



Madison Gas and Electric Company

Annual Report 1987

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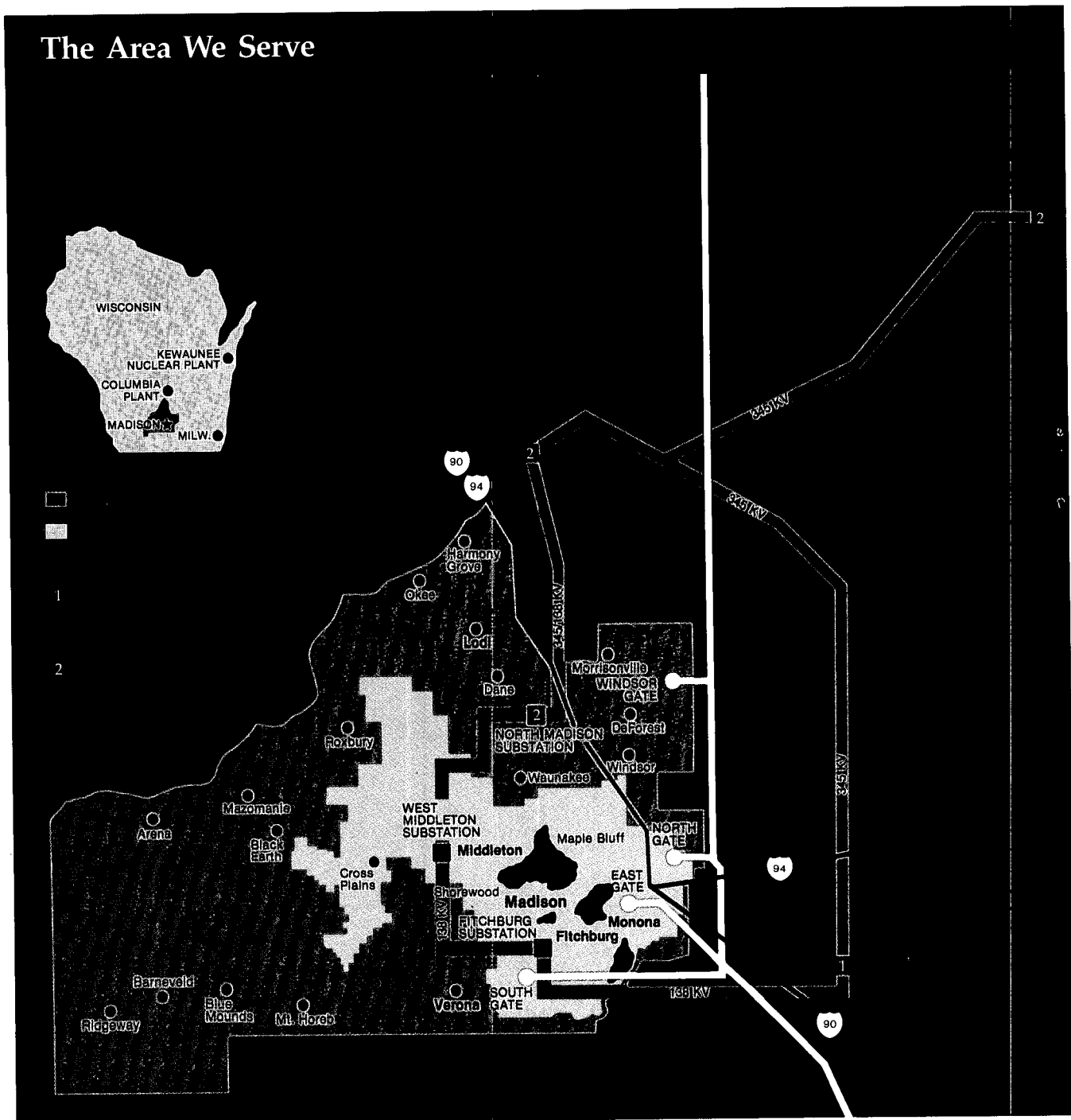
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## Business Description

MGE generates, transmits and distributes electric power to nearly 108,000 customers in a 250-square-mile area, and purchases, transports and distributes natural gas to more than 79,000 customers in a 944-square-mile area.

### The Area We Serve



## Year at a Glance

|  | 1987               | 1986               | Percent increase<br>(decrease)<br>1987-1986 |
|--|--------------------|--------------------|---|
| Operating revenues.....                            | \$202,133,000      | \$210,347,000      | (3.9)%                                      |
| Operating expenses.....                            | \$171,876,000      | \$181,340,000      | (5.2)                                       |
| Net operating income.....                          | \$ 30,257,000      | \$ 29,007,000      | 4.3   |
| Earnings on common stock.....                      | \$ 19,034,000      | \$ 18,696,000      | 1.8   |
| Earnings per common share outstanding.....         | \$ 2.90            | \$ 2.87            | 1.0   |
| Cash dividends paid per common share.....          | \$ 2.39            | \$ 2.32            | 3.0   |
| Market value per common share—year end.....        | \$ 32.75           | \$ 34.75           | (5.8)                                       |
| Book value per common share—year end.....          | \$ 21.76           | \$ 21.03           | 3.5   |
| Electric sales to consumers.....                   | 2,062,000 mwh      | 1,960,000 mwh      | 5.2   |
| Electric customers in service—year end.....        | 107,938            | 106,250            | 1.6   |
| Average use per residential customer.....          | 6,400 kwh          | 6,222 kwh          | 2.9   |
| Cooling degree-days.....                           | 766                | 519                | 47.6  |
| Electric system one-hour net peak demand.....      | 477,000 kw         | 447,000 kw         | 6.7   |
| Gas sales to consumers and transported.....        | 151,436,000 therms | 156,441,000 therms | (3.2)                                       |
| Gas customers in service—year end.....             | 79,220             | 76,559             | 3.5   |
| Average use per residential heating customer...    | 1,015 therms       | 1,124 therms       | (9.7)                                       |
| Heating degree-days.....                           | 6,528              | 7,266              | (10.2)                                      |
| Gas system peak day.....                           | 1,261,000 therms   | 1,359,000 therms   | (7.2)                                       |
| Investment in plant.....                           | \$535,153,000      | \$504,997,000      | 6.0   |
| Total capitalization (including interim loans).... | \$301,194,000      | \$283,911,000      | 6.1   |
| Employees—year end.....                            | 790                | 765                | 3.3   |

### About the Cover

Promega Corp., a producer of biological enzymes for research, is among the 500 fastest-growing companies in the U.S. (Inset) MGE continues to successfully meet the energy needs of its service area's growing economy cost efficiently. Coal produces more than 60% of the electricity generated by MGE. Natural gas service is being extended to areas where it was not previously available.

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## Letter to Shareholders

"Energy for a Growing Economy" was the major emphasis of your company's activities during 1987. MGE's continued growth and profitability depend on the prosperity of the communities we serve so we continue to actively participate in economic development programs.

As the provider of basic energy services, we are uniquely qualified to understand and serve the energy and related needs of our area. Our efforts in this regard helped make 1987 a year of growth for our company and our community. The programs we have established in community assistance will continue.

More than 210 high-technology companies are now operating in our service area due principally to the presence of the University of Wisconsin-Madison, a world-class research center and the third-highest research-funded institution in the U.S. This is the third consecutive year of high-technology growth with no sign of decline.

Another indication of our area's vitality is the nearly \$177 million of commercial and industrial construction in progress during 1987.

Our commitment to the economic betterment of our service area is illustrated further by our continued participation in a joint utility-university-industry research team. This team was awarded a \$14 million contract in November for research, development and design of a superconductive energy-storage project.

### Earnings and Dividends

In 1987, we continued the quality of operating performance we have achieved in recent years. In fact, our earnings of \$2.90 per share of common stock were somewhat improved from the \$2.87 earned in 1986. Factors that positively influenced the earnings were warm summer weather, the continued addition of new customers and our continuing successful cost-control efforts.

Continued electricity customer growth and warmer-than-normal weather during June and July increased electricity demand to record peaks. Sales and revenue levels also achieved all-time highs. Partially offsetting these results was the mild weather experienced during the major heating months of 1987 which negatively affected gas sales and revenues.



Donald J. Helfrecht

In September, the annual dividend rate on our common stock was increased to \$2.42 per share. This marked the seventh straight year that the dividend has been increased in September. These increases reflect our continuing commitment to our shareholders.

### Rate Matters

On May 28, 1987, the Public Service Commission of Wisconsin issued its annual rate order. It authorized a decrease in annual retail electricity revenues of \$8.8 million. Gas revenues remained relatively unchanged. The order was based on projections for a test year ending April 30, 1988, and on an authorized return on common stock equity of 13.5%. We have appealed a portion of that order relating to income tax matters and amounting to \$1.3 million of the annual decrease.

Our annual rate application was filed with the Wisconsin commission in October. It proposes increases in retail revenues of \$8.2 million annually.

#### **Gas Area Extended**

Natural gas service was extended eight miles to the village of Ridgeway in Iowa County during 1987. About 140 residential and 30 commercial customers are expected to be served by this system expansion. This action, along with extensions to Arena and Barneveld completed in previous years, improves the quality of life and increases the potential for economic development in this area.

#### **Electricity Demand Increases**

An all-time one-hour peak demand of 477,000 kilowatts was reached on July 20, 1987, exceeding by nearly 7% the previous peak demand reached in 1986. This increase was primarily the result of very warm and humid weather plus continued customer growth. Our estimates for future growth, which are based on long-term weather and economic trend studies, indicate continued increases on a more gradual basis.

Our very sufficient gas and electric capacity, coupled with our state-of-the-art distribution systems, will serve the anticipated growth and expansion of our service areas into the 1990s.

#### **Service Area Expanding**

Wisconsin is achieving new levels of prosperity, and Madison is building significantly on its historically stable economic base. Indicators include:

- A projected increase of 11.8% in non-farm employment from 1985 to 1996;
- A shift from machinery and heavy equipment manufacturing to high-technology fields such as electronic components, communications equipment, biotechnology, computer products and semiconductors;
- A net increase of 20,000 jobs in Madison during the last five years.

#### **Senior Management Changes**

Effective Jan. 1, 1988, Frank C. Vondrasek became the company's president and chief operating officer. He joined MGE in 1970, served most recently as executive vice president and is a member of the

company's board of directors. I will continue as chairman and chief executive officer.

