fuel costs at the company's coal-fired plants as a result of lower transportation costs and a favorable adjustment during the annual physical coal inventory. Better availability of the company's own generating capacity because of less down time resulted in less purchased power.

Other expenses increased reflecting a number of factors, including higher operating expenses at all of the company's generating facilities, higher employee benefit costs, and increased payments to customers for energy conservation programs.

Other interest was higher reflecting interest on a long-term contract with one of the company's rail carriers, and as the result of interest on a $21.1 million gas refund received from the company's primary gas supplier in December 1989 which was refunded to customers in the first quarter of 1990.

1989 Compared to 1988

Electric operating revenues increased 1.6% in 1989 compared to 1988. This slight increase can be attributed principally to a 1% Wisconsin retail rate increase, effective January 28, 1989, along with a 1% increase in kilowatt-hour sales.

Residential kilowatt-hour sales declined slightly during 1989 compared to 1988 due to a cooler summer in 1989 compared to 1988. The summer of 1988 produced record high temperatures while 1989 was near normal weather. Offsetting this decline was an increase in sales during the heating season due to record cold temperatures in December 1989.

Small commercial and industrial kilowatt-hour sales rose 4.5% during 1989 due to customer growth, offset in part by a decline in cooling degree days.

Kilowatt-hour sales to our large commercial and industrial customers remained steady during 1989 as these customers have experienced a pattern of stabilized demand.

MANAGEMENT'S DISCUSSION AND ANALYSIS

Gas operating revenues decreased 15% during 1989 compared to 1988. Under a purchased gas adjustment clause, the company is allowed to recover in its revenues all costs of gas purchased for resale. First, gas revenues were reduced by approximately $21 million due to a refund from the company's major natural gas supplier as discussed in Note 1 to the financial statements. (There was an offsetting reduction recorded in gas purchased for resale, thus having no impact on net income.) In addition, lower gas costs also resulted in corresponding reduced purchased gas adjustment clause revenues. Finally, a gas rate decrease of approximately 1% became effective January 28, 1989 for our Wisconsin retail customers. Although gas revenues decreased from 1988, therm sales increased during 1989 due to an increase in heating degree days and the addition of customers.

Operating expenses had a net decrease of 2% in 1989. The largest decrease was in gas purchased for resale because of the refund mentioned previously and the lower average cost of gas on the spot market. The provision for income taxes decreased primarily because of lower taxable income. Purchased power increased significantly because the company was able to secure power from other sources at favorable rates and maintenance at our power plants, in general, took longer than in 1988.

Other operating expenses increased reflecting higher costs in employee benefits, uncollectible accounts and the amortization of deferred costs for the company's new Customer Information System that went on-line in May 1989.

Other interest expense increased due to higher levels of short-term borrowings and higher interest rates compared to 1988.

FINANCIAL CONDITION

The company has maintained good liquidity levels and its financial position is considered to be strong by utility analysts. No funding difficulties are anticipated in the near or long-term future. Because of high securities' ratings, the company has good access to debt markets at attractive interest rates.

The company's commercial paper ratings of A-1+ by Standard & Poor's and P-1 by Moody's are the highest given. The company's bonds have very good ratings of AA+ (S & P) and Aa2 (Moody's), due in part to good interest coverages. Pretax interest coverage for the year ended December 31, 1990 was 3.7 times. Although this has been decreasing in recent years, it still compares favorably with the current electric utility average of around 2.9 times.

In recent years, internally generated funds (net cash from operating activities less dividends plus AFUDC) exceeded construction and other investments and the company was able to retire permanent securities. During 1990, however, internally generated funds of approximately $62 million did not satisfy construction expenditures of $66 million and other capital expenditures of approximately $4 million. In addition, for the five-year period 1991-1995, internally generated funds of approximately $400 million are expected to lag construction expenditures and other investments (including nuclear decommissioning trusts) totaling about $640 million. Recent PSCW requirements to increase conservation efforts co[illegible] increase this by as much as $7[illegible] million during this period.

The company plans to add three combustion turbines during the 1991-1995 period. This plan suggests sales of about $200 million of bonds and $100 million of common stock, although additional factors such as the new Federal Clean Air legislation could increase the need. The company has a shelf registration on file with the SEC and may sell $45 million of first mortgage bonds in 1991, the timing depending on construction and financial market conditions.

In late 1990 and early 1991, the company guaranteed a second loan of $28 million for the leveraged employee stock ownership plan (ESOP) that was implemented in 1988. The loans, now totaling about $32 million, are to be retired by the trust within ten years from a combination of common stock [illegible]

MANAGEMENT'S DISCUSSION AND ANALYSIS

dividends and company contributions. As of January 31, 1991, the ESOP held about 11% of the company's outstanding common stock.

Common and preferred shareholders' equity was 61% of long-term capitalization at December 31, 1990, which is on the high side of the PSCW-approved range. Company management has taken action, however, to limit this equity ratio in recent years, retiring some of its highest dividend rate preferred stock and some of its common stock. Additional retirements are unlikely due to sales and load [illegible]asts which indicate a need to [illegible]ce new generating units.

During March 1990, the company filed for rate increases for Wisconsin retail customers, totaling $13 million for gas and electricity. New rates at about that level were approved effective with January 1991 business. Even with this increase, company electric rates are no higher than they were in 1983, and remain lower than the electric industry average.

Effective January 1, 1991, the PSCW will require the company to substantially increase expenditures to promote conservation of electricity and gas and to begin capitalizing a significant portion of these amounts. The company's past practice had been to expense these conservation activities currently as allowed in its rates. The company was requested to spend $28 million ($20 million capitalized to be [illegible]ered over ten years and [illegible]llion expensed in 1991).

Although company management expects to need less than $28 million to achieve the PSCW mandated load reductions, additional financing of about $20 million may be necessary for 1991. Similar amounts may be necessary in the following years which could cause financing requirements to rise accordingly.

Refer to the "Notes To Financial Statements" for discussion of the impact of Statement of Financial Standards No. 96 and No. 106 on the company's financial statements.

TRENDS

New Federal Clean Air Act amendments were enacted on November 15, 1990. The Act establishes stringent sulfur dioxide emission limitations on two of our twelve coal burning units beginning in 1995. In 1999, the annual emission limitations are further reduced and all our coal burning units are assigned an emission limitation. Given that equitable regulations are developed for our newest and cleanest unit, Weston Unit 3, we expect to meet the emission limitations by switching to lower sulfur coal. The total cost of these changes has not been determined at this time.

In addition, nitrogen oxide limitations will require the installation of low nitrogen oxide burners on Pulliam Unit 8 by 1995. Burner modification may be required on two additional units by 2000. The estimated cost for burner modification to three units is about $15 million.

The Act also contains environmental research provisions to study the impacts of toxic emissions from coal burning units. The implications to our operations await the results of the research.

IMPACT OF INFLATION

Current financial statements are prepared in accordance with generally accepted accounting principles and report operating results in terms of historic cost. They provide a reasonable, objective, quantifiable statement of financial results but do not evaluate the impact of inflation. Under ratemaking prescribed by the commissions regulating the company, projected operating costs are recoverable in revenues. Because forecasts are prepared assuming inflation, the majority of inflationary effects on normal operating costs are recoverable in rates. However, the company is only allowed to recover the historical cost of plant via depreciation in these forecasts. Any effects of inflation on utility plant are generally offset by the holding gain resulting from the use of debt to finance utility construction.

