

# **MMWEC 1980 Annual Report**

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# CONTINUED PROGRESS

## in meeting the energy challenge

The year 1980 represented a major step toward MMWEC's goal of providing an adequate power supply for our member municipal systems at the lowest possible cost. Sources were acquired to meet the projected needs of member systems through the year 1990. Building on this foundation, we are now planning to meet the members' requirements through 2000.

As part of that foundation, during 1980, MMWEC demonstrated its ability to respond to priorities and policies through the continued progress of our Renewable Resource Program. This progress was marked by the completion of feasibility studies on a number of hydroelectric projects.

Among MMWEC's other accomplishments for 1980 were:

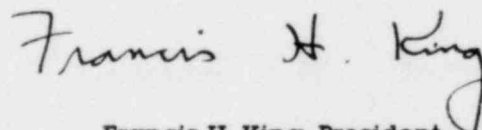
- receipt of a \$2.7-million grant from the federal Department of Energy to perform a feasibility study on converting Stony Brook to a coal gasification facility;
- a successful \$112-million bond issue for completion of the Stony Brook Intermediate and Peaking Projects;
- acquisition of 100 megawatts from the New Brunswick Point Lepreau unit, representing first United States-Canadian nuclear power contract, heralding a new spirit of regional and international cooperation;
- commencement of construction on a new administrative office building to house MMWEC's growing team of highly qualified employees;
- signing a fuel contract for Stony Brook;
- progress on the Stony Brook Project, which reached 65 percent of completion by year's end;

- savings to members of \$1-billion through the projected 30-year period of contracts negotiated in 1980; and,
- welcoming Belmont as our 32nd member.

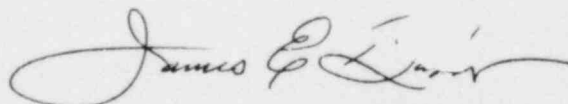
This is an exciting era in the utility business. The energy environment is changing with a renewed emphasis on conservation and a return to such elemental generating resources as water, wind and wood. MMWEC is proud to be in the forefront, a leader in renewable resource engineering and development.

To those who have the responsibility of meeting energy needs, it quickly becomes clear that no one fuel holds the solution. To provide a reliable, economical and constant supply of electricity, it is essential to secure a diversified mix of resources. MMWEC is meeting the needs of its members by acquiring a mix of conventional generation as well as actively developing renewable resources and synthetic fuel options.

Our report this year focuses on many of MMWEC's innovative and dynamic programs through which we are continuing to meet the energy challenge facing our membership, the region and the nation through the 1980's.



Francis H. King, President



James E. Baker, Chairman

# RENEWABLES

recall the past  
while looking to the future

The Millers, as do other rivers throughout New England, has potential sites for small hydroelectric projects which would supplement our power resources and help displace imported oil.



During the late Nineteenth Century, the Industrial Revolution in New England was run, to a great extent, with hydro power from the region's waterways. Through the years, dams breached and water wheels stopped as inexpensive petroleum gradually displaced hydro. The pendulum has swung back, however, as escalating oil and gas prices and regulatory delays in planned facilities have prompted the utility industry to re-examine the economic feasibility of small scale hydroelectric projects as a source of energy and a method of conserving the exhaustible fossil fuels.

Under the MMWEC Renewable Resource Program, approved by the Board of Directors in September 1979 as a part of Project No. 6, several hydroelectric projects and a resource recovery facility are currently being studied. If all of these projects prove to be economically competitive, they could provide an estimated 11 percent of

our members' energy requirements by 1992.

Four detailed feasibility studies on a total of eight potential hydroelectric generation sites were received late in 1980. Preliminary appraisals indicate that these projects would be technically and environmentally feasible. After thoroughly reviewing the studies, staff recommendations will be made to the Board of Directors in early 1981. Contracts were awarded to initiate the studies on Jan. 31, 1980 after preliminary reviews indicated that continued interest in their development was warranted. These studies include:

## **Millers System**

A series of five dams and generating facilities on the lower 10 miles of the Millers River would provide an estimated 5.8 MW of generating capacity. The five sites, for which the Federal Energy Regulatory Commission (FERC) has issued a preliminary permit to MMWEC, all have

breached dams which once provided power to tool manufacturing and paper processing companies in the Massachusetts communities of Millers Falls, Montague, Erving and Wendell Depot. Development of these five sites as a "river system" could save approximately 30,000 barrels of oil per year for member communities.

#### **Stillwater**

MMWEC has filed a preliminary permit application for a project site on the Deerfield River, 0.7 miles upstream from the Stillwater Bridge in Deerfield, Mass. Joint development with the site's owner, New England Power Company, is one possibility for this project which could include an 11 MW hydroelectric facility. An estimated equivalent energy savings of 23,000 barrels of oil per year would be possible if this dam and powerhouse were constructed.

#### **Warehouse Point**

In conjunction with the Connecticut Municipal Electric Energy Cooperative (CMEEC), MMWEC has conducted a feasibility assessment of the potential of building a new 50 MW powerhouse and dam on the Connecticut River at Warehouse Point near Enfield, Ct. FERC accepted a joint application for filing, which reserved the site so the study could be conducted. This is the largest hydro project being investigated by MMWEC and the total project would displace approximately 367,000 barrels of oil annually. MMWEC and CMEEC would each receive one half the power from this project.

#### **Collins Dam**

The final site being funded through the Renewable Resource Program is the breached Collins Dam on the Chicopee River in Wilbraham. A 0.6 MW facility, which would displace about 7,100 barrels of oil per year, is being considered.

MMWEC is interested in two hydroelectric projects currently under study by other developers. Both are on the Merrimack River.

MMWEC is participating with the Boott Mills Group in joint development of a project to utilize the existing Pawtucket Dam in Lowell, Mass. For many years, the Merrimack had provided power to the textile mills along its banks in Lowell. The new generating station and allied substations could provide an estimated 22.9 MW — or enough capacity to displace 133,000 barrels of oil per year. This project could be completed by the mid-1980's.

The second Merrimack River project is located at Moore's Falls, just south of Manchester, N.H. The proposed dam and powerhouse would generate up to 20.8 MW of capacity and would displace 130,000 barrels of oil. Under an agreement with New Hampshire Hydro Associates, the developer of the project, MMWEC has an option to enter into a power purchase agreement for 50 percent of the power and energy to be generated and also reserves the right to become a joint owner in the project, depending on the economic benefits. Although there has never been a dam at Moore's Falls, the site has been considered by several developers. The most recent plans — those of the Moore's Falls Corporation to build a hydro-powered textile mill — were cut short by the 1929 stock market crash.

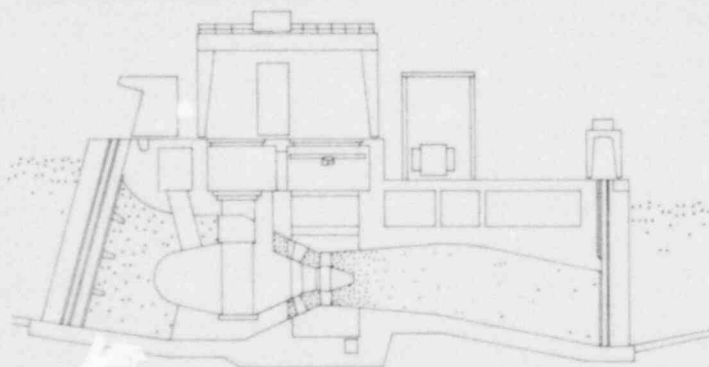
If MMWEC develops these hydro sites, their total estimated installed capacity would be 110.3 megawatts, which represents a savings of approximately 750,000 barrels of oil per year for New England. MMWEC staff will review the results of the hydroelectric feasibility studies and evaluate the potential of each project as part of MMWEC's power supply program.



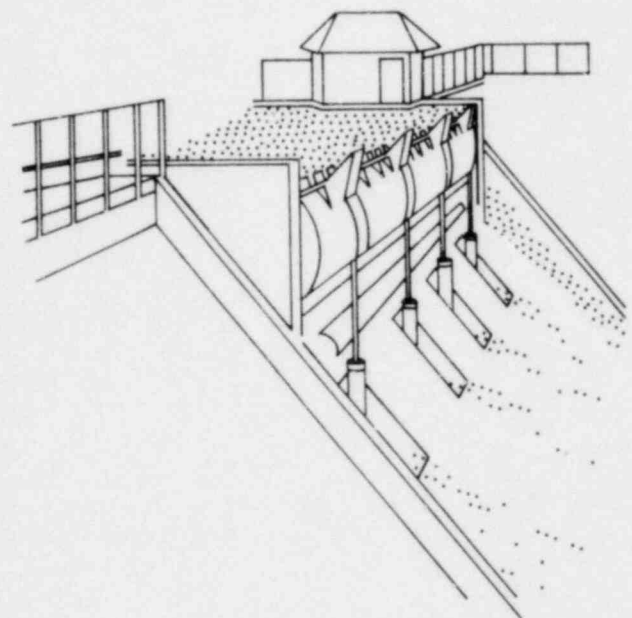
The rivers and their power potential attracted factories, such as the Millers Falls Tool Company which for many received power from this dam, pictured here as it appeared during the 1930's.



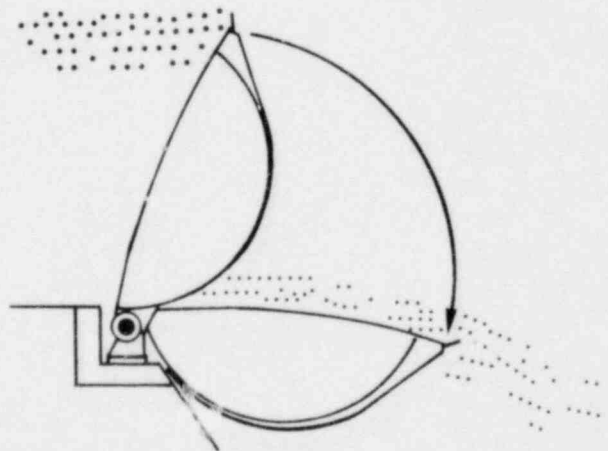
Typical bulb turbine installation.



New Englanders have turned to their rivers for many years as available, economical sources of power. The site shown on these two pages may again provide power, this time to MMWEC members, through a facility similar to the one illustrated.



Concrete gravity dam with crest gate spillway and crest gate detail.



# OTHER RENEWABLES

**offer a promise  
of power**

In addition to the hydroelectric studies, two other renewable resources have attracted considerable attention: resource recovery, or refuse-to-energy, and wood chip burning.

Seldom are we given the opportunity to provide a solution to two problems at once. As landfills in New England approach capacity, energy reserves dwindle. We look at resource recovery as a possible remedy for both.

MMWEC has been conducting preliminary engineering and financial analyses since December 1979 for a proposed refuse-to-energy facility in Plainville, in southeastern Massachusetts. Although efforts to begin a detailed technical and economic feasibility study have been delayed until ownership and availability concerns on the landfill can be resolved, MMWEC

anticipates jointly participating in a new 70 MW gross capacity refuse-to-energy facility to be built adjacent to the operating landfill.

Resource recovery technology was developed in the early 1970's to reclaim discarded energy. It has been estimated that, by net weight, nearly 80 percent of municipal solid waste contains material that could be burned to produce steam to generate electricity.

Another plentiful New England resource is wood. Widely used on a small scale as a home heating fuel, MMWEC is eyeing wood for possible generating capability. We have been assessing a prototype 10 MW wood chip burning plant built and operated by the Burlington (Vt.) Electric Department — the forerunner of a proposed 50 MW plant.

# IDENTIFYING and meeting the need

Canada's Point Lepreau nuclear unit will serve as one source of power in the interim until all of the jointly owned projects are completed.



Our job at MMWEC, simply stated, is to identify the energy needs of our members and to fill those needs as efficiently and economically as possible. The actual implementation of those goals, however, is far more complex.

By year end 1980, MMWEC had secured capacity to meet an estimated 80 percent of our members' needs through the year 1990. Direct contractual arrangements, participation in jointly owned projects and construction of our own facility at Stony Brook assure members of increasing independence from wholesale con-

tracts with private utilities.

Due to stepped up conservation efforts, the needs of our member systems have not increased as consistently as in the past. Demand for electricity, however, does continue to grow in most member towns, and seasonal peaks still show steady increases. Capacity must be available to meet the bulk of our energy needs.

The addition of Belmont as our 32nd member meant that MMWEC membership now accounts for nearly 10 percent of the kilowatt hour sales in Massachusetts.



### OIL DISPLACEMENT CAPABILITY OF GENERATING FACILITIES IN WHICH MMWEC IS PARTICIPATING

| PROJECT             | PERCENTAGE OF<br>PARTICIPATION<br>IN PROJECT | TYPE              | ESTIMATED<br>COMMERCIAL<br>OPERATION DATES | ESTIMATED ANNUAL<br>OIL DISPLACEMENT<br>FOR MMWEC MEMBERS |
|---------------------|--|-------------------|--|---|
| Millstone No. 3     | 4.80   | Nuclear           | 1986                                       | 528,000 bbl   |
| Pilgrim No. 2       | 13.24  | Nuclear           | 1990                                       | 1,456,400 bbl   |
| Pt. Lepreau         | 16.67  | Nuclear           | 1982                                       | 1,500,300 bbl   |
| Seabrook Nos. 1 & 2 | 5.59 <sup>1</sup>                            | Nuclear           | 1985 and 1987                              | 1,285,700 bbl   |
| Sears Island        | 13.90  | Coal <sup>2</sup> | 1989                                       | 973,000 bbl   |
| Total               |  |                   |  | 5,743,400 bbl   |

<sup>1</sup> An additional 6.001% ownership interest is awaiting initial financing.

<sup>2</sup> Central Maine Power is conducting a study on the feasibility of constructing a coal gasification facility at Sears Island instead of a conventional coal burning facility.

### TOTAL OIL DISPLACEMENT CAPABILITY OF FACILITIES UNDER STUDY

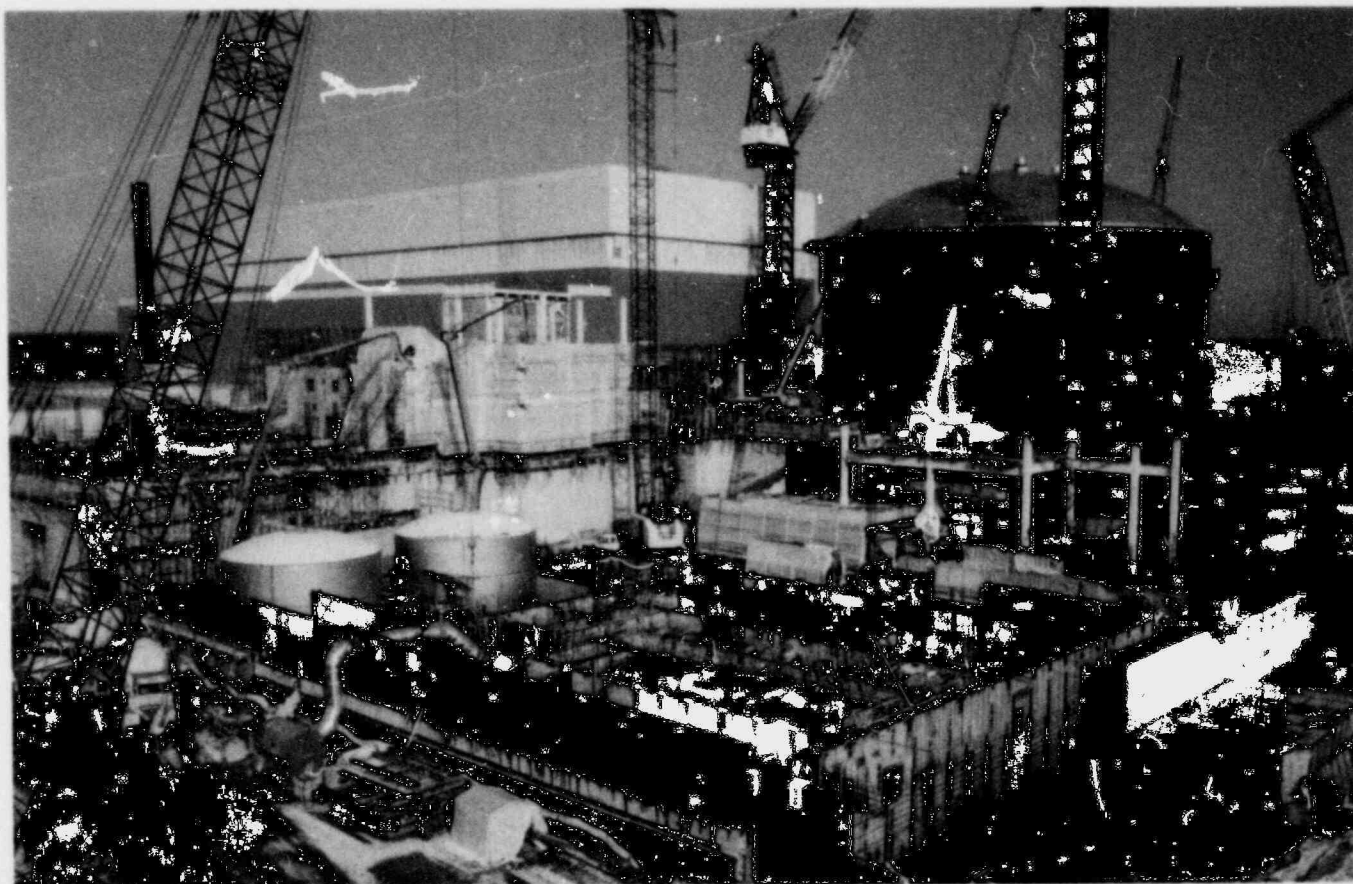
| PROJECT         | TYPE              | ESTIMATED<br>COMMERCIAL<br>OPERATION DATES | POTENTIAL ANNUAL<br>OIL DISPLACEMENT |
|-----------------|-------------------|--|--------------------------------------|
| Collins Dam     | Hydroelectric     | 1984                                       | 7,100 bbl                            |
| Lowell          | Hydroelectric     | mid-1980's                                 | 133,000 bbl                          |
| Millers River   | Hydroelectric     | 1985                                       | 30,000 bbl                           |
| Moore's Falls   | Hydroelectric     | 1985                                       | 130,000 bbl                          |
| Stillwater      | Hydroelectric     | 1986                                       | 83,000 bbl                           |
| Warehouse Point | Hydroelectric     | 1988                                       | 367,000 bbl                          |
| Plainville      | Resource Recovery | 1984                                       | 300,000 bbl                          |
| Stony Brook     | Coal Gasification | 1987                                       | 6,000,000 bbl                        |
| Burlington      | Wood Chip         | 1984                                       | 300,000 bbl                          |

Nearly 40 percent of those requirements for the next several years will be met through a series of contracts negotiated by MMWEC during 1980 on behalf of its members. These short-term entitlements contribute to reduced power costs, increase reliability and improve the diversity of resources for our members.

A high point in the year was the ratification of our agreement with New Brunswick Electric Power Commission for 100 megawatts from its new nuclear generating plant at Point Lepreau which will contribute power to the member sys-

tems in early 1982. In addition to supplying 100 megawatts of inexpensive baseload power, the Point Lepreau agreement marked the first sale of nuclear power between the United States and Canada. The members responded affirmatively to the offer, many requesting more than their preference allocations. Twenty-eight MMWEC systems and the Pascoag Fire District, a Rhode Island municipal utility, chose to participate. In addition to benefitting our members directly, the Point Lepreau agreement means that New England as a whole will consume approxi-

Joint ownership in large plants, such as the Seabrook Units, enables MMWEC member systems to enjoy an economy of scale which they would not have otherwise.



mately 1.5-million fewer barrels of oil per year.

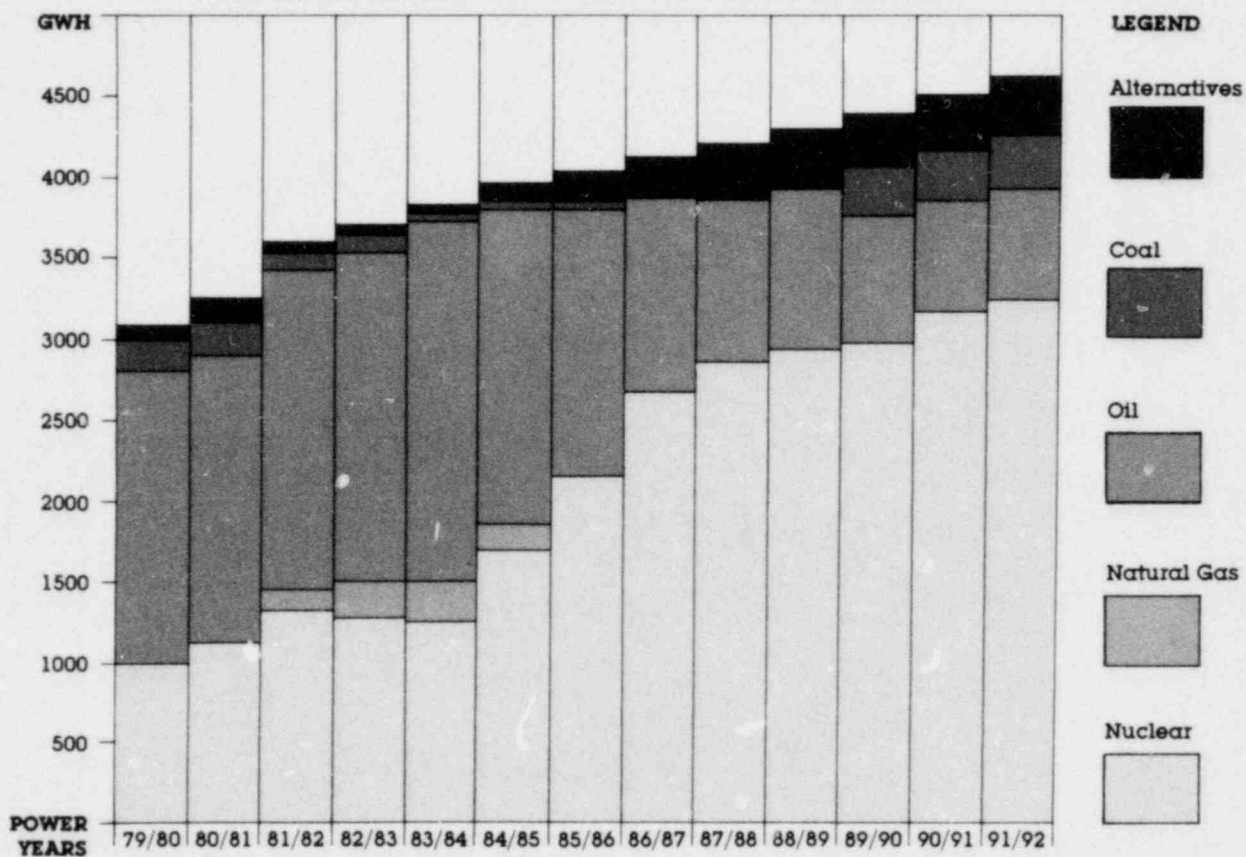
Another large portion of our members' needs will be filled by jointly owned projects. Planning and construction of the joint projects progressed through 1980 — further ensuring the completion of a diversified, economical power supply program for our members.

Joint ownership provides a means by which several electric utilities may finance and operate large-scale generating facilities and realize economic advantages which might not otherwise be possible. It also allows such utilities to receive

the financial and operational benefits of a diverse mix of power supply resources, designed to supply their energy requirements most economically, in line with their systems' individual load characteristics.

Audits were performed on the lead owners of several joint projects, ensuring that they are properly accounting for project costs and billing the other owners in accordance with the joint ownership agreements. Audits were performed on Public Service Company of New Hampshire (PSNH) for Seabrook Units Nos. 1 and 2, Northeast

PROJECTED ENERGY MIX OF THE 28 MEMBER PARTICIPANTS



Utilities for Millstone Unit No. 3 and Boston Edison for Pilgrim Unit No. 2. Prepared by independent auditors at the request and expense of MMWEC and the other joint owners, the audits covered the period from the inception of each project through Dec. 31, 1979. The resultant audit reports disclosed that the lead owners are complying with respective joint ownership agreements.

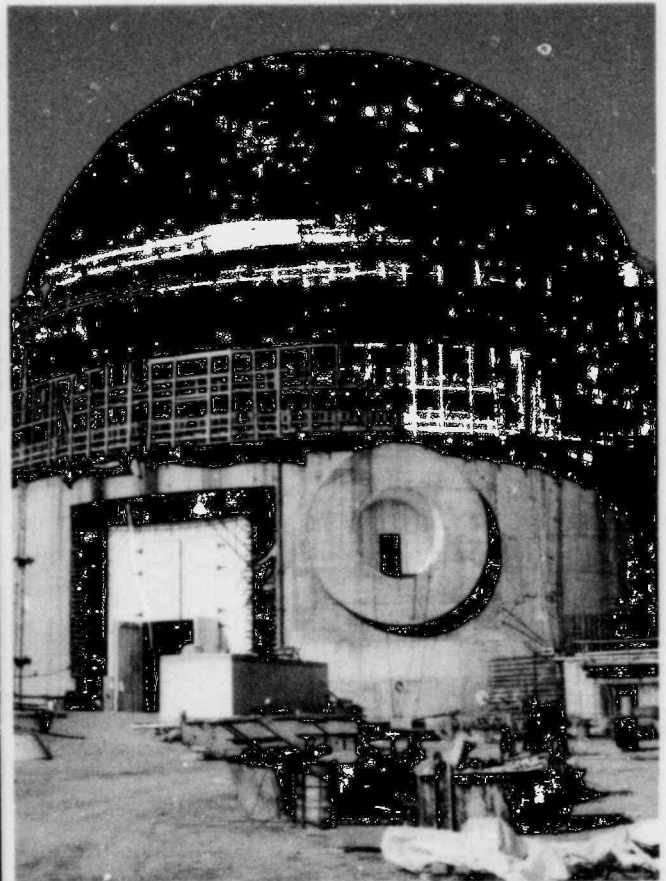
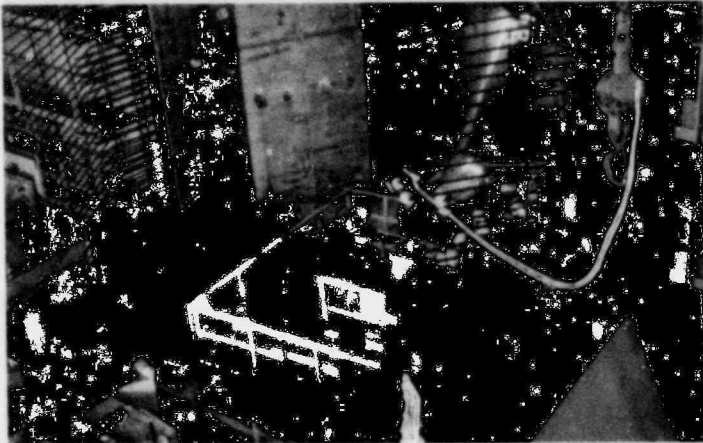
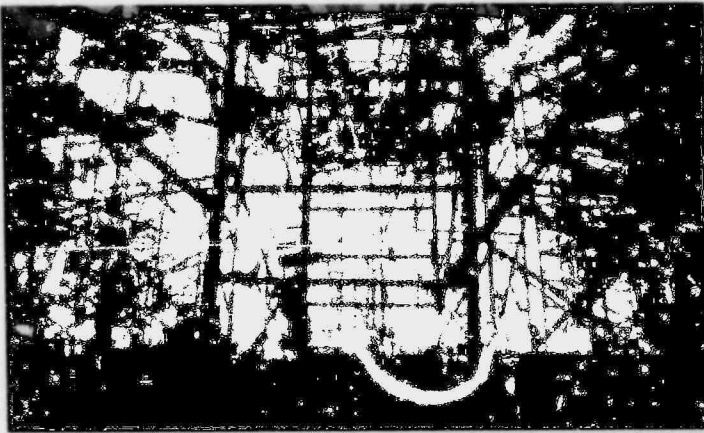
#### Seabrook Units Nos. 1 and 2

Construction on Unit No. 1 progressed from 31 percent completion in December 1979 to nearly 40 percent by the end of 1980, developing from

primarily a civil works construction phase to the initial installation of piping, valves and electrical equipment.

A major accomplishment in the Seabrook project this past year was completion of the Simulator Training Center, which is an exact replica of the control room at Seabrook Station. Plant operators are already training in the center, experiencing and responding to routine and unusual events which could occur in the actual plant when Unit No. 1 begins commercial operation in 1985. This computerized training simulator

Nuclear fueled plants, such as Millstone Unit No. 3, will replace a significant amount of costly foreign oil beginning in the late 1980s.



is one of the first in the nation designed and used in conjunction with a specific nuclear generating facility. After the units are operating, the simulator will still be in constant use, maintaining high levels of operator proficiency.

Delays in the planned ownership transfers of Seabrook and an unstable national financial picture prompted Public Service of New Hampshire, the lead owner, to cut expenditures and reduce the plant construction work force of 4,100 by nearly 50 percent in March. The remaining work crews were employed on the critical

construction activities needed to keep Unit No. 1 on an expeditious completion schedule while bringing Unit No. 2 construction to a point of 8 percent MMWEC currently owns 5.59 percent of both Seabrook units.

#### **Millstone Unit No. 3**

Construction on Millstone Unit No. 3 throughout 1980 moved it closer to its 1986 completion. The work crew, averaging 450 mid-year, increased to 600 by year's end. Efforts focused on the control building, service building and containment structure. In the turbine building, the heating



system was operational which permitted work on the condenser to continue through the winter. In May, the pre-fabricated dome liner was raised into place by a special heavy-lift crane, fully enclosing the containment. Later in the year, the reactor pressure vessel was installed in its permanent location inside the containment. MMWEC owns 4.8 percent of Millstone Unit No. 3.

#### **Pilgrim Unit No. 2**

Analyses and reports are being prepared and submitted in response to the Nuclear Regulatory Commission's approval of a staff policy for resumption of licensing on the near-term construction permit applications, including Pilgrim Unit No. 2. Boston Edison hopes to resume hearings before the Atomic Safety and Licensing Board. MMWEC's interest in Pilgrim Unit No. 2 is 13.24 percent.

#### **Sears Island**

The highlight of 1980 for this project was a \$3.6-million grant from the Department of Energy to Central Maine Power Co. (CMP) to study the technical and economic feasibility of an integrated coal gasification and combined cycle power plant. A rehearing was begun before the Maine Public Utilities Commission on CMP's request for a Certificate of Necessity for the traditional coal-fired plant originally planned. MMWEC owns a 13.9 percent interest in the Sears Island Project.

#### **Montague Units Nos. 1 and 2**

On Dec. 31, 1980, Northeast Utilities cancelled Montague Units Nos. 1 and 2, noting that completion of these units would result in surplus capacity for its system, since its load growth has been slower than anticipated.

#### **NEP Units Nos. 1 and 2**

In December 1979, New England Power Company

cancelled NEP Units Nos. 1 and 2 following rejection by the General Services Administration of the use of the proposed site for a nuclear generating facility.

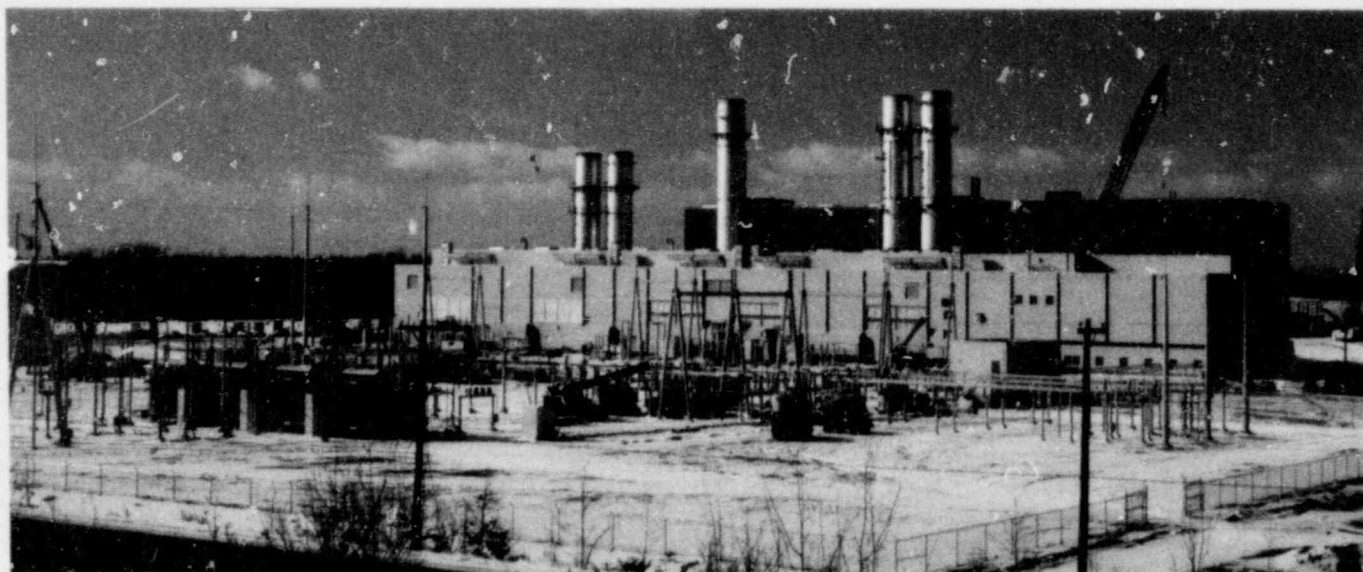
In order to administer our detailed power supply program, the NEPEX/Member Operations Department was created in 1980. Its staff manages the day-to-day power transactions of the member systems and monitors the highly complex billing procedures between the members and the New England Power Exchange (NEPEX). The Exchange controls and coordinates the production and transmission of electricity for all New England. MMWEC's NEPEX/Member Operations Department manages and reviews the operations of the member systems at the wholesale level, verifying that the bills they receive for actual power dispatched conform to each system's entitlements and ownership in specific units, and recommending contract changes where they would benefit members. The new Regional Coordinators in this department serve the membership as customer service representatives.

To assist in this task, MMWEC's line of credit for membership power financing was increased to \$2-million in 1979, through the efforts of our Finance and Treasury Division. This enables that Division to obtain short term interim loans, if necessary, to pay members' power interchange bills quickly, thus avoiding costly penalties. MMWEC staff has also been instrumental in working with NEPEX to develop the new NEPEX Automated Billing System (NABS), which will standardize the billing process for all members of the New England Power Pool, including MMWEC members.

# STONY BROOK:

## a growing part of our power supply

Stony Brook is the first plant to be constructed by the Massachusetts municipal electric systems through MMWEC, and completion of the 511 MW plant will be a significant addition to our electrical capacity and resource mix.



Construction of the Stony Brook Intermediate and Peaking Projects in Ludlow made dramatic progress in 1980, as work crews enclosed the main powerhouse and nearly completed the switchyard and 345 kV transmission line which will provide power for plant start-ups and ultimately link the projects to the New England power grid.

Despite a 17-day strike by carpenters in mid-summer, work priorities were rearranged and construction remained close to schedule. Stony Brook is the only large generating facility currently under construction in New England to remain on its originally projected completion schedule and within its original budget. The Intermediate Project is due to go on line in November 1981 with the Peaking Project to follow in November 1982.

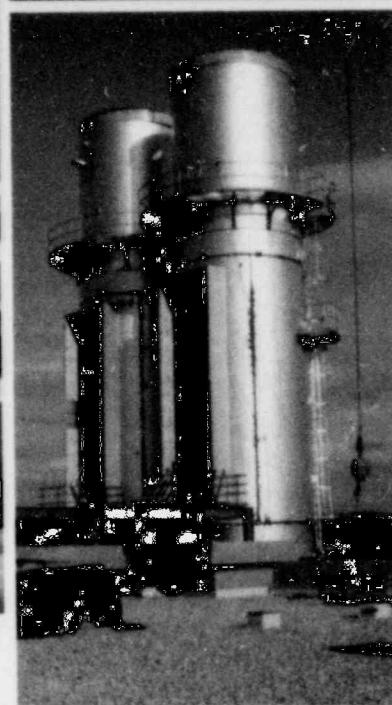
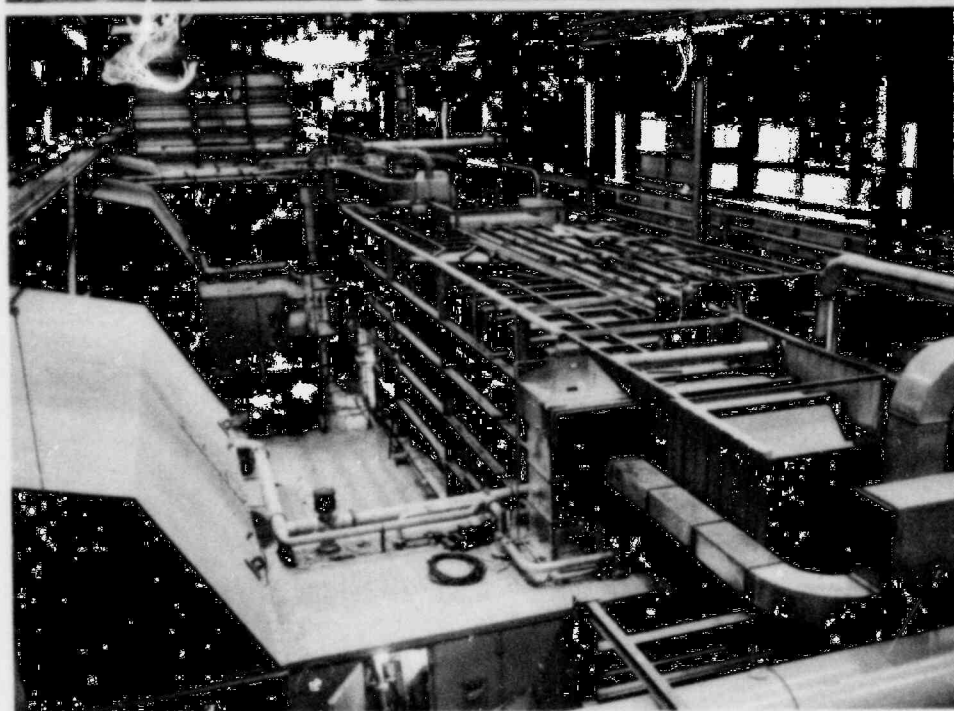
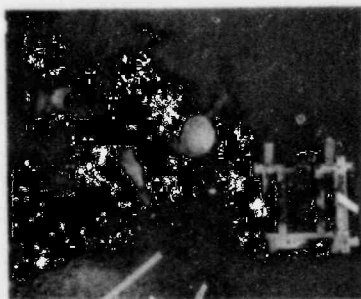
The Stony Brook Projects progressed from 14 percent completion at the end of 1979 to 65 percent by the end of 1980. Engineering and

design on the units were 97 percent complete, approximately 98 percent of all contracts and purchase orders had been awarded and approximately 98 percent of the total budgeted cost for Stony Brook had been committed. The total estimated costs for the Intermediate and Peaking Projects are \$146,369,000 and \$69,761,000 respectively.