In other senior management promotions that became effective Jan. 1, 1988:

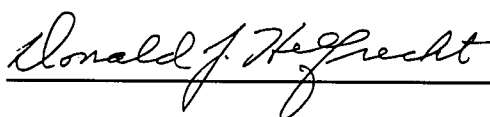
- Kent M. Barlow became senior vice president - electric systems,
- David C. Mebane became senior vice president and general counsel,
- G. Howard Phipps became senior vice president - finance and
- Terrence J. Schuh became senior vice president - gas systems.

These changes have been made to better align reporting responsibilities in this era of rapidly changing roles for energy utilities and also to better utilize the capabilities and resources of our management team.

On Feb. 1, 1988, Senior Vice President - Administration Gerald Wilson retired after completing 21 years of service with MGE. His knowledge and expertise in the areas of energy supply and administration over the years were extremely valuable. He also retired from the company's board of directors on which he had served since 1983. Vice President - Public Affairs Richard M. Lawrence was elected to the board to serve in Mr. Wilson's place.

Also in February 1988, after more than 16 years of service, John L. Sonderegger retired from our board of directors. The wise advice and counsel he gave during his long years of service were greatly appreciated. H. Lee Swanson, president of the State Bank of Cross Plains, was elected to the board to serve in Mr. Sonderegger's place.

On behalf of the board of directors:



Donald J. Helfrecht  
Chairman and Chief Executive Officer  
Feb. 26, 1988



### New Electric Peak Set

Coal, uranium and, to a lesser extent, gas and oil produce electricity for MGE customers. Demand for electricity reached an all-time peak of 477,000 kw during a one-hour period July 20, 1987. That is nearly 7% higher than the 1986 record.

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## Electricity Demand Record Set

MGE and other utilities in the Wisconsin-Upper Michigan Systems filed Advance Plan 5 with the Public Service Commission of Wisconsin (PSCW) in October. The plan projects energy consumption and peak demand, as well as how the company will meet this demand over the next 20 years. This includes demand-side options to alter customers' usage patterns that benefit both the customers and MGE.

## Electricity System Improvements Made

The PSCW also recently approved construction of a new 138/13.8-kv transmission substation, with initial operation at 69-kv. The project includes six miles of transmission line linking the new Sprecher substation, on the East Side of Madison, to the existing Sycamore substation. Analysis determined that an additional electricity source is necessary for adequate and reliable service to this area. This \$3 million project will be completed in 1988.

## EMS Begins Operating

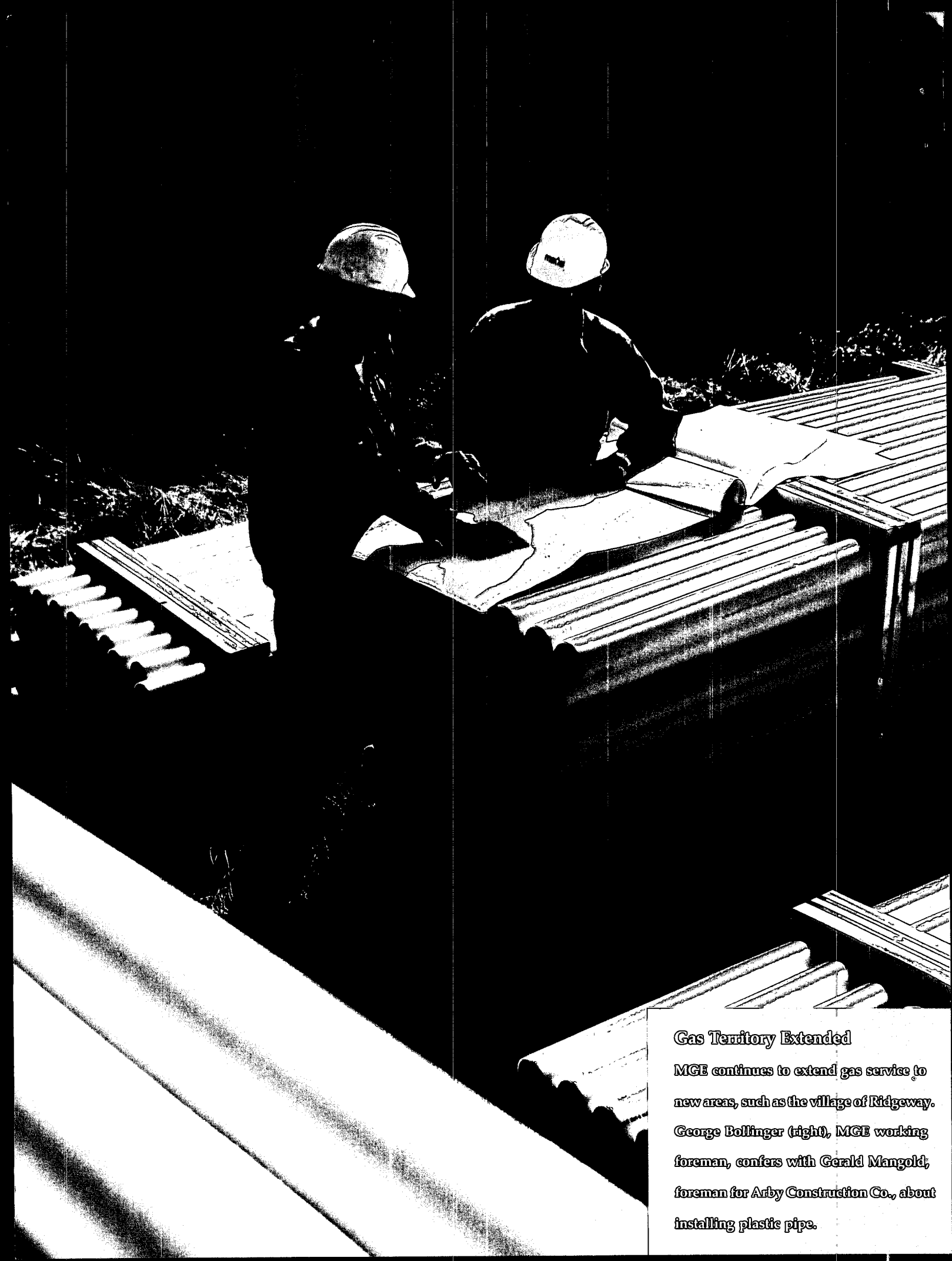
Phase one consists of Supervisory Control and Data Acquisition (SCADA) of 20 substations. SCADA allows the operator to monitor power flowing on power lines and to remotely open and close circuit breakers in a substation. As a result, the operator can take action to alleviate or prevent overloaded lines and restore power with greater responsiveness.

## Superconductivity Grant Received

The company is part of a team awarded a \$14 million government contract to develop, research, engineer and design a Superconductive Magnetic Energy Storage System (SMES). This project will store lower-cost energy generated during low-demand periods for use during peak demand. It could increase the usefulness of existing generating plants and could delay future plant construction.

MGE installed 2,382 new gas services. Although this is 10% fewer than the record number in 1986, the amount of gas main installed increased 46% from the year before. More than 69 miles of new main was constructed, the most since the mid-1960s.

Continued



### Gas Territory Extended

MGE continues to extend gas service to new areas, such as the village of Ridgeway. George Bollinger (right), MGE working foreman, confers with Gerald Mangold, foreman for Arby Construction Co., about installing plastic pipe.



Verona and Fitchburg gas distribution systems together. This will provide additional reliability to a fast-growing area.

Extending gas service to the village of Ridgeway involved constructing more than eight miles of main. The project made service available to 140 residential customers and 30 commercial customers. The company estimates nearly \$229,000 in revenues from these new customers during the first year of service.

### **Gas Transport**

"Best Efforts" interruptible gas service rates went into effect for qualifying commercial and industrial customers late in 1987. MGE purchases gas on the open market and transports it to the customers who choose these rates. Larger volume customers who wish to purchase gas on the spot market but who do not want to handle the transaction individually take advantage of this rate. Fifteen customers were receiving this service at year-end.

In addition, six customers were receiving transportation gas service at the end of 1987.

### **Quality Customer Service Continues**

The Major Accounts Program continued to provide services to large commercial and industrial customers. During 1987, 130 customers were contacted for energy analyses, suggestions on energy efficiency improvements and rate information.

MGE began offering energy analysis services to farm customers. Company representatives contact farmers and make recommendations on energy-saving management and maintenance practices as well as improvements and investments. They look at water heating, lighting, electric motors, ventilation and refrigeration equipment, insulation, wiring systems and watering systems.

The residential rebate program added 550 new gas space-heating customers and more than 350 new gas water-heating customers in 1987.

The Good Cents Home program's success continued with a 25% penetration of the new construction market in the service territory. To qualify, new home construction must meet high energy efficiency standards. Through this program,

MGE serviced and certified more than 250 buildings and apartments during 1987.

Results of a commercial customer survey showed that 82% of these customers consider MGE staff and literature the most reliable sources of information on energy actions and investments. The company is establishing itself as "The Energy Information People."

MGE also initiated a "Gatekeeper Program" for helping elderly customers. Through this program, customer-contact employees report signs, symptoms or actions that cause concern for the health or safety of older adults. The concerns are quickly referred to one of three local agencies for follow-up. Customers are put in contact with resources they may not have known about otherwise.

The company was honored for its work in helping improve Madison. Downtown Madison Inc., which markets and promotes the downtown area, presented a "Downtown Salute" award to MGE for corporate leadership.

