



1989 ANNUAL REPORT

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The Massachusetts Municipal Wholesale Electric Company (MMWEC) is a joint action agency dedicated to the principles and benefits of locally owned public power systems. It is committed to meeting current and long-range needs of its member electric systems as they strive to provide their customers with reliable, competitive and superior service.

MMWEC meets member system needs by providing access to expertise, resources and representation. It develops, under membership guidance and direction, high-quality and cost-effective options for power supply and related energy services.

MMWEC's capabilities and services are provided to all member systems when the needs addressed are common to all.

They are made available through relationships with groups of systems when particular needs or goals are shared by those systems but not others. They are worked out directly with individual systems when unique or distinctive needs are involved.



A new decade dawns in 1990, and with it comes a series of challenges for MMWEC and its member utilities. Staying competitive in the 1990s will require a clear sense of direction and a strong sense of purpose. We have identified the challenges and know what we want to achieve. Our purpose is to provide the MMWEC members with the high-quality, cost-effective energy services they will need in the decade ahead. Here are the challenges and MMWEC's responses.

Challenge: Power Supply Needs Must Be Met

MMWEC Response: *Provide the MMWEC members with an adequate, reliable, economic and environmentally sensitive mix of power supply resources and demand-side options for the 1990s.*

Challenge: Transmission Access and Pricing

MMWEC Response: *Assure that the MMWEC members have access to the regional transmission system at a fair and reasonable cost, and work toward a more competitive utility marketplace in New England.*

Challenge: Competition/Efficiency

MMWEC Response: *Make MMWEC the vendor of choice among energy service providers by enhancing the quality and value of MMWEC services.*

Challenge: Contract Litigation

MMWEC Response: *Bring the Seabrook contract litigation to a close as quickly as possible.*

Challenge: Financial Strength

MMWEC Response: *Accomplish a refunding of MMWEC's outstanding debt and develop a position of strength in financial markets.*

Challenge: Seabrook

MMWEC Response: *Work to assure the timely and efficient operation of the project.*

*From the
Chairman of the Board
and the President*

Twenty years ago, when the Massachusetts Municipal Wholesale Electric Company was created by the state's municipal utilities, changes were taking place in the region's electric utility industry that unified the MMWEC members and inspired them to achieve their common goal of independence. Threatened by plans that would have left them with little control over their futures, they set out to develop an independent public power supply for the municipal utilities of Massachusetts ... and they did.

There have been challenges and conflicts along the way, but they have been conquered by municipal utility joint action, which has produced a public power force to be reckoned with in the development of plans for New England's electric power industry.

Now, electric utilities are entering a new era - an era of competition, an era of deregulation - that again is changing the face of their business. In many ways, this latest wave of change has served to rally the 31 MMWEC members behind a proactive strategy to protect the future interests of municipal utilities. Once again, there are challenges commanding the attention of consumer-owned utilities and requiring a strong sense of unity and strength within the public power community.

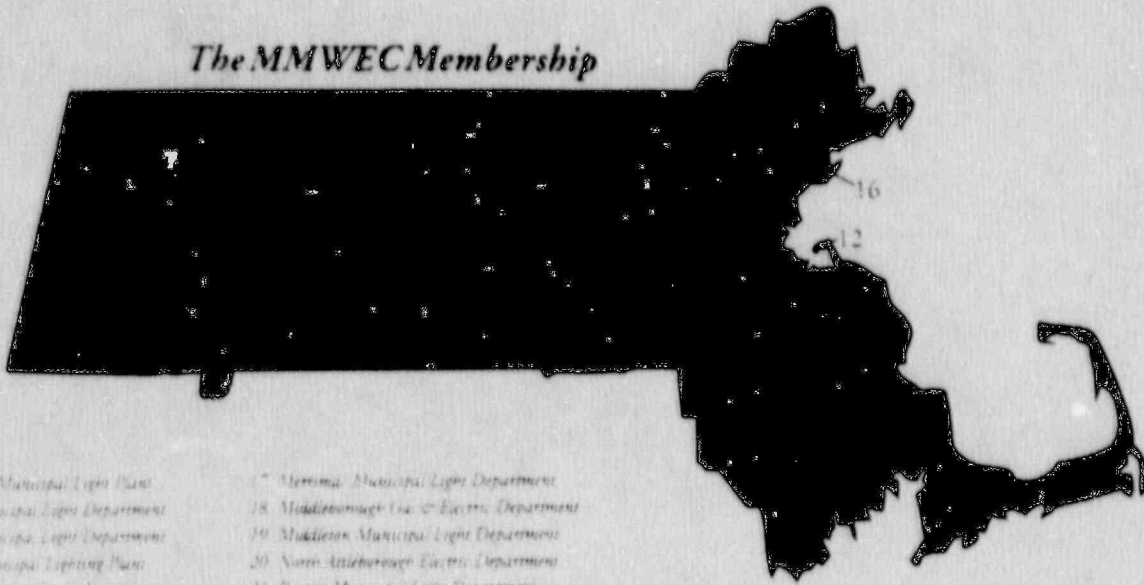
These kinds of challenges - the ones that threaten to erode the benefits of public power - are the ones that bind and strengthen the MMWEC organization. They provide a common ground for cooperation and joint action to achieve common goals.

At the same time, MMWEC is changing from within to strengthen the organization and provide better service to its member utilities. Due to their diversity in size, customer base and other characteristics, there are always differences of opinion among MMWEC's members. There are different service needs, different power supply needs and different strategies for individual member utilities.

To address these individual needs, and to enhance its members' competitiveness, MMWEC is offering more choices as members search for the most cost-effective way to meet their service needs. More MMWEC services are optional in 1990, providing an opportunity for members to tailor a service package to meet specific needs.

While the commercial operation of Seabrook is near

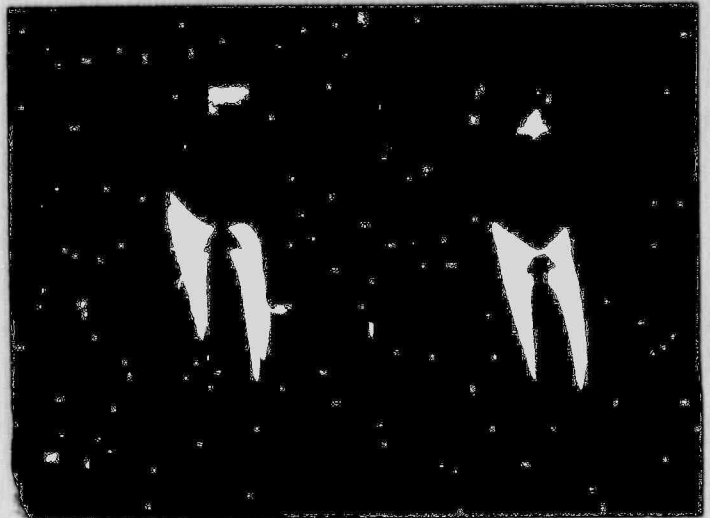
The MMWEC Membership



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| 1. Amesbury Municipal Light Plant | 17. Merrimack Municipal Light Department |
| 2. Barnstable Municipal Light Department | 18. Middleborough Gas & Electric Department |
| 3. Bayville Municipal Light Department | 19. Middlesex Municipal Light Department |
| 4. Bourne Municipal Lighting Plant | 20. North Attleborough Electric Department |
| 5. Braintree Municipal Light Department | 21. Paxton Municipal Light Department |
| 6. Danvers Electric Division | 22. Princeton Municipal Light Department |
| 7. Georgetown Municipal Light Department | 23. Reading Municipal Light Department |
| 8. Groton Electric Light Department | 24. Rockport Municipal Lighting Plant |
| 9. Hingham Municipal Lighting Plant | 25. Southwick Electric Light Plant |
| 10. Haverhill Municipal Light Department | 26. South Hadley Electric Light Department |
| 11. Haverhill Gas & Electric Department | 27. Sterling Municipal Light Department |
| 12. Hull Municipal Lighting Plant | 28. Templeton Municipal Lighting Plant |
| 13. Ipswich Municipal Light Department | 29. Wakefield Municipal Light Department |
| 14. Leominster Electric Light & Water Department | 30. West Barnston Municipal Lighting Plant |
| 15. Mansfield Municipal Electric Department | 31. Westfield Gas & Electric Light Department |
| 16. Mattapan Municipal Light Department | |

reality, there are still Seabrook-related issues for MMWEC to address, primarily the Seabrook contract litigation between MMWEC and some of its members. We are working hard to resolve this litigation as quickly as possible so that we can focus our attention and resources on MMWEC's principal mission: to provide its members with an adequate, reliable and economic supply of electricity.

In looking back on 1989, it was a year of change for MMWEC as the company worked toward its goal of becoming the Energy Star of the Commonwealth for its member utilities. In the process of examining the broader issues facing municipal utilities, we have been pleased by the collective determination to fight for public power rights. Belief in the need for joint action is as strong as ever. Cooperation is the key that turns that belief into strength, which will enable MMWEC and its members to remain independent and competitive in the decade ahead.



R. E. Slattery *G. E. Leary*

Richard E. Slattery, *President* George E. Leary, *Chairman of the Board*

The MMWEC Membership



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| 1. Acushnet Municipal Light Plant | 17. Attleboro Municipal Light Department |
| 2. Belmont Municipal Light Department | 18. Middleborough Gas & Electric Department |
| 3. Boston Municipal Light Department | 19. Middlesex Municipal Light Department |
| 4. Canton Municipal Lighting Plant | 20. North Attleborough Electric Department |
| 5. Concord Municipal Light Department | 21. Paxton Municipal Light Department |
| 6. Danvers Electric Division | 22. Princeton Municipal Light Department |
| 7. Georgetown Municipal Light Department | 23. Reading Municipal Light Department |
| 8. Hingham Electric Light Department | 24. Revere Municipal Lighting Plant |
| 9. Hingham Municipal Lighting Plant | 25. Southwick Electric Light Plant |
| 10. Hudson Municipal Light Department | 26. South Hadley Electric Light Department |
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| 13. Ipswich Municipal Light Department | 29. Wakefield Municipal Light Department |
| 14. Leominster Electric Light & Water Department | 30. West Boston Municipal Lighting Plant |
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| 16. Marlborough Municipal Light Department | |

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Becoming the Energy Star of the Commonwealth for its member utilities is a challenging assignment for MMWEC.

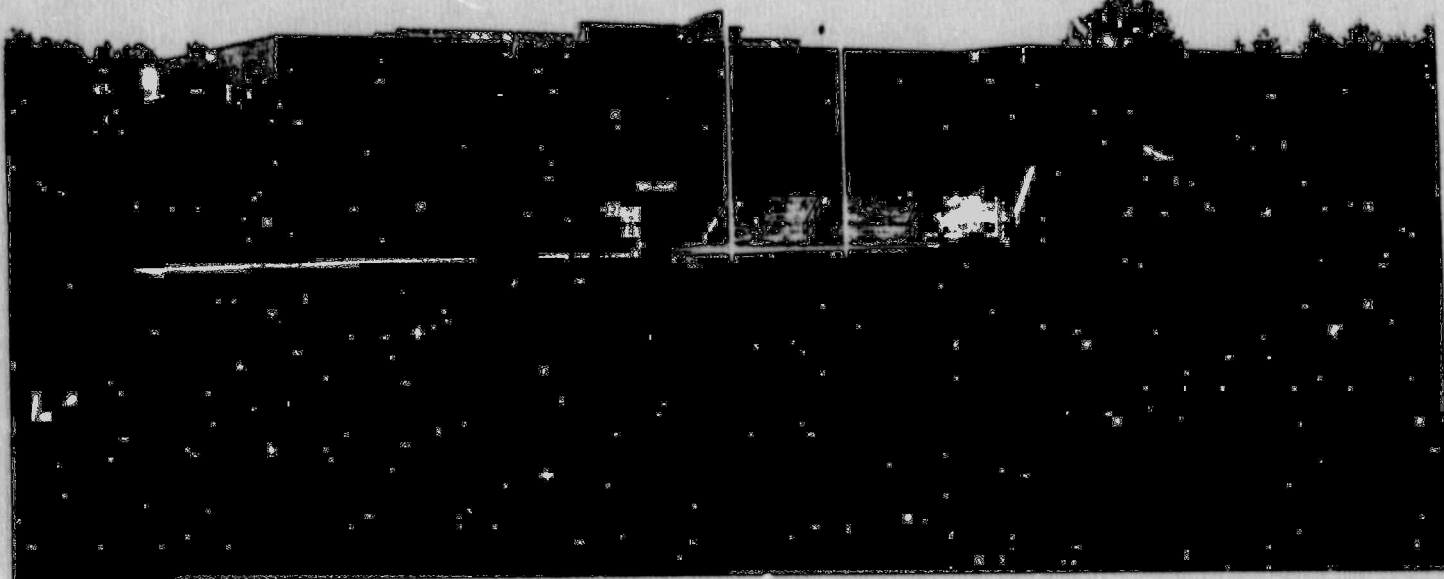
The massive forces of competition, regulation, technology and the environment are producing an atmosphere of excitement and anticipation for electric utilities. The industry is on the threshold of momentous change, and the utilities with the leadership and vision to be active participants in molding the future are the ones that will thrive in the 1990s.

Throughout its 20 years of existence – as a private company from 1969 to early 1976, and as a public corporation thereafter – MMWEC has been the champion of municipal utility rights. When the municipalities created MMWEC and decided to develop an independent public power supply, it was a bold move with no guarantee of success. But they did succeed, and in the process they secured a voice for municipal utilities in the affairs of the region's electric utilities. Beginning with their campaign for independence, MMWEC and its members have been at the forefront of change.

In any business, staying competitive means offering greater service value to your customers. In 1989, MMWEC worked hard to enhance the efficiency of MMWEC's business and energy resources. Competition is at the root of these efforts, and MMWEC is determined to remain the energy service provider of choice for the state's municipal utilities.

Market forces that respect competition, efficiency and initiative more than tradition are changing the very

General Manager's Report



MMWEC Administrative Office Building

fabric and structure of the electric utility industry. Nowhere is this change more pronounced than in the competition for transmission access.

Of paramount concern to MMWEC and its members are the changes taking place in the electric power business in New England, where power supplies are short and utilities too often are forced to rely on emergency operating procedures to maintain electric system reliability. Curtailing customer usage is not the way to balance the supply and demand for electricity. In addition, there is concern in New England about the impacts on transmission service of Northeast Utilities acquiring the Public Service Co. of New Hampshire. MMWEC has intervened in cases involving the acquisition before the Federal Energy Regulatory Commission (FERC) and the Securities and Exchange Commission (SEC) to protect its members' transmission interests.

MMWEC is dedicated to helping its members meet the challenges of the 1990s through choices, options and control over their power supply destiny. Becoming the Energy Star of the Commonwealth will require innovation, hard work and the courage to meet the challenges of our industry and region boldly and creatively.



Gary L. Hunt

Power Supply

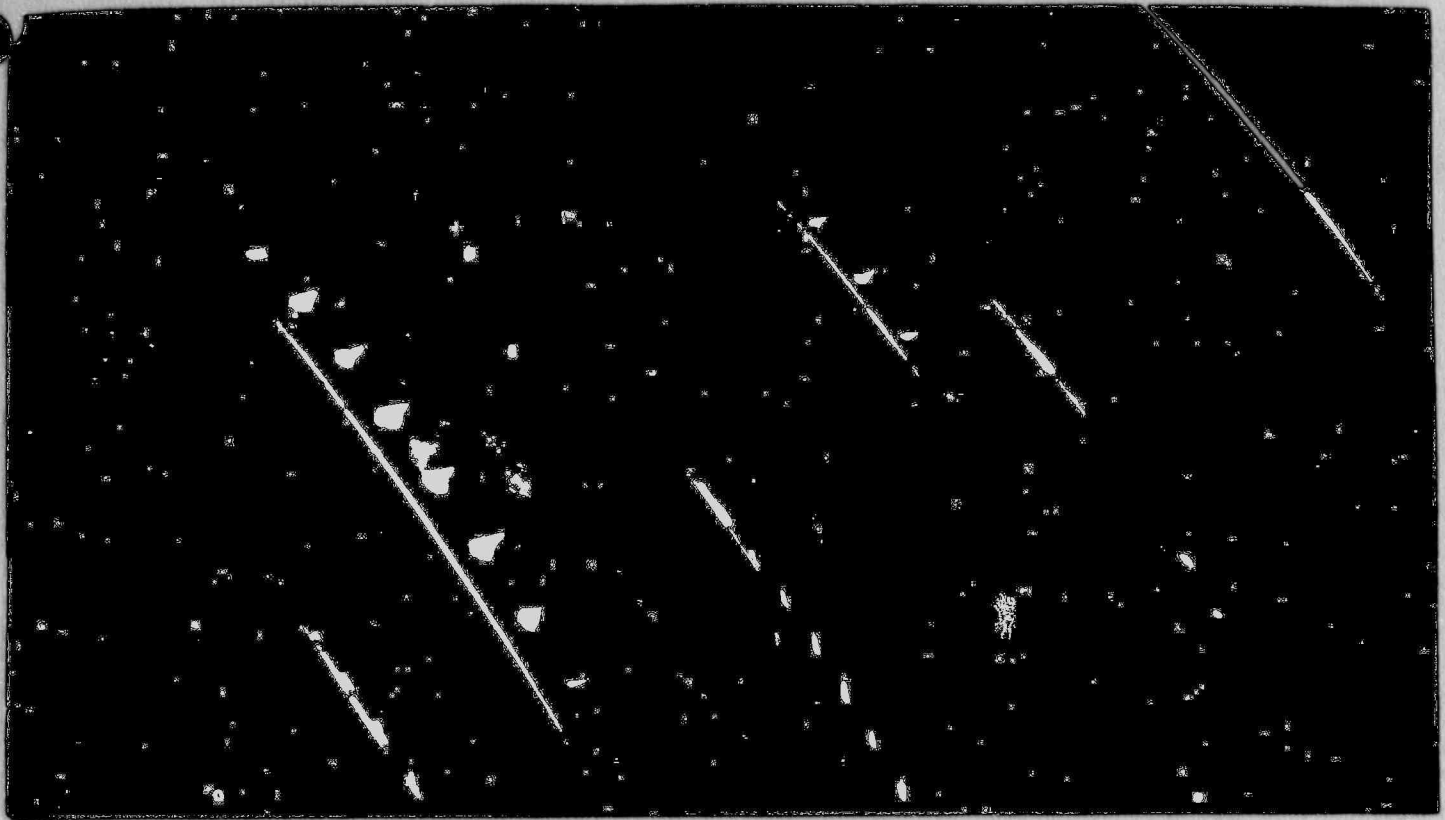
Electric power supply shortages and limitations on transmission capacity in the Northeast have forced the frequent use of emergency operating procedures over the past several years. Improvements in emergency procedures, greater cooperation in planning and operations, and a slowdown in economic growth have provided short-term relief. However, the only way to resolve the electric system reliability issues facing the region is to add generating and transmission capacity, although doing so is fraught with a number of complex economic, political, legal and technical problems.