STATEMENTS OF INCOME

	Year Ended December 31		
	1990	1989	1988
		(Thousands)	
Operating Revenues:			
Electric	$448,905	$442,938	$435,958
Gas	140,068	142,874	168,376
	588,973	585,812	604,334
Operating Expenses:			
Operation —			
Electric production fuels	129,792	134,719	134,437
Gas purchased for resale	97,443	97,927	120,702
Purchased power	27,145	31,125	24,887
Other	117,494	109,765	101,935
Maintenance	44,265	43,363	43,422
Depreciation	55,363	53,135	50,486
Taxes —			
Federal income	20,775	20,972	26,605
Investment credit restored	(2,298)	(2,256)	(2,826)
State income	5,083	4,373	5,096
Other	23,138	22,403	22,399
	518,200	515,526	527[illegible]
Operating Income	70,773	70,286	7[illegible]
Other Income and (Deductions):			
Allowance for equity funds used during construction	451	595	659
Other, net	2,845	1,464	823
Income taxes	(162)	556	697
	3,134	2,615	2,179
Income Before Interest Expense	73,907	72,901	79,370
Interest Expense:			
Interest on long-term debt	21,289	21,327	21,583
Allowance for borrowed funds used during construction	(306)	(341)	(363)
Other interest	3,901	2,785	1,730
	24,884	23,771	22,950
Net Income	49,023	49,130	56,420
Preferred Stock Dividend Requirements	3,293	3,436	3,594
Earnings On Common Stock	$ 45,730	$ 45,694	$ 52,826
Earnings Per Share On Common Stock	$2.00	$1.98	$2.28
Dividends Per Share On Common Stock	$1.64	$1.60	$1.56

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

BALANCE SHEETS

	December 31		
	1990	1989	1988
		(Thousands)	
Assets			
Utility Plant:			
In service — Electric	$1,234,225	$1,193,195	$1,146,227
Gas	156,062	149,877	143,089
	1,390,287	1,343,072	1,289,316
Less — Accumulated provision for depreciation	648,398	600,965	548,950
	741,889	742,107	740,366
Nuclear decommissioning trusts	40,587	36,003	31,715
Construction in progress	7,487	6,678	9,946
Nuclear fuel	130,338	127,266	117,048
Less — Accumulated provision for amortization	110,807	103,763	97,892
	19,531	23,503	19,156
Net utility plant	809,494	808,291	801,183
Investments	20,889	16,147	17,689
Current Assets:			
Cash and equivalents	161	5,257	76
Customer and other receivables (less uncollectible reserves)	57,572	63,429	52,484
Accrued utility revenues	28,402	30,425	28,220
Fossil fuel, at average cost	22,404	29,769	23,081
Materials and supplies, at average cost	17,795	15,596	13,633
Prepayments and other	21,969	22,959	20,760
Total current assets	148,303	167,435	138,254
Deferred Charges	30,553	31,296	37,249
	$1,009,239	$1,023,169	$ 994,375
Capitalization and Liabilities			
Capitalization:			
Common stock equity	$ 372,132	$ 373,125	$ 371,168
Preferred stock with no mandatory redemption	51,200	51,200	51,200
Preferred stock with mandatory redemption	—	642	2,145
Long-term debt	273,349	255,275	256,264
Total capitalization	696,681	680,242	680,777
Current Liabilities:			
Note payable	10,000	10,000	10,000
Commercial paper	25,000	26,000	11,500
Maturing first mortgage bonds	235	—	—
Accounts payable	51,559	56,739	56,913
Accrued taxes	1,707	975	2,127
Accrued interest	5,026	5,309	5,336
Gas refunds	4,612	23,578	(83)
Other	4,429	4,346	4,656
Total current liabilities	102,568	126,947	90,449
Other Credits:			
Accumulated deferred income taxes	150,199	153,741	157,620
Accumulated deferred investment credit	40,164	42,462	44,727
Other	19,627	19,777	20,802
	209,990	215,980	223,149
Commitments and Contingencies			
	$1,009,239	$1,023,169	$ 994,375

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

STATEMENTS OF CAPITALIZATION

			December 31		
			1990	1989	1988
				(Thousands)	
COMMON STOCK EQUITY:					
Common stock, $4 par value, 32,000,000 shares authorized: 22,888,620, 22,888,620 and 23,200,552 shares outstanding, respectively			$ 91,555	$ 91,555	$ 92,802
Premium on capital stock			49,711	49,711	50,385
Retained earnings			244,922	236,741	233,521
ESOP loan guarantee			(14,056)	(4,882)	(5,540)
Total common stock equity			372,132	373,125	371,168
PREFERRED STOCK:					
Cumulative, $100 par value, 1,000,000 shares authorized:					
With no mandatory redemption —					
	Series	Shares outstanding			
	5.00%	132,000	13,200	13,200	13,200
	5.04%	30,000	3,000	3,000	3,000
	5.08%	50,000	5,000	5,000	5,000
	6.76%	150,000	15,000	15,000	15,000
	7.72%	150,000	15,000	15,000	15,000
			51,200	51,200	51,200
With mandatory redemption —					
10.50% Series, 0, 6,418, and 21,445 shares outstanding, respectively			—	642	2,[illegible]
LONG-TERM DEBT:					
First mortgage bonds —	Series	Year due			
	4⅜%	1993	8,726	8,726	8,726
	4½%	1994	10,944	10,944	10,944
	9.50%	1994	45,000	45,000	45,000
	6⅜%	1997	23,482	23,482	23,482
	7¼%	1999	24,039	24,039	24,039
	8¼%	2001	25,000	25,000	25,000
	8⅛%	2003	25,000	25,000	25,000
	7⅞%	2005	10,765	11,000	11,000
	8.20%	2012	45,000	45,000	45,000
	9.70%	2014	22,000	22,000	22,000
	10⅛%	2014	1,000	1,000	1,000
	11.50%	2015	—	10,705	11,155
			240,956	251,896	252,346
Unamortized discount and premium on bonds, net			(1,309)	(1,503)	(1,622)
Total first mortgage bonds			239,647	250,393	250,724
ESOP loan guarantee			14,056	4,882	5,540
Other long-term debt			19,646	—	—
Total long-term debt			273,349	255,275	256,264
Total capitalization			$696,681	$680,242	$680,777

