

mgóe



Business Doscription

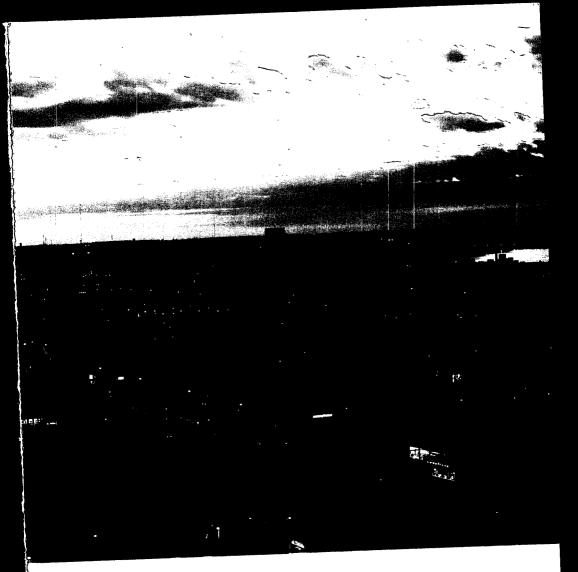
MGE generates, transmits and distributes electric power to about 110,000 customers in a 250-square-mile area, and purchases, transports and distributes natural gas to 82,000 customers in a 962-square-mile area in and around Madison, Wis.

Centents

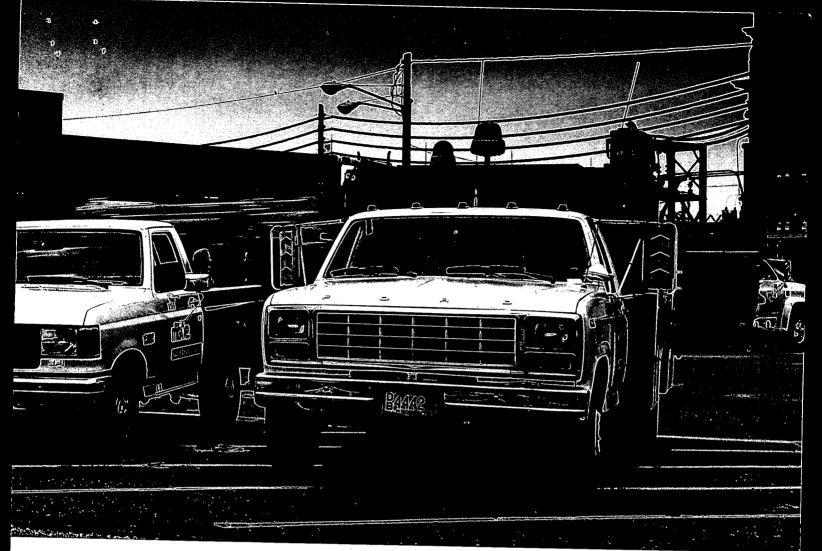
Letter to Our Shareholders	2
Managing Performance in 1988	4
Managing Performance for Growth	8
Discussion of Financial Condition and Operations	14
Consolidated Financial Statements and Notes	17
Quarterly Operations and Stock Prices	26
Summary of Selected	
Financial Data	27
Future Financial Outlook	28
Board of Directors	30
Officers	31
Shareholder Information	33



Another day begins at MGE. The company's employees and vehicles are ready to respond promptly to customer service calls and maintain the electric and gas systems throughout the service territory.



Stuated among four lakes, Madison is Wisconsin's capital city and home to the internationally acclaimed University of Wisconsin, Madison Gas and Electric Company and its predecessor companies have provided reliable anergy service to the Madison area stace ISS5.



Yoar at a Glanco	1988	1987	Percent increase (decrease) 1988-1987
Earnings per common share	\$ 2.98	\$ 2.90	2.8%
Cash dividends paid per common share	\$ 2.45	\$ 2.39	2.8%
Market value per common share—year end	\$ 31.00	\$ 32.75	(5.3)
Book value per common share-year end	\$ 22.52	\$ 21.76	3.5
Average number of common shares outstanding	6,687,741	6,559,250	2.0
Operating revenues	\$214,323,000	\$202,133,000	6.0
Operating expenses	\$182,992,000	\$171,876,000	6.5
Net operating income	\$ 31 331 000	\$ 30,257,000	3.5
Earnings on common stock	\$ 19,962,000	\$ 19,034,000	4.9
Electric sales to consumers	2,190,000 mwh	2,062,000 mwh	6.2
Electric customers in service—year end	109,487	107,938	1.4
Average use per residential customer	6,768 kwh	6,400 kwh	5.8
Jooning degree-days	902	766	17.8
Electric system one-hour net peak demand	517,000 kw	477,000 kw	8.4
Gas sales to consumers and transported	168,920,000 therms	151,436,000 therms	11.5
bas customers in service—year end	82,015	79.220	3.5
verage use per residential heating customer	1,134 therms	1,015 therms	
leating degree-days	7,505	6,528	15.0
Gas system peak day	1,445,000 therms	1,261,000 therms	
nvestment in plant	\$568,681,000	\$535,153,000	6.3
otal capitalization (including interim loans)	\$323,018,000	\$301,194,000	0.3 7.2
Employees—year end	807	790	2.2

Letter to Our Sharehelders

Managing performance to ensure continued growth and profitability was your company's major mission in 1988. We accomplished this mission by continuing to provide basic energy services efficiently and economically, to encourage economic development in our area and to expand our service territories.

The number of high-technology companies in our service area increased for the fourth consecutive year. At the end of 1988, 235 such companies were operating compared to approximately 210 a year ago. A primary force behind this sustained growth is the University of Wisconsin-Madison (UW). The UW continues to be the third-largest recipient of research grants among U.S. institutions of higher learning.

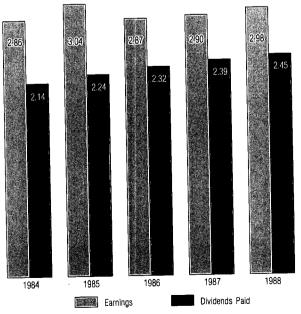
In 1988, we entered into an agreement with the UW to establish a 10,000-square-foot technology-oriented incubator in the UW Research Park in Madison. This new facility, named the MGE Innovation Center, will be ready for occupancy in May 1989. It will help to ease a scarcity of low-cost laboratory space for high-technology entrepreneurs. More specifically, the MGE Innovation Center will help nurse small, young companies into stronger ones, adding directly and indirectly to our service area's growing employment.

The vitality and growth of the area we serve are further

evidenced by \$234 million of commercial and industrial construction in progress during 1988. This compares to \$177 million worth of construction under way during 1987.

Last year, we advised you of the joint utility-UW-industry two-year effort to develop an engineering test model of a superconductive magnetic energy storage device. The selection of the site for the proposed test model is now under consideration, and we are hopeful that a Wisconsin location will be selected. This will further enhance our economic base.

Earnings and Dividends



Earnings and Dividends

Per-share earnings on MGE common stock reached \$2.98 in 1988 compared to the \$2.90 earned in 1987. Major influences on this performance were colder-than-normal weather in January that helped establish record demands for natural gas and winter electricity use, plus prolonged hot and humid weather during the summer. Another factor was the continued growth in our customer base for both gas and electricity service. As a result, sales and revenue levels also reached all-time highs.

In September, the annual dividend rate on our common stock was increased to \$2.48 per share. This marked the eighth consecutive year that the dividend has been increased in September, reflecting our ongoing commitment to our shareholders.

Stock Plan Expanded

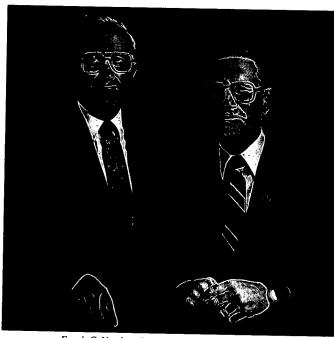
In October, the Automatic Dividend Reinvestment and Stock Purchase Plan was modified to enable customers and employees to more easily become shareholders and participate in the plan. The changes in the plan are detailed later in this report. As a partial result of the modifications, the number of shareholders has increased by 1,300 to more than 15,700. The additional shares purchased and dividends reinvested added \$5.1 million to the

company's total capitalization in 1988.

Rate Matters

Effective June 15, 1988, the Public Service Commission of Wisconsin (PSCW) authorized permanent increases of about 1% in both electricity and gas service rates. The new rates are expected to boost annual electricity and gas revenues by \$1,152,000 and \$915,000, respectively. The increases are based on: (1) estimated operating results for a test year beginning May 1, 1988, and (2) an authorized return on common stock equity of 13.5%, the same return as had been authorized a year earlier.

On Sept. 30, we filed our annual application with the PSCW. We proposed a \$7.5 million increase in electricity rates and a \$2.1 million increase in gas rates. These are 5.9% and 2.2% increases, respectively. The requested increases are based on a return on common stock equity of 13.75%. Public hearings are being held in the first quarter of 1989, and a decision is expected in the second quarter of the year.



Frank C. Vondrasek

New Electricity Peak Demand

On Aug. 16, 1988, demand for electricity by our customers during a one-hour period reached an all-time peak of 517,000 kilowatts. The new peak was 8% higher than the previous record of 477,000 kilowatts set in July 1987. The increase resulted from students and faculty returning to the UW campus when the weather was hot and humid.

The growth in peak demand was accompanied by an annual increase of 6.2% in kilowatt-hours sold. This compares to 5.2% in 1987 and even lower growth during the 1970s and early 1980s. Studies are under way to address the capacity needs of the 1990s. Options being examined include combined-cycle generation, cogeneration, fluidized bed, demand-side programs of equipment replacement and many more alternatives.

Expansion of Electric and Gas Service

In 1988, we made a proposal to the Wisconsin Public Power Inc. (WPPI) System to supply electric power to the village of Waunakee, a WPPI member. A final decision is pending on this proposal.

In the gas area, an agreement reached with another gas

Donald J. Helfrecht

distribution utility was approved by the PSCW that will allow us to provide gas service to the northern half of the town of Montrose, including two unincorporated villages. Both of these initiatives reflect ongoing efforts by MGE to identify and pursue new and attractive growth opportunities.

A proposal to furnish electric power to the city of Sun Prairie was turned down in January 1989 when the city decided to continue using its present supplier.

Management Change

Joseph T. Krzos was elected treasurer by the board of directors

effective May 1, 1988. A Certified Public Accountant, Mr. Krzos had been assistant treasurer since June 1986. Prior to joining the company in 1982, he had worked at the PSCW. We are confident that this change and the previously reported realignment of senior management in January 1988 have positioned MGE to effectively meet the challenges of the 1990s.