In New England, the need to resolve these issues is intensified because the region already is operating on the edge of adequacy in terms of electric generating and transmission capacity.

"Dependency on uncommitted resources for generation adequacy puts the reliability of the electric supply in this region at considerable risk," states the 1989 Reliability Assessment of the North American Electric Reliability Council. The uncommitted resources noted in the assessment include non-utility generators and demand management programs.

These concerns are reflected in the New England Power Pool's assessment of resource adequacy between 1991 and 2004. In the assessment, NEPOOL assigns probabilities to a number of uncertainties and then determines the degree of resource adequacy in different situations. Some of the uncertainties involve the effectiveness of demand management programs, the amount and reliability of non-utility generating projects, the amount of older generating unit retirements, the level of reserve capacity required, and the amount of growth in demand for electricity. These are just a few of the uncertainties making planning for an adequate, reliable and economic power supply more complex and demanding.

The MMWEC members are facing a need for approximately 200 megawatts by 1995 and about 300 megawatts by the year 2000. This assumes operation of the Seabrook plant as well as the Hydro-Quebec Phase II interconnection in 1990. To address these needs, MMWEC has reviewed dozens of power supply project proposals and demand-side strategies in an effort to provide its members with as many resource options as possible. Power supply planning in this competitive environment requires a greater commitment to research



and development, including extensive involvement and negotiations with non-utility generators.

During 1989, MMWEC produced its first *Resource Options for the '90s* report, which recommends the purchase of more than 151 megawatts from a variety of independent power projects to help meet members' needs through 1995. The report compares the merits of 14 projects whose developers have proposed to generate and sell electricity to the MMWEC members. A ranking system used to evaluate each project takes into consideration such things as the developer's experience, licensing status, site acquisition status, fuel supply plans, and political support for the project. The system also assesses a project's consistency with members' strategic goals and objectives, which involve such things as scheduling to meet capacity needs, environmental issues, location and transmission considerations.

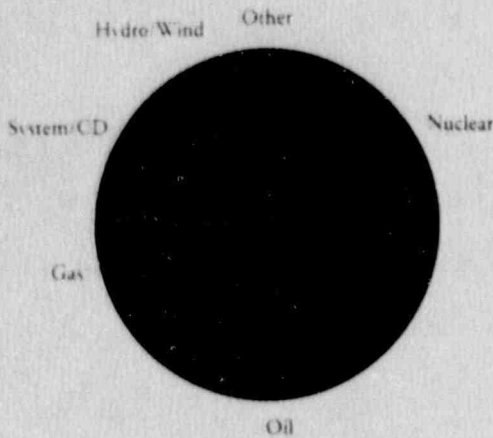
In the final analysis, each project is ranked based on its viability, cost and consistency with goals and objectives. The recommended projects – ranked among the most likely to achieve operation and provide economic, reliable power – are scheduled for operation between 1990 and 1993. These and other non-utility projects

being reviewed by MMWEC play an important role in planning for resource adequacy because utilities are not planning any major projects before 1995 and the excess capacity in New England is vanishing.

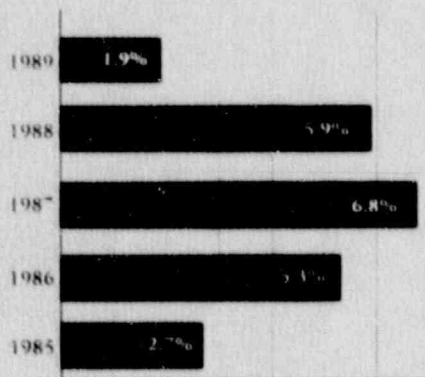
Each of MMWEC's members received a "personalized" version of the *Resource Options for the '90s* report, detailing individual member needs and purchase recommendations for baseload, intermediate and peaking power from various projects. The reports will be updated periodically to reflect any changes in member needs and resource availability and/or economics.

MMWEC also has created four special resource development projects to keep track of what capacity is available to meet members' baseload, intermediate, peaking and near-term power supply needs. These new projects, used in conjunction with the resource options reports, will provide members with the information they need to make investment decisions to meet the power supply need in their communities. Participation in these special projects is optional, which enables members to participate only in the special projects that best meet their needs. It is within these special projects that the bulk of MMWEC's resource development work will take place.

MMWEC Members' Composite Fuel Mix 1989



MMWEC Members' Growth In Energy Use



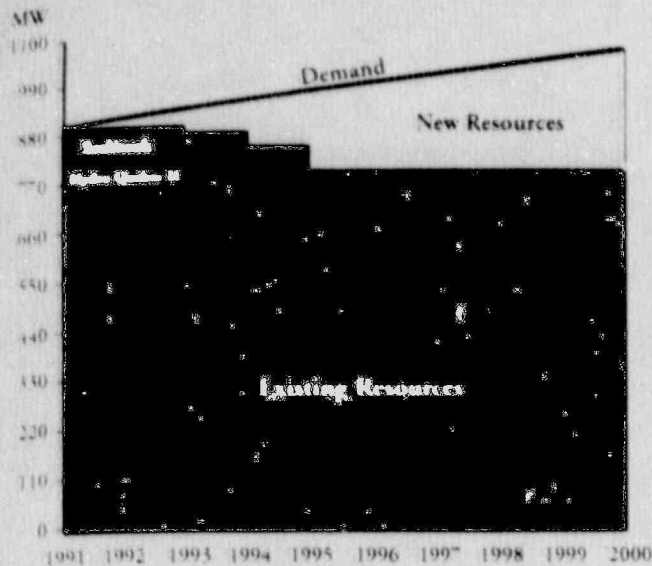
assuring that opportunities to purchase or otherwise acquire new capacity are not missed. This revised approach to power supply planning allows MMWEC and its members to target resources to the areas of greatest need.

In another effort to assure resource adequacy, MMWEC has undertaken a study that could lead to construction of up to 300 megawatts in new generating capacity at MMWEC's Stony Brook Energy Center or at other acceptable locations. The new unit study, authorized by the Board of Directors late in 1989, is a continuation of the company's statewide power plant siting study completed in 1988. The siting study identified several sites in Massachusetts, including the Stony Brook Energy Center, as good candidates for power plant construction. The present study will result in a detailed implementation plan that will outline the engineering, permitting, financing, transmission, fuel supply and other requirements for construction of a new unit. It also will address various ownership, contracting and financing options.

In addition to pursuing the new-unit option, there were a number of other activities supporting the MMWEC power supply program in 1989. In July, the Federal Energy Regulatory Commission issued a decision that led to a 20 percent increase in the amount of low-cost hydroelectric power supplied to Massachusetts municipal utilities from the New York Power Authority. The decision, in response to a complaint filed by MMWEC and the Connecticut Municipal Electric Energy Cooperative, increased the Massachusetts allocation of hydroelectric power by 12.4 megawatts, to a total of 72.5 megawatts. MMWEC administers the Massachusetts allocation of New York hydroelectric power as an agent of the state Department of Public Utilities and has fought to protect and enhance the municipals' rights to the power under federal law. Early in 1990, a contract extending the allocation through 2001 was approved by New York Gov. Mario Cuomo.

Aside from the substantial power cost savings resulting from this contract, it provides important benefits for the MMWEC members in terms of fuel diversity. The increase in New York hydroelectric power, coupled with the operation of Hydro-Quebec Phase II later in 1990, will increase the MMWEC members' reliance on hydro resources, consistent with MMWEC's fuel diversity

MMWEC Supply and Demand



"Provide the MMWEC members with an adequate, reliable, economic and environmentally sensitive mix of power supply resources and demand-side options for the 1990s."

and the region has additional peaking capacity available during emergencies. So far, members have gained 650 kilowatts of peaking capacity credit through the Dollars on Demand program.

MMWEC also has been awarded a \$75,000 grant from the U.S. Department of Energy to help finance an electric thermal storage heating program for several member utilities. This program will involve the installation of electric thermal storage heating units, which convert electricity to heat and store the heat overnight for use during the day. This will help reduce consumer and utility costs because the units use electricity during the night when the demand for and cost of electricity is lower.

The MMWEC members experienced a welcomed lower rate of growth in electric energy use in 1989, primarily due to a slowdown in economic activity in Massachusetts and generally moderate weather during the year. Member utilities used approximately 1.9 percent more electricity in 1989 than they did in 1988. This compares with growth rates of 5.9 percent in 1988, 6.8 percent in 1987, and 5.3 percent in 1986. Similarly, NEPOOL recorded a growth rate of about 1.7 percent in 1989, compared to 5.2 percent in 1988.

The lower growth rate provides a little breathing room and relief for utilities trying to balance supply with demand. But increases in supply are not keeping pace with increases in demand, and demand-side options alone cannot close the gap. Lack of reliable electric service can cause major economic problems for both Massachusetts and New England, and avoiding these problems will require compromise on a number of regulatory, environmental and other issues related to producing and delivering electricity.

objectives. This is particularly important in light of the United States' growing dependence on foreign oil and the increased exposure to the consequences of sudden changes in the price and supply of oil.

Demand management programs are a vital component of the MMWEC power supply program, providing utilities and their customers with opportunities to use their energy resources more efficiently. Successful demand management programs help to offset the need for new electric generating capacity and represent an important resource in a region that is short on capacity. MMWEC has identified cost-effective load management and conservation opportunities for each of its member utilities and is providing the support needed to implement these programs.

MMWEC's Dollars on Demand load management program helps member utilities meet their peaking capacity needs without building new power plants or buying capacity from other utilities. Under this program, the utilities sign contracts with industrial or commercial customers that agree to use their standby generators at times when New England is experiencing a peak power shortage. The customer is paid an amount fixed in the contract; the utility's peak load requirements are reduced due to the availability of the standby generator;

Transmission facilities are a vital part of the electric power system, carrying electricity from power plant to customer and delivering other services necessary to ensure the reliability, adequacy and economy of power supplies.

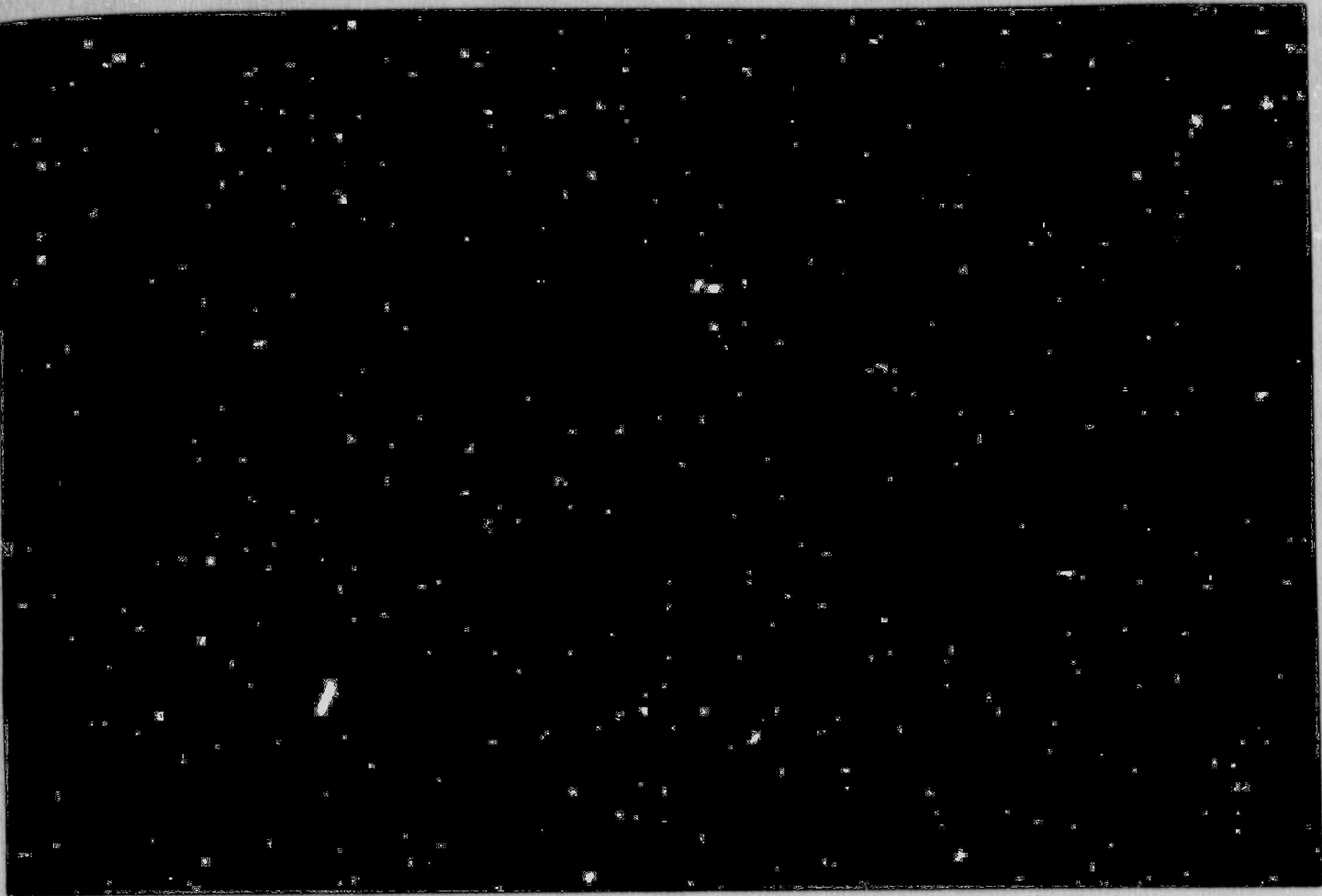
Today's transmission grid includes connections between power plants and customers as well as interconnections between neighboring power systems. Coordinated operation of transmission facilities has enabled utilities to deliver the least-cost generation to customers. It has enabled utilities to take advantage of economic resources from another region, and to exchange capacity to enhance reliability during system emergencies. Interconnections also allow neighboring power systems with different peak demand periods to share generating capacity, reducing the need for new power plants.

This system works well as long as transmission capacity is adequate to support economy and reliability transactions, and as long as it is available at a reasonable cost. However, there are several things happening in New England that adversely affect both the cost and availability of transmission service.

Use of the transmission system has increased dramatically over the past few years. Load growth, increased use of interconnections and more economy transactions have devoured excess transmission capacity. The system is heavily loaded and virtually inaccessible during peak demand periods. There are restrictions on power imports to the region due to transmission limitations and restrictions on the use of some transmission lines in New England.

With excess capacity becoming scarcer, it is more difficult and costly to acquire needed transmission service. Transmission-dependent utilities like MMWEC, which with few exceptions do not own transmission capacity, are at a competitive disadvantage in efforts to acquire transmission for long-term, economic resources and short-term, economy transactions. Some contracts now include provisions enabling transmission owners to cancel access if they need the transmission themselves. Other contracts include charges for "lost opportunities," which enable the owners to collect on opportunities they missed because they sold their transmission capacity. Higher costs and conditions such as these have spoiled the economy of several deals, but more critically, they threaten the public policy goals for an open, competi-

Transmission Access and Pricing



tive, least-cost electric utility industry in New England.

Another aspect of the problem involves the access requirements of non-utility generators, which are expected to provide a large portion of the generating capacity needed in New England. Providing greater access to non-utility generators would make it easier for this largely unregulated class of power producers to build their plants and generate electricity. Without transmission access, these projects are doomed. However, granting such access raises concerns about the cost and reliability of the electric system because the non-utility generators are not bound by the same operating standards and procedures that govern existing public utilities.

In addition, the transmission system in New England was not designed for such a large scale addition of small generators. At present, NEPOOL receives approximately 20,000 megawatts from about 250 locations, but expects its next 2,000 to 3,000 megawatts to come from

another 250 locations. Such dramatic changes require new investments in transmission facilities as well as assured access at a reasonable cost.