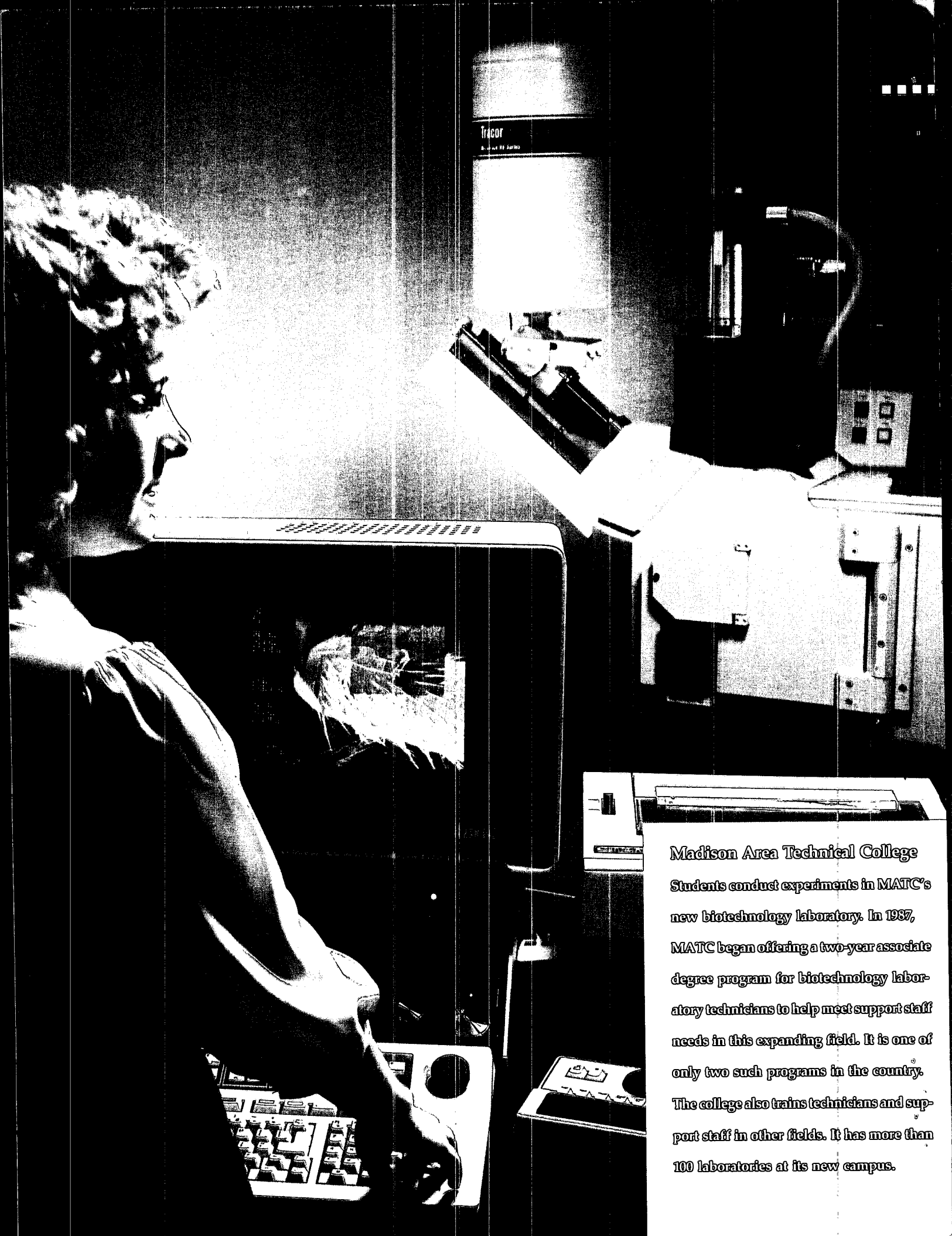
### **Organizational Improvements Made**

Several organizational changes have strengthened the company's economic development efforts. A new Economic Development Section was created in the Public Affairs Department, and Corporate Planning is now based in Public Affairs.

A reorganization in the Market and Energy Utilization Services Department consolidates all energy services for customers in one marketing organization. A new Business Development Section was created to coordinate the marketing side of MGE's business and economic development activities.

In addition, commercial and industrial market services were combined into one section, resulting in a larger set of programs and activities. Programs and services for rental properties were also combined.

The company established a formal risk-management and loss-prevention function in 1987. This function identifies and addresses risks associated with fire, general property and all general types of liability exposures. The MGE risk-management director determines the type and amount of insurance needed with self-insurance being one option.



**Madison Area Technical College**  
Students conduct experiments in MATC's new biotechnology laboratory. In 1987, MATC began offering a two-year associate degree program for biotechnology laboratory technicians to help meet support staff needs in this expanding field. It is one of only two such programs in the country. The college also trains technicians and support staff in other fields. It has more than 100 laboratories at its new campus.

## Tracor Northern

Tracor Electron Beam Instruments, a division of Tracor Northern, Middleton, introduced the world's first fully integrated, totally automated scanning electron microscope in 1987. Jacqueline Esser, an employee, demonstrates the new system. Tracor Northern, which was founded in 1964, employs more than 260 in Middleton and also markets its products overseas, including in the People's Republic of China.

## Energy for a Growing Economy

MGE invests substantial staff time and financial resources in economic development for its service area. Its activities support the company's theme: "The Future Is Here." These efforts—along with plentiful, competitively priced, reliable natural gas and electricity service—helped produce highly visible results in 1987.

### Service Area Profiled

Most of MGE's service territory is in Dane County, with small portions in neighboring Columbia and Iowa Counties. The estimated 1987 population of the service area was 285,680, 5.4% higher than in 1980.

Stable employment has long been a major characteristic of the area's economy. Since both the State Capitol and the University of Wisconsin are located in Madison, government and education account for much of this stability. The Madison area consistently has the lowest unemployment rate in the state.

Although the rate of growth in public-sector employment has leveled off in recent years, new job creation in the private sector has experienced sustained growth. More than 20,000 new jobs have been added in the private sector in Dane County during the last five years, resulting in an annual growth rate of more than 3.5%.

### High Technology Grows

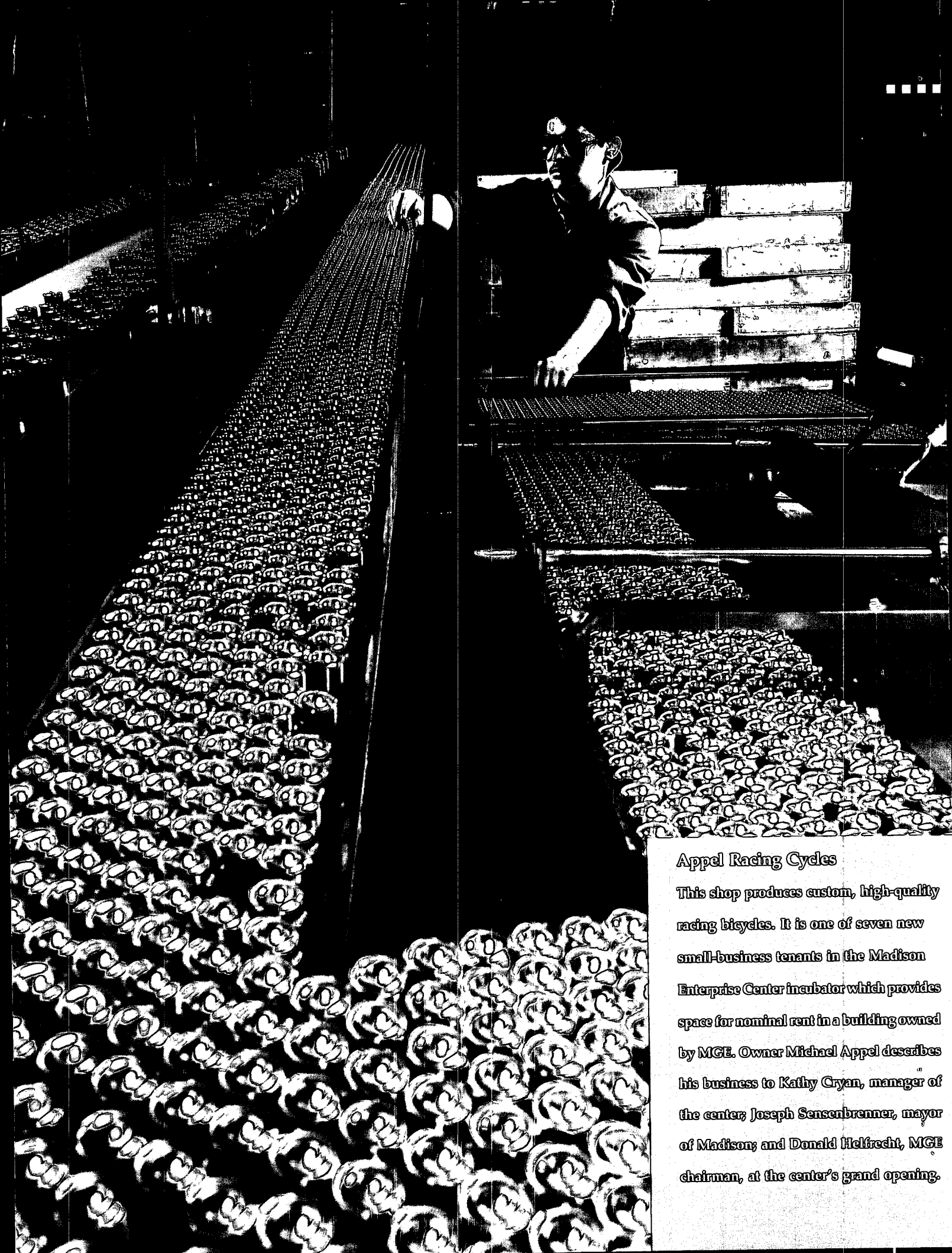
Many of the most rapidly growing firms in the area produce high-technology products and services. Late in 1987, MGE and the city of Madison compiled a directory of area high-tech firms. Of the more than 200 such companies, 20% are in manufacturing. Many are engaged in software and other computer-related products and services, biotechnology, medical/biomedical research and microelectronics.

As a whole, the number of high-tech firms in the area is growing at about 7% per year. While these firms currently account for about 3% of total employment, their employment is increasing more than 8.5% per year.

The University of Wisconsin-Madison stimulates much of this high-tech growth. A world-class research center, the UW ranks third in the nation in total funding for research and development. Its Research Park is currently constructing two 10,000-square-foot office and laboratory buildings. Part of the University Science Center, the buildings will account for nearly 30% of the planned 70,000-square-foot complex. They are designed to attract small, rapidly growing research companies that require specialized space on a limited budget. MGE is supporting the project.

*Continued*





### Appel Racing Cycles

This shop produces custom, high-quality racing bicycles. It is one of seven new small-business tenants in the Madison Enterprise Center incubator which provides space for nominal rent in a building owned by MGE. Owner Michael Appel describes his business to Kathy Cryan, manager of the center; Joseph Sensenbrenner, mayor of Madison; and Donald Helfrecht, MGE chairman, at the center's grand opening.

## Rayovac Corp.

Dry cell batteries roll off the production line at Rayovac's plant in Madison as Angelo Bribiesca checks them. Rayovac maintains its world headquarters and technology center in Madison. Its new headquarters building was completed in 1986, and the company is building a \$2.5 million distribution center in Middleton. Rayovac, which began in Madison more than 80 years ago, employs about 600 in the Madison area.

Also stimulating high-tech and entrepreneurial development are four business incubators in the Madison area. They provide low-cost space and shared services for new businesses until they are able to operate on their own. MGE provides space in one of its buildings for the Madison Enterprise Center incubator, which currently houses seven start-up firms. A nonprofit community organization operates the center.