Donald / He Pucht

Donald J. Helfrecht / U Chairman and Chief Executive Officer

Floudearch

Frank C. Vondrasek President and Chief Operating Officer

February 10, 1989





Managing Performance in 1988 lectricity, natural gas and corporate operations produced excellent results in many areas in 1988.

Electricity Demand Sets Recerds

Demand for electricity reached record levels during the year. A new one-hour net peak demand of 517,000 kilowatts was set Aug. 16, exceeding the record set in 1987 by more than 8%. A new winter peak demand of 358,000 kilowatts topped the 1986 winter record by 7%. As part of its ongoing efforts to improve load-management strategies, MGE began a pilot program to test the effectiveness of electric load control at peak-demand times. A two-way automatic communication system allows MGE to turn selected residential central air conditioners and water heaters on and off. About 600 of these appliances in homes on the West Side of

Madison are included in the study, which will continue through 1989.

New Electric Facilities Cempleted

Blount Station, the company's wholly owned coal-fired plant in Madison, was improved and expanded in 1988. Included was a \$741,000 project to install new equipment that removes water from waste fly-ash sludge. This significantly reduces the amount of material to be put into landfill sites. It also saves on transportation and landfill charges.

A 6,700-square-foot addition to Blount Station was completed late in the year. Included are a new maintenance workshop, a new laboratory for testing water and coal quality, a spare parts storage facility and offices.



MGE's new 138/13.8-kv Sprecher Substation and 6.5 miles of new 69-kv transmission line east of Madison went into service in December providing needed support to the distribution system. The project cost \$2.7 million.

The amount of line installed in 1988 was nearly three times greater than the 1987 total. This includes the continuing program to convert older lines to higher, more energy-efficient voltage. In 1988, 35 miles of line was converted from 4 to 14 kv. In addition, MGE constructed 47 miles of new underground line and three miles of new overhead line.

Gas System Growth Continues Streng

Gas system growth continued at the high level of the past two years. In 1988, 41 miles of new gas main and 2,185 new gas services were installed.

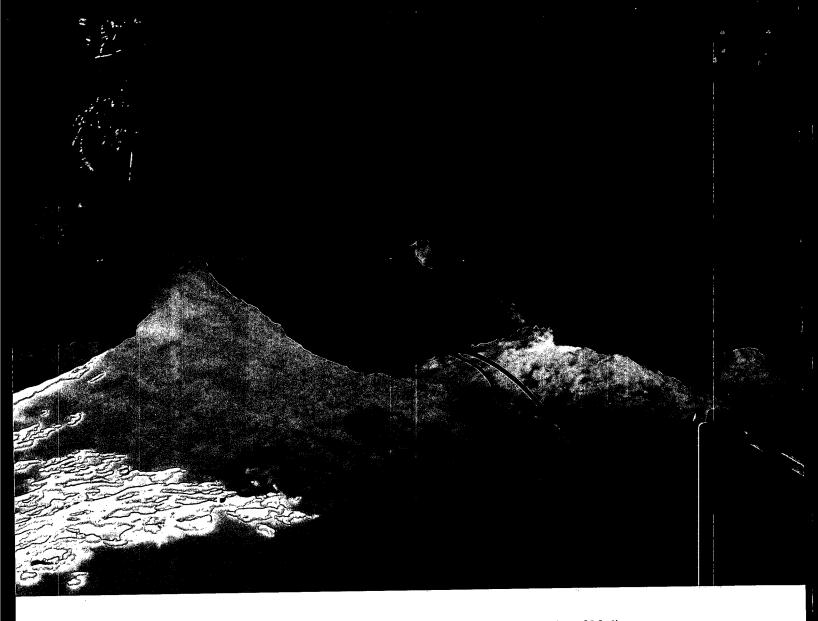
MGE also completed three special gas construction projects in 1988 costing about \$2 million. Included was the final phase of the Windsor Gate Station project. This 7-mile extension of 12-inch main significantly improves reliability of gas supplies to the growing customer base in the northern and western portions of the gas service area.

Also completed was the final phase of a system-reinforcement project that ties together the gas distribution systems in the cities of Fitchburg and Verona. This also provides additional capacity to serve new loads.

Supply deliverability improvements were completed for the far western portion of the gas system. About 3 miles of 6-inch main was installed, completing a multiyear project to reinforce the gas feed between the villages of Cross Plains and Mazomanie. This gives additional

Tom Moore works on overhead facilities at the new Sprecher Substation.

mg()e



Managing Performance in 1988 emergency backfeed capability for the fast-growing West Side of Madison.

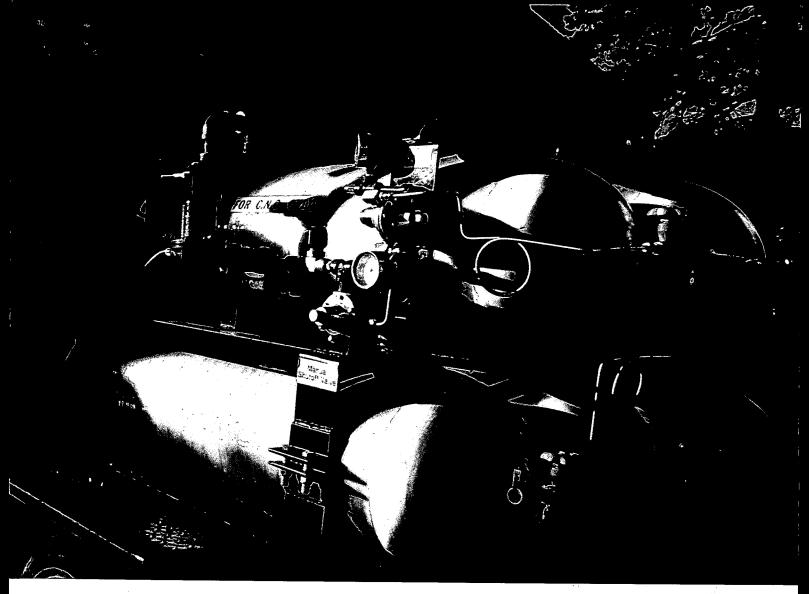
Forty-four commercial and industrial customers were taking advantage of MGE's "best efforts" interruptible gas service rates at year-end. MGE handles gas purchases and transportation for these customers.

Five other customers authorized MGE to transport gas they bought elsewhere. Included was the company's Blount Station, which uses natural gas to meet peak electricity demands. Transporting gas for Blount Station reduced MGE fuel costs by \$260,000 in 1988.

New Marketing Campaign Begins

MGE began a new, comprehensive marketing-promotion campaign in August using the theme "Power Plus—New Ideas That Give You More Than Just Energy." The campaign uses print and broadcast media, telemarketing and direct mail to inform customers about expanded services that will help them use energy more efficiently. Financial incentives encourage participation in the programs. By helping current customers cut their energy use, MGE can serve additional customers using existing facilities and resources, delaying capacity additions. Customer participation in MGE energy-conservation incentive programs helps control peak demand, shaving more than 3,000 kw from the potential total in 1988.

MGE is the first utility in the nation competing on an experimental basis with independent contractors to provide energy-conservation services to large and small commercial and industrial customers and multifamily housing customers. The purpose is to determine which programs will achieve the best results.



MGE's competitive efforts in the commercial and industrial categories concentrate on Power Plus programs and services to achieve efficiencies in lighting, heating, domestic hot water, motors, food service equipment, control systems and other usages. Competition in these sectors will continue until July 31, 1989, and in the multifamily sector until January 1990.

Energy Center Expands Services

Outgrowing its space, the MGE Energy Center moved to a new Downtown Madison location late in 1988. The facility includes more energy displays and more space for workshops and programs. All MGE customer services are available there.

The Good Cents program completed another successful year as 35 more builders became first-time participants. Good Cents staff now works with 125 builders, advising them about energy conservation construction measures. In 1988, 259 residences received Good Cents certification, about the same as the previous year.

The MGE Resource Assistance Program also enjoyed continuing success in 1988. This program broadens MGE's regular customer services by assisting those customers who have difficulty maintaining utility services or who have unique needs requiring special attention. Help is provided by referring customers to other MGE programs or community resources, assisting customers in managing energy costs and maintaining a communication network with community and human service agencies throughout the MGE service area. These efforts resulted in MGE receiving more than \$600,000 in utility bill payments directly from community resource programs during the program year.

Dick Stalheim hooks up emergency compressed natural gas (CNG) tanks at a customer's home to provide uninterrupted heat while a new energy service is being installed.



Managing Performance for Growth adison Gas and Electric Company actively and successfully promotes growth that benefits both shareholders and customers. The company's growth-producing initiatives address these objectives:

Maintaining competitive gas and electricity rates through efficient operations and sound strategies for growth;

Increasing the number of gas and electricity customers at a pace consistent with energy supplies;

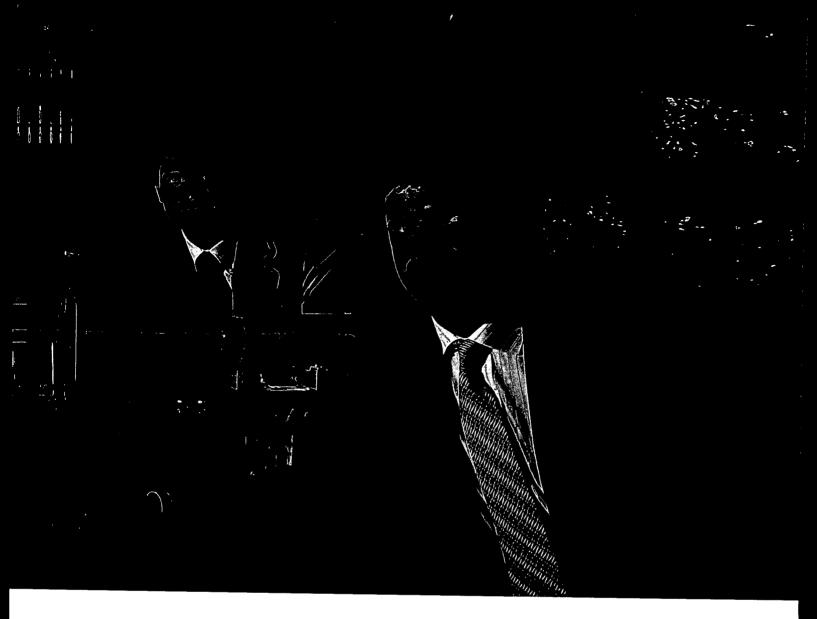
Exploring growth opportunities related to energy services that will profitably enhance the company's ability to improve service to its customers.