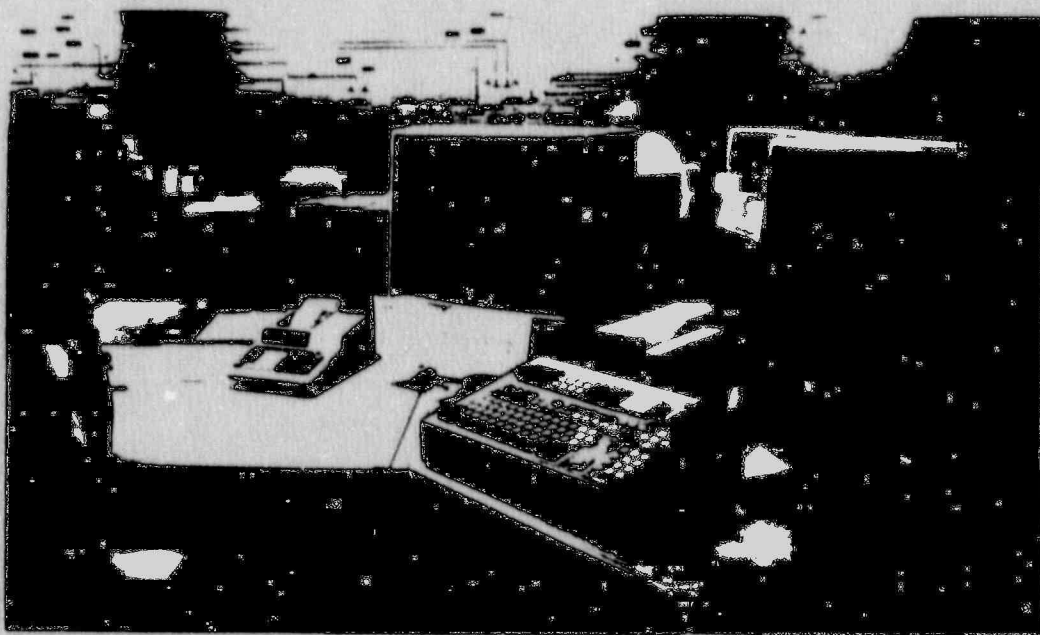
Also facing New England are the transmission impacts of Northeast Utilities (NU) acquiring Public Service Co. of New Hampshire. The acquisition would give NU domination over the transmission and bulk power markets in New England, enhancing the prospects for anticompetitive behavior. The combined transmission assets of NU and PSNH encircle eastern Massachusetts and Rhode Island, which would leave utilities in this area dependent on NU for access to resources outside the area. This expanded NU would control more than 95 percent of the unused transmission facilities coming into the region.

It appears that the acquisition will be approved by the U.S. Bankruptcy Court overseeing PSNH's Chapter 11 bankruptcy case, but there will be other regulatory ap-

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provals required. MMWEC has intervened in proceedings before the FERC and the SEC in which NU is seeking approval for different aspects of the acquisition. In its pleadings, MMWEC seeks restrictions to the acquisition to prevent anticompetitive behavior, consistent with federal antitrust policies. MMWEC is seeking adequate protection of the public interest by suggesting that the new company be required to provide nondiscriminatory access to transmission at cost-based rates. MMWEC also has serious concerns about the ability of NU, with its increased market power, to dominate NEPOOL.

The basic issues surrounding transmission access and pricing have ripened to the point where most parties agree there is a need for change, but the diversity of interests will make development of a standard policy difficult. As this debate unfolds, MMWEC will be taking additional actions to protect and promote the interests of its members and the public power community.



Coordinating the operation of New England's electric generation and transmission facilities is the job of the New England Power Exchange Control Center, above. From here, resources are managed to provide customers with the lowest cost electricity available.

In 1989, MMWEC continued its support of the Transmission Access Policy Study (TAPS) Group, a national organization of transmission-dependent utilities. TAPS has undertaken a number of activities in support of a national transmission system with equal access, joint-venture transmission projects and cost-based wheeling rates. TAPS and MMWEC support a transmission policy that assures access to the existing grid at cost-based rates and encourages cooperation among all transmission users in the planning, construction and use of new transmission facilities.

As the representative in NEPOOL of public power systems in Massachusetts, Connecticut and Rhode Island, MMWEC also is deeply involved in efforts within the pool to address the region's transmission issues. There is potential to resolve many of these issues at the regional level by working to improve the NEPOOL Agreement. The agreement provides NEPOOL members with limited rights to transmission, but it was written long before the sweeping changes that have taken place in the electric utility industry. The rules of the game as well as the participants have changed, and solutions to New England's transmission problems will require the cooperative efforts of transmission owners, users and regulators.

Several amendments to the NEPOOL Agreement are proposed in a transmission plan put forward in 1989 by a task force of the New England Governors' Conference Power Planning Committee. The thrust of the proposal, which was drafted by Massachusetts Department of Public Utilities Commissioner Susan Tierney, is to acknowledge and incorporate into the agreement the transmission requirements of non-utility generators. When coupled with the ongoing efforts of utilities within NEPOOL, this proposal represents a significant step in the direction of consolidating transmission issues and working cooperatively toward finding solutions. Problems still exist with the Tierney transmission proposal, but the ideas and potential solutions are being defined, and an interest in finding answers is developing.

MMWEC will continue its work with member utilities, the Northeast Public Power Association, the American Public Power Association and others to track transmission issues and develop positions and strategies that promote public power interests.



Access to New England's major electric transmission lines, shown above, has become a major concern for MMWEC as it works to acquire economic resources for its member utilities.

*T*he traditional competition for MMWEC and its members has been the investor-owned utilities (IOU), with MMWEC and the municipals fighting for their rights to participate in the industry on equal footing with the IOUs. This competition took place within the boundaries of regulations that sheltered most aspects of the electric utility business from "outside" competition.

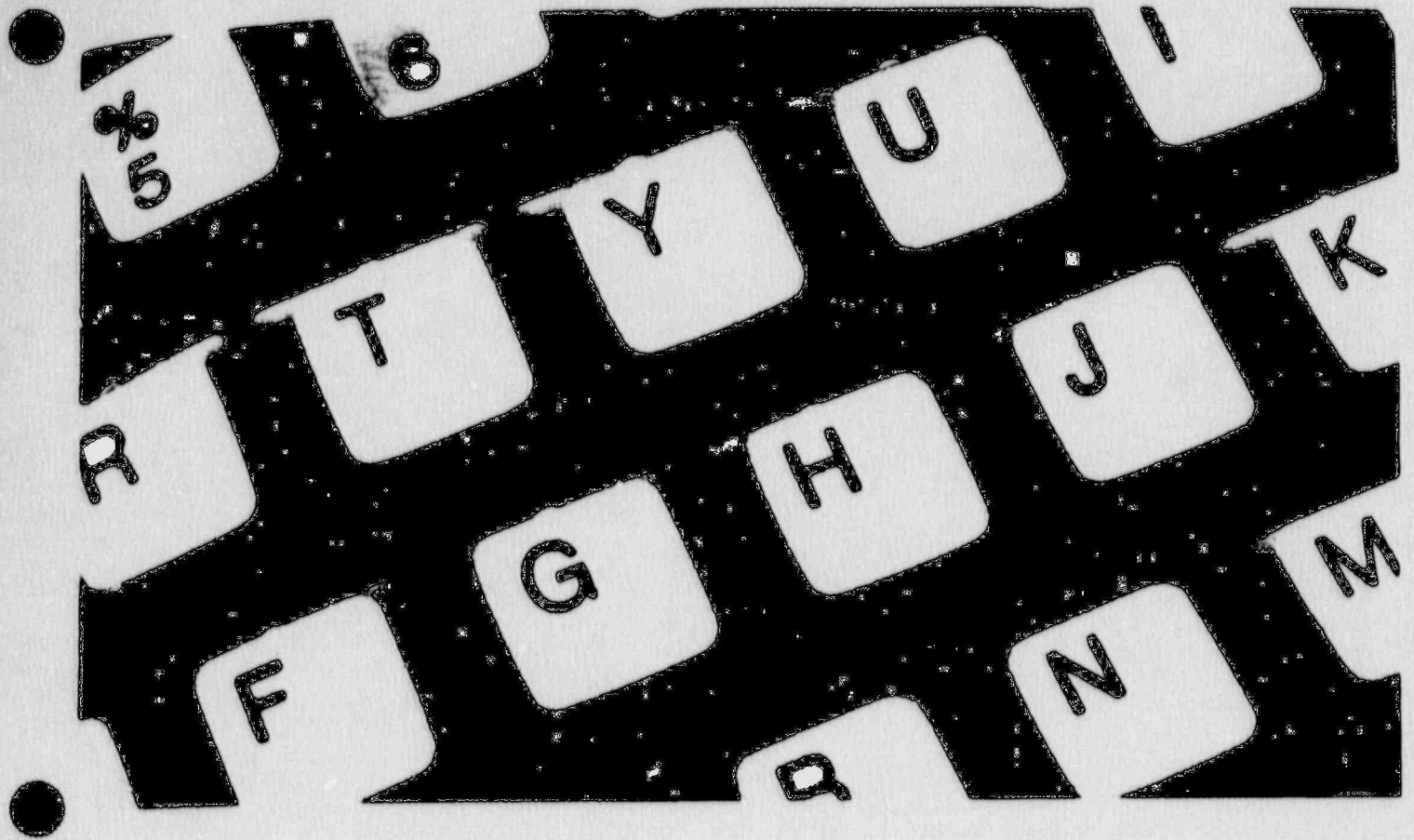
The energy crises of the 1970s, high interest rates, huge cost overruns on power plants, capacity shortages, heightened environmental concern, and other issues have caused a break with this tradition. There is a growing call for deregulation of the electric utility industry and opening the industry to market forces and competition. This has already taken place to some extent, and utilities are responding with diversification programs, acquisition plans and efforts to "rightsize" their organizations. What is emerging is a more diversified and more competitive electric power industry.

In this competitive environment, MMWEC has taken numerous steps to enhance the efficiency and value of its business and energy resources. These include a major cost-reduction program, a fundamental change in service delivery strategy, a promising venture into the natural gas market, the successful marketing of MMWEC's combined-cycle expertise, and significant improvements in MMWEC's power brokering program. These and other actions reflect MMWEC's commitment to efficiency in all aspects of its business, which will result in greater service value in the energy services marketplace.

In May 1989, MMWEC implemented a plan to improve the efficiency of MMWEC operations and reduce administrative costs by about \$1 million a year, or approximately 10 percent, by 1991. The plan allows MMWEC to reduce overhead costs without adversely affecting services and to improve the productivity and efficiency of basic systems. It also streamlines and refocuses MMWEC operations on the company's principal power supply mission, including plant operations and project development and financing. To accomplish this, there has been a realignment of staff responsibilities and a net reduction in staff. There also has been a significant investment in new computer equipment and other basic systems, which has improved the productivity and efficiency of the organization.

These changes are part of a broader strategy to be

● *Competition/Efficiency*



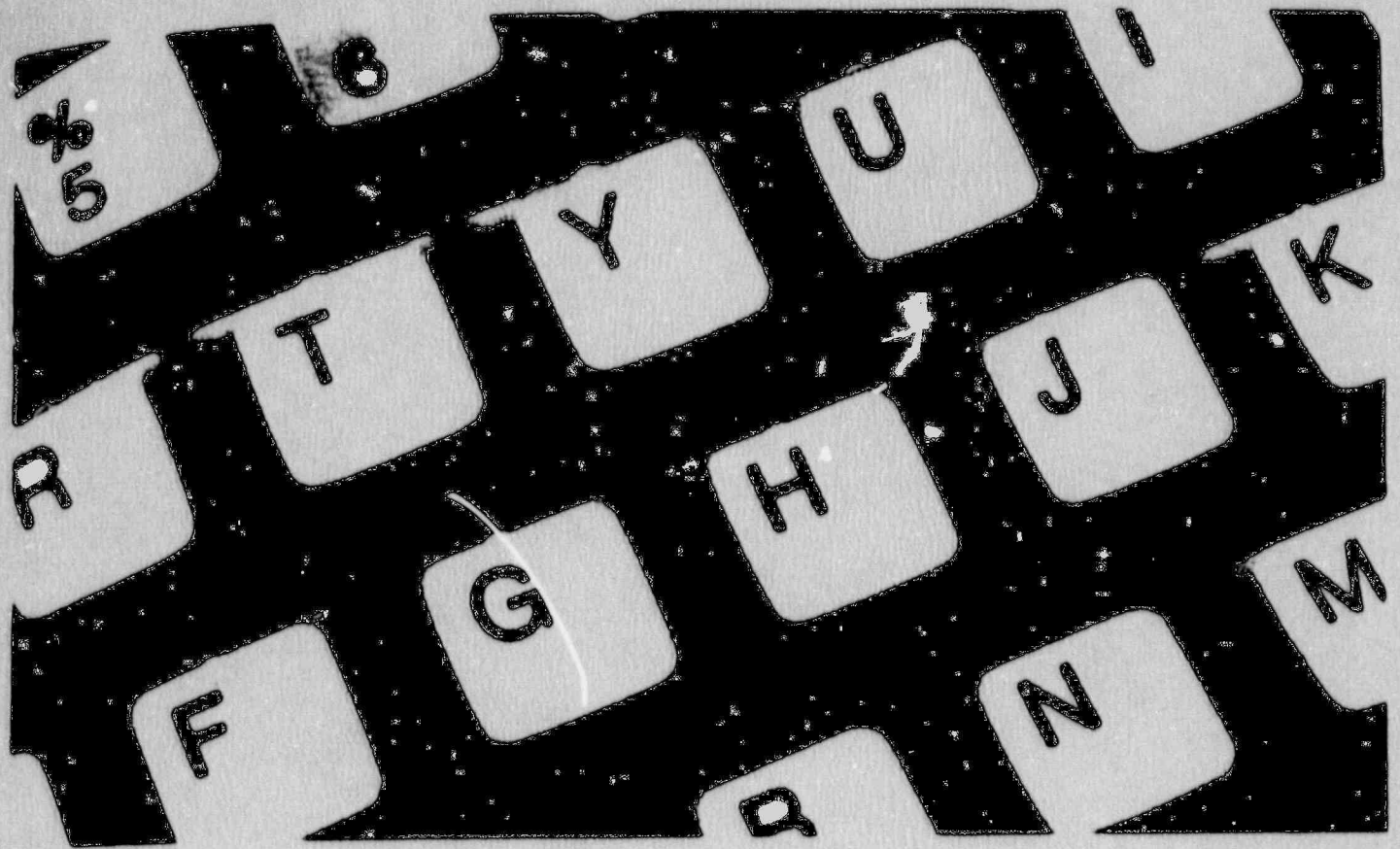
more responsive to the needs of individual MMWEC members. We made significant progress in 1989 on plans to provide the members – MMWEC’s customers – with more service choices. As this effort expands, MMWEC hopes to offer individual or groups of member utilities a package of services tailored to meet their specific needs.

Progress in this area is best highlighted by the experience of the Chicopee Municipal Lighting Plant, which terminated its Service Agreement with MMWEC in June 1989 due to a lack of service choices. At the time, many services, including a range of bulk power supply services, were mandatory under the Service Agreement, which has been a standard contract that all member utilities must sign. Chicopee did not want all the services mandated under the Service Agreement, so it terminated the agreement. Early in 1990, after months of discussion and study, MMWEC decided to unbundle its bulk power supply services. This was done by maintaining a core group of services common to all, but also establishing four optional power supply development

“service packages” or projects. As a result, MMWEC and Chicopee have developed a new Service Agreement that satisfies Chicopee’s specific service needs and provides MMWEC with additional revenue to moderate overall service costs.

Additional changes to the Service Agreement are anticipated as MMWEC continues this effort to “personalize” its services and provide its customers with the best service value. At the same time, MMWEC is exploring opportunities in the natural gas market to assure a reliable and competitively priced fuel supply. We also are working to market our services beyond the MMWEC membership, which will add to the company’s revenues. The purpose of these efforts is to use the resources available to MMWEC as efficiently and cost-effectively as possible so that MMWEC and its members will be more competitive in the 1990s and beyond.

With nuclear, coal and oil out of favor for the generation of electricity in New England, natural gas has emerged as the fuel of choice for new power generation. In addition, there is a growing demand for natural gas



more responsive to the needs of individual MMWEC members. We made significant progress in 1989 on plans to provide the members – MMWEC’s customers – with more service choices. As this effort expands, MMWEC hopes to offer individual or groups of member utilities a package of services tailored to meet their specific needs.

Progress in this area is best highlighted by the experience of the Chicopee Municipal Lighting Plant, which terminated its Service Agreement with MMWEC in June 1989 due to a lack of service choices. At the time, many services, including a range of bulk power supply services, were mandatory under the Service Agreement, which has been a standard contract that all member utilities must sign. Chicopee did not want all the services mandated under the Service Agreement, so it terminated the agreement. Early in 1990, after months of discussion and study, MMWEC decided to unbundle its bulk power supply services. This was done by maintaining a core group of services common to all, but also establishing four optional power supply development

“service packages” or projects. As a result, MMWEC and Chicopee have developed a new Service Agreement that satisfies Chicopee’s specific service needs and provides MMWEC with additional revenue to moderate overall service costs.

Additional changes to the Service Agreement are anticipated as MMWEC continues this effort to “personalize” its services and provide its customers with the best service value. At the same time, MMWEC is exploring opportunities in the natural gas market to assure a reliable and competitively priced fuel supply. We also are working to market our services beyond the MMWEC membership, which will add to the company’s revenues. The purpose of these efforts is to use the resources available to MMWEC as efficiently and cost-effectively as possible so that MMWEC and its members will be more competitive in the 1990s and beyond.

With nuclear, coal and oil out of favor for the generation of electricity in New England, natural gas has emerged as the fuel of choice for new power generation. In addition, there is a growing demand for natural gas

"Make MMWEC the vendor of choice among energy service providers by enhancing the quality and value of MMWEC services."