MGE joined with several government agencies to co-sponsor a Small Business Innovation Research Conference and Workshop last fall. Some 130 business people participated in the conference, which outlined how local firms can more successfully compete for \$2.5 billion in research and development funds that federal agencies will grant to small firms during the next five years.

MGE ranked 16th nationally among electric utilities in supporting research, development and demonstration in 1986. The ranking by the TECC Group Inc., a consulting firm, was based on RD&D funding as a percentage of revenue.

## Commercial Investment Increases

Another indication of economic vitality is the increase in commercial and industrial construction in 1987. More than 370 projects costing nearly \$177 million were begun or completed in Dane County. They include new construction, expansion, and remodeling and alterations. The city of Madison accounts for about three-quarters of the total projects and costs.

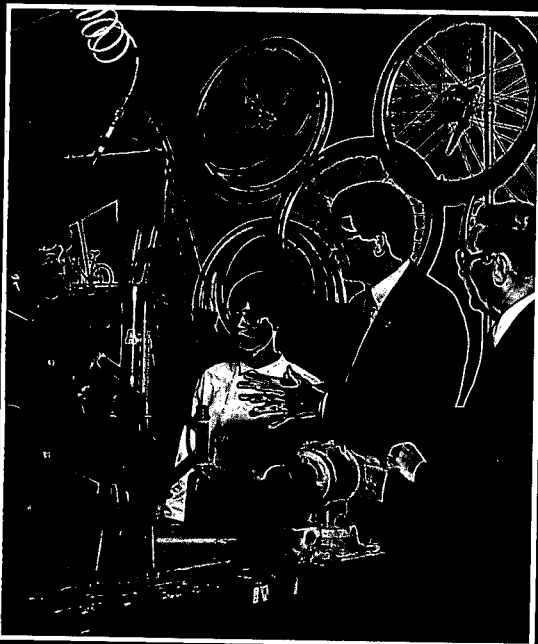
Investment in new and expansion construction in 1987 was 6% higher than the 1986 record amount. Medical and other institutional construction makes up 31% of the investments, followed by office construction, 24%; retail, 22%; plant/manufacturing (including distribution and warehouse), 16%; and hotel/motel, nearly 7%.

Major projects in the medical/institutional category include two at the University of Wisconsin, the new \$9.5 million McClain indoor sports facility and an \$8.8 million expansion of the Clinical Sciences Center. In addition, the Dean Medical Center is expanding its Madison clinic at a cost of \$6.5 million; this is expected to add 30 physicians and 100 support staff members. St. Marys Hospital Medical Center in Madison completed a \$5 million project in 1987.

## MGE Provides Community Assistance

The company also continues to aid smaller communities in its service area with their economic development. As one example, MGE helped the Barneveld-Brigham Development Corp. successfully apply for a \$40,000 community development grant and provided a \$2,000 private-sector matching grant in 1987. This makes the development corporation eligible

*Continued*



to compete for an additional grant of \$250,000 this year.

MGE is also helping produce a detailed economic development guide for community leaders.

### **Growth Pace Continuing**

Recently announced new projects as well as a business retention survey indicate continued strong economic activity in the area.

Lands' End, a national mail-order merchandiser with corporate and processing facilities in Dodgeville, Wis., has announced plans to build a new 10,000-square-foot satellite telemarketing center in the village of Cross Plains. The firm expects to hire 100 people initially and eventually as many as 400.

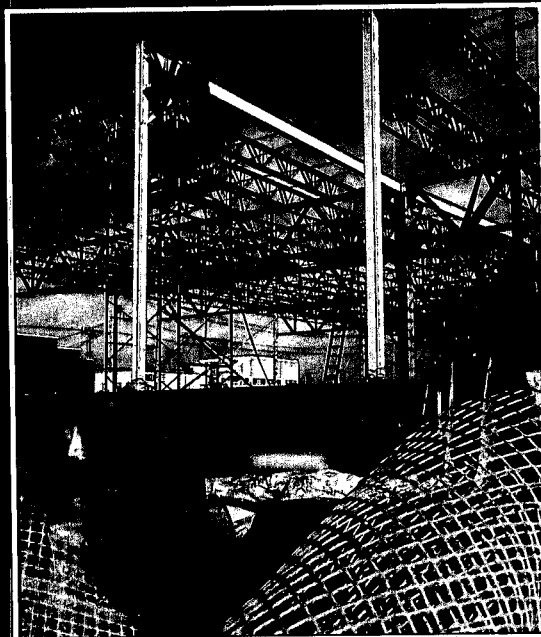
American Family Insurance Co., the area's second largest private employer, also plans major expansion on the East Side of Madison, including a new headquarters building.

In order to provide continued responsive service and guidance to growing firms, MGE assisted with a business retention survey in 1987. The survey of executives in 155 companies in Dane County reveals that 39% of the local firms plan to expand their present facilities. In addition, executives project a 32% increase in employment over the next five years. This is double the percentage projected for the state of Wisconsin.

The Madison area is successfully capitalizing on its economic strengths to encourage and sustain growth. MGE will continue to take the lead in helping its service area prosper.

### **Madison Water Utility**

The Madison Water Utility's new \$1.4 million building in Madison will be used for storing materials and vehicles. The utility has made other recent system improvements to ensure an adequate water supply for businesses and residences in developing areas. As with electricity and natural gas, the water supply throughout Dane County is plentiful and of high quality.



## Summary of Selected Financial Data

| (Thousands of Dollars Except Per-Share Amounts)                       | 1987             | 1986             | 1985             | 1984             | 1983             |
|---|------------------|------------------|------------------|------------------|------------------|
| <b>Electric Operating Revenues</b>                                    |                  |                  |                  |                  |                  |
| Residential .....   | \$ 42,987        | \$ 41,460        | \$ 40,640        | \$ 39,689        | \$ 38,454        |
| Commercial power and lighting .....                                   | 65,934           | 65,736           | 63,336           | 61,252           | 57,401           |
| Industrial power and lighting .....                                   | 5,627            | 5,818            | 5,663            | 5,768            | 5,513            |
| Street and highway lighting and public authorities ..                 | 8,992            | 9,537            | 9,718            | 9,494            | 9,217            |
| Other utilities .....   | 1,299            | 2,284            | 4,046            | 8,662            | 9,900            |
| Miscellaneous .....   | 489              | 548              | 337              | 475              | 165              |
| Total Electric Revenues .....   | <u>\$125,328</u> | <u>\$125,383</u> | <u>\$123,740</u> | <u>\$125,340</u> | <u>\$120,650</u> |
| <b>Gas Operating Revenues</b>   |                  |                  |                  |                  |                  |
| Residential .....   | \$ 41,788        | \$ 44,349        | \$ 49,320        | \$ 46,808        | \$ 45,409        |
| Commercial .....  | 29,942           | 33,700           | 39,518           | 37,090           | 38,310           |
| Interruptible boiler fuel .....                                       | 883              | 2,665            | 7,026            | 6,627            | 4,920            |
| Industrial .....  | 2,623            | 3,481            | 3,966            | 3,695            | 4,567            |
| Gas transport, net .....  | 1,286            | 470              | —                | —                | —                |
| Miscellaneous .....   | 283              | 299              | 294              | 302              | 247              |
| Total Gas Revenues .....  | <u>\$ 76,805</u> | <u>\$ 84,964</u> | <u>\$100,124</u> | <u>\$ 94,522</u> | <u>\$ 93,453</u> |
| <b>Income, Earnings, and Dividends</b>                                |                  |                  |                  |                  |                  |
| Net income .....  | \$ 19,627        | \$ 19,796        | \$ 21,321        | \$ 20,382        | \$ 18,805        |
| Earnings on common stock .....  | \$ 19,034        | \$ 18,696        | \$ 19,515        | \$ 17,914        | \$ 16,163        |
| Earnings per average common share .....                               | \$2.90           | \$2.87           | \$3.04           | \$2.86           | \$2.66           |
| Cash dividends paid per common share .....                            | \$2.39           | \$2.32           | \$2.24           | \$2.14           | \$2.00           |
| <b>Assets (year end)</b>  |                  |                  |                  |                  |                  |
| Electric .....  | \$249,878        | \$240,809        | \$221,577        | \$217,501        | \$204,584        |
| Gas .....   | 84,096           | 81,858           | 80,950           | 75,893           | 77,415           |
| Assets not allocated .....  | 30,741           | 30,462           | 33,846           | 35,752           | 27,527           |
| Total .....   | <u>\$364,715</u> | <u>\$353,129</u> | <u>\$336,373</u> | <u>\$329,146</u> | <u>\$309,526</u> |
| <b>Internal Generation of Funds</b>                                   |                  |                  |                  |                  |                  |
| Total funds used for construction expenditures and nuclear fuel ..... | \$ 32,644        | \$ 31,409        | \$ 29,670        | \$ 30,975        | \$ 21,356        |
| Percent generated internally .....                                    | 70.9%            | 71.9%            | 93.2%            | 85.5%            | 123.0%           |
| <b>Long-term Debt and Redeemable Preferred Stock, Net (year end)</b>  |                  |                  |                  |                  |                  |
| Preferred Stock, Net (year end) .....                                 | \$139,338        | \$147,032        | \$129,116        | \$131,762        | \$125,048        |
| <b>Capitalization Ratios (year end)</b>                               |                  |                  |                  |                  |                  |
| Common shareholders' equity .....                                     | 47.9%            | 48.2%            | 50.3%            | 48.3%            | 47.5%            |
| Redeemable preferred stock* .....                                     | 2.2              | 2.4              | 4.9              | 10.1             | 11.2             |
| Long-term debt* .....   | 46.2             | 49.4             | 44.0             | 41.6             | 40.6             |
| Short-term debt (interim loans) .....                                 | 3.7              | —                | .8               | —                | .7               |

\*Includes current maturities and current sinking fund requirements.

## Management's Discussion and Analysis of Operations and Financial Condition

### Results of Operations

Electric retail sales increased 5.2 percent in 1987 over 1986 to 2.06 billion kilowatt-hours, while total electric revenues were virtually unchanged. In 1986, retail sales were up 3.7 percent versus 1985, while total electric revenues were only slightly higher. The major factors causing 1987 electric revenues to remain the same as in 1986 despite increased retail sales in 1987, were reduced sales to other utilities and decreases in electric rates ordered by the Public Service Commission of Wisconsin effective June 1, 1987 (6.9 percent overall decrease). The 1987 increase in retail sales can be attributed to a 1.6 percent increase in customers, along with significantly warmer weather during the cooling season. Cooling degree-days (as measured by the number of degrees the mean daily temperature is above 65 degrees Fahrenheit) in 1987 were up nearly 50 percent over the previous year, and 64 percent above normal.