MGE seeks customer and sales growth opportunities by participating in business and jobcreating ventures independently and with others; innovatively marketing its energy services to current and new customers; expanding its natural gas and electricity customer bases and service territories.

As new customers are added, increasing the customer base, MGE can spread its fixed costs over the larger base. This reduces per-unit costs and helps to keep rates low and competitive.

New Development Initiatives

As part of its total program to encourage growth, MGE is expanding its efforts to attract and assist promising new technology-based entrepreneurial businesses in its service area. Several of these initiatives are in association with the University of Wisconsin (UW) Research Park on Madison's West Side. The Research Park is a rapidly growing extension of one of



MGE's principal customers, the 40,000-student, world-class University of Wisconsin. At the end of 1988, the Research Park housed eight companies with nearly 500 employees.

A major entrepreneurial initiative by the company is the new MGE Innovation Center at the Research Park. MGE has committed \$400,000 for the first three years of operation with the initial subsidies recovered after successful companies become established and leave the center.

The center will have space for 12 tenants and will provide office and laboratory space and equipment, clerical services and management assistance to support the rapid growth in the technology segment of the economy. Many of the facilities will be shared so that tenants can have what they need without carrying all the costs individually. Tenants will also have convenient, direct access to university academic and research contacts.

The help that the Innovation Center will provide is vital to entrepreneurial efforts in their early stages of development. National surveys show that businesses that begin in innovation centers have higher success rates than the average among all business ventures.

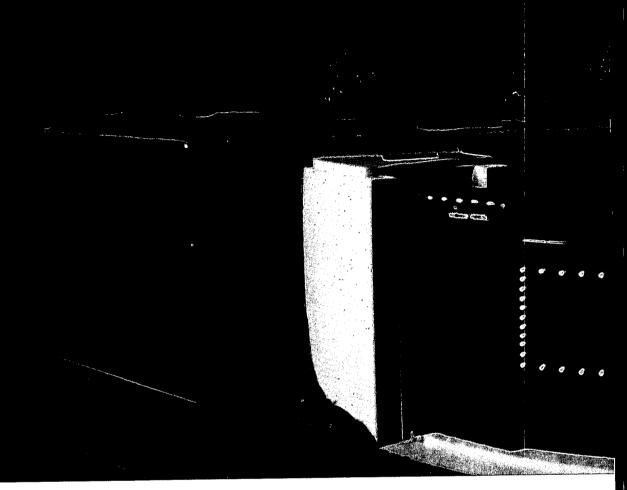
The MGE Innovation Center is only one example of the company's partnership with the UW, which has earned an international reputation as a research institution.

For the fifth consecutive year, the UW has retained its national ranking for money spent on research and development, again ranking third overall among all U.S. universities and first among public universities.

In keeping with this research tradition, the UW and MGE are leaders in seeking a practical process for generating and storing electricity when demand is low and distributing it later in peak-demand hours. The process, called superconductive magnetic energy storage (SMES),

Bruce Winkler (right) and Dave Reinke, Prototype Design Services: Solving laser alignment problems for the computer industry is among the services provided by these engineering and product-development consultants.

mg()e



Managing Performance for Grewth would mean lower electricity production costs for utilities and their customers.

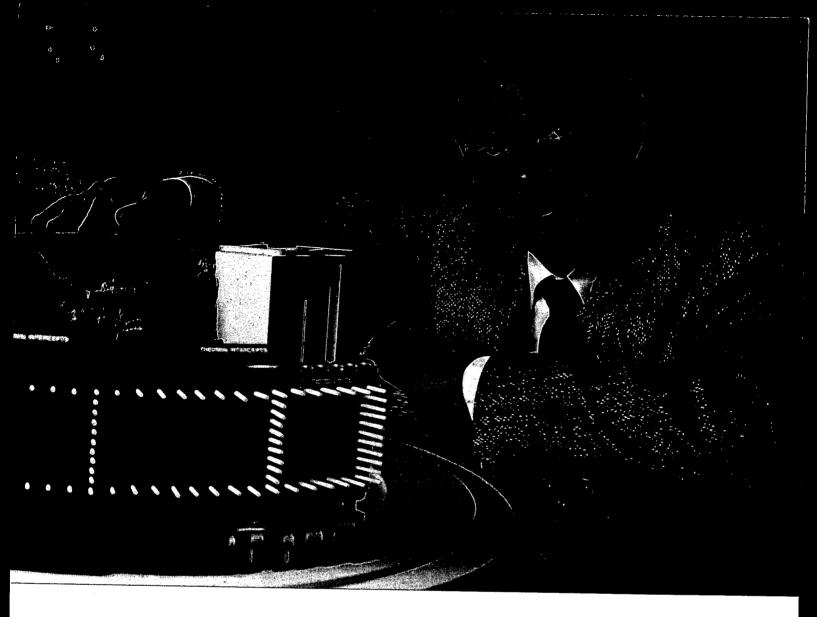
The UW began superconductivity research nearly 20 years ago and has been supported by MGE and other Wisconsin utilities. Through its Central Wisconsin Development Corp. subsidiary, MGE and the UW are members of one of two competing SMES-development teams funded by the federal government. The first phase of the project is concerned with system design and site selection.

MGE Sponsors High Tech Week

MGE conceived, organized and sponsored High Technology Week for Madison and Dane County in September 1988. At that time, two MGE-supported buildings in the Research Park's Science Center complex were dedicated. Both buildings are now fully occupied.

MGE's support for high technology extends beyond work with the UW. The state Small Business Innovation Research (SBIR) conference, which MGE co-sponsored for the second consecutive year, was another event held during High Technology Week. Conference participants from throughout the Midwest learned how they could successfully compete for federal research funding. Twelve state businesses were honored after receiving \$1.7 million in 1987 SBIR awards.

Another means of helping local entrepreneurs is the Madison Enterprise Center, a smallbusiness incubator housed in a building owned by MGE. The facility, which is fully occupied, doubled its space and added 32 new jobs to the local economy in 1988. It is operated by Common Wealth Development Inc., a nonprofit community organization.



To inform the public of the economic impact of high technology in its area, MGE commissioned a slide presentation featuring several of these leading businesses. The program has been presented on numerous occasions. It tells about the 235 area firms classified as high-technology businesses. They now employ more than 8,000 people, accounting for 4% of total area employment. High-technology employment has increased 8.5% per year since 1983.

New Construction Continues Streng

While the high-technology business sector is growing substantially, the total area economy continues strong. Commercial and industrial construction volume in 1988 far surpassed 1987 figures. Some 423 projects costing \$234 million were started in Dane County during 1988; this compared with 370 such projects valued at \$177 million in 1987.

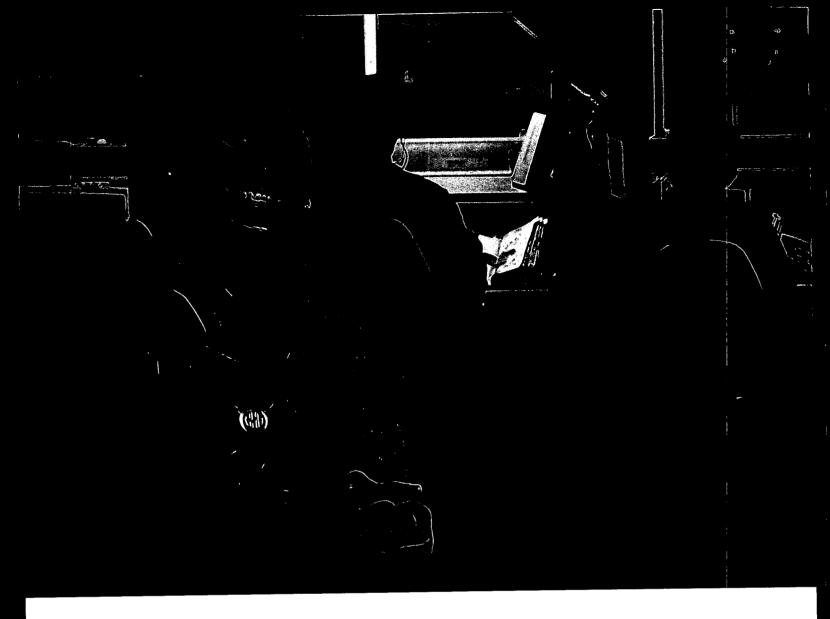
In the past three years, the per capita value of this commercial construction has increased as follows: 1986, \$440; 1987, \$517; 1988, \$664.

During 1988, 45 major projects were for more than \$1 million. Some of the larger projects include a \$17.5 million addition to the University of Wisconsin Memorial Library, a new \$14 million Holiday Inn and Conference Center being built in Middleton by Missouri developer John Q. Hammons, a \$12 million addition to the Wisconsin Physicians Service medical insurance complex in Monona, an \$8 million expansion to the CUNA Mutual Insurance complex in Madison and a new \$8 million psychiatric hospital for children and adolescents being built in the UW Research Park by the Hospital Corporation of America, Nashville.

Residential construction in Madison also was strong in 1988, with the number of building

Philip Jacobus, MGE's director - electric production: with model of a superconductive magnetic energy storage (SMES) system.

mcûe



Managing Perfermance for Grewth permits issued for homes and apartments increasing by 47% over 1987.

MGE compiles commercial and industrial construction statistics each month and is considered the primary source for this information by businesses and government agencies.

County Plans fer Development

MGE is playing a key role in the Dane County Economic Summit established by the county executive. This project brings together representatives of business, education, labor and local governments to devise an economic development plan for Dane County, which supports the economic growth of MGE's service area.

The company also joined with the city of Madison, Dane County and the Madison Area Technical College in commissioning the Dane County quality-of-life survey. This comprehensive survey, which had a 60% response rate, revealed that 73% of the respondents felt the quality of life in the county was either excellent or very good. This is higher than for similar surveys conducted in other areas. More than two-thirds want to see economic growth continue at the current rate or faster.

Individual communities receive direct MGE support as well. Several MGE employees work with and advise community and governmental organizations in economic development matters. One example is the service provided in 1988 to the city of Middleton in producing a comprehensive set of economic profile materials Middleton uses to encourage new businesses to locate there. The materials were researched, written, designed and printed by MGE employees with input from community leaders. Similar assistance is being provided to other communities in 1989.



