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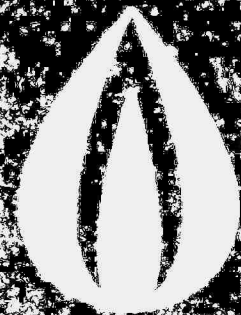
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# Consumers Power Company Annual Report 1970

212 WEST MICHIGAN AVENUE, JACKSON, MICHIGAN 49201

## Highlights

	1970	INCREASE OR (DECREASE) OVER 1969	1960	Growth since 1960
Electric Revenue	\$ 334,904,000	\$ 26,904,000	\$ 179,568,000	87%
Gas Revenue	\$ 273,874,000	\$ 33,338,000	\$ 100,769,000	172%
Total Operating Revenue	\$ 609,990,000	\$ 60,215,000	\$ 281,396,000	117%
Cost of Fuel Used in Electric Generation	\$ 70,940,000	\$ 11,849,000	\$ 30,041,000	136%
Cost of Natural Gas Sold	\$ 117,875,000	\$ 10,987,000	\$ 46,740,000	152%
Total Payroll including Construction	\$ 128,031,000	\$ 19,281,000	\$ 65,000,000	97%
Taxes	\$ 93,343,000	\$ (3,187,000)	\$ 51,140,000	83%
Net Income	\$ 72,832,000	\$ 5,871,000	\$ 38,251,000	90%
Earnings per Share of Common Stock—Average (Adjusted)	\$ 2.95	\$ .16	\$ 1.65	79%
Cash Dividends Paid per Share on Common Stock (Adjusted)	\$ 2.00	\$ .10	\$ 1.18	69%
Kilowatt-hour Sales	18,806,677,000	327,314,000	9,553,502,000	97%
Peak Load—Kilowatts	3,448,000	71,000	1,876,000	84%
Electric Generating Capacity—Kilowatts	3,560,000	149,000	2,271,000	57%
Gas Sales (1,000 Cubic Feet)	310,344,000	28,582,000	118,296,000	162%
Maximum 24 hour Natural Gas Send-out (1,000 Cubic Feet)	2,074,000	339,000	821,000	153%
Electric Customers	1,082,400	24,700	873,800	24%
Gas Customers	854,100	24,100	539,400	58%
Common Stockholders	93,800	6,400	66,900	40%
Utility Plant—Cost	\$2,343,351,000	\$ 217,906,000	\$1,123,245,000	109%

## Dear Fellow Shareholders



A. H. Aymond



James H. Campbell

In reflecting on the year just past, one is reminded of the opening words in Charles Dickens' *A Tale of Two Cities*. He began his narrative with: "It was the best of times, it was the worst of times . . ."

One might say much the same of 1970.

Aided by rate increases for electricity and natural gas that were authorized by the Michigan Public Service Commission in September 1969, the Company's earnings per average share of common stock outstanding were \$2.95 for the year ended December 31, 1970. This compares with \$2.79 per share reported for the year 1969, when earnings were severely depressed by the squeeze of rising costs and the long waiting period that was endured before the Company received some rate relief.

In 1970, the Company sold record quantities of electricity and natural gas. Kilowatthour sales of electricity were up 1.8 percent in spite of a lengthy automotive strike, and volume sales of natural gas were up 10.1 percent, compared with 1969.

Gross operating revenues in 1970 also reached an all-time

record of \$609,990,000, an increase of 11 percent over 1969 when gross operating revenues were \$549,775,000.

Net income in 1970 was \$72,832,000, an increase of 8.8 percent over 1969, when net income was \$66,960,000.

Expenditures for new plant and facilities totalled \$241,946,000 in 1970, and expenditures projected for 1971 are expected to aggregate \$253,389,000.

Rate increases in late 1969—which were based on costs experienced in 1968—are not adequate to produce revenues commensurate with a reasonable rate of return on investment now and in the future. For this reason, the Company returned to the Public Service Commission in August 1970 with a petition for additional rate adjustments in its electric service. And it is probable that similar application will soon have to be made for higher rates for natural gas.

During the last several years, demands for natural gas increased more rapidly, and in greater volume, than ever before; partly as a result of substantial new demands for gas to overcome industrial air pollution. This

acceleration in demand collided with a national shortage in available supplies of natural gas.

The shortage affects all parts of the country, even those which normally produce large quantities of gas. The reason for the shortage is not new. Rising costs rapidly overtook wellhead prices established by the Federal Power Commission during the last 15 years, making it less and less profitable to prospect for gas. Most of the major companies, and nearly all of the independents, simply stopped looking for new reserves.

Today, there is a limited amount of gas coming out of the ground, and it is not enough to meet all demands. Thus, Consumers Power Company—like other utilities across the nation—has had to impose restrictions on its acceptance of new business, as indicated in the body of this Annual Report.

The Company, however, is not idle. It is actively seeking new supplies. Its wholly-owned subsidiary, Northern Michigan Exploration Company is participating in several exploratory projects. In the northern part of Michigan's lower peninsula,

several wells have been drilled in association with producing companies. One of these is producing commercial quantities of oil. In southern Louisiana, six wells have been drilled in association with independent producers. None of these was productive. More drilling is planned for 1971.

Meanwhile, Northern Michigan Exploration Company participated in a group headed by Sun Oil Company, which was successful bidder for 45,000 acres of underwater leases in the Gulf of Mexico, in a recent Government sale. Offshore exploratory drilling is to begin shortly off the Louisiana coast.

At present, it appears that it may be several years before new reserves of gas can be found, developed, and made available to customers. Thus, the shortage of natural gas in Michigan is real, and may continue for some time to come.

In the electric business, the most frustrating difficulty has been the Company's inability to operate its Palisades Nuclear Plant, 35 miles west of Kalamazoo.

This very important electric generating station, with a prospective output equal to nearly 20 percent of the Company's total generating capacity, has been ready for fuel loading and testing for some months. But it cannot be tested or begin generating power, until the Company is granted an operating license by the U.S. Atomic Energy Commission. This license has been held up by intervention of a few groups of environmentalists, who have succeeded in prolonging the licensing process by public hearings that have gone on intermittently since June 23, 1970.

These delays have been particularly exasperating because the plant was designed and built to conform with every applicable safety standard and regulation of the U.S. Atomic Energy Commission. Moreover, the plant complies with every air and water quality standard of the State of

Michigan that is applicable to a facility at that site. The Michigan Public Service Commission has recommended that the plant be allowed to operate.

In effect, the Company and its more than one million electric customers have been caught in the middle of an argument between the environmentalists on the one hand—who fear radiological dangers and possible harm to Lake Michigan from heated water discharged by the plant—and the U.S. Atomic Energy Commission.

While absence of the Palisades plant has imposed a strain on the Company's electric service, fortunately it has been possible to date to meet winter peak demands of the Company's electric customers with supplementary power purchased from other utilities.

A critical period lies ahead. For the summer of 1971, the Company has arranged to purchase additional supplementary power to the extent that it is obtainable, but it is not available in sufficient quantities to provide the desired level of reserves for forced outages and planned maintenance of electric generating facilities. Recognizing the crucial importance of getting this plant on the line at the earliest possible date, the Company has endeavored for some time to have the environmentalists withdraw their opposition by offering to install the facilities they requested. These consist of cooling towers designed to substantially eliminate thermal discharges to Lake Michigan and additional equipment which is intended to result in an essentially zero release of radioactive materials in liquid discharges. Such facilities are in addition to those required by law and will cost an estimated \$15,000,000. They are expected to result in an additional annual cost in excess of \$3,000,000, attributable to reduced thermal efficiency of the plant, some curtailment of generating capability, and increased operating and maintenance expenses, as well as fixed charges on the invested capital. We are hopeful

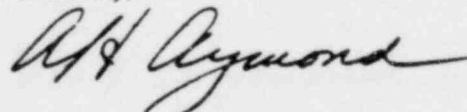
that such a settlement can be reached with the environmentalists in the near future and that the Palisades Plant may be generating power this summer and fully operational by September.

Meanwhile, intervention also is delaying the issuance of a construction permit for the Company's proposed nuclear plant near Midland. Some local residents and others, including certain of the objectors in the Palisades controversy, are seeking to prevent the granting of a construction permit for this plant. Hearings were held briefly in December, and are expected to resume in the second quarter of 1971. Preliminary work on the project now has been shut down, and work will not resume until a construction permit is granted.

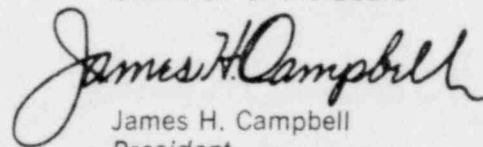
On a happier note, construction goes forward on schedule at the site of the 1.8 million kilowatt Ludington Pumped Storage Hydroelectric Plant. This facility is being constructed jointly by Consumers Power Company and The Detroit Edison Company, and is due for initial pumping in late 1972, and for operation in 1973.

Despite the difficulties recited above, the management of the Company is confident that these obstacles will be overcome, with the continued support and efforts of its skilled and dedicated employees. Moreover, it is confident also that realistic rate relief will be forthcoming from the Michigan Public Service Commission in 1971, to give the Company a firm base on which to meet Michigan's expanding demands for energy in the years ahead.

Sincerely,



A. H. Aymond  
Chairman of the Board



James H. Campbell  
President

February 15, 1971

# Nuclear Power and the Need for Energy

For three decades, phenomenal growth has been a key feature of the American economy and Michigan has been one of the nation's pacesetter states. Economic expansion has been characterized by a larger population living better than ever before, factors reflected by growing communities and a steadily rising gross national product. In substantial measure, this economic progress has been dependent upon the availability of ample supplies of energy. Without electricity and natural gas, America's modern way of life simply would not exist. But as 1970 ended, Michigan and the nation looked ahead to serious difficulties in sustaining growth in energy resources to match increases in population and living standards. Nuclear power is one essential element in meeting the need for more energy in the 1970's—and thereafter.

The year 1970 brought one key issue before the American public into sharp focus. The nation is facing a period of inadequate energy supplies. The problem varies in terms of regions and forms of energy. But it is real. A shortage of natural gas has emerged. It cannot be adequately relieved by further dependence on oil and coal, since there are problems of supply with these fuels also. Most hydroelectric resources have been developed.

There is, however, a major source of energy readily available in sufficient quantities to meet the growing needs of America's industrialized society, and with minimum impact on the environment. That energy source is nuclear fuel. But on every side, attempts to develop additional nuclear-fueled electric generating plants have been beset with intervention, chiefly on the ground of safety, but strangely, also on the ground of environmental pollution.

Consumers Power Company believes the development of nuclear power is a safe and prudent course for Michigan and the nation to follow. Moreover, it is an essential and inevitable course that must be followed to help provide the tremendous additional amounts of energy that will be required as the economy continues to expand.

The Company also believes the objections that have been raised to nuclear power stem from incomplete understanding of the safety record and potential environmental benefits of this needed source of electric generation.

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*This portion of the 1970 Annual Report is devoted to an overview of the need for energy, and to outlining the role of nuclear power in maintaining Michigan's energy resources and improving Michigan's environment.*

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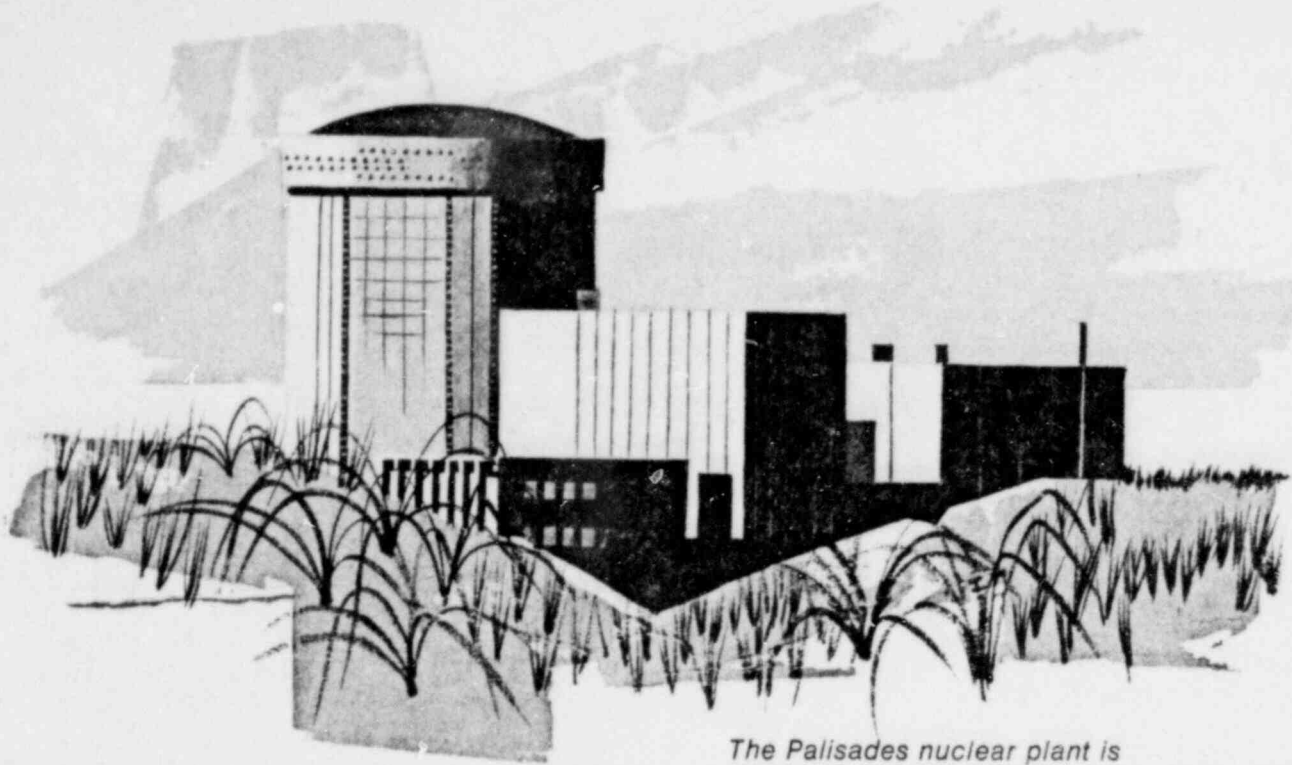
## Michigan Must Have More Energy

Electricity, upon which this industrialized society is dependent, is produced by converting raw energy—coal, oil, natural gas, falling water and nuclear fuel—into electric energy. But raw energy alone, is not enough. There must be large and costly generating plants to accomplish the conversion. Without them—without constant planning, building, and investment of large sums of capital—the economy of Michigan would be crippled.

To understand the energy requirements of Michigan, it is helpful to look backward to 1950; and then forward to 1980.