The MMWEC management team includes (from left) Joseph O. Roy, Stony Brook Energy Center manager; Lynn C. Hill, Power Supply Center manager; Virginia B. Rutledge, chief financial officer; and Gary L. Hunt, general manager.

as an energy source for homes and businesses in the region. As a result, there is intense competition among pipeline companies and gas suppliers for a share of the New England gas market. The questions of where the gas will come from, where it will go and how it will get there are being discussed in regulatory proceedings and fast-paced negotiations in the United States and Canada.

MMWEC and its members have a substantial interest in this market that centers on a goal of obtaining a competitive fuel supply for MMWEC's Stony Brook power plant and future projects. MMWEC's present natural

gas supplier has provided an interruptible supply of gas for Stony Brook since 1983, but with so many new de-

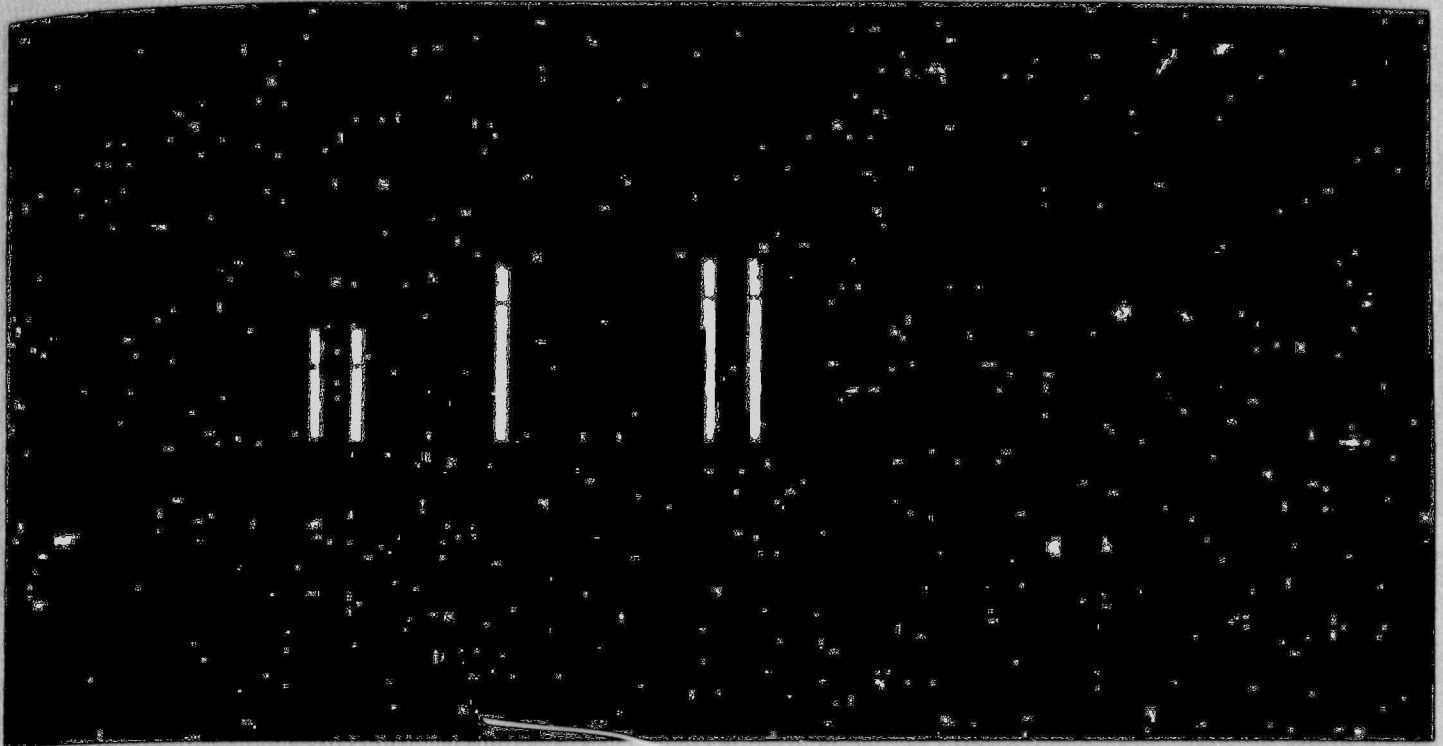
velopments in the natural gas market, MMWEC is pursuing other alternatives. This has involved negotiations with the present supplier and several major interstate pipeline companies. MMWEC is seeking to obtain natural gas supply and transportation contracts that provide access to gas from Canada, the Midwest, the Gulf Coast and other areas. Enhanced reliability would be the result of such diversity in supply. A capability to supply Stony Brook with natural gas all year is being pursued, in addition to opportunities to acquire additional supplies for a new unit if necessary. New pipeline capacity is needed to increase the supply of natural gas to Stony Brook, and a number of new pipeline options are being pursued, including MMWEC ownership, joint ownership and third-party ownership of the necessary pipeline facilities.

Most of 1989 was devoted to breaking into the natural gas market understanding the competitive forces at work and establishing MMWEC as a serious entity. This in itself is a major accomplishment, which was highlighted by the hiring of a full-time gas supply manager in November. More concrete results, in terms of contracts and commitments, are expected in 1990. We hope to improve the reliability and lower the price of natural gas for Stony Brook through these efforts, which will provide competitive benefits and opportunities for the MMWEC members.

Much as natural gas is the fuel of choice, combined-cycle is the technology of choice for new generation in the 1990s. There are a number of benefits to combined-cycle plants. They typically take less time and money to build; they can be built in increments to match load requirements; they can burn a variety of fuels; they can be brought on line quickly; and they have relatively low operation and maintenance costs. In addition, they can be extremely efficient.

These are benefits well known to MMWEC, owner and operator of the 341-megawatt, combined-cycle Stony Brook plant, which entered operation in 1981 and is consistently ranked among the most efficient plants of its kind in the world. MMWEC has a vast amount of experience and data related to combined-cycle construction, operation and maintenance, and in 1989 we began putting that information to work.

Marketing MMWEC's combined-cycle expertise has resulted in a five-year agreement with a Canadian utility



In order to improve the competitive value of its services, MMWEC is marketing the knowledge and expertise it has acquired through the construction and operation of its Stony Brook power plants, above.

under which MMWEC is providing consulting services during the construction and start-up of a combined-cycle plant near London, England. Some of the services to be provided by MMWEC include engineering and design services; construction and plant commissioning services; operator recruiting and training services; assistance in the development of operating procedures, maintenance and reporting systems; and ongoing engineering support services.

MMWEC also sponsored seminars on the design, construction, operation and maintenance of combined-cycle plants in 1989, offering an opportunity for electric utility professionals and independent power producers to benefit from MMWEC's experience in building and operating Stony Brook. These efforts will enable MMWEC to stay on the cutting edge of combined-cycle technology and could reduce the lead time associated with a decision by MMWEC to expand Stony Brook or build a new plant. In addition, they provide a new source of revenue, again, enhancing the value of MMWEC services for our member utilities.

Short-term power brokering conducted through MMWEC has enabled member utilities to achieve

greater efficiency in the use of their energy resources. The power brokering program resulted in power cost savings of \$1.1 million in 1989 and has saved members more than \$11 million in power costs since 1982.

Through this program, MMWEC arranges short-term purchases and sales of capacity and energy to help member utilities match their supply and demand for electricity as closely as possible. After determining which systems have power surpluses and deficiencies, MMWEC arranges transactions that provide revenues for systems with power surpluses and economic purchase options for those with deficiencies. A daily power brokering program was initiated in 1989, increasing the opportunities for economic energy transactions. In addition, discussions are under way that could lead to MMWEC playing an important role in a regional power brokering program available to all public power systems in New England.

These and other activities contribute to improving the value of MMWEC's business and energy resources, and they all add up to a commitment to making MMWEC the vendor of choice among energy service providers by enhancing the quality and value of MMWEC services.

MMWEC is involved in several lawsuits stemming from its ownership interest in Seabrook Station, most of them between MMWEC and the present and former participants in MMWEC's Seabrook power supply projects. The bulk of MMWEC's current litigation is the result of the January 1989 final decision of the Vermont Supreme Court voiding the Project No. 6 Seabrook contracts between MMWEC and six Vermont utilities.

Project No. 6 represents a 6 percent ownership in Seabrook for MMWEC. Twenty Massachusetts municipal utilities and eight out-of-state utilities signed contracts in 1979 obligating them to purchase Project No. 6 capability and to pay MMWEC's share of Project No. 6 costs.

The Vermont Supreme Court decision voids the Project No. 6 contracts in Vermont "ab initio," or from the beginning. As a result of this decision, 10 Project No. 6 participants are claiming that their contracts should be voided because MMWEC never had 100 percent of Project No. 6 capability under contract, which they claim is a condition precedent to the effectiveness of the contracts. These 10 utilities – all Massachusetts participants – also are challenging MMWEC's implementation of the step-up provision of the contract, through which MMWEC has reallocated the Vermont share of Project No. 6 capability and associated costs to other Project No. 6 participants.

Two former Project No. 6 participants also are making claims stemming from the Vermont decision. The Eastern Maine Electric Cooperative is claiming in Chapter 11 bankruptcy proceedings that its Project No. 6 contract never existed, based on the 100 percent participation issue raised by the Massachusetts participants. In addition, one of the former Vermont participants, the Washington Electric Cooperative, is seeking restitution of payments made to MMWEC under the now-voided contract.

In May 1989, MMWEC petitioned the U.S. Supreme Court for review of the Vermont Supreme Court decision. In October, the high court denied MMWEC's petition.

MMWEC's efforts to move beyond the financial and legal uncertainties stemming from its ownership in Seabrook have been successful on many fronts. However, the litigation stemming from the Vermont Su-

Contract Litigation

APPENDIX TO CHAPTER 164

The laws indicated in this appendix were not enacted as part of the General Laws, but are set out herein for convenient reference.

MASSACHUSETTS WHOLESALE ELECTRIC COMPANY

- 1-1 Definitions
- 1-2 Corporate status
- 1-3 Municipal membership of corporation
- 1-4 Board of directors; appointment; election; term; vote; removal; vacancies; expenses and compensation; officers
- 1-5 Rights and powers of corporation
- 1-6 Contracts to which corporation is entitled; borrowing capacities of cities or towns; fees and charges
- 1-7 Eminent domain
- 1-8 Tax exemption
- 1-9 Bonds; terms and conditions; signature; interim receipts
- 1-10 Bond security; trust agreement or resolution; fees and charges; disposition; proceeds
- 1-11 Refunding bonds
- 1-12 Debt of commonwealth, cities or towns
- 1-13 Trust funds
- 1-14 Enforcement of bondholders' rights
- 1-15 Legal investment in bonds
- 1-16 Bonds; investment securities
- 1-17 Amount of bonds; approval; hearing
- 1-18 Bonds issued without obtaining consent
- 1-19 Laws applicable
- 1-20 Annual report
- 1-21 Termination or dissolution; conditions
- 1-22 Priority of bonds
- 1-23 Liberal construction
- 1-24 Severability
- 1-25 Termination

St. 1975, c. 775, § 2, an emergency act, enacts the provisions of this appendix 1-1 to 1-25 of this appendix was approved December 1, 1975.

"Corporation" means the Wholesale Electric Company, hereinafter referred to as the "Company," created by Chapter 164 of the Acts of the Commonwealth of Massachusetts, 1975, c. 775, § 1, and amended by Chapter 164 of the Acts of the Commonwealth of Massachusetts, 1975, c. 775, § 2.

"Department" means the Department of Public Utilities, created by Chapter 164 of the Acts of the Commonwealth of Massachusetts, 1975, c. 775, § 1, and amended by Chapter 164 of the Acts of the Commonwealth of Massachusetts, 1975, c. 775, § 2.

"Electric system" means a system of electric lines, apparatus, equipment, or facilities, including a generating station, a substation, a transmission line, a distribution line, a transformer, a switch, a meter, a fuse, a circuit breaker, a relay, a control device, or any combination thereof, which is used for the transmission or distribution of electric energy, and includes any part thereof, whether or not such part is owned or controlled by the Corporation.

"Electric power" means electric power generated, transmitted, or distributed by the Corporation, whether or not such power is used for the transmission or distribution of electric energy, and includes any part thereof, whether or not such part is owned or controlled by the Corporation.

"Electric service" means the transmission or distribution of electric power by the Corporation, whether or not such power is used for the transmission or distribution of electric energy, and includes any part thereof, whether or not such part is owned or controlled by the Corporation.

"Electric utility" means a person, partnership, corporation, or other legal entity, whether or not organized under the laws of the Commonwealth of Massachusetts, which is engaged in the transmission or distribution of electric power, whether or not such power is used for the transmission or distribution of electric energy, and includes any part thereof, whether or not such part is owned or controlled by the Corporation.

"Electric utility company" means a person, partnership, corporation, or other legal entity, whether or not organized under the laws of the Commonwealth of Massachusetts, which is engaged in the transmission or distribution of electric power, whether or not such power is used for the transmission or distribution of electric energy, and includes any part thereof, whether or not such part is owned or controlled by the Corporation.

St. 1975, c. 775, an emergency act, enacts the provisions of this appendix, which were enacted as part of the General Laws, but are set out herein for convenient reference.

§ 1-2. Corporate status

The corporation is hereby made a body corporate and a political subdivision of the commonwealth. Said corporation is created as a public instrumentality and the exercise of the powers conferred by this act shall be deemed and held to be the performance of an essential public function.

St. 1975, c. 775, § 2.

§ 1-3. Municipal membership of corporation

(a) Each city or town which is entitled to nominate a director of the corporation immediately prior to the effective date of this act and which is authorized to become a member of the corporation

preme Court decision raises issues that must be addressed before MMWEC can fully emerge from the shadow of Seabrook. While MMWEC is disappointed with the speed at which some of these cases are proceeding, we remain confident in our ultimate success. The present litigation involves issues that can and will be resolved with time, enabling MMWEC to focus more time and resources on its principal power supply mission.

The Project No. 6 contract litigation in Massachusetts went from the Superior Court level to the Massachusetts Supreme Judicial Court (SJC) in 1989, only to be sent back to the Superior Court early in 1990. The 10 Massachusetts municipal utilities involved in this case are based in the communities of Shrewsbury, Hingham, Sterling, Georgetown, West Boylston, Paxton, Danvers, Holden, Hudson and Peabody. Several filed separate complaints against MMWEC challenging their Project No. 6 contracts in Superior Court between late 1988 and April 1989.

MMWEC was successful in consolidating the cases

before a single justice of the SJC in May and obtained two preliminary injunctions requiring the participants to continue making payments due under the contracts during the litigation. The preliminary injunctions note MMWEC's likelihood of success in the case and reject an argument advanced by Hudson and Peabody that their obligation to pay is contingent on the existence of the Seabrook Sellback Agreement between MMWEC and Public Service Co. of New Hampshire. Under the Sellback Agreement, which has been terminated, PSNH agreed to purchase a portion of MMWEC's Project No. 6 capability during the initial years of Seabrook's operation at MMWEC's cost.

After several months of procedural and strategic maneuvering by the parties, the issues were framed in a single case before the single justice of the SJC. MMWEC moved for a summary judgment reaffirming the validity of the Project No. 6 contracts and the defendant municipal utilities moved to compel arbitration of the case. Meanwhile, discovery that the municipals said was necessary to respond to MMWEC's summary

judgment motion was progressing.

The municipalities' motions to compel arbitration were denied in November, with the judge ruling that the municipalities, as a result of various levels of participation in the litigation, waived their rights to arbitration. In a memorandum accompanying this decision, the judge again noted MMWEC's likelihood of success in the case. In mid-December, the judge established a schedule calling for completion of discovery on MMWEC's motion for summary judgment by Feb. 2, 1990 and a hearing on all summary judgment motions on Feb. 28.

When the municipalities filed counterclaims against MMWEC involving issues not related to the Vermont decision, MMWEC in January 1990 moved to compel arbitration of the counterclaims to keep the case focused on the Vermont issues. However, Hudson, Peabody and Danvers filed a motion asking the single justice hearing the case to recuse, or disqualify, himself due to his past partnership in a law firm that served as underwriters' counsel for MMWEC's Project No. 6 bond issues. The three utilities argued that a potential conflict of interest existed for the judge even though he left the firm more than five years before the bond issues.

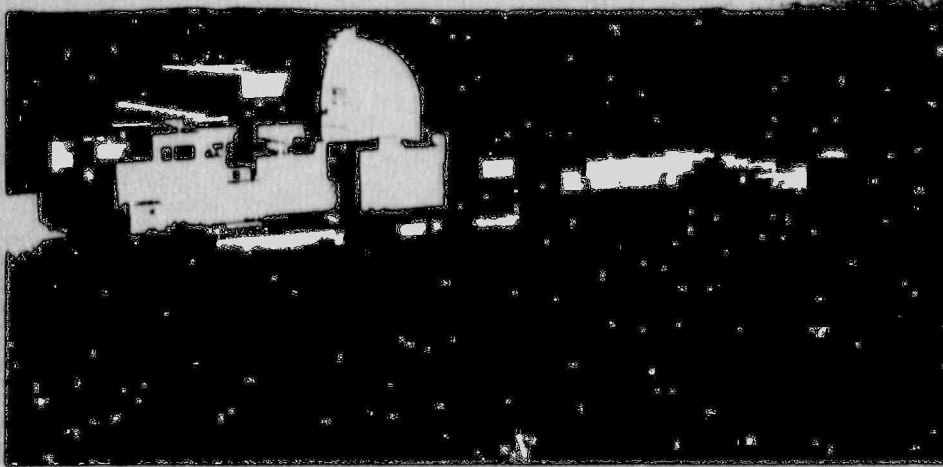
At a hearing on Jan. 24, 1990, the judge decided to recuse himself and send the case back to Superior Court. Before this action, MMWEC was expecting a final decision around mid-1990 on the impacts of the Vermont decision on the validity of the Project No. 6 contracts in Massachusetts. Now, the final decision will be delayed. There is keen interest among members of the financial community in the outcome of this litigation because the contracts in question are the source of revenue for principal and interest payments on more than \$500 million in bonds issued for Project No. 6. Until this litigation is resolved, MMWEC's financing capability will be severely restrained.