Customor Baso Continues to Expand

When energy supplies became readily available after shortages in the mid-70s, MGE began to progressively expand its service territories and customer base.

At the end of 1983, the company provided natural gas service to 70,000 customers in a 750-square-mile area. Today, it serves 82,000 customers in 962 square miles.

Since 1985, MGE has extended natural gas service west to new territory in Dane and Iowa counties. Included are the villages of Barneveld, Blue Mounds, Arena and Ridgeway, and unincorporated areas around them, along with the northern portion of the town of Montrose, which was added late in 1988.

During the past five years, more than 8,000 electricity customers have been added to the customer base, over 1,000 of which are commercial customers. MGE now serves nearly 110,000 customers in a 250-square-mile area.

The company will continue to seek to serve new territory and customers when such expansion is economically advantageous.

MGE has done more than just make a commitment to developing and expanding its growing service area. Through its positive initiatives, MGE is actively managing performance to achieve continuing growth and profitability.

Barbara Saeman, Lands' End: This national mail-order firm has established a new telephone order center in Cross Plains.

Responsibility for Financial Statements

The management of Madison Gas and Electric Company is responsible for the preparation and presentation of the financial information in this Annual Report. The following financial statements have been prepared in accordance with generally accepted accounting principles consistently applied and reflect management's best estimates and informed judgments as required.

To fulfill these responsibilities, management has developed and maintains a comprehensive system of internal operating, accounting, and financial controls. These controls provide reasonable assurance that the Company's assets are safeguarded, transactions are properly recorded, and the resulting financial statements are reliable. An internal audit function assists management in monitoring the effectiveness of the controls.

The Independent Auditors' Report on the financial statements by Arthur Andersen & Co. appears on the next page. The responsibility of the independent auditors is limited to the audit of the financial statements presented and the expression of an opinion as to their fairness.

The Board of Directors maintains oversight of the Company's financial situation through its monthly review of operations and financial condition and its selection of the independent auditors.

The Audit Committee, comprised of all Board members who are not employees or officers of the Company, also meets periodically with the independent auditors and the Company's internal audit staff. The auditors have complete access to and meet with the Audit Committee, without management representatives present, to review accounting, auditing, and financial matters. Pertinent items discussed at the meetings are reviewed with the full Board of Directors.

Vonald.

Donald J. Helfrecht Chairman and Chief Executive Officer

2Howard Phipps

G. Howard Phipps Senior Vice President - Finance

Management's Discussion and Analysis of Financial Condition and Dperations

Liquidity and Capital Resources

The Company's liquidity is primarily affected by the requirements of its ongoing construction program. During 1988, almost 65 percent of the Company's construction expenditures were provided for by internally generated cash. As compared to 1987, construction expenditures were \$4.3 million higher in 1988, while cash generated internally rose \$0.8 million. For the years 1983 through 1987, the Company has, on average, funded 86 percent of its construction program with cash generated internally. However, during that period, total cash used for construction and nuclear fuel expenditures averaged \$29 million. It is anticipated that, over the next three years, construction expenditures will average about \$35 million. Internal generation of construction expenditures is expected to be above the 75 percent level during the next few years.

The current financial statements report operating results in terms of historic cost. Even though the statements provide a reasonable, objective, quantifiable statement of financial results, they do not evaluate the impact of inflation. For ratemaking purposes, projected normal operating costs include impacts of inflation and are recoverable in revenues. However, electric and gas utilities, in general, are adversely impacted by inflation because depreciation of utility plant is limited to the recovery of historical costs. Thus, cash flows from the recovery of existing utility plant may, to a certain extent, not be adequate to provide replacement of plant investment.

Independent Auditers' Report

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

We have audited the accompanying consolidated balance sheets and statements of capitalization of MADISON GAS AND ELECTRIC COMPANY (a Wisconsin corporation) and subsidiaries as of December 31, 1988 and 1987, and the related consolidated statements of income, retained income, and cash flows for each of the three years in the period ended December 31, 1988. 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 Madison Gas and Electric Company and subsidiaries as of December 31, 1988 and 1987, and the results of their operations and their cash flows for each of the three years in the period ended December 31, 1988, in conformity with generally accepted accounting principles.

Chicago, Illinois February 10, 1989 ARTHUR ANDERSEN & CO.

At December 31, 1988, the Company had unused lines of credit of \$27 million, including a \$15 million revolving credit agreement with five banks. These lines are generally used to support commercial paper issued, which represents a primary source of short-term financing. The Company's dealer-issued commercial paper carries the highest ratings of Duff and Phelps, Inc., Moody's Investors Service, Inc., and Standard & Poor's Corporation.

The Company believes that trust indenture restrictions will not prevent the issuance of additional long-term debt in the foreseeable future. The Company's bonds continue to be rated D&P-3 by Duff and Phelps, Aa2 by Moody's, and AA by Standard & Poor's. Capitalization ratios are shown at the bottom of the Summary of Selected Financial Data on page 27. The Company's longterm goal is to achieve and maintain a common equity level of 50 to 55 percent. The Automatic Dividend Reinvestment and Stock Purchase Plan was modified to help achieve this goal. The Plan now permits employees and customers of the Company to participate by purchasing shares, including first-time purchases. In addition, shareholders may place any portion of their shares into the Plan, and shares are being issued monthly for optional cash payments. Finally, the Company has the option to issue new shares of stock or purchase the shares on the open market. Also, see Note 2.a.

Results of Dperations Electric Results

Electric retail sales increased over 6 percent in 1988 versus 1987 to nearly 2.2 billion kilowatt-hours, while total electric revenues increased just over 2 percent for the same period. In 1987, retail sales were 5 percent higher than in 1986, while total electric revenues were virtually unchanged. Lower electric rates, as ordered by the Public Service Commission of Wisconsin (PSCW), are the primary reason that the increase in electric revenues was less than the sales increase in 1988. In June, 1987, the PSCW ordered a 6.9 percent overall decrease in electric rates. This decrease in rates was slightly offset by a 0.9 percent overall increase in electric rates ordered by the PSCW in June, 1988. However, retail revenues per kilowatt-hour were still nearly 4 percent lower in 1988 versus 1987.

The 1988 increase in retail sales can be attributed to an increase in customers, along with the warmer-than-normal weather during the summer months. Cooling degree-days (as measured by the number of degrees the mean daily temperature is above 65 degrees Fahrenheit) in 1988 were 93 percent higher than normal and 18 percent higher than in 1987. Cooling degree-days in 1987, were 64 percent above normal. Thus, electric retail sales were higher than expected due to the weather conditions during 1988 and 1987.

Gas Results

Changes in gas sold, transported, and delivered, as compared to the previous year, were as follows:

	Retail Gas Sales	Gas Transported	Total Gas Delivered	
	Increase (Decrease)			
1988 Million therms Percentage	32.6 25 %	(15.1) (79)%	17.5 12 %	
1987 Million therms Percentage	(16.0) (11)%	11.0 135 %	(5.0) (3)%	
1986 Million therms	(20.7) (12)%	8.1 *	(12.6) (7)%	

*The Company did not start transporting gas until 1986.

Total gas delivered to the system, as noted above, was up 12 percent for 1988. Factors affecting this increase include an increase in heating degree-days and customer growth. Heating degree-days (as measured by the number of degrees the mean daily temperature is below 65 degrees Fahrenheit) in 1988 increased 15 percent over 1987, but were slightly less than normal. Total gas revenues were 12 percent higher in 1988 as compared to 1987. This was due to the foregoing factors and a major shift of large customers from end-user transportation to a "Best Efforts" purchasing option (see Note 5). In 1986 and 1987, many large customers began purchasing gas directly from gas suppliers. These customers paid the Company a fee for transporting the gas to them. During 1988, most of these customers returned to purchasing gas from the Company because of the favorable prices the Company was able to get through open-market purchases.

Natural gas costs increased 14 percent in 1988 compared to 1987. The cost increase was substantially less than the 25 percent increase in therm sales because of the Company's success in buying gas on the open market at lower prices which are passed along to customers. In 1987, total gas revenues decreased at about the same rate as retail sales, while the costs of natural gas declined 16 percent as compared to 1986. These 1987 decreases were affected by milder-than-normal weather during the 1987 heating season, open-market purchasing, and transporting natural gas during all of 1987 versus only one-half of 1986.

Operating Expenses

Electric fuel and purchased power expenses were up 5 percent in 1988 compared to 1987. This was mainly due to the 6 percent increase in electric sales volume during 1988. Costs per unit of fuel generated (nuclear, coal, oil, and gas) were not significantly different in 1988 versus 1987, while the unit cost of power purchased from other sources was down in 1988.

The increases in other operations and maintenance expense reflect, in part, increases in material and labor costs, customer growth, and to a lesser extent, inflation.

The decreases in federal income tax items for the years 1988 and 1987 are a result of the lowering of the federal corporate tax rate under the Tax Reform Act of 1986. Also, see Note 1.g. regarding future accounting and reporting standards for the effects of income taxes.

Other Items

Other interest expense increased substantially due to the higher levels of commercial paper outstanding in 1988, which resulted, in part, from the higher construction program during the year.