A milestone was reached May 22, when the American flag was hoisted to the highest piece of structural steel in the plant in a topping-off ceremony. Since then, erection of the five stacks has brought the profile of the building to a height of 150 feet. The steel superstructure has been enclosed by an acoustical barrier and beige steel siding.

Completion of the railroad to the site facilitated delivery of equipment for the units, most of which was installed during 1980. This included the three combustion turbines, three heat recovery steam generators and the steam turbine

The Stony Brook Project moved nearer to completion during 1980, reflecting the growing independence of MMWEC member systems from wholesale contracts with investor-owned utilities.





Construction on Stony Brook progressed quickly during 1980 as the main power block was enclosed, equipment installed and the stacks erected to bring the plant's profile to its full height. Outside the plant workers raised the water and oil storage tanks and installed the switchyard.



and generator of the Intermediate Unit. The 20 and 40-ton bridge cranes were installed in the turbine building. These are being used during construction and are required for equipment maintenance after the plant is in operation.

The new plant will be linked to the New England Power Pool (NEPOOL) through its 115/345 kV substation, situated immediately east of the plant. Transformers, circuit breakers and switches have all been installed and connected to the new 345 kV transmission line which runs 5.2 miles from the switchyard to a Northeast Utilities substation in Ludlow.

By year's end, the supervisory staff of the new plant had been hired. Key positions filled by highly-qualified personnel include the plant superintendent, four shift supervisors, an operations supervisor and a maintenance supervisor. They will spend the coming months hiring additional staff, conducting tests on the equipment in the plant, familiarizing themselves with the equipment and compiling operational and systems manuals. Several specialized training sessions will be required.

In order to provide members with the most efficient, economical resources at any time, MMWEC is constantly reevaluating and reassessing its power supply. Because of the constantly changing economic and regulatory climate in which utilities operate, this flexibility is essential. Therefore, for the past five years, our staff has been investigating the availability of alternative fuels for Stony Brook.

When the Intermediate Unit commences commercial operation in November 1981, its primary fuel will be No. 2 oil. Contract negotiations were completed in 1980 for up to one-million barrels of No. 2 fuel oil annually. However, since Stony

Brook was conceived in 1976, the cost of oil has increased dramatically and the availability has undergone periods of varying uncertainty. Therefore, the incentive to use alternative fuels for some or all of the units in the Intermediate and Peaking Projects has increased substantially.

In addition to securing the short-term oil supply for the early years of operation of Stony Brook, MMWEC is also investigating development of alternative fuel capabilities for the projects. These include:

- studying the feasibility of constructing a coal gasification plant at Stony Brook to provide synthetic gas to both the Peaking and Intermediate Projects. This study was made possible by a \$2.7-million grant from the federal Department of Energy, which was announced Dec. 11, 1980. Such a conversion, which could not take place until the late 1980's, would mark the beginning of the second generation in fuel use for Stony Brook, making optimum use of the fuel diversity inherent in the design of the projects; and
- studying the possibility of modifying two of the three combustion turbines in the Intermediate Project to burn both natural gas and oil. To this end, detailed assessments are under way of the availability of natural gas and future pipeline capacity to New England and to the Stony Brook site. An arrangement for the purchase of Canadian natural gas through a local distributor is expected to be finalized in 1981.

The Construction, Engineering and Operations Division was created in mid-1980 to coordinate the many disciplines required to bring MMWEC's projects into commercial operation.

# STAFF GROWS

## to meet increasing responsibilities

By year end, the total number of employees at our Stony Brook headquarters had grown from 80 in 1979 to 109. Through national recruitment, qualified professionals had been sought to match the growing needs of our members. Today, many duties which were once performed by outside services, are accomplished by competent and dedicated MMWEC personnel. In addition, staff held power supply and special membership meetings to keep members informed of the latest developments in their power supply program.

The commitment of our employees has been evident. Lunchtime presentations on various projects were well attended by those not directly involved but nonetheless interested. Many gained a clearer understanding of MMWEC's and the members' involvement in the New England Power Pool by attending seminars at NEPEX and REMVEC headquarters. Twenty-nine employees took courses under MMWEC's Educational Assistance Program during the fall semester. This was more than double the number who utilized that benefit in the Fall of 1979.

MMWEC is governed by a nine-member Board of Directors, seven of whom are elected by MMWEC's members from among their respective managers and light board commissioners and two of whom are appointed by the Governor of the Commonwealth.

The present officers of MMWEC are:

James E. Baker, Chairman of the Board  
Francis H. King, President  
George E. Leary, Treasurer  
Phillip C. Otness, General Manager and Secretary  
Walter Gaebler II, Assistant Treasurer  
Maurice J. Ferriter, General Counsel and Assistant Secretary

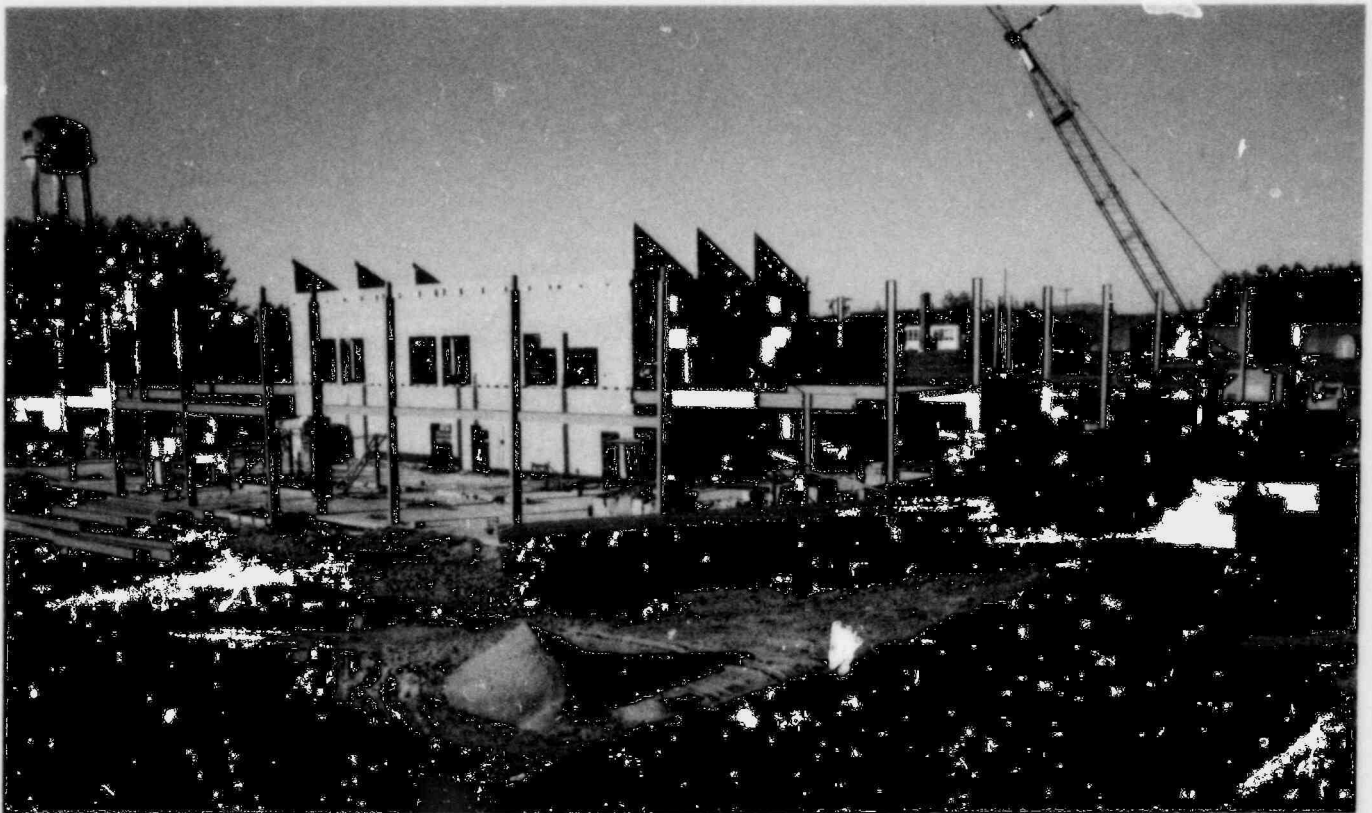
The present Board of Directors of MMWEC includes:

James E. Baker, Chairman  
Manager, Shrewsbury Electric Light Plant  
Richard L. Bailey  
Manager, Marblehead Municipal Light Dept.  
James F. Hall  
Director, Mansfield Municipal Electric Dept.  
Horst Huehmer  
Manager, Hudson Light and Power Dept.  
Francis H. King \*  
Registered Professional Engineer  
Neil E. Murray  
Manager, Holder, Municipal Light Dept.  
Nathan S. Paven \*  
Attorney, Boston  
Harold G. Payne  
Manager, North Attleborough Electric Dept.  
Norbert D. Rhinerson  
Manager, Reading Municipal Light Dept.  
(\*Appointed by the Governor of the Commonwealth)

MMWEC staff division managers are:

Phillip C. Otness  
General Manager  
Walter Gaebler II  
Manager, Finance and Treasury Division  
Thomas H. Roger  
Manager, Power Management Division  
Thomas E. McHugh  
Manager, Support Services Division  
Richard Byrne  
Manager, Construction, Engineering and Operations Division

The new administrative office building will be a study in conservation and energy efficient technology.



As our team grew, it became obvious that the renovated Air Force buildings at Stony Brook could no longer meet our needs. On August 2 ground was broken for our new 47,000 square foot administrative office building. Scheduled for completion next summer, the building is a model of conservation and alternative energy planning. This building has already attracted national attention because of the energy conservation features in its design. On March 6, the American Public Power Association awarded MMWEC \$20,000 toward development of the innovative waste heat recovery system which utilizes surplus heat from the power plant to heat the

administration building. Other energy efficient features include an insulating earth berm, double glazed thermal windows on the southern exposure, a windowless northern exposure, rooftop solar hot water collectors, a sawtooth clerestory in the atrium to maximize solar energy, minimize heat loss and provide natural lighting; and multiple zone thermostatic controls. The atrium itself will provide cafeteria, auditorium and meeting room facilities.

Construction of the office building, like every major decision at MMWEC, has been made possible through careful research by our staff and approval of our Board of Directors.



# **SOUND FINANCIAL BASE**

## **supports our power supply**

In order to finance the construction of its power supply system, MMWEC issues Electric Revenue Bonds, pursuant to its Bond Resolution and Chapter 775 of the Massachusetts Acts of 1975. The bonds are secured by a pledge of the revenues derived by MMWEC under the terms of take-or-pay Power Sales Agreements with the participants of each project.

The \$112-million 1980 Series A Bond Issue marked the completion of financing for the Stony Brook Intermediate and Peaking Projects, as well as for the new administrative office building. Prior to the issue, financial analysts, investors and representatives of the bond rating agencies visited MMWEC, heard presentations by our general manager and division managers and toured the Stony Brook Project.

The 10.24 percent interest rate incurred on the 1980 Series A Bonds was higher than that of previous issues. This reflected the adverse money market conditions of 1980 and was indicative of trends faced by other utilities issuing electric revenue bonds this past year.

MMWEC is experiencing problems faced throughout the utility industry today. Increasingly stringent environmental and regulatory requirements result in construction delays which cause costs to escalate. The utilities must turn to the financial community for additional funds in a time of high inflation and unsettled economic conditions. These factors are further complicated by increasing political involvement in utility operations, opposition to nuclear power, spiralling costs, questionable availability of fossil fuels and a lack of federal guidelines for

developing a national energy policy.

In order to effectively administer the increasingly complex responsibilities of financing our power supply and to serve the administrative needs of MMWEC and our 32 members, the staff of the Division of Finance and Treasury expanded in 1980 and two new departments, Budget and Treasury, were created.

It is the responsibility of the Budget Department to assist MMWEC management in the planning and control of costs through effective budgeting and operating cost analysis. This department also provides the Board of Directors and member municipal electric departments with information necessary to help them with their financial planning.

Our Treasury Department is charged with developing an effective cash management program, including the receipt and disbursement of funds and the investment of unexpended funds until they are needed to satisfy construction and operating cash flow requirements. The department also assists with bond and note financings, reviews members' financial reports and assists in the preparation of reports for regulatory authorities.

The Division held workshops for member managers and their staffs, which explained MMWEC's accounting and financing practices and procedures and their relationship to the operations of the members.

The Accounting, Auditing and Electronic Data Processing departments continued to expand their services both to MMWEC and the membership.

# LOOKING AHEAD

We at MMWEC worked through 1980 to help our members fill their power needs economically through bulk power purchases and joint ownership. During 1981 and the coming years we will continue to refine our power supply program and expand it to meet future needs in a changing power supply environment.

Above all, we must remain flexible, with a program to meet changing circumstances, including increasing or decreasing of load forecasts, fluctuating consumption patterns and changing regulatory requirements and policies.

In 1981 we look forward to:

- seeing the Stony Brook Intermediate Project begin commercial operation;
- moving into our new administrative office building;
- progressing into the licensing and engineering phases for several of our hydro projects;

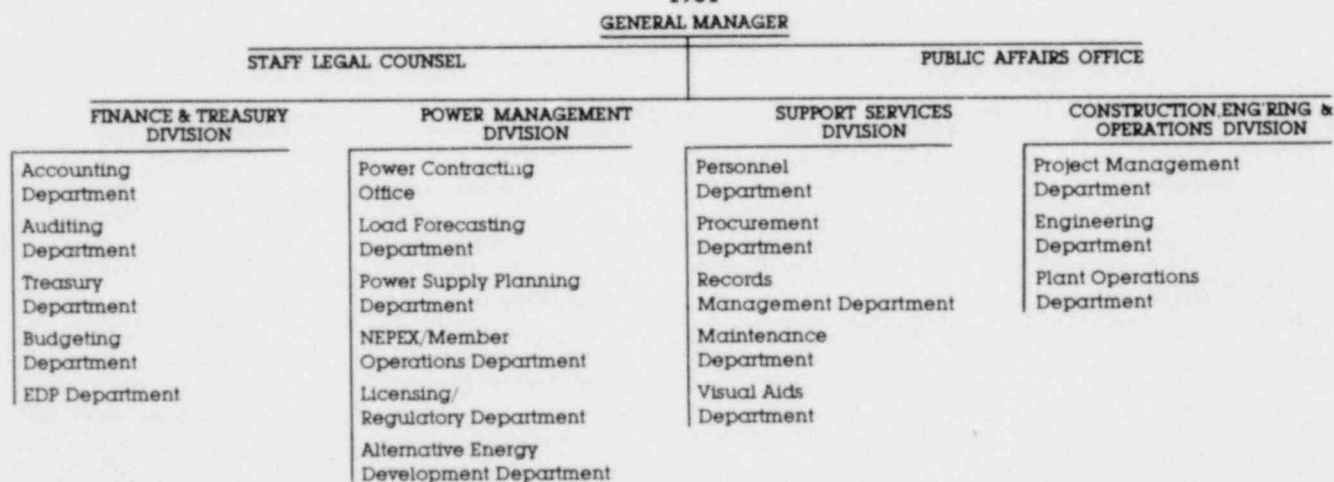
- making significant strides in developing a resource recovery project;
- undertaking a feasibility study on the use of medium-BTU coal gas as a long-term alternative fuel supply for Stony Brook; and,
- fully implementing the responsibilities of the newly formed Construction, Engineering and Operations Division.

We look forward to increased awareness from both the public and regulatory agencies of the difficult tasks which face MMWEC and the utility industry in the 1980's. I would like to thank our members, Board of Directors and employees for their assistance in making 1980's goals into realities and I look forward to working together on those tasks which face us in 1981.

*Phillip C. Otness*

Phillip C. Otness  
General Manager and Secretary

## MMWEC ORGANIZATION 1981



# TREASURER'S STATEMENT

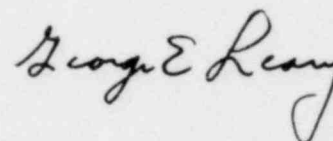
MMWEC continued the financing of the projects in its Power Supply Program during 1980 through issuance of bonds and notes. On January 1, 1980 MMWEC had notes outstanding, issued to finance the Stony Brook Intermediate and Peaking Projects. Through the application of a portion of the 1980 Series A Bond proceeds, the notes outstanding were paid off and there were no others outstanding at December 31, 1980.

The 1980 Series A Bonds were MMWEC's sixth bond issue. Total revenue bonds issued and outstanding at December 31, 1980 amounted to \$672,870,000. MMWEC's bonds are rated "A" by both Moody's Investors Service Inc. and Standard & Poor's Corp.

As a result of MMWEC's conservative practices for financing projects under construction, estimated construction cash flow requirements

and the interest requirements on long-term debt issued for such projects have been funded through 1982 and longer in some cases. This policy provides flexibility for future financings which is advantageous, particularly in light of money market conditions in 1980.

The Board of Directors continued the appointment of Arthur Andersen & Co. as independent certified public accountants for the corporation. The auditor's opinion and MMWEC's financial statements for the year ending December 31, 1980 are included as a separate section of this Annual Report.



George E. Leary, Treasurer

## BONDS ISSUED

| ISSUE         | PRINCIPAL AMOUNT<br>(000) | SALE DATE | NET INTEREST<br>COST % |
|---------------|---------------------------|-----------|------------------------|
| 1976 Series A | \$ 75,000                 | 8/26/76   | 7.234                  |
| 1977 Series A | 177,370                   | 7/27/77   | 6.359                  |
| 1977 Series B | 83,500                    | 12/7/77   | 6.127                  |
| 1978 Series A | 75,000                    | 9/13/78   | 6.824                  |
| 1979 Series A | 150,000                   | 8/16/79   | 7.006                  |
| 1980 Series A | 112,000                   | 8/6/80    | 10.240                 |
|               | <u>\$672,870</u>          |           |                        |

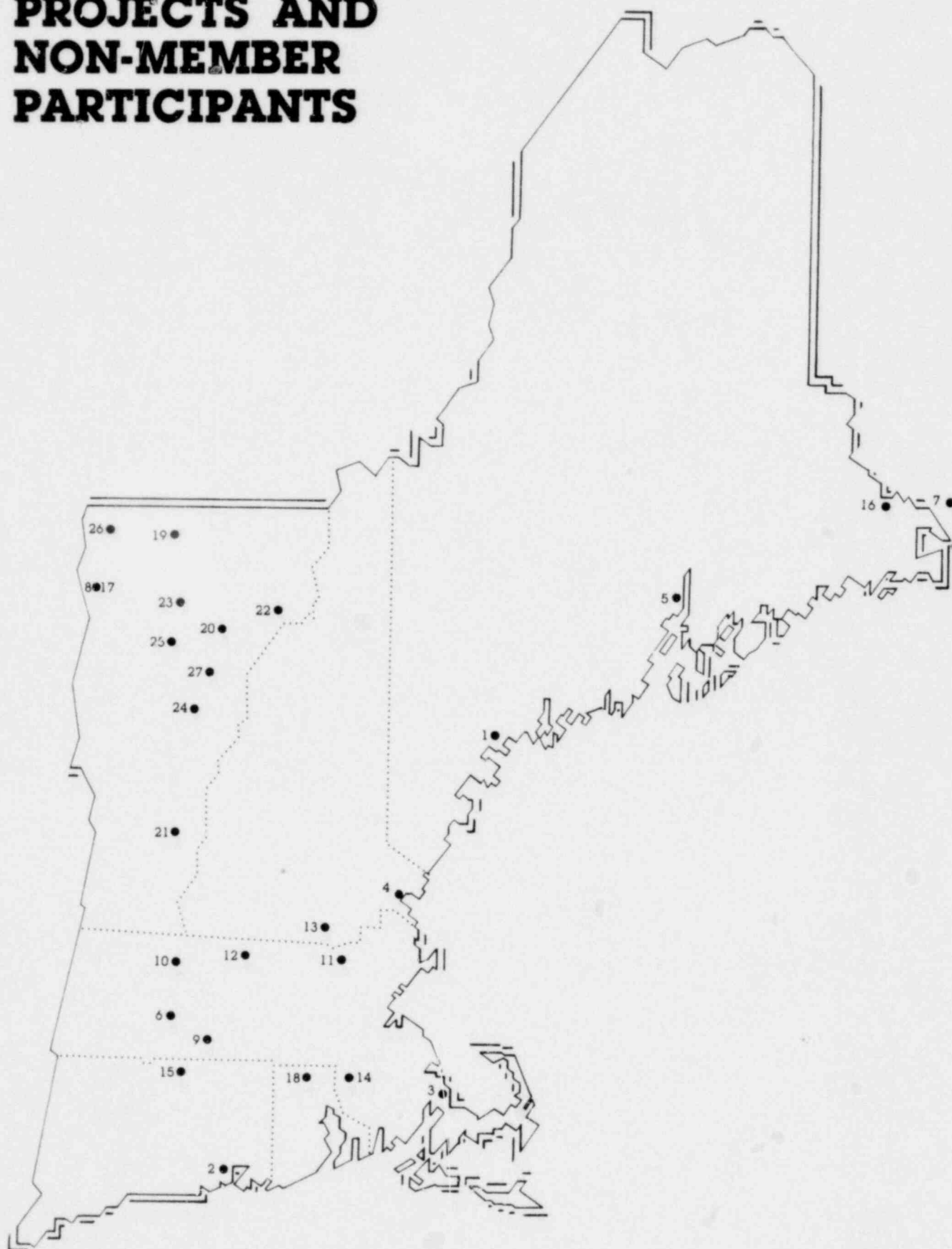
## PROJECT FINANCING STATUS

| PROJECT                  | BONDS<br>ISSUED<br>(000) | ESTIMATED<br>CONSTRUCTION<br>CASH FLOW<br>REQUIREMENTS | INTEREST<br>REQUIREMENTS<br>OUTSTANDING<br>BONDS |
|--------------------------|--------------------------|--|--|
| Nuclear Mix 1            | \$180,200                | 10/1/83  | 1/1/82   |
| Nuclear Mix 2            | 10,060                   | (1)  | 1/1/82   |
| Nuclear Project 3        | 52,690                   | 7/1/83   | 1/1/82   |
| Nuclear Project 4        | 118,500                  | 7/1/83   | 7/1/83   |
| Nuclear Project 5        | 30,500                   | 7/1/83   | 7/1/83   |
| Wyman Project            | 9,420                    | (2)  | (2)  |
| Sears Island             | 9,500                    | 4/1/84   | 7/1/82   |
| Stony Brook Intermediate | 176,980                  | 10/1/81  | 1/1/82   |
| Stony Brook Peaking      | 85,020                   | —  | —  |
|                          | <u>\$672,870</u>         |  |  |

<sup>1</sup> The two facilities in this project have been cancelled. <sup>2</sup> In commercial operation.



# PROJECTS AND NON-MEMBER PARTICIPANTS



# MMWEC

## mapping the future of energy in New England

### Joint projects in operation

1. Wyman Unit No. 4 - oil

### Joint projects planned or under construction

2. Millstone Unit No. 3 - nuclear
3. Pilgrim Unit No. 2 - nuclear
4. Seabrook Units Nos. 1 and 2 - nuclear
5. Sears Island - coal
6. Stony Brook - oil

### Major power contract

7. Point Lepreau - nuclear

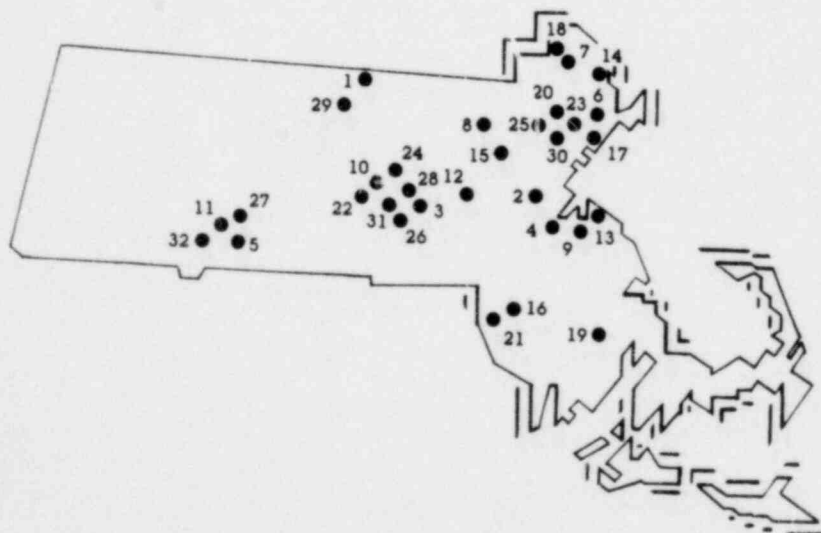
### Projects under study

8. Burlington - wood chip
9. Collins Dam - hydro
10. Deerfield River/(Stillwater) - hydro
11. Lowell - hydro
12. Millers River - hydro
13. Moore's Falls - hydro
14. Plainville - resource recovery
15. Warehouse Point - hydro

### Non-member project participants

16. Eastern Maine Electric Cooperative (Calais, Me.)
17. Green Mountain Power Corp. (Burlington, Vt.)
18. Pascoag, R.I.
19. Vermont Electric Cooperative (Johnson, Vt.)
20. Village of Hardwick, Vt.
21. Village of Ludlow, Vt.
22. Village of Lyndonville, Vt.
23. Village of Morrisville, Vt.
24. Village of Northfield, Vt.
25. Village of Stowe, Vt.
26. Village of Swanton, Vt.
27. Washington Electric Cooperative (East Montpelier, Vt.)

1. Ashburnham Municipal Light Plant
2. Belmont Municipal Light Department
3. Boylston Municipal Light Plant
4. Braintree Electric Light Department
5. Chicopee Municipal Lighting Plant
6. Danvers Electric Department
7. Georgetown Municipal Light Department
8. Groton Electric Light Department
9. Hingham Municipal Lighting Plant
10. Holden Municipal Light Department
11. Holyoke Gas & Electric Department
12. Hudson Light & Power Department
13. Hull Municipal Lighting Plant
14. Ipswich Municipal Light Department
15. Littleton Electric Light & Water Department
16. Mansfield Municipal Electric Department
17. Marblehead Municipal Light Department
18. Merrimac Municipal Light Department
19. Middleborough Gas & Electric Department
20. Middleton Municipal Electric Department
21. North Attleborough Electric Department
22. Paxton Municipal Light Department
23. Peabody Municipal Light Plant
24. Princeton Municipal Light Department
25. Reading Municipal Light Department
26. Shrewsbury Electric Light Plant
27. South Hadley Electric Light Department
28. Sterling Municipal Electric Light Department
29. Templeton Municipal Lighting Plant
30. Wakefield Municipal Light Department
31. West Boylston Municipal Lighting Plant
32. Westfield Gas & Electric Light Department



## MEMBERS

The MMWEC 1980 Annual Report was produced jointly  
by the Public Affairs and Visual Aids Departments.

**Public Affairs Staff**

Caren E. Piemonte, manager  
Marianne Gambaro, writer/editor  
Michael Dorsey, editorial assistant  
Nancy Brown, secretary

**Visual Aids Staff**

Natalie Babine Banack, supervisor  
Stephen E. Belliveau, designer/graphic artist  
Michael D. Gallant, photographer

Special thanks are offered to Adrian Savage of Millers Falls, Mass. for making his historic photographs available for this report.

This report was printed by ACME Printing Company, Inc., Medford, Mass.

The MMWEC Annual Report is available, without charge, through written request to the Public Affairs Department, MMWEC, Stony Brook Energy Center, P.O. Box 426, Ludlow, Mass. 01056. All requests for information about MMWEC should be addressed to this department.

# **MMWEC 1981 First Quarter Report**

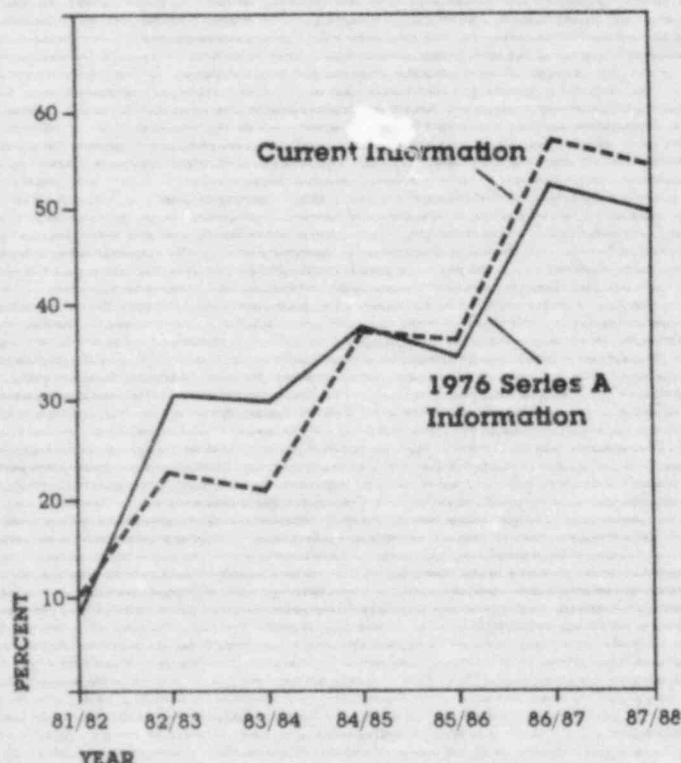


## Project 6 gets DPU nod

More than a year of public hearings and deliberations came to an end on Feb. 6 when the Massachusetts Department of Public Utilities approved MMWEC's petition to borrow, through the issuance of revenue bonds, \$335 million for Project 6. That includes funds to purchase an additional 6 percent (138 megawatts) of Seabrook Station and to pay for costs relating to the study and development of renewable resources. This brings MMWEC's interest in the Seabrook units up to 11.59 percent or 267 MW of the station's total 2,300 megawatts.

### MMWEC BASELOAD MIX % OF PEAK

(Assumes Lead-Participant Commercial Operation Dates)



"Through Project 6, members will realize savings of approximately \$1.3 billion," said MMWEC General Manager Phillip C. Otness. That figure is based on 9 percent per year oil escalation over the 30-year life of the project.

In announcing the favorable decision, the DPU concluded that the Seabrook project "is financially viable and that MMWEC appears qualified to meet the financial demands of the transaction."

The commission stated that MMWEC "put forward an economic justification for the purchase contending that Seabrook was needed to displace much higher priced oil-fired generation, to lower power supply costs, to reduce revenue requirements and thereby to lower the rates charged by the participating electric departments to their customers."

The DPU decision noted that with today's rising energy costs, any new source which offers economic savings within a particular system mix, "can be categorized as being needed by that system."

The additional 138 MW of Seabrook's output will provide needed baseload energy to 20 member systems which chose to participate in Project 6. When completed, the two Seabrook units will displace a total of 23 million barrels of oil annually. In issuing its Feb. 6 decision on MMWEC's request, the DPU stated that since 1974 "this department recognized the need to reduce our dependence upon oil stating at that time there is a need for nuclear units to be included in the electric power generation mix."

The DPU decision followed approval by the state Energy Facilities Siting Council (EFSC) on Jan. 20 of MMWEC's third annual supplement to its long range forecast of electric power needs. That decision, which brought to a close proceedings which had begun in July 1979, also endorsed the inclusion of Project 6 in the power supply plan for its oil displacement capability.

Seabrook Unit No. 1 was about 50 percent complete by March 31, 1981, bringing the total project up to 35 percent completion.

During the first quarter of 1981 strides were also made in the Renewable Resource Program funded through Project 6. The board authorized staff to proceed with limited environmental sampling on two of the sites under consideration for hydroelectric projects and to seek bids for geotechnical studies on a total of four sites.

Preparations are currently underway for financing Project 6.

## **Stony Brook three-quarters complete**

The 511 MW Stony Brook power plant was 75 percent complete by March 31. Setbacks in electrical work and minor labor disputes have delayed some system turnovers in the plant from March until later this spring, but commercial operation of the Intermediate Plant is still scheduled to begin Nov. 1.

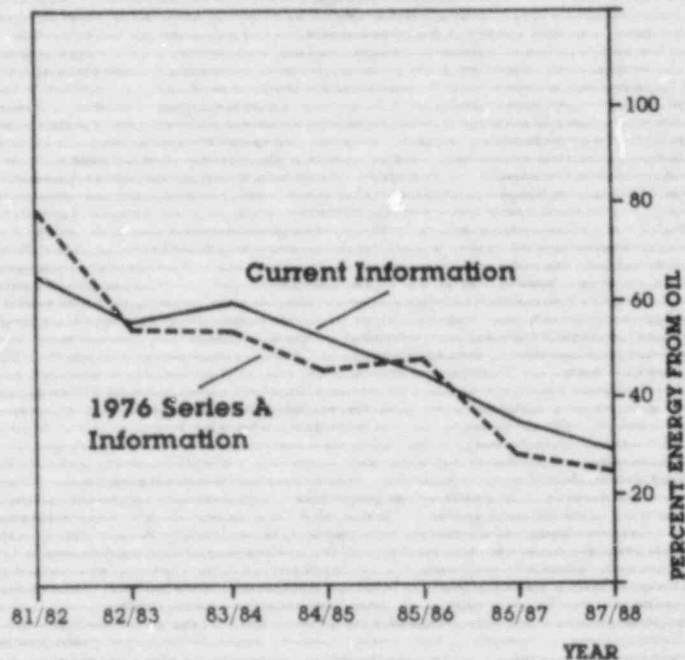
The transmission line and switchyard have been completed and work is progressing on the cooling tower and piping in the plant. Five Siemens-Allis step-up transformers, which had been returned to Germany to be inspected for possible damage, arrived at Stony Brook in late March and are awaiting installation.

The board of directors has approved development of a Heat Rate Performance Monitoring System which will assure that the plant operates at maximum efficiency. A computer, operating with a software system being designed by Power Dynamics, Inc., of Havertown, Pa., will collect operating data from more than 100 points around the power plant, store the data, display it and plot it. Engineers can then use this information to assess how efficiently the plant is working, predict breakdowns and schedule maintenance at the most opportune time. A dedicated computer will be used for performance monitoring.

The board of directors has also authorized \$3 million to modify two of the three combined cycle

combustion turbines in the Stony Brook Intermediate Plant to burn natural gas as well as No. 2 oil. The units will go into commercial operation as anticipated but will be individually shut down and modified on site during 1982. The conversion utilizes the dual fuel capability inherent in the design of Stony Brook. Negotiations are currently underway to finalize a contract with Bay State Gas to obtain up to 6 billion cubic feet of natural gas between 1982 and 1985. A permit to burn natural gas was received Feb. 27, 1981.

### **MMWEC DEPENDENCE ON OIL**



## Cash flow update

No new financings took place for the projects in MMWEC's power supply program during the first quarter of 1981 and there were no project notes outstanding as of March 31, 1981. Total revenue bonds issued and outstanding as of that date amounted to \$672,870,000.

Planning for a bond issue for Project 6 of the power supply system has commenced and bonds are expected to be issued for that Project during 1981. The board of directors took action to increase funds available in the interest accounts by transfers from construction funds, as shown below.

### PROJECT FINANCING STATUS

| PROJECT                  | BONDS<br>ISSUED<br>(000) | ESTIMATED<br>CONSTRUCTION<br>CASH FLOW<br>REQUIREMENTS | INTEREST<br>REQUIREMENTS<br>OUTSTANDING<br>BONDS |
|--------------------------|--------------------------|--|--|
| Nuclear Mix 1            | \$180,200                | 4/1/85   | 1/1/83   |
| Nuclear Mix 2            | 10,060                   | (1)  | 1/1/83   |
| Nuclear Project 3        | 52,690                   | 1/1/83   | 1/1/83   |
| Nuclear Project 4        | 118,500                  | 7/1/83   | 7/1/83   |
| Nuclear Project 5        | 30,500                   | 7/1/83   | 7/1/83   |
| Wymona Project           | 9,420                    | (2)  | (2)  |
| Seabrook Island          | 9,500                    | 10/1/85  | 1/1/83   |
| Stony Brook Intermediate | 176,980                  | 11/1/82  | 7/1/82   |
| Stony Brook Peaking      | 85,020                   | 11/1/82  | 1/1/83   |
|                          | \$672,870                |  |  |

(1) The facilities in this project have been cancelled and the project is being terminated.

(2) In commercial operation.

## Wood and coal may displace more oil

A cogeneration agreement with a company which supplies steam to industrial customers in Ware, Mass. may provide MMWEC members with up to 10 MW of energy generated by a combination of coal and wood chips.

MMWEC has signed a letter of intent with FIBREX, Inc. of Hadley, which operates the Ware plant, and is negotiating a proposed 10-year contract which would sell power to participants at a cost less than the most economical oil capacity available to MMWEC. The contract is expected to go into effect in 1982.

There are currently two boilers producing 50,000 pounds of steam per hour at the FIBREX power plant. These currently run on oil and wood chips but are being converted to burn only coal and wood. A third boiler which is being installed will burn only wood. FIBREX is also installing a rebuilt turbine generator at the power plant which will generate enough electricity to displace up to 135,000 barrels of oil per year.

Final terms of the contract between MMWEC and FIBREX are expected to be reached soon.

## Keeping our promise

Our 1976 Series A Bond statement projected an energy mix which included an increasing amount of nuclear energy in our members' power supply and a steady decrease in the use of oil. Despite cancellations and postponements in the commercial operation dates of our jointly-owned projects, which resulted from regulatory delays and uncertain conditions in the financial arena, we have been able to keep pace with these two goals through judicious contingency planning. Decreasing loads as well as the purchase of energy from New Brunswick Electric Power Commission's plant at Point Lepreau, the purchase of additional interest in Seabrook Station and Millstone Unit No. 3, and short-term contract purchases have contributed to decreasing the percentage of oil in our power supply plan while ensuring a reliable supply of baseload power.

*Philip C. O'Brien*



# MMWEC 1980 Financial Statements



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# AUDITORS' REPORT

To the Board of Directors of  
MASSACHUSETTS MUNICIPAL WHOLESALE  
ELECTRIC COMPANY:

We have examined the balance sheets of MASSACHUSETTS MUNICIPAL WHOLESALE ELECTRIC COMPANY (a Massachusetts public corporation) as of December 31, 1980 and 1979, and the related statements of operations, changes in financial position and changes in special funds for the years then ended. Our examinations were made in accordance with generally accepted auditing standards and, accordingly, included such tests of the accounting records and such other auditing procedures as we considered necessary in the circumstances.