Retail gas sales declined nearly 11 percent in 1987 compared to 1986 to 132.4 million therms, while revenues declined by about 10 percent. The decline in 1987 sales is largely due to additional transport customers transporting natural gas during all of 1987 versus only one-half of 1986 (see Note 8). Another factor causing reduced gas sales was the milder-than-normal weather during the heating months. Heating degree-days (as measured by the number of degrees the mean daily temperature is below 65 degrees Fahrenheit) declined over 10 percent in 1987 compared to 1986 and nearly 15 percent versus normal. The decrease in gas revenues is primarily a result of the foregoing factors. Also, open-market purchasing (see Note 8), which allows us to obtain gas for our customers at the best prices available, is generally more favorable under today's gas supply conditions. Because the savings are passed along through lower rates, less revenues are reported with virtually no effect on operating income. Natural gas purchased for resale decreased by nearly 16 percent in 1987, compared to 1986. In 1986, gas sales declined 12 percent, while revenues and costs of natural gas declined 15 and 18 percent, respectively, as compared to 1985.

Electric fuel expenses (including purchased power) were down slightly in 1987, compared to 1986. This was primarily a result of a change in our fuel mix to additional coal in place of more costly natural gas.

The increases in other operations expenses reflect, in

part, increases in material and labor costs, customer growth, and, to a lesser extent, inflation.

The decrease in income tax items for the year 1987 compared to 1986 is 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.

Interest expense on long-term debt is higher for 1987 due to the interest on the \$25 million of 9¼ percent first mortgage bonds issued in November, 1986. Preferred stock cash dividend requirements are lower for 1987 as a result of the preferred stock redemptions made in December, 1986.

### Liquidity and Capital Resources

The Company's liquidity is primarily affected by the requirements of its ongoing construction program. During 1987, over 70 percent of the Company's construction expenditures were provided for by internally generated funds. During the past five years, the Company has, on average, funded over 85 percent of its construction program with funds generated internally. We now estimate that during the next three years construction expenditures will average about \$33 million. It is expected that about three-quarters of such expenditures will be generated internally during that time.

Electric and gas utilities, in general, have been adversely impacted by inflation because depreciation of utility plant is limited to the recovery of historical costs. Thus, cash flows may be inadequate to provide replacement of plant investment.

At December 31, 1987, the Company had unused lines of credit of \$21.5 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 Moody's Investors Service, Inc., Standard & Poor's Corporation, and Duff and Phelps, Inc.

The Company believes that trust indenture restrictions will not prevent the issuance of additional long-term debt in the foreseeable future.

Capitalization ratios are shown in the Summary of Selected Financial Data on page 13. Also, see Note 2. 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.



## Consolidated Statements of Income

| For the years ended December 31  | 1987                   | 1986             | 1985             |
|--|------------------------|------------------|------------------|
|  | (Thousands of Dollars) |                  |                  |
| <b>Operating Revenues (Note 1e)</b>  |                        |                  |                  |
| Electric.....  | \$125,328              | \$125,383        | \$123,740        |
| Gas (Note 8) .....   | 76,805                 | 84,964           | 100,124          |
| Total Operating Revenues.....  | 202,133                | 210,347          | 223,864          |
| <b>Operating Expenses</b>  |                        |                  |                  |
| Fuel used for electric generation (Note 1f) .....  | 28,789                 | 27,348           | 31,515           |
| Purchased power .....  | 4,070                  | 5,862            | 3,812            |
| Natural gas purchased for resale (Note 8) .....  | 49,496                 | 58,761           | 72,069           |
| Other operations.....  | 43,633                 | 38,367           | 34,150           |
| Maintenance .....  | 9,943                  | 10,164           | 9,598            |
| Depreciation and amortization (Note 1d)  |                        |                  |                  |
| Straight-line depreciation and amortization .....  | 17,018                 | 16,454           | 17,067           |
| Additional depreciation .....  | 3,989                  | 4,263            | 3,586            |
| Taxes (Note 1g)  |                        |                  |                  |
| Current federal income .....   | 7,159                  | 11,596           | 12,611           |
| Investment tax credit deferred .....   | —                      | 327              | 2,426            |
| Investment tax credit restored (credit) .....  | (1,152)                | (1,273)          | (1,184)          |
| Current state income .....   | 1,906                  | 2,484            | 2,909            |
| Other general.....   | 7,025                  | 6,987            | 4,390            |
| Total Operating Expenses .....   | 171,876                | 181,340          | 192,949          |
| <b>Net Operating Income .....</b>  | <b>30,257</b>          | <b>29,007</b>    | <b>30,915</b>    |
| Allowance for funds used during construction—equity funds (Note 3) .....   | 1,267                  | 939              | 581              |
| Other income (expense), net .....  | (148)                  | (168)            | (218)            |
| <b>Income Before Interest Expense .....</b>  | <b>31,376</b>          | <b>29,778</b>    | <b>31,278</b>    |
| <b>Interest Expense</b>  |                        |                  |                  |
| Interest on long-term debt .....   | 12,262                 | 10,276           | 10,111           |
| Other interest .....   | 255                    | 199              | 146              |
| Allowance for funds used during construction—borrowed funds (Note 3) ..  | (768)                  | (493)            | (300)            |
| Total Interest Expense .....   | 11,749                 | 9,982            | 9,957            |
| <b>Net Income .....</b>  | <b>19,627</b>          | <b>19,796</b>    | <b>21,321</b>    |
| <b>Preferred Stock Cash Dividend Requirements .....</b>  | <b>593</b>             | <b>1,100</b>     | <b>1,806</b>     |
| <b>Earnings on Common Stock .....</b>  | <b>\$ 19,034</b>       | <b>\$ 18,696</b> | <b>\$ 19,515</b> |
| <b>Earnings Per Share of Common Stock (6,559,250,<br/>6,505,211, and 6,418,000 average shares outstanding) .....</b> | <b>\$2.90</b>          | <b>\$2.87</b>    | <b>\$3.04</b>    |

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

## Consolidated Balance Sheets

At December 31

|   | 1987                   | 1986             |
|---|------------------------|------------------|
|   | (Thousands of Dollars) |                  |
| <b>Assets</b>   |                        |                  |
| <b>Utility Plant</b> , at original cost (Note 1b)                               |                        |                  |
| In service—Electric (Note 1c) .....   | \$375,261              | \$354,422        |
| Gas .....   | <u>130,541</u>         | <u>122,562</u>   |
| Gross Plant in Service .....  | 505,802                | 476,984          |
| Less—Accumulated provision for depreciation (Note 1d) .....                     | <u>(244,818)</u>       | <u>(226,779)</u> |
| Net Plant in Service .....  | 260,984                | 250,205          |
| Construction work in progress .....   | 15,836                 | 16,670           |
| Nuclear decommissioning fund (Note 1d) .....                                    | 13,515                 | 11,343           |
| Nuclear fuel, net (Note 1f) .....   | <u>10,107</u>          | <u>9,950</u>     |
| Total Utility Plant .....   | <u>300,442</u>         | <u>288,168</u>   |
| <b>Other Property and Investments</b> .....                                     | <u>5,667</u>           | <u>5,478</u>     |
| <b>Current Assets</b>   |                        |                  |
| Cash .....  | 1,131                  | 2,539            |
| Deposits for jointly owned electric power production facilities .....           | 2,433                  | 2,509            |
| Accounts receivable, less reserves of \$707 and \$684, respectively .....       | 20,968                 | 20,812           |
| Unbilled revenue (Note 1e) .....  | 9,638                  | 10,055           |
| Materials and supplies, at average cost .....                                   | 7,206                  | 6,105            |
| Fossil fuel, at average cost .....  | 4,253                  | 6,030            |
| Prepaid taxes .....   | 5,653                  | 4,591            |
| Other prepayments .....   | <u>1,416</u>           | <u>1,012</u>     |
| Total Current Assets .....  | <u>52,698</u>          | <u>53,653</u>    |
| <b>Deferred Charges</b> .....   | <u>5,908</u>           | <u>5,830</u>     |
| <b>Total Assets</b> .....   | <u>\$364,715</u>       | <u>\$353,129</u> |
| <b>Capitalization and Liabilities</b>   |                        |                  |
| <b>Capitalization</b> (see statement) (Note 2) .....                            | <u>\$283,591</u>       | <u>\$283,811</u> |
| <b>Current Liabilities</b>  |                        |                  |
| Preferred stock sinking fund requirements (Note 2b) .....                       | 100                    | 100              |
| Maturity of 4 $\frac{3}{8}$ % first mortgage bonds, 1988 series (Note 2c) ..... | 6,503                  | —                |
| Interim loans—commercial paper outstanding (Note 5) .....                       | 11,000                 | —                |
| Accounts payable .....  | 18,080                 | 18,944           |
| Accrued taxes .....   | 4,868                  | 9,290            |
| Other .....   | <u>7,823</u>           | <u>7,920</u>     |
| Total Current Liabilities .....   | <u>48,374</u>          | <u>36,254</u>    |
| <b>Other Credits</b>  |                        |                  |
| Contributions in aid of construction .....                                      | 10,452                 | 10,299           |
| Investment tax credit deferred (Note 1g) .....                                  | 19,348                 | 20,323           |
| Other .....   | <u>2,950</u>           | <u>2,442</u>     |
| Total Other Credits .....   | <u>32,750</u>          | <u>33,064</u>    |
| <b>Construction Commitments</b> (Note 4)  |                        |                  |
| <b>Total Capitalization and Liabilities</b> .....                               | <u>\$364,715</u>       | <u>\$353,129</u> |