Consolidatod Statoments ef Inceme

•

•

For the years ended December 31	<u> 1988 </u>	1987	1986
Operating Revenues (Notes 1e and 4)		(Thousands of Doll	ars)
Electric	\$128,079 86,244	\$125,328 76,805	\$125,383 84,964
Total Operating Revenues		202,133	210,347
Operating Expenses		<u> </u>	
Fuel used for electric generation (Note 1f)	30,175	28,789	27 24
Purchased power	1 137	4,070	27,348 5,862
Natural gas purchased for resale (Note 5)	56,465	49,496	58,761
Other operations	45,666	43,633	38,367
Maintenance	10,954	9,943	10,164
Depreciation and amortization (Note 1d)	,	-,	10,10
Straight-line depreciation and amortization	18,231	17,018	16,454
Additional depreciation	3,629	3,989	4,263
Taxes (Note 1g)	,	C ,	4,200
Current federal income	5,424	7,159	11,596
Amortization of investment tax credits, net (credit)	(1,019)	(1,152)	(946
Current state income	1,755	1,906	2,484
Other general	7,275	7,025	2,404 6,987
Total Operating Expenses	182,992	171,876	181,340
Net Operating Income	31,331	30,257	29,007
Allowance for funds used during construction—equity funds (Note 1b)	1,218	1,267	939
Other income (expense), net	446	(148)	(168
Income Bofore Interost Expense	32,995	31,376	29,778
interest Expense			
interest on long-term debt	12,312	12,262	10,276
Jther Interest	934	255	10,270
Allowance for funds used during construction—borrowed funds (Note 1b)	<u>(789</u>)	(768)	(493)
Net Interest Expense	12,457	11,749	9,982
let Income	20,538	19,627	19,796
Preferrod Stock Cash Oividend Requirements	576	593	1,100
arnings en Common Stock	\$ 19,962	\$ 19,034	<u> </u>
arnings Per Share of Cemmon Stock (6,687,741,			<u>+ 10,070</u>
6,559,250, and 6,505,211 average shares outstanding)	\$2.98	\$2.90	<u>\$2.87</u>
he accompanying notes are an integral part of the above statements			<u> </u>

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

Consolidated Balance Sheets

t December 31	1988 (Thousands	<u>1987</u> of Dollars)
ssets	(Thousands	
tility Plant, at original cost (Note 1b)	\$399,685	\$375,261
n service—Electric (Note 1c)	138,159	130,541
Gas Gross Plant in Service	537,844	505,802
Gross Plant in Service for depreciation (Note 1d)	(261,315)	(244,818
Less—Accumulated provision for depreciation (Note 1d)	· 276,529	260,984
Net Plant in Service	15,745	15,830
Construction work in progress	15,092	13,51
luclear decommissioning fund (Note 1d)	9,655	10,10
Iuclear fuel, net (Note 1f)	317,021	300,44
Total Utility Plant		
thor Property and Investments	5,685	5,66
Curront Assots		
Cash	866	1,13
Deposits for jointly owned electric power production facilities	2,207	2,43
Accounts receivable, less reserves of \$708 and \$707, respectively	21,119	20,96
Jnbilled revenue (Note 1e)	10,231	9,63
Materials and supplies, at average cost	8,202	7,20
Rossil fuel, at average cost	3,533	4,25
Prepaid taxes	6,076	5,65
Prepaid taxes	1,334	1,41
Total Current Assets	53,568	52,69
Deforred Charges (Note 1g)	12,175	5,90
Tetal Assets	<u>\$388,449</u>	\$364,71
Capitalization and Liabilities		
Capitalization (see statement) (Note 2)	<u>\$301,168</u>	\$283,59
Current Liahilities Preferred stock sinking fund requirements (Note 2b)	100	10
Maturity of 45/8 % First Mortgage Bonds, 1988 series (Note 2c)	_	6,50
Maturity of 43% % First Mortgage Bonds, 1988 series (Note 2c)	21,750	11,0
Interim loans—commercial paper outstanding (Note 20)	19,294	18,0
Accounts payable	•	4,8
Accounts payable		7,8
Other		48,3
Other Credits Contributions in aid of construction	10,417	10,4
Investment tax credit deferred (Note 1g)	18,339	19,3
Investment tax credit defended (Note 1g)	2,961	2,9
Other	. 31,717	32,7
Other		
Other		

.

L,

.1

The accompanying notes are an integral part of the above balance sheets.

Conselidated Statements of Capitalization

•

At December 31	1000	
	1988	1987
Commen Sharehoidors' Equity (Note 2a)	(Thousand	s of Dollars)
Common stock—Par value \$8 per share Authorized 14,000,000 shares		
Outstanding 6,792,095 and 6,628,877 shares, respectively	\$ 54,337	\$ 53,031
A mount received in excess of par value	46 184	42,357
	57 AE1	48,865
Total Common Shareholders' Equity	152,962	144,253
Redoemahie Proferred Stock , cumulative, \$25 par value, authorized 1,239,000 and 1,247,000 shares, respectively (Note 2b)		
Series E, 8.70%, 260,000 and 268,000 shares outstanding, respectively,		
less current sinking fund requirements of \$100	6,400	6,600
First Mertgage Bonds (Note 2c)		
$4\frac{5}{8}\%$, 1988 series		(500
4 70, 1991 Series	4,012	6,503
9.05 %; 1992 series	4,012	4,087
5.45 %, 1990 series	8,000	~ ~
6 %, 1999 series	10,240	8,000
7 ⁻⁷⁴ %, 2001 series	12,151	10,298
9 14 70, 2004 series	17,743	12,429 17,929
9 ⁻¹⁴ %, 2003 series	22,397	22,675
o 12 70, 2000 series, Follution Control Revenue Bonds, principal amount	22,371	22,075
\$8,780, less construction fund of \$1,167 and \$1,093, respectively	7,613	7,687
10.00%, 2012 series, industrial Development Revenue Bonds	25,000	25,000
<i>J</i> ¹⁴ 70, 2010 series	25,000	25,000
This workgage bonds Outstanding	142,156	139,608
Maturity 01 4 78 70, 1900 Series	_	(6,503)
onamortized discount and premium on bonds, net	(350)	(367)
Total First Mortgage Bonds	141,806	132,738
Total Capitalization	<u>\$301,168</u>	\$283,591

Conselidated Statements ef Rotainod Inceme

For the years ended December 31	1988	1987	
Balance Beginning of Year Add Net income	\$ 18 865	housands of Dollars \$ 45,495 19.627	\$ 41,891
Deduct —Cash dividends on common stock Preferred stock cash dividend requirements	(16 376)	(15,664) (593)	19,796 (15,092) (1,100)
Balance End of Year	\$ 52,451	<u>\$ 48,865</u>	\$ 45,495

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

Consolidated Statements ef Cash Flows

For the years ended December 31	(Th	<u>1987</u>	1986
Or another definition	(In		n a)
Ou susting Astivities		ousands of Dollar	15)
Oporating Activities Net income	\$20,538	\$19,627	\$19,796
Income items not affecting working capital	21,860	21,007	20,717
Depreciation and amortization	2,652	2,337	2,416
Amortization of nuclear fuel	(1,019)	(1,152)	(946)
Amortization of investment tax credits, net	(1,218)	(1,267)	(939)
Other	(62)	768	<u>(69</u>)
Net Funds Provided from Operations	42,751	41,320	40,975
Changes in working capital, exclusive of cash			
Special deposits	226	76	(165)
Accounts receivable	(151)	(156)	4,433
Unbilled revenue	(593)	417	2,300
Materials and supplies	(996)	(1,101)	48
Fossil fuel	720	1,777	(1,086)
Prenaid taxes	(423)	(1,062)	(27)
Other prepayments	82	(404)	(342) (3,183)
Accounts payable	1,214	(864) (4,422)	1,024
Accrued taxes	436 1,293	(4,422) (97)	902
Other current liabilities		•	
Other non-current items, net	(6,743)	1,051	(228)
Cash Provided by Operating Activities	37,816	36,535	44,651
Financing Activitios	- 100	4 104	
Issuance of common stock	5,123	4,104	(6,091)
Preferred stock redemptions and sinking fund requirements	(200)	(200) (16,257)	(16,192)
Cash dividends on common and preferred stock	(16,952) 10,000	(10,257)	25,000
Sale of first mortgage bonds		_	
Maturity of 45%% First Mortgage Bonds, 1988 Series		(944)	(936)
Bond sinking fund retirements		(62)	(65)
Decrease (increase) in bond construction funds, net Increase (decrease) in interim loans	• •	11,000	(2,000)
Cash Provided by (Used for) Financing Activities		(2,359)	(284)
invosting Activities	(36,984)	(32,644)	·(31,409)
Additions to utility plant and nuclear fuel		(768)	(493)
Allowance for funds used during construction — borrowed funds		(2,172)	(11,343)
Cash Used for Investing Activities		(35,584)	(43,245)
Change in Cash (Note 7)		<u>\$(1,408)</u>	<u>\$ 1,122</u>

.

•

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

December 31, 1988, 1987, and 1986

1. Summary of Significant Accounting Policies

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

a. Basis of censelidatien

The financial statements include the accounts of the Company and its subsidiaries. All significant intercompany accounts and transactions have been eliminated in consolidation.

b. Utility plant

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

AFUDC represents the approximate cost of debt and equity capital devoted to plant under construction. The Company presently capitalizes AFUDC at a rate of 11.28 percent. The portion of the allowance applicable to borrowed funds is presented in the Consolidated Statements of Income as a reduction of interest charges, while the portion of the allowance applicable to equity funds is presented as other income. Although the allowance does not represent current cash income, it is recovered under the ratemaking process over the service lives of the related properties.

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

c. Joint plant ownership

The Company and two other Wisconsin investor-owned utilities jointly own two electric generating facilities, which account for 54 percent (325 mw) of the Company's net generating capability. Power from the facilities is shared in proportion to the companies' ownership interests. The Company's interests are 22 percent (232 mw) of the Columbia Energy Center (Columbia) and 17.8 percent (93 mw) of the Kewaunee Nuclear Plant (Kewaunee). Each owner provides its own financing and reflects its respective portion of facilities and operating costs in its financial statements. The Company's portions of these facilities, included in its gross utility plant in service, and the related accumulated depreciation reserves at December 31, were as follows (in thousands of dollars):

	Columbia		ia Kewaunee	
	1988	1987	1988	1987
Utility Plant Accumulated	\$84,967	\$80,955	\$52,452	\$51,696
Depreciation	(44,560)	(41,785)	(32,137)	(30,694)
Net Plant	\$40,407	\$39,170	\$20,315	\$21,002

d. Depreciation

Depreciation expense includes, in addition to provisions at composite straight-line rates, amounts equivalent to estimated net reductions in income taxes. Such reductions are due to the use of liberalized depreciation allowances permitted for income tax purposes. They are also due to differences between amortization of nuclear fuel for book purposes and depreciation for income tax purposes. At December 31, such accumulated additional depreciation is classified as follows (in thousands of dollars):

	<u> 1988 </u>	1987
Accumulated provision for		
additional depreciation	\$61,884	\$59,314
Nuclear fuel, net	183	(886)
Total	\$62,067	\$58,428

Cumulative income tax timing differences, on which the Company has not provided an amount equivalent to the estimated reduction in income taxes, approximate \$14.1 million at December 31, 1988. Because of past ratemaking treatment by the Public Service Commission of Wisconsin (PSCW), the Company believes that the income taxes payable in the future due to the reversal of such timing differences will be recovered in rates.

Provisions at composite straight-line depreciation rates, excluding the additional depreciation and decommissioning costs, approximate the following percentages of the cost of depreciable property: electric, 3.2 percent in 1988, 3.1 percent in 1987, and 3.1 percent in 1986; gas, 3.5 percent in 1988, 3.5 percent in 1987, and 3.4 percent in 1986. Depreciation rates are approved by the PSCW and are generally based on the estimated economic lives of property.