In our opinion, the financial statements referred to above present fairly the financial position of Massachusetts Municipal Wholesale Electric Company as of December 31, 1980 and 1979, and the results of its operations and the changes in its financial position for the years then ended, in conformity with generally accepted accounting principles applied on a consistent basis.

*Arthur Andersen & Co.*

ARTHUR ANDERSEN & CO.

Boston, Massachusetts

February 27, 1981

# BALANCE SHEETS

December 31, 1980 and 1979  
(Dollars in Thousands)

|  | 1980     |                                   |                  | 1979      |           |
|--|----------|-----------------------------------|------------------|-----------|-----------|
|  | Service  | Projects<br>Under<br>Construction | Wyman<br>Project | Total     | Total     |
| <b>ASSETS</b>  |          |                                   |                  |           |           |
| Electric Plant   |          |                                   |                  |           |           |
| In Service   | \$ -     | \$ -                              | \$ 7,153         | \$ 7,153  | \$ 7,045  |
| Accumulated Depreciation (Note 3)  | -        | -                                 | (446)            | (446)     | (227)     |
|  | -        | -                                 | 6,707            | 6,707     | 6,818     |
| Under Construction (Notes 2 and 7)   |          |                                   |                  |           |           |
| Jointly-Owned  | -        | 156,844                           | -                | 156,844   | 130,634   |
| MMWEC Projects   | -        | 125,908                           | -                | 125,908   | 62,941    |
|  | -        | 282,752                           | -                | 282,752   | 193,575   |
| Total Electric Plant   | -        | 282,752                           | 6,707            | 289,459   | 200,393   |
| Other Property and Equipment   | 536      | 1,267                             | -                | 1,803     | 1,727     |
| Accumulated Depreciation (Note 3)  | (245)    | (74)                              | -                | (319)     | (216)     |
|  | 291      | 1,193                             | -                | 1,484     | 1,511     |
| Total Property, Plant and Equipment  | 291      | 283,945                           | 6,707            | 290,943   | 201,904   |
| Special Funds (See separate statement)   | -        | 370,941                           | 1,970            | 372,911   | 376,535   |
| <b>Current Assets</b>  |          |                                   |                  |           |           |
| Cash and Temporary Investments   | 338      | -                                 | -                | 338       | 351       |
| Accounts Receivable  | 801      | 303                               | 146              | 1,250     | 871       |
| Unbilled Receivables (Note 2)  | 1,715    | 192                               | -                | 1,907     | 208       |
| Inventories, principally fuel oil  | 2        | -                                 | 576              | 578       | 368       |
| Advances to or (from) Projects   | 369      | (364)                             | (5)              | -         | -         |
| Prepaid Expenses   | 69       | 250                               | 2                | 321       | 214       |
|  | 3,294    | 381                               | 719              | 4,394     | 2,012     |
| <b>Deferred Charges</b>  |          |                                   |                  |           |           |
| Unamortized Debt Discount and Expenses (Note 4)  | -        | 19,292                            | 190              | 19,482    | 16,894    |
| Costs Recoverable in the Future Under Terms of<br>the Power Sales Agreements (Notes 2 and 6) | -        | 3,637                             | 614              | 4,251     | 3,193     |
| Other  | 15       | 1,636                             | 11               | 1,662     | 1,636     |
|  | 15       | 24,565                            | 815              | 25,395    | 21,723    |
|  | \$ 3,600 | \$679,832                         | \$10,211         | \$693,643 | \$602,174 |
| <b>LIABILITIES</b>   |          |                                   |                  |           |           |
| Long-Term Debt (Note 5)  | \$ -     | \$663,450                         | \$ 9,290         | \$672,740 | \$560,870 |
| Advances from Members (Note 1)   | 124      | -                                 | -                | 124       | 131       |
| <b>Current Liabilities</b>   |          |                                   |                  |           |           |
| Current Maturities of Long-Term Debt   | -        | -                                 | 130              | 130       | -         |
| Working Capital Advances (Note 1)  | 1,000    | (971)                             | (29)             | -         | -         |
| Notes Payable (Note 5)   | 187      | -                                 | -                | 187       | 35,000    |
| Accounts Payable   | 361      | 13,305                            | 728              | 14,394    | 5,040     |
| Accrued Expenses   | 1,928    | -                                 | -                | 1,928     | 427       |
| Contractors Retention  | -        | 4,048                             | -                | 4,048     | 653       |
|  | 3,476    | 16,382                            | 829              | 20,687    | 41,120    |
| Deferred Revenues  | -        | -                                 | 92               | 92        | 53        |
| Commitments and Contingencies (Notes 7 and 9)  | \$ 3,600 | \$679,832                         | \$10,211         | \$693,643 | \$602,174 |

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

# STATEMENTS OF OPERATIONS

For the years ended December 31, 1980 and 1979

(Dollars in Thousands)

|  | 1980     |                                   |                  | 1979     |          |
|--|----------|-----------------------------------|------------------|----------|----------|
|  | Service  | Projects<br>Under<br>Construction | Wyman<br>Project | Total    | Total    |
| <b>Revenues:</b>   |          |                                   |                  |          |          |
| Electric Sales For Resale (Note 2)   | \$ 5,907 | \$ -                              | \$ 2,668         | \$ 8,575 | \$ 1,394 |
| Service Revenues   | 1,305    | -                                 | -                | 1,305    | 594      |
| Interest Income  | 6        | 37,068                            | 202              | 37,276   | 27,583   |
| Total Revenues and Interest Income   | \$ 7,218 | \$ 37,068                         | \$ 2,870         | \$47,156 | \$29,571 |
| <b>Operating and Service Expenses:</b>   |          |                                   |                  |          |          |
| Fuel Used in Electric Generation   | \$ -     | \$ -                              | \$ 1,744         | \$ 1,744 | \$ 385   |
| Purchased Power (Note 2)   | 5,902    | -                                 | -                | 5,902    | 387      |
| Other Operations and Maintenance -   |          |                                   |                  |          |          |
| Payroll and Related  | 713      | -                                 | 46               | 759      | 326      |
| Other  | 563      | -                                 | 323              | 886      | 655      |
| Depreciation (Note 3)  | 30       | -                                 | 219              | 249      | 236      |
| Taxes Other Than Income  | 4        | -                                 | 87               | 91       | 80       |
|  | 7,212    | -                                 | 2,419            | 9,631    | 2,069    |
| <b>Interest Expense:</b>   |          |                                   |                  |          |          |
| Interest Charges   | 6        | 42,423                            | 575              | 43,004   | 33,466   |
| Interest Charged to Projects During<br>Construction (Note 2)   | -        | (5,355)                           | -                | (5,355)  | (5,529)  |
|  | 6        | 37,068                            | 575              | 37,649   | 27,937   |
| Loss on Cancelled Units (Note 6)   | -        | 934                               | -                | 934      | 1,703    |
|  | 7,218    | 38,002                            | 2,994            | 48,214   | 32,709   |
| <b>Costs Recoverable in the Future Under<br/>Terms of the Power Sales Agreements<br/>(Notes 2 and 6)</b> | -        | (934)                             | (124)            | (1,058)  | (3,138)  |
|  | \$ 7,218 | \$37,068                          | \$ 2,870         | \$47,156 | \$29,571 |



# STATEMENTS OF CHANGES IN FINANCIAL POSITION

For the years ended December 31, 1980 and 1979

(Dollars in Thousands)

|   | 1980     |                             |               | 1979       |           |
|---|----------|-----------------------------|---------------|------------|-----------|
|   | Service  | Projects Under Construction | Wyman Project | Total      | Total     |
| <b>SOURCES OF FUNDS:</b>  |          |                             |               |            |           |
| Operations and Services -   |          |                             |               |            |           |
| Revenues and Income   | \$ 7,218 | \$ -                        | \$ 2,870      | \$ 10,088  | \$ 2,209  |
| Expenses  | (7,218)  | -                           | (2,994)       | (10,212)   | (2,644)   |
| Charges Not Involving Funds:  |          |                             |               |            |           |
| Depreciation and Amortization (Notes 3 and 4)   | 30       | -                           | 225           | 255        | 241       |
| Increase in Deferred Revenue  | -        | -                           | 39            | 39         | 50        |
| Interest Expense Previously Funded  | -        | -                           | -             | -          | 285       |
| From Operations and Service   | 30       | -                           | 140           | 170        | 141       |
| Financing and Investments -   |          |                             |               |            |           |
| Bond Proceeds   | -        | 112,000                     | -             | 112,000    | 150,000   |
| Interest Income   | -        | 37,068                      | -             | 37,068     | 27,362    |
| Interest Expense  | -        | (42,423)                    | -             | (42,423)   | (32,791)  |
| Charges Not Involving Funds:  |          |                             |               |            |           |
| Depreciation and Amortization   | -        | 656                         | -             | 656        | 444       |
| Interest Charged to Projects During Construction  | -        | 5,355                       | -             | 5,355      | 5,529     |
| Loss on Cancelled Units (Note 6)  | -        | 934                         | -             | 934        | 2,703     |
| From Financing and Investments  | -        | 113,590                     | -             | 113,590    | 153,147   |
| Total Sources of Funds  | \$ 30    | \$113,590                   | \$ 140        | \$113,760  | \$153,288 |
| <b>USES OF FUNDS:</b>   |          |                             |               |            |           |
| Additions to Electric Plant   | \$ -     | \$ 89,923                   | \$ 108        | \$ 90,031  | \$ 99,313 |
| Additions to Other Property and Equipment   | 67       | 9                           | -             | 76         | 138       |
| Additions to Debt Discount and Expenses (Note 4)  | -        | 3,449                       | -             | 3,449      | 7,544     |
| Increase in Costs Recoverable in the Future Under Terms of the Power Sales Agreements (Notes 2 and 6) | -        | 934                         | 124           | 1,058      | 3,138     |
| Increase in Other Deferred Charges  | 15       | -                           | 11            | 26         | 1,459     |
| Other   | (52)     | (25)                        | 6             | (71)       | (150)     |
|   | \$ 30    | \$ 94,290                   | \$ 249        | \$ 94,569  | \$111,442 |
| <b>CHANGE IN WORKING CAPITAL, INCLUDING NOTES PAYABLE AND SPECIAL FUNDS</b>                           | \$ -     | \$ 19,300                   | \$ (109)      | \$ 19,191  | \$ 41,846 |
| <b>CHANGE IN WORKING CAPITAL CONSISTS OF:</b>   |          |                             |               |            |           |
| Increase (Decrease) in Special Funds  | \$ -     | \$ (3,561)                  | \$ (63)       | \$ (3,624) | \$ 24,869 |
| Increase (Decrease) in Current Assets -   |          |                             |               |            |           |
| Cash  | (13)     | -                           | -             | (13)       | 229       |
| Accounts Receivable   | 361      | 75                          | (57)          | 379        | 770       |
| Unbilled Receivables  | 1,507    | 192                         | -             | 1,699      | 193       |
| Inventories   | 2        | -                           | 208           | 210        | 182       |
| Prepaid Expenses  | 38       | 67                          | 2             | 107        | 198       |
| Advances to Projects  | 121      | (120)                       | (1)           | -          | -         |
|   | 2,016    | (3,347)                     | 89            | (1,242)    | 26,441    |
| (Increase) Decrease in Notes Payable  | (187)    | 35,000                      | -             | 34,813     | 19,250    |
| (Increase) Decrease in Current Liabilities -  |          |                             |               |            |           |
| Current Maturities of Long-Term Debt  | -        | -                           | (130)         | (130)      | -         |
| Working Capital Advances  | (250)    | 248                         | 2             | -          | -         |
| Accounts Payable  | 182      | (9,446)                     | (90)          | (9,354)    | (4,401)   |
| Accrued Expenses  | (1,761)  | 240                         | 20            | (1,501)    | 1,144     |
| Contractors' Retention  | -        | (3,395)                     | -             | (3,395)    | (588)     |
|   | (2,016)  | 22,647                      | (198)         | 20,433     | 15,405    |
|   | \$ -     | \$ 19,300                   | \$ (109)      | \$19,191   | \$41,846  |

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

# STATEMENTS OF CHANGES IN SPECIAL FUNDS

For the two years ended December 31, 1980

(Dollars in Thousands)

|  | Construction and Construction Interest Funds |                         |                             |                             |                             |                            |  |                                   |
|--|--|-------------------------|-----------------------------|-----------------------------|-----------------------------|----------------------------|--|-----------------------------------|
|  | Nuclear<br>Mix<br>No. 1                      | Nuclear<br>Mix<br>No. 2 | Nuclear<br>Project<br>No. 3 | Nuclear<br>Project<br>No. 4 | Nuclear<br>Project<br>No. 5 | Sears<br>Island<br>Project | Stony Brook<br>Intermediate<br>Project | Stony Brook<br>Peaking<br>Project |
| Balances, January 1, 1979                      | \$116,289                                    | \$ 5,966                | \$27,837                    | \$108,799                   | \$27,677                    | \$ 7,353                   | \$ -                                   | \$ -                              |
| Add:   |  |                         |                             |                             |                             |                            |  |                                   |
| Bond proceeds                                  | -  | -                       | -                           | -                           | -                           | -                          | 139,871                                | -                                 |
| Note proceeds                                  | -  | -                       | -                           | -                           | -                           | -                          | -                                      | -                                 |
| Interest income                                | 8,783  | 511                     | 2,143                       | 6,697                       | 1,769                       | 607                        | 2,673                                  | -                                 |
| Electric sales for resale                      | -  | -                       | -                           | -                           | -                           | -                          | -                                      | -                                 |
| Inter-fund transfers                           | 1,061  | 49                      | 275                         | 377                         | 95                          | 30                         | 15,500                                 | -                                 |
| Other receipts                                 | -  | -                       | -                           | -                           | -                           | -                          | 408                                    | -                                 |
|  | 9,844  | 560                     | 2,418                       | 7,074                       | 1,864                       | 637                        | 158,452                                | -                                 |
| Deduct:  |  |                         |                             |                             |                             |                            |  |                                   |
| Construction expenditures                      | 7,914  | 245                     | 3,288                       | 37,709                      | 9,540                       | 139                        | 6,774                                  | -                                 |
| Debt issue costs                               | 1  | -                       | -                           | 3                           | 3                           | 1                          | 7,284                                  | -                                 |
| Operating purchases and expenses               | -  | -                       | -                           | -                           | -                           | -                          | -                                      | -                                 |
| Note retirements                               | 1,250  | -                       | -                           | -                           | -                           | -                          | 64,000                                 | -                                 |
| Interest payments - notes                      | -  | -                       | -                           | -                           | -                           | -                          | 429                                    | -                                 |
| Interest payments - bonds                      | 11,818                                       | 692                     | 3,276                       | 7,373                       | 2,042                       | 638                        | 4,137                                  | -                                 |
| Working capital advances                       | 46   | 34                      | 12                          | 25                          | (19)                        | (15)                       | 257                                    | -                                 |
| Other  | 7  | -                       | -                           | 1,300                       | 329                         | -                          | -                                      | -                                 |
|  | 21,036                                       | 971                     | 6,576                       | 46,410                      | 11,895                      | 763                        | 82,881                                 | -                                 |
| Balances, December 31, 1979,<br>consisting of: |  |                         |                             |                             |                             |                            |  |                                   |
| Construction fund                              | 81,460                                       | 4,171                   | 17,127                      | 43,658                      | 10,499                      | 5,633                      | 55,714                                 | -                                 |
| Construction interest                          | 23,637                                       | 1,384                   | 6,552                       | 25,805                      | 7,147                       | 1,594                      | 19,857                                 | -                                 |
|  | \$105,097                                    | \$ 5,555                | \$23,679                    | \$ 69,463                   | \$17,646                    | \$ 7,227                   | \$ 75,571                              | \$ -                              |
| Add:   |  |                         |                             |                             |                             |                            |  |                                   |
| Bond proceeds                                  | -  | -                       | -                           | -                           | -                           | -                          | 24,443                                 | 424                               |
| Interest income                                | 10,328                                       | 608                     | 2,131                       | 6,298                       | 1,537                       | 679                        | 7,517                                  | 2,017                             |
| Electric sales for resale                      | -  | -                       | -                           | -                           | -                           | -                          | -                                      | -                                 |
| Inter-fund transfers                           | 493  | 32                      | 181                         | 262                         | 52                          | 16                         | 364                                    | 21,811                            |
| Other  | -  | 81                      | -                           | -                           | -                           | -                          | 1,941                                  | -                                 |
|  | 10,821                                       | 721                     | 2,312                       | 6,560                       | 1,589                       | 695                        | 34,265                                 | 100,242                           |
| Deduct:  |  |                         |                             |                             |                             |                            |  |                                   |
| Other property acquisitions (sales)            | -  | -                       | -                           | -                           | -                           | -                          | (236)                                  | -                                 |
| Construction expenditures                      | 6,236  | 20                      | 3,164                       | 11,236                      | 2,853                       | 121                        | 33,205                                 | 8,581                             |
| Debt issue costs                               | -  | -                       | -                           | -                           | -                           | -                          | 879                                    | 2,531                             |
| Operating purchases and expenses               | -  | -                       | -                           | -                           | -                           | -                          | -                                      | -                                 |
| Note retirements                               | -  | -                       | -                           | -                           | -                           | -                          | -                                      | 35,000                            |
| Interest payments - notes                      | -  | -                       | -                           | -                           | -                           | -                          | -                                      | 32                                |
| Interest payments - bonds                      | 11,818                                       | 692                     | 3,276                       | 7,373                       | 2,042                       | 638                        | 11,048                                 | 3,551                             |
| Working capital advances                       | 11   | 14                      | -                           | 5                           | 2                           | 9                          | 40                                     | 14                                |
|  | 18,065                                       | 726                     | 6,440                       | 18,614                      | 4,897                       | 768                        | 44,936                                 | 50,111                            |
| Balances, December 31, 1980,<br>consisting of: |  |                         |                             |                             |                             |                            |  |                                   |
| Construction fund                              | 74,216                                       | 4,166                   | 12,999                      | 38,977                      | 9,233                       | 5,879                      | 45,977                                 | 33,111                            |
| Construction interest                          | 23,637                                       | 1,384                   | 6,552                       | 18,432                      | 5,105                       | 1,275                      | 18,923                                 | 16,923                            |
|  | \$ 97,853                                    | \$ 5,550                | \$19,551                    | \$ 57,409                   | \$14,338                    | \$ 7,154                   | \$ 64,900                              | \$ 50,034                         |

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

| Wyman<br>Project | Bond<br>Fund | Bond<br>Reserve<br>Fund | Total<br>Trusteed<br>Funds | Reserve and<br>Contingency<br>Fund | Stony Brook |           | Nuclear<br>Mix No. 1<br>(Seabrook) | Revenue<br>Fund | Total<br>Non-Trusteed<br>Funds | Total<br>Special<br>Funds |
|------------------|--------------|-------------------------|----------------------------|------------------------------------|-------------|-----------|------------------------------------|-----------------|--------------------------------|---------------------------|
| \$ 1,249         | \$ -         | \$28,547                | \$323,717                  | \$ 109                             | \$ 3,172    | \$ 23,500 | \$ 596                             | \$ 572          | \$ 27,949                      | \$351,666                 |
| -                | -            | 9,929                   | 149,800                    | 1,000                              | -           | -         | -                                  | -               | 1,000                          | 150,800                   |
| -                | -            | -                       | -                          | -                                  | 40,000      | 64,000    | -                                  | -               | 104,000                        | 104,000                   |
| 81               | 6            | 2,547                   | 25,817                     | 45                                 | 493         | 1,124     | 28                                 | 76              | 1,766                          | 27,583                    |
| -                | -            | -                       | -                          | -                                  | -           | -         | -                                  | 1,007           | 1,007                          | 1,007                     |
| 15               | 279          | (1,612)                 | 16,069                     | 28                                 | -           | (15,500)  | (307)                              | (290)           | (16,069)                       | -                         |
| -                | -            | -                       | 408                        | -                                  | -           | 4,540     | -                                  | 471             | 5,011                          | 5,419                     |
| 96               | 285          | 10,864                  | 192,094                    | 1,073                              | 40,493      | 54,164    | (279)                              | 1,264           | 96,715                         | 288,809                   |
| 610              | -            | -                       | 66,219                     | -                                  | 2,939       | 25,772    | 246                                | -               | 28,957                         | 95,176                    |
| -                | -            | -                       | 7,292                      | -                                  | 17          | 182       | 1                                  | -               | 200                            | 7,492                     |
| -                | -            | -                       | -                          | -                                  | -           | -         | -                                  | 1,035           | 1,035                          | 1,035                     |
| -                | -            | -                       | 65,250                     | -                                  | 9,800       | 48,200    | -                                  | -               | 58,000                         | 123,250                   |
| -                | -            | -                       | 429                        | -                                  | 487         | 3,469     | 70                                 | -               | 4,026                          | 4,455                     |
| 285              | 285          | -                       | 30,546                     | -                                  | -           | -         | -                                  | -               | -                              | 30,546                    |
| (10)             | -            | -                       | 330                        | -                                  | -           | -         | -                                  | 20              | 20                             | 350                       |
| -                | -            | -                       | 1,636                      | -                                  | -           | -         | -                                  | -               | -                              | 1,636                     |
| 885              | 285          | -                       | 171,702                    | -                                  | 13,243      | 77,623    | 317                                | 1,055           | 92,238                         | 263,940                   |
| 450              | -            | -                       | -                          | -                                  | -           | -         | -                                  | -               | -                              | -                         |
| \$ 460           | \$ -         | \$39,411                | \$344,109                  | \$1,182                            | \$30,422    | \$ 41     | \$ -                               | \$ 781          | \$32,426                       | \$376,535                 |
| -                | -            | 11,153                  | 112,020                    | 600                                | -           | -         | -                                  | -               | 600                            | 112,620                   |
| 35               | 15           | 3,814                   | 34,974                     | 163                                | 2,053       | -         | -                                  | 80              | 2,296                          | 37,270                    |
| -                | -            | -                       | -                          | -                                  | -           | -         | -                                  | 2,668           | 2,668                          | 2,668                     |
| (79)             | 620          | (1,451)                 | 22,303                     | 63                                 | (21,813)    | 30        | -                                  | (583)           | (22,303)                       | -                         |
| -                | -            | -                       | 2,022                      | -                                  | -           | -         | -                                  | 38              | 38                             | 2,060                     |
| (44)             | 635          | 13,516                  | 171,319                    | 826                                | (19,760)    | 30        | -                                  | 2,203           | (16,701)                       | 154,618                   |
| -                | -            | -                       | (236)                      | -                                  | 241         | 4         | -                                  | -               | 245                            | 9                         |
| 150              | -            | -                       | 65,568                     | -                                  | 8,327       | 60        | -                                  | -               | 8,387                          | 73,955                    |
| -                | -            | -                       | 3,413                      | -                                  | 94          | 1         | -                                  | -               | 95                             | 3,508                     |
| -                | -            | -                       | -                          | -                                  | -           | -         | -                                  | 2,247           | 2,247                          | 2,247                     |
| -                | -            | -                       | 35,000                     | -                                  | -           | -         | -                                  | -               | -                              | 35,000                    |
| -                | -            | -                       | 329                        | -                                  | 1,959       | -         | -                                  | -               | 1,959                          | 2,288                     |
| -                | 570          | -                       | 40,985                     | -                                  | -           | -         | -                                  | -               | -                              | 40,985                    |
| -                | -            | -                       | 246                        | -                                  | -           | -         | -                                  | 4               | 4                              | 250                       |
| 150              | 570          | -                       | 145,305                    | -                                  | 10,621      | 65        | -                                  | 2,251           | 12,937                         | 158,242                   |
| 266              | -            | -                       | -                          | -                                  | -           | -         | -                                  | -               | -                              | -                         |
| \$ 266           | \$ 65        | \$52,927                | \$370,123                  | \$2,008                            | \$ 41       | \$ 6      | \$ -                               | \$ 733          | \$ 2,788                       | \$372,911                 |

# NOTES TO FINANCIAL STATEMENTS

December 31, 1980 and 1979

## (1) MASSACHUSETTS MUNICIPAL WHOLESALE ELECTRIC COMPANY (MMWEC)

MMWEC is a political subdivision of the Commonwealth of Massachusetts, authorized to issue revenue bonds secured by power sales agreements with its members and other electric systems to finance the construction and ownership of electric power facilities.

A Massachusetts 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 outlined within the MMWEC By-Laws. As of December 31, 1980, thirty-two Massachusetts municipalities had received votes of their respective city councils or town meetings authorizing membership by their respective municipal electric systems.

### Power Supply System

MMWEC is obtaining power supply capacity by acquiring interests in various generating units from investor-owned utilities and by constructing its own electric power facilities. See Note 7 for information with respect to MMWEC's construction program and commitments. In addition, MMWEC negotiates power purchases on behalf of its members.

### Advances from Members

MMWEC is authorized to assess each member to provide working capital. Advances may be returned to the members upon approval by MMWEC's Board of Directors or the dissolution of MMWEC.

### Advances from Projects

The Board of Directors has authorized working capital advances of up to \$1,000,000 from Project Construction Funds. Such advances had been drawn from individual project funds based on the ratio of estimated administrative expenditures for each project for the period to the total of estimated project administrative expenditures for the period. At December 31, 1980 and 1979 the amounts of the advances were \$1,000,000 and \$750,000 respectively.

## (2) SIGNIFICANT ACCOUNTING POLICIES

### Interest Charged to Projects During Construction

MMWEC capitalizes interest as an element of the cost of constructing electric plant. 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 income derived from project funds not yet expended for construction.

### Special Funds

Proceeds from the sales of Revenue Bonds are deposited with Trustees to be invested until they are required for construction or debt service payments. Note proceeds are placed with Depositories and are similarly invested by MMWEC. Investment securities consist of U.S. Government securities, Federal agency obligations, and bank certificates of deposit in accordance with the provisions of the Bond Resolution. The investments are carried at cost, adjusted for amortization of premium or discount.

### Revenues and Costs Recoverable in the Future Under Terms of the Power Sales Agreements

Under the terms of the Power Sales Agreements with Project participants revenues include billings to participants for debt principal and interest payments in the period in which they are due. However, for financial reporting purposes, MMWEC recognizes currently the depreciation and amortization expense of assets financed by bond principal. The excess of current expenses over amounts billed currently under terms of the Power Sales Agreements is deferred to the future periods in which these amounts will be recovered through revenues.

Electric Sales for Resale and Purchased Power reflected in the column headed Service, represent power purchases made by MMWEC for resale to contracting participants. In addition to these arrangements, MMWEC serves as an agent for certain participants, whereby MMWEC is billed for



# NOTES TO FINANCIAL STATEMENTS

December 31, 1980 and 1979

the costs of power purchased or received by the participants under other contracts and agreements. Such costs are expenses of the participants and, accordingly, are not reflected in the accompanying statements of operations.

## Unbilled Receivables

Under terms of the Service Agreement and the Power Sales Agreements, MMWEC bills its members for costs incurred in providing services and purchased power obtained on their behalf. Revenues are recorded in the accounts as the corresponding expenses are incurred. Amounts which are not yet billed are included in Unbilled Receivables in the accompanying balance sheets.

## (3) DEPRECIATION

Property, plant and equipment in service is depreciated using the straight-line method over the estimated useful lives of the respective assets. Depreciation of electric plant in service amounted to \$219,000 using a composite rate of 3%. Depreciation of other property and equipment aggregated \$107,000, of which \$77,000 was allocated to projects under construction, and represents a composite rate of 17%. In 1979 the depreciation of the electric plant in service was \$211,000 and other property was \$85,000, of which \$60,000 was allocated to projects under construction.

## (4) UNAMORTIZED DEBT DISCOUNT AND EXPENSES

Debt discount and expenses are amortized to interest expense over the life of the related outstanding debt. Additions to and amortization of discount and expenses are summarized:

|              | (Dollars in Thousands) |                |                   |                    |
|--------------|------------------------|----------------|-------------------|--------------------|
|              | Balance<br>January 1   | Additions      | Amorti-<br>zation | Balance<br>Dec. 31 |
| <b>1979</b>  |                        |                |                   |                    |
| 1976 A Bonds | \$ 2,068               | \$ -           | \$ (58)           | \$ 2,010           |
| 1977 A Bonds | 3,711                  | -              | (102)             | 3,609              |
| 1977 B Bonds | 1,820                  | -              | (47)              | 1,773              |
| 1978 A Bonds | 2,120                  | 3              | (54)              | 2,069              |
| 1979 A Bonds | -                      | 7,496          | (85)              | 7,411              |
| 1978 A Notes | 15                     | -              | (15)              | -                  |
| 1978 B Notes | 5                      | 1              | (6)               | -                  |
| 1979 A Notes | -                      | 20             | (20)              | -                  |
| 1979 B Notes | -                      | 24             | (2)               | 22                 |
|              | <u>\$9,739</u>         | <u>\$7,544</u> | <u>\$(389)</u>    | <u>\$16,894</u>    |
| <b>1980</b>  |                        |                |                   |                    |
| 1976 A Bonds | \$ 2,010               | \$ -           | \$(283)           | \$ 1,727           |
| 1977 A Bonds | 3,609                  | -              | (152)             | 3,457              |
| 1977 B Bonds | 1,773                  | -              | (47)              | 1,726              |
| 1978 A Bonds | 2,069                  | -              | (53)              | 2,016              |
| 1979 A Bonds | 7,411                  | -              | (260)             | 7,151              |
| 1980 A Bonds | -                      | 3,446          | (41)              | 3,405              |
| 1979 B Notes | 22                     | 2              | (24)              | -                  |
|              | <u>\$16,894</u>        | <u>\$3,448</u> | <u>\$(860)</u>    | <u>\$19,482</u>    |

## (5) DEBT

### Power Supply System Revenue Bonds

To finance construction or ownership interests in electric generating projects, MMWEC issues, pursuant to its Bond Resolution and Chapter 775 of the General Laws, Power Supply System Revenue Bonds. The Bonds are secured by a pledge of the revenues derived by MMWEC, under terms of power sales agreements, from the ownership and operation of its power supply system. Pursuant to the power sales agreements with the participants, each participant is obligated to pay its share of the actual costs

# NOTES TO FINANCIAL STATEMENTS

December 31, 1980 and 1979

relating to the generating units planned or under construction. The participants' obligations are not contingent upon the completion or operational status of the units.

The Power Supply System Revenue Bonds consist of Serial and Term Bonds. The Bonds, which are comprised of the following issues, are subject to redemption approximately ten years after the issue date, at 103% of the principal amount, descending periodically thereafter to 100%.

| Issue                | Net<br>Interest<br>Cost | 1980<br>(Dollars in Thousands) | 1979      |
|----------------------|-------------------------|--------------------------------|-----------|
| 1976 Series A        | 7.2                     | \$ 75,000                      | \$ 75,000 |
| 1977 Series A        | 6.4                     | 177,370                        | 177,370   |
| 1977 Series B        | 6.1                     | 83,500                         | 83,500    |
| 1978 Series A        | 6.8                     | 75,000                         | 75,000    |
| 1979 Series A        | 7.0                     | 150,000                        | 150,000   |
| 1980 Series A        | 10.2                    | 112,000                        | -         |
|                      |                         | \$672,870                      | \$560,870 |
| Less Current Portion |                         | (130)                          | -         |
| Total Long-Term Debt |                         | \$672,740                      | \$560,870 |

The aggregate annual principal payments due in the next five years are as follows: 1981 - \$130,000; 1982 - \$135,000; 1983 - \$140,000; 1984 - \$4,085,000 and 1985 - \$5,820,000.

## Notes Payable

The notes outstanding at December 31, 1979 which bore interest at a rate equal to 60% of the bank's prime rate, were repaid from the proceeds of the 1980 Series A bond issue.

## Line of Credit

MMWEC has a \$2,000,000 revolving line of credit which is used to temporarily finance certain power purchases for itself and certain of its members. Borrowings under this line are at an interest rate approximating 50% of the prime rate and are secured by the receivables corresponding to the amounts taken-down. The balance outstanding as of December 31, 1980 was \$187,000.

## (6) UNIT CANCELLATIONS

MMWEC's Nuclear Mix No. 2 was comprised of ownership interests in the NEP Nuclear Units Nos. 1 and 2 sponsored by New England Power Company, and the Montague Nuclear Units Nos. 1 and 2

sponsored by Northeast Utilities.

The NEP units were cancelled prior to 1980, and the Montague units were cancelled on December 31, 1980. MMWEC's costs associated with its Nuclear Mix No. 2, aggregating \$3,637,000, have been recorded as a loss, of which \$934,000 was recognized in 1980, and have been deferred as Costs Recoverable in the Future Under the Terms of the Power Sales Agreements. MMWEC will proceed to decommission and terminate Nuclear Mix No. 2 in accordance with provisions of the Power Sales Agreements and MMWEC's General Bond Resolution. Such procedures call for the realization of salvage and the satisfaction of liabilities to the extent possible from remaining funds available for such purposes. Any remaining liabilities, including debt service on bonds outstanding, will be recovered from the participants as they become due. There are \$10,060,000 in bonds outstanding which were issued for Nuclear Mix No. 2.

## (7) CONSTRUCTION AND FINANCING Construction Program

MMWEC's plans for construction and acquisition of ownership interest in additional generating capacity are under continuing review. Currently forecasted expenditures for the generating facilities, as shown on the following page, amount to approximately \$1.3 billion, including estimates for contingencies, interest, and MMWEC costs charged to projects during construction.

The estimates of total costs and completion dates are those used by MMWEC and its Consulting Engineer for power supply and financial planning purposes. Certain of the completion dates are later than those of the lead participant. Total costs are based on the latest information available from the lead participant, adjusted to reflect later completion dates and other considerations.

Public Service Company of New Hampshire (PSNH) is experiencing difficulties in maintaining cash flow and obtaining external financing. In response to these difficulties, PSNH decided to reduce its 50% ownership in Seabrook by approxi-

# NOTES TO FINANCIAL STATEMENTS

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mately 15% and other utilities, including MMWEC to the extent of 6%, have committed themselves for ownership of 14.77%. The commitments were subject to receipt of required approvals and, in some cases such as MMWEC, to receipt of initial financing. As of January 31, 1981, PSNH's ownership interest had been reduced to 43.74%, and, on February 6, 1981, MMWEC received Massachusetts Department of Public Utilities approval of the financing associated with acquisition of its additional 6% ownership. PSNH has also indicated that adequate rates, timely

approvals and financing are all essential to enable it to maintain its construction program.

The electric utility industry has experienced and may continue to experience a number of problems including financing large construction programs during an inflationary period, obtaining sufficient capital, compliance with environmental regulations, delays in constructing new facilities, delays in licensing, particularly nuclear facilities since the Three Mile Island incident, high fossil fuel costs and obtaining adequate rate relief.

| Unit (Lead Participant) - Estimated<br>Completion Date                    | Proposed<br>MMWEC<br>Capability<br>(MW) | (Dollars in Thousands)        |           | Total<br>Estimated<br>MMWEC<br>Cost |
|---|---|-------------------------------|-----------|-------------------------------------|
|   |   | Costs To December 31,<br>1979 | 1980      |                                     |
| <b>Nuclear Mix No. 1</b>  |   |                               |           |                                     |
| Pilgrim Unit No. 2<br>(Boston Edison) - 1990                              | 152.3                                   | \$ 45,032                     | \$ 48,962 | \$ 501,489                          |
| Millstone Unit No. 3<br>(Northeast Utilities) - 1986                      | 18.4                                    | 11,025                        | 13,387    | 60,891                              |
| Seabrook Units Nos. 1 and 2<br>(Public Service Co. of NH) - 1985 and 1987 | 3.7                                     | 1,795                         | 2,312     | 12,063                              |
|   | 174.4                                   | \$57,852                      | \$64,661  | \$574,443                           |
| <b>Nuclear Mix No. 2</b>  |   |                               |           |                                     |
| NEP Units Nos. 1 and 2<br>(New England Power)                             |   | \$ -                          | \$ -      | \$ -                                |
| Montague Units Nos. 1 and 2<br>(Northeast Utilities)                      |   | 688                           | -         | -                                   |
| (See Note 6)  |   | \$ 688                        | \$ -      | \$ -                                |
| <b>Nuclear Project No. 3</b>  |   |                               |           |                                     |
| Millstone Unit No. 3<br>(Northeast Utilities) - 1986                      | 36.8                                    | \$ 24,409                     | \$ 29,566 | \$ 89,255                           |
| <b>Nuclear Project No. 4</b>  |   |                               |           |                                     |
| Seabrook Units Nos. 1 and 2<br>(Public Service Co. of NH) - 1985 and 1987 | 99.6                                    | \$ 36,888                     | \$ 48,614 | \$ 180,715                          |
| <b>Nuclear Project No. 5</b>  |   |                               |           |                                     |
| Seabrook Units Nos. 1 and 2<br>(Public Service Co. of NH) - 1985 and 1987 | 25.3                                    | \$ 9,494                      | \$ 12,675 | \$ 48,610                           |
| <b>Total Nuclear Units</b>  | 336.1                                   | \$129,331                     | \$155,516 | \$ 893,023                          |
| <b>Sears Island Project</b>   |   |                               |           |                                     |
| Sears Island Coal Unit No. 1<br>(Central Maine Power) - 1989              | 78.9                                    | \$ 1,303                      | \$ 1,328  | \$ 160,712                          |
| <b>Stony Brook Peaking Project</b>  |   |                               |           |                                     |
| Phase I Peaking Units<br>(MMWEC) - 1982                                   | 170.0                                   | \$ 5,123                      | \$ 30,312 | \$ 69,761                           |
| <b>Stony Brook Intermediate Project</b>                                   |   |                               |           |                                     |
| Phase I Intermediate Units<br>(MMWEC) - 1981                              | 309.1                                   | \$ 57,818                     | \$ 95,596 | \$ 146,369                          |
| <b>Total Fossil - Fueled Units</b>  | 558.0                                   | \$ 64,244                     | \$127,236 | \$ 376,842                          |
| <b>Total</b>  |   | \$193,575                     | \$282,752 | \$1,269,865                         |



# NOTES TO FINANCIAL STATEMENTS

December 31, 1980 and 1979

## Financing Program

To finance its ownership share of the costs of these projects, MMWEC intends to issue additional series of revenue bonds, the timing and size of which will be based upon construction cash flow requirements and bond market conditions prevailing at the time.

## (8) RETIREMENT PLAN

Retirement benefits are provided to MMWEC's eligible employees through its participation in the Retirement and Security Program sponsored by the National Rural Electric Cooperative Association. It is MMWEC's policy to fund all accrued benefits. Pension costs were \$105,000 for 1980 and \$48,000 for 1979. Information from the Plan Administrator is not available to permit MMWEC to determine its share of accumulated benefits nor assets available for plan benefits. There are no unfunded vested benefits associated with this Plan.