In a related matter, the Eastern Maine Electric Cooperative, a former Project No. 6 participant that is in Chapter 11 bankruptcy proceedings, raised the 100 percent participation issue in bankruptcy court, claiming that its Project No. 6 contract never existed. This came in response to a claim filed by MMWEC against the cooperative for \$31 million plus other potential damages resulting from the cooperative's breach of its Project No. 6 contract. At MMWEC's request, the 100 percent participation issue in this bankruptcy case has

MMWEC's Seabrook Ownership

Power Supply Project	Percent of Seabrook	Kilowatt Entitlement	Bonds Outstanding (\$000)
Nuclear Project No. 4	4.3%	49,829 KW	\$258,610
Nuclear Project No. 5	1.1%	12,612 KW	76,380
Project No. 6	6.0%	69,012 KW	515,625
Nuclear Mix No. 1*	0.19%	1,875 KW	16,961
Totals	11.59%	133,328 KW	\$867,576

* Nuclear Mix No. 1 also includes ownership in Millstone Unit No. 3, which is not reflected in this table.



Most of the litigation that MMWEC is involved in stems from its ownership interest in the Seabrook Station nuclear power plant, above.

"Bring the Seabrook contract litigation to a close as quickly as possible."

been certified to the full bench of the Massachusetts SJC. Meanwhile, the judge hearing the bankruptcy case has indicated a strong interest in seeing the case settled, which would eliminate the need for SJC action on the 100 percent participation issue. MMWEC and the cooperative are continuing to explore settlement possibilities.

The Vermont Supreme Court decision also resulted in additional litigation in Vermont. In March 1989, the Washington Electric Cooperative (WEC) of Vermont filed a complaint in Vermont Superior Court seeking restitution of \$924,000 in payments made to MMWEC under its Project No. 6 contract. WEC obtained an order from the Superior Court attaching the payments due MMWEC from other Vermont utilities – under contracts for power from MMWEC's Stony Brook power plant – as security for its restitution claim. Late in March, MMWEC petitioned to have the case removed to federal district court in Vermont, where the attachment order was dissolved.

After trying unsuccessfully to resolve this case without further litigation, MMWEC in July 1989 filed a counterclaim seeking \$16 million in damages from

WEC plus legal fees. The counterclaim asserts WEC's negligence and negligent misrepresentations in signing the Project No. 6 contract and representing that it had full power and authority to sign, comply with and fully perform under the contract. In October 1989, the Vermont Department of Public Service filed a motion to intervene in the WEC case and a complaint seeking restitution of \$6.2 million in payments made by all six Vermont utilities to MMWEC under the Project No. 6 contract. The Department of Public Service motion to intervene and related complaint were denied on March 5, 1990.

Also in Vermont, MMWEC is involved in Superior Court litigation with the Department of Public Service and other parties related to contracts for MMWEC's Stony Brook power plant. MMWEC is seeking a ruling on the validity of the Stony Brook contracts – in light of the Vermont Supreme Court ruling – since these contracts are virtually identical to the Project No. 6 contracts voided by the court.

(Additional information and further detail on litigation can be found in the footnotes to the financial statements in the back of this report.)

Financial Strength

The financial challenge for MMWEC in 1990 is to remove the obstacles to a refunding of MMWEC's outstanding, high-interest debt, which could save the MMWEC members and their customers hundreds of millions of dollars in debt service costs. Such a refunding could significantly moderate the rate impacts of Seabrook in member communities and help to strengthen the financial positions of both MMWEC and its members.

Of the \$1.4 billion in MMWEC bonds outstanding, about \$867.5 million were issued to finance MMWEC's 11.59 percent ownership in Seabrook Station. MMWEC has authority from the Massachusetts Department of Public Utilities to issue \$631 million in bonds to refund the bulk of its Seabrook debt. MMWEC also has DPU authority to issue an additional \$60 million in bonds to refund a portion of MMWEC's Millstone Unit No. 3 debt. In 1989, MMWEC petitioned the DPU for authority to issue an additional \$285 million in refunding bonds for its Seabrook and Stony Brook power supply projects. Approval of the 1989 request would bring MMWEC's total refunding authority to approximately \$976 million.

In meetings with staff, member representatives, financial counsel and others, MMWEC had been preparing for a major refunding bond issue in 1990. However, it now appears that issuance will be delayed as MMWEC awaits the outcome of litigation involving the validity of MMWEC's Project No. 6 Seabrook contracts. An analysis of potential refunding savings performed in mid-1989 shows a gross, life-of-bonds savings potential of nearly \$360 million, based on a number of key assumptions. The assumptions include:

- That the Project No. 6 contract litigation in Massachusetts is resolved in MMWEC's favor.
- That MMWEC's Baa/BBB bond ratings are reinstated.
- That financial markets allow the issuance of tax-exempt refunding bonds by MMWEC at interest rates around 8-to-8.5 percent.
- That MMWEC's request for additional refunding authority is granted by the DPU.
- That all tax issues concerning the refunding of Project No. 6 debt are resolved to allow all Project No. 6 debt to be refunded on a tax-exempt basis.

The principal roadblock to refunding is the Project

No. 6 contract litigation in Massachusetts. This litigation is of such crucial importance because the contracts in question require participants to pay MMWEC's costs for Project No. 6, which include the debt service on \$517.6 million in bonds issued for the project. Participants in the litigation are continuing to make their Project No. 6 payments under court order.

Uncertainty about the validity of these contracts has resulted in adverse effects on MMWEC's credit ratings. Duff & Phelps, a Chicago-based credit rating agency, dropped MMWEC's rating to below investment grade, from BBB to BB+, because of the issues raised in this litigation. When participants were ordered to continue making Project No. 6 payments and it appeared the case would be resolved in MMWEC's favor sometime in 1990, Duff & Phelps placed MMWEC's rating on a watch list with a favorable trend. Early in 1990, after the case was ordered back to Superior Court, MMWEC was removed from the Duff & Phelps watch list.

MMWEC's Baa rating from Moody's Investors Service has been under suspension since August 1988. Initially, the suspension was a result of uncertainty sur-

rounding negotiations related to the Seabrook Settlement Agreement. However, when these concerns were addressed, Moody's continued the suspension, citing the Project No. 6 contract litigation. MMWEC's BBB rating from Standard & Poor's has been on credit watch with negative implications since the issues in this litigation surfaced.

Based on these credit reports and information gathered from other sectors of the financial community, MMWEC has determined that there is little, if any, market for MMWEC refunding bonds at reasonable interest costs with the major contract litigation outstanding. In fact, any bonds issued under MMWEC's General Bond Resolution would be subject to the same scrutiny. The resolution provides for a common and equal lien on MMWEC revenues to cover principal and interest payments on all bonds issued under the resolution, regardless of series, issue date or purpose. The risk, although its occurrence is highly unlikely, is that the Project No. 6 contracts will be ruled invalid, leaving MMWEC without a source of revenue to pay the debt service on \$517.6 million in bonds.

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		307.72	2026
		1197517	
		769127	25
		20666375	1239
		93352312	
		93100111	561

MMWEC staff spent considerable time explaining the impacts of litigation on its financial plans in various legal and financial forums in 1989. At the same time, efforts continued to address the tax issues related to plans for the tax-exempt refunding of Project No. 6 debt. Initially, the Tax Reform Act of 1986 prohibited the tax-exempt refunding of Project No. 6 bonds due to the percentage of project benefits targeted for out-of-state, taxable entities. That situation has changed, to the benefit of MMWEC's refunding plans, with the elimination of the Vermont participants and the Eastern Maine Electric Cooperative from the project. Likewise, termination of the Seabrook Sellback Agreement between MMWEC and PSNH, which involved the sale of project output to PSNH, has benefitted MMWEC's refunding plans.

It is MMWEC's intent to be action-ready when the opportunity for refunding arrives, and identifying and analyzing the complex tax questions related to the refunding has been an important part of this process. While the tax issues and other aspects of the refunding can be analyzed and addressed, some of the

"Accomplish a refunding of MMWEC's outstanding debt and develop a position of strength in financial markets."

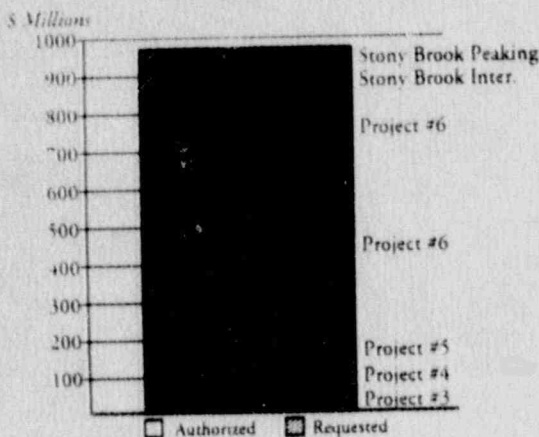
requirements for refunding, such as proper market conditions, are beyond MMWEC's control.

In the meantime, all current Project No. 6 participants are paying their project bills. The portion of Project No. 6 costs associated with the Vermont utilities and the Eastern Maine Electric Cooperative, which have been removed from the project, have been reallocated to the remaining Project No. 6 participants. These reallocated costs are presently being covered with available Project No. 6 funds.

MMWEC's General Bond Resolution requires that the Bond Fund Reserve Account and the Reserve and Contingency Fund be valued at June 30 of each year. Money in excess of the amounts required by the resolution to be held in each fund are available for transfer. This valuation process is done for each of MMWEC's eight power supply projects. In 1989, a record \$13.3 million in excess funds was returned to participants in seven power supply projects. No funds were returned to Project No. 6 participants.

As discussed earlier in this report, there is a study under way to determine the requirements and alternatives for financing and construction of a new generating unit by MMWEC. Several member utilities have voiced strong support for MMWEC construction of a new unit, but they also would like to see financing for the new unit stand apart from the common-lien, system funding approach used by MMWEC to finance its existing power supply projects. Early in 1989, MMWEC arranged a \$2.5 million bond financing for the Hydro-

MMWEC Refunding Authority



Quebec Phase II project that is independent of other MMWEC debt, so there is a precedent for the stand-alone type of financing contemplated for a new unit. The requirements for such a financing, which is still in the preliminary stages of study and analysis, would include a new bond resolution and new contracts to provide security for investors.

As part of this effort, MMWEC staff conducted a survey of 27 joint action agencies in the United States to see how agencies similar to MMWEC have financed power supply projects. The results of the survey have been incorporated into the new unit study, which is expected to be complete later in 1990. At that point, it will be up to the MMWEC members and Board of Directors to examine the requirements for a new unit and decide whether and how to proceed.

There were a number of other accomplishments in 1989, including the retirement of \$2.7 million in bonds issued for the Stony Brook Intermediate and Peaking Power Supply Projects. The retirement of these bonds, which were called or repurchased with surplus construction fund monies, will result in a reduction in debt service for these projects in excess of \$7.1 million over the life of the bonds.

Also in 1989, MMWEC renewed a short-term loan agreement with two banks to finance the purchase of power for resale to member utilities. The one-year power financing agreement provides MMWEC with a \$10 million line of credit to pay for power purchased through contracts with other utilities, which is then resold to members participating in the power contracts. An optional consolidated billing procedure established in 1989 will ease the administrative burden on member utilities and allow more lead time for processing MMWEC bills at the local level. The procedure places a number of different billings, including MMWEC services billings and up to a dozen different power contract billings, on the same billing cycle.

Through the difficult financial times stemming from its Seabrook ownership, MMWEC has exhibited the flexibility and resourcefulness necessary to meet its financial obligations. While pursuing plans and options for the refunding, new-unit financing and other important programs, MMWEC remains committed to enhancing the financial integrity and strength of the company and its member utilities.

Bonds Issued

Issue	Principal Amount (000s)	Sale Date	Net Interest Cost (%)
1976 Series A	\$ 75,000	8/26/76	7.2
1977 Series A	177,370	7/27/77	6.4
1977 Series B	83,500	12/7/77	6.1
1978 Series A	75,000	9/13/78	6.8
1979 Series A	150,000	8/16/79	7.0
1980 Series A	112,000	8/6/80	10.2
1981 Series A	100,000	5/28/81	12.3
1981 Series B	100,000	8/6/81	13.4
1982 Series A	11,700	4/16/82	13.4
1982 Series B	130,000	10/15/82	10.2
1984 Series A	95,000	1/11/84	11.0
1985 Series A	61,500	2/6/85	13.5
1985 Series B	53,200	2/6/85	13.5
1987 Series A	198,260	6/1/87	8.9
1987 Series B	\$139,400	6/1/87	11.8

Long-Term Financing Data (000s)

Project Description	Approximate Capability (MW)	Bonds** Issued	Bonds Outstanding
Stony Brook Intermediate	311.3	\$176,980	\$154,710
Stony Brook Peaking	170.0	85,020	57,595
Wyman Project	22.7	9,420	7,225
Nuclear Mix No. 1*	20.3	180,200	169,610
Nuclear Project No. 3	36.8	296,300	203,700
Nuclear Project No. 4	49.8	292,930	258,610
Nuclear Project No. 5	12.6	87,220	76,380
Project No. 6	69.0	\$517,600	\$515,625

* The cancellation of Pilgrim Unit No. 2 included in Nuclear Mix No. 1 (Mix 1) has reduced the financing requirements for Mix 1 to an amount less than the amount previously issued. Proceeds remaining after all units in Mix 1 are completed will be used to retire Mix 1 bonds.

** Does not include bonds issued, and subsequently retired, for terminated Projects.

Seabrook

It appears that Seabrook Station will become part of the New England power supply in 1990, ending one of the longest and most costly construction and licensing battles in the history of commercial nuclear power.

Bringing Seabrook into operation will mean that MMWEC will begin receiving its 11.59 percent of the project's output, or approximately 133 megawatts, which represents a vital portion of MMWEC's power supply program. And, it will mean that MMWEC's Seabrook participants, who have been paying for the project since 1986, will begin receiving a return on their investment.

There will no doubt be celebrations among the joint owners and project proponents when Seabrook clicks into the grid, but it will be a bittersweet victory because of the heavy financial toll taken by the \$6.35 billion project.

In MMWEC's case, Seabrook's ravenous appetite for dollars was brought under control in 1989 with the implementation of the Seabrook Settlement Agreement. In fact, MMWEC ceased making Seabrook construction payments in mid-1988 when it began the negotiating process that led to the Settlement Agreement.

Under this landmark agreement, Public Service Co. of New Hampshire agreed to pay MMWEC's share of Seabrook costs, up to \$30 million. Northeast Utilities also agreed not to seek repayment of approximately \$7 million it paid to cover MMWEC's share of Seabrook costs while the agreement was being negotiated. PSNH paid MMWEC \$3.5 million on Aug. 1, 1989, the effective date of the agreement, and will pay MMWEC an additional \$16 million over eight years beginning with commercial operation of the plant.

In addition, MMWEC is protected against actions that could result in a reduction or loss of its ownership share. In return, MMWEC agreed to terminate its Sell-back Agreement with PSNH, under which PSNH had agreed to purchase a portion of MMWEC's Seabrook entitlement during the initial years of operation. The agreement also provides for a mutual release of Seabrook-related legal claims between MMWEC and PSNH. Approved in April 1989 by the U.S. Bankruptcy Court overseeing the PSNH Chapter 11 bankruptcy proceedings, the Settlement Agreement will be part of any PSNH reorganization plan adopted by the court.

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NRC gives Seabrook green light for startup

STEVE McGRATH
Leader Correspondent
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By NICK TATE

ROCKVILLE, Md

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The full-power licensing of Seabrook Station became a reality early in 1990. Operation of the plant will bring a needed new resource into the MMWEC power supply and enable member utilities to begin recovering their investment in the plant.

On the licensing front, there were several key events for Seabrook in 1989. In May, the Nuclear Regulatory Commission issued Seabrook's low-power license, which cleared the way for testing the reactor at 5 percent power. In June, operators started the reactor, marking the first nuclear fission reaction ever inside Seabrook's reactor containment vessel. And in November, the NRC's Atomic Safety and Licensing Board approved Seabrook's emergency response plans for Massachusetts and authorized issuance of a full-power license.

With a 3-0 vote on March 1, 1990, NRC commissioners authorized issuance of a full-power license for Seabrook. Following the unsuccessful effort of project

opponents to block the licensing in federal appeals court, the project received its full-power operating license on March 15. Seabrook operator New Hampshire Yankee expects to have the plant running at full power by mid-1990.

MMWEC is in the process of converting its Seabrook power supply projects from the construction mode to the operating mode, which involves the development of operating budgets and the billing of operating costs to MMWEC's Seabrook participants. As with its other power supply projects, MMWEC will monitor Seabrook operations and costs to assure that the plant is being run as efficiently as possible.

To the Board of Directors of

Massachusetts Municipal Wholesale Electric Company:

We have audited the accompanying statement of financial position of Massachusetts Municipal Wholesale Electric Company (a Massachusetts public corporation) as of December 31, 1989 and the related statements of operations and cash flows for the year then ended. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audit. The financial statements of Massachusetts Municipal Wholesale Electric Company as of December 31, 1988, were audited by other auditors whose report thereon, dated April 14, 1989, expressed an unqualified opinion on those statements.