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

## Consolidated Statements of Capitalization

At December 31

|   | 1987                   | 1986             |
|---|------------------------|------------------|
|   | (Thousands of Dollars) |                  |
| <b>Common Shareholders' Equity</b> (Note 2a)  |                        |                  |
| Common stock—Par value \$8 per share  |                        |                  |
| Authorized 14,000,000 shares  |                        |                  |
| Outstanding 6,628,877 and 6,505,211 shares, respectively  | \$ 53,031              | \$ 52,042        |
| Amount received in excess of par value  | 42,357                 | 39,242           |
| Retained income   | 48,865                 | 45,495           |
| Total Common Shareholders' Equity   | <u>144,253</u>         | <u>136,779</u>   |
| <b>Redeemable Preferred Stock</b> , cumulative, \$25 par value, authorized<br>1,247,000 and 1,255,000 shares, respectively (Note 2b)                                    |                        |                  |
| Series E, 8.70%, 268,000 and 276,000 shares outstanding, respectively,<br>less current sinking fund requirements of \$100   | <u>6,600</u>           | <u>6,800</u>     |
| <b>First Mortgage Bonds</b> (Note 2c)   |                        |                  |
| 4 <sup>3</sup> / <sub>8</sub> %, 1988 series  | 6,503                  | 6,553            |
| 4 <sup>3</sup> / <sub>4</sub> %, 1991 series  | 4,087                  | 4,196            |
| 5.45%, 1996 series  | 8,000                  | 8,000            |
| 8%, 1999 series   | 10,298                 | 10,415           |
| 7 <sup>3</sup> / <sub>4</sub> %, 2001 series  | 12,429                 | 12,465           |
| 9 <sup>3</sup> / <sub>4</sub> %, 2004 series  | 17,929                 | 18,551           |
| 9 <sup>3</sup> / <sub>4</sub> %, 2005 series  | 22,675                 | 22,685           |
| 6 <sup>1</sup> / <sub>2</sub> %, 2006 series, Pollution Control Revenue Bonds, principal amount<br>\$8,780, less construction fund of \$1,093 and \$1,031, respectively | 7,687                  | 7,749            |
| 10.60%, 2012 series, Industrial Development Revenue Bonds   | 25,000                 | 25,000           |
| 9 <sup>1</sup> / <sub>4</sub> %, 2016 series  | 25,000                 | 25,000           |
| First Mortgage Bonds Outstanding  | <u>139,608</u>         | <u>140,614</u>   |
| Maturity of 4 <sup>3</sup> / <sub>8</sub> %, 1988 series  | (6,503)                | —                |
| Unamortized discount and premium on bonds, net  | (367)                  | (382)            |
| Total First Mortgage Bonds  | <u>132,738</u>         | <u>140,232</u>   |
| <b>Total Capitalization</b>   | <u>\$283,591</u>       | <u>\$283,811</u> |

## Consolidated Statements of Retained Income

For the years ended December 31

|   | 1987                   | 1986             | 1985             |
|---|------------------------|------------------|------------------|
|   | (Thousands of Dollars) |                  |                  |
| <b>Balance Beginning of Year</b>              | \$ 45,495              | \$ 41,891        | \$ 36,738        |
| <b>Add</b> —Net income                        | 19,627                 | 19,796           | 21,321           |
| <b>Deduct</b> —Cash dividends on common stock | (15,664)               | (15,092)         | (14,362)         |
| Preferred stock cash dividend requirements    | (593)                  | (1,100)          | (1,806)          |
| <b>Balance End of Year</b>                    | <u>\$ 48,865</u>       | <u>\$ 45,495</u> | <u>\$ 41,891</u> |

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

## Consolidated Statements of Sources of Funds Used for Construction

For the years ended December 31

|  | 1987                   | 1986     | 1985     |
|--|------------------------|----------|----------|
|  | (Thousands of Dollars) |          |          |
| <b>Funds Generated Internally</b>  |                        |          |          |
| Net income .....   | \$19,627               | \$19,796 | \$21,321 |
| Items not affecting current sources of funds   |                        |          |          |
| Depreciation and amortization .....  | 21,007                 | 20,717   | 20,653   |
| Amortization of nuclear fuel .....   | 2,337                  | 2,416    | 3,299    |
| Investment tax credit deferred (restored), net .....   | (1,152)                | (946)    | 1,242    |
| Allowance for funds used during construction .....   | (2,035)                | (1,432)  | (881)    |
| Other .....  | 768                    | (69)     | 434      |
| Funds Provided from Operations .....   | 40,552                 | 40,482   | 46,068   |
| Less   |                        |          |          |
| Cash dividends on common and preferred stock .....   | 16,257                 | 16,192   | 16,168   |
| Bond sinking fund retirements and other long-term debt repayments .....  | 944                    | 1,063    | 1,084    |
| Preferred stock sinking fund retirements .....   | 200                    | 650      | 1,174    |
| Net Funds Generated Internally .....   | 23,151                 | 22,577   | 27,642   |
| <b>Funds Obtained from Outside Financing</b>   |                        |          |          |
| Sale of first mortgage bonds .....   | —                      | 25,000   | —        |
| Decrease (increase) in construction funds, net .....   | (62)                   | (65)     | 10,682   |
| Issuance of common stock (dividend reinvestment) .....   | 4,104                  | —        | 3,901    |
| Preferred stock redemptions .....  | —                      | (5,441)  | (11,810) |
| Net Funds Obtained from Outside Financing .....  | 4,042                  | 19,494   | 2,773    |
| <b>Increase (Decrease) in Interim Loans</b> .....  | 11,000                 | (2,000)  | 2,000    |
| <b>Decreases (Increases) in Other Net Current Assets</b><br>(Exclusive of sinking fund requirements, bond maturity, and interim loans) |                        |          |          |
| Temporary cash investments .....   | —                      | —        | 12,169   |
| Accounts receivable, net .....   | (156)                  | 4,433    | (4,257)  |
| Unbilled revenue .....   | 417                    | 2,300    | (2,059)  |
| Prepaid taxes .....  | (1,062)                | (27)     | (4,564)  |
| Accounts payable .....   | (864)                  | (3,183)  | 5,261    |
| Nuclear fuel disposal fee .....  | —                      | —        | (4,735)  |
| Accrued taxes .....  | (4,422)                | 1,024    | 1,257    |
| Other net current assets .....   | 1,659                  | (1,757)  | (3,147)  |
| Net Decrease (Increase) .....  | (4,428)                | 2,790    | (75)     |
| <b>Increase in Nuclear Decommissioning Fund</b> .....  | (2,172)                | (11,343) | —        |
| <b>Other, Net</b> .....  | 1,051                  | (109)    | (2,670)  |
| <b>Total Funds Used for Construction and Nuclear Fuel</b> .....  | \$32,644               | \$31,409 | \$29,670 |

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

## Notes to Consolidated Financial Statements

December 31, 1987, 1986, and 1985

### 1. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

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

#### a. Basis of consolidation

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.

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 the 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 at December 31, were as follows (in thousands of dollars):

|                | 1987             | 1986             |
|----------------|------------------|------------------|
| Columbia ..... | \$ 80,955        | \$ 80,849        |
| Kewaunee ..... | 51,696           | 50,171           |
| Total .....    | <u>\$132,651</u> | <u>\$131,020</u> |

#### 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):

|                               | 1987            | 1986            |
|-------------------------------|-----------------|-----------------|
| Accumulated provision for     |                 |                 |
| additional depreciation ..... | \$59,314        | \$55,985        |
| Nuclear fuel, net .....       | (886)           | (1,727)         |
| Total .....                   | <u>\$58,428</u> | <u>\$54,258</u> |

Cumulative income tax timing differences, on which the Company has not provided an amount equivalent to the estimated reduction in income taxes, approximate \$15.0 million at December 31, 1987. The Company believes that 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, approximate the following percentages of the cost of depreciable property: electric, 3.5 percent in 1987, 3.6 percent in 1986, and 4.0 percent in 1985; gas, 3.5 percent in 1987, 3.4 percent in 1986, and 3.3 percent in 1985. Depreciation rates are approved by the Public Service Commission of Wisconsin (PSCW) and are generally based on the estimated economic lives of property.

The Company's portion of currently estimated costs of decommissioning Kewaunee is \$74.1 million, which reflects estimated future inflation. Approximately \$12.6 million of this amount has been recovered through depreciation rates as of December 31, 1987. Pursuant to a PSCW order, Wisconsin utilities will provide for costs associated with the future decommissioning of nuclear plants through the use of external trust funds. The Company has received an Internal Revenue Service ruling regarding the funding of these costs, and in January, 1988, the Company placed the appropriate amounts in the external trusts.

#### e. Revenue recognition

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 has been paying disposal fees to the Department of Energy currently, for nuclear generation since April, 1983. The Company has satisfied its entire fuel disposal liability for nuclear generation prior to April, 1983.

## Notes to Consolidated Financial Statements

### g. Income taxes

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

(2) The Company's effective income tax rate, 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, reconciles to the statutory federal income tax rate as follows:

|   | 1987  | 1986  | 1985  |
|---|-------|-------|-------|
| Effective income tax rate as computed .....                     | 38.6% | 46.7% | 49.4% |
| Restoration of investment tax credit .....                      | 3.7   | 3.4   | 2.8   |
| State income taxes and state additional depreciation, net ..... | (3.2) | (3.3) | (4.1) |
| Other differences, net .....                                    | .9    | (.8)  | (2.1) |
| Statutory federal income tax rate .....                         | 40.0% | 46.0% | 46.0% |

As a result of the Tax Reform Act of 1986, the regular corporate income tax rate will drop to 34 percent as of January 1, 1988.

In January, 1989, the Company will be required to adopt the accounting and reporting standards set forth in the Financial Accounting Standards Board Statement No. 96 relating to the effects of income taxes. The Company believes that the affect 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.).

### h. Pension 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). The Company's ratemaking practice has historically allowed the accrued pension funding amount in rates. The Company intends to continue with this practice and, therefore, has recorded 1987 pension costs equal to the funding amount. The

funding amounts were \$649,000 in 1987, \$580,000 in 1986, and \$554,000 in 1985. Of these amounts, \$565,000, \$488,000, and \$415,000 were charged to operating expenses for the years ended 1987 through 1985, respectively. The plans' assets consist primarily of pooled funds invested with the Prudential Asset Management Group.

The funded status of the plans under the Financial Accounting Standards Board Statement No. 87 is as follows (in thousands):

|  | December 31 |          |
|--|-------------|----------|
|  | 1987        | 1986     |
| Fair value of plan assets .....  | \$22,316    | \$21,251 |
| Actuarial present value of benefits rendered to date—Accumulated benefits based on compensation to date, including vested benefits of \$16,461 and \$14,841, respectively .. | 16,820      | 15,140   |
| Additional benefits based on estimated future salary levels ....   | 5,717       | 5,801    |
| Projected benefit obligation .....   | 22,537      | 20,941   |
| Plan assets in excess of (less than) projected benefit obligation .....  | (221)       | 310      |
| Unrecognized net asset at date of initial application .....  | (310)       | (348)    |
| Unrecognized net gain .....  | (673)       | —        |
| Unrecognized prior service cost .....  | 1,469       | —        |
| Net prepayment (liability) .....   | \$ 265      | \$ (38)  |

At December 31, 1987 and 1986: the assumed rate of return was 9.0 percent; the weighted average discount rate of projected benefit obligation was 7.5 percent; and the assumed rate of increase in future compensation levels was 5.5 percent.