## (9) COMMITMENTS

MMWEC has entered into a contract with the New Brunswick Electric Power Commission (NBEPC) to purchase 100 MW of baseload power from the NBEPC Point Lepreau nuclear unit. Corresponding agreements have been entered into by MMWEC to resell the power to MMWEC members and other utilities.

The Point Lepreau unit is scheduled to be in operation in the first quarter of 1982. The contract is effective from the In Service Date to October 31, 1987 with options for extensions. The contract payment provisions require MMWEC to pay in all events certain NBEPC fixed, operation, maintenance and other charges relating to the unit.



# CONSULTANTS AND FINANCIAL ADVISORS

## Bond Fund Trustee

Continental Illinois National Bank and  
Trust Company of Chicago, Illinois

## Paying

Continental Illinois National Bank and  
Trust Company of 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

## Citibank, N.A., 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

## New England Merchants National Bank, Boston, Massachusetts

1976 Series A Bonds  
1977 Series A Bonds  
1978 Series A Bonds  
1979 Series A Bonds  
1980 Series A Bonds

## Construction Fund Trustees

Continental Illinois National Bank  
and Trust Company of Chicago, Illinois

Nuclear Mix No. 1  
Nuclear Mix No. 2  
Nuclear Project No. 4

Shawmut Bank of Boston, N.A.,  
Boston, Massachusetts  
Nuclear Project No. 3

Third National Bank of Hampden county,  
Springfield, Massachusetts

Wyman Project  
Nuclear Project No. 5  
Sears Island Project  
Stony Brook Intermediate Project  
Stony Brook Peaking Project

## Financial Advisor

Lazard Freres & Co., New York

## Bond Counsel

Wood and Dawson, New York



Massachusetts Municipal Wholesale Electric Company  
STONY BROOK ENERGY CENTER PO BOX 426 LUDLOW MASSACHUSETTS 01056

**MMWEC 1980  
Financial Statements**



**Massachusetts Municipal Wholesale Electric Company**  
**STONY BROOK ENERGY CENTER, PO BOX 426, LUDLOW MASS. 01056**



*In the opinion of Bond Counsel, under existing laws and regulations, interest on the 1981 A Bonds is exempt from Federal income taxation and the income on the 1981 A Bonds, including any profit made on the sale thereof, is exempt from Massachusetts personal income taxes.*

# \$100,000,000

## Massachusetts Municipal Wholesale Electric Company

A Public Corporation of The Commonwealth of Massachusetts  
Power Supply System Revenue Bonds  
1981 Series A

**Dated: June 1, 1981**

**Due: July 1, as shown below**

Principal and interest (first coupon January 1, 1982 for seven months' interest and semi-annually thereafter) payable at Continental Illinois National Bank and Trust Company of Chicago, Chicago, Illinois, Citibank, N.A., New York, New York, and Shawmut Bank of Boston, N.A., Boston, Massachusetts. Coupon bonds in the denomination of \$5,000 registrable as to principal only and fully registered bonds in the denomination of \$5,000 or any multiple thereof and interchangeable. Continental Illinois National Bank and Trust Company of Chicago, Chicago, Illinois, is Bond Fund Trustee.

The 1981 A Bonds are subject to redemption prior to maturity as described herein.

The principal of, premium, if any, and interest on the 1981 A Bonds are payable solely from and secured by a lien upon and pledge of the revenues derived by MMWEC from its Power Supply System and other available funds pledged under the Resolution. Such revenues include all payments to be made to MMWEC by the Participants pursuant to Power Sales Agreements for Projects financed from the proceeds of Bonds under the Resolution. Pursuant to the Power Sales Agreements, Participants are obligated to pay from their electric system revenues, as operating expenses, their respective shares of MMWEC's costs relating to such Projects, and such obligations are not contingent upon the completion or operational status of such Projects.

MMWEC has no taxing power, and the 1981 A Bonds will not be a debt of the Commonwealth or of any city or town of the Commonwealth.

### \$12,740,000 Serial Bonds

| Due  | Amount    | Coupon<br>Rate | Price | Due  | Amount     | Coupon<br>Rate | Price |
|------|-----------|----------------|-------|------|------------|----------------|-------|
| 1989 | \$495,000 | 10.00%         | 100%  | 1996 | \$ 995,000 | 11.60%         | 100%  |
| 1990 | 540,000   | 10.25          | 100   | 1997 | 1,110,000  | 11.70          | 100   |
| 1991 | 600,000   | 10.50          | 100   | 1998 | 1,240,000  | 11.80          | 100   |
| 1992 | 660,000   | 10.75          | 100   | 1999 | 1,385,000  | 11.90          | 100   |
| 1993 | 725,000   | 11.00          | 100   | 2000 | 1,550,000  | 12.00          | 100   |
| 1994 | 805,000   | 11.25          | 100   | 2001 | 1,740,000  | 12.00          | 100   |
| 1995 | 895,000   | 11.50          | 100   |      |            |                |       |

\$12,495,000 12 $\frac{1}{8}$ % Term Bonds due July 1, 2006—Price 99 $\frac{1}{2}$ %

\$74,765,000 12 $\frac{1}{4}$ % Term Bonds due July 1, 2017—Price 100%

(Accrued interest to be added)

*The 1981 A Bonds are offered when, as and if issued and received by us, subject to the approval of legality by Wood & Dawson, New York, New York, Bond Counsel. Certain legal matters in connection with the 1981 A Bonds are subject to the approval of Palmer & Dodge, Boston, Massachusetts, Counsel to the Underwriters, and Maurice J. Ferriter, Esquire, General Counsel to MMWEC, of Begley & Ferriter, P.C., Holyoke, Massachusetts. It is expected that the 1981 A Bonds in definitive form will be ready for delivery on or about June 18, 1981.*

**Salomon Brothers**

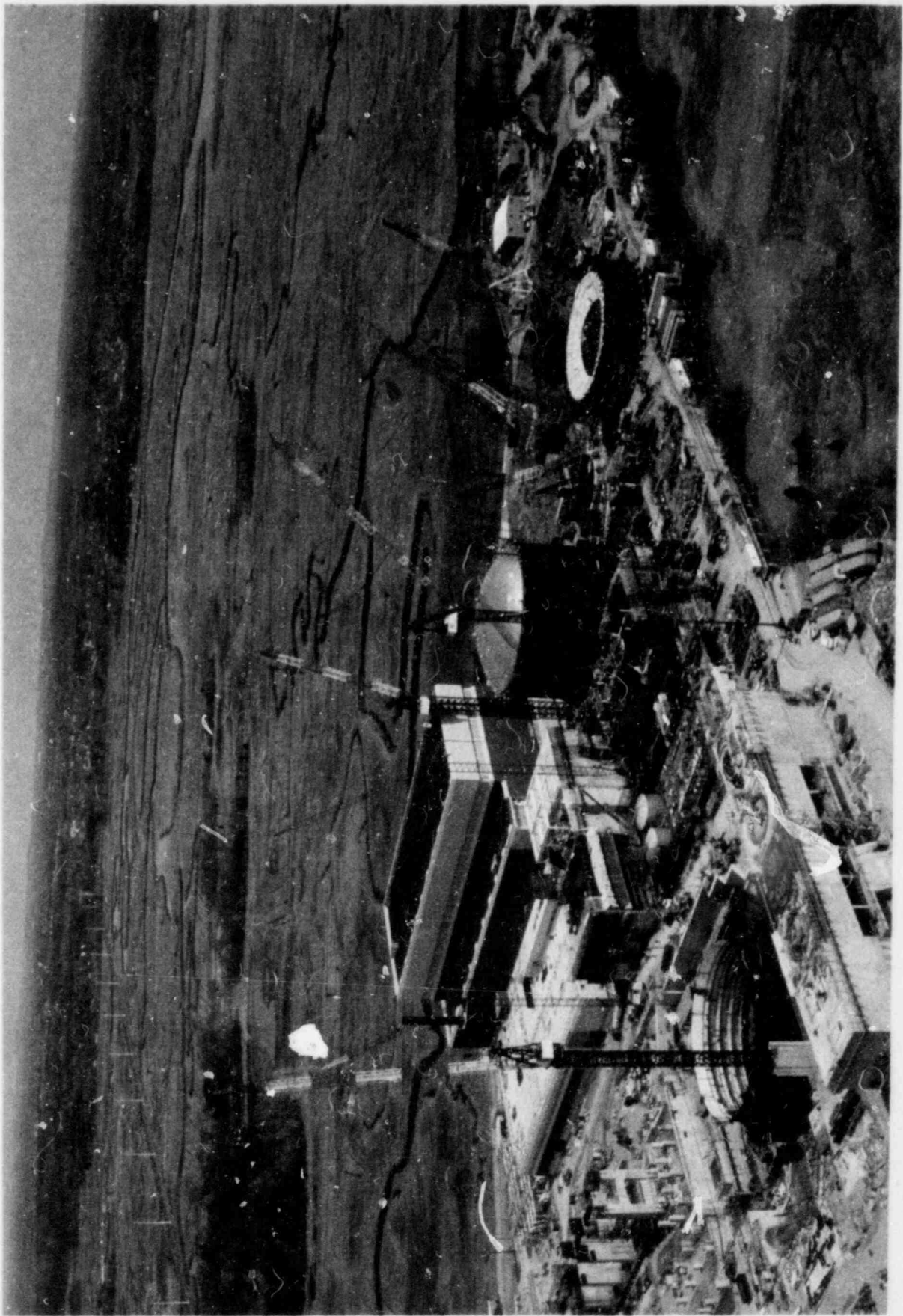
**Smith Barney, Harris Upham & Co.**  
Incorporated

**Lehman Brothers Kuhn Loeb**  
Incorporated

**Merrill Lynch White Weld Capital Markets Group**  
Merrill Lynch, Pierce, Fenner & Smith Incorporated

**Adams, Harkness & Hill, Inc.**

May 28, 1981



SEABROOK NUCLEAR UNITS NOS. 1 AND 2 UNDER CONSTRUCTION, APRIL 1981.

No dealer, salesman or any other person has been authorized to give any information or to make any representations, other than the information and representations contained herein, in connection with the offering of the 1981 A Bonds, and if given or made, such information or representations must not be relied upon. This Official Statement does not constitute an offer to sell or solicitation of an offer to buy any of the 1981 A Bonds in any jurisdiction to any person to whom it is unlawful to make such offer or solicitation in such jurisdiction.

IN CONNECTION WITH THE OFFERING OF THE 1981 A BONDS, THE UNDERWRITERS MAY OVERALLOT OR EFFECT TRANSACTIONS THAT STABILIZE OR MAINTAIN THE MARKET PRICE OF SUCH BONDS AT A LEVEL ABOVE THAT WHICH MIGHT OTHERWISE PREVAIL IN THE OPEN MARKET. SUCH STABILIZING, IF COMMENCED, MAY BE DISCONTINUED AT ANY TIME.

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## OFFICIAL STATEMENT

of

# Massachusetts Municipal Wholesale Electric Company

*Relating to*

## \$100,000,000 Power Supply System Revenue Bonds 1981 Series A

May 28, 1981

### INTRODUCTORY STATEMENT

This Official Statement, which includes the cover page and exhibits and appendices hereto, is furnished in connection with the issue by Massachusetts Municipal Wholesale Electric Company ("MMWEC") of its \$100,000,000 Power Supply System Revenue Bonds, 1981 Series A (the "1981 A Bonds"). The 1981 A Bonds are on a parity with \$672,870,000 principal amount of Bonds presently outstanding (the "Outstanding Bonds"). The 1981 A Bonds, the Outstanding Bonds and additional parity Bonds which will be issued in the future are referred to herein as "Bonds". The following is a general description of MMWEC and its power supply program. Reference is made to other sections of this Official Statement for additional information.

### Description of MMWEC

MMWEC is a public corporation of the Commonwealth of Massachusetts (the "Commonwealth") formed under Chapter 775 of the Massachusetts Acts of 1975 (the "Act") to develop a bulk power supply program for Massachusetts municipal electric systems. It was originally established as a coordinating and planning agency in 1969 and became a public corporation in 1976 with power to acquire, construct and finance ownership interests in electric generating units to meet the power requirements of its members. MMWEC's objectives are to develop an economic power supply mix for each individual member system through joint action and cooperation by all systems.

There are presently 32 Massachusetts municipal electric systems, each established between 1889 and 1914, which are members of MMWEC. Of these, 28 members (the "Member Participants") have entered into Power Sales Agreements for Projects included in MMWEC's Power Supply System and financed with Bonds. The Member Participants are located throughout Massachusetts and served a population of approximately 526,000 in 1980. They had a noncoincident combined system peak demand of approximately 652 MW in 1980, with sales of about 3.0 billion kWh to about 200,000 customers, representing approximately 10% of all electric energy sold at retail in Massachusetts.

*Current Operations:* MMWEC's level of operations in providing utility services to municipal electric systems in Massachusetts has been increasing since its formation. Such operations currently include the delivery of power from its share of W. F. Wyman Unit No. 4, the construction of its Stony Brook Units with 504 MW of intermediate and peaking capacity and the acquisition and financing of future electric generating capacity for the Member Participants. MMWEC is also providing power supply planning and load forecasting for its members and negotiating short term and interim power supply arrangements to meet their power needs. As of December 31, 1980, such negotiations by MMWEC have resulted in a cumulative savings of approximately \$21 million since 1975 including approximately \$9 million in 1980. MMWEC's Financial Statements and the Report of the Independent Public Accountant are shown in Exhibit I herein.

## **MMWEC's Power Supply Program**

*Goal of the Program:* MMWEC's goal is to minimize the power costs of its members by shifting their source of power purchased principally from investor-owned utilities in the region to an economic mix of resources provided primarily by MMWEC.

MMWEC determined at the outset of its power supply program that it could provide more economical sources of power by matching appropriate power supply resources with the load characteristics of the individual systems, by establishing power costs based upon the fixed costs of specific generating units and, in the case of MMWEC's projects and member joint ownership interests, by obtaining the lower fixed costs associated with tax-exempt financing. This is being accomplished by developing a system that derives its baseload capacity primarily from nuclear-fueled generating facilities, with its intermediate and peaking capacity coming from coal, oil, gas and renewable resources.

*Components of the Program:* Following the expansion of its powers in 1976, MMWEC commenced development of a Power Supply System, consisting of joint ownership interests in generating units being constructed by MMWEC and other utilities in New England, to supply the substantial portion of its Member Participants' energy requirements. Those Member Participants obtained 64% of their requirements from wholesale purchases in 1980. MMWEC's Power Supply System now consists of ten projects (the "Projects") for which Power Sales Agreements have been executed and Bonds, including the 1981 A Bonds, issued. Nine of the Projects are active and involve ownership interests in eight generating units located throughout New England. Upon completion of these nine Projects, the Power Supply System will have 1,048 MW of generating capacity. The remaining Project, Nuclear Mix No. 2, has been terminated because the nuclear units included therein have been cancelled by the sponsoring utilities. MMWEC issued \$10.1 million of Bonds for Nuclear Mix No. 2, \$3.6 million proceeds of which have been expended as of March 31, 1981. Remaining costs are not expected to be material and excess proceeds will be used to retire Bonds issued for such Project.

MMWEC's Power Supply System includes ownership interests in all of the major generating stations under construction in New England (Seabrook Nuclear Units Nos. 1 & 2 and Millstone Nuclear Unit No. 3) or being planned (Pilgrim Nuclear Unit No. 2 and the Sears Island Coal Unit No. 1), and an operating conventional oil unit (W. F. Wyman Unit No. 4). All of these units are being developed by investor-owned utilities in the region. MMWEC's Power Supply System also includes a 90.8% share of the oil-fired Stony Brook Intermediate Unit and 100% of the oil-fired Stony Brook Peaking Unit. These units are being constructed by MMWEC at its Stony Brook Energy Center, and are scheduled for commercial operation in November, 1981 and November, 1982, respectively. The Stony Brook Intermediate Unit will have the capability of burning natural gas as well as oil. For a more detailed description of the Power Supply System, see "Massachusetts Municipal Wholesale Electric Company—Power Supply System Projects".

Several of the baseload units being developed by other New England utilities have experienced delays in their projected commercial operation dates. MMWEC has responded to the effect these circumstances will have on its power supply plans for the 1980's by negotiating short-term and interim power purchase contracts for its members.

One such contract with New Brunswick Electric Power Commission permits MMWEC to purchase 100 MW of output from the Point Lepreau, New Brunswick, Canada, 630 MW nuclear unit of which 99 MW are being supplied to MMWEC's Member Participants. The contract will commence with commercial operation of the unit, scheduled for early 1982, and continue until November 1987, and may be extended by MMWEC for up to three additional years.

MMWEC projects that power received from its share of Wyman Unit No. 4, the Stony Brook Intermediate and Peaking Units, Seabrook Nos. 1 & 2 and Millstone No. 3, as well as power received under short-term and interim power purchase contracts, will meet an increasing proportion of the power supply needs of its members in the 1980's.

Based on the currently estimated dates for the availability of power from Sears Island Coal Unit No. 1 and Pilgrim No. 2, those units are now being incorporated into MMWEC's power supply plans for the 1990's.

*MMWEC's Role as Power Supplier:* The role that MMWEC will play as the power supplier for its members, based on the information and assumptions contained in Appendix A—"Consulting Engineer's Report", is projected in the following table:

**SOURCES OF CAPACITY FOR MMWEC MEMBER PARTICIPANTS  
(MW)**

|   | Power Year Ending October 31, |            |              |              |              |
|---|-------------------------------|------------|--------------|--------------|--------------|
|   | 1980                          | 1982       | 1984         | 1988         | 1992         |
| <b>Sources of Capacity</b>                  |                               |            |              |              |              |
| MMWEC Resources:                            |                               |            |              |              |              |
| Power Purchase Arrangements                 |                               |            |              |              |              |
| Point Lepreau .....                         | 0                             | 99         | 99           | 99           | 0            |
| Other .....                                 | 52(1)                         | 149        | 149          | 0            | 0            |
| Power Supply System                         |                               |            |              |              |              |
| Oil   |                               |            |              |              |              |
| Wyman Unit No. 4 .....                      | 22                            | 22         | 22           | 22           | 22           |
| Stony Brook Intermediate(2) ..              | 0                             | 278        | 278          | 278          | 278          |
| Stony Brook Peaking .....                   | 0                             | 0          | 170          | 170          | 170          |
| Nuclear                                     |                               |            |              |              |              |
| Seabrook Nos. 1 and 2 .....                 | 0                             | 0          | 0            | 239          | 239          |
| Millstone No. 3 .....                       | 0                             | 0          | 0            | 55           | 55           |
| Pilgrim No. 2 .....                         | 0                             | 0          | 0            | 0            | 152          |
| Coal  |                               |            |              |              |              |
| Sears Island Coal Unit No. 1 ..             | 0                             | 0          | 0            | 0            | 79           |
| <b>Total Capacity from MMWEC .....</b>      | <b>74</b>                     | <b>548</b> | <b>718</b>   | <b>863</b>   | <b>995</b>   |
| Other Resources:                            |                               |            |              |              |              |
| Member Participant Resources(3) .....       | 467                           | 335        | 335          | 294          | 296          |
| Wholesale Power(4) .....                    | 282                           | 91         | 60           | 42           | 34           |
| <b>Total Sources .....</b>                  | <b>823</b>                    | <b>974</b> | <b>1,113</b> | <b>1,199</b> | <b>1,325</b> |
| <b>Total Capacity Requirements(5) .....</b> | <b>717</b>                    | <b>848</b> | <b>902</b>   | <b>1,047</b> | <b>1,117</b> |

(1) Includes partial year contracts.

(2) Two of the three combustion turbines will also be capable of burning natural gas.

(3) Wholly-owned generation, joint ownership entitlements, and long and short term unit contracts.

(4) Consists principally of firm power contracts with neighboring utilities.

(5) Includes peak loads (projected to occur in the winter) and required reserves.

Although the table above shows surplus capacity to exist for the periods shown, such surplus consists primarily of generating resources designed to serve intermediate and peak loads at fuel costs which are typically higher than costs attributable to base load resources, and the Member Participants can economically utilize the base load resources shown.

Based on MMWEC's energy planning dates for the units included in the table, MMWEC expects to provide 64% of the energy requirements of its members in 1984, 80% in 1988, and 83% in 1992. The reliance by MMWEC's Member Participants for energy purchased through its wholesale purchase contracts is projected to be correspondingly reduced to 13% in 1984, 8% in 1988, 5% in 1992. See "Massachusetts Municipal Wholesale Electric Company—Power Sources—Mix of Power Sources".

In the opinion of R. W. Beck and Associates (the "Consulting Engineer"), the Power Supply System as presently proposed is being developed in a manner consistent with sound utility power supply planning, and is expected to permit the Member Participants generally to maintain the position of having retail rates that are low by regional standards.

*Fuel Mix of Member Participants:* The following table shows the fuel sources from which the Member Participants are projected to derive their energy requirements. These figures are based on projected output from units in the preceding table and reflect MMWEC's objective to supply substantial

portions of the energy requirements of its members with nuclear power, which is projected to be of lower cost than other available alternatives.

| Fuel              | Power Years Ending October 31, |             |             |             |
|-------------------|--------------------------------|-------------|-------------|-------------|
|                   | 1982                           | 1984        | 1988        | 1992        |
| Nuclear .....     | 25%                            | 34%         | 67%         | 70%         |
| Oil .....         | 69                             | 59          | 33          | 22          |
| Coal .....        | 2                              | 1           | 0           | 8           |
| Natural gas ..... | 3                              | 5           | 0(1)        | 0(1)        |
| Other .....       | 1                              | 1           | 0           | 0           |
|                   | <u>100%</u>                    | <u>100%</u> | <u>100%</u> | <u>100%</u> |

(1) The ability to burn natural gas beyond 1985 requires federal legislation.

Certain hydro and other renewable resource power supply projects currently being investigated by MMWEC have not been included in the above table. Inclusion of such projects would increase the contribution from the "other" category to as much as 12% in 1992 and correspondingly reduce that from oil.

### Regional Power Planning

MMWEC and the Member Participants are members of the New England Power Pool ("NEPOOL"), which is the regional power supply planning, transmission, dispatching and billing agency for utilities serving approximately 98% of the electric load in New England. NEPOOL plans for the bulk power supply of the region. Through NEPOOL, the generating facilities of all participating utilities are operated as a single system, with the output centrally dispatched in accordance with NEPOOL's economic dispatching policies over an integrated transmission system. On a day-to-day basis, utilities in the region derive benefits from membership in NEPOOL through access to a large regional market for the purchase and sale of capacity and energy, the ability to own shares in a large number of generating facilities which are diversified as to fuel and load characteristics (base, intermediate and peak), lowered reserve requirements and shared power cost savings resulting from economic dispatch of generating facilities and bulk purchases of power from outside NEPOOL.

### MMWEC's Financing Program

MMWEC is financing its Power Supply System through the issue of Bonds under its General Bond Resolution adopted August 26, 1976 and Supplemental Resolutions adopted thereunder (collectively, the "Resolution"). MMWEC's financings other than obligations maturing within one year require the approval of the Massachusetts Department of Public Utilities (the "DPU"). Following the issue of the 1981 A Bonds, MMWEC will have outstanding \$772,870,000 of Bonds. MMWEC expects to issue additional parity Bonds under the Resolution to complete Projects presently included in the Power Supply System and to finance other power supply projects that may be developed as part of the Power Supply System. For further information on MMWEC's financing program, see the table under the caption "Massachusetts Municipal Wholesale Electric Company—Financing".

The 1981 A Bonds are being issued to finance a portion of the costs of acquisition and construction of Project No. 6, consisting primarily of MMWEC's acquisition of an additional 138 MW of baseload capacity from the Seabrook nuclear units, representing a 6% ownership interest, from Public Service Company of New Hampshire ("PSNH"), the sponsoring utility. This will bring MMWEC's total ownership interest in the Seabrook units to 11.59%. MMWEC has entered into Power Sales Agreements with 20 Member Participants for 110 MW of the additional capacity and with eight other electric systems for the balance. Project No. 6 also includes the expenditure of up to \$5 million for the study and evaluation of renewable energy resources. The Massachusetts Energy Facilities Siting Council (the "Siting Council") has approved the purchase of this additional interest in the Seabrook units and the DPU has approved the issuance of \$335 million of Bonds to finance Project No. 6. Based on present assumptions, the amount of Bonds estimated to be required to finance Project No. 6 is approximately \$390



million. To the extent that the total amount of required financing exceeds \$335 million, additional DPU authorization will be required. In its approving order, the DPU found that Seabrook Nos. 1 and 2 were financially viable and that MMWEC's share of such units can be expected to provide the most economical source of power available to the Member Participants. The Siting Council, in approving MMWEC's load forecast, approved the inclusion of Project No. 6 in MMWEC's power supply plan on the basis of oil displacement and economic mix.

Construction of the Seabrook units is currently in progress. Unit No. 1 and common facilities were 47% complete and Unit No. 2 was 8% complete as of March 20, 1981. MMWEC is planning on the availability of power by June 1985 and April 1987 from Seabrook Nos. 1 and 2, respectively.

## **THE BONDS**

### **Security for the Bonds**

*Pledge of Revenues.* The principal of, premium, if any, and interest on Bonds issued under the Resolution are payable solely from and secured by a prior lien upon and pledge of the revenues derived by MMWEC from its ownership or operation of the Projects included in its Power Supply System and other available funds pledged under the Resolution, as more fully described under the caption "Summary of Certain Provisions of the General Resolution." All Bonds issued under the Resolution are equally and ratably secured without distinction as to series, time of issue or the purposes or Projects for which they are issued.

The Resolution establishes a Revenue Fund held by MMWEC into which the revenues of all the Projects are to be paid. MMWEC is required to make monthly payments from the Revenue Fund into a Bond Fund held by the Bond Fund Trustee for credit to the Interest Account, Principal Account and Bond Retirement Account in amounts sufficient to pay the interest on and principal of the Bonds as the same become due and payable. After making the payments to the Bond Fund, revenues are to be used to pay the operating expenses of the Projects and then to make required deposits into the Reserve and Contingency Fund described below.

The Bonds are special obligations of MMWEC payable solely from the revenues and other available funds pledged under the Resolution. MMWEC has no taxing power and the Bonds are not debts of the Commonwealth or of any city or town of the Commonwealth and neither the faith and credit nor the taxing power of the Commonwealth nor of any such city or town is pledged to the payment thereof.

*Power Sales Agreements.* MMWEC's revenues consist primarily of payments to be made under Power Sales Agreements for each Project between MMWEC and the Participants in the Project. Under a Power Sales Agreement, MMWEC sells and a Participant purchases its share of a Project's capability. The sum of Participants' shares of capability in each Project must equal 100% of the Project's capability. At least 80% of such shares must be contracted for by Massachusetts municipal electric systems. Each Participant is required to pay monthly its share of MMWEC's costs related to the Project (exclusive of costs payable from Bond proceeds), including debt service and amounts equal to 10% of debt service for deposit to the account for such Project in the Reserve and Contingency Fund. Such Agreements, commonly known as "take or pay" agreements, require payments to be made whether or not the Project is completed or operating and notwithstanding the suspension or interruption of output of the Project. The payments are payable solely from each Participant's electric system revenues as an operating expense.

Upon default of any Participant in a Project, MMWEC is to use its best efforts to sell such Participant's share for all or any portion of the term of the Agreement, but, except to the extent such a sale is made the shares of the non-defaulting Participants in the Project and their obligations under the Agreement may be automatically increased pro rata, up to an accumulated maximum of 25% of each non-defaulting Participant's original share. The defaulting Participant is not relieved of its liability for payments except to the extent of payments received by MMWEC on account of any such sale. The Power Sales Agreements may not be amended in any manner that will materially and adversely affect the rights of the holders of the Bonds. For further information on the Power Sales Agreements, see the caption "Summary of Certain Provisions of the Power Sales Agreements".

*Reserve Account.* The Resolution requires that there shall be deposited into the Reserve Account in the Bond Fund from the proceeds of each series of Bonds an amount equal to the maximum annual interest on such series of Bonds. Amounts in the Reserve Account are to be used solely for the payment of debt service on Bonds issued under the Resolution, without distinction as to series or Project, whenever other amounts in the Bond Fund are insufficient for such purpose. Any deficiency in the Reserve Account is to be made up from amounts in the Reserve and Contingency Fund. After the issuance of the 1981 A Bonds, the amount required to be maintained in the Reserve Account will be approximately \$59,000,000.

*Reserve and Contingency Fund.* The Resolution establishes a Reserve and Contingency Fund to be held by MMWEC. After making the payments into the Bond Fund and paying operating expenses of the Projects, MMWEC is to pay monthly into the Reserve and Contingency Fund for credit to the account of each Project an amount equal to 10% of the amount required to be paid in such month into the Bond Fund for debt service on Bonds issued for such Project. Amounts in the Reserve and Contingency Fund are to be used to make up any deficiency in the Reserve Account and, to the extent not required for such purpose, may be used for renewals, replacements, extraordinary costs and certain other purposes relating to any of the Projects. To the extent that amounts in the Reserve and Contingency Fund to the credit of any Project are used for another Project, the other Project is required to restore such amounts. If, as of June 30 in any year, the amounts in the Reserve and Contingency Fund to the credit of a particular Project exceed the amount established by MMWEC as the requirement for such Project, such excess amounts, after making up any deficiencies in the Reserve Account, are to be paid into the Revenue Fund. Such excess amounts, together with other surplus funds in the Revenue Fund allocated to such Project, may be used, among other purposes, to reduce annual power costs of the Participants in the Project. For further information on the Reserve and Contingency Fund requirements that have been established for the Projects see the caption "Summary of Certain Provisions of the General Resolution—Funds and Accounts".

*MMWEC Revenues.* MMWEC is authorized under the Act to fix and collect charges for electric power and energy and other services furnished and supplied by it and is required by the Act, so long as any of its indebtedness is outstanding, to fix such charges so as to provide revenues at least sufficient to meet its obligations, including operating expenses of the Projects and debt service on the Bonds. MMWEC has covenanted in the Resolution to maintain and collect charges with respect to the Projects which will be sufficient, whether or not the generation or transmission of power from the Projects is suspended, interrupted or reduced, to provide revenues sufficient to make the required payments into the Bond Fund, to pay the operating expenses of the Projects and to make the required payments into the Reserve and Contingency Fund and all other payments required of MMWEC under the Resolution. MMWEC has also covenanted not to furnish electric power or other services in connection with the Projects free of charge. MMWEC's charges are not subject to supervision or regulation by any agency of the Commonwealth or any municipality or other political subdivision of the Commonwealth.

*Participants' Electric Rates and Financing.* The obligations of the Participants under the Power Sales Agreements are payable solely from the revenues of their electric systems as operating expenses. Each Participant is required by the terms of the Power Sales Agreements, and each Member Participant is required by the Act, to fix electric rates sufficient to provide revenues adequate to meet its obligations under the Power Sales Agreement and to pay any and all other amounts payable from or constituting a charge and lien upon revenues, including amounts sufficient to pay the principal and interest on all bonds issued by the Participant for electric purposes.

Under Massachusetts law, electric rates of the Member Participants are fixed by the individual municipal light boards and may be changed as often as once every three months. Massachusetts municipal electric systems are permitted to earn up to 8% per annum of the cost of plant after payment of all operating expenses, debt service and an allowance for depreciation equal to approximately 3% of the original cost of electric plant in service or a smaller amount as the DPU may approve, but rates may not be fixed to yield less than production cost unless approved by the DPU. Rates are filed with the DPU but, while the DPU exercises general supervisory authority over Massachusetts municipal electric systems, their rates are not subject to DPU approval.

Legislation known as Proposition 2½, which was enacted by initiative petition in Massachusetts in 1980, in general limits the ability of Massachusetts cities and towns to raise revenues by local property taxes. Proposition 2½ does not affect the ability of the Member Participants to charge rates sufficient to meet their obligations, including payments under the Power Sales Agreements.

Massachusetts law permits municipalities to issue general obligation bonds or revenue bonds for certain electric system purposes. Three of the Member Participants have issued revenue bonds ("164A Bonds") under Chapter 164A of the Massachusetts General Laws ("Chapter 164A"), of which \$3,245,000 were outstanding as of December 31, 1980. Such 164A Bonds are secured by a pledge of revenues prior to their obligation to make payments under the Power Sales Agreements. The Member Participants may issue Chapter 164A Bonds in the future upon compliance with certain tests prescribed by the Power Sales Agreements and Chapter 164A. Certain of the Member Participants have also issued general obligation bonds for electric purposes and the Member Participants may issue such bonds in the future. Although debt service on such general obligation bonds is payable from electric system revenues, it is not secured by a pledge of such revenues. For additional information on such financings, see "The Member Participants—Financing Capital Additions".

Project No. 6 and the Stony Brook Intermediate Project include Participants which are not members of MMWEC and are not located in Massachusetts (the "Non-member Participants"), with aggregate 20% and 8.2% shares of the Projects, respectively. For information on these Participants, see "The Non-member Participants".

*Additional Bonds.* The Resolution permits additional Bonds to be issued by MMWEC for a Project on a parity basis upon satisfaction of certain requirements described more fully under the caption "Summary of Certain Provisions of the General Resolution—Issuance of Bonds." These include, in general terms, that prior to the issue of the initial series of Bonds for a Project (other than Bonds in a limited amount for development work), the Consulting Engineer shall certify as to the adequacy of the estimated net revenues of each Participant in the Project to meet its obligations under Power Sales Agreements in certain subsequent years and to cover the debt service portion of such obligations by 110% and the manager of each such Participant shall certify as to the adequacy of net revenues to meet its obligations during any consecutive 24 month period out of the preceding 36 months. Once such certificates have been received with respect to a Project, they are not required for the issue of any additional Bonds for that Project. Such certificates also are not required for the issuance of refunding Bonds; Bonds to pay certain Project costs necessary to improve the Project, required by governmental authorities or for which MMWEC is responsible under a Sharing Agreement; and Bonds to pay costs of preventing or correcting unusual damage and extraordinary costs of fuel for the Project for which certain other monies are not available.

MMWEC may issue other obligations subordinate to the Bonds. MMWEC may also issue obligations to finance electric power facilities to be acquired as separate utility systems, provided that the Consulting Engineer certifies that the acquisition or operation of such system will not result in a reduction of revenues below the amounts required by the Resolution.

*Trustees.* Continental Illinois National Bank and Trust Company of Chicago, Chicago, Illinois, is Bond Fund Trustee and Construction Fund Trustee for Nuclear Mixes Nos. 1 and 2 and Nuclear Project No. 4. Shawmut Bank of Boston, N.A., Boston, Massachusetts, is Construction Fund Trustee for Nuclear Project No. 3. The Third National Bank of Hampden County, Springfield, Massachusetts, is Construction Fund Trustee for the Wyman Project, Nuclear Project No. 5, Project No. 6, the Sears Island Project and the Stony Brook Intermediate and Peaking Projects.

#### **Description of the 1981 A Bonds**

The 1981 A Bonds will be dated June 1, 1981, will be in the amount of \$100,000,000 and will be payable at the principal office of the Bond Fund Trustee; interest will be payable on January 1, 1982 and semi-annually thereafter on July 1 and January 1; interest on the 1981 A Bonds and principal thereof (if not registered) will also be payable at the option of the holder at the places named on the cover page

hereof. Payment of interest on fully registered bonds will be made by the Bond Fund Trustee. The 1981 A Bonds will be issued in coupon form in the denomination of \$5,000, registrable as to principal only, and in fully registered form in the denomination of \$5,000 or any multiple thereof. Coupon 1981 A Bonds and fully registered 1981 A Bonds will be interchangeable.

The 1981 A Bonds will mature on July 1 in the years and amounts and bear interest at the rates per annum as shown on the cover page hereof.

Estimated debt service on the 1981 A Bonds and MMWEC's total estimated debt service requirements on all Bonds are shown in Exhibit II—"Estimated Debt Service Requirements".

*Redemption.* The 1981 A Bonds are subject to redemption prior to maturity at the option of MMWEC on and after July 1, 1991, in whole at any time, or in part on any interest payment date in any order of maturity determined by MMWEC and by lot within a maturity, at the respective redemption prices (expressed as percentages of the principal amount) set forth below, together with accrued interest to the date fixed for redemption:

| <u>Period During Which Redeemed</u><br><u>(Both Dates Inclusive)</u> | <u>Redemption</u><br><u>Prices</u> |
|--|------------------------------------|
| July 1, 1991 to June 30, 1992 .....                                  | 103%                               |
| July 1, 1992 to June 30, 1993 .....                                  | 102½                               |
| July 1, 1993 to June 30, 1994 .....                                  | 102                                |
| July 1, 1994 to June 30, 1995 .....                                  | 101½                               |
| July 1, 1995 to June 30, 1996 .....                                  | 101                                |
| July 1, 1996 to June 30, 1997 .....                                  | 100½                               |
| July 1, 1997 and thereafter .....                                    | 100                                |

The 1981 A Bonds maturing on July 1, 2006, and July 1, 2017, are redeemable prior to maturity in part by lot on any interest payment date on and after January 1, 2002, and on and after January 1, 2007, respectively, upon payment of the principal amount thereof, from sinking fund installments as described below under the caption "Sinking Fund Installments".

There is further reserved the right to redeem the 1981 A Bonds at any time prior to maturity from monies available for such purpose in the Bond Retirement Account in the Bond Fund resulting from payments therein of excess amounts in the Construction Fund for Project No. 6, proceeds of sale or disposition of such Project, insurance proceeds attributable to such Project, or in the event such Project is terminated, as a whole at any time, or in part on any interest payment date in inverse order of maturities and by lot within a maturity, upon payment of the principal amount thereof and accrued interest to the date fixed for redemption. Such available monies shall be applied to the redemption of Bonds issued for Project No. 6 or to the purchase of such Bonds in lieu of redemption.

Notice of redemption is to be given by publication at least 30 days prior to the date fixed for redemption in one issue of a daily newspaper of general circulation in Boston, Massachusetts, and in one issue of The Daily Bond Buyer, in New York, New York, or in some other financial newspaper of general circulation in New York, New York, or Chicago, Illinois. Notice of redemption is to be mailed, not less than 30 days prior to the redemption date, to the registered holders of 1981 A Bonds, but any deficiency with respect to such mailing will not affect the redemption proceedings if notice of redemption is published. Notice of redemption is also to be mailed to any holder who has placed his name and address and a statement of the principal amount and numbers of 1981 A Bonds held by him on file with the Bond Fund Trustee, but any deficiency with respect to such mailing will not affect the redemption proceedings. In the event any required publication cannot be accomplished by reason of suspension of publication or otherwise, provision is made in the Resolution for substitute notice.