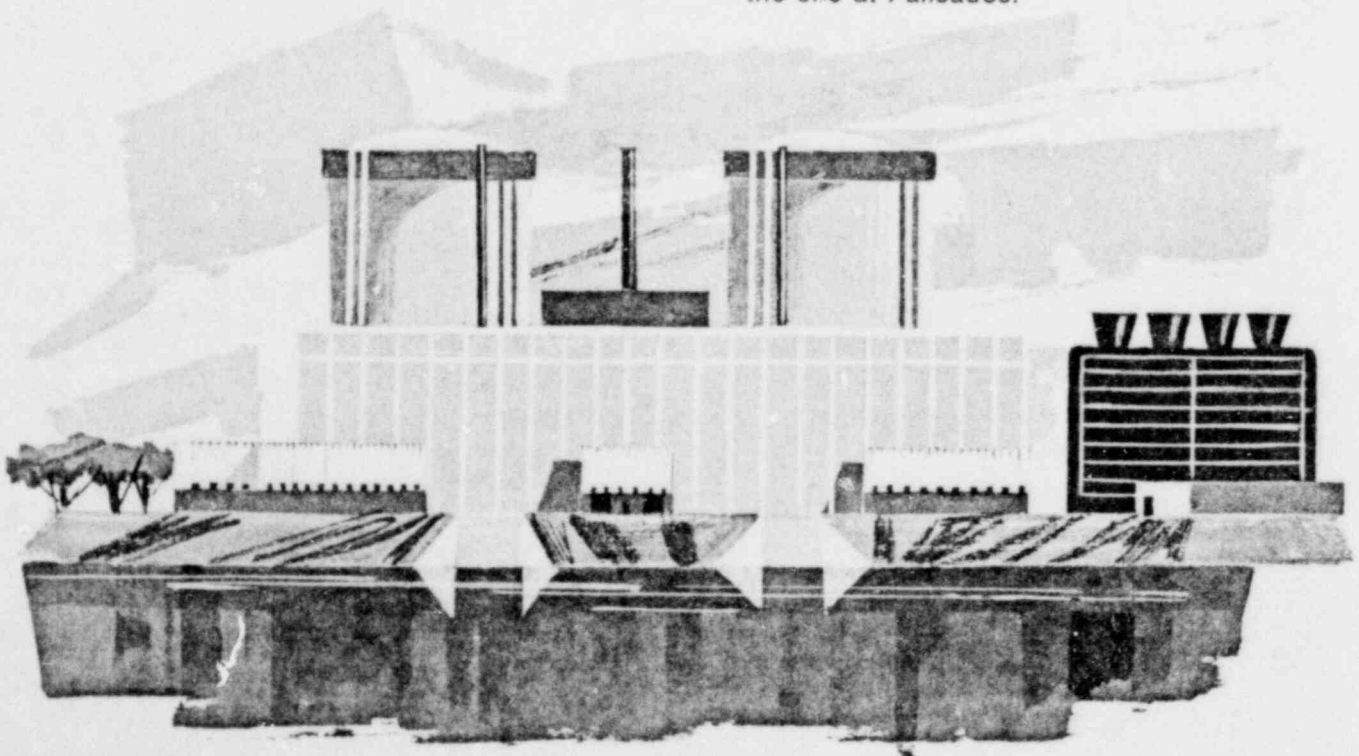
In 1950—just 20 years ago—Michigan's population numbered 6,100,000 people. In that year they, and the industry and commerce of the state's economy, consumed 18.2 billion kilowatt-hours of electricity.

In 1960, 10 years later,



*The Palisades nuclear plant is designed to have an initial generating capacity of 710,000 kilowatts.*

*The Midland nuclear electric generating station will have 2 reactors, each the size of the one at Palisades.*



Michigan's population had grown to 7,500,000 people. And consumption of electricity was 32.3 billion kilowatthours annually.

In 1970, a population of 8,600,000 people consumed 59 billion kilowatthours; 70 percent of it being used by industry and commerce.

By 1980—not quite 10 years from now—Michigan is expected to have 9,900,000 people. They and Michigan's commerce and industry are expected to consume 112 billion kilowatthours of electricity. That would be nearly twice the electricity consumed in 1970.

Thus, with something more than half again as many people as Michigan had in 1950, the state's economy in 1980 is expected to require *SIX* times as much electricity.

### **Economic Growth A Certainty**

It is a certainty that Michigan—along with the rest of the nation—is going to have to cope with an ever-growing population, and an ever-increasing output of goods and services required by its people.

In the 1970's, it is estimated that the Michigan work force will increase at the rate of about one percent per year; or approximately 650,000 more people in 1980 than the number employed today. At the same time, nearly all national estimates forecast the rise in production in real terms at approximately three percent per year; which is about the average that it has been since World War II. Through economic growth, Michigan's total output of goods and services in 1980 will have increased approximately 50 percent more than it is today.

And if productivity is going to continue to increase, the use of electric energy will have to increase at an even faster pace. That is the basis for the forecast that, in 1980, there will be 9,900,000 people consuming 112 billion kilowatts of electricity annually.

These forecasts are something that deeply concern the management of Consumers Power Company. The lead time for constructing electric generating plants now is approximately seven years. It may become longer as more and more people, agencies and boards become involved in the location and environmental considerations of power plants.

By 1980, the Michigan power pool must add in excess of 13,000,000 kilowatts of additional generating capacity. To accomplish this, Consumers Power Company and The Detroit Edison Company, between them, will have to expend more than \$2,500,000,000 on new generating units.

### **Industry Needs Power**

Michigan is a highly industrialized state, and American industry cannot operate without large amounts of energy. Michigan has a relatively high average per capita income; which means its people enjoy the benefits of broader uses of energy for all forms of modern living. But Michigan is not rich in native energy resources. It has no commercially recoverable coal, very little hydropower, and only very limited reserves of oil and natural gas. All of the coal that is used, and more than 90 percent of the oil and gas, must be imported from sources outside the state.

The Company's challenge is to achieve the best possible balance

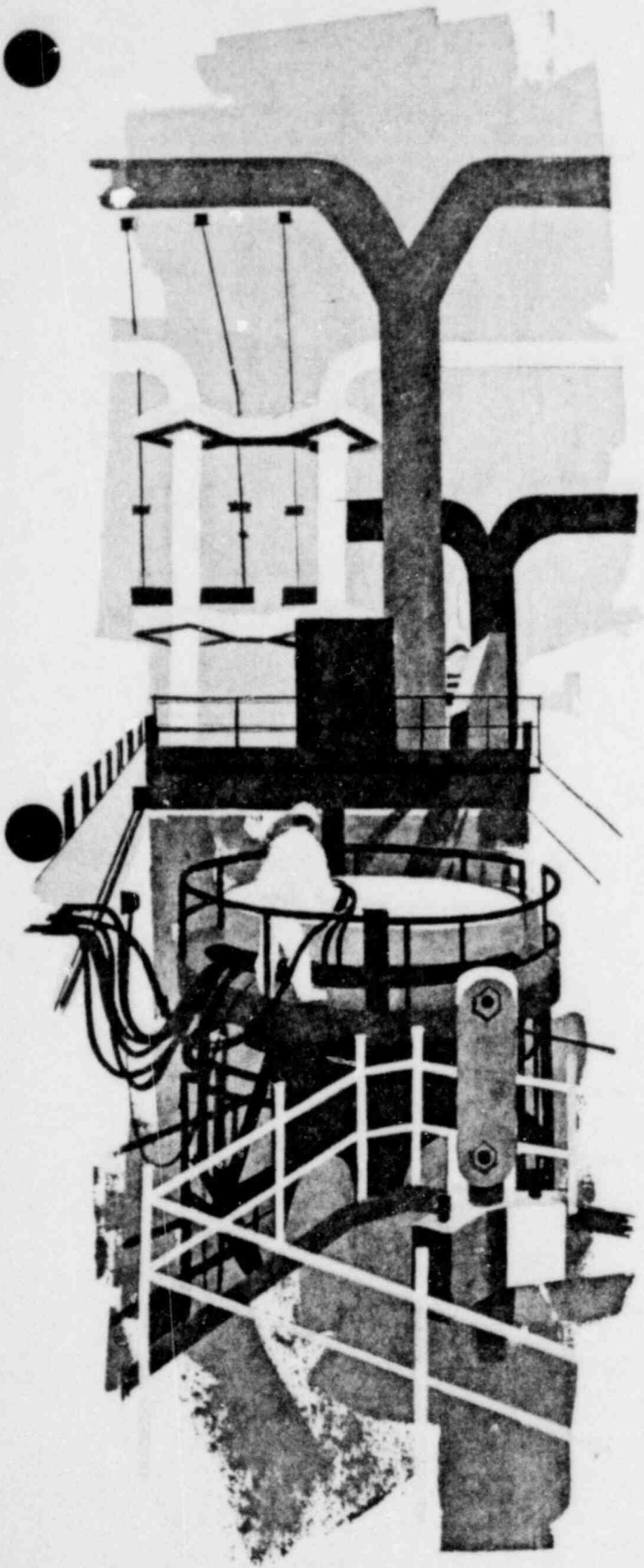
of energy sources—coal, gas, oil, nuclear fuel and hydropower—to meet its customers' growing needs for electricity while maintaining environmental quality.

As 1971 opened, Michigan was receiving sufficient coal to operate its coal-fired electric generating plants, mainly because of adequate long-term contracts with coal suppliers, and because of prior commitments for unit train operations to transport coal into the state. However, reserves of coal that can be strip mined are dwindling, and production of coal reserves in deep mines has been slowed by problems of safety and an inadequate work force in the coal industry. Limited transport facilities and rising transport costs also present difficulties in attempting to obtain large incremental supplies of coal. A further consideration is the insufficient supply of low-sulfur coal that would be desirable for improved air quality control. Import quotas and problems of overseas supply and transport also make it very difficult to obtain large quantities of low-sulfur oil.

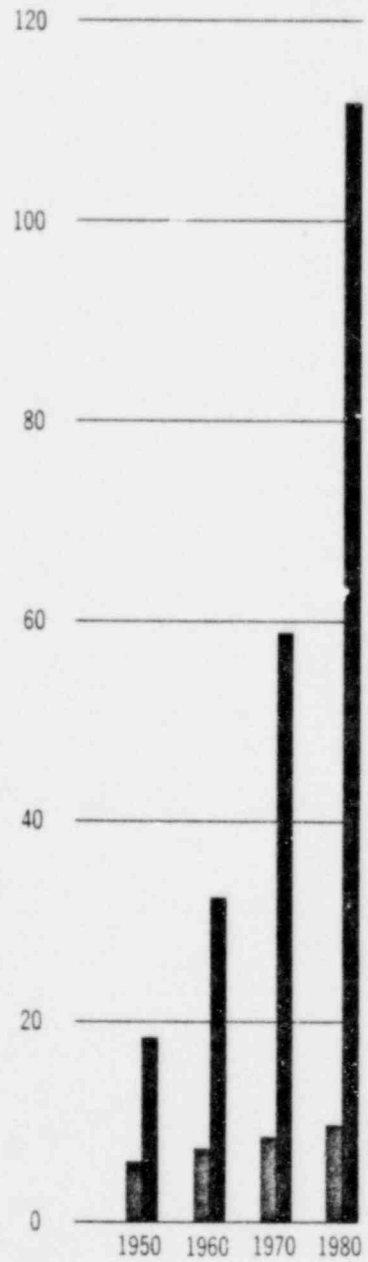
Michigan's practical hydroelectric potential is limited to large pumped storage projects with man-made storage ponds, similar to the 1.8 million kilowatt plant the Company is building near Ludington, in association with The Detroit Edison Company. Additional pumped storage electric generating facilities are expected to be needed in the 1980's. Looking ahead toward this future need, the Company in 1970 acquired 4,100 acres of land in Benzie and Manistee Counties for a second pumped storage development.

Pumped storage plants are used to supply "peaking" power. This means that during periods of





BUILDING TODAY  
FOR MICHIGAN'S TOMORROW



■ MILLIONS OF PEOPLE  
■ BILLIONS OF KILOWATT-HOURS

*The output of the Palisades nuclear plant will be equal to nearly 20 percent of the Company's total generating capacity in 1970.*

peak demand on the electric system, Ludington will be used to supplement the power generated at plants fired with coal, oil, natural gas and nuclear fuel. During times of off-peak demand, the storage pond must be filled with water pumped by power supplied from "base load" generating plants.

Michigan's natural gas shortage is so acute that the Company asked authorization of the Public Service Commission in 1970, to restrict new sales of gas in order to protect continuing service to the Company's more than 850,000 gas customers.

### **Nuclear Fuel A Key Answer**

Nuclear plants are safe.

Nuclear plants operate with minimum impact on the environment.

Nuclear plants can make a significant contribution to environmental quality.

In many areas where the cost of transporting coal is a substantial expense—including Michigan—nuclear power is the most economical way to generate electricity.

Nuclear fuel is considered to be available in adequate quantities.

Thus, nuclear fission offers the key answer to the need for more electric energy to match the steady growth of Michigan's economy. No other adequate energy source is within reach. Technological breakthroughs in harnessing nuclear fusion, solar energy, fuel cells or other potential resources appear to lie well in the future. In the meantime, the need for electric energy is projected to virtually double each 10 years—unless economic growth is curtailed as the use of energy is restricted.

A continuing characteristic of

America's economic development has been the use of new technology to solve problems brought on by earlier technology and expansion. Central station electricity and modern natural gas systems have eliminated the coal smoke which emanated from industrial and residential furnaces during the Industrial Revolution. Modern sewage systems have replaced the open ditch that ran into the nearest stream. Scientific forest management and conservation practices have restored watersheds and riverlands once cut over or burned off.

Today's science and technology offer nuclear fission as a new source of heat with which to produce electric energy, at a time when other fuels are scarce and nuclear power's benefits are particularly desirable. And at a time when, above all, more energy is needed to meet America's demand for even better living standards for more people.

### **No Air Pollution**

Nuclear power does not contribute significantly to air pollution. No combustion products such as fly ash are released. No gases are released such as those by plants that burn coal or oil. Some radioactivity is released in the gaseous form by nuclear plants such as the Palisades plant, but its effect is small compared to radiation effects from natural background radiation.

Nuclear plants are good neighbors. They are quiet. They can be sited to have minimum visibility to nearby communities. They do not require large adjacent coal piles, or disposal areas for the fly ash that is created in firing a plant's boiler with coal.

Nuclear power is potentially

one of the most vital energy resources available. It promises to be an important asset in controlling pollution by supplying large amounts of needed electricity for a wide range of applications aimed at protecting and improving the environment. Among the requirements for additional energy are: Electric space and process heating in homes and industry; electric incineration of waste products; electric transportation, for mass and individual transit; electricity to power new sewage treatment plants; electricity to run facilities designed to recycle solid and liquid wastes—old auto bodies, tin cans, bottles, chemical wastes—into reusable primary materials; and power for many other pollution-controlling purposes.

### **Nuclear Plants Are Safe**

Nuclear plants do not represent a detectable hazard to the environment, or to people. They are built and operated to conform with rigid safety requirements of the U.S. Atomic Energy Commission. A nuclear plant cannot explode like an atomic bomb, because the nuclear plant is fueled with low enriched uranium while a bomb is fashioned of highly enriched plutonium or uranium. In addition, the nuclear plant by design has a means of self-shutdown.

Nuclear plants do not release dangerous quantities of radiation. There has never been a death or injury due to nuclear radiation as a result of the operation of any licensed commercial nuclear power plant. During normal operation, only the smallest trace amounts of radioactivity in gaseous and liquid forms are discharged from the plant. In both cases, this release is well below

the strict safety standards of the A.E.C. All radioactive materials to be released are analyzed or monitored prior to release to assure that releases will be well below applicable limits. Constant surveillance is conducted in and around nuclear plants to make sure no radiation release limit is exceeded. Actual operating experience indicates that releases of radioactive materials from nuclear plants such as the Palisades plant are only about one to five percent of applicable limits and result in exposure to individuals much smaller than normal background radiation.

As do all steam-electric power plants, nuclear plants discharge water that has been warmed in the process of condensing the steam back into water. The water in the reactor which is used to form steam is in a closed loop isolated from the condensing equipment cooling water. As noted before, only a minute amount of carefully controlled and treated liquid waste is released. In a typical nuclear plant, discharged cooling water might be 20 to 28 degrees warmer than its original source, such as a lake, that might be at 40 degrees temperature on a winter day, or as warm as 70 degrees on a summer day.