External trust funds were established in January, 1988, for costs associated with the future decommissioning of Kewaunee. The Company's share of decommissioning costs is estimated to be \$88.1 million at the time of future decommissioning. As of December 31, 1988, approximately \$13.9 million of these costs have been recovered through depreciation rates. Decommissioning costs are \$1.3 million annually.

e. Revenue recegnition

In accordance with a PSCW directive, the Company records unbilled revenue on the basis of service rendered.

f. Nuclear fuel

The cost of nuclear fuel used for electric generation is being amortized to fuel expense and recovered in rates based on the quantity of heat produced for the generation of electric energy by Kewaunee. Such cost includes a provision for estimated



future disposal costs of spent nuclear fuel. The Company currently pays disposal fees to the Department of Energy based on nuclear generation. The Company has recovered through rates and satisfied its entire fuel disposal liability for past nuclear generation for all applicable years.

g. Incomo taxes

(1) The eligible investment tax credit is amortized over the service lives of the related property.

(2) The Company's effective income tax rates, computed by dividing the total of current federal and state income tax expense, net investment tax credit, additional depreciation, and taxes included in other income by the sum of such expenses and net income, reconcile to the statutory federal income tax rates as follows for the years ended December 31:

	1988	1987_	1986
Effective income tax rate as computed	32.9%	38.6%	46.7%
Restoration of investment tax credit	3.4	3.7	3.4
State income taxes and state additional depreciation, net Other differences, net	(3.4) <u>1.1</u>	(3.2)	(3.3) (.8)
Statutory federal income tax rate	<u>34.0</u> %	<u>40.0</u> %	<u>46.0</u> %

After 1989, the Company will be required to adopt the accounting and reporting standards set forth in the Statement of Financial Accounting Standards (SFAS) No. 96 relating to the effects of income taxes. The Company believes that the effect of adopting SFAS No. 96 will be primarily limited to certain balance sheet reclassifications, including the presentation of the accumulated provision for additional depreciation (see Note 1.d.).

(3) During 1988 the Company made a payment of \$4.4 million to the Internal Revenue Service to settle a dispute covering the tax years 1974 through 1977. This amount has been recorded as a deferred debit pending the anticipated decision by the PSCW allowing it to be recovered in future rates.

h. Ponsion plans

The Company has maintained a contributory defined benefit plan and a noncontributory defined benefit plan for substantially all nonsalaried and salaried employees, respectively. The pension benefit formula used in the determination of pension costs is based upon the average compensation earned during the last five years of employment for the salaried plan and career earnings for the nonsalaried plan subject to a monthly maximum.

The Company's funding policy is to make such contributions as are necessary to finance the benefits provided under the plans. The Company's contributions meet the funding standards set forth in the Employee Retirement Income Security Act of 1974 (ERISA). Ratemaking practice has historically allowed the accrued pension funding amount in rates. The Company has recorded 1988 pension costs equal to the funding amount. The funding amounts were \$785,000 in 1988, \$649,000 in 1987, and \$580,000 in 1986. Of these amounts, \$689,000, \$565,000, and \$488,000 were charged to operating expenses for the years 1988 through 1986, respectively. The plans' assets consist primarily of pooled funds invested with the Prudential Asset Management Group.

The funded status of the plans under the SFAS No. 87 is as follows (in thousands of dollars):

	December 31		
	1988	1987	
Fair value of plan assets	\$25,034	<u>\$22,316</u>	
Actuarial present value of benefits			
rendered to date—Accumulated			
benefits based on compensation to			
date, including vested benefits of \$18,819 and \$16,461, respectively	19,223	16,820	
Additional benefits based on			
estimated future salary levels	<u>6,383</u>	5,717	
Projected benefit obligation	25,606	22,537	
Plan assets less than projected			
benefit obligation	(572)	(221)	
Unrecognized net asset at date of		(010)	
initial application	(271)	(310)	
Unrecognized net gain	(399)	(673)	
Unrecognized prior service cost	1,377	1,469	
Net prepayment	<u>\$ 135</u>	<u>\$ 265</u>	

Components of net pension costs for the years ended December 31, were as follows (in thousands of dollars):

	<u>1988</u>	1987
Service costs (benefits earned during the period) Interest costs on projected benefit	\$ 670	\$ 672
obligation Actual return on plan assets Net amortization and deferral Regulatory effect based on funding Net pension cost	1,899 (2,341) 355 202 \$ 785	1,640 (843) (1,085) <u>265</u> <u>\$ 649</u>

At December 31, 1988 and 1987: the assumed rate of return was 9.0 percent; the weighted average discount rate of projected benefit obligation was 8.25 percent in 1988 and 7.5 percent in 1987; and the assumed rate of increase in future compensation levels was 6.0 percent in 1988 and 5.5 percent in 1987.

In addition to the noted plans, the Company also maintains a defined contribution 401(k) benefit plan for salaried employees. The Company's costs of the 401(k) plan for the years 1988, 1987, and 1986 were \$144,000, \$135,000, and \$128,000, respectively.

2. Capitalization Mattors

a. Cemmon stock

Pursuant to the Company's Automatic Dividend Reinvestment and Stock Purchase Plan, 163,218 shares of common stock were issued in 1988 and 123,666 shares were issued in 1987. Allocations of proceeds were: \$1,306,000 in 1988 and \$989,000 in 1987 to common stock par value and \$3,817,000 in 1988 and \$3,115,000 in 1987 to amounts received in excess of par value.

b. Redeemablo praforred stock

The Company has an obligation to retire 4,000 Series E shares for \$100,000 during each 12-month period ending August 1 through 1993. Additional Series E shares equal to the annual retirement obligations may be retired during any 12-month period ending August 1.

c. First mortgage bonds

The Company issued \$10 million of first mortgage bonds privately in October, 1988. The bonds carry an interest rate of 9.65% and mature in October, 1992. The proceeds were used to pay for the $4\frac{5}{8}\%$ First Mortgage Bonds, 1988 Series, which matured October 1 and to reduce a portion of short-term debt.

The annual sinking fund requirements of the outstanding first mortgage bonds are \$870,000 for 1989 and 1990, and \$800,000 in 1991-1993. In addition, \$4 million and \$10 million will be required to retire at maturity the 1991 and 1992 Series First Mortgage Bonds, respectively. As of December 31, 1988, the Company had satisfied its 1989 bond sinking fund requirements.

d. Notos payable to banks, commorcial paper, and lines of crodit

For short term borrowings, the Company generally issues commercial paper (issued at the prevailing discount rate at the time of issuance) which is supported by unused bank lines of credit. Included in the lines of credit is a Revolving Credit Agreement with five banks. Under this Agreement, the Company is entitled to borrow and reborrow until August 31, 1989, up to \$15 million from the banks in the form of 90-day notes that bear interest at the prime rate in effect at the time of issuance. The Agreement also sets a maximum outstanding limit of \$25 million of commercial paper. Information concerning short-term borrowings is set forth below (in thousands of dollars):

	1988	1987	1986
At December 31:			
Unused lines of credit	\$27,000	\$21,500	\$15,000
Commercial paper			
outstanding	\$21,750	\$11,000	_
Weighted average			
interest rate	9.37%	7.90%	_
During the year:			
Maximum commercial			
paper outstanding	\$24,250	\$15,000	\$12,000
Average commercial			
paper outstanding	\$10,868	\$2,958	\$ 1,965
Weighted average			
interest rate	7.92%	7.03%	7.28%

3. Segments of Businoss

The table below presents information pertaining to the Company's segments of business for 1988, 1987, and 1986.

Information regarding the distribution of net assets between electric and gas, as well as those assets not allocable, is set forth on page 27, Summary of Selected Financial Data.

For the years ended December 31	1988	1987	1986
		(Thousands of Dollars)	
Electric Operatiens			
Total revenues	\$128,079	\$125,328	\$125,383
Operation and maintenance expenses	76,888	72,600	68,925
Straight-line depreciation and amortization	13,697	12,753	12,347
Other general taxes	5,798	5,589	5,447
Pre-tax Operating Income	31,696	34,386	38,664
Income tax items, including additional depreciation	7,789	10,125	14,857
Net Operating Income	\$ 23,907	<u>\$ 24,261</u>	\$ 23,807
Constructien and Nuclear Fuel Expenditures (Electric)	\$ 28,602	\$ 24,785	\$ 23,155
Gas Operations			
Operating revenues	\$ 86,244	\$ 76,805	\$ 84,964
Revenues from sales to electric utility	1,327	2,362	3,608
Total Revenues	87,571	79,167	88,572
Operation and maintenance expenses	72,136	65,693	75,185
Straight-line depreciation and amortization	4,534	4,265	4,107
Other general taxes	1,477	1,436	1,540
Pre-tax Operating Income	9,424	7,773	7,740
Income tax items, including additional depreciation	2,000	1,777	2,540
Net Operating Income	\$ 7,424	\$ 5,996	<u>\$ 5,200</u>
Constructien Expenditures (Gas)	<u>\$ 8,382</u>	<u>\$ 7,859</u>	<u>\$ 8,254</u>

4. Rate Matters

Effective June 15, 1988, the PSCW authorized a rate increase of \$1.2 million annually for electric service rates and \$0.9 million annually for natural gas service rates. The new rates are designed to raise retail electric and retail gas service revenues by approximately 1 percent each. The changes were based on estimated electric and gas operations for the test year ending April 30, 1989, and an authorized return on common stock equity of 13.5 percent.

In September, 1988, the Company filed its annual application with the PSCW proposing a \$7.5 million increase in retail electric revenues and a \$2.1 million increase in retail gas revenues. The proposed increases represent 5.9 percent and 2.2 percent increases in retail electric and retail gas rates, respectively. The proposed rates are based on a test year beginning June 1, 1989, and a return on common stock equity of 13.75 percent. Hearings on the application are scheduled for March, and a decision is expected in the second quarter of 1989.

5. Gas Transpertation and Purchasing

Beginning in November, 1987, and continuing through 1988 the Company obtained a portion of its system gas requirements on the spot market rather than through traditional purchases from ANR Pipeline Company (ANR). This was the result of Federal Energy Regulatory Commission (FERC) rulings. The Company purchased approximately 60 percent of its system's natural gas needs on the spot market in 1988 at a savings of over \$10 million.