*Sinking Fund Installments.* The 1981 A Bonds due July 1, 2006, and July 1, 2017, are to be retired by mandatory sinking fund installments paid into the Bond Retirement Account in the Bond Fund in amounts sufficient to redeem on July 1 of each year shown below the principal amount set forth opposite such year.



| 2006 Maturity   |             | 2017 Maturity   |              |
|-----------------|-------------|-----------------|--------------|
| Year            | Amount      | Year            | Amount       |
| 2002            | \$1,955,000 | 2007            | \$ 3,500,000 |
| 2003            | 2,190,000   | 2008            | 3,940,000    |
| 2004            | 2,465,000   | 2009            | 4,435,000    |
| 2005            | 2,770,000   | 2010            | 5,000,000    |
| 2006 (Maturity) | 3,115,000   | 2011            | 5,625,000    |
|                 |             | 2012            | 6,340,000    |
|                 |             | 2013            | 7,140,000    |
|                 |             | 2014            | 8,040,000    |
|                 |             | 2015            | 9,060,000    |
|                 |             | 2016            | 10,200,000   |
|                 |             | 2017 (Maturity) | 11,485,000   |

Such sinking fund installments shall be applied to the redemption of such 1981 A Bonds on July 1 of each of the applicable years set forth above or on the immediately preceding January 1 or to the purchase of such Bonds in lieu of redemption.

#### **Estimated Disposition of Bond Proceeds**

The 1981 A Bonds are being issued to pay a portion of the estimated costs of acquisition and construction of Project No. 6, related deposits under the Resolution and financing expenses.

The estimated disposition of the proceeds of the 1981 A Bonds is shown below:

|   |                      |
|---|----------------------|
| Deposit to Construction Fund for Project No. 6                  | \$ 77,856,000        |
| Deposit to Construction Interest Account(1)                     | 6,507,000            |
| Deposit to Reserve Account(2)                                   | 12,137,000           |
| Engineering, Legal and Financing Costs, including Bond Discount | 3,500,000            |
| Principal Amount of the 1981 A Bonds                            | <u>\$100,000,000</u> |

(1) Equal to interest, net of accrued interest, on the 1981 A Bonds to January 1, 1982. MMWEC intends to fund additional interest from the proceeds of future Bonds.

(2) Equal to maximum annual interest on the 1981 A Bonds.

### **MASSACHUSETTS MUNICIPAL WHOLESALE ELECTRIC COMPANY**

#### **Historical Background**

MMWEC was originally established in 1969 to be the coordinating and planning agency for the development of the bulk power supply requirements for certain Massachusetts municipal electric systems. In 1973, MMWEC's role was expanded as a result of the enactment of Chapter 164A which enabled Massachusetts municipal electric systems to purchase ownership shares in NEPOOL planned generating units and to issue revenue bonds to finance such interests. Following the passage of the Act in 1975, MMWEC became a public corporation and a political subdivision of the Commonwealth.

#### **Purposes of MMWEC**

MMWEC has been organized to undertake the development, financing, acquisition, construction, and operation and maintenance of facilities for the supply of electric capacity and energy for the present and future needs of its members and others. MMWEC is authorized to acquire such electric capacity and energy as its members request and may sell surplus electric capacity and energy to fit the needs of its members. MMWEC is authorized under the Act to acquire real property by eminent domain in accordance with applicable statutory provisions and subject to certain limitations. MMWEC is required by the Act to make payments in lieu of taxes on its real and personal property in the Commonwealth.

The objective of MMWEC's power supply program is to minimize the power costs of members by supplying their power requirements through the development of MMWEC owned and financed interests in electric generating facilities, and through the arrangement of contractual power entitlements, so as to provide for the orderly replacement of wholesale power purchases with power supply resources

developed through the MMWEC program. The program has resulted in power cost savings for the members and additional savings to members are anticipated as power supply resources arranged by MMWEC become available.

### Membership

Any Massachusetts city or town which has a municipal electric department is authorized to become a member by majority vote of such city or town and may become a member of MMWEC by applying for admission and agreeing to comply with such reasonable terms and conditions of membership as the by-laws of MMWEC may fix from time to time.

The following is a list of MMWEC's 32 members, all of which, other than the City of Chicopee and the Towns of Belmont, Merrimac and Princeton, are Member Participants under Power Sales Agreements.

|            |           |                    |               |
|------------|-----------|--------------------|---------------|
| Ashburnham | Hingham   | Marblehead         | Reading       |
| Belmont    | Holden    | Merrimac           | Shrewsbury    |
| Boylston   | Holyoke   | Middleborough      | South Hadley  |
| Braintree  | Hudson    | Middleton          | Sterling      |
| Chicopee   | Hull      | North Attleborough | Templeton     |
| Danvers    | Ipswich   | Paxton             | Wakefield     |
| Georgetown | Littleton | Peabody            | West Boylston |
| Groton     | Mansfield | Princeton          | Westfield     |

### Historical Operating Data

The following table summarizes the number of customers, energy sales, revenues and expenses during the years 1977 through 1980 for the 28 Member Participants. The combined population of these Member Participants' service areas was 526,463 based upon the 1980 census.

|   | 1977      | 1978      | 1979      | 1980*     |
|---|-----------|-----------|-----------|-----------|
| Customers   |           |           |           |           |
| Residential                                       | 169,463   | 170,922   | 172,837   | 176,973   |
| Commercial and Industrial                         | 17,935    | 18,293    | 18,997    | 18,918    |
| Other   | 4,039     | 4,591     | 4,089     | 4,163     |
| Total Customers                                   | 191,437   | 193,806   | 195,923   | 200,054   |
| Energy Sales (kWh) (000)                          |           |           |           |           |
| Residential                                       | 1,111,299 | 1,121,795 | 1,147,020 | 1,156,958 |
| Commercial and Industrial                         | 1,421,471 | 1,485,417 | 1,589,156 | 1,623,447 |
| Municipal and Other                               | 220,371   | 230,378   | 209,768   | 209,044   |
| Sales for Resale                                  | 39,280    | 32,729    | 41,263    | 65,744    |
| Total Energy Sales                                | 2,792,421 | 2,870,319 | 2,987,207 | 3,055,193 |
| Energy Sales Revenues (000)                       |           |           |           |           |
| Residential                                       | \$ 50,812 | \$ 51,770 | \$ 57,972 | \$ 72,522 |
| Commercial and Industrial                         | 60,220    | 63,767    | 74,399    | 94,269    |
| Municipal and Other                               | 9,218     | 9,774     | 9,783     | 12,680    |
| Sales for Resale                                  | 2,430     | 3,076     | 3,078     | 5,449     |
| Total Revenues from Energy Sales                  | \$122,680 | \$128,387 | \$145,232 | \$184,920 |
| Other Revenues                                    | 1,826     | 1,941     | 1,539     | 2,199     |
| Total Revenues                                    | \$124,506 | \$130,328 | \$146,771 | \$187,119 |
| Electric Operation and Maintenance Expenses (000) | \$110,263 | \$110,761 | \$130,871 | \$171,740 |

\* Information included for the town of Danvers is for the year 1979.

### Organization and Management

MMWEC is governed by a nine member Board of Directors, seven of whom are elected by MMWEC's members from among their respective managers and light board commissioners and two of whom are appointed by the Governor of the Commonwealth.

The present Board of Directors of MMWEC is shown below:

| <u>Name</u>                    | <u>Occupation</u>                                      |
|--------------------------------|--|
| James E. Baker, Chairman ..... | Manager, Shrewsbury Electric Light Plant               |
| Richard L. Bailey .....        | Manager, Marblehead Municipal Light Department         |
| Horst Huehmer .....            | Manager, Hudson Light and Power Department             |
| *Francis H. King .....         | Registered Professional Engineer                       |
| Curtis J. Lanciani .....       | Manager, Littleton Electric Light and Water Department |
| Neil E. Murray .....           | Manager, Holden Municipal Light Department             |
| Bruce Patten .....             | Manager, Peabody Municipal Light Plant                 |
| *Nathan S. Paven .....         | Attorney   |
| Norbert D. Rhinerson .....     | Manager, Reading Municipal Light Department            |

\* Appointed by the Governor of the Commonwealth.

The present officers of MMWEC are shown below:

|                           |   |
|---------------------------|---|
| James E. Baker .....      | Chairman of the Board                   |
| Francis H. King .....     | President                               |
| George E. Leary .....     | Treasurer                               |
| Phillip C. Otness .....   | General Manager and Secretary           |
| Walter Gaebler II .....   | Assistant Treasurer                     |
| Maurice J. Ferriter ..... | General Counsel and Assistant Secretary |

The management of MMWEC is under the direction of its General Manager, who serves at the discretion of the Board. The MMWEC corporate staff presently numbers 112 with an additional complement of 41 assigned to plant operations for the Stony Brook Units.

#### **Resumes of Key Personnel**

The following is a synopsis of the MMWEC management organization including a discussion of the background of key personnel:

##### *General Manager*

As chief executive and administrative officer of MMWEC, the General Manager, Phillip C. Otness, is responsible for administration of MMWEC and its programs. He also represents MMWEC as a member of the NEPOOL Management and Executive Committees. He assumed his duties in August 1978. Mr. Otness served twelve years with the Bonneville Power Administration in power management and supervisory engineering positions before joining the Washington Public Power Supply System in 1974 where he held the positions of Assistant Director of Finance and Administration, Executive Assistant to the Managing Director and Manager of Public Affairs. Mr. Otness holds a Bachelor of Science in Physics from Oregon State University.

##### *Division of Finance and Treasury*

Responsibilities of this division include all financing, accounting, auditing, treasury, budgetary and electronic data processing activities. This division coordinates its activity with the Board Finance and Business Administration Committee. Division Manager Walter Gaebler II has twenty-five years of experience in electric utility accounting and finance. Prior to joining MMWEC in February 1977, he was associated with the Omaha Public Power District, Omaha, Nebraska, where he served twelve years as the chief financial officer. Mr. Gaebler holds a Bachelor of Science in Business Administration from the University of Nebraska.

##### *Division of Power Management*

Responsibilities of this division include power supply planning for both generation and transmission, load management, forecasting, power contracting, and alternative energy development. The position of Division Manager is presently vacant and is being staffed on an interim basis by department heads coordinated by the General Manager.

### *Division of Support Services*

Responsibilities of this division include personnel matters, administrative facilities, and general procurement (including fuel procurement activities for the Stony Brook Units). Division Manager Thomas McHugh joined MMWEC in June 1979. Immediately prior to that he worked for Bell Helicopter International as the company director for plans and programs. In his previous work assignments, he has amassed over twenty years management experience including extensive time in the area of energy management. He holds an industrial management degree from the University of Rhode Island and a Master of Arts in International Relations from the University of Kansas.

### *Division of Construction, Engineering and Operations*

Responsibilities of this division include coordination of all construction activity, environmental and regulatory coordination and operation of electric power facilities. Richard K. Byrne joined MMWEC in April 1979 as forecast engineer and became Division Manager in November, 1980. Mr. Byrne has been involved with design, engineering, construction, operations, forecasting and planning in the power industry for over twenty years. Most recently, Mr. Byrne was associated with the Commonwealth Energy System where he held senior engineering positions in planning, engineering and construction. He holds a Bachelor of Science degree in electrical engineering from Northeastern University and is a Registered Professional Engineer in the Commonwealth of Massachusetts.

The following firms serve as consultants to MMWEC:

|                           |                         |
|---------------------------|-------------------------|
| Counsel .....             | Begley & Ferriter, P.C. |
| Bond Counsel .....        | Wood & Dawson           |
| Consulting Engineer ..... | R. W. Beck & Associates |
| Financial Advisor .....   | Lazard Frères & Co.     |

### **Power Requirements**

For a number of years prior to 1974, the average load growth of the Member Participants exceeded 8% per year. Like most utilities in the United States, the Member Participants experienced a reduction of load growth following the international oil crisis in 1974. The compound rate of growth in non-coincident peak demand in the years from 1974 through 1980 has averaged 3.5%. Energy growth averaged 4.0% over the same period.

MMWEC has forecast the future power supply requirements for each of the Member Participants for the years through 1988. Such forecasts are required by law to be filed annually with the Siting Council. The forecasts are based upon a data gathering system and methodology, which includes detailed interviews with existing and prospective commercial and industrial customers in the service area of each Member Participant and upon the experience of and consultation with the manager of each member electric system. The most recently filed forecast, which was filed on July 2, 1979 and approved on January 20, 1981 by the Siting Council, has been extended through 1992 by the Consulting Engineer and indicates a 3.3% average annual compounded growth rate in non-coincident peak demand (4.3% through 1985 and 2.2% between 1985 and 1992) and a 2.8% compounded rate of growth in energy over the same period. Such forecast represents a significant reduction from prior forecasts and reflects continued emphasis upon energy conservation measures and long-term customer reactions to energy shortages, increased fuel costs and alternate energy sources. MMWEC's reduced forecast also anticipates the implementation of new load management and conservation technology over the forecast period. The foregoing forecasts are under continual review and MMWEC's current estimates indicate lower growth in both aggregate energy and peak demand, primarily during the period through 1985.

The economic benefits of the base load nuclear capacity included in MMWEC's Power Supply System, including Project No. 6, are not dependent on load growth but on savings derived from the displacement of generation from higher-cost oil.



## Power Sources

Historically, the Member Participants, with the exception of seven which own and operate generating facilities, have obtained substantially all of their capacity and energy requirements from neighboring investor-owned utilities under wholesale power purchase and other short-term arrangements. In 1980, the Member Participants purchased more than 84% of their total energy under these arrangements, of which 64% was from wholesale power purchases.

MMWEC's goal since its inception has been to provide its membership with lower cost power and energy than otherwise would be obtainable, either through direct ownership interests in generating units being constructed by MMWEC and other utilities in New England (the "Power Supply System") or by arranging power supply entitlements for its membership (the "Power Purchase Arrangements").

*Power Supply System.* MMWEC's Power Supply System consists of interests in the following New England generating units listed in order of their planned availability:

|                                |                  | MMWEC<br>Ownership Share |           |
|--------------------------------|------------------|--------------------------|-----------|
| <u>Generating Units</u>        | <u>Fuel Type</u> | <u>%</u>                 | <u>MW</u> |
| <i>In Operation:</i>           |                  |                          |           |
| W. F. Wyman Unit No. 4         | Oil              | 3.669                    | 22.0      |
| <i>Planned for the 1980's:</i> |                  |                          |           |
| Stony Brook Intermediate Unit  | Oil/Gas          | 90.757                   | 303.1     |
| Stony Brook Peaking Unit       | Oil              | 100.000                  | 170.0     |
| Seabrook Nos. 1 & 2            | Nuclear          | 11.594                   | 266.6     |
| Millstone No. 3                | Nuclear          | 4.799                    | 55.2      |
| <i>Planned for the 1990's:</i> |                  |                          |           |
| Sears Island Coal Unit No. 1   | Coal             | 13.896                   | 78.9      |
| Pilgrim No. 2                  | Nuclear          | 13.240                   | 152.3     |
| Total                          |                  |                          | 1048.1    |

*Power Purchase Arrangements.* Since its inception, MMWEC, as part of its overall program, has assisted its members in obtaining short and long term supplies of capacity and energy under direct contractual arrangements which have contributed to the reduction of power costs, to increased reliability and to improvements in the mix of power supply resources for its members. During the 1980's, MMWEC will assist the Member Participants in obtaining most of the capacity and energy requirements beyond that provided by the Power Supply System through short or long-term contracts or the purchase of fixed amounts of capacity under contract demand wholesale arrangements. Short term supplies of capacity have been available due to the existence of substantial amounts of excess generating capability in New England which became available as a result of energy conservation efforts which began in 1974. MMWEC expects such regional excesses of principally oil-fired generating capability to exist throughout the 1980's and to be able to acquire adequate amounts of power at market prices for its members' needs.

In order to partially offset the effects of delays in the planned commercial operation dates of units in MMWEC's Power Supply System, MMWEC has negotiated interim arrangements for the supply of energy from sources within NEPOOL and from outside the New England region. Such arrangements and the Power Supply System are expected to fulfill MMWEC's original program goal of achieving power cost savings for its membership through the orderly replacement of wholesale power purchases.

MMWEC has entered into a contract with the New Brunswick Electric Power Commission ("NBEP") for 100 MW of output from a 630 MW heavy water (CANDU) reactor presently under construction at Point Lepreau, New Brunswick, Canada. The Point Lepreau unit is a deuterium uranium reactor which will be similar to eight other units currently operating in Canada. Under the contract, MMWEC will be required to pay its share of NBEP's cost of service following commencement of commercial operation of the unit whether or not the unit subsequently operates. The contract will commence with commercial operation, scheduled for early 1982, and will continue until November 1987. MMWEC will have the option to extend the contract for three additional one-year periods. The

contract is subject to the approval of the Canadian National Energy Board. Hearings on this matter by the Board are expected to begin in September, 1981. Twenty-eight members, of which 27 are Member Participants, and one Non-member Participant have committed for all of the contracted capacity. The obligation of the Participants to pay for such capacity will be on a parity with their obligations to MMWEC under Power Sales Agreements. The contract with NBEPAC will be an obligation of MMWEC secured by payments under the agreements with such participants and will not be payable from revenues under the Power Sales Agreements. This resource is expected to supplement MMWEC's existing baseload power supply and reduce members' bulk power supply costs by an amount equivalent to the displacement of approximately one million barrels of oil annually. Transmission agreements for the project are currently being finalized with several regional utilities and are expected to be completed in the near future. The receipt of this energy is dependent on satisfactory completion of these agreements.

MMWEC members are currently receiving 41 MW under a six-month contract expiring on October 31, 1981 for a portion of output from Canal No. 2, a 560 MW unit. Twenty-one MMWEC members have contracted for 150 MW under a three year contract with New England Power Company for capacity in Salem Harbor Units Nos. 1 through 4 and Canal No. 1 beginning in late 1981. Presently all these units are fired with high sulfur No. 6 oil. New England Power Company is proposing to burn coal in Salem Harbor Units Nos. 1 through 3 beginning during 1981. They propose to charge customers, including MMWEC, for energy at the cost of high sulfur No. 6 oil less one-third of the difference between high sulfur No. 6 oil and the cost of the coal burned.

*Mix of Power Sources.* The following table shows the historical and projected energy sources for selected power years through the early 1990's as compiled and projected by MMWEC. The table shows MMWEC's decreasing reliance on wholesale power purchases from investor owned utilities and a corresponding increase in utilization of energy from sources owned or contracted for by MMWEC. MMWEC may contract for additional power purchase arrangements in the future which will benefit the Member Participants through reduction in their reliance on oil fired resources. For assumptions used with respect to power sources, see Appendix A—"Consulting Engineer's Report".

**SOURCES OF ENERGY FOR MMWEC MEMBER PARTICIPANTS**  
(All values in GWH)

|  | Power Year Ending October 31, |              |              |              |              |
|--|-------------------------------|--------------|--------------|--------------|--------------|
|  | 1980                          | 1982         | 1984         | 1988         | 1992         |
| <b>Sources of Energy</b>               |                               |              |              |              |              |
| <b>MMWEC Resources:</b>                |                               |              |              |              |              |
| Power Purchase Arrangements(1)         |                               |              |              |              |              |
| Point Lepreau .....                    | —                             | 405          | 612          | 671          | —            |
| Other .....                            | 149                           | 906          | 928          | —            | —            |
| Power Supply System                    |                               |              |              |              |              |
| Oil                                    |                               |              |              |              |              |
| Wyman No. 4 .....                      | 39                            | 109          | 117          | 127          | 108          |
| Stony Brook Intermediate .....         | —                             | 547          | 718          | 992          | 736          |
| Stony Brook Peaking .....              | —                             | —            | 9            | 22           | 28           |
| Nuclear                                |                               |              |              |              |              |
| Seabrook Nos. 1 and 2 .....            | —                             | —            | —            | 1,284        | 1,489        |
| Millstone No. 3 .....                  | —                             | —            | —            | 274          | 350          |
| Pilgrim No. 2 .....                    | —                             | —            | —            | —            | 786          |
| Coal                                   |                               |              |              |              |              |
| Sears Island Coal Unit No. 1 .....     | —                             | —            | —            | —            | 349          |
| <b>Total Energy from MMWEC</b> .....   | <u>188</u>                    | <u>1,967</u> | <u>2,384</u> | <u>3,370</u> | <u>3,846</u> |
| <b>Other Resources:</b>                |                               |              |              |              |              |
| Member Participant Resources(2) .....  | 929                           | 843          | 843          | 528          | 521          |
| Wholesale Power(3) .....               | 2,009                         | 717          | 497          | 317          | 247          |
| <b>Total Energy Requirements</b> ..... | <u>3,126</u>                  | <u>3,527</u> | <u>3,724</u> | <u>4,215</u> | <u>4,614</u> |

(1) No power purchase arrangements other than Point Lepreau are currently in place for 1988 or 1992. MMWEC may enter into such arrangements at a later date.

(2) Includes wholly-owned generation, joint-ownership entitlements, and long and short-term unit contracts.

(3) Consists principally of firm power contracts with neighboring utilities.

Electric utilities in New England, including the Member Participants, rely greatly on the use of fuel oil for generation of power. Most fuel oil supplies of the New England utilities are derived from foreign sources and prices have risen sharply since the oil embargo of 1973, although there is currently a price decline and future prices are uncertain. MMWEC and other utilities in New England are taking steps to reduce their dependency on oil-fired energy sources through the development of lower cost nuclear and coal power and of renewable energy resources. Analyses by MMWEC and the Consulting Engineer indicate that nuclear fueled units are the most economic source of baseload capacity available to supply the needs of the Member Participants into the 1990's. MMWEC has estimated that Seabrook Nos. 1 and 2 would save approximately 23 million barrels of oil annually in the New England region.

#### **Power Supply System Projects**

MMWEC's Power Supply System presently consists of ownership interests in eight generating units located at six New England sites, totalling 1,048.1 MW of capacity. Of such capacity, 22.0 MW is currently available, 794.9 MW is expected to be available by the end of the 1980's, and the remaining 231.2 MW is not expected to be available prior to the early 1990's. These ownership interests are included in nine separate power supply Projects.

MMWEC has entered into Power Sales Agreements for all of the capability of each of its power supply Projects. For a listing of the Participants and their respective percentages and kilowatt shares of project capability in each Project see Exhibit IV—"Participants' Percentage Shares of Project Capability". Each Project will be dispatched by NEPOOL and the output will be transmitted over the NEPOOL regional transmission grid to each Participant's electric system. For a discussion of matters relating to the generating facilities associated with each Project see the caption "Status of Units in MMWEC's Power Supply System" and Appendix A—"Consulting Engineer's Report".

The following table shows the Projects which comprise MMWEC's Power Supply System and the generating facilities associated with each Project. The information contained in the table is based upon information and assumptions contained in Appendix A—"Consulting Engineer's Report". The Consulting Engineer has reached certain conclusions with respect to the Projects and the Power Supply System which are also set forth in Appendix A.

| Unit/Location                                | Sponsoring Utility | Scheduled Commercial Operation Date (1) | MMWEC Energy Planning Date (2) | Expected Net Capacity (MW) (3) | MMWEC Share of Unit (%) | MMWEC Approximate Share of Capacity (MW) |
|--|--------------------|---|--------------------------------|--------------------------------|-------------------------|--|
| <i>Nuclear Mix No. 1</i>                     |                    |   |                                |                                |                         |  |
| Pilgrim No. 2, Plymouth, Mass.               | BECO               | (4)                                     | 11/90                          | 1,150                          | 13.240                  | 152.3                                    |
| Millstone No. 3, Waterford, Conn.            | NU                 | 5/86                                    | 5/86                           | 1,150                          | 1.603                   | 18.4                                     |
| Seabrook Nos. 1 & 2, Seabrook, N.H.          | PSNH               | 2/84                                    | 6/85                           | 2,300                          | 0.163                   | 3.7                                      |
|  |                    | 5/86                                    | 4/87                           |                                |                         |  |
| Total Nuclear Mix No. 1 Capability           |                    |   |                                |                                |                         | 174.4                                    |
| <i>Nuclear Mix No. 2(5)</i>                  |                    |   |                                |                                |                         |  |
| <i>Nuclear Project No. 3</i>                 |                    |   |                                |                                |                         |  |
| Millstone No. 3, Waterford, Conn.            | NU                 | 5/86                                    | 5/86                           | 1,150                          | 3.196                   | 36.8                                     |
| <i>Nuclear Project No. 4</i>                 |                    |   |                                |                                |                         |  |
| Seabrook Nos. 1 & 2, Seabrook, N.H.          | PSNH               | 2/84                                    | 6/85                           | 2,300                          | 4.333                   | 99.7                                     |
|  |                    | 5/86                                    | 4/87                           |                                |                         |  |
| <i>Nuclear Project No. 5</i>                 |                    |   |                                |                                |                         |  |
| Seabrook Nos. 1 & 2, Seabrook, N.H.          | PSNH               | 2/84                                    | 6/85                           | 2,300                          | 1.097                   | 25.2                                     |
|  |                    | 5/86                                    | 4/87                           |                                |                         |  |
| <i>Project No. 6</i>                         |                    |   |                                |                                |                         |  |
| Seabrook Nos. 1 & 2, Seabrook, N.H.          | PSNH               | 2/84                                    | 6/85                           | 2,300                          | 6.001                   | 138.0                                    |
|  |                    | 5/86                                    | 4/87                           |                                |                         |  |
| <i>Wyman Project</i>                         |                    |   |                                |                                |                         |  |
| W. F. Wyman Unit No. 4, Yarmouth, Me.        | CMP                | In Operation 12/78                      |                                | 600                            | 3.669                   | 22.0                                     |
| <i>Sears Island Project</i>                  |                    |   |                                |                                |                         |  |
| Sears Island Coal Unit No. 1, Searsport, Me. | CMP                | 11/89                                   | 11/89                          | 568                            | 13.896                  | 78.9                                     |
| <i>Stony Brook Intermediate Project</i>      |                    |   |                                |                                |                         |  |
| Stony Brook Intermediate Unit, Ludlow, Mass. | MMWEC              | 11/81                                   | 11/81                          | 334                            | 90.757                  | 303.1                                    |
| <i>Stony Brook Peaking Project</i>           |                    |   |                                |                                |                         |  |
| Stony Brook Peaking Unit, Ludlow, Mass.      | MMWEC              | 11/82                                   | 11/82                          | 170                            | 100.000                 | 170.0                                    |
| Total Capacity of Power Supply System        |                    |   |                                |                                |                         | 1,048.1                                  |

(1) As presently scheduled by the sponsoring utilities.

(2) Date used by MMWEC and the Consulting Engineer for power supply and financial planning purposes.

(3) As of 1981 capacity will be determined subsequent to commercial operation and could vary from levels shown.

(4) The last date established by BECO was November, 1987. However, BECO has announced that, because of delays in regulatory proceedings, no firm commercial operation date can be established at this time.

(5) All of the units in Nuclear Mix No. 2 have been cancelled and the Project has been terminated. MMWEC issued \$10.1 million of Bonds for Nuclear Mix No. 2, \$3.6 million proceeds of which have been expended as of March 31, 1981. Remaining costs are not expected to be material and excess proceeds will be used to retire Bonds issued for such Project.

## Financing

MMWEC plans to finance the cost of acquisition and construction of the Projects in its Power Supply System from the proceeds of short-term borrowings, Bonds and investment income. The timing and size of future borrowings will be based upon MMWEC's share of cash flow requirements for such Projects as such estimates may be revised from time to time by the sponsoring utilities and MMWEC and upon bond market conditions. To the extent that actual construction or financing costs exceed the amounts presently estimated to be required and future capacity additions are financed, MMWEC may be required to issue Bonds in addition to the Bonds presently anticipated. The Wyman Project has been fully funded and is in operation. Based on current estimates, the capital costs of the Stony Brook Intermediate Project and the Stony Brook Peaking Project have been fully funded.

The following table shows the amounts of DPU financing approvals received to date, the estimated financing required for the Projects, the estimated additional Bonds required to complete the financing of such Projects and the funding status of cash flow and interest requirements for each Project. Where the estimated financing required exceeds the DPU financing approval obtained, additional DPU approval will be required. The information contained in the table is based upon information and assumptions contained



in Appendix A—"Consulting Engineer's Report" and reflects the application of the 1981 A Bond proceeds. Included in Appendix A is a discussion of the estimated capital costs, including allowances for contingencies, and dates of projected commercial operation upon which the total financing requirements for each Project are based and a discussion of the estimated annual power costs for each Project. For information on MMWEC's expenditures through March 31, 1981 on their Projects, see Footnote 7 of Exhibit I—Report of Independent Public Accountant and MMWEC Financial Statements."

| Project Description              | Financing Data (000,000) |  |                    |              | Funding Status                      |                                      |                           |
|----------------------------------|--------------------------|--|--------------------|--------------|-------------------------------------|--------------------------------------|---------------------------|
|                                  | DPU Financing Approval   | Estimated Total MMWEC Financing Required (1) | Present Bonds      |              | Estimated Additional Bonds Required | Estimated Cash Flow Requirements (2) | Interest Requirements (3) |
|                                  |                          |  | Out-standing Bonds | 1981 A Bonds |                                     |                                      |                           |
| Nuclear Mix No. 1(4)             | \$335                    | \$667.9                                      | \$180.2            | —            | \$487.7                             | 7-1-85                               | 1-1-83                    |
| Nuclear Mix No. 2(5)             | 20                       | —  | 10.1               | —            | —                                   | —                                    | 1-1-83                    |
| Nuclear Project No. 3            | 104                      | 107.0  | 52.7               | —            | 54.3                                | 1-1-83                               | 1-1-83                    |
| Nuclear Project No. 4            | 222                      | 204.6  | 118.5              | —            | 86.1                                | 10-1-83                              | 7-1-83                    |
| Nuclear Project No. 5            | 75                       | 55.2   | 30.5               | —            | 24.7                                | 10-1-83                              | 7-1-83                    |
| Project No. 6                    | 335                      | 389.9  | —                  | 100.0        | 289.9                               | 12-1-81                              | 1-1-82                    |
| Wyman Project                    | 12                       | 9.4  | 9.4                | —            | —                                   | Complete                             | —                         |
| Sears Island Project(6)          | 15                       | 217.9  | 9.5                | —            | 208.4                               | 1-1-86                               | 1-1-83                    |
| Stony Brook Intermediate Project | 215                      | 177.0  | 177.0              | —            | —                                   | To Completion                        | 7-1-82                    |
| Stony Brook Peaking Project      | 87                       | 85.0   | 85.0               | —            | —                                   | To Completion                        | 1-1-83                    |

(1) Based on MMWEC energy planning dates for the units comprising such Projects.

(2) Represents the dates to which construction cash flow requirements have been funded, based upon cash flow estimates furnished by the sponsoring utilities after review and adjustment by the Consulting Engineer and MMWEC.

(3) Represents the date to which interest requirements on the Outstanding Bonds and 1981 A Bonds have been funded. MMWEC plans to fund additional interest during construction from the proceeds of additional Bonds. The estimated amount of additional Bonds required for this purpose is included in this table.

(4) Due to regulatory and scheduling uncertainties surrounding Pilgrim No. 2 the financing amount shown is based on current construction status and generic cost estimates and construction schedules for similar facilities.

(5) All units in Nuclear Mix No. 2 have been cancelled and the Project has been terminated. MMWEC issued \$10.1 million of Bonds for Nuclear Mix No. 2, \$3.6 million proceeds of which have been expended as of March 31, 1981. Remaining costs are not expected to be material and excess proceeds will be used to retire Bonds issued for such Project.

(6) This facility is in the preliminary planning stage and the amount shown is the minimum financing requirement as estimated by the Consulting Engineer based upon preliminary information provided by Central Maine Power Company, the sponsoring utility, and generic cost estimates for similar facilities.

**Short-Term Financing.** MMWEC has entered into negotiations for up to \$100 million of construction financing with a group of banks which would be used to finance a portion of the acquisition and construction of Project No. 6. Such financing would be payable from the proceeds of Bonds issued for Project No. 6, other notes and revenues, subject to the prior payment of debt service on all Bonds, operating expenses and payments into the Reserve and Contingency Fund. MMWEC anticipates such financing to be for an initial term of at least two years. Interest would be paid from the proceeds of the financing at a fixed percentage of the lead bank's prime rate.

MMWEC also expects to enter into a \$30 million two year revolving credit agreement with a group of banks to finance the acquisition of fuel inventory for the Stony Brook Units. MMWEC is obligated to pay interest based upon 70% of the lead bank's floating prime rate on amounts borrowed plus a commitment fee on the unused portion of the commitment. Notes issued pursuant to such agreement will be secured by and payable from revenues derived by MMWEC from fuel charges under the Power Sales Agreements for the Stony Brook Projects, subject to the prior payment of debt service on all Bonds, from fuel charges under the Sharing Agreement for the Stony Brook Intermediate Unit and from certain other monies, and will also be secured by a lien upon fuel inventory stored in tanks at the Stony Brook site and leased facilities in New Haven, Connecticut. The issuance of such notes requires DPU approval.

MMWEC also has a \$2,000,000 revolving bank credit facility which it expects to increase to \$4,000,000 in the near future. The facility is used to provide temporary working capital to finance certain power purchases for its members. Borrowings under this facility are secured by the receivables corresponding to the amounts utilized and are not secured under the Resolution.

### Status of Units in MMWEC's Power Supply System

MMWEC's Projects include ownership interests in one operating NEPOOL-planned generating unit and in each of the NEPOOL-planned generating units under construction or planned in New England. The units under construction or planned are in various stages of development, and in each case numerous licenses, permits and approvals are required for their construction and operation. The following is a general description of the status of the units in MMWEC's Power Supply System. Additional information on these units is contained in Appendix A—"Consulting Engineer's Report".

#### *In Operation*

*Wyman Unit No. 4.* This unit is currently in commercial operation, having commenced operation in December 1978.

Under the Powerplant and Industrial Fuel Act of 1978 ("Fuel Use Act"), the Secretary of Energy may order existing generating units to convert to coal or an alternate fuel if such conversion is technically and financially feasible. CMP has advised that the Wyman Unit No. 4 has the capability and equipment to burn oil only, and that it does not believe that converting the unit to coal would be economically feasible.

#### *Under Construction for Availability in the 1980's*

*Stony Brook Units.* The Stony Brook Units being constructed by MMWEC are scheduled for commercial operation as originally planned, November 1981 for the Intermediate Unit and November 1982 for the Peaking Unit. As of March 31, 1981 engineering and design was 98% complete and construction was 76% complete. Startup and testing procedures for the Intermediate Unit are underway with firing of combustion turbines in single cycle operation expected by August, 1981.

The Intermediate Unit has been classified by DOE as an existing facility not subject to the prohibition of the Fuel Use Act on the construction of new oil-fired generating units. As an existing power plant the Intermediate Unit will be subject to the provisions of the Fuel Use Act applicable to such plants. The Secretary of Energy is authorized to require existing power plants to convert to coal or an alternate fuel if such conversion is technically and financially feasible. The Stony Brook Units are capable of being modified to burn other liquid and gaseous fuels, but they are not capable of burning coal. MMWEC is modifying two of the Intermediate Unit's three combustion turbines to dual fuel capability for burning natural gas and oil. DOE has approved such modification. Other regulatory and environmental approvals will be required and federal legislation will be required to burn natural gas after 1985. The scheduled commercial operation date of the unit to burn No. 2 oil will not be affected by the modification. MMWEC is expecting its initial deliveries of oil in June, 1981.

The Peaking Unit has been exempted by DOE from the Fuel Use Act prohibition of construction of new oil-fired generating units. The terms of exemption limit operation of the Peaking Unit to the equivalent of 1500 hours annually at full load and provides financial penalties for operation in excess of that limitation.

*Seabrook Nos. 1 and 2.* As of March 20, 1981, Seabrook No. 1 and common facilities were 47% complete and Seabrook No. 2 was 8% complete. Construction of the Seabrook units by Public Service of New Hampshire (the "PSNH") has required numerous approvals and permits from state and federal regulatory bodies, consisting principally of a certificate from the New Hampshire Public Utilities Commission (the "NHPUC") authorizing construction, approval of the once-through-cooling system by the Environmental Protection Agency (the "EPA") and issuance of construction permits by the Nuclear Regulatory Commission (the "NRC"). These approvals have been obtained and have been upheld by the courts on appeal by several opposition groups. One appeal is still pending involving the NRC's rule with respect to certain environmental effects of nuclear facilities, and a further limited evidentiary hearing on the seismic issue ordered by the NRC has been completed and a decision is awaited. Further proceedings before the NRC relating to the licensing of the units will be required for operation, and other proceedings and appeals are possible. Construction is proceeding but at reduced levels from those originally scheduled. PSNH plans on resuming full construction upon completion of this financing by MMWEC.

PSNH has experienced difficulties in financing its construction program, including its original 50% share of the Seabrook Units. In view of these difficulties, PSNH obtained commitments for the sale of about a 15% share to several New England utilities including 6.001% to MMWEC comprising Project No. 6. The transfers of this interest to certain of the utilities commenced January 31, 1981. The transfer of the 6% interest to MMWEC has been approved by the DPU and will commence, effective as of February 28, 1981, upon completion of this financing. The transfer to two other utilities which have agreed to acquire the remaining shares will commence when necessary approvals are obtained by one and financing is obtained by the other. Each acquiring utility obtains its interest gradually by paying its pro rata share of PSNH's costs for the units from the effective date of its transfer until it has paid an amount equal to such interest's share of the total costs of the Seabrook project. This adjustment period is expected to continue for about 12 months.

As a result of a reduction of the overall level of construction on the Seabrook Units which began in March, 1980 in order to lessen PSNH's financing requirements, a 10-week iron workers' strike in the summer of 1980 and an order of the NHPUC delaying construction of Unit No. 2, PSNH has revised the scheduled completion dates to 1984 and 1986 for Seabrook Nos. 1 and 2, respectively. PSNH has also revised its cost estimates for the Seabrook project from \$2.090 billion to \$2.470 billion reflecting the delayed completion dates. This increase has been taken into account in determining MMWEC's share of the costs of the Seabrook Units. PSNH has indicated that several labor contracts have expired and are being renegotiated and that delays and cost increases could result from such renegotiations or from work stoppages if new contracts are not reached.

PSNH has filed with the NHPUC a request for permanent rate increases and has been granted temporary rates, subject to refund. PSNH has stated that if it is not granted continued adequate and timely rates or if the reduction in PSNH's interest in the Seabrook project to 35% does not continue in due course, PSNH may be unable to obtain the external financing necessary to finance its ownership interest in the Seabrook project.