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

STATEMENTS OF CASH FLOWS

	Year Ended December 31		
	1990	1989	1988
		(Thousands)	
Cash Flows From Operating Activities:			
Net income	$ 49,023	$ 49,130	$ 56,420
Items Not Affecting Cash Flow —			
Depreciation	55,363	53,135	50,486
Amortization of nuclear fuel	8,652	7,412	7,582
Investment credit restored	(2,298)	(2,256)	(2,826)
AFUDC equity	(451)	(595)	(659)
Other, net	4,306	9,049	12,450
	65,572	66,745	67,033
Changes in Working Capital Other Than Cash —			
Customer and other receivables	5,857	(11,213)	(3,078)
Accrued utility revenues	2,023	(2,205)	(995)
Fossil fuel	7,365	(6,688)	4,854
Accounts payable	(7,830)	(174)	(5,186)
Accrued taxes	732	(1,152)	1,898
Gas refunds	(18,966)	23,661	(803)
Other, net	(3,104)	(2,660)	(3,820)
	(13,923)	(431)	(7,130)
Net cash from operating activities	100,672	115,444	116,323
Cash Flows From (Used For) Investing Activities:			
Construction expenditures and nuclear fuel, including AFUDC on debt	(61,390)	(70,897)	(64,613)
Decommissioning funding, net	(4,584)	(4,288)	(6,213)
Other, net	(1,605)	207	(8,386)
Net cash from (used for) investing activities	(67,579)	(74,978)	(79,212)
Cash Flows From (Used For) Financing Activities:			
Redemption and maturities of first mortgage bonds	(10,705)	(450)	(4,295)
Repurchase of common stock	—	(7,472)	—
Redemption of preferred stock	(642)	(1,503)	(1,500)
Change in other long-term debt	15,000	—	—
Change in commercial paper	(1,000)	14,500	8,500
Preferred stock cash dividends	(3,305)	(3,462)	(3,620)
Common stock cash dividends	(37,537)	(36,898)	(36,193)
Net cash from (used for) financing activities	(38,189)	(35,285)	(37,108)
Net Increase (Decrease) in Cash and Equivalents	(5,096)	5,181	3
Cash and Equivalents at Beginning of Year*	5,257	76	73
Casb and Equivalents at End of Year*	$ 161	$ 5,257	$ 76
Cash Paid During Year For:			
Interest, less amount capitalized	$ 22,455	$ 22,601	$ 21,878
Income taxes	$ 28,378	$ 24,421	$ 24,690
Construction expenditures and nuclear fuel including accruals, AFUDC, and customer contributions	$ 66,031	$ 71,561	$ 68,841

*Includes short-term investments with an original maturity of three months or less.

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

STATEMENTS OF RETAINED EARNINGS

	Year Ended December 31		
	1990	1989	1988
		(Thousands)	
Balance at Beginning of Year	$236,741	$233,521	$216,914
Add — Net income	49,023	49,130	56,420
	285,764	282,651	273,334
Deduct —			
Cash dividends declared on preferred stock			
5.00% Series ($5.00 per share)	660	660	660
5.04% Series ($5.04 per share)	151	151	151
5.08% Series ($5.08 per share)	254	254	254
6.76% Series ($6.76 per share)	1,014	1,014	1,014
7.72% Series ($7.72 per share)	1,158	1,158	1,158
10.50% Series ($10.50 per share)	68	225	383
Cash dividends declared on common stock	37,537	36,898	36,193
Premium paid for repurchase of common stock	—	5,550	—
	40,842	45,910	39,813
Balance at End of Year	$244,922	$236,741	$233,521

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

MANAGEMENT'S RESPONSIBILITY FOR FINANCIAL REPORTING

The management of Wisconsin Public Service Corporation has prepared and is responsible for the financial statements and related financial information encompassed in this annual report. The financial statements have been prepared in conformity with generally accepted accounting principles, and financial information included elsewhere in this report is consistent with the financial statements.

The company maintains a system of internal accounting control designed to provide reasonable assurance that the company's assets are safeguarded and that transactions are executed and recorded in accordance with authorized procedures. Written policies and procedures have been developed to support the internal controls in place and are updated as necessary.

The company also maintains an internal auditing department that reviews and assesses the effectiveness of selected internal controls, and reports to management as to their findings and recommendations for improvement.

The Board of Directors has established an Audit Committee, comprised entirely of outside directors, which actively assists the Board in its role of overseeing the company's financial reporting process and the system of internal control.

The accompanying financial statements have been audited by Arthur Andersen & Co., independent public accountants, whose report follows.

D. P. Bittner
Vice President-Treasurer

L. M. Stoll
Chairman and
Chief Executive Officer

REPORT OF INDEPENDENT PUBLIC ACCOUNTANTS

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

We have audited the accompanying balance sheets and statements of capitalization of Wisconsin Public Service Corporation (a Wisconsin corporation) as of December 31, 1990, 1989 and 1988, and the related statements of income, retained earnings and cash flows for the years then ended. These financial statements are the responsibility of the company's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with generally accepted auditing standards. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of Wisconsin Public Service Corporation as of December 31, 1990, 1989 and 1988, and the results of its operations and its cash flows for the years then ended in conformity with generally accepted accounting principles.

Milwaukee, Wisconsin,
January 29, 1991.

ARTHUR ANDERSEN & CO.

NOTES TO FINANCIAL STATEMENTS

(1) SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES:

(a) Business — The company is a public utility operating company engaged in supplying natural gas and electrical energy to its customers who are located primarily in northeastern Wisconsin and Upper Michigan. The company's accounting reflects the effects of the different ratemaking principles followed by the various jurisdictions regulating the company. These include the Public Service Commission of Wisconsin (PSCW), the Michigan Public Service Commission (MPSC) and the Federal Energy Regulatory Commission (FERC).

The retail portion of the business is regulated by the PSCW and MPSC which comprise approximately 87% and 2%, respectively, of the company's operating revenues. The FERC regulates the electric wholesale portion which is approximately 11% of such revenues.

Effective January 1, 1990, the PSCW has adopted the FERC Uniform System of Accounts. In connection therewith, 1989 and prior financial statements have been reclassified to conform to this presentation with no impact on net income.

(b) Utility Plant — Utility plant is stated at the original cost of construction, which includes an allowance for funds used during construction (AFUDC). All retail jurisdictional construction work in progress (CWIP) is subject to AFUDC using a rate based on the company's overall cost of capital. For 1990, the rate was approximately 11.1%.

AFUDC is recorded on wholesale jurisdictional electric construction work in progress at debt and equity percentages specified in the FERC Uniform System of Accounts. For 1990, the rate was approximately 8.1%.

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

(c) Property Additions, Maintenance and Retirements — The cost of renewals and betterments of units of property (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 the 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 generally charged to operating expenses.

(d) 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 plant (Kewaunee). The costs amortized to fuel expense (which assume no salvage values for uranium or plutonium) include an amount for ultimate disposal and are recovered through current rates. As required by the Nuclear Waste Policy Act of 1982, a contract with the Department of Energy (DOE) has been signed, and quarterly payments are being made to the DOE for the fuel storage fee related to generation. Interim storage space for spent nuclear fuel is provided at Kewaunee, and expenses associated with this storage are recognized as current operating costs.

(e) Deferred Charges — Deferred charges primarily represent costs recoverable in future rates, including such items as the cost of coal contract buy outs, major computer systems development and the long-term portion of customer conservation loans.

(f) Revenue and Customer Receivables — The company accrues revenues related to electric and gas service through the end of the month.

Automatic fuel adjustment clauses are used for FERC wholesale electric and MPSC retail electric portions of the company's business. The PSCW retail electric portion of the business uses a "cost variance range approach." This range is based on a specific estimated fuel cost for the upcoming year. If the company's actual fuel costs fall outside this range, a hearing may be held and adjustment to future rates may result.

The company has a purchased gas adjustment clause which allows it to pass on to all classes of gas customers changes in the cost of gas purchased from its suppliers, subject to PSCW and MPSC review.