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

In our opinion, the 1989 financial statements referred to above present fairly, in all material respects, the financial position of Massachusetts Municipal Wholesale Electric Company as of December 31, 1989 and the results of its operations and its cash flows for the year then ended in conformity with generally accepted accounting principles.

KPMG Peat Marwick

March 16, 1990

*Independent
Auditors' Report*

MMWEC

MWEC*Statements of Financial Position*

December 31, 1989 and 1988

	(In Thousands)	
Assets	1989	1988
Electric Plant		
In Service (Note 4)	\$ 390,938	\$ 389,920
Accumulated Depreciation (Note 2)	<u>(86,456)</u>	<u>(72,580)</u>
	304,482	317,340
Under Construction (Notes 2 and 4)	799,463	743,331
Nuclear Fuel-Net of Amortization (Note 2)	<u>44,560</u>	<u>42,411</u>
Total Electric Plant	<u>1,148,505</u>	<u>1,103,082</u>
Special Funds (Notes 2, 3, and 8)	<u>269,585</u>	<u>275,126</u>
Current Assets		
Cash and Temporary Investments (Notes 2 and 8)	1,826	2,318
Accounts Receivable (Note 7)	7,610	10,198
Unbilled Revenues (Note 2)	7,373	7,061
Inventories at cost (Note 2)	8,816	10,095
Prepaid Expenses	<u>2,152</u>	<u>2,231</u>
	<u>27,777</u>	<u>31,723</u>
Total Special Funds and Current Assets	<u>297,362</u>	<u>306,849</u>
Deferred Charges		
Amounts Recoverable Under Terms of the Power Sales Agreements (Notes 2 and 5)	329	69,558
Unamortized Debt Discount and Expenses	38,348	39,861
Other	<u>3,128</u>	<u>990</u>
	<u>41,805</u>	<u>110,409</u>
	<u>\$ 1,487,672</u>	<u>\$ 1,520,340</u>
Liabilities		
Long-Term Debt (Note 3)		
Bonds Payable	<u>\$ 1,427,185</u>	<u>\$ 1,446,170</u>
Current Liabilities		
Current Maturities of Long-Term Debt	16,270	13,780
Notes Payable (Note 3)	25	31
Accounts Payable	34,492	49,636
Accrued Expenses	<u>9,700</u>	<u>10,723</u>
	<u>60,487</u>	<u>74,170</u>
Commitments and Contingencies (Notes 4 and 7)	<u>\$ 1,487,672</u>	<u>\$ 1,520,340</u>

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

MMWEC

STATEMENTS OF OPERATIONS

December 31, 1989 and 1988

	(In Thousands)	
	1989	1988
Revenues (Note 2)	\$ 258,184	\$ 260,696
Interest Income	<u>26,145</u>	<u>24,224</u>
Total Revenues and Interest Income	<u>\$ 284,329</u>	<u>284,920</u>
Operating and Service Expenses:		
Fuel Used in Electric Generation	\$ 34,955	\$ 30,402
Purchased Power	82,355	80,940
Other Operating	12,628	11,565
Maintenance	4,664	5,157
Depreciation (Note 2)	13,995	13,827
Taxes Other Than Income	<u>2,919</u>	<u>2,706</u>
	<u>151,516</u>	<u>144,597</u>
Interest Expense:		
Interest Charges	138,311	139,369
Interest Charged to Projects During Construction (Notes 2 and 4)	<u>(72,231)</u>	<u>(72,191)</u>
	<u>66,080</u>	<u>67,178</u>
Total Operating Costs and Interest Expense	<u>217,596</u>	<u>211,775</u>
Reserve for Project Billings - Net (Note 7)	(2,496)	14,759
Decrease in Amounts Recoverable Under Terms of the Power Sales Agreements (Notes 2 and 4)	<u>69,229</u>	<u>58,386</u>
	<u>\$284,329</u>	<u>\$284,920</u>

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

MMWEC*Statements of Cash Flows*

December 31, 1989 and 1988

	(In Thousands)	
	1989	1988
Cash flows from operating activities:	\$ 284,329	\$ 284,920
Total Revenues and Interest Income	(215,100)	(226,534)
Total Expenses		
Adjustments to arrive at net cash provided by operating activities:		
Depreciation and decommissioning	14,131	14,044
Amortization	3,203	3,253
Reserve for Project Billings	(2,722)	15,000
Changes in current assets and liabilities:		
Accounts Receivable	2,588	(14,280)
Unbilled Revenues	(312)	(25)
Inventories	1,279	(2,742)
Prepaid Expenses	79	326
Accounts Payable	(1,284)	5,642
Accrued Expenses and Other	1,595	(2,013)
Net cash provided by operating activities	<u>87,786</u>	<u>77,591</u>
Cash flows from investing activities:		
Construction expenditures and purchases of nuclear fuel	(2,683)	(17,497)
Interest charged to Projects during construction	(72,231)	(72,191)
Net reduction in Special Funds	5,541	26,525
Decommissioning Trust payments	(2,423)	(255)
Other	199	187
Net cash used for investing activities	<u>(71,597)</u>	<u>(63,231)</u>
Cash flows from financing activities:		
Payments for principal of Long-Term Debt	(16,495)	(13,840)
Change in Notes Payable	(6)	(303)
Net cash used for financing activities	<u>(16,501)</u>	<u>(14,143)</u>
Net increase (decrease) in cash and temporary investments	(312)	217
Cash and temporary investments at beginning of year	2,138	1,921
Cash and temporary investments at end of year	<u>\$ 1,826</u>	<u>\$ 2,138</u>
Cash paid during the year for interest (Net of amount capitalized as shown above)	<u>\$ 56,874</u>	<u>\$ 57,977</u>

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

MMWEC

Notes to Financial Statements

(1) **Massachusetts Municipal Wholesale Electric Company (MMWEC)**

MMWEC is a political subdivision of the Commonwealth of Massachusetts, authorized to issue revenue bonds secured by revenues derived from Power Sales Agreements (see Note 7) with its members and other electric systems to finance the construction and ownership of electric power facilities.

A Massachusetts city or town having a municipal electric department, authorized by majority vote of the city or town, may become a member by applying for admission to MMWEC and agreeing to comply with the terms and conditions of membership as the MMWEC By-Laws may require. As of December 31, 1989, thirty-one Massachusetts municipalities were members.

MMWEC obtains power supply capacity by acquiring interests in various generating units and the operation of its own electric generating facilities (Projects). See Note 4 for a discussion of MMWEC's construction program and commitments related to these facilities. In addition, MMWEC contracts for power for resale to its members.

(2) **Significant Accounting Policies**

MMWEC presents its general purpose financial statements in accordance with generally accepted accounting principles as promulgated by the Financial Accounting Standards Board and the Governmental Accounting Standards Board.

Interest Charged to Projects During Construction

MMWEC capitalizes interest as an element of the cost of electric plant and other property while under construction, including an appropriate testing period. A corresponding amount is reflected as a reduction of interest expense. The amount of interest capitalized is based on the cost of debt, including amortization of debt discount and expenses, related to each Project, net of investment gains and losses and interest income derived from unexpended Project funds.

Nuclear Fuel

Nuclear fuel includes fuel in use, in stock and in process for Millstone Unit 3 and fuel in stock and in process for Seabrook Unit 1. Fuel in use for Millstone Unit 3 is reflected net of accumulated amortization of \$7.0 million and \$5.3 million through December 31, 1989 and 1988, respectively. The cost of nuclear fuel is amortized to Fuel Used in Electric Generation based on the relationship of energy produced in the current period to total expected energy production for nuclear fuel in the reactor. A provision for fuel disposal costs is also included in Fuel Used in Electric Generation based upon a fuel disposal contract with the Department of Energy.

Special Funds

Proceeds from the sales of revenue bonds for Projects are deposited with Trustees to be invested until they are required for construction or debt service payments. As defined in MMWEC's General Bond Resolution, investments are limited to direct obligations of, or obligations the principal of and interest on which are unconditionally guaranteed by the United States, Federal government agency securities, new housing authority bonds issued by public agencies or municipalities, direct and general obligations of certain states or certain political subdivisions, bank time deposits evidenced by certificate; of deposits issued by banks, and repurchase agreements with primary dealers secured by certain securities. Certain special funds are more restricted as to which of the aforementioned investments can be purchased. (See Note 8.)

Cash and Temporary Investments

Certain other funds are used for power purchases and working capital requirements of MMWEC. These funds are not governed by the General Bond Resolution. In addition to the investment securities delineated in the General Bond Resolution, MMWEC is authorized by the Board of Directors to purchase Canadian currency for cash and forward settlement and to invest in repurchase agreements with banks where MMWEC has established accounts. (See Note 8.)

Inventories

Fuel oil inventory is accounted for by the average cost method. Spare parts inventory is recorded at average

MMWEC

Notes to Financial Statements

(2) Significant Accounting Policies (continued)

cost. At December 31, 1989 and 1988, fuel oil inventory was valued at \$3.9 million and \$5.8 million, respectively, and spare parts inventory amounted to \$4.9 million and \$4.3 million, respectively.

Revenues and Unbilled Revenues

Revenues include electric sales for resale provided from MMWEC's operating units and power purchases; billings for administrative and general services provided to MMWEC's Service Participants; and billings of debt service on certain Projects prior to commercial operation of the units within those Projects. The details of revenues are as follows:

	1989	1988
	(In Thousands)	
Electric sales for resale	\$168,415	\$171,362
Service	2,323	2,918
Pre-operation debt service	<u>87,446</u>	<u>86,416</u>
Revenues	<u>\$258,184</u>	<u>\$260,696</u>

MMWEC bills its members for costs incurred in providing services and purchased power obtained on their behalf under terms of the Service Agreement and the Power Purchase Agreements. Service revenues are recorded as the expenses are incurred. Amounts which are not yet billed are included in Unbilled Revenues on the Statements of Financial Position.

Electric sales for resale and pre-operation debt service revenues are fixed by MMWEC's Board of Directors at a level to recover operating and debt service costs. The difference between amounts billed currently under the terms of the Power Sales Agreements and total expenses recorded in the Statement of Operations is charged or credited to Amounts Recoverable Under Terms of the Power Sales Agreements.

Amounts Recoverable Under Terms of the Power Sales Agreements

Billings to Project Participants are designed to recover costs in accordance with the Power Sales Agreements. The billings are accordingly structured on a Project-by-Project basis to provide for debt service, operating funds and reserve requirements. Expenses are reflected in the Statement of Operations in accordance with generally accepted accounting principles. The difference between amounts billed and expensed is charged to Amounts Recoverable Under Terms of the Power Sales Agreements and will be recovered through future billings. The principal differences which have resulted in the net deferral of costs include depreciation, costs associated with cancelled or abandoned projects, certain interest, reserves and other costs. On a cumulative basis, MMWEC has deferred \$0.3 million and \$69.6 million of costs as of December 31, 1989 and 1988, respectively. Individual Projects with a cumulative deferral of costs total \$132.5 million and \$119.6 million and Projects with cumulative billings in excess of costs total \$132.2 million and \$50.0 million at December 31, 1989 and 1988, respectively. These amounts have been netted in the Statements of Financial Position. The reduction of Amounts Recoverable Under Terms of the Power Sales Agreements for Projects with billings in excess of cost is primarily due to the billing of interest costs for Projects under construction.

Depreciation

Electric plant in service is depreciated using the straight-line method. The aggregate annual provisions for depreciation for 1989 and 1988 averaged 4% of the original cost of depreciable property.

(3) Debt

Power Supply System Revenue Bonds

To finance construction of ownership interests in electric generating projects under its General Bond Resolution, MMWEC issues Power Supply System Revenue Bonds (Bonds). The Bonds are secured under its

MMWEC

Notes to Financial Statements

(3) Debt (continued)

General Bond Resolution by a pledge of the revenues derived by MMWEC under terms of Power Sales Agreements and from the ownership and operation of the Projects in its power supply system. Pursuant to the Power Sales Agreements with the Project Participants, each Project Participant is obligated to pay its share of the actual costs relating to the generating units planned, under construction or in operation. The Project Participants' obligations are not contingent upon the completion or operational status of the units.

MMWEC financings, other than obligations maturing within one year, require Massachusetts Department of Public Utilities (DPU) authorization.

The Bonds Payable consist of Serial and Term Bonds and are comprised of the following issues, which, except for the 1987 Series B Bonds, are subject to optional redemption approximately ten years after the issue date, at 103% of the principal amount, descending periodically thereafter to 100%. The 1987 Series B Bonds are subject to redemption beginning in 1992 at 109% of the principal amount, descending periodically thereafter to 100%.

Issue	Net Interest Cost	December 31,	
		1989	1988
(In Thousands)			
1976 Series A	7.2%	\$ 62,645	\$ 63,590
1977 Series A	6.4%	163,185	165,845
1977 Series B	6.1%	81,265	82,410
1978 Series A	6.8%	63,930	64,735
1979 Series A	7.0%	130,200	135,010
1980 Series A	10.2%	82,105	85,450
1981 Series A	12.3%	99,505	100,000
1981 Series B	13.4%	82,395	82,810
1982 Series A	13.4%	65,155	65,605
1982 Series B	10.2%	127,870	128,635
1984 Series A	11.0%	94,510	95,000
1985 Series B	13.5%	53,030	53,200
1987 Series A	8.9%	198,260	198,260
1987 Series B	11.8%	139,400	139,400
Bonds Payable		1,443,455	1,459,950
Less: Current Maturities		(16,270)	(13,780)
Total Long-Term Debt		<u>\$1,427,185</u>	<u>\$1,446,170</u>

The aggregate annual principal payments due on the Bonds in the next five years are as follows: 1990 - \$16,270,000; 1991 - \$17,280,000; 1992 - \$19,765,000; 1993 - \$21,140,000; and 1994 - \$22,665,000.

In accordance with the General Bond Resolution, MMWEC utilized excess Stony Brook Intermediate and Peaking Project Construction funds to retire \$1.5 and \$1.2 million of 1979 and 1980 Series A Bonds, respectively, at a total gain of \$62,000.

Bond Refunding Authority

MMWEC has received DPU authority to issue \$691 million of bonds to refund currently outstanding high interest bonds. Hearings on a petition requesting an additional \$285 million of bond refunding authority have been completed.

Net Revenue Available For Debt Service

In accordance with the provisions of MMWEC's General Bond Resolution, MMWEC covenants that it

MMWEC

Notes to Financial Statements

(3) Debt (continued)

shall fix, revise and collect rates, tolls, rents and other fees and charges, sufficient to produce revenues to pay all operating and maintenance expenses and principal of, premium, if any, and the interest on Bonds and to pay all other obligations against its revenue. Revenues, which include applicable interest earnings from investments, are required to equal 1.10 times the annual debt service for each contract year ending June 30, after deduction of certain operating and maintenance expenses and exclusive of depreciation. For the contract years ended June 30, 1989, 1988 and prior years, MMWEC met the Bond Resolution debt service coverage requirements for the applicable MMWEC Projects.

	Contract Year Ended June 30,	
	1989	1988
	(In Thousands)	
Debt Service Coverage:		
Revenues	\$171,651	\$148,031
Other Billings	719	719
Reserve and Contingency Fund Billings	13,121	10,607
Total	185,491	159,357
Less: Operating and Maintenance Expenses	(41,159)	(42,680)
Available Revenues Net of Expenses	\$144,332	\$116,677
Debt Service Requirement	\$131,211	\$106,070
Coverage (110% Required)	110%	110%

Notes Payable

MMWEC maintains a \$10 million revolving line of credit to finance temporarily certain power purchases made by MMWEC for resale under power purchase contracts. Borrowings are secured by the corresponding receivables. The balances outstanding at December 31, 1989 and 1988 were \$24,000 and \$31,000, respectively. Interest charged on borrowings under the line are at the bank's prime rate. In addition, a commitment fee of 3/8 of 1% per annum is charged on the unused portion of the line based on the average daily principal amount of the loan outstanding.

Other Financing

In January 1989, MMWEC executed a \$2.5 million 1989 Series A Revenue Bond Credit Facility. The three-year Credit Facility is at the bank's prime rate for borrowings under \$1 million. Borrowings of amounts in excess of \$1 million accrue interest at MMWEC's option using prime, Euro dollar base rates plus 1 1/4%, or CD base rates plus 1 3/8%. Euro dollar and CD base rates vary depending on the length of maturity of the interest rate commitment period. The balance outstanding at the end of the three-year period may be, upon the mutual agreement of the bank and MMWEC, amortized over a ten-year period. A commitment fee of 1/2 of 1% per annum, on the unused portion of the facility, is being waived until MMWEC utilizes the facility in excess of the \$1,000 balance outstanding on December 31, 1989. The Credit Facility is to finance MMWEC's equity ownership in the Hydro-Quebec Phase II transmission interconnection and is secured by contracts with certain Massachusetts municipal systems.

(4) Construction and Financing

On March 1, 1990, the U.S. Nuclear Regulatory Commission (NRC) authorized a full-power operating license for Seabrook Unit 1 (Unit). The Commissioners placed a fourteen-day stay on issuance of the full-power license to give plant opponents time to file legal challenges or appeals in the appropriate courts. No stays of the NRC's granting of a full-power license were issued and the Unit has begun its ascent to full-power operation. The unit is to be made available for New England Power Pool dispatch and commercial operation upon or near completion of the estimated seventy-two-day test period. The Unit will then be included in the MMWEC Project Participants' power supplies, at which time MMWEC will increase the current debt service billings to include operations, fuel and maintenance expenses.