### **Continuing Environmental Studies**

Scientific studies have not shown that the warm water discharges from nuclear or fossil-fueled power plants are in any way harmful to the environment or the aquatic life of adjacent bodies of water. Nevertheless, continuing studies are conducted to insure that environmental damage does not result from plant operations.

Consumers Power believes that the potential of nuclear power

should be developed to provide Michigan with adequate energy supplies. In this regard, the Company has one nuclear plant in operation, another ready for fuel loading and testing, and a third planned.

At Big Rock Point, near Charlevoix, Michigan's first operating nuclear generating station has been producing electricity since 1962. It is a 71,000-kilowatt facility used for both power production and research and development projects designed to reduce costs and improve nuclear efficiency. The plant continues to be used for research in development of plutonium fuel, and in the irradiation of cobalt for industrial and medical uses.

At Palisades, on Lake Michigan west of Kalamazoo, a 710,000-kilowatt nuclear plant was ready for fuel loading and testing in 1970. However, issuance of an operating license was opposed by intervenors in public hearings conducted by the U.S. Atomic Energy Commission. The hearings commenced June 23, 1970, and in early 1971 were in recess.

At Midland, public hearings commenced in December 1970, on the Company's application for a construction license for a dual-unit nuclear plant. This facility is to generate 1.3 million kilowatts of power, and will supply large amounts of industrial steam to The Dow Chemical Company for use in its Midland complex. As the hearings opened, 51 persons or organizations made limited appearances. Of these, 49 expressed support of the plant. The hearings then were recessed until 1971. Preliminary site work, which had been carried on throughout most of 1969 and 1970, was shut down

late in the year, pending the granting of a construction permit.

The Michigan Air Pollution Control Commission recently surveyed coal-fired industrial power plants that are to be shut down when Consumers Power Company's new Midland Plant comes into operation. The Pollution Control Commission concluded that operation of a nuclear power plant, and retirement of the older, coal-fired plants, would eliminate 57 tons of fly ash and other solids, and 300 tons of sulfur dioxide every day in the Midland area.

### **Safety Standards Adequate**

The Company is convinced the Midland Plant will represent no hazard to the environment or the public. Neither Consumers Power Company nor The Dow Chemical Company would proceed with such a project if either doubted the effectiveness or adequacy of the A.E.C.'s safety standards and regulations.

The Company's position with regard to the environment remains unchanged at Midland, and elsewhere. It is this: If the Company finds *any* of its facilities to be harming the environment, it will correct the situation. Further, if any competent regulatory authority demonstrates that a plant is damaging the environment, the Company will act promptly to correct it. And finally, if any standards are adopted in the future that require additional air or water quality control equipment, the Company will promptly install it.

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*In view of the benefits it offers, nuclear power is an important solution in Michigan's search for more energy.*

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# 1970— Shadows of the Future

Major challenges involving Michigan's tomorrow became more clearly defined throughout the year. As one of the state's major utilities, they were challenges to Consumers Power Company, too. The environment must be protected. New energy resources must be developed. Rising costs must be offset by all possible efficiencies and by higher rates for energy services. And the momentum of economic expansion must be matched—the Company must continue to expand its facilities to serve the growing needs of the five million people living in its service area.

Continuing increases in operating costs, concern about combating pollution, the relentless pressure of economic growth creating the need for more energy—these were key characteristics of 1970, both for the State of Michigan and for Consumers Power Company.

While it failed to bring a full measure of solutions, the year crystalized problems that will continue to affect the Company and Michigan's economy in 1971 and years thereafter. Michigan is expanding, in a manner characteristic of one of the highly industrialized, faster growing states. Research at the University of Michigan indicates a 19 percent increase in the number of households in the state in 1980 as compared with 1969. Most of that expansion will result from young people reaching maturity and establishing new families; families that will require homes, employment, goods, services—and great amounts of energy.

For Consumers Power, the issues resolve into one broad responsibility—maintaining efficient service with adequate earnings while providing fair-priced energy in larger quantities than ever before, consistent with the desire for environmental improvement.

## Progress Counteracted

Ironically, interactions within the economy clouded some of the achievements of the year. Following electric and gas rate increases authorized by the Michigan Public Service Commission in September, 1969, earnings per average common share outstanding improved during the first half of 1970, and reached \$3.16 in the 12-month period ended May 31, 1970. By the beginning of the third quarter, however, the continuing severe impact of inflation, reflected in rising fuel costs, higher wages, increased taxes and other increases in costs, reversed the upward trend in earnings. Thus, in August, 1970, the Company was forced to apply for additional rate relief in its electric business.

The Company for some months has had a major nuclear generating station at Palisades ready for fuel loading and testing, but has been unable to put it into operation. It represents an initial capacity of 710,000-kilowatts of electrical power that is essential for supplying customers' needs in 1971, and thereafter. However, protracted hearings on the environmental and safety aspects of the plant are still pending after more than half a year, despite the

fact that Palisades complies with every safety and environmental regulatory standard applicable to it. As indicated in the Management Letter (Pages 2-3), the Company is endeavoring to reach an accommodation with intervening environmentalists, which would allow the plant to be licensed and begin operation.

The need for natural gas continued to grow throughout the Company's service area. Much of this was due to space heating required for new homes, and to a general increase in commercial and industrial demands. However, a very substantial proportion of the increase resulted from the desire of business, government and industry to use natural gas to overcome air pollution.

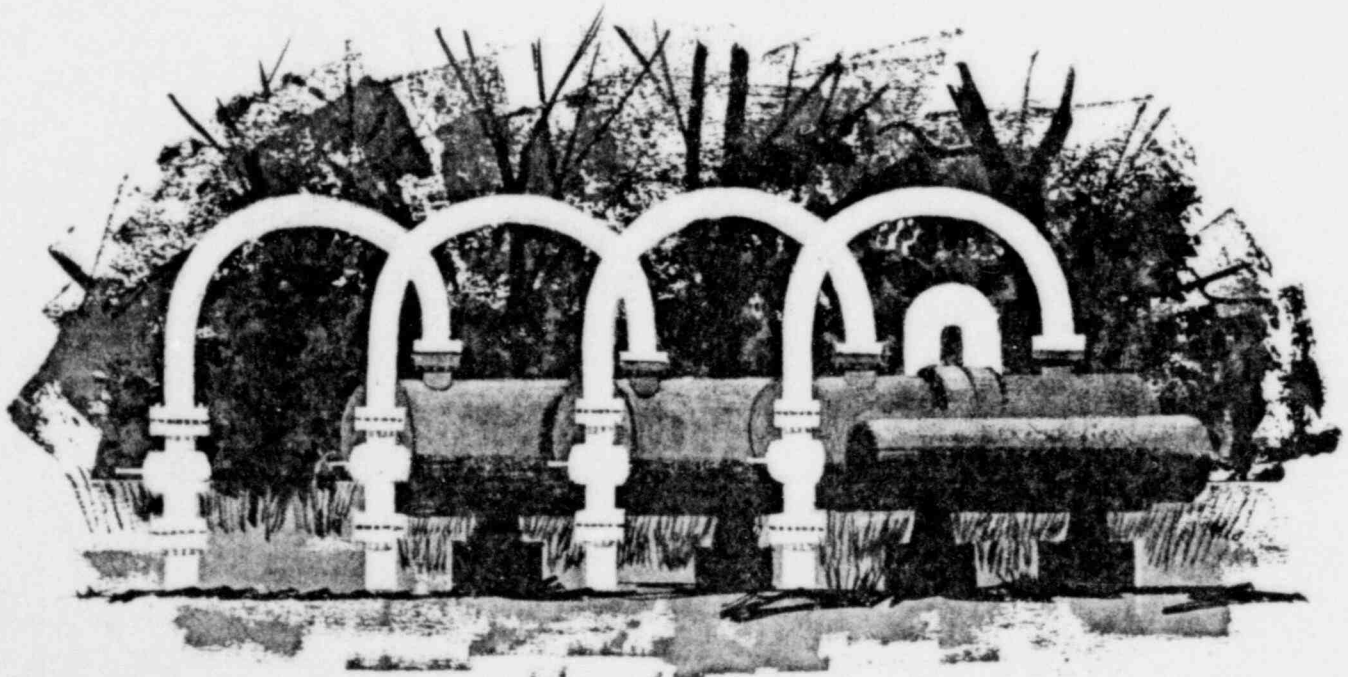
Unfortunately, the sudden burgeoning in demand occurred at a time of shortage of supplies of natural gas. The nation continues to be caught in a progressively tighter squeeze between limited supplies and tremendous growth in requirements. The reasons for the shortage, going back over 15 years, are discussed in the Management Letter.

In Michigan, the Company was confronted by a four-fold increase in the rate at which new business was being added to its gas system.



*The Company maintains more than 700 miles of riverlands which are kept open to the public for hiking, hunting, fishing and boating.*

*The Company's natural gas system serves 354,000 customers and in 1970 sent out 310.3 billion cubic feet of gas.*



With limited incremental amounts of gas in prospect from pipeline suppliers, the Company found it necessary to ask authorization of the Michigan Public Service Commission to limit future sales of gas in its service area. The restrictions, as adopted, are aimed at bringing sales into balance with total annual supplies.

In general, existing commercial and industrial customers will be served at levels of use for the 12-month period ended June 30, 1970. Approximately 40,000 new residential units and remaining commercial and industrial commitments made prior to October, 1970, will be added to the Company's system in 1971. With these additions, the connected load will approximately equal available supplies. Thereafter no additional residential customers can be added, and no increased sales of gas can be made to commercial and industrial customers until new supplies become available.

### **Sales Largest Ever**

The Company's total business in 1970 was larger than ever. The number of electric customers served at year-end was 1,082,400; the number of gas customers, 854,100. During the year, the Company's electric customers used nearly 19 billion kilowatt-hours of electricity, a 1.8 percent increase over 1969. Gas customers required 310 billion cubic feet of gas, a 10.1 percent increase for the year.

The Company's year-end electric generating capacity of 3,560,000 kilowatts represented a 57 percent increase over 10 years earlier. The planned increase,

including the Palisades Plant, was 88 percent. On December 21, 1970, a new record one-hour peak demand was established on the electric system, totaling 3,448,000 kilowatts. A new high sendout of 67,517,000 kilowatt-hours was recorded for a 24-hour period ending December 16. For the seven-day period ended December 19, 1970, total sendout of 447,743,000 kilowatt-hours of electricity also established a new record. The three new electric records represent increases of 84 percent, 85 percent and 98 percent, respectively, over 10 years earlier.

A record sendout for the natural gas system also was established in 1970, on January 8 when 2,074,000,000 cubic feet were delivered to customers during a 24-hour period. That was 153 percent more than on the peak day 10 years before.

New electric and gas records were set in early 1971. A total of 464,960,000 kilowatt-hours was sent out in the week ended February 6; 69,615,000 kilowatt-hours were required to supply customers in a 24-hour period ending February 1; and a 24-hour gas sendout of 2,241,000,000 cubic feet was recorded February 2, 1971.

Gross operating revenue amounted to \$609,990,000. That was an increase of 11 percent over 1969. Net income rose from \$66,960,000 in 1969 to \$72,832,000 in 1970. Earnings of \$2.95 per average common share outstanding in 1970 compared with \$2.79 in 1969.

Electric revenue in 1970 increased 8.7 percent over 1969, and totaled \$334,904,000; gas

revenue was \$273,874,000, a 13.9 percent increase for the year.

Cash dividends of \$2.00 per share declared on common stock totaled \$46,803,000 in 1970, and were paid at the rate of 50¢ per share on February 20, May 20, August 20 and November 20.

Preferred stock dividends paid in 1970 on January 2, April 1, July 1 and October 1, amounted to \$3,516,000.

### **Financing Carried Out**

In June, the Company offered its common shareholders the opportunity to subscribe for 1,264,938 additional shares of common stock at \$26.50 per share, on a one-for-eighteen basis and offered any unsubscribed shares to its employees at the same price. Of the total, 1,178,168 were purchased through the exercise of rights and the balance of 86,770 were purchased by employees. Total proceeds were \$33,661,000.

Also in June, an issue of \$60 million principal amount first mortgage bonds, 8¾ percent series due 1976, was sold on a competitive bid of 100.510 percent, making the interest cost to the Company 8.6393 percent. In November, the Company sold a \$50 million issue of 8½ percent series first mortgage bonds. The cost to the Company of this 30-year issue was 8.6243 percent, based on a competitive bid of 100.007 percent.

Proceeds of these 1970 security issues were used to finance a portion of the Company's expansion and improvement program and to repay short-term borrowings obtained for that purpose.

It is anticipated that the Company will need to sell \$170,000,000 of new securities in 1971 to help finance necessary construction projects.

### Construction Cost Nearly \$242 Million in 1970

Construction projects required the expenditure of \$241.9 million in 1970. In 1969, \$205.1 million was invested in expansion and improvement of the electric and gas systems and supporting facilities. In 1971, it is expected that \$253.4 million will be spent for this purpose.

With the shortage of natural gas, expansion of the gas system will be slowed. Nevertheless, the Company expects to add some 40,000 housing units in 1971 to bring its total connected load to approximately 370 billion cubic feet annually.

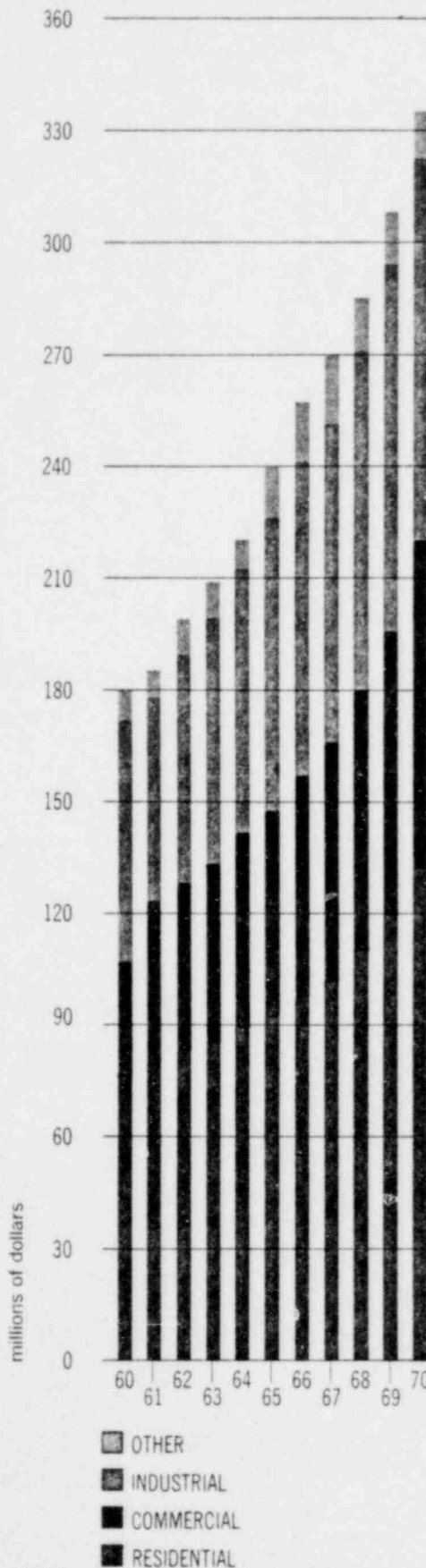
In the electric business, major expansion will continue, in view of Michigan's increasing needs for power and the fact that the Company is its own major producer of the electric energy it distributes.

Electric projects under way or in the planning stages in 1970 included nuclear, oil-fired and hydroelectric generating plant construction.