Some of the company's larger gas customers purchase gas directly from the pipeline supplier. This gas continues to be transported through the company's distribution facilities for which the company earns a transportation fee. This transport fee is designed to recover approximately the same profit margin as if the gas had been purchased and resold by the company; therefore, there is a minimal effect on net income.

NOTES TO FINANCIAL STATEMENTS

In December 1989, the company received a refund of approximately $21.1 million from its primary gas supplier representing a settlement involving rate levels and modification of a number of tariffs for the period November 1986 to October 1989. As prescribed by the PSCW, the refund was credited against gas purchased for resale with an offsetting reduction in gas revenues (thus having no impact on net income) and was refunded to gas customers in 1990.

The company is required to provide service and grant credit to customers within its defined service territory and is precluded from discontinuing service to residential customers during certain periods of the year. The company continually reviews its customers' credit worthiness and obtains deposits or refunds deposits accordingly. The company is also permitted to recover in utility rates write-offs and uncollectibles. Approximately 15% of the company's total revenues are from the paper industry.

(g) Employee Benefit Plans — The company has non-contributory retirement plans covering substantially all employees 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 as determined using the entry-age normal, frozen initial liability actuarial method to the extent deductible for tax purposes. Because the plans are fully funded, no contributions were made in 1990, 1989 and 1988.

The following tables set forth the plans' funded status and expense provision.

	As of December 31		
	1990	1989	1988
		(Thousands)	
Vested benefit obligation	$ 123,225	$ 114,695	$ 103,876
Non-vested benefit obligation	5,637	5,767	6,171
Total actuarial present value of accumulated benefit obligation	$ 128,862	$ 120,462	$ 110,047
Projected benefit obligation for service rendered to date	$(166,796)	$(157,744)	$(146,099)
Plan assets at fair value	251,340	259,495	216,551
Plan assets in excess of projected benefit obligation	$ 84,544	$ 101,751	$ 70,452
Unrecognized net gain	(36,003)	(51,223)	(14,707)
Prior service cost not yet recognized	7,684	8,233	5,766
Unrecognized net asset at January 1, being recognized over 17 years	(40,778)	(44,242)	(47,706)
Prepaid retirement plan cost	$ 15,447	$ 14,519	$ 13,805

	For the Years Ended		
	1990	1989	1988
The net retirement plan expense includes the following components:		(Thousands)	
Service cost — benefits earned during the year	$ 4,065	$ 3,764	$ 3,758
Interest cost on projected benefit obligation	13,071	12,360	11,404
Actual return on plan assets	5,332	(48,025)	(18.859)
Net amortization and deferral	(23,396)	31,187	2,790
Regulatory adjustment to funded amount	928	714	907
Net retirement plan expense	$ —	$ —	$ —

The assumed rates for calculations used in the above tables were:

	1990	1989	1988
Expected long-term rate of return	7.00%	7.00%	7.00%
Average rate for future salary increases	6.25%	6.25%	6.25%
Discount rate to compute projected benefit obligation	8.50%	8.50%	8.50%
Weighted average assumed return	7.00%	7.00%	7.00%

NOTES TO FINANCIAL STATEMENTS

The company also has self-funded health care plans which provide medical and dental benefits to employees, retirees and their dependents. The health care expenses for active employees are expensed as incurred. However, anticipated post-retirement medical and dental benefits are funded to irrevocable trusts within the limits of the current deduction for tax purposes and are expensed and recovered in rates currently. As of December 31, 1990, the non-administrative trust, which covers union employees, had assets with a market value of $28,163,000 and unfunded liabilities of $34,818,000, based on an inflationary actuarial assumption; the administrative trust, which covers all other employees, had assets with a market value of $16,645,000 and unfunded liabilities of $11,245,000, based on a non-inflationary actuarial assumption in accordance with the maximum funding restrictions allowed for tax purposes. The unfunded past service costs associated with post-retirement medical and dental benefits are currently amortized over the average remaining service life of the participants, which is approximately 20 years.

The company also has survivor benefits plans for its employees and retirees. These plans include a Survivor Income Benefits (SIB) Plan, which provides benefits to survivors of employees and retirees over a period of time, and a Group Life Insurance Plan for those not covered by SIB. These survivor benefits are paid from a trust funded by the company. The funded amount is expensed currently. Because the trust is nearly fully funded, no provisions were made to it in 1990, 1989 or 1988. As of December 31, 1990, this trust had assets with a market value of $3,772,000 and unfunded liabilities of $442,000.

	1990	1989	1988
		(Dollars in thousands)	
Health Care Plans:			
Post-retirement medical and dental plans funding	$5,350	$4,656	$3,906
Active employee medical and dental costs	$5,772	$5,606	$4,477
Survivor Benefits Plans:			
Number of active participants	2,325	2,354	2,330
Number of retired participants	645	626	593

In December 1990, the Financing Accounting Standards Board issued a new standard (SFAS No. 106) on accounting for other post-retirement employee benefits including the foregoing plans which must be adopted by the company no later than 1993. While the company has not determined when such standard will be adopted, it is anticipated that adoption will not impact net income since expense recognition will continue to reflect recovery of these costs in utility rates, as allowed by the commissions.

In 1988 and 1990, the company revised its Employee Stock Ownership Plan and Trust (ESOP) to obtain additional tax benefits. As a result of these revisions, the ESOP borrowed from banks to purchase shares of the company's common stock on the open market for the future benefit of its participants. In 1988, $5,526,000 was borrowed to purchase 238,900 shares. In 1990, an additional $10,000,000 was borrowed to purchase 411,700 shares with $102,000 remaining to purchase additional stock. Both loans are guaranteed by the company and are to be repaid from dividends on stock held in the ESOP plus company contributions. At December 31, 1990, the loan balances totaled $14,056,000, and the plan also held 586,361 shares of company common stock to be allocated to participants as the loans are repaid. In January 1991, an additional $18,000,000 was borrowed of which $17,000,000 was used to purchase 713,483 shares.

(h) Investments — Investments include various immaterial subsidiaries and affiliates, whose income is included in other income and deductions using the equity method of accounting.

NOTES TO FINANCIAL STATEMENTS

(i) Depreciation — Straight-line depreciation expense is recorded over the estimated useful life of the property (including estimated salvage and cost of removal) as approved by the PSCW.

	1990	1989	1988
Annual composite depreciation rates:			
Electric	4.22%	4.14%	4.10%
Gas	4.11%	4.73%	4.73%

(j) Nuclear Decommissioning Trusts — External trust funds are maintained to cover the estimated future decommissioning costs of the Kewaunee nuclear plant. These costs are currently recovered from customers in rates and deposited in the trust as depreciation expense. Earnings on these trusts are reflected in other income in the statements of income.

The company's share of future decommissioning costs of this plant is estimated to be $275,000,000.

(k) Income Taxes — The effective income tax rates are computed by dividing total income tax expense, including investment credit restored, by the sum of such expense and net income. Previously deferred investment tax credits are being restored over the life of the related utility plant.