*Millstone No. 3.* As of March 31, 1981, this unit was 36% complete. NU has been steadily increasing the level of construction in order to meet the currently scheduled commercial operation date of 1986. NU recently announced revised cost estimates for the unit which reflect an increase from \$1.365 billion to \$1.749 billion. This increase has been taken into account in determining MMWEC's share of the cost of the Millstone Unit.

In order to reduce external financing requirements, NU has offered to sell a minimum of an 8.7% interest, or 100 MW, in Millstone No. 3 to other utilities. Responses to the offer are due by July 6, 1981. NU has stated it will then determine whether to sell more than 100 MW. Offers of other joint-owners to sell an approximate 6% interest in the unit are also pending.

#### *Planned for the 1990's*

*Sears Island Coal Unit.* In December 1979 the Maine Public Utilities Commission ("PUC") denied CMP's request for a certificate of public convenience and necessity for the Sears Island Coal Unit based on findings that CMP's projected need for base load power in 1987 did not justify construction of the unit. Hearings before the PUC are in progress on CMP's modified application which includes a reduction in its proposed ownership share of the unit from approximately 80% to between 55% and 60% and a deferral of the commercial operation date of the unit to 1989.

The land claims of certain Indian groups in the State of Maine which might have involved the proposed unit have been settled and federal legislation has been adopted and appropriations approved to implement the settlement.

CMP has obtained funding from DOE to conduct a feasibility study on the development of a 480 MW combined cycle generating unit at Sears Island using gas produced from high-sulfur coal. MMWEC cannot now determine the effect of this study on CMP's proposed construction of the Sears Island Coal Unit, but CMP has not announced any change in its plans to construct such unit.

*Pilgrim No. 2.* Boston Edison Company ("BECO") has applied to the NRC for a limited work authorization and construction permit for Pilgrim No. 2, but these have not been issued. On February 2, 1981, the NRC's Atomic Safety and Licensing Board issued a favorable partial initial decision dealing with all construction permit issues other than emergency planning and issues related to the accident at the Three Mile Island nuclear plant. The decision has been appealed within the NRC by intervenors. BECO is continuing its efforts to obtain a construction permit, but cannot predict when it may be issued.

BECO has announced that due to the time required for the construction of the unit and completion of licensing and regulatory proceedings and the greatly increasing construction costs no firm date can be established for the commencement of construction or commercial operation of the unit. As a result, BECO does not have a current cost estimate of the unit. BECO has stated that when a more definitive schedule is set for the granting of a construction permit, it will be able to develop revised cost estimates and review the feasibility of the project and decide whether to cancel or continue construction of the project. At present, procurement commitments for the project are being deferred. MMWEC has assumed a 1990 commercial operation date for the unit for its planning purposes.

Pilgrim No. 2 is exempt from the requirement of Siting Council approval, but the DPU has conducted hearings on BECO's construction program and its need for Pilgrim No. 2. These hearings have been completed and a decision is still awaited.

The Commonwealth has approved the issue of a discharge permit for Pilgrim No. 2. An appeal by intervenors is pending.

#### **Potential Additions to the Power Supply System**

MMWEC is studying a number of potential additions to its power supply system to meet the needs of its members and others. MMWEC's ability to establish additional projects is dependent upon, among other things, its members and other utilities entering into Power Sales Agreements, the obtaining of regulatory approvals and financing. Joint owners of the generating units in MMWEC's Power Supply System from time to time have offered to sell ownership interests in such units. MMWEC will continue to evaluate such offers as they are made. PSNH, Montaup Electric Company and NU have offered to sell ownership interests in Millstone No. 3 aggregating 11.7% (135 MW). MMWEC is considering the purchase of an additional interest in Millstone No. 3 and has made recommendations to its members to purchase 41 MW, which the members are currently evaluating. This purchase is subject to further negotiations and approvals.

MMWEC is investigating the feasibility of several renewable energy resources as alternatives to oil-fired generation through its Renewable Resource Development Program. Renewable resources being considered include hydroelectricity, wood, refuse to energy, and wind. Specifically, MMWEC is involved in or evaluating a number of projects to develop the use of hydroelectric power to meet part of the energy needs of its members for the future. Its efforts have resulted in a memorandum of understanding on a project located in Lowell, Massachusetts. It is projected that by the late 1980's, 65 to 70 MW of capacity or up to 6% of MMWEC's energy requirements could come from hydroelectric resources. MMWEC is evaluating the feasibility of participating in a proposed 50 MW wood-fired plant. MMWEC is currently participating in efforts to develop a refuse to energy project in Massachusetts in which it could be involved as a purchaser of steam or electric power.

#### **Regulation**

MMWEC and its members are subject to regulation in varying degrees at federal, state and local levels and are indirectly affected by regulation of utilities in neighboring states, particularly those utilities sponsoring the construction and operation of power supply projects in which MMWEC and its members are participating.

*Massachusetts Department of Public Utilities.* MMWEC's financings, other than obligations maturing within one year, require DPU approval. Rates for power sold to its members or other utilities are



not subject to DPU approval. DPU approval is also required for the issue of 164A Bonds by MMWEC's members. Electric rates of the members are filed with the DPU but, while the DPU has general supervisory authority over municipal systems, their rates are not subject to DPU approval. Investor-owned utilities operating in the Commonwealth, including those which are the sponsors of certain units in which MMWEC has an interest, are subject to regulation by the DPU, which has jurisdiction over retail rates, the issue of securities and other matters relating to such utilities.

*Energy Facilities Siting Council.* Utilities in Massachusetts are required to file with the Siting Council long-range forecasts of their electric power needs and the actions planned to meet those needs over a ten-year period. The forecasts are to be filed every five years and supplemented annually. In general, Massachusetts utilities may not commence construction of major electric generating and transmission facilities unless the facilities are consistent with the most recent forecast or supplement approved by the Siting Council. Construction of the Stony Brook Units has been approved by the Siting Council. All such filings have been approved.

*Environmental Law.* MMWEC and other electric utilities in New England are subject to federal, state and local regulation with regard to air and water quality and other environmental considerations.

The Massachusetts Environmental Policy Act ("MEPA") requires all state agencies of the Commonwealth to review, evaluate, and determine the impact on the natural environment of their projects or activities and to use all practicable means and measures to minimize damage to the environment. In certain instances the review under MEPA may require the preparation and dissemination of an environmental impact report. The actions of state agencies under MEPA are subject to judicial review. The requirements of MEPA apply to the various approvals of state agencies required for construction and operation of electric generating facilities in Massachusetts. MMWEC is subject to MEPA with respect to its projects or activities.

*Nuclear Regulation.* Construction and operation of nuclear generating units requires obtaining numerous federal, state and local licenses, permits and approvals. MMWEC is a joint owner in Seabrook Nos. 1 and 2, Millstone No. 3, and Pilgrim No. 2. The required approvals include a construction permit and an operating license from the NRC. Under the NRC's present procedures an operating license can be obtained only when construction of the unit has been completed. The Atomic Energy Act of 1954, as amended, vests broad supervisory and regulatory jurisdiction in the NRC over the design, construction and operation of nuclear generating units, including matters of public health and safety, financial qualifications, antitrust considerations and environmental impact. Permits and licenses granted by the NRC may be revoked, suspended or modified and owners may be required to make additional capital expenditures for modifications to existing units to meet changing NRC standards. The NRC continuously reviews the safety and operating characteristics of nuclear generating plants and may order shutdown or modifications of operating reactors as a result. Requirements for modification of plant design, equipment or procedures, if made, could involve substantial costs, delays in construction and interruptions or reductions in the level of operation of the nuclear units affected.

The accident at the Three Mile Island Nuclear Unit No. 2 in Pennsylvania ("TMI") in March, 1979 has caused widespread concern about the safety of nuclear generating units and prompted public controversy over the further development of nuclear energy in the United States. As a result of the TMI accident, various governmental bodies have been studying a broad range of issues relating to the design, construction and operation of nuclear generating units. A Presidential commission and an NRC special inquiry group which investigated the TMI accident have issued numerous recommendations on aspects of nuclear power, and the NRC has approved a report that consolidates these recommendations. Some of the recommendations have been implemented as new licensing requirements, and the NRC is considering further actions. All nuclear facilities, including those in MMWEC's Power Supply System, will have to comply with these requirements. In the case of Seabrook Nos. 1 and 2, PSNH believes, based on a preliminary engineering review, that most of the new requirements promulgated by the NRC are already reflected in the Seabrook design and that the others will result in design changes which increase the capital cost at Seabrook Nos. 1 and 2 by approximately \$2,000,000. None of the

nuclear units in MMWEC's Power Supply System includes or is planned to include a nuclear steam supply system provided by the manufacturer of the TMI system. The NRC has resumed issuing operating licenses and has proposed draft regulatory requirements for projects in near term construction permit status but has not resumed issuing new construction permits. The TMI accident has also caused the filing of legislation in Congress and various state legislatures to severely restrict or eliminate nuclear power as an energy source. Recent federal legislation would prevent operation of nuclear units in states that do not have emergency evacuation plans approved under NRC regulations to be adopted under the legislation. While the ultimate effect of these actions cannot be predicted, they could cause costly delays in construction and modifications to the planned nuclear units in the Power Supply System, as well as to the nuclear units now operating in New England.

*Nuclear Fuel Reprocessing and Waste Disposal.* Planning for the disposal of spent nuclear fuel, through reprocessing or long-term storage, and for decommissioning nuclear units remains indefinite and the source of controversy. There are no commercial facilities presently available in the United States for the reprocessing of nuclear fuel. The present alternative to reprocessing is long-term storage of spent fuel (either on or off-site) and additional procurement of uranium supplies and conversion and enrichment services. The prior federal administration favored an indefinite postponement of commercial reprocessing of spent nuclear fuel and announced specific proposals for the disposal of nuclear wastes, but no definitive action was taken. The present administration has not yet taken any formal actions. The NRC and other governmental agencies also have been in the process of developing regulations and guidelines in this area. The effect of the uncertainties with respect to the availability of reprocessing facilities and developing regulatory standards with respect to storage and disposal of spent nuclear fuel, and other nuclear wastes, cannot now be determined.

Recently enacted New Hampshire legislation requires establishment of a nuclear decommissioning financing fund, to be administered by the state treasurer, for each nuclear electric generating facility in New Hampshire, including Seabrook Nos. 1 and 2. Owners of such facilities must make monthly payments into the fund commencing with commercial operation in amounts determined by nuclear decommissioning financing committees created for each facility.

*Nuclear Insurance.* The federal Price-Anderson Act presently limits liability for a nuclear incident to \$560,000,000. Liability insurance against this exposure is presently obtained through a combination of private insurance (presently limited to \$160,000,000) and a federal indemnity program which includes provision for self-insurance by owners of operating nuclear facilities through assessments of up to \$5,000,000 per reactor owned in the event of any nuclear incident in the United States, with a maximum of \$10,000,000 per year per reactor owned. The joint owners of a unit would be proportionately liable for the amount of any such assessment. The \$560,000,000 limitation on liability is subject to increase as assessments available under the federal program exceed that amount.

As a result of the accident at TMI, two voluntary insurance programs have been established and legislation has been introduced at the federal level to create a National Nuclear Property Insurance Corporation ("NNPIC"). The voluntary insurance programs, offered through Nuclear Energy Insurance Limited and American Public Insurers, provide coverage for replacement power expenses and continuing fixed expenses (including debt service), respectively. MMWEC is currently evaluating these programs. The NNPIC would provide funds for clean-up and rehabilitation costs and includes a separate program for TMI costs. Under the proposed legislation plant owners would be required to pay premiums to NNPIC as a condition to receiving and holding their operating licenses. MMWEC cannot predict whether or in what form the NNPIC legislation will be enacted or, if enacted, what the cost would be.

#### **Certain Factors Affecting MMWEC and the Electric Utility Industry**

*General.* The electric utility industry in general is, and for several years has been, experiencing common problems, including those of obtaining timely and adequate rate increases, increased costs and delays in construction attributable to regulatory requirements and environmental considerations, financing large construction programs during a period of high inflation and unsettled capital markets, uncertainties caused by increasing political involvement in utility regulation, availability and high cost of fossil fuel for generation, opposition to nuclear power, uncertainties in predicting future load require-

ments and the effects of energy conservation, and uncertainties associated with the development of a national energy policy. MMWEC and the Participants are affected by the foregoing problems in varying degrees through the ownership of interests in jointly-owned electric generating facilities and through the ownership and operation of their electric facilities and systems. These problems have caused delays in the base load generating units in the Power Supply System and have increased costs of construction, as well as projected higher costs of replacement power, principally from oil-fired units, during the periods of the delays.

The complexity of large-scale generating facilities and the time required for the construction of these facilities and for the completion of the necessary licensing and regulatory proceedings, have compelled electric utilities to make substantial investments in the construction of such facilities before the licensing and regulatory proceedings are completed. Inability to obtain the required permits on a satisfactory basis may require cancellation of a unit, in which case joint owners may lose the amount of their investment and be liable for costs of termination.

*National Energy Legislation.* National energy legislation has been enacted dealing with energy conservation measures and utilization of certain energy resources. The legislation limits construction of new oil-fired generating units, requires new non-nuclear generating units to have the capability to burn coal or an alternate fuel, limits the burning of natural gas by generating units and authorizes the Secretary of Energy to require existing generating units to convert to coal or an alternate fuel if certain conditions are met. The legislation also contains various provisions designed to encourage practices by state regulatory agencies, utilities and consumers which will promote energy conservation, including provisions relating to utility rate structures. Legislation was enacted in Massachusetts in 1980 to require utilities, including municipal electric systems, to perform energy audits for customers at prices which may be below their costs. Additional federal legislation was also enacted to promote the development of synthetic fuels to replace imported oil. The effect of the foregoing legislation, as well as other energy legislation under consideration, on the electric utility industry and MMWEC and the Participants cannot be predicted at this time.

*Joint Ownership.* Joint ownership provides a means by which several electric utilities may finance and operate large scale generating facilities and realize economic advantages which might not otherwise be possible. It also allows such utilities to receive the financial and operational benefits of a diversity of power supply resources balanced to supply most efficiently their energy requirements in line with the load characteristics of their electric systems. At the same time it allows them to assume financial responsibilities and ownership risks more in keeping with their resources. See Exhibit III for a listing of current ownership interests in generating units included in MMWEC's Power Supply System. Such ownership interests may change over time as a result of regulatory actions, changes in growth patterns and financial capabilities of the joint owners.

The construction and operation of any jointly owned generating facility is dependent upon the financial ability of all owners, particularly the sponsoring utilities, to provide the necessary funds to pay the costs thereof and upon obtaining all of the required licenses, permits and regulatory approvals necessary for the construction and operation of the facility. MMWEC cannot give any assurance as to the ability of the other joint owners to finance their joint interests. These owners are subject in varying degrees to the various factors affecting the utility industry described herein. In acquiring ownership entitlements to capacity and energy, MMWEC will rely solely on the sponsoring utilities of the facility for, among other things, design and construction of the facility, obtaining required licenses and approvals, arranging for fuel supply and operating and maintaining the facility. MMWEC has assumed the same responsibilities as the sponsoring utility of its Stony Brook Units. The investor-owned sponsoring utilities are subject to the requirements to file financial reports and other information with the Securities and Exchange Commission. This material can be obtained from the Commission.

For a description of the obligations, rights and privileges of MMWEC and the other owners, including the sponsoring utility, under the joint ownership agreements for units in which MMWEC has ownership interests, see the caption "Summary of Certain Provisions of the Sharing Agreements".

## **NEW ENGLAND POWER POOL**

Electric power supply facilities in New England are operated under cooperative arrangements provided for by the New England Power Pool Agreement ("NEPOOL") which became effective in 1971. This Agreement provides for joint planning and operation of generating and transmission facilities and also incorporates generating capacity reserve obligations and provisions regarding the use of major transmission lines and payment for such use.

MMWEC and each of the Member Participants are members of NEPOOL. In aggregate, NEPOOL members serve approximately 98% of the electric load in New England. Under NEPOOL, approximately 99% of the existing generating capacity and related transmission facilities in the region are operated on a coordinated basis. All of the generating facilities comprising MMWEC's Power Supply System have been designated by NEPOOL as "Pool-planned" facilities.

The objectives of NEPOOL are to ensure that New England has a sufficient bulk power supply that conforms to appropriate reliability standards in the most economical manner, and to provide for the equitable sharing of the associated costs and benefits among NEPOOL members. Through NEPOOL, the generating facilities of all participating utilities are operated as a single system and the output of these facilities is centrally dispatched in accordance with NEPOOL's economic dispatching policy. In this way, savings can be realized by the use of those units with the lowest incremental costs, including fuel costs, by achieving economies of scale in generating and transmission facilities and by reducing reserve requirements through the interchange of power among systems. A utility participating in NEPOOL is also entitled to use pool transmission facilities to transfer its power entitlements in NEPOOL planned facilities at "postage stamp" rates which do not change with transmission distance and are calculated under formulas established by NEPOOL. Because NEPOOL operates as a single system, the operations and costs of power of NEPOOL members are affected by the operations of NEPOOL and of other NEPOOL members.

Each NEPOOL member, including the Participants, is required to carry its share of the NEPOOL reserve requirement and fulfill its other membership obligations. MMWEC is not required to carry NEPOOL reserve requirements apart from its members since it does not have a separate load requirement.

The electric energy available to NEPOOL members under central dispatch is determined by the aggregate generation available to NEPOOL. At the time of maximum 1980-1981 winter demand, NEPOOL members had about 21,741 MW of installed capacity to meet a peak load of 15,620 MW.

## **THE MEMBER PARTICIPANTS**

### **Introduction**

MMWEC's 28 Member Participants provide electric service to customers in 35 of Massachusetts' 351 towns and cities. The combined population of their service areas was approximately 526,000 or approximately 9% of the total Massachusetts population of 5,728,288 based on the 1980 Federal census. The Member Participants, which had a non-coincident combined system peak demand of approximately 652 MW in 1980, represent approximately 70% of the electric load served by all municipal electric systems in the Commonwealth and approximately 10% of the total electric load in Massachusetts. The electric systems of the Member Participants were established by their respective jurisdictions between 1889 and 1914, and are governed under the provisions of Chapter 164 of the General Laws of the Commonwealth ("Chapter 164") which provides for the establishment, management and operation of municipal lighting plants for the purpose of the manufacture or distribution of gas or electricity for municipal use and for the use of the city or town inhabitants.

### **Management**

Under Chapter 164, the manager of each municipal electric system has full charge of its operation and management, subject to the direction and control of a municipal light board or equivalent body. Municipal light boards are typically three member bodies to which citizens are either elected by the voters or appointed by elected officials for staggered three year terms.



Certain groups opposed to MMWEC's purchase of additional interests in nuclear units have taken certain actions which seek to limit such purchases. These include the introduction of legislation requiring town meeting or voter approval of Power Sales Agreements with MMWEC and restricting the purchase or financing by MMWEC of nuclear power. The legislature is presently in session and it is impossible at this time to assess whether or not such legislation will be enacted. The enactment of such legislation would not affect existing Power Sales Agreements or other existing MMWEC contracts.

The Town of Ipswich passed a by-law amendment during its 1980 town meeting, which attempts to prohibit the Ipswich Municipal Light Department from purchasing directly or through another party any future ownership interest in an electric generating plant outside the town without being authorized by a two-thirds town meeting approval.

### **Electric System Operations**

Each Member Participant owns and operates an electric system for the distribution of electric power and energy, together with general plant necessary to conduct its business. The customers of the Member Participants are generally located within their respective city or town boundaries. However, several electric systems sell retail and wholesale power to customers outside their respective boundaries.

A summary table showing population, customers, electric department statistics, power requirements, energy sales, and electric revenues, for all Member Participants as compiled by MMWEC is provided in Exhibit VI. Historical operating results and balance sheets of the Member Participants as compiled by MMWEC are included in Appendix B.

In the opinion of the Consulting Engineer, the Member Participants have maintained rates for electric service which have been sufficient to provide for all operating expenses, debt service and repairs, renewals and replacements to their electric plant, while at the same time being generally low by regional standards. A comparison of electric rates of the Member Participants with those of certain investor-owned electric utilities serving areas contiguous to those served by the Member Participants is provided in Exhibit 1 of Appendix A—"Consulting Engineer's Report". For a description of the provisions of Massachusetts law with respect to Member Participants' electric rates, see "The Bonds—Security for the Bonds—Participants' Electric Rates and Financing".

The kilowatt hour sales to and revenues from customers of each Member Participant which accounted for more than 5% of its revenues in 1980, as compiled by the Consulting Engineer from information supplied by the respective Member Participants, are shown in Exhibit V herein.

### **Financing Capital Additions**

*General.* The primary source of funds for financing capital additions to the Member Participants' electric plant has been from internally generated funds, including amounts accumulated from the depreciation allowance. The depreciation allowance is accumulated in a depreciation fund and may only be used for capital improvements and renewals to the electric plant or, with the permission of the DPU, for debt service on bonds issued for similar purposes. The depreciation rates of the Member Participants in 1980 were generally 3% as contemplated by Massachusetts law, with some ranging to 5% with approval of the DPU. Massachusetts municipal electric systems may also finance plant additions within their distribution areas through the issuance of general obligation bonds. Debt service on general obligation bonds issued for electric purposes is payable from, but not secured by a pledge of, the revenues of the electric system.

*Chapter 164A Bonds.* Chapter 164A authorizes Massachusetts municipal electric systems to join NEPOOL, to participate jointly or separately with other members of NEPOOL in constructing and operating electric power facilities within or without the Commonwealth and to issue revenue bonds to finance such facilities.

Electric power facilities to which Chapter 164A relates are generating units rated 25 MW or above and transmission facilities rated 69 kV or above where such facilities have been designated as pool or

pool-planned facilities by NEPOOL and, in the case of facilities to be financed in whole or in part by Chapter 164A Bonds, provided the facilities have been approved by the DPU is consistent with the power needs of the Commonwealth. A Massachusetts municipality which is a member of NEPOOL and which has accepted the Act may issue revenue bonds or bond anticipation notes upon DPU approval and upon two-thirds vote of its city council or town meeting in order to finance its share of project costs of electric power facilities. With respect to the issuance of Chapter 164A Bonds, the DPU may approve only such amount of Chapter 164A Bonds as are necessary for facilities to supply the electric load plus reserve requirements of the municipal electric system forecast for a time three years beyond the date scheduled for commercial operation of such facilities.

All Chapter 164A Bonds issued to date by Member Participants have been secured by a pledge of the gross revenues of the Member Participant, which is prior to the obligation to make payments under Power Sales Agreements with MMWEC. Chapter 164A also permits the issuance of bonds secured by a pledge of the net revenues of the electric system. The issuance of Chapter 164A Bonds by the Member Participants is subject to compliance with certain tests required by the Power Sales Agreements, as described under the caption "Summary of Certain Provisions of the Power Sales Agreements—Additional Obligations of Participant".

A total of \$3,245,000 of Chapter 164A Bonds issued by or on behalf of three Member Participants are outstanding. There were also \$2,955,000 of Chapter 164A Bonds which were authorized but unissued by Member Participants.

#### **Summary of Projected Revenue Requirements**

In conjunction with MMWEC, the Consulting Engineer has projected revenue requirements for the Member Participants for the years 1985 and 1992. Such projections are based upon the assumptions set forth in Appendix A—"Consulting Engineer's Report" and, accordingly, actual results may vary from those projected.

Average annual increases in the projected revenue requirements per kWh of sales for the Member Participants have been estimated by the Consulting Engineer to range from 6% to 15% for the years 1981 through 1985, and from 5% to 9% for the years 1986 through 1992, resulting in average annual increases ranging from 5% to 10% for the 1981 through 1992 period. The weighted average increase in the revenue requirements per kWh of sales for the Member Participants for the period 1981 through 1992, based on the projected kWh of sales of each Member Participant during the period, is 8%. The projected revenue requirements per kWh of sales include projected increases in fuel expenses. These increases are presently authorized to be passed through to customers of the Member Participants through fuel adjustment clauses and do not require formal rate increases. The increases estimated to be required for the period 1986 through 1992 are expected to be less than the increases required for the period 1981 through 1985 due to base load nuclear units in MMWEC's Power Supply System becoming available for commercial operation. MMWEC is continuing to seek additional economic short-term power purchase arrangements to reduce the estimated increases in the projected revenue requirements of the Member Participants.

### **THE NON-MEMBER PARTICIPANTS**

#### **Participation in MMWEC Projects**

Two of the MMWEC Power Supply System Projects (the Stony Brook Intermediate Project and Project No. 6) involve participation by a total of twelve Non-member Participants with 8.2% and 20% shares, respectively. Seven of the Non-member Participants are Vermont municipal electric systems (Villages of Hardwick, Ludlow, Lyndonville, Morrisville, Northfield, Stowe and Swanton); two are rural electric cooperatives located in Vermont (Washington Electric Cooperative and Vermont Electric Cooperative); one is a rural electric cooperative located in Maine (Eastern Maine Electric Cooperative); one is a municipal utility located in Rhode Island (Pascoag Fire District) and one is an investor-owned electric utility company (Green Mountain Power Corporation of Vermont). Exhibit IV, "Participants' Percentage Shares of Project Capability", sets forth the shares of all Member and Non-member Participants for each Project.

## **Vermont Non-member Participants**

*Municipal Electric Systems.* The Vermont municipal Non-member Participants serve customers which are generally located within their respective village boundaries. Each municipal Non-member Participant's utility is managed by a board of trustees or light commissioners as provided in the charter of such Participant. The rates of the municipal Non-member Participants are subject to regulation by the Vermont Public Service Board (the "PSB"). Vermont law directs the PSB to allow municipal utilities a reasonable rate of return on capital investments on a basis generally intended to be commensurate with that permitted private utilities. The municipal Non-member Participants have generally financed capital additions through internally generated funds and general obligation bonds. Debt service on general obligation bonds issued for electric purposes is payable from, but not secured by a pledge of the revenues of the electric system. The municipal Non-member Participants may also finance capital additions through the issuance of revenue bonds secured by a pledge of the revenues of the electric systems which may be prior to their obligations to make payments under Power Sales Agreements. In addition to its being a Non-member Participant in Project No. 6, the Village of Lyndonville has a 0.44% ownership interest in the Stony Brook Intermediate Unit as a joint owner pursuant to a Sharing Agreement.

The Vermont municipal Non-member Participants and the Washington Electric Co-operative, Inc. are members of the Vermont Public Power Supply Authority ("VPPS"), a joint action power supply agency for Vermont municipal and cooperative electric systems, and may become participants in power supply projects that VPPS may develop in the future. They are parties to an agreement with VPPS under which they agree to pay as operating expenses of their systems their respective shares of VPPS costs for project development services. VPPS has borrowed \$6,000,000 for project development services. The Vermont municipal Non-member Participants and the Washington Electric Co-operative, Inc. will be liable for their allocable share of this indebtedness if VPPS is unable to issue bonds by July 1, 1984 to pay all project development costs incurred to that date. Such liability would be on a parity with obligations to make payments under Power Sales Agreements.

The Vermont Non-member Participants are all members of NEPOOL through the Vermont Electric Power Company.

*Rural Electric Cooperatives.* The Washington Electric Co-operative, Inc., headquartered in East Montpelier, Vermont, and the Vermont Electric Cooperative, Inc., headquartered in Johnson, Vermont, furnish electricity to their member customers located in rural or semi-rural communities near the cooperatives' principal offices. Each cooperative has under 10,000 member customers and each serves primarily residential users. Electric cooperatives in Vermont are managed by boards of trustees as provided in their articles of incorporation and by-laws. Annual cooperative revenues in excess of the amount necessary for operating and maintenance expenses, debt service, financing or reserve for financing additional facilities, working capital reserve, debt service reserve and public education are, unless otherwise determined by a vote of the members, distributed by the cooperatives to their members as patronage refunds. The electric cooperatives may contract for indebtedness and issue notes or bonds secured by mortgages upon real or personal property or by a pledge of revenues which may be prior to their obligations to make payments under Power Sales Agreements. Members of Vermont electric cooperatives are not liable for any debts of the cooperative. Vermont electric cooperatives are subject to regulation, including approval of rates, by the PSB. Participation in material transactions, such as entering into Power Sales Agreements with MMWEC, is subject to the approval of the Administrator of the U. S. Rural Electrification Administration ("REA") under provisions of loan agreements between REA and the cooperatives.

*Green Mountain Power Corporation.* Green Mountain Power Corporation ("GMP"), headquartered in Burlington, Vermont, furnishes electricity in an area roughly 25 miles in width extending 90 miles across north central Vermont, including the cities of Montpelier, Barre, South Burlington, Vergennes, and Winooski. Electric service in areas adjoining GMP's service area is provided by other investor-owned, municipal or cooperative electric utilities. The principal business activities of the territory served by GMP are manufacturing, recreation, quarrying and agriculture. GMP's largest retail customer, the International Business Machines Corporation, accounted for approximately 9% of GMP's retail

electric energy revenues in 1980. GMP sells power at retail with some amounts of power sold at wholesale, including non-firm power to certain municipal Non-member Participants in Vermont. GMP is subject to regulation by the PSB, including regulation of its rates. Its wholesale rates are subject to regulation by FERC. Substantially all of GMP's property and franchises are subject to the lien on the mortgage securing its first mortgage bonds of which \$28,430,000 were outstanding at December 31, 1980. GMP may issue additional first mortgage bonds or other securities with PSB approval. GMP is subject to the requirements to file financial reports and other information with the Securities and Exchange Commission. This material can be obtained from the Commission. In addition to its being a Non-member Participant, GMP has an 8.8% interest in the Stony Brook Intermediate Unit as a joint owner pursuant to a Sharing Agreement.

#### **Rhode Island Non-member Participant**

*Pascoag Fire District.* The Pascoag Fire District (the "District"), headquartered in the Town of Burrillville, Rhode Island, furnishes water, fire protection services and electricity to its primarily residential customers located in the villages of Pascoag and Harrisville. The District is managed by an Operating Committee elected by the voters of the District under its statutory charter and is authorized as a Rhode Island domestic utility to participate in electric generating facilities and to enter into Power Sales Agreements. The District may issue bonds for such purpose secured by a pledge of revenues prior to its obligation to make payments under the Power Sales Agreement. The District is subject to regulation, including approval of rates, by the Rhode Island Public Utilities Commission. The District is a member of NEPOOL.

#### **Maine Non-member Participant**

*Eastern Maine Electric Cooperative, Inc.* Eastern Maine Electric Cooperative, Inc. ("EMEC"), headquartered in Calais, Maine, furnishes electricity to member customers located in rural or semi-rural communities near its principal office and has approximately 9,000 customers. EMEC derives a large portion of its revenue from commercial and industrial users, principally the Georgia-Pacific Corporation paper mill in Woodland, Maine. EMEC is managed by a board of trustees as provided in its articles of incorporation and by-laws. Annual cooperative revenues in excess of the amount necessary for operating and maintenance expenses, debt service, financing or reserve for financing additional facilities, working capital reserve and debt service reserve are, unless otherwise determined by a vote of the members, distributed by EMEC to its members as patronage refunds. EMEC may contract for indebtedness and issue notes or bonds secured by mortgages upon real or personal property or by a pledge of revenues which may be prior to its obligations to make payments under Power Sales Agreements. Members of EMEC are not liable for any debts of EMEC. EMEC is subject to regulation, including approval or rates, by the Maine Public Utilities Commission. Participation in material transactions, such as entering into Power Sales Agreements with MMWEC, is subject to the approval of the Administrator of the REA under the provisions of loan agreements with REA.

#### **Power Supply**

The Non-member Participants have historically obtained their capacity and energy requirements from a variety of sources including, in most cases, power purchases from investor owned utilities and, in some cases, purchases from the Power Authority of the State of New York and several Canadian utilities. Power received by the Non-member Participants includes electricity generated by regional nuclear, hydroelectric, coal and oil-fired generating plants. MMWEC is not currently providing and does not expect in the future to provide load forecasting or power supply planning assistance to the Vermont and Maine Non-member Participants.

#### **Electric System Operations and Rates**

A summary table showing population, customers, electric departments statistics, power requirements, energy sales, and electric revenues, for all Non-member Participants as compiled by MMWEC is provided in Exhibit VI. Historical operating results and balance sheets of the Non-member Participants as



compiled by MMWEC is included in Appendix B. In the opinion of the Consulting Engineer, these Non-member Participants have maintained rates for electric services which have been generally low by New England standards. See Exhibit 1 of Appendix A—"Consulting Engineer's Report".

The kWh sales to and revenues from customers of each Non-member Participant which accounted for more than 5% of its revenues in 1980 as compiled by the Consulting Engineer from information supplied by the respective Non-member Participants, are shown in Exhibit V herein.

### **SUMMARY OF CERTAIN PROVISIONS OF THE POWER SALES AGREEMENTS**

Each of the Participants has entered into one or more Power Sales Agreements with MMWEC. Certain provisions of the Power Sales Agreements are described under the caption "Security for the Bonds" and the following is a summary of certain other provisions of the Power Sales Agreements. These summaries are not to be considered as a full statement of the terms of such Agreements, the full text of the form of which may be obtained from MMWEC. The capitalization of any word which is not conventionally capitalized indicate that such word is defined herein or in such Agreements.

*Term.* The Agreement becomes effective upon execution and delivery by Participants whose shares of Project capability total 100% and will terminate when (i) all of the electric power facilities described therein (the "Facilities") have been terminated as provided in the Agreement, (ii) payment of debt service on all Bonds issued for MMWEC's ownership interest in the Facilities (the "Project") has been made or provided for in accordance with the Resolution and (iii) all other obligations and liabilities under the Agreement have been paid or provided for.

*Payment.* Prior to each Contract Year, MMWEC shall adopt an annual budget covering the Monthly Power Costs in the Contract Year. Thereafter, billing statements shall be prepared for each Participant showing the amount payable by the Participant as the Participant's share of the Monthly Power Costs. The amounts shown in the billing statements are due and payable by the Participant on the twentieth day of the month. The annual budget and billing statements may be amended during a Contract Year if necessary. The Contract Year is the year ending June 30, commencing on the date preceding the earliest date of commercial operation of the Facilities, the date to which interest is capitalized on all Bonds issued for the Project but no later than one year prior to the first principal installment date for such Bonds or the date one year after termination of any of the Facilities, whichever is earliest.

*Sale of Participant's Excess Share.* In the event that the Participant shall determine that all or any part of its share of Project capability is in excess of the requirements of the Participant, the Participant shall notify MMWEC of such determination and MMWEC shall use its best efforts to sell and transfer for any period of time all or part of such excess. The other Participants shall have first right to accept each such disposal pro rata among those exercising such right before a transfer is made to an electric utility which is not a Participant. If all or any portion of such excess of the Participant's share of Project capability is sold pursuant to the foregoing, the Participant shall remain liable to MMWEC to pay the full amount of its share of Monthly Power Costs except to the extent of payments received by MMWEC on account of such transfer.

*MMWEC Financings.* The Power Sales Agreements for Project No. 1 recognize that information is required from the Participants in the Project in order to enable MMWEC to demonstrate compliance with the requirements for the issuance of Bonds for the Project as summarized in paragraphs E, F and G under the caption "Summary of Certain Provisions of the General Resolution—Issuance of Bonds—Bonds Other Than Refunding Bonds". If the Board of Directors of MMWEC finds that a Participant has failed to furnish the required information or that the Participant will be unable to meet the criteria necessary to enable the Bonds to be issued, the Participant's share may be transferred to other electric utilities. The other Participants in the Project have a right of first refusal to any share so transferred. Such transfer relieves the original Participant from all obligations under the Power Sales Agreement. Similar provisions may be included in Power Sales Agreements for future MMWEC projects. MMWEC used this provision

to transfer interests of the villages of Swanton and Stowe, Vermont, in Project No. 6 to other Non-member Participants.

*Additional Obligations of Participant.* The Participant shall not issue evidences of indebtedness payable from and secured by a lien on the revenues derived from the ownership or operation of its electric system without providing for the payment of operating expenses (including Monthly Power Costs under the Agreement) from such revenues ahead of debt service on such evidences of indebtedness unless an independent consulting engineer certifies that the facilities, for the financing of which the evidences of indebtedness are being issued, are (or were when the Participant committed itself to them by contract or financing) reasonably expected to properly and advantageously contribute to the conduct of the business of the electric system of the Participant in an efficient and economical manner consistent with prudent management. The foregoing shall not apply to bonds or other evidences of indebtedness issued to meet obligations under joint ownership agreements to which the Participant is a party on the date of the Agreement, or to refund evidences of indebtedness theretofore issued, or thereafter issued in compliance with the Agreement, payable from and secured by a lien on revenues prior to operating expenses.

*Dispatch and Delivery.* The Project is to be dispatched in accordance with NEPOOL central dispatching arrangements, if any, and otherwise in accordance with prudent utility practice. The Participant shall be responsible and arrange for the transmission of energy sold under the Agreement between the Facility and its electric system.

*Development Work.* The billing statements may also show, as an amount (which may not exceed 1% of a Participant's share of MMWEC's debt service for the Project) to be paid as part of the Monthly Power Costs in the month to which the billing statement applies, a sum to be used to pay the cost of work in connection with the development of electric power facilities to serve the needs of Massachusetts municipalities.

*Termination.* Subject to the provisions of any applicable joint ownership agreement, MMWEC shall terminate any Facility and cause it to be disposed of in whole or in part if MMWEC determines that it is unable to construct, operate or proceed as owner of such Facility due to licensing or operating conditions or other causes beyond its control or MMWEC determines that such Facility is not capable of producing energy consistent with prudent utility practice. The Participants are required to pay termination and decommissioning costs as Monthly Power Costs to the extent not otherwise provided for.

## **SUMMARY OF CERTAIN PROVISIONS OF THE GENERAL RESOLUTION**

The following summary is a brief outline of certain provisions contained in the General Resolution and is not to be considered as a full statement thereof. The complete General Resolution may be examined at the offices of the Bond Fund Trustee, the Construction Fund Trustees and the Paying Agents or obtained from MMWEC. The capitalization of any word which is not conventionally capitalized indicates that such word is defined herein or in the General Resolution.

### **Issuance of Bonds**

*Bonds Other Than Refunding Bonds.* Bonds may be issued under the General Resolution for the purpose of paying costs of acquiring and constructing Projects upon compliance with certain provisions including those set forth in paragraphs A through G below.

The term "Project" includes all of MMWEC's ownership interest in, or right to capacity of, electric generation, transmission or transformation facilities and related fuel and water production, storage and processing facilities, and repairs, improvements and additions to the foregoing, but does not include separate utility systems financed by obligations payable solely from the revenues or other income derived from the ownership or operation thereof. Upon issuance of the 1981 A Bonds, the Projects consist of Nuclear Mix No. 1, Nuclear Mix No. 2, Nuclear Project No. 3, Nuclear Project No. 4, Nuclear Project No. 5, Project No. 6, the Sears Island Project, the Wyman Project, the Stony Brook Intermediate Project and the Stony Brook Peaking Project.