The Company continued to offer a full range of purchasing options to its interruptible customer classes during 1988. These options are designed to allow customers to choose the level of service desired, enabling the Company to be competitive with alternative fuel choices available to the larger-volume gas customers. As an example, a majority of interruptible customers now purchase open-market supplies directly from the Company under a "Best Efforts" option. The Company purchases the gas along with its own open-market requirements and resells it to the customer. End-user transportation of natural gas for customers has declined significantly due to this change, although the Company continues to offer transportation rates to certain firm and interruptible customers. These additional gas sales result in the Company reporting higher revenues and costs of gas. However, these sales have the same margins as end-user transportation and, therefore, have no impact on the Company's operating income.

6. Cemmitments and Contingencies

Utility plant construction expenditures for 1989, including the Company's proportional share of jointly owned electric power production facilities, are estimated to be \$35 million and substantial commitments have been incurred in connection with such expenditures. Significant commitments have also been made for fuel for Kewaunee and Columbia.

The Company has appealed a portion of the rate order dated June 1, 1987, that would have resulted in a loss of about \$1.3 million in revenues during 1987. The provision appealed relates to the appropriate federal income tax rate to be used for the 1987 portion of the test year. In December, 1987, the Circuit Court for Dane County ruled in favor of the Company and allowed the surcharge, which had been in effect since June, 1987, as a result of a preliminary injunction, to continue through December 31, 1987. In January, 1988, the PSCW appealed this decision to the Court of Appeals of Wisconsin. Oral arguments were heard in November, 1988, and a ruling from the Court of Appeals is anticipated in 1989. In the event the Company does not ultimately prevail in this appeal, appropriate refunds with interest will be made to customers.

ANR is entering into settlements with its gas suppliers concerning provisions of take-or-pay contracts that are not being met or where the contracts are being cancelled. In December, 1988, ANR made its initial take-or-pay filing with the FERC which will result in charges of about \$1.2 million to be billed to the Company over five years. Contingent upon FERC rulings and further take-or-pay filings by ANR, the Company anticipates a total take-or-pay liability of about \$5-6 million. The PSCW has approved procedures whereby the Company will be allowed the opportunity to recover the take-or-pay charges in rates.

7. Supplemental Cash Flew Infermation

For purposes of the Statements of Cash Flows, the Company considers cash equivalents to be cash on hand.

Cash payments for interest and income taxes were as follows for the years ended December 31 (in thousands of dollars):

Interest paid, net of	1988	1987	1986
amounts capitalized	\$12,430	\$11,792	, ,
Income taxes paid	\$ 9,160	\$14,550	

Ouarterly	Summary o	f Operations	and Stock Prices
------------------	-----------	--------------	------------------

	Quarters Ended (Unaudited) (1)				
	March 31	June 30	Sept. 30	Dec. 31	
		(Thousands	of Dollars)		
1988 Operating Revenues: Electric Gas Total Operating Expenses Net Operating Income Interest, Preferred Dividends, and Other	\$29,318 40,422 69,740 <u>60,985</u> 8,755 2,836	\$29,989 <u>10,464</u> 40,453 <u>35,733</u> 4,720 2,896	\$39,408 7,223 46,631 <u>38,052</u> 8,579 2,659	\$29,364 28,135 57,499 48,222 9,277 2,978	
Earnings on Common Stock	\$ 5,919	\$ 1,824	\$ 5,920	\$ 6,299	
Earnings per Common Share (2) Dividends Paid per Common Share (3)	89 ¢ 60 ¹ / ₂ ¢	27 ¢ 60 ^{1/2} ¢	88¢ 62¢	93¢ 62¢	
Bid Price per Common Share (4)—High Low	\$32 ³ /4 30 ³ /4	\$32 ¹ / ₄ 30 ¹ / ₂	\$32 ¹ / ₄ 30 ³ / ₄	\$32 ¹ / ₄ 30	
1987 Operating Revenues: Electric Gas Total Operating Expenses Net Operating Income Interest, Preferred Dividends, and Other	2,795	\$31,558 10,392 41,950 35,816 6,134 2,862 \$ 3,272	\$36,347 <u>8,058</u> 44,405 <u>36,319</u> 8,086 <u>2,482</u> \$ 5,604	\$28,354 26,633 54,987 46,637 8,350 3,084 \$ 5,266	
Earnings on Common Stock Earnings per Common Share (2) Dividends Paid per Common Share (3)	75¢	50¢ 59¢	85 ¢ 60½¢	80 ¢ 60 ½¢	
Bid Price per Common Share (4)—High Low	\$37 34 1/4	\$34 ¹ / ₂ 29 ³ / ₄	\$34 ³ / ₄ 31	\$33 ¹ / ₂ 29 ³ / ₄	

Notes:

- (1) The quarterly results of operations within a year are not comparable because of seasonal and other factors.
- (2) The sum of earnings per share of common stock for any four quarterly periods may vary slightly from the earnings per share of common stock for the equivalent 12-month period due to the effect of rounding each quarterly period separately.
- (3) There were 15,733 shareholders as of February 1, 1989. There currently are no restrictions on the Company's ability

to pay dividends and none are expected in the foreseeable future. The Company has regularly paid dividends to its shareholders and expects that it will continue to do so in the future.

(4) The common stock of the Company is traded in the overthe-counter market and is included in the National Association of Securities Dealers, Inc. (NASD), National Market System. The range of bid prices is as quoted by the NASD Automated Quotation System.

Summary of Soloctod Financial Data

٠

r 6 .,

-)

(Thousands of Dollars Except Per-Share Amounts)	1988	1987	1986	1985	1984
Electric Operating Revenues					
Residential	\$ 45,338	\$ 42,987	\$ 41,460	\$ 40,640	\$ 39,689
Commercial power and lighting	66,028	65,934	65,736	63,336	61,252
ndustrial power and lighting	6,116	5,627	5,818	5,663	5,768
treet and highway lighting and public authorities	8,644	8,992	9,537	9,718	9,494
Other utilities	1,574	1,299	2,284	4,046	8,662
Aiscellaneous	379	489	548	337	475
Total Electric Revenues	\$128,079	\$125,328	\$125,383	\$123,740	\$125,340
as Operating Revenues					
Residential	\$ 46,248	\$ 41,788	\$ 44,349	\$ 49,320	\$ 46,808
Commercial	31,374	29,942	33,700	39,518	37,090
terruptible boiler fuel (includes "Best Efforts")	6,163	883	2,665	7,026	6,627
ndustrial	2,125	2,623	3,481	3,966	3,695
as transport, net	290	1,286	470	_	_
fiscellaneous	44	283	299	294	302
Total Gas Revenues	<u>\$ 86,244</u>	<u>\$ 76,805</u>	<u>\$ 84,964</u>	\$100,124	<u>\$ 94,522</u>
iceme, Earnings, and Oividends					
	\$ 20,538	\$ 19,627	\$ 19,796	\$ 21,321	\$ 20,382
arnings on common stock	\$ 19,962	\$ 19,034	\$ 18,696	\$ 19,515	\$ 17,914
arnings per average common share	\$2.98	\$2.90	\$2.87	\$3.04	\$2.86
Cash dividends paid per common share	\$2.45	\$2.39	\$2.32	\$2.24	\$2.14
ssets (year end)					
llectric	\$268,216	\$249,878	\$240,809	\$221,577	\$217,501
Gas	88,898	84,096	81,858	80,950	75,893
Assets not allocated	31,335	30,741	30,462	33,846	35,752
Total	\$388,449	\$364,715	\$353,129	\$336,373	\$329,146
nternal Generation of Cash					
otal cash used for construction					
expenditures and nuclear fuel	\$ 36,984	\$ 32,644	\$ 31,409	\$ 29,670	\$ 30,975
ercent generated internally	64.7%	70.9%	71.9%		85.5%
ong-term Oebt and Redeemahle					
referred Stock, Net (year end)	\$148,206	\$139,338	\$147,032	\$129,116	\$131,762
apitalization Raties (year end)					
Common shareholders' equity	47.4%	47.9%	48.2%	50.3%	48.39
edeemable preferred stock*	2.0	2.2	2.4	4.9	10.1
.ong-term debt*	43.9	46.2	49.4	44.0	41.6
Short-term debt (interim loans)	6.7	3.7	—	.8	

*Includes current maturities and current sinking fund requirements.

mcôe

27

Future Financial Outlook

Electric Operations

The stable economic environment in Madison, due mainly to the concentration of governmental, educational, and medical activities, has provided years of steady growth in sales of electricity for Madison Gas and Electric Company. This is a trend we expect to continue into the future. The Company has sufficient electric capacity to meet its demand into the 1990s and is exploring new opportunities for meeting future demands. A record peak electricity demand of 517,000 kw was set this past summer. This is the third consecutive year that the Company has established a new peak. This new peak load served, which is over 8 percent higher than the previous peak of 477,000 kw established in 1987, is primarily due to the warmer-than-normal weather at the time the peak occurred.

We expect the rate of new electric customer additions to be about 1.6 percent per year during the next three years. Retail electricity sales are expected to increase at an annual rate of about 2.6 percent through 1991.

Our electricity generation mix should continue much the same as in the past few years. Production at the highly efficient Kewaunee Nuclear Plant will provide about one-third of our electric needs, with slightly more than 60 percent of our requirements coming from our coal-fired plants. This will allow us to limit use of oil and natural gas, which are our most expensive sources of energy.

Gas Operations

Since 1984, the Company's service territory has grown from 750 to 962 square miles. A variety of customer growth opportunities exist in our expanded natural gas service territory. We will continue to capitalize on these new opportunities.

The addition of customers throughout the service area has resulted in the Company's customer base growing at an annual rate of 3.4 percent since 1984. We forecast that annual increases in customers over the next three years will moderate to around 2.7 percent.

In November, 1987, the Company began offering a full range of purchasing options to its interruptible classes, such as the "Best Efforts" option (see Note 5). Under this option, a majority of the customers the Company was transporting gas for during most of 1987 are now buying the gas directly from the Company. Thus, during 1988, increased sales were recorded as compared to 1987, resulting in higher reported revenues and costs of gas. Another significant change that will come into effect during 1989 is take-or-pay contract settlements by ANR Pipeline Company being charged to the Company (see Note 6). The Public Service Commission of Wisconsin (PSCW) has ruled that the Company will be allowed the opportunity to recover in its rates the take-or-pay costs, which are expected to total \$5-6 million.

By purchasing a portion of gas system needs on the open market, the Company saved over \$10 million of gas costs in 1988. We expect to continue these purchasing practices, thereby offsetting the take-or-pay costs. The net savings will be passed on to our customers through lower rates as they were in 1988. All gas purchases will continue to be monitored closely to assure that adequate supplies of natural gas will be available to meet the long-term needs of our customers.