	1990		1989		1988	
	(Thousands except for percentages)					
	Amount	Rate	Amount	Rate	Amount	Rate
Statutory federal income tax	$24,733	34.0%	$24,365	34.0%	$28,764	34.0%
State income taxes, net	3,095	4.3	2,498	3.5	2,997	3.6
Investment credit restored	(2,370)	(3.3)	(2,570)	(3.6)	(2,680)	(3.2)
Rate difference on deferred tax reversals	(1,623)	(2.2)	(1,551)	(2.2)	(1,545)	(1.8)
Other differences, net	(113)	(.2)	(209)	(.3)	643	.7
Effective income tax	$23,722	32.6%	$22,533	31.4%	$28,179	33.3%

The current and deferred components of income tax expense are as follows:

	1990	1989	1988
Current provision:			
Federal	$23,683	$20,247	$23,234
State	6,063	5,357	6,493
	$29,746	$25,604	$29,727
Deferred provision (benefit):			
Depreciation differences	$ (727)	$ 1,803	$ 3,781
Nuclear fuel costs	230	1,520	1,924
Other, net	(3,229)	(4,138)	(4,428)
	(3,726)	(815)	1,277
Investment credit restored, net	(2,298)	(2,256)	(2,826)
Total income tax expense	$23,722	$22,533	$28,178
Classification of income taxes:			
Operating expenses	$23,560	$23,089	$28,875
Other income and deductions	162	(556)	(697)
	$23,722	$22,533	$28,178

NOTES TO FINANCIAL STATEMENTS

In connection with the adoption of the FERC Uniform System of Accounts, the PSCW adopted full tax normalization for rate setting purposes. Certain book tax property differences that have not previously heen normalized totaling approximately $14,000,000 are to be recovered in future retail rates over 15 years beginning in 1991.

The Financial Accounting Standards Board (FASB) has issued a new standard on accounting for income taxes (SFAS No. 96) which, as amended by SFAS No. 103, is effective January 1992. However, the FASB has publicly announced their plans to issue an exposure draft which would substantially modify SFAS No. 96 and delay the implementation until January 1993. This new standard requires adjustments of previously recorded deferred taxes to reflect income tax rate changes and recognition of any previously unrecorded deferred taxes. Although the company has not yet determined the amounts of such adjustments, management believes that any additional assets and liabilities resulting from adoption of the standard will be offset by regulatory assets and liabilities representing the expected future rate treatment of these adjustments. As such, management does not expect the new standard to have a significant impact on future operations.

(l) Leases — Leases are not material in the aggregate.

(m) Earnings Per Share — Earnings per share on common stock are computed on the basis of the weighted average number of shares outstanding.

(2) JOINTLY-OWNED FACILITIES:

Information with respect to the company's share of jointly-owned electric generating facilities in service at December 31, 1990 is as follows:

	Columbia Energy Center	Edgewater Unit No. 4	Kewaunee
		(Thousands except for percentages)	
Ownership	31.8%	31.8%	41.2%
Utility plant in service	$111,152	$18,602	$121,548
Accumulated provision for depreciation	$48,608	$9,994	$98,861
Plant capacity (Mw)	335.2	104.9	221.0
In-service date	1975 and 1978	1969	1974

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

(3) LONG-TERM DEBT: Sinking fund requirements on first mortgage bonds may be satisfied by the deposit of cash or reacquired bonds with the trustee and for certain series by the application of net expenditures for bondable property in an amount equal to 166⅔% of the annual requirements.

All series requiring cash or reacquired bonds for sinking funds purposes have been satisfied to maturity. The company has adequate unpledged property to satisfy the remaining series for at least ten years. Beginning in 1991, $235,000 of the 7⅞% bonds will mature annually for the next nine years, increasing thereafter to maturity. In 1993, $8,726,000 of 4⅜% bonds will mature. In 1994, $10,944,000 of 4½% bonds and $45,000,000 of 9½% bonds will mature.

Other long-term debt represents the company's obligation under a ten-year coal transportation contract effective in 1990, which carries an interest rate of 9.25%. Also included are bank borrowings under long-term revolving credit arrangements referred to in Note 4.

NOTES TO FINANCIAL STATEMENTS

(4) COMMERCIAL PAPER AND LINES OF CREDIT: To support outstanding commercial paper, the company maintains unused bank lines of credit. Some of these lines may be withdrawn at the discretion of the lenders. While some cash balances represent compensating balances for credit lines and bank services, there are no legal restrictions as to withdrawal of these funds. The majority of the lines of credit require a fee based on the unused balance.

The following information relates to short-term borrowings and lines of credit for the years indicated:

	1990	1989	1988
		(Thousands except for percentages)	
As of end of year —			
Discount rate on outstanding commercial paper	7.7% to 8.0%	8.4% to 8.5%	9.1% to 9.2%
Interest rate on note payable	6.9%	7.5%	8.6%
Unused lines of credit	$21,590	$28,940	$42,590
Compensating balance requirements	$130	$172	$215
For the year —			
Maximum amount of borrowings	$38,800	$50,000	$21,500
Average amount of borrowings	$27,375	$23,321	$11,590
Weighted average interest rate on borrowings	8.1%	8.9%	7.8%

Included in the above lines of credit are agreements with commercial banks that permit the company to borrow up to $25,000,000 at any time provided compliance with certain financial covenants is maintained. These agreements extend for 13 months or more. As of December 31, 1990, $15,000,000 was outstanding under these agreements, which is classified as other long-term debt, $10,000,000 at 7.85% and $5,000,000 at 8.75%.

(5) COMMON EQUITY: In 1989, the board of directors approved a program to repurchase and retire up to 600,000 shares of the company's outstanding common stock. During 1989, the company repurchased 311,932 shares of common stock for $7,472,696. This repurchase reduced the common stock balance by $1,247,728 ($4 par per share), premium on capital stock by $674,641 ($2.17 per share) and retained earnings by $5,550,327. There are no plans at this time to repurchase any additional shares.

All retained earnings are available for dividends.

NOTES TO FINANCIAL STATEMENTS

(6) COMMITMENTS AND CONTINGENCIES: To ensure a reliable, low cost supply of coal the company has entered into certain long-term contracts that have take-or-pay obligations totaling $635,000,000 from 1991 through 2016. Of this amount, $13,800,000 represents demand payments which the company would be required to pay through 1994 even if it is unable to fully utilize all contracted quantities of coal under future emission limits and acid rain legislation. The remainder of the take-or-pay obligations are subject to force majeure provisions which provide the company other options, if the specified coal will not meet emission limits and acid rain legislation. In the opinion of management, amounts paid under the take-or-pay obligations described above would be a legitimate cost of service expense subject to recovery in rates.

The company also has a natural gas contract that requires total demand payments of $41,000,000 from 1991 through 1992.

The Price-Anderson Act provides for the payment of funds for public liability claims arising out of a nuclear incident. In the [illegible]t of a nuclear incident involving any of the nation's [illegible]nsed reactors, the company is subject to an assessment which is approximately $27,000,000 per incident for its licensed reactor, not to exceed $4,120,000 per incident, per calendar year. These amounts represent the company's 41.2% ownership share of Kewaunee.