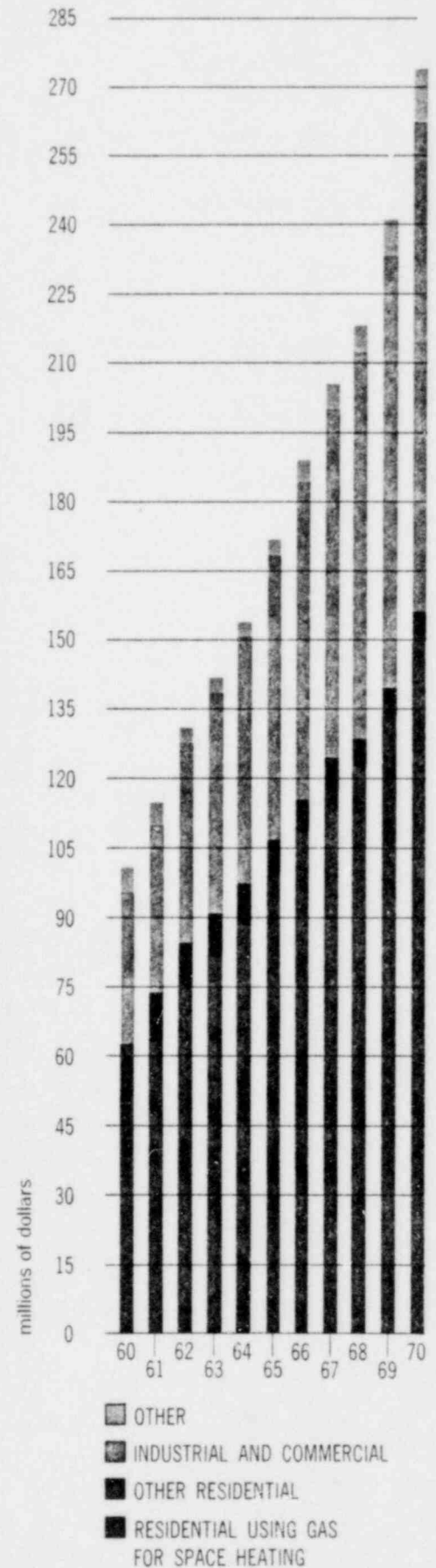
The Company announced the planned addition of two new electric generating units at the Dan E. Karn Plant near Bay City. These will be oil-fired steam-electric turbine generators, each with a capacity of 660,000 kilowatts. One unit is scheduled for operation in 1974, and the second in 1975.

The large pumped storage hydroelectric plant being built by the Company and The Detroit Edison Company just south of Ludington was 35 percent complete at year-end. When completed, the plant will be one of the world's largest, capable of

ELECTRIC REVENUE  
1960-1970

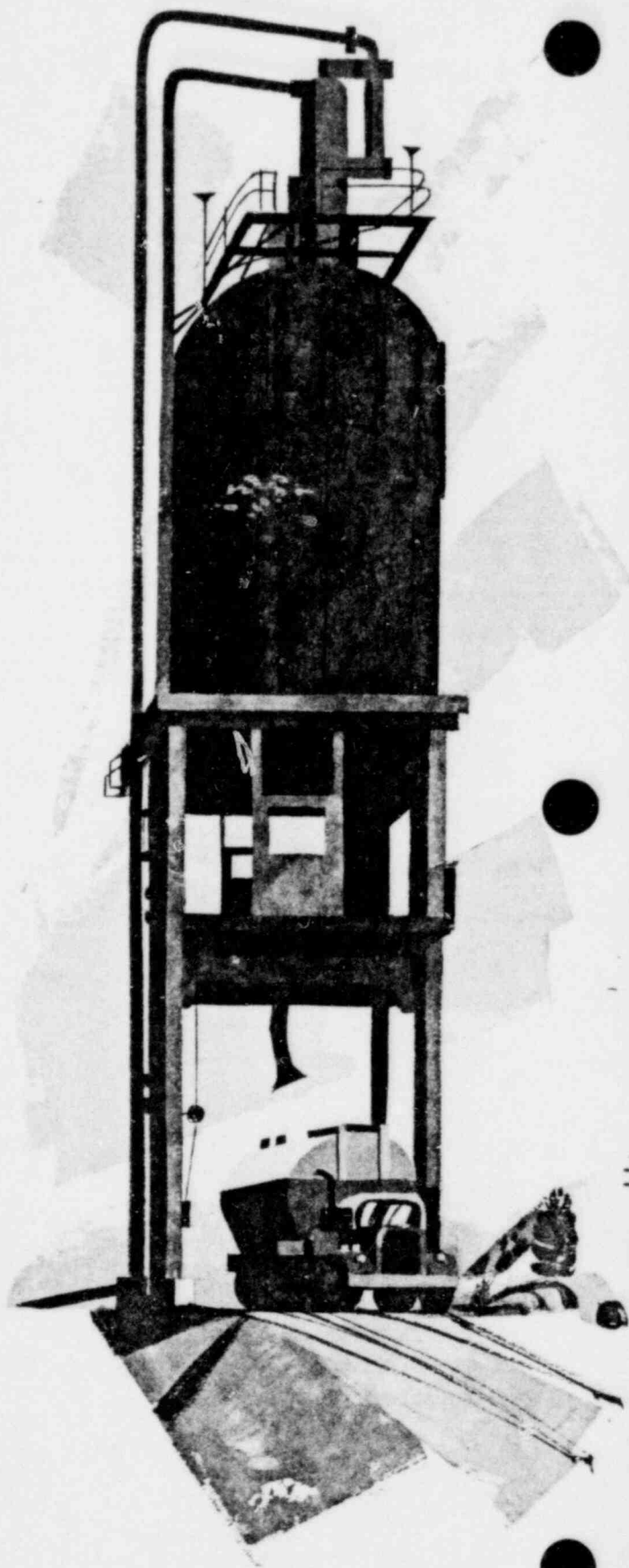


GAS REVENUE  
1960-1970





*Northern Michigan Exploration Company, a Company subsidiary, is searching for natural gas in Michigan, Louisiana and the Gulf of Mexico.*



*Much of the fly ash collected by electrostatic precipitators at the James H. Campbell plant is sold for use in cement.*



providing up to 1.8 million kilowatts of power at times of peak demand. It will have six reversible pump-turbine units. The first unit is scheduled for pumping operation in late 1972, and the final unit is scheduled to become operational the following year. In 1970, the plant's cofferdam was completed, and placement of dike fill, penstock steel construction and intake structure and powerhouse concrete work were under way. The first shipment of turbine components arrived in September.

The Ludington Plant will be owned by Consumers Power and Detroit Edison on a 51 percent-49 percent basis, respectively, and each company will share in the plant's output in the same proportion. The two companies' electric systems have been interconnected for mutual support and assistance in emergencies since 1928, and have been operated under a formal power pooling agreement since 1962. During the first 15 years of operation of the Ludington Plant, it is expected that a portion of its output will be sold to the Commonwealth Edison Company of Chicago.

In 1970, the Company brought its Palisades Nuclear Plant to readiness for fuel loading and power testing, and carried out further preliminary site work and engineering for its proposed dual-reactor nuclear plant at Midland. Both projects, however, encountered opposition, which is discussed elsewhere in this Annual Report. The Midland project has been shut down until a construction permit is granted by the Atomic Energy Commission.

### Environmental Efforts Continued

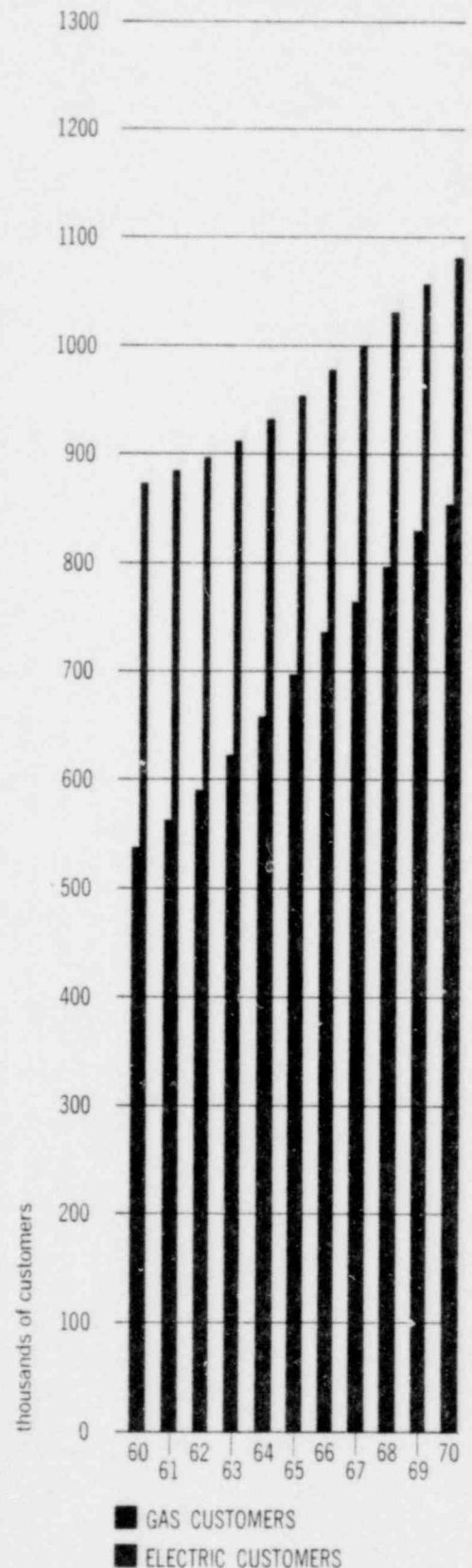
Overlying much of the Company's continuing construction and operational activity in 1970 was the sustained attention to protection and improvement of the environment. Consumers Power Company's involvement in maintaining environmental quality extends back more than 50 years.

Consumers Power has a comprehensive air quality control program under way centering on its electric generating plants, and has committed \$18 million to a program for converting certain coal-fired plants to oil, and for adding modern air quality control equipment to coal-fired plants built before such equipment was developed.

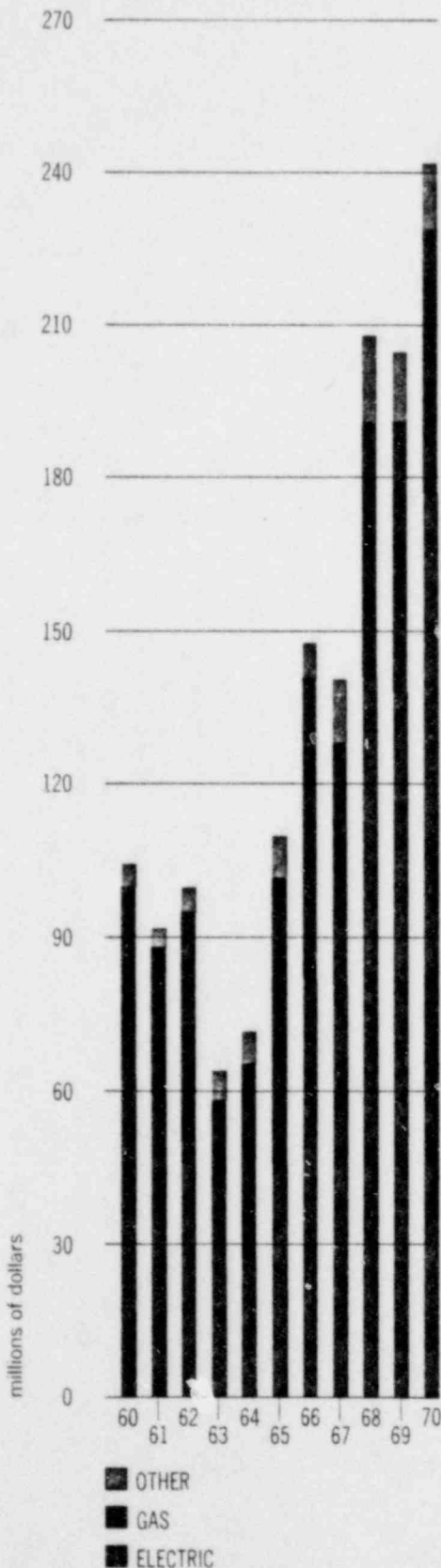
The Company also has planned the retirement of older coal-burning plants which cannot be modified economically to meet present day standards. However, the retirement of these older facilities depends in part upon addition of new generating capacity, including the Company's newest plant at Palisades.

The Company maintains more than 700 miles of riverlands, purchased early in this century in connection with hydroelectric development. Through 1970, the Company had planted more than 28 million trees on these lands through its broad conservation and reforestation program. The riverlands continue to be kept open for public recreation and enjoyment. Thirty-nine recreational areas on Company lands along the Manistee, the Muskegon and the Au Sable rivers are provided for public use. A new recreational facility, including

NUMBER OF  
GAS AND ELECTRIC CUSTOMERS  
1960-1970



PLANT ADDITIONS AND IMPROVEMENTS  
1960-1970



a trailer park and picnic area designed for public use, will be an integral part of the Ludington pumped storage hydroelectric project.

The Company installed underground electric distribution lines in more than half of the new residential subdivisions in its service area in 1970. The first experiments by the Company with undergrounding began in 1930. In the middle 1960's, technological progress made underground systems economically and technically feasible, and since that time Consumers Power has promoted underground distribution installations.

**Employees Number Nearly 12,000**

The Company ended the year with 11,957 employees, as compared to 11,641 at year-end 1969.

During 1970, the Company continued to conduct its "Operation Outreach" program. Begun in 1968, the program is dedicated to the accelerated hiring, training and employment of "disadvantaged" men and women, formerly considered to be unemployable.

During the year, another 148 people were hired in this program. The Company's experience has shown that of all participants, approximately 75 percent complete their training-probationary periods and become regular full-time Company employees.

It is the Company's view that a continuing effort to bring previously disadvantaged persons into the nation's permanent, productive work force is a basic corporate responsibility.

**Costs Rose Further**

In system operations and in the construction program, rising costs continued to be a major challenge in doing business.

The Company's total payroll for the year amounted to \$128,031,000. This was \$19,281,000 higher than the year before. For operating, maintenance and construction personnel, wages were increased March 31, 1970, and cost of living adjustments were made in August and again in December, in accordance with the agreement with the union representing them. The present contract expires March 31, 1971. Negotiations on a new agreement commenced on February 5, 1971.

Total cost of fuel used in electric generation was \$70,940,000, a 20.1 percent increase for the year as more fuel was required to produce more electricity, and unit costs of fuel rose dramatically. The average price of coal for generation of electricity rose from \$7.97 per ton to \$9.14.

More gas was also purchased, to meet increased customer demands. Total cost of gas sold to customers amounted to \$117,875,000. The system average cost of gas was 37.24 cents per thousand cubic feet, as compared to 37.04 cents in 1969.