Components of 1987 net pension cost (in thousands):

|   |         |
|---|---------|
| Service costs (benefits earned during the period) ..... | \$ 672  |
| Interest costs on projected benefit obligation ...      | 1,640   |
| Actual return on plan assets .....                      | (843)   |
| Net amortization and deferral .....                     | (1,085) |
| Regulatory effect based on funding .....                | 265     |
| Net pension cost .....                                  | \$ 649  |

In addition to the above 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 1987 and 1986 were \$135,000 and \$128,000, respectively.

## Notes to Consolidated Financial Statements

### 2. CAPITALIZATION MATTERS

#### a. Common stock

Pursuant to the Company's Automatic Dividend Reinvestment and Stock Purchase Plan, 123,666 shares of common stock were issued in 1987 and 153,623 shares were issued in 1985. Allocations of proceeds were: \$989,000 in 1987 and \$1,229,000 in 1985 to common stock par value; and \$3,115,000 in 1987 and \$2,672,000 in 1985 to amounts received in excess of par value. In 1986, shares for the Plan were purchased in the open market and no new shares were issued.

#### b. Redeemable preferred 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 1992. 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 4<sup>5</sup>/<sub>8</sub> percent 1988 Series First Mortgage Bonds will be maturing in October, 1988, requiring \$6.5 million for retirement. The 4<sup>3</sup>/<sub>4</sub> percent 1991 Series First Mortgage Bonds will require \$4.0 million to retire in 1991.

The annual sinking fund requirements of the outstanding first mortgage bonds are \$870,000 for 1988 through 1990, and \$800,000 in 1991 and 1992. As of December 31, 1987, the Company had satisfied essentially all of its 1988 bond sinking fund requirements.

### 3. ALLOWANCE FOR FUNDS USED DURING CONSTRUCTION

The Company presently capitalizes an allowance for funds used during construction at a rate of 11.46 percent, which represents the approximate cost of debt and equity capital devoted to plant under construction. 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.

### 4. COMMITMENTS AND CONSTRUCTION PROGRAMS

Utility plant construction expenditures for 1988, including the Company's proportional share of jointly owned electric power production facilities, are estimated to be

\$36.5 million and substantial commitments have been incurred in connection with such expenditures.

Significant commitments have also been made for fuel for Kewaunee and Columbia.

### 5. NOTES PAYABLE TO BANKS, COMMERCIAL PAPER, AND LINES OF CREDIT

Unused lines of credit for short-term borrowings amounted to \$21.5 million at December 31, 1987. The lines generally support commercial paper that is issued at commercial paper discount rates prevailing at the time of issuance. The weighted average interest rate on the commercial paper outstanding at December 31, 1987, was 7.9 percent.

Included in the lines of credit is a Revolving Credit Agreement with five banks. Under the Agreement, the

Company is entitled to borrow and reborrow until August 31, 1988, 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 sets a maximum outstanding limit of \$25 million of commercial paper.

Pursuant to an annual order of the PSCW, which type of order can be amended upon the request of the Company, 1988 short-term borrowings may not exceed \$25 million at any one time.

## Notes to Consolidated Financial Statements

### 6. SEGMENTS OF BUSINESS

The table below presents information pertaining to the Company's segments of business for 1987, 1986, and 1985. The preceding Notes are an integral part of this footnote.

Information regarding the distribution of net assets between electric and gas, as well as those assets not allocable, is set forth on page 13, Summary of Selected Financial Data.

For the years ended December 31

|  | 1987                    | 1986                    | 1985                    |
|--|-------------------------|-------------------------|-------------------------|
|  | (Thousands of Dollars)  |                         |                         |
| <b>Electric Operations</b>   |                         |                         |                         |
| Total revenues .....   | \$125,328               | \$125,383               | \$123,740               |
| Operation and maintenance expenses .....                           | 72,600                  | 68,925                  | 68,093                  |
| Straight-line depreciation and amortization .....                  | 12,753                  | 12,347                  | 13,259                  |
| Other general taxes .....  | 5,589                   | 5,447                   | 3,370                   |
| Pre-tax Operating Income .....                                     | 34,386                  | 38,664                  | 39,018                  |
| Income tax items, including additional depreciation .....          | 10,125                  | 14,857                  | 15,557                  |
| Net Operating Income .....   | <u>\$ 24,261</u>        | <u>\$ 23,807</u>        | <u>\$ 23,461</u>        |
| <b>Construction and Nuclear Fuel Expenditures (Electric) .....</b> | <b><u>\$ 24,785</u></b> | <b><u>\$ 23,155</u></b> | <b><u>\$ 21,754</u></b> |
| <b>Gas Operations</b>  |                         |                         |                         |
| Operating revenues .....   | \$ 76,805               | \$ 84,964               | \$100,124               |
| Revenues from sales to electric utility .....                      | 2,362                   | 3,608                   | 3,338                   |
| Total Revenues .....   | 79,167                  | 88,572                  | 103,462                 |
| Operation and maintenance expenses .....                           | 65,693                  | 75,185                  | 86,389                  |
| Straight-line depreciation and amortization .....                  | 4,265                   | 4,107                   | 3,808                   |
| Other general taxes .....  | 1,436                   | 1,540                   | 1,020                   |
| Pre-tax Operating Income .....                                     | 7,773                   | 7,740                   | 12,245                  |
| Income tax items, including additional depreciation .....          | 1,777                   | 2,540                   | 4,791                   |
| Net Operating Income .....   | <u>\$ 5,996</u>         | <u>\$ 5,200</u>         | <u>\$ 7,454</u>         |
| <b>Construction Expenditures (Gas) .....</b>                       | <b><u>\$ 7,859</u></b>  | <b><u>\$ 8,254</u></b>  | <b><u>\$ 7,916</u></b>  |

### 7. RATE MATTERS

Effective June 1, 1987, the PSCW authorized a rate decrease of \$8.8 million annually for electric service rates and granted a rate increase of \$146,000 annually for natural gas service rates. The new rates are designed to decrease retail electric service revenues 6.9 percent and raise retail gas service revenues 0.2 percent. The changes were based on estimated gas and electric operations for the test year ending April 30, 1988, and an authorized return on common stock equity of 13.5 percent.

The Company has appealed a portion of the order 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. In the event the Company does not ultimately prevail in this appeal, appropriate refunds with interest will be made to customers.

In October, 1987, the Company filed its annual application with the PSCW proposing a \$5.9 million increase in retail electric revenues and a \$2.4 million increase in natural gas revenues. The proposed rates are based on a test year beginning May 1, 1988, and a return on common stock equity of 14 percent. The requested adjustments in rates would increase the electric revenues and natural gas revenues by 4.9 percent and 2.6 percent, respectively. Public hearings have been scheduled to begin in March and a decision is expected in the second quarter of 1988.



## Notes to Consolidated Financial Statements

### 8. GAS TRANSPORTATION AND PURCHASING

End-user transportation of spot-market natural gas supplies continued in 1987. The Company transported approximately 19 million therms of gas during the year for 21 customers. The transporting of gas did not impact the Company's operating income since the fee charged for transportation has remained equivalent to the margin between the Company's revenues if the Company had actually sold traditional supplies of gas and the cost of gas which would have been purchased from ANR Pipeline Company.

Beginning in 1987, the Company began purchasing a portion of its system gas requirements on the spot market rather than buying all of its gas from ANR. During the year 32.3 million therms were purchased on the spot market, representing approximately 24 percent of customers' natural gas needs. The resulting savings of about \$3 million were passed along to customers.

Since ANR had previously entered into certain take-or-pay contracts with gas suppliers, the Company may be

liable for its share of additional charges if provisions of those contracts are not met or the contracts are cancelled. The Company believes that such charges would be considered as additional gas costs, partially offsetting spot-market-purchase savings, and would be recoverable in future rates.

Also as of November 1, 1987, the Company began offering a full range of purchasing options to its interruptible customer classes. These options are designed to allow these 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, interruptible customers can now purchase open-market supplies directly from the Company. The Company purchases the gas along with its own open-market requirements and resells it to the customer. These gas sales have the same margins as end-user transportation and, therefore, have no impact on the Company's operating income.

## Auditors' Report

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

We have examined the consolidated balance sheets and statements of capitalization of MADISON GAS AND ELECTRIC COMPANY (a Wisconsin corporation) and subsidiaries as of December 31, 1987 and 1986, and the related consolidated statements of income, retained income and sources of funds used for construction for each of the three years in the period ended December 31, 1987. Our examinations were made in accordance with generally accepted auditing standards and, accordingly, included such tests of the accounting records and such other auditing procedures as we considered necessary in the circumstances.

In our opinion, the financial statements referred to above present fairly the financial position of Madison Gas and Electric Company and subsidiaries as of December 31, 1987 and 1986, and the results of their operations and their sources of funds used for construction for each of the three years in the period ended December 31, 1987, in conformity with generally accepted accounting principles applied on a consistent basis.

Chicago, Illinois  
February 12, 1988

ARTHUR ANDERSEN & CO.

## Future Financial Outlook

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### Electric Operations

The stable economic environment in Madison, due mainly to its 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 477,000 kw was set this past summer, nearly 7 percent higher than the previous peak of 447,000 kw established in 1986. The new peak was the result of abnormally hot weather.

We expect the rate of new electric customer additions to be about 1.2 percent per year during the next three years. Retail electricity sales and revenues are expected to increase at an annual rate of about 2.5 percent through 1990.

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. Slightly more than 60 percent of our requirements will come from coal-fired plants. This will allow us to limit the use of oil and natural gas, which are our most expensive sources of energy.

### Gas Operations

Over the last three years, the Company has added three new communities to its service territory. Customer growth opportunities in our service territory are plentiful. We will continue to capitalize on these new opportunities.

The process of change continued in the natural gas industry during 1987, significantly altering the way we obtain our system gas requirements. Because of successful negotiations with ANR Pipeline Company and legal rulings at the federal level, we now obtain a portion of our system's needs in the open market where we can purchase gas for the best prices available. These prices are generally lower than the contract prices we have with ANR. Any savings are passed along to our customers through lower rates. Although it is difficult to estimate the continuing effects of open-market purchases and transportation of natural gas (see Note 8), our gas sales and revenues should start to moderate over the next few years after declining the past two years. We forecast that annual increases in customers over the next three years will be around 2.5 percent.