The Columbia Energy Center (Columbia) is owned 31.8% by Wisconsin Public Service Corporation (WPSC), 46.2% by Wisconsin Power and Light Company (WP&L), and 22.0% by Madison Gas and Electric Company (MG&E). WP&L operates Columbia. In 1989, the PSCW concluded that WP&L did not properly administer a coal contract for Columbia and ordered WP&L to refund $9 million to the ratepayers of WPSC, WP&L and MG&E proportionately according to the ownership shares of each utility in Columbia. WP&L is appealing this order. If WP&L is not required to reimburse WPSC ratepayers, the PSCW might seek reimbursement of WPSC's share (31.8% of $9 million) directly from WPSC in its next rate case to be filed in 1991. Although the ultimate outcome of this matter is uncertain, in the opinion of company management, there will be no material effect on the company's results of operations or financial position.

ANR Pipeline Company (ANR), the company's primary gas supplier, filed with the FERC for approval to recover a portion of certain take-or-pay costs it incurred from renegotiating its long-term gas contracts. As a result of the filing, ANR was allowed to recover a portion of these costs from its customers. The company began paying its share of these take-or-pay costs to ANR in 1989 and recovering these costs directly from customers through its purchased gas adjustment clause. In December 1989, a federal circuit court ruled unlawful the method used by ANR to allocate these take-or-pay costs to pipeline customers. In December 1989, ANR filed with FERC to recover 100% of take-or-pay claims from pipeline customers and the company counter-filed with FERC to have ANR refund all of the company's take-or-pay payments made to-date. The U S Supreme Court upheld the federal circuit court decision in October 1990, which resulted in FERC requiring interstate pipelines, including ANR to file new rates for collecting take-or-pay costs. ANR filed for new rates in November 1990, which caused a higher allocation of take-or-pay costs to the company than earlier filings. The company intervened against this new allocation method both individually and as a member of the Wisconsin Distributor Group. The company is continuing to make take-or-pay payments under protest. While the company may be obligated to pay certain take-or-pay costs, the amount cannot be determined at this time; however, the PSCW has to-date granted the company recovery of such costs.

In 1990, the Federal Clean Air Act Amendments (Act) were signed into law. Preliminary assessments indicate that compliance with sulfur dioxide emission limits may be accomplished by the switch to low sulfur coals. This Act also requires the installation of low nitrogen oxide burners. The first unit will be affected in 1995. The Act will require the installation of additional low nitrogen oxide burners by the year 2000. At this time management has not determined the total costs this Act may have on the company. However, management believes that costs incurred to meet the requirements of the Act would be recoverable in future rates.

The company is not currently engaged in any major construction projects. Utility plant construction expenditures for 1991 are estimated to be approximately $84,109,000, and conservation program expenditures of about $28,000,000, of which approximately $20,000,000 is to be capitalized and amortized over ten years.

NOTES TO FINANCIAL STATEMENTS

(7) SEGMENTS OF BUSINESS:

The following table presents information for the respective years pertaining to the company's operations segmented by lines of business. The information does not represent ratemaking treatment since the company is regulated by three jurisdictions with differing ratemaking practices.

	1990			1989			1988		
				(Thousands)					
	Electric	Gas	Total	Electric	Gas	Total	Electric	Gas	Total
Operating revenues	$448,905	$140,068	$ 588,973	$442,938	$142,874	$ 585,812	$435,958	$168,376	$604,334
Operating expenses —									
Operation and maintenance	293,049	123,091	416,140	294,217	122,682	416,899	282,285	143,098	425,383
Depreciation	49,354	6,009	55,363	46,470	6,665	53,135	44,170	6,316	50,486
Other taxes	20,293	2,844	23,137	19,620	2,783	22,403	19,679	2,720	22,399
	362,696	131,944	494,640	360,307	132,130	492,437	346,134	152,134	498,268
Operating income before income taxes	86,209	8,124	94,333	82,631	10,744	93,375	89,824	16,242	106,066
AFUDC	699	58	757	910	26	936	967	55	1,0[illegible]
Provisions for income tax	21,509	2,051	23,560	20,549	2,540	23,089	23,784	5,091	28,875
Operating income including AFUDC	$ 65,399	$ 6,131	71,530	$ 62,992	$ 8,230	71,222	$ 67,007	$ 11,206	78,213
Other income, net			2,683			2,020			1,520
Interest expense			25,190			24,112			23,313
Net income			$ 49,023			$ 49,130			$ 56,420
Identifiable assets (a)	$855,121	$114,944	$ 970,065	$870,944	$127,953	$ 998,897	$843,091	$121,887	$964,978
Assets not allocated (b)			$ 39,174			$ 24,272			$ 29,397
Total assets			$1,009,239			$1,023,169			$994,375
Construction and nuclear fuel expenditures including AFUDC	$ 56,590	$ 9,441	$ 66,031	$ 64,494	$ 7,067	$ 71,561	$ 59,466	$ 9,375	$ 68,841

(a) At December 31 and net of the respective accumulated provisions for depreciation.

(b) Primarily includes cash, investments, nonutility property and other receivables.

NOTES TO FINANCIAL STATEMENTS

(8) QUARTERLY FINANCIAL INFORMATION (Unaudited):

	Three Months Ended (Thousands except for per share data)			
	1990			
	March	June	September	December
Operating revenues	$167,284	$131,458	$131,975	$158,256
Operating income	$19,927	$13,206	$18,510	$19,130
Net income	$14,417	$7,951	$12,930	$13,725
Earnings on common stock	$13,591	$7,125	$12,104	$12,910
Average number of shares of common stock outstanding	22,889	22,889	22,889	22,889
Earnings per average share on common stock	$.59	$.31	$.53	$.57
	1989			
	March	June	September	December
Operating revenues	$184,150	$129,019	$127,613	$145,030
Operating income	$24,345	$11,053	$15,410	$19,478
Net income	$19,352	$5,930	$10,094	$13,754
Earnings on common stock	$18,487	$5,065	$9,228	$12,914
Average number of shares of common stock outstanding	23,201	23,201	23,057	22,892
Earnings per average share on common stock	$.80	$.22	$.40	$.56
Pro Forma Information*				
Earnings on common stock	$13,221	$7,055	$13,126	$12,292
Earnings per average share on common stock	$.57	$.31	$.57	$.53
	1988			
	March	June	September	December
Operating revenues	$183,795	$126,977	$131,035	$162,527
Operating income	$25,901	$12,942	$18,030	$20,318
Net income	$20,462	$7,910	$13,418	$14,630
Earnings on common stock	$19,557	$7,005	$12,513	$13,751
Average number of shares of common stock outstanding	23,201	23,201	23,201	23,201
Earnings per average share on common stock	$.84	$.30	$.54	$.60
Pro Forma Information*				
Earnings on common stock	$16,292	$7,997	$14,642	$13,895
Earnings per average share on common stock	$.70	$.34	$.63	$.61

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

* On January 1, 1990, the company changed its method of accounting for revenue related to gas supplier demand costs. This change has the effect of reducing first and fourth quarter revenues and earnings while increasing revenues and earnings during the second and third quarters; however, the effect on annual earnings is minimal.