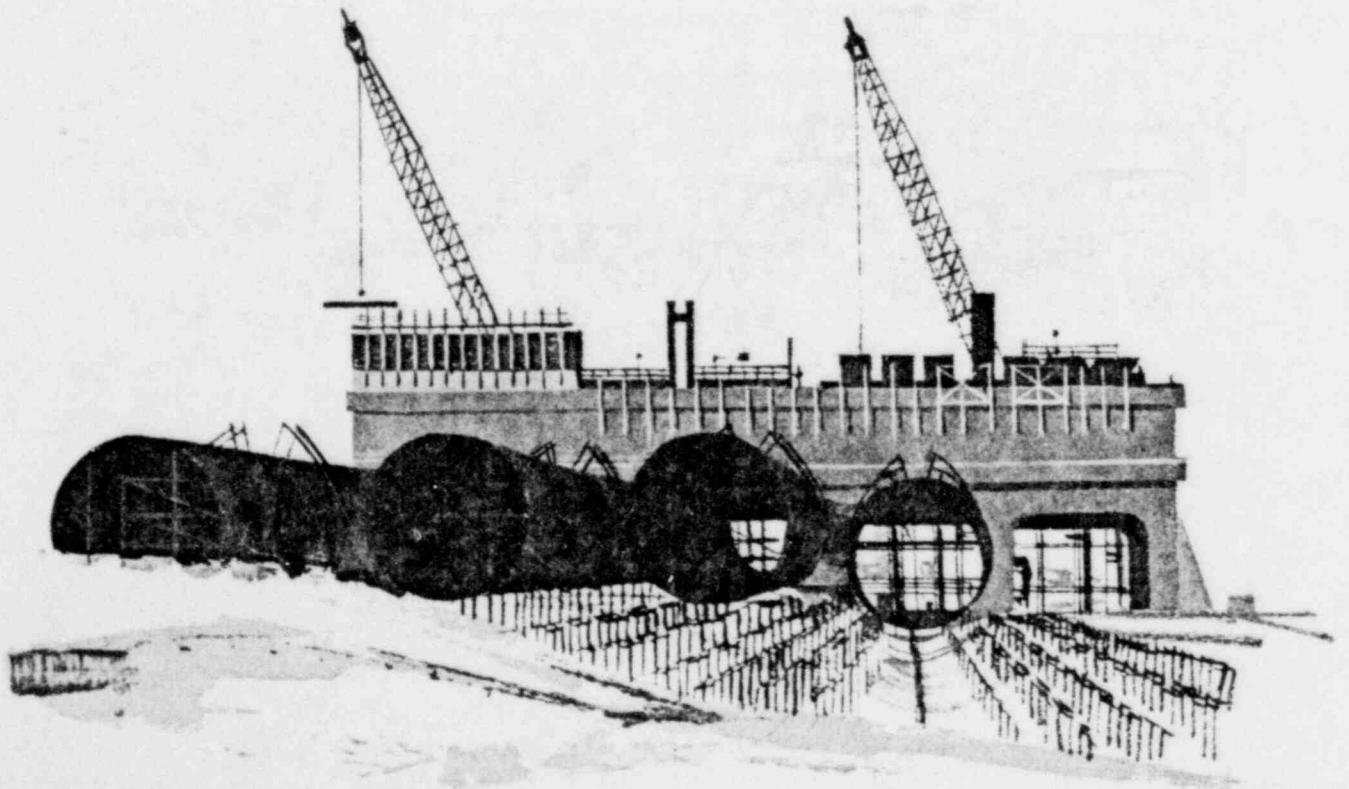
The two bond issues sold by the Company in June and November drew interest costs of 8.6393 percent, and 8.6243 percent, respectively, both higher than for any previous financing in the Company's history.

Taxes continued to represent a substantial cost item despite the reduction and then the



*Two 660,000-kilowatt units are to be added at the Dan E. Karn Plant for operation in 1974 and 1975.*

*The 1.8 million kilowatt Ludington pumped storage hydroelectric project was more than one-third complete at year end.*



elimination of the surcharge on Federal income taxes. Federal, state and local taxes on Company operations totaled \$93,343,000. Of every dollar received by the Company from its customers, 15.3 cents were absorbed by taxes. The Company's property taxes alone amounted to \$33,290,000, as compared to \$30,670,000 in 1969.

In addition to paying its own substantial tax bill, the Company collected from its customers \$16,371,000 in Michigan sales tax, which was remitted to the state.

### Rate Relief Needed

The electric and gas rate increases authorized by the Michigan Public Service Commission in September, 1969, and made effective October 22, 1969, were designed to produce \$37.8 million annually in additional revenue out of a total of \$57.8 million requested. Both the Company and the Attorney General appealed. The appeals are pending.

One issue involved in the Company's pending appeal is the final disposition of that portion of the authorized increased revenues representing the 10 percent Federal income tax surcharge which became effective in 1968 and was reduced and then eliminated in 1970. The Commission's order authorizing increased revenues required the Company to reduce rates at such time as the surcharge was reduced or eliminated. This portion of the Commission's order was stayed by a temporary injunction of the Ingham County Circuit Court and that portion of the Company's revenues reflecting







the effect of the surcharge is subject to refund pending hearing on the Company's appeal. In 1970 the Company reduced revenues by \$9,189,000 in order to provide a reserve net of related income taxes in the amount of \$4,406,000 for the estimated effect of the surcharge issue.





The Company's position on the surcharge issue is that in an inflationary period the Commission should review all cost changes and not just a single item of cost that is expected to decline before providing for a rate reduction. The soundness of this position is evidenced by the fact that the Company's rate of return on its investment in 1970, after reflecting the revenues relating to the surcharge issue, was less than the rate of return authorized by the Commission.

Another issue involved in the appeals includes, among other things, a claim for refunds to customers amounting to approximately \$7,000,000 for which no reserve has been provided. This claim is based upon the circumstance that the electric rates were placed in effect by court order on October 22, 1969, but the Michigan Public Service Commission did not issue an order approving the rates until April 20, 1970.










As costs continued to soar, the Company applied for further rate relief in August, 1970, asking the Commission for authorization to increase its rates for electric service approximately nine percent, to realize additional annual revenues of approximately \$28,500,000. Hearings on the request commenced December 2, 1970, continued in January, 1971,

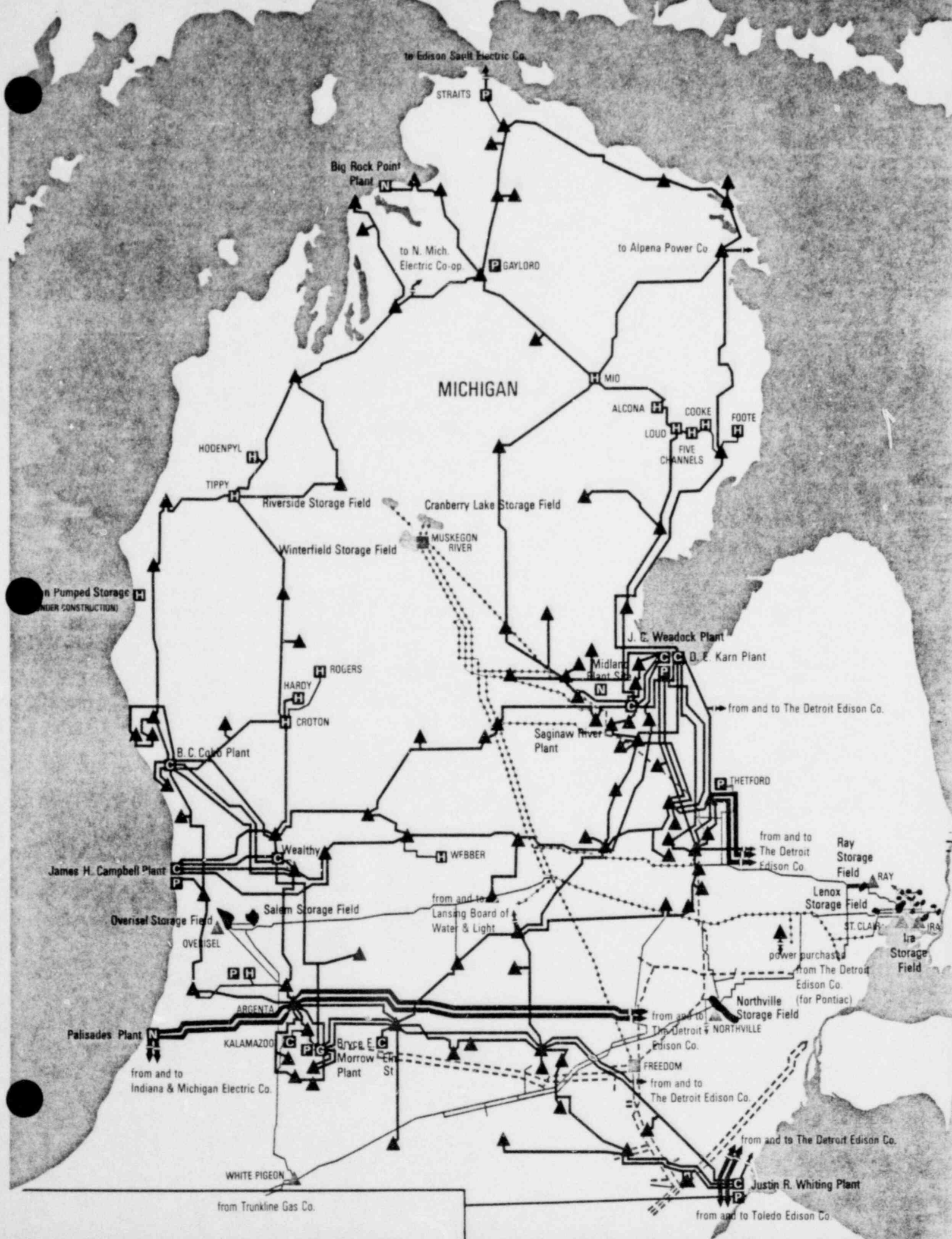
## CONSUMERS POWER COMPANY ELECTRIC SYSTEM

-  Nuclear Plant
-  Coal-Fired Plant
-  Gas-Fired Plant
-  Peaking Plant
-  Hydro Plant
-  Primary Substation

-  Transmission Line  
46,000 Volts
-  Transmission Line  
138,000 Volts
-  Transmission Line  
345,000 Volts
-  Interchange of Power

## CONSUMERS POWER COMPANY NATURAL GAS SYSTEM

-  Gas Lines  
Consumers Power Co.
-  Gas Lines  
Michigan Gas Storage Co.
-  Gas Lines  
Panhandle Eastern Pipe Line Co.
-  Compressor Stations  
Consumers Power Co.
-  Compressor Stations  
Michigan Gas Storage Co.
-  Storage Fields  
Consumers Power Co.
-  Storage Fields  
Michigan Gas Storage Co.
-  Gas Fields  
Consumers Power Co.
-  Interconnection with other Gas Co.



MICHIGAN

to Edison Sault Electric Co.

STRAITS

Big Rock Point Plant

to N. Mich. Electric Co-op.

GAYLORD

to Alpena Power Co.

MIO

ALCONA

COOKE

FOOTE

LOUD

FIVE CHANNELS

HODENPYL

TIPPY

Riverside Storage Field

Cranberry Lake Storage Field

Winterfield Storage Field

MUSKEGON RIVER

J. E. Weadock Plant

D. E. Karn Plant

Midland Plant Stn

from and to The Detroit Edison Co.

Saginaw River Plant

THETFORD

from and to The Detroit Edison Co.

Ray Storage Field

Lenox Storage Field

Ira Storage Field

Northville Storage Field

from and to The Detroit Edison Co.

from and to The Detroit Edison Co.

from and to The Detroit Edison Co.

Justin R. Whiting Plant

from and to Toledo Edison Co.

WHITE PIGEON

from Trunkline Gas Co.

from and to Indiana & Michigan Electric Co.

from and to Lansing Board of Water & Light

power purchased from The Detroit Edison Co. (for Pontiac)

in Pumped Storage (UNDER CONSTRUCTION)

James H. Campbell Plant

Overisel Storage Field

Salem Storage Field

OVERISEL

ARGENTA

Palisades Plant

KALAMAZOO

Bryce E. Morrow Plant

St

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and have been recessed until March. The Attorney General has intervened in opposition to this request for a rate increase. It is hoped that accelerated procedures adopted by the Commission in 1970 will result in a Commission order by early summer. The gas rate increase made effective October 22, 1969, originally was requested April 19, 1968. The electric rate increase made effective October 22, 1969, originally was requested July 15, 1968.

### **New Director, Officers**

On January 6, 1971, Colonel James A. McDivitt, United States Air Force, was elected to the Company's Board of Directors. Colonel McDivitt, as an Astronaut, commanded the Gemini IV and Apollo 9 missions. He subsequently served the National Aeronautics and Space Administration as manager of lunar landing operations, then became manager of the Apollo Spacecraft Program. Based in Houston, Texas, Colonel McDivitt is the son of retired Company associate engineer, James A. McDivitt, Sr.

At its organizational meeting in April, 1970, the Board of Directors augmented the Company's management staff by electing a new senior vice president, and two new vice presidents.

Russell C. Youngdahl, formerly a vice president, was elected senior vice president with responsibility for generating plant projects including their engineering and construction, Electric Construction, Personnel, Purchasing and Stores, and Land

and Right-of-Way. Mr. Youngdahl joined Consumers Power in 1946, and held a series of field and general office executive assignments prior to his election as vice president in 1967.

Harold P. Graves was elected vice president and general counsel. Mr. Graves joined the Company as an attorney in 1953, later became general attorney and, in 1958, general counsel.

Romney Wheeler was elected vice president, public relations. Mr. Wheeler joined Consumers Power Company in 1964 as assistant director of public relations, and was named director of public relations in 1965.

On November 1, Arthur H. Lee, manager of the Company's Kalamazoo Division, retired after more than 40 years of dedicated and able service. He had been Kalamazoo's division manager since 1958. William A. Holtgreive succeeded Mr. Lee as division manager. Mr. Holtgreive joined the Company in 1951, and had served as assistant division manager in Kalamazoo since 1963.

In October, Charles F. Brown, who joined the Company in 1949 and became Pontiac division manager in 1962, was named Lansing division manager. He succeeded Robert H. Lawlor, Lansing division manager since 1966, and formerly assistant division manager from 1954, who was placed on extended illness leave on October 1. The Company was deeply saddened, in January, 1971 by the death of Mr. Lawlor, who served the Company for many years with skill and devotion.

John G. Goense, assistant manager of the Macomb Division

since 1962, succeeded Mr. Brown as manager of the Pontiac Division. Mr. Goense joined the Company in 1951.

### **More Shareholders**

Reflecting the issue of additional common stock in 1970, the Company ended the year with 93,879 common shareholders of record, an increase of 6,436 over 1969. Of these, some 2,200 were new employee shareholders, bringing the total number of employees among the Company's owners to more than 3,750. Preferred stock was held, at year-end, in 14,113 names. More than half of the Company's shareholders live in Michigan, while others live in all of the other 49 states, the District of Columbia and 35 foreign countries. Individuals and joint accounts, often husband and wife, account for 89 percent of all common stock registrations.