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### Earnings

As expected, earnings in 1987 were relatively stable, increasing to \$2.90 per share as compared to \$2.87 per share in 1986. Because of the lower 13.5 percent rate of return authorized by the Public Service Commission of Wisconsin (PSCW) in our June, 1987, rate order, we anticipate that earnings should remain relatively stable at current levels over the next few years, despite increases in our service territory and customer base. This assumes 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.

### Dividends

Dividends paid per share have risen steadily over the past few years. The September, 1987, dividend increase marked the seventh straight year that the dividend has been increased in September. The \$2.39 paid in 1987 is 82 percent of earnings, which is slightly above our long-term payout ratio goal. 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. As of December 31, 1987, the Company paid 304 consecutive dividends on a regularly scheduled basis.

### Capitalization

The Company's current capital structure continues to remain strong. During 1987, new stock was issued under our Automatic Dividend Reinvestment and Stock Purchase Plan. This added over \$4 million to common stock equity in 1987. The plan will continue as a new issue plan in 1988. In October, 1988, our 4 $\frac{5}{8}$  percent first mortgage bonds, of which \$6.5 million remain outstanding, will mature. This will cause higher-than-normal short-term debt obligations in 1988. Also, a more aggressive construction program than in recent years will add to a higher level of short-term debt. It is anticipated that over the next few years the Company's capital structure should attain the ranges set as our long-term goal. These ranges are approximately 50 to 55 percent common stock equity, up to 5 percent preferred stock, and 40 to 50 percent debt.

### Construction Program

Total construction expenditures over the next several years are expected to average about \$33 million annually, somewhat more than the average expenditures over the last few years, but still less than 10 percent of our gross plant in service and our total assets. The Company expects that on average, 75 percent of these future expenditures will be financed using internally generated funds. 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 1988, actual for 1987, and the average for the three-year period 1984-1986 are shown below.

| For the years ended December 31                       | 1988                   |             | 1987            |             | Annual Average  |             |
|---|------------------------|-------------|-----------------|-------------|-----------------|-------------|
|   | Estimated              |             |                 |             | 1984-1986       |             |
|   | (Thousands of Dollars) |             |                 |             |                 |             |
| <b>Electric Department</b>                            |                        |             |                 |             |                 |             |
| Production plant .....                                | \$ 8,800               | 24%         | \$ 4,649        | 14%         | \$ 5,485        | 18%         |
| Transmission plant .....                              | 4,400                  | 12          | 4,664           | 14          | 4,916           | 16          |
| Distribution plant .....                              | 9,300                  | 25          | 10,361          | 32          | 8,064           | 26          |
| Nuclear fuel .....                                    | 3,900                  | 11          | 3,324           | 10          | 3,079           | 10          |
| Total Electric .....                                  | 26,400                 | 72          | 22,998          | 70          | 21,544          | 70          |
| <b>Gas Department</b> .....                           | 6,800                  | 19          | 6,672           | 21          | 5,995           | 20          |
| <b>Utility Plant Common to Both Departments</b> ..... | 3,300                  | 9           | 2,974           | 9           | 3,146           | 10          |
| Total .....   | <u>\$36,500</u>        | <u>100%</u> | <u>\$32,644</u> | <u>100%</u> | <u>\$30,685</u> | <u>100%</u> |

### 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.

### Diversification

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.

## Quarterly Summary of Operations and Stock Prices

|   | Quarter Ended (Unaudited) (1) |          |          |          |
|---|-------------------------------|----------|----------|----------|
|   | March 31                      | June 30  | Sept. 30 | Dec. 31  |
|   | (Thousands of Dollars)        |          |          |          |
| <b>1987</b>                               |                               |          |          |          |
| Operating Revenues .....                  | \$60,791                      | \$41,950 | \$44,405 | \$54,987 |
| Net Operating Income .....                | 7,687                         | 6,134    | 8,086    | 8,350    |
| Net Income .....                          | 5,042                         | 3,422    | 5,752    | 5,411    |
| Earnings on Common Stock .....            | 4,892                         | 3,272    | 5,604    | 5,266    |
| Earnings per Common Share .....           | 75¢                           | 50¢      | 85 ¢     | 80 ¢     |
| Dividends Paid per Common Share (3) ..... | 59¢                           | 59¢      | 60½¢     | 60½¢     |
| Bid Price per Common Share (4)—High ..... | \$37                          | \$34½    | \$34¾    | \$33½    |
| Low .....                                 | 34¼                           | 29¾      | 31       | 29¾      |
| <b>1986</b>                               |                               |          |          |          |
| Operating Revenues .....                  | \$66,980                      | \$41,224 | \$43,681 | \$58,462 |
| Net Operating Income .....                | 7,543                         | 4,885    | 8,121    | 8,458    |
| Net Income .....                          | 5,174                         | 2,648    | 6,022    | 5,952    |
| Earnings on Common Stock .....            | 4,894                         | 2,370    | 5,747    | 5,685    |
| Earnings per Common Share (2) .....       | 75¢                           | 36¢      | 88¢      | 87¢      |
| Dividends Paid per Common Share (3) ..... | 57¢                           | 57¢      | 59¢      | 59¢      |
| Bid Price per Common Share (4)—High ..... | \$31¼                         | \$36½    | \$41½    | \$40     |
| Low .....                                 | 27⅛                           | 30¾      | 33½      | 34¾      |

### 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 14,523 shareholders as of February 1, 1988. 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 over-the-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.

## Board of Directors

**Richard E. Blaney**  
President and Manager,  
Richard Blaney Seeds, Inc.  
Age 51, Director Since 1974

**Robert M. Bolz**  
Retired Vice Chairman,  
Oscar Mayer Foods Corporation  
Age 65, Director Since 1972

**Donald J. Helfrecht**  
Chairman and Chief Executive Officer  
Age 66, Director Since 1972

**Richard M. Lawrence**  
Vice President - Public Affairs  
Age 61, Director Since 1988

**Jean N. Manchester**  
Chairman of the Board  
and Chief Executive Officer,  
Neesvig's Inc.  
Age 61, Director Since 1982

**David C. Mebane**  
Senior Vice President and General Counsel  
Age 54, Director Since 1984

**Frederic E. Mohs**  
Partner, Mohs, MacDonald & Widder,  
Attorneys at Law  
Age 50, Director Since 1975

**Robert B. Rennebohm**  
President,  
University of Wisconsin Foundation  
Age 65, Director Since 1983

**John L. Sonderegger**  
Retired Chairman of the Board,  
Central Life Assurance Company  
Des Moines, Iowa  
Age 73, Director Since 1971  
Retired February 1988

**Phillip C. Stark**  
President,  
The Stark Company  
Age 62, Director Since 1985

**H. Lee Swanson**  
President,  
State Bank of Cross Plains  
Age 49, Director Since 1988

**Frank C. Vondrasek**  
President and Chief Operating Officer  
Age 59, Director Since 1982

**Gerald A. Wilson**  
Senior Vice President - Administration  
Age 65, Director Since 1983  
Retired January 1988

*All board members reside in the Madison area.*



*First row, seated (from left), Sonderegger, Helfrecht.  
Second row, (from left), Wilson, Bolz, Blaney.*



*First row, seated (from left), Mebane, Manchester.  
Second row, (from left), Rennebohm, Vondrasek, Stark, Mohs.*

## Officers



*First row, seated (from left), Duncan, Thies, Phipps.  
Second row, (from left), St. John, Lawrence.*



*First row, seated (from left), Bethke, Krzos.  
Second row, (from left), Barlow, Schuh.*

**Donald J. Helfrecht**  
Chairman and Chief Executive Officer  
Age 66, Years of Service, 41

**Frank C. Vondrasek**  
President and Chief Operating Officer  
Age 59, Years of Service, 17

**Gerald A. Wilson**  
Senior Vice President - Administration  
Age 65, Years of Service, 21  
Retired February 1, 1988

**Kent M. Barlow**  
Senior Vice President - Electric Systems  
Age 53, Years of Service, 26

**David C. Mebane**  
Senior Vice President and  
General Counsel  
Age 54, Years of Service, 10

**G. Howard Phipps**  
Senior Vice President - Finance  
Age 44, Years of Service, 15

**Terrence J. Schuh**  
Senior Vice President - Gas Systems  
Age 45, Years of Service, 19

**Richard M. Lawrence**  
Vice President - Public Affairs  
Age 61, Years of Service, 37

**Richard H. Thies**  
Vice President - Gas Systems Operation  
Age 46, Years of Service, 24

**Dale W. St. John**  
Secretary and Director  
Risk Management  
Age 63, Years of Service, 23

**Joseph T. Krzos**  
Assistant Treasurer  
Age 44, Years of Service, 5

**Carol A. Bethke**  
Assistant Secretary - Administration  
and Investor Relations  
Age 48, Years of Service, 21

**Beverly R. Duncan**  
Assistant Secretary - Corporate Affairs  
Age 56, Years of Service, 37

## Shareholder Information

### MGE 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 reinvestment, lost certificates and stock transfers:

Madison calling area ..... (608) 252-4744  
 Other Wisconsin locations ..... 1-800-362-6423  
 Outside Wisconsin ..... 1-800-356-6423  
 (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

### General Offices

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

### Mailing Address

Post Office Box 1231  
 Madison, Wis. 53701-1231

### Transfer Agent & Registrar

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

### 1988 Annual Meeting

The annual meeting of shareholders will be held Monday, April 25, 1988, at 2 p.m. in the Madison Civic Center, 211 State St., Madison, Wis.

### Reports Available

Upon request, the company will furnish to any shareholder a copy of its 1987 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.

### 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 NASDAQ National Market System. It is listed in newspaper stock tables as MadGE.

### Dividend Payment Dates

Dividends on the company's common stock in 1988 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.

### Dividend Reinvestment and Stock Purchase Plan

About one-quarter of MGE's 14,500 shareholders participate in the company's Dividend Reinvestment and Stock Purchase Plan. Their quarterly dividends are automatically reinvested in new shares of MGE common stock. Participants may also make optional cash payments of up to \$3,000 each quarter to purchase additional shares of common stock. No brokerage or administrative fees are charged to participants.

For more information, contact MGE Shareholder Services.

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

**mgde**

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