STATISTICS — FINANCIAL

Statements Of Income (Thousands)

	1990	1989	1988	1987	1986	1985	1980
Operating Revenues:							
Electric	$448,905	$442,938	$435,958	$429,443	$410,514	$403,801	$263,806
Gas	140,068	142,874	168,376	151,013	181,756	234,703	172,629
	588,973	585,812	604,334	580,456	592,270	638,504	436,435
Operating Expenses:							
Operation —							
Electric production fuels	129,792	134,719	134,437	132,430	132,028	125,179	85,256
Gas purchased for resale	97,443	97,927	120,702	109,447	141,656	190,195	142,519
Purchased power, net	27,145	31,125	24,887	19,109	9,015	10,070	12,429
Other	117,494	109,765	101,935	100,305	95,258	89,399	51,103
Maintenance	44,265	43,363	43,422	35,142	32,927	36,166	21,742
Depreciation	55,363	53,135	50,486	49,170	47,271	47,486	27,725
Taxes —							
Federal income	20,775	20,972	26,605	37,611	36,895	41,736	15,105
Net investment credit	(2,298)	(2,256)	(2,826)	(4,040)	(2,122)	1,325	11,380
State income	5,083	4,373	5,096	6,087	5,569	6,001	4,819
Other	23,138	22,403	22,399	21,309	21,293	14,908	12,814
	518,200	515,526	527,143	506,570	519,790	562,465	384,892
Operating Income	70,773	70,286	77,191	73,886	72,480	76,039	51,543
Other Income and (Deductions):							
AFUDC, other funds	451	595	659	456	595	717	[illegible]
Other, net	2,845	1,464	823	(2,815)	(306)	(275)	[illegible]
Income taxes	(162)	556	697	1,912	(182)	125	(154)
Gains on bonds reacquired	—	—	—	—	—	195	383
	3,134	2,615	2,179	(447)	107	762	1,301
Income Before Interest Expense	73,907	72,901	79,370	73,439	72,587	76,801	52,844
Interest Expense:							
Interest on long-term debt	21,289	21,327	21,583	18,309	19,914	16,834	16,501
AFUDC, borrowed funds	(306)	(341)	(363)	(275)	(277)	(350)	(3,798)
Other interest	3,901	2,785	1,730	2,634	1,409	2,902	4,689
	24,884	23,771	22,950	20,668	21,046	19,386	17,392
Net Income	49,023	49,130	56,420	52,771	51,541	57,415	35,452
Preferred Stock Dividend Requirements	3,293	3,436	3,594	3,751	4,392	5,519	4,633
Earnings on Common Stock	$ 45,730	$ 45,694	$ 52,826	$ 49,020	$ 47,149	$ 51,896	$ 30,819

Income Statistics							
Common Stock:							
Shares outstanding, Dec. 31*	22,888,620	22,888,620	23,200,552	23,200,552	23,200,552	23,200,552	22,097,730
Shares outstanding, Avg.*	22,888,620	23,086,474	23,200,552	23,200,552	23,200,552	23,347,514	21,810,064
Earnings per share**	$2.00	$1.98	$2.28	$2.11	$2.03	$2.22	$1.41
Dividends paid per share*	$1.64	$1.60	$1.56	$1.52	$1.465	$1.355	$.885
Times Interest Earned:							
Before income taxes	3.74	3.85	4.49	5.13	5.17	6.12	4.15
After income taxes	2.84	2.95	3.33	3.41	3.34	3.77	2.67
Times Interest and Preferred Dividends Earned	2.53	2.60	2.90	2.91	2.78	2.97	[illegible]

*Adjusted to reflect 2 for 1 common stock split in June 1987.

**Based on weighted average shares outstanding.

STATISTICS — FINANCIAL

Balance Sheets (Thousands)

Assets	1990	1989	1988	1987	1986	1985	1980
Utility Plant:							
Electric	$1,241,346	$1,199,700	$1,155,645	$1,111,987	$1,076,400	$1,038,867	$791,320
Gas	156,428	150,050	143,617	135,530	131,556	126,716	101,244
	1,397,774	1,349,750	1,299,262	1,247,517	1,207,956	1,165,583	892,564
Less - accumulated depreciation	648,398	600,965	548,950	504,349	466,427	422,675	240,535
	749,376	748,785	750,312	743,168	741,529	742,908	652,029
Nuclear decommissioning trusts, at cost	40,587	36,003	31,715	25,502	—	—	—
Nuclear fuel, net	19,531	23,503	19,156	16,106	15,574	15,566	14,849
Net utility plant	809,494	808,291	801,183	784,776	757,103	758,474	666,878
Investments	20,889	16,147	17,689	20,517	19,573	13,465	12,316
Current assets	148,303	167,435	138,254	143,033	146,991	167,046	107,334
Deferred charges	30,553	31,296	37,249	28,249	27,054	22,753	7,108
Total assets	$1,009,239	$1,023,169	$ 994,375	$ 976,575	$ 950,721	$ 961,738	$793,636
Capitalization and Liabilities							
Common stock and premium	$ 141,266	$ 141,266	$ 143,187	$ 143,187	$ 143,187	$ 143,187	$129,891
Retained earnings	230,866	231,859	227,981	216,914	203,258	191,091	106,106
Preferred stock with no mandatory redemption	51,200	51,200	51,200	51,200	51,200	51,200	51,200
Preferred stock with mandatory redemption	—	642	2,145	3,645	5,144	20,147	12,000
Long-term debt	273,349	255,275	256,264	254,867	228,631	244,362	280,313
Total capitalization	696,681	680,242	680,777	669,813	631,420	649,987	579,510
Short-term borrowings	35,000	36,000	21,500	13,000	33,400	28,995	15,970
Bond sinking fund requirements and maturing first mortgage bonds	235	—	—	—	5,062	—	—
Deferred income taxes	150,199	153,741	157,620	152,870	142,091	136,054	82,212
Other liabilities and credits	127,124	153,186	134,478	140,892	138,748	146,702	115,944
Total capitalization and liabilities	$1,009,239	$1 023,169	$ 994,375	$ 976,575	$ 950,721	$ 961,738	$ 793,636

Book Value Per Share, Dec. 31*	$16.26	$16.30	$16.00	$15.52	$14.94	$14.41	$10.68
Return On Average Equity	12.1%	12.1%	14.4%	14.0%	13.9%	15.9%	13.6%
Capitalization Ratios							
Common stock and premium	20.3	20.8	21.0	21.4	22.7	22.0	22.4
Retained earnings	33.1	34.1	33.5	32.4	32.2	29.4	18.3
Preferred stock	7.4	7.6	7.8	8.1	8.9	11.0	10.9
Long-term debt	39.2	37.5	37.7	38.1	36.2	37.6	48.4
Percent Long-Term Debt to Net Utility Plant	33.8	31.6	32.0	32.5	30.2	32.2	42.0
Average Bond Rate	8.0	8.1	8.1	8.2	7.9	8.3	7.7
Average Preferred Stock Rate	6.3	6.4	6.5	6.6	6.7	7.5	7.2
Shareholders —							
Common stock	25,248	25,752	26,858	27,243	27,240	29,687	36,704
Preferred stock	4,538	4,821	5,164	5,402	5,756	6,219	8,006
Number of Employees, Dec. 31	2,500	2,472	2,466	2,495	2,497	2,485	1,969

*Adjusted to reflect 2 for 1 common stock split in June 1987.