### **Annual Meetings**

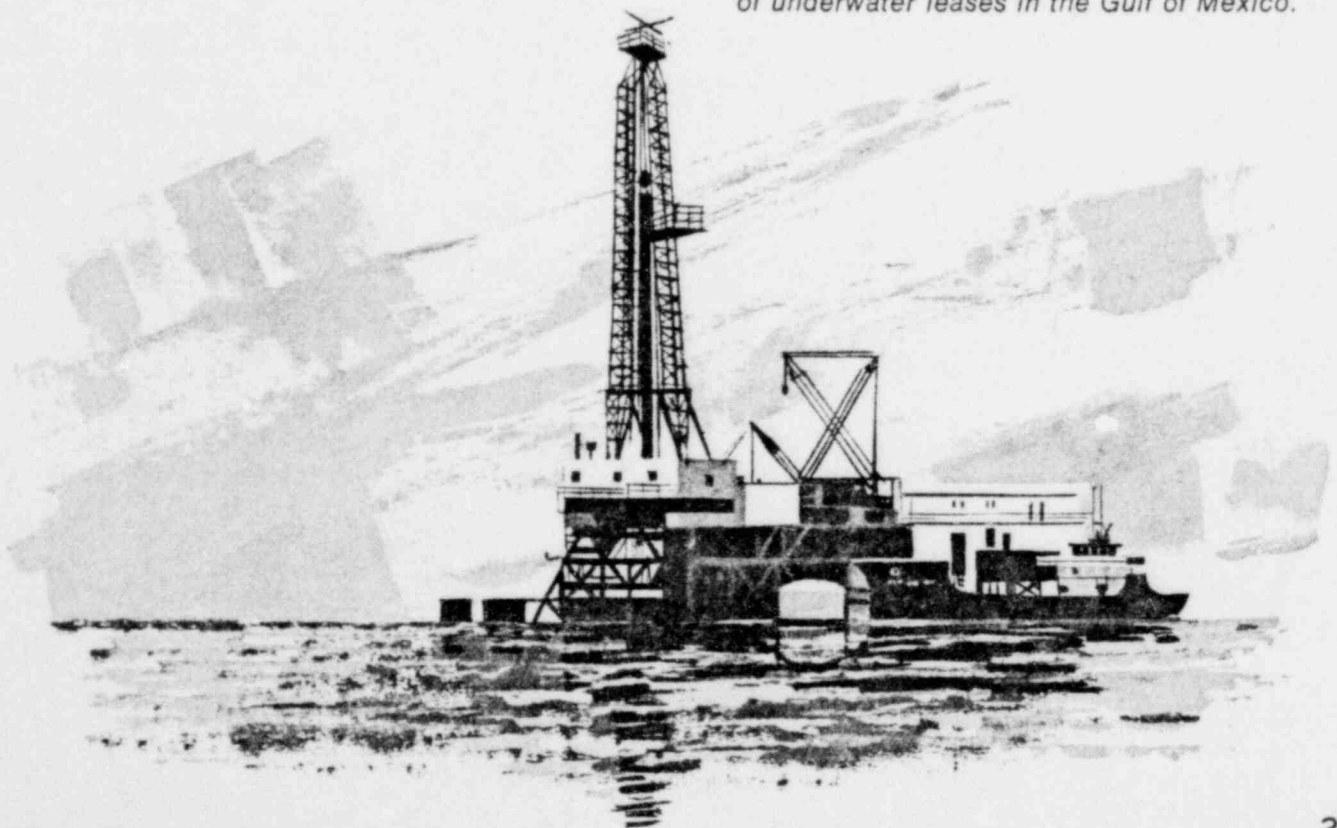
The Company's Annual Meeting of Shareholders was held in Jackson on April 14, 1970. A total of 83.3 percent of all shares entitled to vote was represented in person or by proxy.

The 1971 Annual Meeting of Shareholders will be held at 2:00 PM, Tuesday, April 13, in the Company's Parnall Office Building in Jackson.



*In 1970, underground electric service was installed in more than half of all new residential subdivisions in the Company's service area.*

*The Company's exploration subsidiary is associated in a search for gas in 45,000 acres of underwater leases in the Gulf of Mexico.*



ARTHUR ANDERSEN & Co.

DETROIT, MICHIGAN

the Board of Directors,  
Consumers Power Company:

We have examined the balance sheet of CONSUMERS POWER COMPANY (a Michigan corporation) as of December 31, 1970, and the related statements of income, retained earnings and funds for the year then ended. Our examination was 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. We have previously examined and reported on the financial statements for the preceding year.

In our opinion, the financial statements referred to above present fairly the financial position of Consumers Power Company as of December 31, 1970, and the results of its operations and the source of funds for gross property additions for the year then ended, in conformity with generally accepted accounting principles applied on a basis consistent with that of the preceding year.

Detroit, Michigan,  
February 5, 1971.

*Arthur Andersen & Co.*

**Statement of Source of Funds  
for Gross Property Additions**

**Consumers Power Company**

YEAR ENDED DECEMBER 31

FOR THE YEARS ENDED DECEMBER 31, 1970 AND 1969

SOURCE OF FUNDS FOR GROSS PROPERTY ADDITIONS:

		1970	1969
Earnings retained in the business:	Net income after dividends on preferred stock . . . . .	\$ 69,315,000	\$ 63,426,000
	Less—Dividends declared on common stock (quarterly dividend formerly declared in December was declared in January, 1970) . . . . .	(46,803,000)	(32,446,000)
		<u>\$ 22,512,000</u>	<u>\$ 30,980,000</u>
Principal noncash charges:	Depreciation and amortization—		
	Per Statement of Income . . . . .	\$ 55,608,000	\$ 51,881,000
	Charged to other accounts . . . . .	6,162,000	5,200,000
	Deferred income taxes—net . . . . .	10,222,000	10,962,000
	Investment tax credit—net . . . . .	448,000	3,416,000
		<u>\$ 72,440,000</u>	<u>\$ 71,459,000</u>
Financing:	Sale of common stock . . . . .	\$ 33,661,000	\$ —
	Sale of first mortgage bonds . . . . .	110,000,000	105,000,000
	Increase in other long-term debt . . . . .	12,730,000	—
	Increase in notes payable . . . . .	12,600,000	6,900,000
	Retirement of long-term debt and preferred stock, in accordance with terms of issuance . . . . .	(9,438,000)	(7,788,000)
		<u>\$159,553,000</u>	<u>\$104,112,000</u>
Other:	Change in net current assets and current liabilities . . . . .	\$ (15,140,000)	\$ (2,171,000)
	Other . . . . .	2,581,000	723,000
		<u>\$ (12,559,000)</u>	<u>\$ (1,448,000)</u>
<b>GROSS PROPERTY ADDITIONS</b>		<u><b>\$241,946,000</b></u>	<u><b>\$205,103,000</b></u>

( ) Denotes deduction.

The accompanying notes are an integral part of this statement.



# Statement of Income

# Consumers Power Company

FOR THE YEARS ENDED DECEMBER 31, 1970 AND 1969

	YEAR ENDED DECEMBER 31	
	1970	1969
<b>OPERATING REVENUE (Note 5):</b>		
Electric . . . . .	\$334,904,154	\$307,999,678
Gas . . . . .	273,873,680	240,535,782
Steam . . . . .	1,211,671	1,239,386
Total operating revenue . . . . .	<u>\$609,989,505</u>	<u>\$549,774,846</u>
<b>OPERATING EXPENSES AND TAXES:</b>		
Operation—		
Purchased and interchanged power . . . . .	\$ 19,330,636	\$ 13,530,397
Fuel consumed in electric generation . . . . .	70,939,536	59,091,019
Cost of gas sold . . . . .	117,874,862	106,888,113
Other . . . . .	116,644,190	100,874,343
Total operation . . . . .	<u>\$324,789,224</u>	<u>\$280,383,872</u>
Maintenance . . . . .	32,817,757	26,121,267
Depreciation and amortization (Note 7) . . . . .	55,608,057	51,880,650
General taxes . . . . .	39,062,263	37,058,195
Federal income taxes . . . . .	38,823,836	41,022,326
State income taxes . . . . .	4,786,793	4,071,324
Provision for deferred income taxes, net . . . . .	10,221,539	10,962,051
Charge equivalent to investment tax credit, net . . . . .	448,537	3,416,145
Total operating expenses and taxes . . . . .	<u>\$506,558,006</u>	<u>\$454,915,830</u>
Net operating income . . . . .	<u>\$103,431,499</u>	<u>\$ 94,859,016</u>
<b>OTHER INCOME:</b>		
Interest charged to construction (Note 2) . . . . .	14,108,197	8,421,485
Dividends from Michigan Gas Storage Company . . . . .	1,650,000	1,350,000
Gain on reacquisition of long-term debt . . . . .	1,074,465	768,802
Other . . . . .	1,124,907	771,285
Gross income . . . . .	<u>\$121,389,068</u>	<u>\$106,170,588</u>
<b>INCOME DEDUCTIONS:</b>		
Interest on long-term debt . . . . .	\$ 44,812,084	\$ 35,956,150
Interest on notes payable . . . . .	2,970,481	2,685,912
Other . . . . .	774,894	568,183
Total income deductions . . . . .	<u>\$ 48,557,459</u>	<u>\$ 39,210,245</u>
Net income . . . . .	<u>\$ 72,831,609</u>	<u>\$ 66,960,343</u>
<b>DIVIDENDS ON PREFERRED STOCK</b>		
Net income after dividends on preferred stock . . . . .	<u>\$ 69,315,187</u>	<u>\$ 63,425,843</u>
<b>EARNINGS PER SHARE OF COMMON STOCK</b>		
BASED ON AVERAGE SHARES OUTSTANDING		
(23,506,780 shares in 1970 and 22,768,900 shares in 1969) . . . . .	<u>\$2.95</u>	<u>\$2.79</u>

The accompanying notes are an integral part of this statement.

**Balance Sheet**  
at December 31, 1970 and 1969

**Assets**

		DECEMBER 31	
		1970	1969
UTILITY PLANT:	At original cost—		
	Plant in service and held for future use—		
	Electric . . . . .	\$1,288,260,565	\$1,229,560,511
	Gas . . . . .	719,087,937	659,370,596
	Steam . . . . .	4,206,666	4,342,289
	Common to all departments . . . . .	52,855,923	49,625,564
		<u>\$2,064,411,091</u>	<u>\$1,942,898,960</u>
	Less—Provision for accrued depreciation . . . . .	512,073,215	473,217,730
		<u>\$1,552,337,876</u>	<u>\$1,469,681,230</u>
	Construction work in progress (Note 2) . . . . .	278,939,450	182,546,093
		<u>\$1,831,277,326</u>	<u>\$1,652,227,323</u>
OTHER PHYSICAL PROPERTY:	At cost or less—less provision for accrued depreciation of \$366,286 in 1970 and \$100,586 in 1969 . . . . .	\$ 3,019,668	\$ 2,774,295
INVESTMENTS:	Wholly owned subsidiaries, at cost—		
	Michigan Gas Storage Company . . . . .	\$ 16,205,186	\$ 16,205,186
	Northern Michigan Exploration Company (Note 3) . . . . .	6,000,000	2,000,000
	Other, at cost or less . . . . .	737,052	754,711
		<u>\$ 22,942,238</u>	<u>\$ 18,959,897</u>
CURRENT ASSETS:	Cash . . . . .	\$ 10,221,930	\$ 10,260,297
	Accounts receivable, less reserves of \$526,549 in 1970 and \$363,453 in 1969 . . . . .	45,349,804	47,327,592
	Materials and supplies, at average cost . . . . .	43,269,506	32,792,009
	Gas in underground storage, at average cost . . . . .	23,314,333	20,219,372
	Other . . . . .	2,174,500	19,190,426
		<u>\$ 122,130,073</u>	<u>\$ 129,789,696</u>
OTHER:	Deferred debits . . . . .	\$ 3,006,939	\$ 3,629,847
		<u>\$2,003,376,244</u>	<u>\$1,807,381,058</u>

The accompanying notes are an integral part of this statement.

# Consumers Power Company

DECEMBER 31

## Stockholders' Investment and Liabilities

	1970	1969
<b>CAPITALIZATION:</b>		
Common stockholders' equity—		
Common stock, \$10 par value, authorized 25,000,000 shares, outstanding 24,033,838 shares in 1970 and 22,768,900 shares in 1969 (Note 4) . . . . .	\$ 240,338,380	\$ 227,689,000
Capital in excess of par value (Notes 4 and 9) . . . . .	208,904,434	187,756,338
Retained earnings (Note 9) . . . . .	178,995,080	156,482,642
	<b>\$ 628,237,894</b>	<b>\$ 571,927,980</b>
Less—Capital stock expense . . . . .	3,964,115	3,201,380
Total common stockholders' equity . . . . .	<b>\$ 624,273,779</b>	<b>\$ 568,726,600</b>
Preferred stock, cumulative \$100 par value, authorized 1,500,000 shares (Note 9) . . . . .	78,733,800	79,133,800
Total stockholders' investment . . . . .	<b>\$ 703,007,579</b>	<b>\$ 647,860,400</b>
Long-term debt (Note 10) . . . . .	923,177,246	810,585,400
Total capitalization . . . . .	<b>\$1,626,184,825</b>	<b>\$1,458,445,800</b>
<b>NOTES PAYABLE:</b>		
Due within one year . . . . .	\$ 55,500,000	\$ 42,900,000
<b>CURRENT LIABILITIES</b> (excluding notes payable due within one year):		
Current sinking fund requirement on long-term debt . . . . .	\$ 10,138,000	\$ 9,038,000
Accounts payable . . . . .	60,508,945	64,462,226
Accrued taxes . . . . .	58,601,466	58,897,524
Accrued interest . . . . .	9,645,706	12,574,704
Other . . . . .	16,093,409	11,814,942
	<b>\$ 154,987,526</b>	<b>\$ 156,787,396</b>
<b>DEFERRED CREDITS:</b>		
Investment tax credit, being amortized over life of the related property . . . . .	\$ 22,689,604	\$ 21,721,067
Other . . . . .	1,483,677	1,351,035
	<b>\$ 23,653,281</b>	<b>\$ 23,072,102</b>
<b>RESERVES:</b>		
Deferred income taxes . . . . .	\$ 115,271,231	\$ 105,049,692
Other (Note 5) . . . . .	6,311,664	1,800,620
	<b>\$ 121,582,895</b>	<b>\$ 106,850,312</b>
<b>OTHER:</b>		
Contributions in aid of construction . . . . .	\$ 21,467,717	\$ 19,325,448
	<b>\$2,003,376,244</b>	<b>\$1,807,381,058</b>

The accompanying notes are an integral part of this statement.

# Statement of Retained Earnings

# Consumers Power Company

FOR THE YEARS ENDED DECEMBER 31, 1970 AND 1969

YEAR ENDED DECEMBER 31

	1970	1969
RETAINED EARNINGS—Beginning of year . . . . .	\$156,482,642	\$125,503,192
ADD—Net income after dividends on preferred stock . . . . .	69,315,187	63,425,843
	<u>\$225,797,829</u>	<u>\$188,929,035</u>
DEDUCT—Cash dividends on common stock declared in the amount of \$2.00 per share in 1970 and \$1.425 per share in 1969 (quarterly dividend formerly declared in December was declared in January, 1970); paid \$2.00 per share in 1970 and \$1.90 per share in 1969 . . . . .	46,802,749	32,446,393
RETAINED EARNINGS—End of year . . . . .	<u>\$178,995,080</u>	<u>\$156,482,642</u>

The accompanying notes are an integral part of this statement.

## Notes to the Financial Statements

- The balance sheet as of December 31, 1969 has been restated to reclassify nuclear fuel accounts to utility plant in accordance with a revision of the Federal Power Commission's system of accounts.
- Construction work in progress at December 31, 1970 includes \$148,884,000 expended on the Palisades Nuclear Plant including fuel and \$37,668,000 expended on the Midland Nuclear Plant. Hearings are now in progress before atomic safety and licensing boards of the U.S. Atomic Energy Commission to obtain an operating license for the Palisades Plant and a construction permit for the Midland Plant.

With respect to the Palisades Plant intervenors have delayed the hearings on various legal, ecological and radiological grounds. The Company has continued to capitalize interest during construction at the rate of approximately \$830,000 per month and other costs (which would normally be charged to operations) of approximately \$170,000 per month. The Company expects the issues in these hearings to be resolved and the plant placed in operation in 1971.

A number of associations and persons have intervened in the Midland hearings opposing the issuance of a construction permit. As a result, the Company has closed down further construction of the plant until a construction permit is obtained. The Company expects to have a construction permit by the end of 1971. In the event the plant is not completed at the Midland site, but the Company is able to utilize the design work, equipment and materials purchased at another location, the Company may not be able to recover approximately \$7,000,000 primarily related to site costs.