A. The Bond Fund Trustee is to certify that MMWEC is not deficient in its payments into the Bond Fund.

B. An authorized officer of MMWEC is to certify (i) that MMWEC is not deficient in any payments into the Reserve and Contingency Fund and (ii) that MMWEC is not in default in the performance of any of its covenants and agreements made in the General Resolution.

C. MMWEC is to have in effect valid Power Sales Agreements for the entire capacity and energy or other output of the Project. Power Sales Agreements for at least 80% of the capacity and energy or other output of the Project must be with Participants which are Massachusetts municipalities.

The term "Power Sales Agreement" means a contract with a Participant for the sale of the capacity and energy or other output of a Project, which contains provisions substantially the same as those summarized under the caption "Summary of Certain Provisions of the Power Sales Agreements".

D. There is to be filed with the Bond Fund Trustee a certificate of the Consulting Engineer or, in the case of any Project constructed by MMWEC (presently, the Stony Brook Intermediate and Peaking Projects), the construction engineers therefor, setting forth (i) the then current estimate of the costs of acquiring and constructing the Project (exclusive of payments, if any, to the Reserve Account and the Reserve and Contingency Fund, capitalized interest, if any, on the Bonds, and the expenses of issuing the Bonds) and if such costs are significantly different from such costs estimated prior to the delivery to the initial purchasers of the most recent series of Bonds, if any, issued to complete the payment of such costs, a statement of the reasons for the difference in such estimated costs; (ii) the amount of monies, if any, which has theretofore been expended or is available for the payment of such costs; and (iii) an estimate of the amounts that will be needed from time to time to pay such costs, and the estimated dates of such payments.

E. There is to be filed with the Bond Fund Trustee a certificate of the Consulting Engineer that:

(a) (i) the plan for developing the Project is consistent with sound utility power supply planning, (ii) the capacity and energy capability of the Project can be economically and efficiently utilized by the Participants which have entered into a Power Sales Agreement with respect to the Project, and (iii) the cost of such capacity and energy capability from the Project is reasonable in comparison to alternative capacity and energy capability sources anticipated to be available on the Date of Commercial Operation of the Project to such Participants;

(b) the Power Sales Agreement for the Project provides for payments thereunder to MMWEC in the aggregate, at least sufficient, whether or not the Project is completed, operable or operating and notwithstanding the suspension, interruption, interference, reduction or curtailment of the output of the Project for any reason whatsoever, to enable MMWEC to meet all of its obligations with respect to the Project under the General Resolution, including the timely payment of all costs, expenses and charges with respect to the Project specified in Section 7.2 of the General Resolution (summarized herein under the caption "Certain Covenants—Rates"); and

(c) (i) the average of the estimated Net Participant Revenues of each Participant which is a party to a Power Sales Agreement with respect to the Project will, during the 5 Bond Years (the "Base Period"), which commence July 1, next succeeding the Bond Year in which occurs the then estimated latest Date of Commercial Operation of any Project with respect to which the Participant is a party to a Power Sales Agreement, be at least equal to the estimated aggregate of

(1) the average of the payments required to be made in each such year by the Participant to MMWEC under all Power Sales Agreements to which the Participant is a party, exclusive of any such payments representing principal of and interest on Bonds and the Reserve and Contingency Fund requirements, plus

(2) the amount which is 1.10 times the maximum Debt Service (excluding funded interest) payable under Power Sales Agreements in any Bond Year during the Base Period or thereafter by the Participant on all Bonds for all Projects with respect to which the Participant

is a party to a Power Sales Agreement, including such additional Bonds as the Consulting Engineer estimates will be required to be issued to complete the Project, and

(ii) the estimated Net Participant Revenues of the Participant during each Bond Year until the termination of the Base Period will be at least equal to the payments required to be made in each such Bond Year by the Participant to MMWEC under such Power Sales Agreement.

The term "Net Participant Revenues" includes all revenues and other moneys derived by a Participant from its electric department or system less (1) all amounts payable from or constituting a charge and lien upon such revenues (including expenses of operation and maintenance, depreciation and debt service on all bonds issued by the Participant for electric purposes), but before deducting (2) any payments required to be made by such Participant to MMWEC under any Power Sales Agreement to which the Participant is a party.

F. There is to be filed with the Bond Fund Trustee a certificate of an authorized officer of each Participant which is a party to a Power Sales Agreement with respect to the Project that (i) it is not deficient in any payments required with respect to any obligation payable from or constituting a charge and lien upon the revenues and other monies derived from its electric department or system and (ii) the revenues and other moneys derived by the Participant from its electric department or system during any consecutive 24 month period out of the immediately preceding 36 months have been at least sufficient to meet its obligations under its Power Sales Agreements with MMWEC during such period, if any, and to pay any and all other amounts payable from or constituting a charge and lien upon such revenues, and, in addition thereto, to produce an amount the annual average of which is equal to the lesser of 3% of the cost of its electric plant or the amount required by law for depreciation.

G. There is to be filed with the Bond Fund Trustee a certificate of an authorized officer of MMWEC that (i) no Participant which is a party to a Power Sales Agreement with respect to the Project is in default under any Power Sales Agreement with respect to any other Project and (ii) no Participant which is a party to a Power Sales Agreement with respect to any other Project is in default under such Power Sales Agreement.

Bonds may be issued by MMWEC as "Partially Amortizing Bonds", which is a series of Bonds providing for principal payments such that

(1) the principal and interest coming due in the final year substantially exceed the amount coming due in any prior year,

(2) the final maturity date of the Bonds of such series is not less than ten years from their date of issuance,

(3) the principal amount payable in the year ending on the final maturity date shall not exceed the lesser of (i) 75% of the original principal amount of the series and (ii) the amount that would have been outstanding on the day prior to the final maturity date if the Bonds had required level debt service payments over the 25 years following their issuance at the same effective interest cost actually applicable to the Bonds, and

(4) the average Adjusted Debt Service for all such Bonds having a final maturity date falling within any 60 consecutive months, computed at the date of issuance, shall not exceed 25% of estimated average Adjusted Debt Service for all Bonds for the five year period following the latest Date of Commercial Operation of any Project then financed in whole or in part.

Adjusted Debt Service on Partially Amortizing Bonds is the amount required to be paid or set aside for the payment or retirement of principal, premium, if any, and interest (unless capitalized) for each year in which the final maturity of the Bonds occurs and, with respect to such year and each year thereafter through the 25th anniversary of the issuance of the Bonds, that amount which if paid in each such year would pay such Bonds in full by such anniversary.

In order to satisfy the conditions precedent to the issuance of Partially Amortizing Bonds, Adjusted Debt Service on the Partially Amortizing Bonds is used instead of Debt Service in determining the amount described in paragraph E(c)(2).



The provisions of:

(1) paragraphs D through G do not apply to Bonds issued to pay the costs of preliminary work in connection with developing a Project, subject to a maximum amount of Bonds outstanding at any one time with respect to such Project of the greater of \$15,000,000 or 5% of the estimated costs of acquiring and constructing the Project;

(2) paragraphs E through G do not apply to Bonds issued to pay (a) the costs of acquiring and constructing renewals, modifications and additions for, or any decommissioning or termination of, any Project which (i) is necessary to achieve design capability or required by any governmental agency or authority, (ii) in the opinion of the Consulting Engineer is necessary or desirable to improve operating reliability or to reduce unit power costs or (iii) MMWEC is responsible for under an Ownership Agreement, (b) the cost of preventing or correcting any unusual loss or damage (including major repairs) to any Project or any part thereof in excess of insurance proceeds available therefor or for which monies are not available in the Reserve and Contingency Fund, and (c) extraordinary costs of fuel for which monies are not available in the Reserve and Contingency Fund or in a Fuel Account established in the Revenue Fund for a Project; and

(3) paragraphs E through G do not apply to Nuclear Mix No. 1, Nuclear Project No. 3, Nuclear Project No. 4, Nuclear Project No. 5, the Wyman Project, the Stony Brook Intermediate Project, the Stony Brook Peaking Project or to any other Project after the provisions of such paragraphs have been complied with in connection with the issuance of a series of Bonds for such Project and the Consulting Engineer has certified that such Project would not be useful to MMWEC unless completed and that after application of the proceeds of such Bonds it would be economically unreasonable for MMWEC not to complete such Project. Such provisions will be complied with and the certificate rendered for Project No. 6 in connection with the issuance of the 1981 A Bonds.

*Refunding Bonds.* Refunding Bonds may be issued without complying with the foregoing provisions.

*Subordinate Lien Obligations; Separate Utility Systems.* MMWEC may also issue bonds or other evidences of indebtedness subordinate to the Bonds or payable solely from revenues of electric power facilities or interests therein acquired by MMWEC as a separate utility system, but only in the latter case if the Consulting Engineer certifies that the acquisition or construction of such separate system will not result in a reduction of revenues below the amount required by the Resolution.

#### **Construction Funds; Application of Bond Proceeds**

A separate Construction Fund for each Project is to be established with a Construction Fund Trustee. The proceeds of Bonds issued for such Project are to be deposited into such Construction Fund and applied to the payment of the costs of acquiring and constructing such Project. If interest is funded from the proceeds of a series of Bonds, the amount thereof is to be deposited into a Construction Interest Account established in the applicable Construction Fund and used to pay interest on such Bonds.

The costs of acquiring and constructing Project include all costs incurred by MMWEC and properly allocable to the acquisition and construction of Project and carrying out and placing the same in operation, including working capital, interest on bonds, acquisition of fuel, reserve requirements, taxes and payments in lieu of taxes, legal and financing costs, and administrative and general costs.

Moneys remaining in a Construction Fund after payment of all costs of acquiring and constructing a Project and after required payments, if any, to the Reserve Account and monies remaining in the Construction Fund upon the termination of a Project pursuant to the applicable Power Sales Agreements and Ownership Agreement, are to be transferred to the Bond Retirement Account, to be applied pro rata to the purchase or redemption of Bonds issued for the Project. To the extent that the monies so transferred are not sufficient to purchase or redeem all Bonds issued for a Project, the Participants remain obligated to make the payments required under the Power Sales Agreements for such Project. See "Summary of Certain Provisions of the Power Sales Agreements—Termination."

## **Funds and Accounts**

*Revenue Fund:* The Resolution establishes a Revenue Fund to be maintained by MMWEC. MMWEC is to pay into the Revenue Fund all of the Revenues derived from the ownership or operation of all of its Projects and certain other monies, and such Revenues and other monies are pledged to the payment of the principal of and interest on the Bonds, operation and maintenance expenses, repairs and additions to Projects and all other charges against such Revenues and other monies.

The term "Revenues" includes all income, revenues, receipts and other monies derived by MMWEC from the ownership or operation of the Projects including monies derived under the Power Sales Agreements, certain earnings, on the investment of monies held under the General Resolution, the proceeds of the disposition of properties and the proceeds of insurance and condemnation awards.

*Bond Fund:* The Resolution establishes a Bond Fund with the Bond Fund Trustee. From the Revenues in the Revenue Fund, MMWEC is to pay monthly into the Bond Fund (i) for credit to the Interest Account therein, amounts sufficient in the aggregate to pay the interest on the Bonds, including the 1981 A Bonds, when due, taking into consideration interest funded from Bond proceeds, (ii) for credit to the Principal and Bond Retirement Accounts therein, amounts sufficient in the aggregate to pay the principal of the Bonds, including the 1981 A Bonds, other than Partially Amortizing Bonds, when due or in accordance with any sinking fund installment schedule and (iii) for credit to the Principal and Bond Retirement Accounts, the Adjusted Debt Service (exclusive of interest) on Partially Amortizing Bonds.

*Reserve Account:* The Resolution establishes a Reserve Account in the Bond Fund. In order to provide a reserve for the payment of debt service on the Bonds, including the 1981 A Bonds, there is to be deposited from the proceeds of each series of Bonds into the Reserve Account an amount equal to the Reserve Account requirement for such series of Bonds. The Reserve Account requirement for each Series of Bonds is an amount equal to the maximum amount required to be paid into the Interest Account for such series of Bonds during any Bond Year. The Reserve Account (except for certain permitted transfers of excess amounts) may be used solely to pay debt service on Bonds, and is to be so used whenever there are insufficient monies in the Interest Account, Principal Account and Bond Retirement Account for such purpose.

*Operating Expenses:* MMWEC is to pay the ordinary operation and maintenance expenses of the Projects from amounts in the Revenue Fund.

*Reserve and Contingency Fund:* The Resolution establishes a Reserve and Contingency Fund to be held by MMWEC. After making the payments into the Bond Fund and paying the ordinary operation and maintenance expenses of the Projects, MMWEC is to pay monthly from the Revenue Fund to the Reserve and Contingency Fund for credit to an account established therein for each Project an amount equal to 10% of the amount required to be paid in such month with respect to the Bonds issued for such Project into the Interest Account, Principal Account and Bond Retirement Account. Moneys in the Reserve and Contingency Fund are to be used to make up any deficiency in the Reserve Account. To the extent not required for any such deficiency, moneys in the Reserve and Contingency Fund may be applied to renewals, replacements and various other purposes relating to the Projects, and amounts in excess of the Reserve and Contingency Fund requirements shall be transferred annually to the Revenue Fund. The Reserve and Contingency Fund requirement is initially \$3,000,000 for Nuclear Mix No. 1, \$750,000 for Nuclear Project No. 3, \$2,500,000 for Nuclear Project No. 4, \$500,000 for Nuclear Project No. 5, \$3,000,000 for Project No. 6, \$250,000 for the Wyman Project, \$1,000,000 for the Stony Brook Intermediate Project and \$600,000 for the Stony Brook Peaking Project; will be established for the Sears Island Project when Bonds are issued for this Project other than for development work; and may be increased from time to time with the concurrence of the Consulting Engineer.

*Development Fund:* The Resolution establishes a Development Fund to be held by MMWEC. After making the payments into the Bond Fund, paying the ordinary operation and maintenance expenses of the Projects and making the payments into the Reserve and Contingency Fund, MMWEC is to pay

monthly from the Revenue Fund into the Development Fund the amount, if any, shown for development work in the annual budget adopted pursuant to the Power Sales Agreements for each Project. Moneys in the Development Fund are to be used for the development of electric power facilities, including planning, engineering, siting, environmental, financial and economic surveys, studies and work; the acquisition of options to acquire real estate; and payments with respect to fuel.

### **Investments**

"Investment Securities" means, if and to the extent that the same are legal for the investment of funds of MMWEC: (1) Direct obligations of, or obligations the principal of and interest on which are unconditionally guaranteed by, the United States of America; (2) bonds, debentures or notes or other evidence of indebtedness issued or guaranteed by the Bank for Cooperatives, the Federal Intermediate Credit Banks, the Federal Home Loan Bank System, the Export-Import Bank of the United States, the Federal Land Banks, the Federal National Mortgage Association, the United States Postal Service, and the Government National Mortgage Association, or any other agency or instrumentality of the Federal Government established for the purposes of acquiring the obligations of the foregoing or otherwise providing financing therefor; (3) New Housing Authority Bonds, or Project Notes, fully secured by agreements with the United States of America; (4) direct and general full faith and credit obligations of any state or political subdivision thereof (in the case of a political subdivision the obligations must be secured by an unlimited real property taxing power) rated in one of the two highest rating categories by two nationally recognized rating agencies; (5) bank time deposits evidenced by certificates of deposit issued by banks which are members of the Federal Deposit Insurance Corporation, provided that such time deposits (a) in any bank do not exceed at any one time in the aggregate 10% of the total of the capital stock and surplus of such bank, and such bank has a combined capital and surplus of at least \$40,000,000, or (b) are secured by obligations described in items 1, 2, 3 or 4; (6) repurchase agreements with banks which are members of the Federal Deposit Insurance Corporation and government bond dealers recognized as primary dealers by the Federal Reserve Bank of New York, secured by securities which are obligations described in items 1, 2, 3 or 4. Moneys held for the credit of the Interest Account, Principal Account and Bond Retirement Account in the Bond Fund are to be invested in Investment Securities of the types described in items 1, 2, 3 and 4, which shall mature prior to the respective dates when the moneys held for the credit of such accounts will be required for the purposes intended. Moneys credited to the Reserve Account in the Bond Fund not required for immediate disbursement are to be invested in Investment Securities of the types described in items 1, 2, 3 and 4, maturing within 10 years from the date of such investment. Moneys in any account in the Bond Fund may also be invested in Investment Securities of the type described in item 6 maturing within 10 days from the date of such investment. Moneys in the Reserve and Contingency Fund not required for immediate disbursement are to be invested in Investment Securities of the types described in items 1, 2, 3 and 4 maturing within 5 years from the date of such investment. Moneys in the Development Fund and in the Revenue Fund are to be invested in Investment Securities of the type described in items 1, 2, 3, 4 and 5 maturing prior to the date when such moneys are to be disbursed. Moneys in Construction Funds, exclusive of moneys credited to the Construction Interest Accounts, are to be invested in Investment Securities which mature not more than 5 years from the date of purchase. Moneys in Construction Funds to the credit of Construction Interest Accounts are to be invested in Investment Securities of the types described in items 1, 2, 3 and 4 which shall mature prior to the dates when the monies held for the credit of such account will be required.

### **Certain Covenants**

*The Projects:* MMWEC will (subject to the provisions of the Power Sales Agreements and the Ownership Agreements) complete construction of Projects (other than those for which only development work was financed) at the earliest practicable time, operate such Projects efficiently and at reasonable cost, maintain such Projects in good condition and comply at all times with the terms of any licenses for such Projects.

*Rates:* MMWEC will maintain and collect rates and charges for capability, power and energy and other services, facilities and commodities sold, furnished or supplied through the Projects which will be adequate, whether or not the generation or transmission of power by the Projects is suspended, interrupted or reduced for any reason whatever, to provide revenues sufficient, among other things, (i) to pay the expenses of operating and maintaining the Projects, (ii) to make the required payments into the Bond Fund, (iii) to make the required payments into the Reserve and Contingency Fund, and (iv) to make all other payments required of MMWEC to carry out the General Resolution.

*Power Sales Agreements and Ownership Agreements:* MMWEC will not consent voluntarily to any amendment or rescission of the Power Sales Agreements or the Ownership Agreements or take any action under or in connection with such agreements which will in any manner materially and adversely affect the rights of the bondholders.

*Disposition of Properties:* MMWEC will not (subject to the provisions of the Ownership Agreements) sell, mortgage, lease or otherwise dispose of any properties of the Projects unless (a) simultaneous provision is made for the retirement in full of the Bonds or (b) the properties to be disposed of are unserviceable, inadequate, obsolete or no longer required for use in connection with the Projects, in which case the monies received therefor in excess of \$50,000 are to be paid into the Bond Retirement Account (unless such properties were paid for from the Reserve and Contingency Fund, in which cases such monies are to be paid into such Fund) or (c) the transfer of such properties in whole or in part is by operation of law or results from termination of any Project under an Ownership Agreement, in which case monies received therefor are to be paid into the Bond Retirement Account. Monies received from the disposition of properties of any Project terminated under the Power Sales Agreements are to be applied to the costs of termination and such monies not required therefor are to be paid into the Bond Retirement Account. Monies paid into the Bond Retirement Account are to be applied pro rata to the purchase or redemption of Bonds issued for the applicable Project. Notwithstanding clauses (b) and (c) above, and except as otherwise summarized above, monies received prior to the date of commercial operation of a Project as a result of any disposition are to be transferred to the Construction Fund.

*Insurance:* MMWEC (subject to the Ownership Agreements) will keep the Projects insured, to the extent such insurance is available at reasonable cost, against risks of direct physical loss, damage to or destruction of the Projects, at least to the extent that similar insurance is usually carried by electric utilities operating like properties, and against accidents, casualties or negligence, including liability insurance and employer's liability. In the event that any loss or damage to the properties of a Project occurs during the construction of such Project, MMWEC is to transfer the insurance proceeds received, if any, to the Construction Fund for such Project and any insurance proceeds received in respect of such loss or damage occurring thereafter are to be transferred into the Reserve and Contingency Fund for credit to the account therein of the Project, or paid into the Bond Retirement Account and applied pro rata to the purchase or redemption of Bonds issued for the Project.

*Books of Account:* MMWEC will keep proper books of account relating to the Projects in accordance with the rules and regulations of any agency of the Commonwealth authorized to prescribe such rules, including the DPU. Such books of account are to be audited annually by an independent certified public accountant of national reputation. Bondholders may obtain copies of the annual audit report by sending a written request to MMWEC.

*Consulting Engineer:* MMWEC will retain a nationally recognized independent consulting engineer or engineering firm to render continuous engineering counsel. In addition to his other duties, the Consulting Engineer shall prepare, not later than 180 days following December 31, 1979, and each 3 years thereafter, a report based upon a survey of the Projects and the operation and maintenance thereof. Each report is to show, among other things, whether MMWEC has satisfactorily performed and complied with the covenants contained in the General Resolution. The Consulting Engineer has prepared the initial triennial report. Copies of triennial reports will be sent to bondholders filing a written request with MMWEC.



### Events of Default; Remedies

Under the Resolution, the happening of any of the following events constitutes an Event of Default: (i) default in the due and punctual payment of the principal of and premium, if any, on any of the Bonds when due and payable; (ii) default in the due and punctual payment of any installment of interest on any Bond or of any sinking fund installment when due and payable; (iii) default for 30 days in the performance of any obligation of MMWEC with respect to payments into the Revenue Fund; (iv) default for 20 days in any payments into the Bond Fund by MMWEC; (v) default for 60 days in the observance and performance of any other of the covenants, conditions and agreements of MMWEC contained in the General Resolution, after written notice; (vi) the sale or conveyance of any properties of the Projects except as permitted by the General Resolution or the forfeiture through the fault of MMWEC of any license, franchise, permit or other privilege necessary or desirable in the operation of the Projects; and (vii) certain events in connection with bankruptcy, insolvency or reorganization or other proceedings relating thereto.

If an Event of Default shall have occurred and shall not have been remedied, the Bond Fund Trustee or the holders of 20% in principal amount of the Bonds may declare the principal of all the Bonds and the interest accrued thereon to be immediately due and payable, but such declaration may be annulled under certain circumstances. However, Participants are not obligated to make any payments under the Power Sales Agreements in respect of principal of Bonds due and payable solely as a result of such declaration.

After the occurrence of an Event of Default and prior to the curing of such Event of Default the Bond Fund Trustee may, to the extent permitted by law, take possession and control of the Projects and operate and maintain the same, prescribe rates and charges and collect the Revenues resulting from such operation. Such Revenues, after payment of the expenses of the Bond Fund Trustee, shall be applied to the payment of principal of and interest on the Bonds. After all sums then due in respect of the Bonds have been paid or provided for, and after all Events of Default have been cured or secured to the satisfaction of the Bond Fund Trustee, the Bond Fund Trustee is to relinquish possession and control of the Projects to MMWEC.

If the funds available at any time to pay the Bonds are insufficient, such funds shall be applied first to the payment of the unpaid interest then due or overdue in the order in which the same became due, and second to the payment ratably of the unpaid principal and redemption premium then due or overdue.

The General Resolution empowers the Bond Fund Trustee to file proofs of claims for the benefit of the holders of the Bonds in bankruptcy, insolvency or reorganization proceedings and to institute suit for the collection of sums due and unpaid in connection with the Bonds, to enforce specific performance of covenants contained in the General Resolution or to obtain injunctive or other appropriate relief for the protection of the bondholders.

The holders of a majority in principal amount of the Bonds at the time outstanding have the right to direct the time, method and place of conducting any proceeding for any remedy available to the Bond Fund Trustee, or exercising any trust or power conferred upon the Bond Fund Trustee, but the Bond Fund Trustee must be provided with reasonable security and indemnity and also may decline to follow any such direction if it shall be advised by counsel that the action or proceeding so directed may not lawfully be taken or if it in good faith determines that the action or proceeding so directed may not lawfully be taken or if it in good faith determines that the action or proceeding so directed would involve it in personal liability or that the action or proceedings so directed would be unjustly prejudicial to the bondholders not parties to such direction. No bondholder has any right to institute suit to enforce any provision of the General Resolution or the execution of any trust thereunder (except to enforce the payment of principal or interest installments as they mature), unless the Bond Fund Trustee has been requested by the holders of not less than 20% in aggregate principal amount of the Bonds then outstanding to exercise the powers granted it by the General Resolution or to institute such suit and unless the Bond Fund Trustee has refused or failed within 60 days after the receipt of such request, and after having been offered adequate security and indemnity, to comply with such request. The General Resolution also provides for the creation of a "Bondholders' Committee".

### **Amendments; Supplemental Resolutions**

Any amendment to the General Resolution may be made by MMWEC with the consent of the holders of 66⅔% in principal amount of the Bonds then outstanding, provided that no such amendment shall, among other things, permit a change in the date of payment of principal of or any installment of interest on any Bond or a reduction in the principal or redemption price thereof or the rate of interest thereon without the consent of each bondholder so affected.

Without the consent of any holder of the Bonds, MMWEC may adopt Supplemental Resolutions for certain purposes, including: to add to the covenants of MMWEC contained in, or to surrender any rights reserved to or conferred upon it by, the General Resolution; to confirm as further assurance any pledge under the General Resolution; and to cure any ambiguity or correct any defect in the General Resolution.

### **Discharge of Obligations Under the General Resolution**

The obligations of MMWEC under the General Resolution shall be fully discharged and satisfied as to any Bond and such Bond shall no longer be deemed to be outstanding thereunder when payment of the principal of and the applicable redemption premium, if any, on such Bond, plus interest thereon to the due date thereof, (a) shall have been made or caused to be made in accordance with the terms thereof or (b) shall have been provided by irrevocably depositing with the Bond Fund Trustee, in trust solely for such payment, (i) monies sufficient to make such payment or (ii) direct obligations of, or obligations the principal of and interest on which are unconditionally guaranteed by, the United States of America maturing as to principal and interest in such amounts and at such times as will insure the availability of sufficient monies to make such payment, and except for the purposes of such payment, such Bond shall no longer be secured by or entitled to the benefits of the Resolution; provided that, with respect to Bonds which by their terms may be redeemed or otherwise prepaid prior to the stated maturities thereof, no deposit under (b) above shall constitute such discharge and satisfaction unless such Bonds shall have been irrevocably called or designated for redemption or prepayment on the first date thereafter such Bonds may be redeemed or prepaid in accordance with the provisions thereof and notice of such redemption or prepayment shall have been given or irrevocable provisions shall have been made for the giving of such notice.

### **SUMMARY OF CERTAIN PROVISIONS OF THE SHARING AGREEMENTS**

As a result of its acquisition of joint ownership interests in the various electric generating units described above, MMWEC is a party to agreements among the owners of the units specifying their respective rights and obligations in regard to ownership, construction and operation of the units (the "Sharing Agreements"). The following summary is a brief outline of certain provisions contained in the Sharing Agreements. The various Sharing Agreements, including the Sharing Agreement for the Stony Brook Intermediate Unit for which MMWEC is the sponsoring utility, are substantially similar in their terms with the exception of certain recent amendments to the Seabrook Sharing Agreement described below. These summaries are not to be considered as a full statement of the terms of the Sharing Agreements.

The Sharing Agreements provide that the sponsoring utilities will have the sole responsibility for and will undertake the licensing, design, construction, operation and maintenance and decommissioning of the units and will keep all other owners informed of all significant matters.

Each owner is obligated to reimburse the sponsoring utilities for its ownership share of all costs relating to the licensing, design, construction, operation and maintenance and decommissioning of the units. However, each owner is individually responsible for its own costs of capital, and will determine and bear individual depreciation or amortization with respect to its investment in the units.

In addition, each owner is responsible for its share of the sponsoring utilities' cost of ownership, operation, and maintenance of portions of the site, and certain common facilities used by the units but not conveyed by the sponsoring utilities to the other owners under the Sharing Agreements. A separate

interrelated agreement obligates each owner to support the annual cost of ownership, operation and maintenance of certain transmission facilities associated with the units. Such support is generally in accordance with the owner's ownership share. Each owner is responsible for the transmission of its share of the output from the units.

Upon a determination that continued construction or operation is not in the best interests of the owners, the sponsoring utilities may terminate or suspend construction or shut down the units, for a brief or extended period or permanently, as appropriate. In such case, each owner bears its ownership share of all related costs.

If an owner desires to sell all or any portion of its ownership interest, varying periods of notice up to 12 months are required and a right of first refusal is provided first to the sponsoring utilities and then to all other owners. Exceptions are made for mergers, consolidations, transfer of substantially all of the electric utility property or generating facilities of an owner and transfers between affiliates.

The sponsoring utilities have the authority to determine the basis on which nuclear fuel is procured and, subject to the terms of the Sharing Agreement, to purchase or lease fuel and make all necessary arrangements therefor. Each owner is responsible for its share of fuel costs.

The sponsoring utilities agree in the Sharing Agreements for the nuclear units to obtain and maintain on behalf of all owners, liability and property insurance with respect to the construction, ownership, operation and maintenance of the units affording protection against insurable hazards, unless they are unable to obtain, or to obtain on reasonable terms, any such insurance. However, owners having at least 80% of the ownership shares may agree not to insure any such hazard or risk, other than the hazards of nuclear liability. Coverage shall include, to the extent available, nuclear liability insurance. For a further discussion of nuclear liability insurance, see the caption "Massachusetts Municipal Wholesale Electric Company—Regulation—Nuclear Insurance."

An owner may be in default under a Sharing Agreement if it fails to provide its ownership share of any costs associated with the unit. In the event of such default, the sponsoring utilities may terminate the owner's rights in the Sharing Agreement, in which case the owner must transfer to the sponsoring utilities all its right, title and interest in the plant and receive in return 75% of its net investment (or 75% of the fair market value of its ownership share, if lower).

*Recent Seabrook Amendments.* MMWEC is one of nine utilities which, subject to certain conditions, have agreed to purchase from PSNH portions of Seabrook Nos. 1 and 2 under an amendment to the Seabrook Sharing Agreement, MMWEC's portion constituting its Project No. 6. This amendment provides that, subject to necessary regulatory and other approvals, the ownership interests of MMWEC and the other purchasing utilities will be increased gradually over an "Adjustment Period" by proportionate sharing of costs otherwise attributable to PSNH's ownership interest until the aggregate total investment of the purchasing utilities has been increased, and that of PSNH reduced, by an amount equal to approximately 15% of the total investment of all joint owners. The Adjustment Period for MMWEC began on February 28, 1981, and for the other utilities began January 31, 1981 or is to begin after receipt of required approvals and financing. No payments to PSNH are required of MMWEC until MMWEC's first financing of the interest, which is expected to occur upon the issuance of the 1981 A Bonds.

Under a further amendment to the Seabrook Sharing Agreement, certain joint owners of the Seabrook units, including MMWEC, have made advance payments to PSNH in exchange for credit, with interest, against their shares, based upon their existing ownership interests of construction costs after June 1, 1981. The amount of these advances outstanding is \$4,595,000, of which MMWEC has advanced approximately \$1,600,000.

Another recent amendment to the Seabrook Sharing Agreement provides that if a joint owner is unable to pay its share of current construction costs one or more of the remaining joint owners may advance such costs and, at their option, assume ownership of the appropriate proportion of the defaulting participant's ownership interest if such advances are not reimbursed within five months. The amend-

ment also limits the authority of the sponsoring utility by providing that the plant may not be terminated, its scheduled commercial operation date extended or its construction suspended for an extended period without the consent of joint owners having an aggregate 75% ownership interest, except where the same is required by law, regulation or order of any governmental body or agency or by reason of an emergency, requirements of public safety or health or other similar causes.

Under MMWEC's agreement to acquire Seabrook interests representing Project No. 6, MMWEC is to sell, at cost, up to a maximum of 100 MW of the plant's capability back to PSNH during the three power years following 1986 unless MMWEC gives PSNH notice prior to November 1, 1982 that it intends to retain all or any portion of such 100 MW. The agreement also grants MMWEC an option to sell 57.5 MW of the plant's capability back to PSNH during the first seven years following the commercial operation of Unit No. 2 or through 1995 whichever comes later. In no instance, however, can more than 138 MW be sold back to PSNH. MMWEC's power supply plans indicate a need for all of its capability in Seabrook Units Nos. 1 and 2 and the Consulting Engineer has included all of this capability in its projections.

### **UNDERWRITING**

The Underwriters have jointly and severally agreed to purchase all but not less than all of the 1981 A Bonds from MMWEC at a price representing a discount of 2.515% from the initial public offering prices set forth on the cover page of this Official Statement. The 1981 A Bonds may be offered and sold to certain dealers, including Underwriters, at prices lower than such public offering prices, and such public offering prices may be changed from time to time by the Underwriters. The representatives of the Underwriters are Salomon Brothers; Smith Barney, Harris Upham & Co. Incorporated; Lehman Brothers Kuhn Loeb Incorporated; Merrill Lynch White Weld Capital Markets Group (Merrill Lynch, Pierce, Fenner & Smith Incorporated) and Adams, Harkness & Hill, Inc.

### **LITIGATION**

No litigation is pending or, to the knowledge of MMWEC, threatened in any court to restrain or enjoin the issuance or delivery of any of the 1981 A Bonds or the collection of revenues pledged or to be pledged to pay the principal of and interest on the 1981 A Bonds, or in any way contesting or affecting the validity of the 1981 A Bonds or the Resolution or the power to collect and pledge revenues to pay the 1981 A Bonds, or contesting the power or authority of MMWEC to issue the 1981 A Bonds or adopt the Resolution.

### **LEGALITY FOR INVESTMENT**

Pursuant to provisions of the Act, the 1981 A Bonds are securities in which all public officers and public bodies of the Commonwealth and its political subdivisions, all Massachusetts insurance companies, trust companies in their commercial departments, savings banks, cooperative banks, banking associations, investment companies, executors, administrators, trustees and other fiduciaries may properly and legally invest funds, including capital in their control or belonging to them, and are securities which may properly and legally be deposited with and received by any Massachusetts state or municipal officer or any agency or political subdivision of the Commonwealth for any purpose for which the deposit of bonds or obligations of the Commonwealth is now or may hereafter be authorized by law.

### **TAX EXEMPTION**

In the opinion of Bond Counsel, under existing laws and regulations, interest on the 1981 A Bonds is exempt from Federal income taxation and the income on the 1981 A Bonds, including any profit made on the sale thereof, is exempt from Massachusetts personal income taxes.



## **AVAILABLE INFORMATION REGARDING INVESTOR-OWNED UTILITIES**

The investor-owned utilities which are sponsors or joint owners of the generating units in MMWEC's Power Supply System or Participants in its Projects are subject to the informational requirements of the Securities Exchange Act of 1934 and in accordance therewith file reports and other information with the SEC. Certain information as of particular dates concerning such companies is disclosed in such reports and filed with the SEC. Such reports and other information can be inspected and copied at the offices of the SEC at Room 6101, 1100 L Street, N.W., Washington, D.C.; Room 1204, Everett McKinley Dirksen Building, 219 South Dearborn Street, Chicago, Illinois; Room 1100, 26 Federal Plaza, New York, New York; Suite 1710 Wilshire Boulevard, Los Angeles, California; and Room 800, Neil P. Anderson Building, 411 West Seventh Street, Fort Worth, Texas. Copies of such material can be obtained from the Public Reference Section of the SEC at 500 Capitol Street, N.W., Washington, D.C. 20549 at prescribed rates.

## **APPROVAL OF LEGAL PROCEEDINGS**

All of the legal proceedings in connection with the authorization and issuance of the 1981 A Bonds are subject to the approval of Wood & Dawson, New York, New York, Bond Counsel. The form of opinion Bond Counsel proposes to render is attached as Appendix C hereto. Certain legal matters in connection with the 1981 A Bonds are subject to the approval of Palmer & Dodge, Boston, Massachusetts, Counsel to the Underwriters, and Maurice J. Ferriter, Esquire, General Counsel to MMWEC, of Begley & Ferriter, P.C., Holyoke, Massachusetts.

## **ENGINEER'S REPORT**

In issuing this Official Statement, MMWEC has relied upon the detailed studies, investigations, analyses, assumptions and conclusions set forth in the Consulting Engineer's Report furnished by R. W. Beck and Associates.

## **MISCELLANEOUS**

The references herein to the Resolution, the Act, the Power Sales Agreements, the NEPOOL Agreement, and the Sharing Agreements, as amended, are brief outlines of certain provisions thereof. Such outlines do not purport to be complete, and reference is made to such documents and agreements for full and complete statements of such provisions. Copies of such documents are on file at the offices of MMWEC and may be obtained upon request.

MASSACHUSETTS MUNICIPAL WHOLESALE  
ELECTRIC COMPANY

By PHILLIP C. OTNESS  
*General Manager*

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**EXHIBIT I**

**ARTHUR ANDERSEN & Co.**  
BOSTON, MASSACHUSETTS

To the Board of Directors of  
MASSACHUSETTS MUNICIPAL WHOLESALE ELECTRIC COMPANY:

We have examined the balance sheets of MASSACHUSETTS MUNICIPAL WHOLESALE ELECTRIC COMPANY (a Massachusetts public corporation) as of December 31, 1980 and 1979, and the related statements of operations, changes in financial position and changes in special funds for the years then ended. Our examinations were made in accordance with generally accepted auditing standards and, accordingly, included such tests of the accounting records and such other auditing procedures as we considered necessary in the circumstances.

In our opinion, the financial statements referred to above present fairly the financial position of Massachusetts Municipal Wholesale Electric Company as of December 31, 1980 and 1979, and the results of its operations and the changes in its financial position for the years then ended, in conformity with generally accepted accounting principles applied on a consistent basis.

ARTHUR ANDERSEN & Co.

Boston, Massachusetts,  
February 27, 1981.