(4) Construction and Financing *(continued)*

MMWEC's 11.6% joint ownership interest in the Seabrook Station represents a substantial portion of its plant investment and financing program. Seabrook Station originally consisted of two 1,150 megawatt nuclear reactors. Unit 2 was cancelled as discussed in Note 5 - Unit Cancellation. Construction of Seabrook Station Unit 1 was completed by New Hampshire Yankee (NH Yankee), which currently is a division of Public Service of New Hampshire (PSNH), the Unit's lead owner holding 35.6% of the Unit. In October 1986, Seabrook received a 40-year operating license with certain pre-conditions that included completion of low-power testing and NRC approval of radiological emergency response plans for New Hampshire and Massachusetts communities within a ten-mile radius of Seabrook. These conditions have been met. The NRC issued a rule change in 1987 that allows owners of nuclear power plants to obtain an operating license upon NRC approval of utility sponsored emergency response plans in cases where states have refused to participate in formulating such plans. Emergency response plans were filed with the NRC by NH Yankee and in June 1988 a graded exercise was held. The NRC staff, in August 1989, recommended that a full-power license be granted on the basis that adequate and implementable response plans were in place for Massachusetts and New Hampshire. Seabrook Station has experienced persistent and substantial cost increases and significant schedule delays; has been the source of continuing controversy and opposition from government officials, regulators, intervenors and others; and has created financial problems for many of its joint owners, including MMWEC.

In September 1988, the NRC issued a ruling requiring the Seabrook Station joint owners to demonstrate their financial ability to decommission the plant after low-power testing in the event the plant did not obtain a full-power license. In December 1988, the NRC decided on all pending financial qualification questions which were brought to its attention relating to Seabrook. The NRC ruled, among other things, that \$72.1 million be provided for decommissioning prior to low-power testing. The joint owners have purchased a surety bond and NH Yankee established pre-operational and supplementary trusts to meet the above condition. MMWEC's December 31, 1989 trust balances of \$2.1 million are to be refunded after the unit is declared in commercial operation and certain other conditions are satisfied. For additional information regarding decommissioning expenses, see Note 7, Commitments and Contingencies - Other Issues.

PSNH, as a result of the continued delay in commercial operation of Seabrook Unit 1 and its inability to recover costs of the Unit through rates prior to commercial operation, had been experiencing substantial difficulty in sustaining its financial obligations for its 35.6% share of the Seabrook project. PSNH challenged the constitutionality of New Hampshire's anti-CWIP law, which prohibited PSNH from charging customers for construction projects that are not in operation. In January 1988, the New Hampshire Supreme Court upheld the application of the state's anti-CWIP law, prohibiting PSNH from billing its customers for Seabrook-related costs until the commercial operation of the Unit. This decision effectively barred approval, by the New Hampshire Public Utilities Commission, of PSNH's previously filed emergency rate relief request and shortly thereafter PSNH filed for protection from its creditors under Chapter 11 of the Federal Bankruptcy Code.

The Bankruptcy Court administering the reorganization of PSNH allowed reorganization plans to be filed and gave the parties through May 16, 1989 to agree on a consensual reorganization plan. No plan was agreed upon and the court permitted competing reorganization plans to be submitted. After hearings on the disclosure statements associated with the plans, PSNH, the State of New Hampshire, various Bankruptcy Creditor and Equity Committees and others agreed to and joined in sponsoring the reorganization plan submitted by Northeast Utilities (NU/PSNH Plan) to acquire PSNH, including Seabrook Station. Hearings on confirmation of the NU/PSNH Plan are scheduled to commence in April 1990.

On June 1, 1988, MMWEC's Board of Directors adopted a strategic plan of action relating to its Seabrook joint ownership interests. The plan of action evidenced, among other things, an intention to draw down funds previously paid and not to pay any future direct obligations to the Seabrook project. Accordingly, no additional payments have been made since that date for construction, maintenance or nuclear fuel under the Seabrook Project Disbursing Agent Agreement or Joint Ownership Agreement. MMWEC's prepayments were exhausted on or about July 24, 1988. The Connecticut Light and Power Company, in exchange for a power sales arrange-

MMWEC

Notes to Financial Statements

(4) Construction and Financing (continued)

ment with other joint owners, and through additional payments furnished funds to the Seabrook Project in lieu of MMWEC's payments, for the July 24 to November 30, 1988 period. As part of a Comprehensive Seabrook Settlement, the Connecticut Light and Power Company released any claims it may have had against MMWEC as a result of making payments to the Seabrook Project.

On June 10, 1988, PSNH gave notice under a provision of the Seabrook Joint Ownership Agreement that MMWEC was in default of its joint ownership obligations. Pursuant to the same Joint Ownership Agreement, MMWEC had five months after such notice to cure any default. MMWEC did not agree with such notice that a default occurred on June 10, 1988. On November 4, 1988, MMWEC and PSNH entered into a Memorandum of Understanding whereby MMWEC continues its full ownership in Seabrook Station and further agreed to execute a Settlement Agreement. Upon the Effective Date, August 1, 1989, the Memorandum and the Settlement Agreement provided, among other things, that all notices of default were rescinded and covenants not to sue among the major joint owners of Seabrook were effective. The Settlement Agreement requires PSNH to be responsible for MMWEC's portion of the Seabrook Station pre-operational costs, commencing December 1, 1988 to the commercial operation of the unit or up to \$30 million, whichever comes first. The \$30 million of construction funds are projected to be exhausted in the spring of 1990. The Settlement Agreement calls for MMWEC to make up any shortfalls in payments seven days after the commercial operation or cancellation of the Unit. The Settlement Agreement also provides the Seabrook joint owners with the right to obtain equitable relief, but not to reduce MMWEC's ownership share, after sixty days written notice for nonpayment by MMWEC, before commercial operation or cancellation. As further required in the Settlement Agreement, PSNH paid MMWEC \$3.5 million on the Effective Date of the Agreement. The Settlement Agreement also calls for PSNH to make a \$2 million annual payment to MMWEC for eight years upon the commercial operation of the Unit. As part of the Settlement Agreement, MMWEC and PSNH agreed to terminate the Sellback Agreement, which called for PSNH to purchase Seabrook capacity from MMWEC at cost. The Settlement Agreement called for extension of an existing transmission contract and limits MMWEC's exposure for decommissioning and cancellation costs to \$10 million. The PSNH bankruptcy court accepted the Comprehensive Seabrook Settlement and PSNH is making Seabrook Station construction payments on behalf of MMWEC.

MMWEC has an ownership interest in the following jointly owned electric generating facilities in operation and under construction:

Projects in Operation	Facility	MMWEC Share of Capability MW	Amounts as of December 31, (In Thousands)	
			1989	1988
Peaking Project	Stony Brook	170.0	\$ 56,194	\$ 56,127
Intermediate Project	Stony Brook	311.3	146,305	146,057
Wyman Project	W.F. Wyman Unit 4	22.7	7,344	7,319
Nuclear Mix No. 1	Millstone Unit 3	18.4	50,584	50,528
Nuclear Project No. 3	Millstone Unit 3	36.8	<u>128,186</u>	<u>128,076</u>
			<u>388,613</u>	<u>388,107</u>
Projects				
Under Construction				
Nuclear Mix No. 1	Seabrook Unit 1	1.9	8,287	7,975
Nuclear Project No. 4	Seabrook Unit 1	49.8	249,506	237,727
Nuclear Project No. 5	Seabrook Unit 1	12.6	67,873	63,718
Project No. 6	Seabrook Unit 1	69.0	<u>473,797</u>	<u>433,911</u>
			<u>799,463</u>	<u>743,331</u>
			<u>\$1,188,076</u>	<u>\$1,131,438</u>

MMWEC

Notes to Financial Statements

(4) Construction and Financing (continued)

The foregoing amounts represent MMWEC ownership interest by Project, but exclude nuclear fuel and service company assets.

(5) Unit Cancellations

MMWEC's investment in Seabrook Station includes an equivalent interest in Units 1 and 2. Seabrook's joint owners have authorized the sale of all salvageable components and equipment from the cancelled Seabrook Unit 2. The joint owners have also agreed to allow the current Seabrook Unit 2 construction permit to lapse and to take no action for renewal. MMWEC's net costs, including interest expense in Seabrook Unit 2 of \$123.3 and \$112.3 million as of December 31, 1989 and 1988, respectively, have been deferred and will be recovered under the terms of the Power Sales Agreements.

In October 1981, the Boston Edison Company cancelled Pilgrim Unit 2, which is included in MMWEC's Nuclear Mix 1. MMWEC's net costs, including interest expense associated with the Unit, which aggregated \$59.5 and \$56.1 million as of December 31, 1989 and 1988, respectively, were deferred and will be recovered under the terms of the Power Sales Agreements.

(6) Benefit Plans

MMWEC has two non-contributory pension plans covering substantially all full-time active employees. One plan covers union employees (union plan) and the other plan covers non-union employees (non-union plan).

The amount shown below as the Pension Benefit Obligation for MMWEC is a standardized disclosure measure of the present value of pension benefits, adjusted for the effect of projected salary increases, estimated to be payable in the future as a result of employee service to date. The measure is the actuarial present value of credited projected benefits and is independent of the funding method used to determine contributions to the plans.

The pension benefit obligation was computed as part of an actuarial valuation performed as of January 1, 1989. Significant actuarial assumptions used in the valuation include a rate of return on the investment of present and future assets of 8.0% a year compounded annually, and projected salary increases of 5.5% a year compounded annually. The pension benefit obligation for both plans at January 1, 1989 is as follows:

Retirees currently receiving benefits and terminated employees not yet receiving benefits	\$ 123,133
Current Employees:	
Employer financed vested	611,440
Employer financed non vested	758,389
Total pension benefit obligation	1,492,962
Net asset available for benefits, at market	<u>1,158,602</u>
Unfunded Pension Benefit Obligation	<u>\$ 334,360</u>

MMWEC makes annual contributions to the pension plans equal to the amounts recorded as pension expense, which are \$302,000 and \$112,000 for the years ended December 31, 1989 and 1988, respectively. The union plan uses the aggregate actuarial cost method and the non-union plan uses the frozen initial liability actuarial cost method in determining pension expense. The assumed rate of return used in determining pension expense was 8.5%. Pension costs applicable to prior years service are amortized over thirty years.

Historical trend and other information which is required to be disclosed in accordance with Governmental Accounting Standards Statement No. 5 is not considered material and therefore is not presented.

MMWEC contributes to an employee savings plan administered by a life insurance company. All full-time

(6) Benefit Plans *(continued)*

employees meeting the service requirements are eligible to participate in this defined contribution plan. Under the provisions of the plan, MMWEC's and the employee's contributions vest immediately. MMWEC contributed \$70,000 and \$73,000, while the employees contributed \$109,000, and \$106,000 during the years ended December 31, 1989 and 1988, respectively.

(7) Commitments and Contingencies*Power Purchases*

MMWEC has entered into a contract with the New Brunswick Electric Power Commission (NBEPCC) for the purchase of 100 MW of capacity from the Point Lepreau nuclear unit. The contract became effective in February 1983, the unit's in-service date, and was initially effective through October 1987, with options for extensions. MMWEC exercised a second option in 1988 for a one-year extension of the contract, simultaneously with obtaining some contract modifications, that when approved by the Canadian National Energy Board and with completion of transmission arrangements, will extend the contract through October 1994. The contract payment provisions require MMWEC to pay in all events certain fixed, operating, maintenance and other charges relating to the unit.

The fixed minimum payments under the contract, as estimated by MMWEC for its planning purposes for each of the years 1990 through 1992, amount to approximately \$36 million. Capacity entitlements decrease to 50 MW in November 1993 through the end of the contract period, thus reducing the estimated fixed charges for 1993 and 1994 to \$33 million and \$15 million, respectively. MMWEC has entered into corresponding agreements with its members and other utilities to resell the power.

MMWEC entered into agreements for participation in the interconnection between New England utilities and the Hydro-Quebec electric system near Sherbrooke, Quebec (Phase I), which began commercial operation in October 1986. New England Electric Transmission Corporation and Vermont Electric Transmission Company constructed the New England portion of the interconnection at a total cost of about \$140 million, of which 3.65% or \$5.1 million is MMWEC's share to support. MMWEC has also entered into similar agreements for the expansion of the Hydro-Quebec interconnection (Phase II). Operation of Phase II is scheduled for the fall of 1990 at a total estimated cost of \$565 million, of which MMWEC's direct share will be 0.5908% or \$3.3 million. MMWEC has corresponding agreements with its members and another utility to resell the power received over these lines including recovery of MMWEC's share of the costs of the lines.

Power Sales Agreements

In January 1985, certain residents of the Town of Groton brought suit against the Town of Groton Municipal Light Department, the Town of Groton and MMWEC, challenging the validity of the Nuclear Mix No. 1, Nuclear Project Nos. 3, 4 and 5 and Project No. 6 Power Sales Agreements. In February 1987, the Massachusetts Superior Court granted the defendants' motions for summary judgement and upheld the validity of Groton's Power Sales Agreements with MMWEC. The decision was appealed by the plaintiffs to the Massachusetts Supreme Judicial Court, which in July 1988, affirmed the lower court's ruling thus upholding the validity of Groton's Power Sales Agreements with MMWEC. No further court appeals have been filed. Groton continued to make the required payments to MMWEC throughout the period of legal challenge of the Power Sales Agreements.

The Vermont Department of Public Service brought an action against MMWEC in a Superior Court of Vermont in October 1985 challenging the validity of the Project No. 6 Power Sales Agreements as entered into by the Vermont Participants. In November 1986, the Superior Court Judge ruled that the Power Sales Agreements for Project No. 6 between MMWEC and several consumer-owned utilities in Vermont were valid under Vermont law. The ruling rejected contentions by the Vermont Department of Public Service, Vermont Electric Cooperative and the Village of Stowe Water & Light Department that the contracts were invalid and, therefore, not binding agreements. The plaintiffs appealed this ruling to the Vermont Supreme Court, which heard

(7) Commitments and Contingencies (continued)

arguments in April 1987. In September 1988, the Vermont Supreme Court ruled that the Project No. 6 Power Sales Agreements with the Vermont utilities were not valid since inception (void ab initio) because inter alia, the utilities lacked the statutory authority to enter into the contracts and to delegate certain authority to MMWEC. Subsequent to the Vermont Supreme Court ruling, MMWEC filed a motion requesting the court to grant a rehearing and allow oral arguments on several issues, including potential violations of the U.S. Constitution and allegations that MMWEC's claims were not adequately addressed in the court's decision. In January 1989, the Vermont Supreme Court denied MMWEC's motion for a rehearing and MMWEC filed a writ of certiorari with the United States Supreme Court to review the Vermont Supreme Court decision. The writ of certiorari was denied in October 1989.

The Vermont Supreme Court decision resulted in the Vermont municipal Project No. 6 Participants ceasing to make their payments to MMWEC. In 1988 MMWEC recorded a \$15 million reserve, a portion of which was for the receivable from the Vermont Participants. The reserve was adjusted by \$2.7 million in 1989. The Vermont Electric Cooperative and Washington Electric Cooperative of Vermont had already stopped making payments in January 1986 and 1988, respectively. Shortfalls in the Project No. 6 revenues are being made up from available funds within the Project. The default by the Vermont Participants and Eastern Maine Electric Cooperative resulted in a reallocation of the Project No. 6 capability and liabilities in accordance with the Power Sales Agreement. MMWEC believes the shortfalls will ultimately be recovered from billings to other Participants under the Power Sales Agreements. MMWEC continues to believe the Massachusetts Power Sales Agreements are valid enforceable contracts. Management believes the nonpayment by the out-of-state Participants will not have a material adverse impact on MMWEC.

In as much as the Stony Brook Intermediate Project has approximately 8.2% of Project Capability under Power Sales Agreements with Vermont entities, which Power Sales Agreements are virtually identical to the Project No. 6 Power Sales Agreement, the Vermont Supreme Court decision on the Project No. 6 Power Sales Agreement could apply equally to the Stony Brook Intermediate Power Sales Agreement. The Vermont Legislature enacted legislation seeking to validate the Stony Brook Intermediate Power Sales Agreement in light of the Vermont Supreme Court decision. MMWEC is seeking a declaration of the validity of the Stony Brook Intermediate Power Sales Agreement, as well as the curative legislation, in the matter of MMWEC v. State of Vermont et al., currently pending in the Superior Court in Washington County, Vermont.

The Vermont Supreme Court decision declaring the Project No. 6 Vermont Participants' contracts void ab initio caused certain Massachusetts Project No. 6 Participants to raise issues relating to the validity of the Project No. 6 Power Sales Agreements, alleging among other things that 100% participation is a condition precedent to the validity of the Project Power Sales Agreements. In April 1989, the Hingham Municipal Lighting Plant and the Shrewsbury Electric Light Plant both filed identical but separate actions in the Superior Court of Suffolk County in Massachusetts. The basis for the complaints is whether the Project No. 6 Power Sales Agreements are valid and binding as to them, since as alleged in the complaints, a condition precedent to the validity of all the Project No. 6 Power Sales Agreements is 100% participation in said Agreement, and if the Vermont Participants' contracts are void ab initio, then this condition precedent has not been met. Further, the complaint alleged that any increase in Project No. 6 billings as a result of the nonpayment by the Vermont Project No. 6 Participants is unlawful on the basis that the Project No. 6 Power Sales Agreements failed to have 100% participation and MMWEC's use of Project No. 6 funds to cover the shortfall in receipts constitutes a breach of the Power Sales Agreements. Five other Massachusetts Project No. 6 Participants filed similar complaints in Suffolk County Superior Court.