- Northern Michigan Exploration Company (Northern), a wholly-owned subsidiary of the Company, is engaged in gas exploration programs in northern Michigan and the southern United States. The Company has purchased \$4,000,000 in the common stock of Northern and advanced an additional \$2,000,000 in exchange for an interest bearing note as of December 31, 1970. The Company's Board of Directors has authorized loans to Northern up to a maximum of \$10,000,000 and has authorized a total common stock investment of \$8,000,000.

Northern is obligated to expend approximately \$9,700,000 for interests in offshore Louisiana leases of which approximately \$2,000,000 are expected to be sold. In addition, Northern has made commitments of approximately \$7,000,000 for exploratory and developmental drilling with respect to onshore Louisiana interests.

- In June 1970, the Company sold 1,264,938 shares of its common stock at a price of \$16.50 per share. In connection with this transaction, \$12,649,380 representing the par value of the shares issued, was credited to the common stock account and \$21,011,399 was credited to capital in excess of par value.

- In August 1970, the Company filed an application with the Michigan Public Service Commission to increase its electric rates by approximately \$28,500,000 on an annual basis based upon estimated 1970 sales. Hearings are currently proceeding on that application.

Litigation is pending on electric and gas rate increases which became effective on October 22, 1969. This litigation, which involves appeals taken by the Company as well as by parties opposing the rate increases, includes, among other things, a claim for refunds to customers amounting to approximately \$7,000,000 for which no reserve has been provided. This claim is based upon the circumstance that the electric rates were placed in effect by court order on October 22, 1969 but the Michigan Public Service Commission did not issue an order approving such rates until April 20, 1970. Also included in the litigation is a claim for refund relating to the reduction and elimination of the Federal income tax surcharge for which revenues in 1970 were reduced by \$9,189,000, and a reserve stated net of related income taxes was accumulated in the amount of \$4,406,000.

- 6 The Company has a trustee noncontributory pension plan under which full-time regular employees within specified age limits and periods of service are qualified to participate. The contributions to the plan were \$9,195,000 in 1970 and \$7,386,000 in 1969. Of these amounts \$6,945,000 in 1970 and \$5,722,000 in 1969 were charged directly to expense accounts with the remainder being charged to various construction, clearing and other accounts. The contributions include current service costs, interest on unfunded prior service costs and amortization of prior service costs. The unfunded prior service cost at July 1, 1970 amounted to \$3,027,000.
- 7 The Company follows the practice of providing depreciation on the basis of straight-line rates approved by the Michigan Public Service Commission. Composite depreciation rates were approximately 2.95% in 1970 and 2.85% in 1969 for electric property and 3.05% in 1970 and 3.20% in 1969 for gas property.
- 8 Capital expenditures for property additions during 1971 are presently estimated to total \$253,389,000 and substantial commitments for the purchase of construction materials have been made in connection therewith. Total construction expenditures over the five-year period ending December 31, 1975 are presently estimated to total \$1,980,000,000.

	REDEMPTION PRICE PER SHARE	DECEMBER 31	
		1970	1969
9 Preferred stock is represented by:			
\$4.50—547,788 shares outstanding . . . . .	\$110.00	\$54,778,800	\$54,778,800
\$4.52—139,550 shares outstanding . . . . .	104.725	13,955,000	14,355,000
\$4.16—100,000 shares outstanding . . . . .	103.25	10,000,000	10,000,000
Total preferred stock . . . . .		<u>\$78,733,800</u>	<u>\$79,133,800</u>

At December 31, 1970 retained earnings in the amount of \$5,905,035, equivalent to \$7.50 per share of preferred stock outstanding, is not available for payment of cash dividends on common stock.

The Company is required to endeavor to purchase and retire annually 4,000 shares of the \$4.52 preferred stock at a price per share not to exceed \$102.725 plus accrued dividends. Such purchases of preferred stock in 1970 resulted in a net gain of \$136,697 which was credited to capital in excess of par value.

	DECEMBER 31	
	1970	1969
10 Long-term debt is represented by:		
First Mortgage Bonds—		
27 $\frac{3}{8}$ % Series due 1975 . . . . .	\$ 86,324,000	\$ 92,437,000
8 $\frac{3}{4}$ % Series due 1976 . . . . .	60,000,000	—
27 $\frac{3}{8}$ % Series due 1977 . . . . .	24,010,000	24,775,000
31 $\frac{1}{8}$ % Series due 1981 . . . . .	39,000,000	39,000,000
3% Series due 1984 . . . . .	24,075,000	24,075,000
4% Series due 1986 . . . . .	40,000,000	40,000,000
3 $\frac{1}{4}$ % Series due 1987 . . . . .	25,000,000	25,000,000
4 $\frac{3}{4}$ % Series due 1987 . . . . .	246,000	246,000
4 $\frac{1}{2}$ % Series due 1988 . . . . .	40,000,000	40,000,000
4 $\frac{5}{8}$ % Series due 1989 . . . . .	35,000,000	35,000,000
3 $\frac{1}{4}$ % Series due 1990 . . . . .	30,000,000	30,000,000
4 $\frac{5}{8}$ % Series due 1990 . . . . .	34,000,000	35,000,000
4 $\frac{5}{8}$ % Series due 1991 . . . . .	40,000,000	40,000,000
5 $\frac{7}{8}$ % Series due 1996 . . . . .	59,000,000	59,560,000
6% Series due 1997 . . . . .	79,400,000	79,400,000
6 $\frac{7}{8}$ % Series due 1998 . . . . .	55,000,000	55,000,000
6 $\frac{5}{8}$ % Series due 1998 . . . . .	55,000,000	55,000,000
7 $\frac{5}{8}$ % Series due 1999 . . . . .	50,000,000	50,000,000
8 $\frac{1}{4}$ % Series due 1999 . . . . .	55,000,000	55,000,000
8 $\frac{5}{8}$ % Series due 2000 . . . . .	50,000,000	—
Total First Mortgage Bonds . . . . .	<u>\$881,055,000</u>	<u>\$779,493,000</u>
Sinking Fund Debentures, 4 $\frac{5}{8}$ %, due 1994 . . . . .	39,400,000	40,000,000
Other . . . . .	12,860,246	130,400
	<u>\$933,315,246</u>	<u>\$819,623,400</u>
Deduct—Current sinking fund requirement included in current liabilities—		
First Mortgage Bonds . . . . .	\$ 9,538,000	\$ 8,438,000
Sinking Fund Debentures . . . . .	600,000	600,000
	<u>\$ 10,138,000</u>	<u>\$ 9,038,000</u>
Total long-term debt . . . . .	<u>\$923,177,246</u>	<u>\$810,585,400</u>

# Financial Summary 1970-1960

		1970	1969	1968	
STATEMENT OF INCOME DATA	Operating Revenue				
	Electric	\$ 334,904,154	\$ 307,999,679	\$ 286,245,624	\$ 270,086,000
	Gas	273,873,680	240,535,782	217,681,852	205,882,420
	Steam Heating	1,211,671	1,239,386	1,191,514	1,213,020
	<i>Operating Revenue Deductions, Except Taxes</i>	<b>413,215,038</b>	<b>358,385,789</b>	<b>320,195,813</b>	<b>300,603,510</b>
	<i>Taxes</i>				
	Federal Income Tax	38,823,836	41,022,326	49,260,385	45,486,460
	State Income Tax	4,786,793	4,071,324	4,859,454	—
	Deferred Income Tax	10,221,539	10,962,051	9,901,486	7,692,510
	Investment Tax Credit (Net)	448,537	3,416,145	3,395,805	4,055,820
	Other	39,062,263	37,058,195	31,767,807	29,468,280
	Net Operating Income				
	Electric	62,778,612	62,598,806	57,034,666	58,851,890
	Gas	40,779,643	32,651,237	28,870,985	31,093,930
	Steam Heating	(126,756)	(391,027)	(167,411)	(70,990)
	Other Income	3,849,372	2,890,087	2,348,356	1,428,370
	Interest Charged to Construction	14,108,197	8,421,485	4,891,483	2,555,360
	<i>Income Deductions</i>	<b>48,557,459</b>	<b>39,210,245</b>	<b>30,421,420</b>	<b>25,335,080</b>
	Net Income	72,831,609	66,960,343	62,556,659	68,523,490
<i>Cash Dividends Declared</i>					
On Preferred Stock	3,516,422	3,534,500	3,548,060	3,567,010	
On Common Stock	46,802,749	32,446,393 <sup>(3)</sup>	43,137,343	39,840,000	
Earnings Retained	22,512,438	30,979,450	15,871,256	27,116,630	
Common Stock, Unadjusted, See Footnote (1)					
Average Shares Outstanding	23,506,780	22,768,900	22,670,777	22,628,900	
Earnings per Share	\$ 2.95	\$ 2.79	\$ 2.60	\$ 2.80	
Cash Dividends Paid per Share	\$ 2.00	\$ 1.90	\$ 1.90	\$ 1.90	
Common Stock, Adjusted, See Footnote (1)					
Average Shares Outstanding	23,506,780	22,768,900	22,670,777	22,628,900	
Earnings per Share	\$ 2.95	\$ 2.79	\$ 2.60	\$ 2.80	
Cash Dividends Paid per Share	\$ 2.00	\$ 1.90	\$ 1.90	\$ 1.80	
Interest Charged to Construction per Share	\$ .60	\$ .37	\$ .22	\$ .10	
BALANCE SHEET DATA	Utility Plant	\$2,343,350,542	\$2,125,445,053 <sup>(5)</sup>	\$1,924,062,750	\$1,742,150,610
	Accrued Depreciation	512,073,215	473,217,730 <sup>(5)</sup>	427,774,321	398,061,570
	Plant Investment per Employee	195,981	182,583 <sup>(5)</sup>	171,487	160,750
	Capitalization, See Footnote (2)				
	Common Stock and Retained Earnings	624,273,779	\$ 568,726,600	\$ 537,643,407	\$ 516,861,790
	Preferred Stock	78,733,800	79,133,800	79,533,800	79,962,580
	Long-Term Debt	923,177,246	810,585,400	714,627,900	612,015,900
	Total Capitalization	<b>\$1,626,184,825</b>	<b>\$1,458,445,800</b>	<b>\$1,331,805,107</b>	<b>\$1,208,840,270</b>
	Capitalization Ratios—%, See Footnote (2)				
	Common Stock and Retained Earnings	38.4	39.0	40.4	42.8
	Preferred Stock	4.8	5.4	6.0	6.6
	Long-Term Debt	56.8	55.6	53.6	50.6

(1) Common Stock, Unadjusted, figures do not reflect any adjustment to previously reported figures for the 2 for 1 stock split in April 1962 or for the 10% Common Stock dividend issued April 1967. The Common Stock, Adjusted, figures reflect these adjustments.

(2) Total Capitalization and Common Stock and Retained Earnings data shown above for 1964 and prior years have been restated to reflect the deduction of expense pertaining to stock issues previously reported as a deferred debit.

(3) Fourth quarterly dividend formerly declared in December declared in January, 1970.

1966	1965	1964	1963	1962	1961	1960
\$ 257,833,579	\$ 239,991,443	\$ 221,738,649	\$ 209,202,898	\$ 198,857,361	\$ 186,399,427	\$ 179,568,429
188,927,810	172,321,289	153,779,511	142,115,564	131,395,598	114,655,299	100,769,449
1,138,878	937,113	882,058	944,005	976,696	1,001,675	1,058,055
280,364,645	256,581,178	232,954,932	220,071,186	206,499,817	189,100,637	179,967,924
48,883,101	47,406,213	43,299,441	39,016,596	37,953,679	33,732,041	28,647,373
—	—	—	—	—	—	—
6,813,332	6,190,110	6,920,315	7,105,571	6,999,982	7,248,992	7,059,399
2,158,151	2,585,234	1,939,263	2,174,310	1,966,029	—	—
25,038,103	23,055,001	21,199,959	19,868,033	17,343,455	16,922,249	15,433,274
55,851,252	52,346,746	47,767,645	44,715,036	41,906,814	39,573,111	38,147,033
27,807,461	25,168,901	22,387,564	19,366,352	18,635,125	15,558,320	12,269,197
(15,778)	(83,538)	(68,901)	(54,617)	(75,246)	(78,949)	(128,267)
2,040,272	2,612,514	1,753,543	1,894,011	1,488,877	1,590,088	1,704,170
2,332,530	635,545	365,927	332,660	1,990,245	1,879,517	2,376,994
20,837,021	16,797,939	18,192,629	18,569,918	18,681,151	18,113,572	16,118,539
67,178,716	61,882,229	54,013,149	47,683,524	45,264,664	40,408,515	38,250,588
3,584,565	3,614,036	3,629,259	3,655,648	3,665,595	3,683,453	3,698,259
19,078,528	17,540,283	16,609,204	15,260,152	14,542,109	13,421,656	12,767,968
24,515,623	20,727,910	16,774,686	13,767,724	14,056,960	11,303,406	9,784,361
20,567,560	20,555,589	20,330,016	20,094,050	19,608,383	9,568,115	9,525,665
\$ 3.09	\$ 2.83	\$ 2.48	\$ 2.19	\$ 2.12	\$ 3.84	\$ 3.63
\$ 1.90	\$ 1.775	\$ 1.60	\$ 1.475	\$ 1.40	\$ 2.60	\$ 2.60
22,624,316	22,611,148	22,363,018	22,103,455	21,569,221	21,049,853	20,956,463
\$ 2.81	\$ 2.58	\$ 2.25	\$ 1.99	\$ 1.93	\$ 1.74	\$ 1.65
\$ 1.73	\$ 1.61	\$ 1.45	\$ 1.34	\$ 1.27	\$ 1.18	\$ 1.18
\$ .10	\$ .03	\$ .02	\$ .02	\$ .09	\$ .09	\$ .11
\$1,619,668,027	\$1,482,250,832	\$1,384,203,322	\$1,329,744,266	\$1,284,320,741	\$1,206,518,804	\$1,123,245,187
364,653,544	330,308,291	302,318,407	273,316,827	245,831,001	219,227,665	193,273,276
154,283	148,477	141,940	136,608	131,833	131,809	111,855
\$ 494,483,584	\$ 468,976,284	\$ 445,022,760	\$ 421,589,507	\$ 394,398,888	\$ 368,248,909	\$ 347,904,226
80,363,340	80,764,100	81,164,860	81,565,619	81,966,379	82,367,138	82,767,898
538,169,000	478,657,000	486,591,691	457,187,082	493,062,773	489,337,064	461,924,254
\$1,113,015,924	\$1,028,397,384	\$1,012,779,311	\$ 960,342,208	\$ 969,428,040	\$ 939,953,111	\$ 892,596,378
44.4	45.6	43.9	43.9	40.7	39.2	39.0
7.2	7.9	8.0	8.5	8.5	8.8	9.3
48.4	46.5	48.1	47.6	50.8	52.0	51.7

(4) Figures for years prior to 1963 have been restated where applicable to reflect refunds received in 1963 and 1962 of the cost of purchased gas and interest income related to such refunds and other miscellaneous adjustments, including the effect of applicable income taxes.

(5) Utility plant, accrued depreciation and plant investment per employee for 1969 restated to reflect reclassification of nuclear fuel accounts in accordance with a revision of the Federal Power Commission's system of accounts.