We anticipate that growth in our gas sales and revenues will moderate during the next few years, with growth at or slightly higher than our forecasted growth in customers.

Earnings

Earnings in 1988 increased to \$2.98 per share from the \$2.90 reported in 1987. We anticipate that earnings should continue to remain stable at current levels over the next few years for a number of reasons. Our continuing efforts to minimize costs, consistent with providing quality service, will make us more efficient. The expected growth in customers, sales, and revenues, as set forth above, will strengthen our base. We also anticipate that future PSCW rate orders will meet the Company's needs.

The Company intends to continue the practice, adopted by the PSCW a number of years ago, of filing for annual rate reviews which reflect current costs of operation.

Oividends

The trend of increasing dividends paid per share has continued. On average, during the years 1986 through 1988, common dividends paid were 82 percent of earnings. This level is slightly higher than what the Company hopes to achieve over the long term. We will continue to maintain a dividend policy which provides a return to shareholders while maintaining the value of their investment, consistent with the Company's capitalization and financing needs.

Capitalization

The Company's current capital structure continues to remain strong. During 1988, our Automatic Dividend Reinvestment and Stock Purchase Plan added over \$5 million to common equity. In September, 1988, the Plan was amended to include customers and employees, and to make it more flexible for all participants. The Plan will continue into the future. In October, 1988, \$6.5 million of our $4\frac{5}{6}$ % First Mortgage Bonds, 1988 Series, matured. To finance this, the Company privately issued \$10 million of 9.65% bonds due in 1992. The remaining proceeds were used to reduce commercial paper outstanding, which has increased, as expected, due mainly to a higher construction program. The Company's goal is to achieve and maintain a capital structure of about 50 to 55 percent common equity, up to 5 percent preferred stock, and 40 to 50 percent debt.

Regulation

Regulation in Wisconsin by the PSCW has historically been progressive in nature and has balanced the needs of both the consumer and investor. We believe that the PSCW will pursue policies in the future which will maintain the financial health of the Company.

Oiversification

The Company currently has no plans to significantly diversify its operations. However, in keeping with a corporate objective established a number of years ago, we will continue to explore growth opportunities related to energy services which will profitably enhance the Company's ability to improve service to its customers.

Construction Program

Total construction expenditures over the next several years are expected to average about \$35 million annually, only slightly higher than the average expenditures for the years 1986 through 1988. The annual construction expenditures should continue to be less than 10 percent of our gross plant in service and our total assets. The Company expects that on average, over 75 percent of these future expenditures will be financed using internally

generated cash. Through these expenditures the Company will have efficient, up-to-date facilities for providing reliable service to customers and for meeting their future energy needs.

Expenditures for construction and nuclear fuel estimated for 1989, actual for 1988, and the average for the three-year period 1985 to 1987, are shown below.

For the years ended December 31	1989 Estimated		1988		Annual Average 1985-1987	
Electric Oepartment	(Thousands of Dollars)					
Production plant Transmission plant	\$ 4,600	13%	\$ 8,163	22%	\$ 5,745	18%
Transmission plant Distribution plant	6,400	18	3,723	10	3,326	11
Nuclear fuel	8,500	25	13,029	35	9,331	30
Total Electric	3,200	<u> </u>	<u>2,945</u>	8	2,661	8
Gas Oepartment	22,700	65	27,860	75	21,063	67
Utility Plant Common to Both Oepartments	6,000	17	7,559	21	6,729	22
Total	6,300	<u>18</u>	1,565	4	3,449	_11
	\$35,000	<u>100</u> %	<u>\$36,984</u>	<u>100</u> %	\$31,241	<u>100</u> %



First row, seated (from left), Blaney, Manchester, Helfrecht. Second row, (from left), Mebane, Bolz, Lawrence, Rennebohm, Stark, Vondrasek, Mohs, Swanson.

Board of Directers

Richard E. Blaney President and Manager, Richard Blaney Seeds Inc. Age 52, Director Since 1974

Robert M. Bolz Retired Vice Chairman, Oscar Mayer Foods Corp. Age 66, Director Since 1972

Donald J. Helfrecht Chairman and Chief Executive Officer Age 67, Director Since 1972

Richard M. Lawrence Vice President - Public Affairs Age 62, Director Since 1988

Jean N. Manchester Advisor to the Chairman, Neesvig's Inc. Age 62, Director Since 1982

David C. Mebane Senior Vice President and General Counsel Age 55, Director Since 1984

Frederic E. Mohs Partner, Mohs, MacDonald & Widder, Attorneys at Law Age 51, Director Since 1975 Robert B. Rennebohm Consultant and Former President of the University of Wisconsin Foundation Age 66, Director Since 1983

Phillip C. Stark President, The Stark Company Age 63, Director Since 1985

H. Lee Swanson President, State Bank of Cross Plains Age 50, Director Since 1988

Frank C. Vondrasek President and Chief Operating Officer Age 60, Director Since 1982

Audit Committee

Directors Blaney, Bolz, Manchester, Mohs, Rennebohm, Stark and Swanson

Compensation Cemmitteo Directors Blaney, Bolz, Helfrecht, Mohs and Vondrasek

Executive Committee Directors Blaney, Helfrecht, Manchester, Mebane, Mohs, Rennebohm and Vondrasek



First row, seated (from left), Barlow, Bethke. Second row, (from left), Duncan, Thies, Schuh, Phipps, St. John, Krzos.

Dfficers of the Company

Donald J. Helfrecht Chairman and Chief Executive Officer Age 67, Years of Service, 42

Frank C. Vondrasek President and Chief Operating Officer Age 60, Years of Service, 18

Kent M. Barlow Senior Vice President - Electric Systems Age 54, Years of Service, 27

David C. Mebane Senior Vice President and General Counsel Age 55, Years of Service, 11

G. Howard Phipps Senior Vice President - Finance Age 45, Years of Service, 16

Terrence J. Schuh Senior Vice President - Gas Systems Age 46, Years of Service, 20

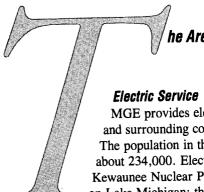
Richard M. Lawrence Vice President - Public Affairs Age 62, Years of Service, 38 Richard H. Thies Vice President - Gas Systems Operation Age 47, Years of Service, 25

Dale W. St. John Secretary and Director - Risk Management Age 64, Years of Service, 24

Joseph T. Krzos Treasurer Age 45, Years of Service, 6

Carol A. Bethke Assistant Secretary - Administration and Investor Relations Age 49, Years of Service, 22

Beverly R. Duncan Assistant Secretary - Corporate Affairs Age 57, Years of Service, 38



he Area We Serve

MGE provides electric service in Madison and surrounding communities in Dane County. The population in the electric service area is about 234,000. Electricity is supplied by the Kewaunee Nuclear Plant, northeast of Madison on Lake Michigan; the Columbia Energy Center, near Portage, Wis.; and the Blount Station and several combustion turbines located in Madison.

Natural Gas Service

MGE provides natural gas service in Dane, Columbia and Iowa counties. The population in the gas service area is about 290,000. MGE purchases gas from ANR Pipeline Co. and from other sources for distribution to customers. The company also contracts with some customers to purchase and transport gas for them.



hareholdor Information

Shareholder Services

MGE welcomes calls for information from its shareholders. Please use the toll-free telephone numbers below for questions about shareholder accounts, dividend payments, dividend rein-

vestment, lost certificates and stock transfers: Other Wisconsin locations 1-800-362-6423 Outside Wisconsin1-800-356-6423 (Continental U.S.)

Be sure to notify MGE immediately, in writing, when a stock certificate is lost or stolen. Also notify MGE when a dividend check is not received within 10 days of the scheduled payment date and promptly when a name or address change occurs.

If you prefer to write, address correspondence to: MGE Shareholder Services

Post Office Box 1231 Madison, Wis. 53701-1231

Goneral Offices

133 S. Blair St. Madison, Wis. 53701-1231 (Use this address for messenger services.) Telephone – (608) 252-7000 Business hours - 8 a.m. to 4:30 p.m., Central Time, Monday through Friday

Mailing Addross

Post Office Box 1231 Madison, Wis. 53701-1231

Transfor Agent & Registrar

Harris Trust and Savings Bank 111 W. Monroe St. Chicago, 111. 60603

1989 Annual Meoting

The annual meeting of shareholders will be held Thursday, April 27, 1989, at 2 p.m. in the Madison Civic Center, 211 State St., Madison, Wis.

Stock Listing

The common stock of MGE is traded over-the-counter (OTC), is reported through the NASDAQ System (symbol: MDSN) and is quoted in the NASD National Market System. It is listed in newspaper stock tables as MadGE.

Dividend Paymont Datos

Dividends on the company's common stock in 1989 are expected to be paid quarterly on or about the 15th of March, June, September and December.

The record date for dividend payments is usually the first day of the payment month.

Dividond Reinvestmont and Stock Purchaso Plan

The MGE Automatic Dividend Reinvestment and Stock Purchase Plan was revised and expanded Sept. 21, 1988. This plan is available to all shareholders; all employees and all customers of MGE.

Quarterly dividends are automatically reinvested in shares of MGE common stock. Participants may make optional cash payments of \$10 to \$3,000 each quarter to purchase shares of MGE common stock.

For more information, contact MGE Shareholder Services to receive the plan prospectus. An offer to sell common stock can only be made through the prospectus.

Reports Available

Upon request, the company will furnish to any shareholder a copy of its 1988 annual report on Form 10-K as filed with the Securities and Exchange Commission.

A Statistical Supplement to this annual report to shareholders, containing additional financial and operating data, also is available to shareholders.

-NOTICE-

с С 1

V

10

³⁰O. Box 1231 Madison, Wisconsin 53701-1231 Address Correction Requested ۲

THE ATTACHED FILES ARE OFFICIAL RE-CORDS OF THE RECORDS & REPORTS MANAGEMENT BRANCH. THEY HAVE BEEN CHARGED TO YOU FOR A LIMITED TIME PERIOD AND MUST BE RETURNED TO THE **RECORDS & ARCHIVES SERVICES SECTION** P1-122 WHITE FLINT. PLEASE DO NOT DOCUMENTS CHARGED OUT SEND THROUGH THE MAIL. REMOVAL OF ANY PAGE(S) FROM DOCUMENT FOR REPRO-DUCTION MUST BE REFERRED TO FILE PERSONNEL.

> -NOTICE-8903280120

25

Bulk Rate U.S. Postage **PAID** Madison, WI Permit No. 798