STATISTICS — OPERATING

	1990	1989	1988	1987	1986	1985	1980
Electric Operations							
Operating Revenues (Thousands):							
Residential	$145,114	$146,472	$145,087	$139,940	$138,365	$137,502	$ 91,093
Commercial and industrial	234,124	228,980	222,157	223,133	212,180	207,772	132,963
All other	69,667	67,486	68,714	66,370	59,969	58,527	39,750
Total electric revenues	$448,905	$442,938	$435,958	$429,443	$410,514	$403,801	$263,806
Kwh Sales (Thousands)	9,287,914	8,957,064	8,840,298	8,351,062	7,772,905	7,445,019	6,681,319
Number of Customers, Dec. 31:							
Residential	293,733	289,004	285,387	281,111	276,407	271,407	252,583
Commercial and industrial	33,482	32,566	31,820	31,262	30,673	30,185	26,484
All other	944	1,012	488	485	479	478	1,009
Total electric customers	328,159	322,582	317,695	312,858	307,559	302,070	280,076
Annual Average Use (Kwh):							
Residential	7,495	7,450	7,616	7,294	7,340	7,288	7,228
Commercial and industrial	154,608	152,797	152,225	148,158	141,793	136,764	134,328
Average Kwh Price (Cents):							
Residential	6.65	6.86	6.73	6.89	6.89	7.01	5.03
Commercial and industrial	4.59	4.66	4.63	4.88	4.93	5.08	3.78
Production Data:							
System Capacity (Kw):							
Steam	1,269,240	1,269,240	1,269,240	1,269,240	1,269,240	1,269,240	957,640
Nuclear	221,000	221,000	221,000	221,000	221,000	221,000	221,000
Hydraulic	64,786	64,236	64,236	64,236	64,236	64,236	6[illegible]
Combustion turbine	156,200	156,200	156,200	156,200	156,200	156,200	156,[illegible]
Other	4,040	4,040	4,040	4,040	4,040	4,040	4,000
Total	1,715,266	1,714,716	1,714,716	1,714,716	1,714,716	1,714,716	1,400,996
Interest in Wisconsin River Power Company	11,667	11,667	11,667	11,667	11,667	11,667	11,667
Total system capacity	1,726,933	1,726,383	1,726,383	1,726,383	1,726,383	1,726,383	1,412,663
Generation and Purchases (Thousands of Kwh):							
Steam	6,641,716	6,178,771	6,313,838	6,091,075	5,916,885	5,448,302	4,783,306
Nuclear	1,606,898	1,541,647	1,612,880	1,651,626	1,588,287	1,523,780	1,496,685
Hydraulic	252,806	188,617	198,150	206,397	340,488	352,000	292,919
Purchases	1,368,396	1,714,075	1,371,811	993,319	459,468	691,002	661,937
Total	9,869,816	9,623,110	9,496,679	8,942,417	8,305,128	8,015,084	7,234,847
System peak — firm (Kw)	1,516,300	1,504,000	1,509,500	1,381,300	1,292,600	1,219,700	1,106,600
Annual load factor	72.61%	71.97%	70.24%	72.72%	71.93%	74.03%	72.26%
Gas Operations							
Operating Revenues (Thousands):							
Residential	$ 84,030	$ 98,181	$ 97,184	$ 84,529	$ 91,513	$100,078	$ 66,507
Commercial and industrial	45,622	55,021	58,251	54,160	82,755	130,642	103,335
All other	10,416	(10,328)	12,941	12,324	7,488	3,983	2,787
Total gas revenues	$140,068	$142,874	$168,376	$151,013	$181,756	$234,703	$172,629
Therm Sales (Thousands)	290,933	331,695	313,646	272,939	351,014	451,419	515,738
Transportation (Therms-Thousands)	215,420	210,202	187,452	178,754	99,407	28,730	—
Total gas volume	506,353	541,897	501,098	451,693	450,421	480,149	515,[illegible]
Number of Customers, Dec. 31:							
Space heating	169,281	165,002	161,615	158,229	154,672	150,833	137,[illegible]
All other	7,148	7,517	7,754	7,949	8,241	8,788	12,176
Total gas customers	176,429	172,519	169,369	166,178	162,913	159,621	149,913

SHAREHOLDER INFORMATION

EXECUTIVE OFFICE

700 North Adams Street
P.O. Box 19001
Green Bay, Wisconsin 54307
Telephone: (414) 433-1598 for general information or for shareholder information call (414) 433-1050 or (toll free) 1-800-236-1551.

COMMON STOCK

Listed on New York and Midwest Stock Exchanges
Ticker Symbol: WPS
Transfer Agent and Registrar:
First Wisconsin Trust Company
P.O. Box 2077
Milwaukee, Wisconsin 53201
As of December 31, 1990, there were 25,248 common stock shareholders of record.

ANNUAL SHAREHOLDERS' MEETING

Midway Motor Lodge
780 Packer Drive
Green Bay, Wisconsin
Thursday, May 2, 1991
at 10:30 a.m.

ANNUAL SEC REPORT FORM 10-K

This report (not including exhibits thereto) will be available without charge about April 1, 1991 to shareholders who make requests to:
Robert H. Knuth
Assistant Vice President — Secretary
700 North Adams Street
P.O. Box 19001
Green Bay, Wisconsin 54307

PREFERRED STOCK

Over-the-counter markets.
Transfer Agent and Registrar:
First Wisconsin Trust Company, Milwaukee

WISCONSIN UTILITY INVESTORS

WUI is an independent, non-profit organization representing the collective voice of utility shareholders before regulators, legislators and the general public. WUI invites the participation of all utility investors.
For information write:
Wisconsin Utility Investors, Inc.
161 W. Wisconsin Avenue
Suite 6058
Milwaukee, Wisconsin 53203
or telephone: (414) 221-3849

SHAREHOLDER INFORMATION

EXECUTIVE OFFICE

700 North Adams Street
P.O. Box 19001
Green Bay, Wisconsin 54307
Telephone: (414) 433-1598 for general information or for shareholder information call (414) 433-1650 or (toll free) 1-800-236-1551.

COMMON STOCK

Listed on New York and Midwest Stock Exchanges
Ticker Symbol: WPS
Transfer Agent and Registrar:
First Wisconsin Trust Company
P.O. Box 2077
Milwaukee, Wisconsin 53201
As of December 31, 1990, there were 28,246 common stock shareholders of record.

ANNUAL SHAREHOLDERS' MEETING

Midway Motor Lodge
700 Packer Drive
Green Bay, Wisconsin
Thursday, May 2, 1991
at 10:00 a.m.

ANNUAL SEC REPORT FORM 10-K

This report (not including exhibits thereto) will be available without charge about April 1, 1991 to shareholders who make requests to:
Robert H. Kruth
Assistant Vice President – Secretary
700 North Adams Street
P.O. Box 19001
Green Bay, Wisconsin 54307

PREFERRED STOCK

Over-the-counter markets.
Transfer Agent and Registrar:
First Wisconsin Trust Company, Milwaukee

WISCONSIN UTILITY INVESTORS

WUI is an independent, non-profit organization representing the collective voice of utility shareholders before regulators, legislators and the general public. WUI invites the participation of all utility investors.
For information write:
Wisconsin Utility Investors, Inc.
161 W. Wisconsin Avenue
Suite 6000
Milwaukee, Wisconsin 53203
or telephone: (414) 291-3840