# Electric and Gas Operating Comparison 1970-1960

Per Cent Increase Or (Decrease) 1970  
Compared with

		1970	1969	1960	1969	1968
electric revenue	Residential	\$133,131,799	11.6	74.7	\$119,298,937	\$109,988,43
	Commercial	87,727,018	15.1	117.5	76,246,495	2,59
	Industrial	102,501,526	4.5	86.2	98,132,472	18,17
	Interdepartmental and Other	6,101,767	14.7	108.2	5,320,222	4,849,74
	Total Sales to Ultimate Consumers	\$329,462,110	10.2	88.8	\$298,998,126	\$275,808,94
	Power Pool	—	—	—	—	2,504,45
	Other Resale	6,661,084	19.6	125.3	5,567,956	4,912,92
	Reserve for Possible Rate Refund	(5,929,745)	—	—	—	—
	Total Electric Sales Revenue	\$330,193,449	8.4	86.0	\$304,566,082	\$283,226,32
	Miscellaneous Electric Revenue	4,710,705	37.2	126.3	3,433,596	3,019,29
	Total Electric Revenue	\$334,904,154	8.7	86.5	\$307,999,678	\$286,245,62
	electric sales (1,000 kilowatthours)	Residential	5,931,840	7.0	85.1	5,546,263
Commercial		4,027,215	9.6	138.2	3,673,709	3,388,70
Industrial		8,073,913	(5.9)	88.6	8,578,389	8,104,06
Interdepartmental and Other		208,526	8.6	63.1	191,951	186,70
Total Sales to Ultimate Consumers		18,241,494	1.4	96.1	17,990,312	16,770,01
Power Pool		—	—	—	—	411,69
Other Resale		565,183	15.6	126.4	489,051	428,90
Total Electric Sales	18,806,677	1.8	96.9	18,479,363	17,610,61	
peak load	Kilowatts	3,448,345	2.1	83.8	3,377,275	3,179,71
generating capacity	Kilowatts	3,560,086	4.4	56.8	3,411,086	3,371,68
heat rate	Btu of Fuel per Net Kilowatthour Generated	10,120	1.8	2.7	9,941	9,804
electric customers	End of Period	1,082,442	2.3	23.9	1,057,735	1,031,91
electric residential customer averages	Annual Kilowatthours Used	6,222	4.5	49.5	5,954	5,609
	Revenue per Kilowatthour Used	2.24¢	4.2	(5.9)	2.15¢	2.16
	Annual Revenue	\$139.64	9.0	41.1	\$128.06	\$121.1
gas revenue	Residential					
	Using Gas for Home Heating	\$150,050,985	12.2	187.5	\$133,776,482	\$123,150,73
	Other	6,614,752	8.5	(40.2)	6,097,784	6,329,20
	Industrial and Commercial	105,881,351	13.0	221.2	93,716,797	83,103,78
	Interdepartmental and Other (1)	10,879,909	253.3	688.8	3,079,358	325,55
	Resale	456,805	(42.6)	(72.0)	796,401	1,337,47
	Reserve for Possible Rate Refund	(3,258,764)	—	—	—	—
	Total Gas Sales Revenue	\$270,625,038	14.0	172.7	\$237,466,822	\$214,246,75
Miscellaneous Gas Revenue	3,248,642	5.9	110.8	3,068,960	3,435,10	
Total Gas Revenue	\$273,873,680	13.9	171.8	\$240,535,782	\$217,681,85	
gas statistics (1,000 cubic feet)	Gas Sales					
	Residential					
	Using Gas for Home Heating	134,435,759	4.2	150.1	129,060,276	120,256,31
	Other	3,733,980	(6.6)	(54.4)	3,997,083	4,215,23
	Industrial and Commercial	146,405,893	5.0	199.7	139,497,140	125,896,46
	Interdepartmental and Other (1)	24,805,995	243.8	568.7	7,214,920	482,50
	Resale	962,331	(51.7)	(74.6)	1,992,394	3,620,01
	Total Gas Sales	310,343,958	10.1	162.3	281,761,813	254,470,53
	Net to Storage	13,896,516	27.1	35.1	10,937,194	6,204,57
	Unbilled, Lost and Company Use	9,765,675	2.3	42.5	9,548,264	12,648,53
Total Gas Purchased and Produced	334,006,149	10.5	146.6	302,247,271	273,323,65	
maximum 24-hour gas sendout	(1,000 Cubic Feet)	2,074,000	19.5	152.5	1,735,000	1,690,58
gas customers	End of Period	854,117	2.9	58.3	830,011	798,33
residential customers using gas for home heating	Number—End of Period	706,580	4.5	119.5	675,851	41,68
	Average Annual Mcf Used	195	(0.5)	6.0	196	19
	Average Revenue per Mcf Used	111.62¢	7.7	15.0	103.65¢	102,41
	Average Annual Revenue	\$218.12	7.3	22.2	\$203.27	\$198.2

(1) Includes intracompany sales of gas to the electric department for use in generating electricity in years 1970, 1969, 1968, 1965, 1962, 1961, and 1960.



1967	1966	1965	1964	1963	1962	1961	1960
\$ 92,138,339	\$ 97,033,110	\$ 92,266,607	\$ 89,427,891	\$ 85,334,132	\$ 82,884,470	\$ 79,727,171	\$ 76,207,206
1,073,608	60,286,010	55,636,401	52,431,943	48,849,529	46,237,915	43,291,862	40,338,087
85,387,765	84,042,956	77,918,003	70,290,252	65,182,252	60,682,708	54,718,983	55,054,612
4,497,443	4,143,604	3,883,767	3,666,062	3,453,244	3,343,702	3,145,774	2,930,291
<u>\$256,097,155</u>	<u>\$245,505,680</u>	<u>\$229,704,778</u>	<u>\$215,816,148</u>	<u>\$202,819,157</u>	<u>\$193,148,795</u>	<u>\$180,883,790</u>	<u>\$174,530,196</u>
5,515,600	4,061,741	2,962,550	—	—	—	—	—
4,662,499	4,412,239	4,116,623	3,845,597	4,187,933	3,740,699	3,298,695	2,956,622
—	—	—	—	—	—	—	—
<u>\$266,275,254</u>	<u>\$253,999,660</u>	<u>\$236,783,951</u>	<u>\$219,661,745</u>	<u>\$207,007,090</u>	<u>\$196,889,494</u>	<u>\$184,182,485</u>	<u>\$177,486,818</u>
3,810,747	3,833,919	3,207,492	2,076,904	2,195,808	1,967,867	2,216,942	2,081,611
<u>\$270,086,001</u>	<u>\$257,833,579</u>	<u>\$239,991,443</u>	<u>\$221,738,649</u>	<u>\$209,202,898</u>	<u>\$198,857,361</u>	<u>\$186,399,427</u>	<u>\$179,568,429</u>
4,677,682	4,394,426	4,051,505	3,839,862	3,647,764	3,530,776	3,376,511	3,205,406
3,053,439	2,826,722	2,539,873	2,340,920	2,143,567	2,000,412	1,838,741	1,690,660
7,496,857	7,353,814	6,643,212	5,797,370	5,299,805	4,846,180	4,180,726	4,279,984
181,586	171,802	159,324	149,239	141,795	141,747	136,533	127,815
<u>15,409,564</u>	<u>14,746,764</u>	<u>13,393,914</u>	<u>12,127,391</u>	<u>11,232,931</u>	<u>10,519,115</u>	<u>9,532,511</u>	<u>9,303,865</u>
932,307	723,239	526,283	—	—	—	—	—
406,721	404,006	375,790	334,983	370,657	328,777	278,252	249,637
<u>16,748,592</u>	<u>15,874,009</u>	<u>14,295,987</u>	<u>12,462,374</u>	<u>11,603,588</u>	<u>10,847,892</u>	<u>9,810,763</u>	<u>9,553,502</u>
2,941,030	2,860,410	2,570,040	2,374,910	2,217,405	2,038,155	1,948,350	1,876,390
3,307,684	2,922,684	2,852,684	2,790,064	2,791,564	2,792,664	2,534,992	2,270,962
9,838	9,805	9,555	9,463	9,433	9,631	9,675	9,857
1,002,706	379,095	954,477	931,791	911,671	898,862	885,832	873,834
5,298	5,096	4,824	4,677	4,530	4,443	4,315	4,162
2.18¢	2.21¢	2.28¢	2.33¢	2.34¢	2.35¢	2.36¢	2.38¢
\$115.69	\$112.53	\$109.87	\$108.92	\$105.96	\$104.31	\$101.89	\$98.94
\$117,697,394	\$108,704,823	\$ 99,775,009	\$ 89,412,353	\$ 81,997,119	\$ 75,065,216	\$ 63,601,515	\$ 52,200,274
6,834,687	7,157,020	7,680,330	8,209,016	9,450,577	10,171,957	10,387,623	11,054,279
76,436,579	69,079,432	61,603,815	53,157,491	47,851,767	43,225,914	36,595,988	32,962,377
272,109	258,660	394,490	252,837	255,241	547,350	2,314,246	1,379,246
861,357	443,072	680,446	533,070	462,579	1,157,305	—	1,632,008
—	—	—	—	—	—	—	—
<u>\$202,122,126</u>	<u>\$185,643,007</u>	<u>\$170,134,090</u>	<u>\$151,564,767</u>	<u>\$140,017,283</u>	<u>\$130,167,742</u>	<u>\$112,899,372</u>	<u>\$ 99,228,184</u>
3,760,300	3,284,803	2,187,199	2,214,744	2,098,281	1,227,856	1,755,927	1,541,265
<u>\$205,882,426</u>	<u>\$188,927,810</u>	<u>\$172,321,289</u>	<u>\$153,779,511</u>	<u>\$142,115,564</u>	<u>\$131,395,598</u>	<u>\$114,655,299</u>	<u>\$100,769,449</u>
115,315,155	106,199,355	97,565,207	86,516,602	79,332,269	72,941,582	64,303,774	53,760,032
4,592,474	4,733,021	5,094,559	5,428,669	6,405,305	6,845,467	7,241,954	8,187,652
115,096,882	104,281,134	92,737,550	78,035,901	69,076,501	62,013,406	52,797,012	48,853,317
363,134	345,884	794,297	329,956	320,268	1,290,972	6,611,019	3,709,408
2,222,554	997,531	1,617,358	1,239,896	1,034,768	2,519,009	—	3,785,446
<u>237,590,199</u>	<u>216,556,925</u>	<u>197,808,971</u>	<u>171,551,024</u>	<u>156,169,111</u>	<u>145,610,436</u>	<u>130,953,759</u>	<u>118,295,855</u>
8,525,693	(3,106,249)	327,920	9,748,391	5,322,355	7,305,514	5,872,391	10,283,514
11,325,387	9,875,156	7,175,045	3,891,118	6,354,454	3,857,019	2,338,405	6,855,227
<u>257,441,279</u>	<u>223,325,832</u>	<u>205,311,936</u>	<u>185,190,533</u>	<u>167,845,920</u>	<u>156,772,969</u>	<u>139,164,555</u>	<u>135,434,596</u>
1,488,000	1,477,302	1,275,076	1,077,722	1,140,880	982,434	843,543	821,362
764,903	734,947	697,011	659,151	621,112	590,633	562,897	539,474
604,124	569,353	526,788	483,963	438,298	400,668	361,335	321,909
198	194	194	188	191	193	189	184
102.07¢	102.36¢	102.26¢	103.35¢	103.36¢	102.91¢	98.91¢	97.10¢
\$201.69	\$198.68	\$198.02	\$194.22	\$196.95	\$198.73	\$187.01	\$178.45

NOTE: Gas revenues for the year 1961 have been restated to reflect refunds to the Company's customers ordered by the Michigan Public Service Commission as a result of refund of the cost of gas purchased during that year.

## Company Directors

**A. H. AYMOND**  
Chairman of the Board of the Company  
Jackson, Michigan

**ROBERT P. BRIGGS**  
Commissioner of Financial institutions, State of Michigan  
Lansing, Michigan

**JAMES H. CAMPBELL**  
President of the Company  
Jackson, Michigan

**E. NEWTON CUTLER, JR.**  
Senior Vice President of First National City Bank  
New York, New York

**LEE D. FERDEN**  
Farmer  
Chesaning, Michigan

**DANIEL M. FITZ-GERALD**  
Chairman of the Board and Chief Executive  
Officer of The Wickes Corporation  
Saginaw, Michigan

**RICHARD M. GILLET**  
President and Chief Executive Officer  
of Old Kent Bank and Trust Company  
Grand Rapids, Michigan

**JOHN F. GORDON**  
Director, General Motors Corporation  
Birmingham, Michigan

**FRANK HAMILTON**  
Former First Vice President of Bankers Trust Company  
New York, New York

**COLONEL JAMES A. MC DIVITT\***  
U.S. Air Force, Manager of Apollo Spacecraft Program  
Houston, Texas

**C. S. HARDING MOTT**  
President and Trustee of the Charles  
Stewart Mott Foundation  
Flint, Michigan

**DONALD J. PORTER**  
President of Porter-Hadley Company  
Grand Rapids, Michigan

**LYLE C. ROLL**  
Chairman of the Board of Kellogg Company  
Battle Creek, Michigan

**DR. E. GIFFORD UPJOHN**  
Director, The Upjohn Company  
Kalamazoo, Michigan

\*Colonel McDivitt was elected to the Board January 6, 1971

## Company Officers

**A. H. AYMOND**  
Chairman of the Board, Chief Executive Officer

**JAMES H. CAMPBELL**  
President, Chief Operating Officer

**HARRY R. WALL**  
Senior Vice President, Electric Operations

**JOHN B. SIMPSON**  
Senior Vice President, Gas Operations and General Services

**RUSSELL C. YOUNGDAHL**  
Senior Vice President, Generating Plant Engineering and Construction,  
Electric Construction, Personnel, Purchasing and Stores,  
and Land and Right-of-Way

**BIRUM G. CAMPBELL**  
Vice President, Marketing

**W. ANSON HEDGECOCK**  
Vice President, Divisions and Customer Service

**RALPH C. BRETTEING**  
Vice President, Personnel

**FLOYD C. FISHER**  
Vice President, General Services

**WALTER R. BORIS**  
Vice President, Finance

**W. JACK MOSLEY**  
Vice President, Bulk Power Resources

**E. ROMNEY WHEELER**  
Vice President, Public Relations

**JOHN W. KLUBERG**  
Vice President and Controller, Accounting and Rates

**HAROLD P. GRAVES**  
Vice President and General Counsel

**PAUL A. PERRY**  
Secretary

**HERBERT J. PALMER**  
Treasurer

## Divisions and Managers

(Headquarters cities in parentheses)

Battle Creek Division (Battle Creek) GORDON W. HOWARD

Bay City Division (Bay City) LOWELL L. SHEPARD

Central Division (Alma) RALPH HAHN

Flint Division (Flint) J. LAURENCE GILLIE

Grand Rapids Division (Grand Rapids) GORDON L. CARSON

Jackson Division (Jackson) A. FRANK BREWER

Kalamazoo Division (Kalamazoo) ARTHUR H. LEE (To October 31, 1970)  
WILLIAM A. HOLTGREIVE (From November 1, 1970)

Lansing Division (Lansing) ROBERT H. LAWLOR, JR. (To September 30, 1970)  
CHARLES F. BROWN (From October 1, 1970)

Maccomb Division (East Detroit) GEORGE L. MAYHEW

Muskegon Division (Muskegon) C. THOMAS BAYLIS

Northwest Division (Traverse City) BOB D. HILTY

Pontiac Division (Pontiac) CHARLES F. BROWN (To September 30, 1970)  
JOHN G. GOENSE (From October 1, 1970)

Saginaw Division (Saginaw) STANLEY M. JURENS

South Oakland Division (Royal Oak) WILFRED L. WHITFIELD

West Wayne Division (Livonia) JAMES P. THOMAS

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