In April 1989, MMWEC filed an original action in the Supreme Judicial Court for the Commonwealth of Massachusetts against two Massachusetts Project No. 6 Participants. A single justice of the court accepted MMWEC's motion to have the court transfer to the Supreme Judicial Court the other Project No. 6 Participant cases pending in the Superior Court. Furthermore, the justice granted MMWEC's requests for preliminary injunctions ordering the non-paying Participants to pay their obligations. MMWEC also filed a Motion for

MMWEC

Notes to Financial Statements

(7) Commitments and Contingencies (continued)

Summary Judgment with the Single Justice who allowed for discovery to take place prior to scheduling a hearing on the summary judgment motions. The Danvers, Hudson and Peabody light departments filed a motion asking the justice to recuse himself due to a potential conflict, which he did in January 1990, sending the case back to the Suffolk County Superior Court, where the case is currently.

The Town of Hudson Light & Power Department and the City of Peabody Municipal Light Plant filed a lawsuit against MMWEC in November 1988, which among other things, sought to enjoin the MMWEC Board of Directors from acting upon the Memorandum of Understanding (discussed in Note 4). In November 1988, the Massachusetts Superior Court denied the Hudson/Peabody injunction request, which denial was upheld by the Massachusetts Appeals Court. In December 1988, the Town of Hudson Light & Power Department and the City of Peabody Municipal Light Plant amended their complaint against MMWEC to include challenges to the validity of the Project No. 6 Power Sales Agreement on the 100% participation issue, as previously discussed within the context of the Vermont Supreme Court decision. MMWEC moved to compel arbitration of this dispute and the Superior Court granted MMWEC's motion in accordance with the terms of the Power Sales Agreements. The arbitration is currently on hold pending the outcome of the cases discussed above.

MMWEC is working to resolve the above noted issues. Although the outcome of these challenges cannot be predicted with absolute certainty, it is the opinion of bond counsel, legal counsel, and management that the Massachusetts Project No. 6 Power Sales Agreements will be deemed to have had 100% participation.

In March 1989, Washington Electric Cooperative of Vermont filed suit against MMWEC in the Washington County Superior Court in Vermont for restitution of payments made to MMWEC under the Project No. 6 Power Sales Agreements. Washington Electric Cooperative received an ex parte trustee process against other Vermont utilities which are making payments under MMWEC's Stony Brook Intermediate Unit contracts. MMWEC has removed this case to the United States District Court for the District of Vermont, where hearings were held and an order was issued to dissolve the trustee process contingent on MMWEC giving notice of any intent to take away the Vermont Participants' Intermediate Unit capacity.

On July 31, 1989, MMWEC filed action against certain directors, managers and attorneys of the Washington Electric Cooperative for misrepresentation. These third party defendants have moved to dismiss the claims. In November 1989, the Vermont Department of Public Service moved to intervene in this case and filed a claim of \$6.2 million for restitution of all Vermont Project No. 6 Participant payments. In March 1990, the Federal Court, pursuant to MMWEC's motion, dismissed the Vermont Department of Public Service intervention in the case and dismissed the \$6.2 million restitution claim.

Eastern Maine Electric Cooperative (EMEC), a Participant in MMWEC's Project No. 6, did not make its June 1987 payment and filed for protection under Chapter 11 of the Federal Bankruptcy Code in August 1987. In its petition, EMEC asked the court to reject its contract with MMWEC. In October 1988, EMEC's petition for rejection of the contract was denied by the U.S. Bankruptcy Court. The judge concluded that MMWEC has a valid claim against EMEC stemming from EMEC's default under the contract prior to EMEC's entering into Chapter 11. MMWEC has formally filed a claim in the proceedings for the money it is owed. EMEC responded to the claim with a counterclaim alleging, among other things, that its Project No. 6 Power Sales Agreement with MMWEC is void as a result of the Vermont Supreme Court decision. The trial on the adversarial claim scheduled for January 1990 was postponed as the two parties agreed to discuss settlement. EMEC's counsel unilaterally filed a settlement agreement with the court. MMWEC objected to the filing and agreement. Hearings have been held on the filed documents wherein the court indicated an order is to be issued.

In January 1986, the Hull Municipal Lighting Plant filed suit against MMWEC seeking a declaration that its Power Sales Agreements for Nuclear Mix 1, Nuclear Projects Nos. 4 and 5 and Project No. 6 relating to Seabrook were invalid, and an injunction against MMWEC collecting any amounts from Hull under the agreements and monetary damages. The suit challenges the validity of these Power Sales Agreements on various grounds and alleges, among other things, various misrepresentations, breaches and imprudencies by MMWEC.

(7) Commitments and Contingencies *(continued)*

On March 5, 1986, the Massachusetts Superior Court granted MMWEC's motions to stay the legal proceedings and compel arbitration of the suit and for a preliminary injunction requiring Hull to pay its share of monthly power costs as required by the Power Sales Agreements. On March 21, 1986, a single justice of the Massachusetts Appeals Court denied Hull's petition for relief from the orders of the Superior Court, and the matter went to arbitration. The Massachusetts Supreme Judicial Court subsequently took the case and issued an opinion upholding the injunction. In August 1987, the arbitrator ruled that the contracts signed by Hull's light board with MMWEC were valid. The arbitrator has yet to rule on the other alleged breaches, imprudencies and misrepresentations claimed against MMWEC by Hull. After withholding payments, Hull is currently making payments, under protest, in accordance with the court order. After a hiatus in the case a new arbitrator was agreed to in January 1990. The discovery in this case is expected to be completed in the summer of 1990.

Based on the opinions of Bond Counsel and other legal counsel, discussions with such counsel and other considerations, management believes that the ultimate resolution of the actions described above will not have a material, adverse effect on the financial position of MMWEC. MMWEC continues to enforce the provisions of the Power Sales Agreements to assure that adequate revenues are collected to meet debt service payments on its bonds in accordance with the General Bond Resolution.

Other Issues

MMWEC, as a joint owner of the Millstone Unit 3 and Seabrook Unit 1 nuclear units, is required to set aside funds for the eventual decommissioning of these units. MMWEC's policy is to fund these reserve requirements over the licensed life of the units through monthly billings to MMWEC Participants in the units. MMWEC's share of the total estimated Millstone Unit 3 reserve requirement is \$9.3 million, of which \$830,000 has been funded as of December 31, 1989. The amount is included in other deferred charges and accrued expenses. MMWEC's share of the Seabrook Unit 1 projected reserve requirement is \$33 million, the funding of which will begin with the commercial operation of the unit.

In August 1988, a revised Price-Anderson Act was enacted, calling for a fifteen-year extension of the nuclear liability indemnification process. The revised Act limits public liability from a incident at a nuclear power plant to \$7.6 billion. The \$200 million primary layer of insurance for the liability has been purchased in the commercial market. Additional coverage of \$7.1 billion is to be provided through a \$63 million per incident assessment of each of the currently licensed nuclear units in the United States. The maximum assessment is \$10 million per incident per unit in any year. If the sum of the liability claims and costs from an incident exceed the maximum amount of financial protection, each reactor owner is subject to an additional \$3.2 million assessment. The maximum assessment is subject to adjustment for inflation every five years. MMWEC's interest in the Millstone Unit 3 and Seabrook Unit 1 could result in a maximum assessment of \$3.0 million and \$7.3 million respectively.

MMWEC is not currently covered under gradual pollution liability insurance related to MMWEC's Stony Brook power plant. Management is not aware of any material claims made during 1989 or outstanding as of December 31, 1989.

Additional information regarding commitments and contingencies relative to MMWEC's debt and involvement in nuclear projects is discussed in Note 3 - Debt and Note 4 - Construction and Financing.

(8) Investments and Deposits

All bank deposits, which amounted to \$43,000 at December 31, 1989, are maintained at a single financial institution. The Federal Deposit Insurance Corporation currently insures up to \$100,000 per depositor. MMWEC's uninsured deposits ranged from zero to \$12.1 million during 1989 due to seasonal cash flows, the timing of daily cash receipts and favorable earnings offered on these demand deposits.

Investments are stated at cost adjusted for accretion (amortization) of the discount (premium). MMWEC's normal practice is to hold its investments until maturity. At December 31, 1989, all securities underlying repurchase agreements, and all other investments, were held in MMWEC's name by independent custodians consisting of the Construction Fund Trustees, Bond Fund Trustee or MMWEC's depository bank, except for

MMWEC
Notes to Financial Statements

(8) Investments and Deposits *(continued)*

\$2.7 million of repurchase agreements, which were with the depository bank. Investments, representing the Special Funds and Cash and Temporary Investments, as well as certain additional amounts, disbursed but available for investment, and accrued interest, are presented below:

Type of Investment	1989		1988	
	Carrying Amount	Market Value	Carrying Amount	Market Value
	(In Thousands)			
Repurchase agreements	<u>\$ 25,859</u>	<u>\$ 26,327</u>	<u>\$ 11,208</u>	<u>\$ 11,348</u>
Other Investments:				
Certificates of Deposit	89	89	168	168
U.S. Treasury bills	34	34	97	97
U.S. Treasury notes	49,479	49,527	66,341	65,414
U.S. Agency bonds	30,765	30,715	55,358	54,353
U.S. Agency discount notes	169,327	169,240	145,588	145,529
Total Other Investments	<u>249,694</u>	<u>249,605</u>	<u>267,552</u>	<u>265,561</u>
Total Investments	<u>\$275,553</u>	<u>\$275,932</u>	<u>\$278,760</u>	<u>\$276,909</u>

Due to seasonal cash flows during 1989 and 1988, MMWEC, from time to time, invested in repurchase agreements with its depository bank that were collateralized by securities in MMWEC's name held by the depository bank. MMWEC's practice is to monitor the market value of the underlying securities to ensure that the market value equals or exceeds the amount invested.

Bond Fund Trustee

*Continental Bank, N.A.
Chicago, Illinois*

Paying Agents

*Continental Bank, N.A.
Chicago, Illinois*

1976 Series A Bonds
1977 Series A Bonds
1977 Series B Bonds
1978 Series A Bonds
1979 Series A Bonds
1980 Series A Bonds
1981 Series A Bonds
1981 Series B Bonds
1982 Series A Bonds
1982 Series B Bonds
1984 Series A Bonds
1985 Series A Bonds
1985 Series B Bonds
1987 Series A Bonds
1987 Series B Bonds

*Shawmut Bank of Boston, N.A.
Boston, Massachusetts*

1978 Series A Bonds
1979 Series A Bonds
1980 Series A Bonds
1981 Series A Bonds
1981 Series B Bonds
1982 Series A Bonds
1982 Series B Bonds
1985 Series A Bond Anticipation Notes

*Citibank, N.A.
New York, New York*

1976 Series A Bonds
1977 Series A Bonds
1977 Series B Bonds
1978 Series A Bonds
1979 Series A Bonds
1980 Series A Bonds
1981 Series A Bonds
1981 Series B Bonds
1982 Series A Bonds
1982 Series B Bonds

*Bank of New England, N.A.
Boston, Massachusetts*

1976 Series A Bonds
1977 Series A Bonds
1977 Series B Bonds

Trustee and Paying Agents

MMWEC Power Supply Program

Jointly Owned Units

	W.F. Wyman Unit No. 4	Stony Brook Intermediate Unit	Stony Brook Peaking Unit
Location:	Yamouth, ME	Ludlow, MA	Ludlow, MA
Owner:	Central ME Power Co.	MMWEC	MMWEC
Fuel:	No. 6 Oil	No. 2 Oil/Natural Gas	No. 2 Oil
Total Capacity:	619 MW	343 MW ¹	170 MW ²
MMWEC Ownership:	22.7 MW ³	311.3 MW ⁴	170 MW ⁵
	Millstone Unit No. 3	Seabrook Unit No. 1	
Location:	Waterford, CT	Seabrook, NH	
Owner:	Northeast Utilities	Public Service Co. of NH	
Fuel:	Nuclear	Nuclear	
Total Capacity:	1,150 MW	1,150 MW ⁶	
MMWEC Ownership:	55.2 MW	133.3 MW	

Major Contracts

	Pt. Lepreau Unit 1	Niagara River Project	Hydro-Quebec	NU Slice of System
Location:	New Brunswick, Canada	Niagara River, NY	Quebec, Canada	NU System
Owner:	NB Electric Power Comm.	New York Power Auth.	Numerous NE Utilities	Northeast Utilities
Fuel:	Nuclear	Hydroelectric	Hydroelectric	Nuclear, Oil, Hydro
Total Capacity:	635 MW ⁷	2400 MW ⁸	690 MW ⁹	5410 MW
Contract Amount:	100 MW ¹⁰	Average of 62 MW ¹¹	25.15 MW for Phase I ¹²	17 MW 89/90 14 MW 90/91-91/92 35 MW 92/93 42 MW 93/94
Contract Term:	Through 1994	Through July 2001	Phase I through 1997 ¹³ Phase II 1990-2000	Through 1994
	Refuse Fuels Associates	Canal Unit No. 2	Montville/Middletown	
Location:	Lawrence, MA	Bourne, MA	Montville, CT Middletown, CT	
Owner:	Refuse Fuels Assoc.	Montaup Electric Co.	Northeast Utilities	
Fuel:	Waste	No. 6 Oil	No. 6 Oil; Oil/Natural Gas	
Total Capacity:	17 MW	584 MW	760 MW ¹⁴ (3 Middletown Units) 492 MW ¹⁵ (2 Montville Units)	
Contract Amount:	11.5 MW	30 MW/Summer 50 MW/Winter	50.8 MW—divided among all five units	
Contract Term:	20 years	Through 1995	Through 1992	

⁷ Includes shares for non-member participants

⁸ 50 MW in 1994

⁹ May increase in the future

¹⁰ Will increase to 2,000 MW under Phase II

¹¹ Will increase to 51.3 MW under Phase II

MMWEC Membership

Ashburnham Municipal Light Plant
Robert W. Gould, *Manager*

Belmont Municipal Light Department
Kenneth L. Contoy, *Manager*

Boylston Municipal Light Department
H. Bradford White, Jr., *Manager*

Chicopee Municipal Lighting Plant
Barry W. Soden, *Manager*

Concord Municipal Light Department
Daniel J. Sack, *Manager*

Danvers Electric Division
Robert Linnekin, *Manager*

Georgetown Municipal Light Department
Edward I. Stanley, *Manager*

Groton Electric Light Department
Roger Pi. Beeltje, *Manager*

Hingham Municipal Lighting Plant
Joseph R. Spadea, Jr., *Manager*

Holden Municipal Light Department
Edla A. Bloom, *Director*

Holyoke Gas & Electric Department
George E. Leary, *Manager*

Hull Municipal Lighting Plant
Roger Jackson, *Manager*

Ipswich Municipal Light Department
Donald R. Stone, *Manager*

Littleton Electric Light & Water Department
Curtis J. Lanciani, *Manager*

Mansfield Municipal Electric Department
John Larch, *Manager*

Marblehead Municipal Light Department
Richard L. Bailey, *Manager*

Merrimac Municipal Light Department
Richard A. Kennedy, *Manager*

Middleborough Gas & Electric Department
John W. Dunfey, *Manager*

Middleton Municipal Light Department
William Kelly, *Acting Manager*

North Attleborough Electric Department
David I. Sweetland, *Manager*

Paxton Municipal Light Department
Harold L. Smith, *Manager*

Princeton Municipal Light Department
Sharon A. Staz, *Manager*

Reading Municipal Light Department
Leonard D. Rucker, *Manager*

Rowley Municipal Lighting Plant
G. Robert Merry, *Manager*

Shrewsbury Electric Light Plant
Thomas R. Josie, *Manager*

South Hadley Electric Light Department
Wayne D. Doerpholz, *Manager*

Sterling Municipal Light Department
Mark V. Magyar, *Manager*

Templeton Municipal Lighting Plant
Gerald P. Skelton, *Manager*

Wakefield Municipal Light Department
William J. Wallace, *Manager*

West Boylston Municipal Lighting Plant
John F. Scirpoli, *Manager*

Westfield Gas & Electric Light Department
Daniel Golubek, *Manager*

Pascoag Fire District Electric Department
Howard C. Peters, *Manager*
Non-Member Service Participant

MMWEC Board of Directors



John M. Wesolowski, Virginia B. Rutledge and James E. Fuller



Allan Ames, Daniel Golubek, and Donald Stone



Nicholas J. Scobbo and John W. Welch. Richard P. Roche unavailable for photo



Nicholas J. Scobbo and John W. Welch

MMWEC is governed by a 10-member Board of Directors. Seven of the directors are MMWEC member commissioners or managers elected each year by the membership. Two directors are appointed by the Governor of Massachusetts. One of these appointed positions is presently open.

MMWEC's corporate officers are George E. Leary, chairman; Richard E. Slattery, president; Gary L. Hunt, general manager and secretary; Virginia B. Rutledge, treasurer; Nicholas J. Scobbo, general counsel; John W. Welch, assistant secretary; John M. Wesolowski, assistant treasurer; and James E. Fuller, assistant treasurer. Officers are elected annually in May by the Board of Directors.

Members of the Board of Directors are Leary, Holyoke Gas & Electric Department manager; Slattery, Littleton Electric Light & Water Department commissioner; Allan Ames, Reading Municipal Light Department commissioner; Daniel Golubek, Westfield Gas & Electric Light Department manager; Donald Stone, Ipswich Municipal Light Department manager; Gilbert McCarthy, Wakefield Municipal Light Department commissioner; John Larch, Mansfield Municipal Electric Department manager; and Richard P. Roche, gubernatorial appointee. Except for gubernatorial appointees, members of the board are elected annually in May.

The 1990 Annual Report was produced by the Communication Services Office of the Massachusetts Municipal Wholesale Electric Company.

Copies of the report and supplemental financial information can be obtained, free of charge, by writing to the Communication Services Office, Massachusetts Municipal Wholesale Electric Company, P.O. Box 426, Ludlow, MA 01056. All requests for information about MMWEC should be directed to this office.

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