# MASSACHUSETTS MUNICIPAL WHOLESALE ELECTRIC COMPANY

## BALANCE SHEETS

December 31, 1979 and 1980 and March 31, 1981 (Unaudited)

|   |                  | 1980           |                                   |                  |                  | March 31,<br>1981<br>Total<br>(Unaudited) |
|---|------------------|----------------|-----------------------------------|------------------|------------------|---|
|   | 1979<br>Total    | Service        | Projects<br>Under<br>Construction | Wyman<br>Project | Total            |   |
| (Dollars in Thousands)  |                  |                |                                   |                  |                  |   |
| ASSETS  |                  |                |                                   |                  |                  |   |
| Electric Plant  |                  |                |                                   |                  |                  |   |
| In Service  | \$ 7,045         | \$ —           | \$ —                              | \$ 7,153         | \$ 7,153         | \$ 7,158                                  |
| Accumulated Depreciation (Note 3)   | (227)            | —              | —                                 | (446)            | (446)            | (499)                                     |
|   | <u>6,818</u>     | <u>—</u>       | <u>—</u>                          | <u>6,707</u>     | <u>6,707</u>     | <u>6,659</u>                              |
| Under Construction (Notes 2 and 7)  |                  |                |                                   |                  |                  |   |
| Jointly-Owned   | 130,634          | —              | 156,844                           | —                | 156,844          | 163,634                                   |
| MMWEC Projects  | 62,941           | —              | 125,908                           | —                | 125,908          | 144,991                                   |
|   | <u>193,575</u>   | <u>—</u>       | <u>282,752</u>                    | <u>—</u>         | <u>282,752</u>   | <u>308,625</u>                            |
| Total Electric Plant  | <u>200,393</u>   | <u>—</u>       | <u>282,752</u>                    | <u>6,707</u>     | <u>289,459</u>   | <u>315,284</u>                            |
| Other Property and Equipment  | 1,727            | 536            | 1,267                             | —                | 1,803            | 1,823                                     |
| Accumulated Depreciation (Note 3)   | (216)            | (245)          | (74)                              | —                | (319)            | (348)                                     |
|   | <u>1,511</u>     | <u>291</u>     | <u>1,193</u>                      | <u>—</u>         | <u>1,484</u>     | <u>1,475</u>                              |
| Total Property, Plant and Equipment   | <u>201,904</u>   | <u>291</u>     | <u>283,945</u>                    | <u>6,707</u>     | <u>290,943</u>   | <u>316,759</u>                            |
| Special Funds (See separate statement)  | 376,535          | —              | 370,941                           | 1,970            | 372,911          | 362,102                                   |
| Current Assets  |                  |                |                                   |                  |                  |   |
| Cash and Temporary Investments  | 351              | 338            | —                                 | —                | 338              | 273                                       |
| Accounts Receivable   | 871              | 801            | 303                               | 146              | 1,250            | 652                                       |
| Unbilled Receivables (Note 2)   | 208              | 1,715          | 192                               | —                | 1,907            | 1,835                                     |
| Inventories, principally fuel oil   | 368              | 2              | —                                 | 576              | 578              | 474                                       |
| Advances to or (from) Projects  | —                | 369            | (364)                             | (5)              | —                | —   |
| Prepaid Expenses  | 214              | 69             | 250                               | 2                | 321              | 522                                       |
|   | <u>2,012</u>     | <u>3,294</u>   | <u>381</u>                        | <u>719</u>       | <u>4,394</u>     | <u>3,756</u>                              |
| Deferred Charges  |                  |                |                                   |                  |                  |   |
| Unamortized Debt Discount and Expenses<br>(Note 4)  | 16,894           | —              | 19,292                            | 190              | 19,482           | 19,322                                    |
| Costs Recoverable in the Future Under Terms<br>of the Power Sales Agreements (Notes 2 and<br>6) | 3,193            | —              | 3,637                             | 614              | 4,251            | 4,233                                     |
| Other   | 1,636            | 15             | 1,636                             | 11               | 1,662            | 1,660                                     |
|   | <u>21,723</u>    | <u>15</u>      | <u>24,565</u>                     | <u>815</u>       | <u>25,395</u>    | <u>25,215</u>                             |
|   | <u>\$602,174</u> | <u>\$3,600</u> | <u>\$679,832</u>                  | <u>\$10,211</u>  | <u>\$693,643</u> | <u>\$707,832</u>                          |
| LIABILITIES   |                  |                |                                   |                  |                  |   |
| Long-Term Debt (Note 5)   | \$560,870        | \$ —           | \$663,450                         | \$ 9,290         | \$672,740        | \$672,740                                 |
| Advances from Members (Note 1)  | 131              | 124            | —                                 | —                | 124              | 124                                       |
| Current Liabilities   |                  |                |                                   |                  |                  |   |
| Current Maturities of Long-Term Debt  | —                | —              | —                                 | 130              | 130              | 130                                       |
| Working Capital Advances (Note 1)   | —                | 1,000          | (971)                             | (29)             | —                | —   |
| Notes Payable (Note 5)  | 35,000           | 187            | —                                 | —                | 187              | —   |
| Accounts Payable  | 5,040            | 361            | 13,305                            | 728              | 14,394           | 16,888                                    |
| Accrued Interest and Expenses   | 427              | 1,923          | —                                 | —                | 1,928            | 13,772                                    |
| Contractors' Retention  | 653              | —              | 4,048                             | —                | 4,048            | 4,068                                     |
|   | <u>41,120</u>    | <u>3,476</u>   | <u>16,382</u>                     | <u>829</u>       | <u>20,687</u>    | <u>34,858</u>                             |
| Deferred Revenues   | 53               | —              | —                                 | 92               | 92               | 110                                       |
| Commitments and Contingencies (Notes 7 and 9)   |                  |                |                                   |                  |                  |   |
|   | <u>\$602,174</u> | <u>\$3,600</u> | <u>\$679,832</u>                  | <u>\$10,211</u>  | <u>\$693,643</u> | <u>\$707,832</u>                          |

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



# MASSACHUSETTS MUNICIPAL WHOLESALE ELECTRIC COMPANY

## STATEMENTS OF OPERATIONS

For The Years Ended December 31, 1979 and 1980 and The Quarter Ended March 31, 1981 (Unaudited)

|   |                 | 1980                   |                                   |                  |                 | Quarter<br>Ended<br>March 31,<br>1981<br>Total<br>(Unaudited) |
|---|-----------------|------------------------|-----------------------------------|------------------|-----------------|---|
|   | 1979<br>Total   | Service                | Projects<br>Under<br>Construction | Wyman<br>Project | Total           |   |
|   |                 | (Dollars in Thousands) |                                   |                  |                 |   |
| Revenues:   |                 |                        |                                   |                  |                 |   |
| Electric Sales For Resale (Note 2) . . .  | \$ 1,394        | \$5,907                | \$ —                              | \$2,668          | \$ 8,575        | \$ 6,458  |
| Service Revenues . . . . .  | 594             | 1,305                  | —                                 | —                | 1,305           | 319   |
| Interest Income . . . . .   | 27,563          | 6                      | 37,068                            | 202              | 37,276          | 9,850   |
| Total Revenues and Interest Income  | <u>\$29,571</u> | <u>\$7,218</u>         | <u>\$37,068</u>                   | <u>\$2,870</u>   | <u>\$47,156</u> | <u>\$16,627</u>   |
| Operating and Service Expenses:   |                 |                        |                                   |                  |                 |   |
| Fuel Used in Electric Generation . . .  | \$ 385          | \$ —                   | \$ —                              | \$1,744          | \$ 1,744        | \$ 1,286  |
| Purchased Power (Note 2) . . . . .  | 387             | 5,902                  | —                                 | —                | 5,902           | 4,920   |
| Other Operations and Maintenance—   |                 |                        |                                   |                  |                 |   |
| Payroll and Related . . . . .   | 326             | 713                    | —                                 | 46               | 759             | 206   |
| Other . . . . .   | 655             | 563                    | —                                 | 323              | 886             | 215   |
| Depreciation (Note 3) . . . . .   | 236             | 30                     | —                                 | 219              | 249             | 61  |
| Taxes Other Than Income . . . . .   | 80              | 4                      | —                                 | 87               | 91              | 23  |
|   | <u>2,069</u>    | <u>7,212</u>           | <u>—</u>                          | <u>2,419</u>     | <u>9,631</u>    | <u>6,711</u>  |
| Interest Expenses:  |                 |                        |                                   |                  |                 |   |
| Interest Charges . . . . .  | 33,466          | 6                      | 42,423                            | 575              | 43,004          | 12,038  |
| Interest Charged to Projects During<br>Construction (Note 2) . . . . .                                    | (5,529)         | —                      | (5,355)                           | —                | (5,355)         | (2,110)   |
|   | <u>27,937</u>   | <u>6</u>               | <u>37,068</u>                     | <u>575</u>       | <u>37,649</u>   | <u>9,928</u>  |
| Loss (Recovery) on Cancelled Units<br>(Note 6) . . . . .  | 2,703           | —                      | 934                               | —                | 934             | (30)  |
|   | <u>32,709</u>   | <u>7,218</u>           | <u>38,002</u>                     | <u>2,994</u>     | <u>48,214</u>   | <u>16,609</u>   |
| Costs Recoverable in the Future Under<br>Terms of the Power Sales Agreements<br>(Notes 2 and 6) . . . . . | (3,138)         | —                      | (934)                             | (124)            | (1,058)         | 18  |
|   | <u>\$29,571</u> | <u>\$7,218</u>         | <u>\$37,068</u>                   | <u>\$ 2,870</u>  | <u>\$47,156</u> | <u>\$16,627</u>   |

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

# MASSACHUSETTS MUNICIPAL WHOLESALE ELECTRIC COMPANY

## STATEMENTS OF CHANGES IN SPECIAL FUNDS

For The Two Years Ended December 31, 1980 and The Quarter Ended March 31, 1981 (Unaudited)

(Dollars in Thousands)

### Construction and Construction Interest Funds

|   | Nuclear<br>Mix<br>No. 1 | Nuclear<br>Mix<br>No. 2 | Nuclear<br>Project<br>No. 3 | Nuclear<br>Project<br>No. 4 | Nuclear<br>Project<br>No. 5 | Sears<br>Island<br>Project | Stony Brook<br>Intermediate<br>Project | Stony Brook<br>Peaking<br>Project |
|---|-------------------------|-------------------------|-----------------------------|-----------------------------|-----------------------------|----------------------------|--|-----------------------------------|
| Balances, January 1, 1979 ..                | \$116,289               | \$5,966                 | \$27,837                    | \$108,799                   | \$27,677                    | \$7,353                    | \$ —                                   | \$ —                              |
| Add:  |                         |                         |                             |                             |                             |                            |  |                                   |
| Bond proceeds .....                         | —                       | —                       | —                           | —                           | —                           | —                          | 139,871                                | —                                 |
| Note proceeds .....                         | —                       | —                       | —                           | —                           | —                           | —                          | —                                      | —                                 |
| Interest income .....                       | 8,783                   | 511                     | 2,143                       | 6,697                       | 1,769                       | 607                        | 2,673                                  | —                                 |
| Electric sales for resale .....             | —                       | —                       | —                           | —                           | —                           | —                          | —                                      | —                                 |
| Inter-fund transfers .....                  | 1,061                   | 49                      | 275                         | 377                         | 95                          | 30                         | 15,500                                 | —                                 |
| Other receipts .....                        | —                       | —                       | —                           | —                           | —                           | —                          | 408                                    | —                                 |
|   | <u>9,844</u>            | <u>560</u>              | <u>2,418</u>                | <u>7,074</u>                | <u>1,864</u>                | <u>637</u>                 | <u>158,452</u>                         | <u>—</u>                          |
| Deduct:                                     |                         |                         |                             |                             |                             |                            |  |                                   |
| Construction expenditures .....             | 7,914                   | 245                     | 3,288                       | 37,709                      | 9,540                       | 139                        | 6,774                                  | —                                 |
| Debt issue costs .....                      | 1                       | —                       | —                           | 3                           | 3                           | 1                          | 7,284                                  | —                                 |
| Operating purchases and expenses .....      | —                       | —                       | —                           | —                           | —                           | —                          | —                                      | —                                 |
| Note retirements .....                      | 1,250                   | —                       | —                           | —                           | —                           | —                          | 64,000                                 | —                                 |
| Interest payments—notes .....               | —                       | —                       | —                           | —                           | —                           | —                          | 429                                    | —                                 |
| Interest payments—bonds .....               | 11,818                  | 692                     | 3,276                       | 7,373                       | 2,042                       | 638                        | 4,137                                  | —                                 |
| Working capital advances .....              | 46                      | 33                      | 12                          | 25                          | (19)                        | (15)                       | 257                                    | —                                 |
| Other .....                                 | 7                       | —                       | —                           | 1,300                       | 329                         | —                          | —                                      | —                                 |
|   | <u>21,036</u>           | <u>971</u>              | <u>6,576</u>                | <u>46,410</u>               | <u>11,895</u>               | <u>763</u>                 | <u>82,881</u>                          | <u>—</u>                          |
| Balances, December 31, 1979, consisting of: |                         |                         |                             |                             |                             |                            |  |                                   |
| Construction fund .....                     | 81,460                  | 4,171                   | 17,127                      | 43,658                      | 10,499                      | 5,633                      | 55,714                                 | —                                 |
| Construction interest .....                 | 23,637                  | 1,384                   | 6,552                       | 25,805                      | 7,147                       | 1,594                      | 19,857                                 | —                                 |
|   | <u>\$105,097</u>        | <u>\$5,555</u>          | <u>\$23,679</u>             | <u>\$ 69,463</u>            | <u>\$17,646</u>             | <u>\$7,227</u>             | <u>\$ 75,571</u>                       | <u>\$ —</u>                       |
| Add:  |                         |                         |                             |                             |                             |                            |  |                                   |
| Bond proceeds .....                         | —                       | —                       | —                           | —                           | —                           | —                          | 24,443                                 | 76,424                            |
| Interest income .....                       | 10,328                  | 608                     | 2,131                       | 6,298                       | 1,537                       | 679                        | 7,517                                  | 2,012                             |
| Electric sales for resale .....             | —                       | —                       | —                           | —                           | —                           | —                          | —                                      | —                                 |
| Inter-fund transfers .....                  | 493                     | 32                      | 181                         | 262                         | 52                          | 16                         | 364                                    | 21,813                            |
| Other .....                                 | —                       | 81                      | —                           | —                           | —                           | —                          | 1,941                                  | —                                 |
|   | <u>10,821</u>           | <u>721</u>              | <u>2,312</u>                | <u>6,560</u>                | <u>1,589</u>                | <u>695</u>                 | <u>34,265</u>                          | <u>100,249</u>                    |
| Deduct:                                     |                         |                         |                             |                             |                             |                            |  |                                   |
| Other property acquisitions (sales) .....   | —                       | —                       | —                           | —                           | —                           | —                          | (236)                                  | —                                 |
| Construction expenditures .....             | 6,236                   | 20                      | 3,164                       | 11,236                      | 2,853                       | 121                        | 33,205                                 | 8,583                             |
| Debt issue costs .....                      | —                       | —                       | —                           | —                           | —                           | —                          | 879                                    | 2,534                             |
| Operating purchases and expenses .....      | —                       | —                       | —                           | —                           | —                           | —                          | —                                      | —                                 |
| Note retirements .....                      | —                       | —                       | —                           | —                           | —                           | —                          | —                                      | 35,000                            |
| Interest payments—notes .....               | —                       | —                       | —                           | —                           | —                           | —                          | —                                      | 329                               |
| Interest payments—bonds .....               | 11,818                  | 692                     | 3,276                       | 7,373                       | 2,042                       | 638                        | 11,048                                 | 3,528                             |
| Working capital advances .....              | 11                      | 14                      | —                           | 5                           | 2                           | 9                          | 40                                     | 165                               |
|   | <u>18,065</u>           | <u>726</u>              | <u>6,440</u>                | <u>18,614</u>               | <u>4,897</u>                | <u>768</u>                 | <u>44,936</u>                          | <u>50,139</u>                     |
| Balances, December 31, 1980, consisting of: |                         |                         |                             |                             |                             |                            |  |                                   |
| Construction fund .....                     | 74,216                  | 4,166                   | 12,999                      | 38,977                      | 9,233                       | 5,870                      | 45,977                                 | 33,177                            |
| Construction interest .....                 | 23,637                  | 1,384                   | 6,552                       | 18,432                      | 5,105                       | 1,275                      | 18,923                                 | 16,933                            |
|   | <u>\$ 97,853</u>        | <u>\$5,550</u>          | <u>\$19,551</u>             | <u>\$ 57,409</u>            | <u>\$14,338</u>             | <u>\$7,154</u>             | <u>\$ 64,900</u>                       | <u>\$ 50,110</u>                  |

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

| Wyman<br>Project | Bond<br>Fund | Bond<br>Reserve<br>Fund | Total<br>Trusteed<br>Funds | Reserve and<br>Contingency<br>Fund | Stony Brook        |                         | Nuclear<br>Mix No. 1<br>(Seabrook) | Revenue<br>Fund | Total<br>Non-Trusteed<br>Funds | Total<br>Special<br>Funds |
|------------------|--------------|-------------------------|----------------------------|------------------------------------|--------------------|-------------------------|------------------------------------|-----------------|--------------------------------|---------------------------|
|                  |              |                         |                            |                                    | Peaking<br>Project | Intermediate<br>Project |                                    |                 |                                |                           |
| \$1,249          | \$—          | \$20,547                | \$323,717                  | \$ 109                             | \$ 3,172           | \$23,500                | \$596                              | \$ 572          | \$ 27,949                      | \$351,666                 |
| —                | —            | 9,929                   | 149,800                    | 1,000                              | —                  | —                       | —                                  | —               | 1,000                          | 150,800                   |
| —                | —            | —                       | —                          | —                                  | 40,000             | 64,000                  | —                                  | —               | 104,000                        | 104,000                   |
| 81               | 6            | 2,547                   | 25,817                     | 45                                 | 493                | 1,124                   | 28                                 | 76              | 1,766                          | 27,583                    |
| —                | —            | —                       | —                          | —                                  | —                  | —                       | —                                  | 1,007           | 1,007                          | 1,007                     |
| 15               | 279          | (1,612)                 | 16,069                     | 28                                 | —                  | (15,500)                | (307)                              | (290)           | (16,069)                       | —                         |
| —                | —            | —                       | 408                        | —                                  | —                  | 4,540                   | —                                  | 471             | 5,011                          | 5,419                     |
| 96               | 285          | 10,864                  | 192,094                    | 1,073                              | 40,493             | 54,164                  | (279)                              | 1,264           | 96,715                         | 288,809                   |
| 610              | —            | —                       | 66,219                     | —                                  | 2,939              | 25,772                  | 246                                | —               | 28,957                         | 95,176                    |
| —                | —            | —                       | 7,292                      | —                                  | 17                 | 182                     | 1                                  | —               | 200                            | 7,492                     |
| —                | —            | —                       | —                          | —                                  | —                  | —                       | —                                  | 1,035           | 1,035                          | 1,035                     |
| —                | —            | —                       | 65,250                     | —                                  | 9,800              | 48,200                  | —                                  | —               | 58,000                         | 123,250                   |
| —                | —            | —                       | 429                        | —                                  | 487                | 3,469                   | 70                                 | —               | 4,026                          | 4,455                     |
| 285              | 285          | —                       | 30,546                     | —                                  | —                  | —                       | —                                  | —               | —                              | 30,546                    |
| (10)             | —            | —                       | 330                        | —                                  | —                  | —                       | —                                  | 20              | 20                             | 350                       |
| —                | —            | —                       | 1,636                      | —                                  | —                  | —                       | —                                  | —               | —                              | 1,636                     |
| 885              | 285          | —                       | 171,702                    | —                                  | 13,243             | 77,623                  | 317                                | 1,055           | 92,238                         | 263,940                   |
| 460              | \$—          | \$39,411                | \$344,109                  | \$1,182                            | \$30,422           | \$ 41                   | \$—                                | \$ 781          | \$ 32,426                      | \$376,535                 |
| —                | —            | 11,153                  | 112,020                    | 600                                | —                  | —                       | —                                  | —               | 600                            | 112,6                     |
| 35               | 15           | 3,814                   | 34,974                     | 163                                | 2,053              | —                       | —                                  | 80              | 2,296                          | 37,1                      |
| —                | —            | —                       | —                          | —                                  | —                  | —                       | —                                  | 2,668           | 2,668                          | 2,668                     |
| (79)             | 620          | (1,451)                 | 22,303                     | 63                                 | (21,813)           | 30                      | —                                  | (583)           | (22,303)                       | —                         |
| —                | —            | —                       | 2,022                      | —                                  | —                  | —                       | —                                  | 38              | 38                             | 2,060                     |
| (44)             | 635          | 13,516                  | 171,319                    | 826                                | (19,760)           | 30                      | —                                  | 2,203           | (16,701)                       | 154,618                   |
| —                | —            | —                       | (236)                      | —                                  | 241                | 4                       | —                                  | —               | 245                            | 9                         |
| 150              | —            | —                       | 65,568                     | —                                  | 8,327              | 60                      | —                                  | —               | 8,387                          | 73,955                    |
| —                | —            | —                       | 3,413                      | —                                  | 94                 | 1                       | —                                  | —               | 95                             | 3,508                     |
| —                | —            | —                       | —                          | —                                  | —                  | —                       | —                                  | 2,247           | 2,247                          | 2,247                     |
| —                | —            | —                       | 35,000                     | —                                  | —                  | —                       | —                                  | —               | —                              | 35,000                    |
| —                | —            | —                       | 329                        | —                                  | 1,959              | —                       | —                                  | —               | 1,959                          | 2,288                     |
| —                | 570          | —                       | 40,985                     | —                                  | —                  | —                       | —                                  | —               | —                              | 40,985                    |
| —                | —            | —                       | 246                        | —                                  | —                  | —                       | —                                  | 4               | 4                              | 250                       |
| 150              | 570          | —                       | 145,305                    | —                                  | 10,621             | 65                      | —                                  | 2,251           | 12,937                         | 158,242                   |
| 266              | \$ 65        | \$52,927                | \$370,123                  | \$2,008                            | \$ 41              | \$ 6                    | \$—                                | \$ 733          | \$ 2,788                       | \$372,911                 |

# MASSACHUSETTS MUNICIPAL WHOLESALE ELECTRIC COMPANY

## STATEMENTS OF CHANGES IN SPECIAL FUNDS

For The Two Years Ended December 31, 1980 and

The Quarter Ended March 31, 1981 (Unaudited)

(Dollars in Thousands)

(Continued)

|   | Construction and Construction Interest Funds |                         |                             |                             |                             |                            |  |                                   |
|---|--|-------------------------|-----------------------------|-----------------------------|-----------------------------|----------------------------|--|-----------------------------------|
|   | Nuclear<br>Mix<br>No. 1                      | Nuclear<br>Mix<br>No. 2 | Nuclear<br>Project<br>No. 3 | Nuclear<br>Project<br>No. 4 | Nuclear<br>Project<br>No. 5 | Sears<br>Island<br>Project | Stony Brook<br>Intermediate<br>Project | Stony Brook<br>Peaking<br>Project |
| Balances, January 1, 1981                               | \$97,853                                     | \$5,550                 | \$19,551                    | \$57,409                    | \$14,338                    | \$7,154                    | \$ 64,900                              | \$ 50,110                         |
| Add:  |  |                         |                             |                             |                             |                            |  |                                   |
| Interest income   | 2,865  | 184                     | 491                         | 1,488                       | 404                         | 175                        | 1,556                                  | 1,338                             |
| Electric sales for resale                               | —  | —                       | —                           | —                           | —                           | —                          | —                                      | —                                 |
| Inter-fund transfers                                    | —  | —                       | —                           | —                           | —                           | —                          | (10)                                   | —                                 |
| Other receipts  | —  | —                       | —                           | —                           | —                           | —                          | 625                                    | —                                 |
|   | <u>2,865</u>                                 | <u>184</u>              | <u>491</u>                  | <u>1,488</u>                | <u>404</u>                  | <u>176</u>                 | <u>2,171</u>                           | <u>1,338</u>                      |
| Deduct:   |  |                         |                             |                             |                             |                            |  |                                   |
| Construction expenditures                               | 1,888  | —                       | 2,593                       | 2,666                       | 670                         | 26                         | 8,533                                  | 4,903                             |
| Operating purchases and expenses                        | —  | —                       | —                           | —                           | —                           | —                          | —                                      | —                                 |
| Working capital advances (returns)                      | —  | —                       | —                           | —                           | —                           | —                          | —                                      | —                                 |
| Other   | —  | 6                       | —                           | —                           | —                           | —                          | —                                      | —                                 |
|   | <u>1,888</u>                                 | <u>6</u>                | <u>2,593</u>                | <u>2,666</u>                | <u>670</u>                  | <u>26</u>                  | <u>8,533</u>                           | <u>4,903</u>                      |
| Balances, March 31, 1981<br>(unaudited), consisting of: |  |                         |                             |                             |                             |                            |  |                                   |
| Construction fund                                       | \$75,193                                     | \$4,344                 | \$10,897                    | \$37,799                    | \$ 8,967                    | \$6,029                    | \$ 39,615                              | \$ 29,612                         |
| Construction interest                                   | 23,637                                       | 1,384                   | 6,552                       | 18,432                      | 5,105                       | 1,275                      | 18,923                                 | 16,933                            |
|   | <u>\$98,830</u>                              | <u>\$5,728</u>          | <u>\$17,449</u>             | <u>\$56,231</u>             | <u>\$14,072</u>             | <u>\$7,304</u>             | <u>\$ 58,538</u>                       | <u>\$ 46,545</u>                  |

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



| Wyman<br>Project | Bond<br>Fund | Bond<br>Reserve<br>Fund | Total<br>Trusted<br>Funds | Reserve and<br>Contingency<br>Fund | Stony Brook        |                         | Revenue<br>Fund | Total<br>Non-Trusted<br>Funds | Total<br>Special<br>Funds |
|------------------|--------------|-------------------------|---------------------------|------------------------------------|--------------------|-------------------------|-----------------|-------------------------------|---------------------------|
|                  |              |                         |                           |                                    | Peaking<br>Project | Intermediate<br>Project |                 |                               |                           |
| \$ 266           | \$ 65        | \$52,927                | \$370,123                 | \$2,008                            | \$ 41              | \$ 6                    | \$ 733          | \$ 2,788                      | \$372,911                 |
| 11               | 4            | 1,242                   | 9,759                     | 56                                 | 1                  | 1                       | 20              | 78                            | 9,837                     |
| —                | —            | —                       | —                         | —                                  | —                  | —                       | 1,528           | 1,528                         | 1,528                     |
| —                | 175          | —                       | 165                       | 18                                 | —                  | 10                      | (193)           | (165)                         | —                         |
| —                | —            | —                       | 625                       | —                                  | —                  | —                       | —               | —                             | 625                       |
| 11               | 179          | 1,242                   | 10,549                    | 74                                 | 1                  | 11                      | 1,355           | 1,441                         | 11,990                    |
| 5                | —            | —                       | 21,284                    | —                                  | 8                  | 15                      | —               | 23                            | 21,307                    |
| —                | —            | —                       | —                         | —                                  | —                  | —                       | 1,432           | 1,432                         | 1,432                     |
| (3)              | —            | —                       | (3)                       | —                                  | —                  | —                       | —               | —                             | (3)                       |
| —                | —            | —                       | 6                         | —                                  | —                  | —                       | 57              | 57                            | 63                        |
| 2                | —            | —                       | 21,287                    | —                                  | 8                  | 15                      | 1,489           | 1,512                         | 22,799                    |
| \$ 275           |              |                         |                           |                                    |                    |                         |                 |                               |                           |
| —                |              |                         |                           |                                    |                    |                         |                 |                               |                           |
| \$ 275           | \$244        | \$54,169                | \$359,385                 | \$2,082                            | \$ 34              | \$ 2                    | \$ 599          | \$ 2,717                      | \$362,102                 |

# MASSACHUSETTS MUNICIPAL WHOLESALE ELECTRIC COMPANY

## STATEMENTS OF CHANGES IN FINANCIAL POSITION

For The Years Ended December 31, 1979 and 1980 and The Quarter Ended March 31, 1981 (Unaudited)

|   | 1980          |          |   |                  | Quarter Ended<br>March 31, 1981<br>Total<br>(Unaudited) |
|---|---------------|----------|---|------------------|---|
|   | 1979<br>Total | Service  | Projects<br>Under<br>Construction<br>(Dollars in Thousands) | Wyman<br>Project | Total   |
| <b>SOURCES OF FUNDS:</b>  |               |          |   |                  |   |
| Operations and Services—  |               |          |   |                  |   |
| Revenues and Income   | \$ 2,209      | \$ 7,218 | \$ —  | \$ 2,870         | \$ 10,088   |
| Expenses  | (2,644)       | (7,218)  | —   | (2,994)          | (10,212)  |
| Charges Not Involving Funds:  |               |          |   |                  |   |
| Depreciation and Amortization<br>(Notes 3 and 4)  | 241           | 30       | —   | 225              | 255   |
| Increase in Deferred Revenue  | 50            | —        | —   | 39               | 39  |
| Interest Expense Previously Funded  | 285           | —        | —   | —                | —   |
| From Operations and Service   | 141           | 30       | —   | 140              | 170   |
| Financing and Investments—  |               |          |   |                  |   |
| Bond Proceeds   | 150,000       | —        | 112,000   | —                | 112,000   |
| Interest Income   | 27,362        | —        | 37,068  | —                | 37,068  |
| Interest Expense  | (32,891)      | —        | (42,423)  | —                | (42,423)  |
| Charges Not Involving Funds:  |               |          |   |                  |   |
| Depreciation and Amortization   | 444           | —        | 656   | —                | 656   |
| Interest Charged to Projects During<br>Construction   | 5,529         | —        | 5,355   | —                | 5,355   |
| Loss on Cancelled Units (Note 6)  | 2,703         | —        | 934   | —                | 934   |
| From Financing and Investments  | 153,147       | —        | 113,590   | —                | 113,590   |
| Total Sources of Funds  | \$153,288     | \$ 30    | \$113,590   | \$ 140           | \$113,760   |
| <b>USES OF FUNDS:</b>   |               |          |   |                  |   |
| Additions to Electric Plant   | \$ 99,313     | \$ —     | \$ 89,923   | \$ 108           | \$ 90,031   |
| Additions to Other Property and Equip-<br>ment  | 138           | 67       | 9   | —                | 76  |
| Additions to Debt Discount and Expenses<br>(Note 4)   | 7,544         | —        | 3,449   | —                | 3,449   |
| Increase in Costs Recoverable in the Fu-<br>ture Under Terms of the Power Sales<br>Agreements (Notes 2 and 6) | 3,138         | —        | 934   | 124              | 1,058   |
| Increase in Other Deferred Charges  | 1,459         | 1        | —   | 11               | 26  |
| Other   | (150)         | (52)     | (25)  | 6                | (71)  |
|   | \$111,442     | \$ 30    | \$ 94,290   | \$ 249           | \$ 94,569   |
| CHANGE IN WORKING CAPITAL, INCLUDING<br>NOTES PAYABLE AND SPECIAL FUNDS                                       | \$ 41,846     | \$ —     | \$ 19,300   | \$ (109)         | \$ 19,191   |
| CHANGE IN WORKING CAPITAL CONSISTS OF:  |               |          |   |                  |   |
| Increase (Decrease) in Special Funds  | \$ 24,869     | \$ —     | \$ (3,561)  | \$ (63)          | \$ (3,624)  |
| Increase (Decrease) in Current Assets —   |               |          |   |                  |   |
| Cash  | 229           | (13)     | —   | —                | (13)  |
| Accounts Receivable   | 770           | 361      | 75  | (57)             | 379   |
| Unbilled Receivables  | 193           | 1,507    | 192   | —                | 1,699   |
| Inventories   | 182           | 2        | —   | 208              | 2   |
| Prepaid Expenses  | 198           | 38       | 67  | 2                | 107   |
| Advances to Projects  | —             | 121      | (120)   | (1)              | —   |
|   | 26,441        | 2,016    | (3,347)   | 89               | (1,242)   |
| (Increase) Decrease in Notes Payable  | 19,250        | (187)    | 35,000  | —                | 34,813  |
| (Increase) Decrease in Current Liabili-<br>ties—  |               |          |   |                  |   |
| Current Maturities of Long-Term Debt  | —             | —        | —   | (130)            | (130)   |
| Working Capital Advances  | —             | (250)    | 248   | 2                | —   |
| Accounts Payable  | (4,401)       | 182      | (9,446)   | (90)             | (9,354)   |
| Accrued Expenses  | 1,144         | (1,761)  | 240   | 20               | (1,501)   |
| Contractors' Retention  | (588)         | —        | (3,395)   | —                | (3,395)   |
|   | 15,405        | (2,016)  | 22,647  | (198)            | 20,433  |
|   | \$ 41,846     | \$ —     | \$ 19,300   | \$ (109)         | \$19,191  |

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

## MASSACHUSETTS MUNICIPAL WHOLESALE ELECTRIC COMPANY

### NOTES TO FINANCIAL STATEMENTS

(Including Notes Applicable to Unaudited Period)

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

MMWEC is a political subdivision of the Commonwealth of Massachusetts, authorized to issue revenue bonds secured by power sales agreements with its members and other electric systems to finance the construction and ownership of electric power facilities.

A Massachusetts municipal electric department authorized by major 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 outlined within the MMWEC By-Laws. At March 31, 1981, thirty-two Massachusetts municipalities had received votes of their respective city councils or town meetings authorizing membership by their respective municipal electric systems.

##### *Power Supply System*

MMWEC is obtaining power supply capacity by acquiring interests in various generating units from investor-owned utilities and by constructing its own electric power facilities. See Note 7 for information with respect to MMWEC's construction program and commitments. In addition, MMWEC negotiates power purchases on behalf of its members.

##### *Advances from Members*

MMWEC is authorized to assess each member to provide working capital. Advances may be returned to the members upon approval by MMWEC's Board of Directors or the dissolution of MMWEC.

##### *Advances from Projects*

The Board of Directors has authorized working capital advances of up to \$1,000,000 from Project Construction Funds. Such advances had been drawn from individual project funds based on the ratio of estimated administrative expenditures for each project for the period to the total of estimated project administrative expenditures for the period. At December 31, 1979 and 1980 and March 31, 1981, the amounts of the advances were \$750,000, \$1,000,000 and \$1,000,000, respectively.

#### (2) Significant Accounting Policies

##### *Interest Charged to Projects During Construction*

MMWEC capitalizes interest as an element of the cost of constructing electric plant. 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 income derived from project funds not yet expended for construction.

##### *Special Funds*

Proceeds from the sales of Revenue Bonds are deposited with Trustees to be invested until they are required for construction or debt service payments. Note proceeds are placed with Depositories and are similarly invested by MMWEC. Investment securities consist of U. S. Government securities, Federal agency obligations, and bank certificates of deposit in accordance with the provisions of the Bond Resolution. The investments are carried at cost, adjusted for amortization of premium or discount.

##### *Revenues and Costs Recoverable in the Future Under Terms of the Power Sales Agreements*

Under the terms of the Power Sales Agreements with Project participants, revenues include billings to participants for debt principal and interest payments in the period in which they are due. However, for financial reporting purposes MMWEC recognizes currently the depreciation and amortization expense of assets financed by bond principal. The excess of current expenses over amounts billed currently under terms of the Power Sales Agreements is deferred to the future periods in which these amounts will be recovered through revenues.

Electric Sales for Resale and Purchased Power reflected in the column headed Service, represent power purchases made by MMWEC for resale to contracting participants. In addition to these arrange-

# MASSACHUSETTS MUNICIPAL WHOLESALE ELECTRIC COMPANY

## NOTES TO FINANCIAL STATEMENTS

(Including Notes Applicable to Unaudited Period)

(Continued)

### (2) Significant Accounting Policies—(Continued)

ments, MMWEC serves as an agent for certain participants, whereby MMWEC is billed for the costs of power purchased or received by the participants under other contracts and agreements. Such costs are expenses of the participants and, accordingly, are not reflected in the accompanying statements of operations.

#### Unbilled Receivables

Under terms of the Service Agreement and the Power Sales Agreements, MMWEC bills its members for costs incurred in providing services and purchased power obtained on their behalf. Revenues are recorded in the accounts as the corresponding expenses are incurred. Amounts which are not yet billed are included in Unbilled Receivables in the accompanying balance sheets.

### (3) Depreciation

Property, plant and equipment in service is depreciated using the straight-line method over the estimated useful lives of the respective assets. Depreciation of electric plant in service, using a composite rate of 3%, was \$211,000 in 1979, \$219,000 in 1980, and \$53,000 for the quarter ended March 31, 1981. Depreciation of other property and equipment is computed at a composite rate of 16% and was \$85,000 in 1979, \$107,000 in 1980, and \$29,000 for the quarter ended March 31, 1981. Of those amounts, \$60,000, \$77,000, and \$21,000, respectively, were allocated to projects under construction.

### (4) Unamortized Debt Discount and Expenses

Debt discount and expenses are amortized to interest expense over the life of the related outstanding debt. Additions to and amortization of discount and expenses are summarized below:

| (Dollars in Thousands) |                      |                |                 | Balance<br>December 31<br>or March 31,<br>1981 |
|------------------------|----------------------|----------------|-----------------|--|
|                        | Balance<br>January 1 | Additions      | Amortization    |  |
| 1979                   |                      |                |                 |  |
| 1976 A Bonds           | \$2,068              | \$ —           | \$ (58)         | \$ 2,010                                       |
| 1977 A Bonds           | 3,711                | —              | (102)           | 3,609  |
| 1977 B Bonds           | 1,820                | —              | (47)            | 1,773  |
| 1978 A Bonds           | 2,120                | 3              | (54)            | 2,069  |
| 1979 A Bonds           | —                    | 7,496          | (85)            | 7,411  |
| 1978 A Notes           | 15                   | —              | (15)            | —  |
| 1978 B Notes           | 5                    | 1              | (6)             | —  |
| 1979 A Notes           | —                    | 20             | (20)            | —  |
| 1979 B Notes           | —                    | 24             | (2)             | 22   |
|                        | <u>\$9,739</u>       | <u>\$7,544</u> | <u>\$ (389)</u> | <u>\$16,894</u>                                |
| 1980                   |                      |                |                 |  |
| 1976 A Bonds           | \$ 2,010             | \$ —           | \$ (283)        | \$ 1,727                                       |
| 1977 A Bonds           | 3,609                | —              | (152)           | 3,457  |
| 1977 B Bonds           | 1,773                | —              | (47)            | 1,726  |
| 1978 A Bonds           | 2,069                | —              | (53)            | 2,016  |
| 1979 A Bonds           | 7,411                | —              | (260)           | 7,151  |
| 1980 A Bonds           | —                    | 3,446          | (41)            | 3,405  |
| 1979 B Notes           | 22                   | 2              | (24)            | —  |
|                        | <u>\$16,894</u>      | <u>\$3,448</u> | <u>\$ (860)</u> | <u>\$19,482</u>                                |
| 1981                   |                      |                |                 |  |
| 1976 A Bonds           | \$ 1,727             | \$ —           | \$ (13)         | \$ 1,714                                       |
| 1977 A Bonds           | 3,457                | —              | (25)            | 3,432  |
| 1977 B Bonds           | 1,726                | —              | (12)            | 1,714  |
| 1978 A Bonds           | 2,016                | —              | (14)            | 2,002  |
| 1979 A Bonds           | 7,151                | —              | (65)            | 7,086  |
| 1980 A Bonds           | 3,405                | —              | (31)            | 3,374  |
|                        | <u>\$19,482</u>      | <u>\$ —</u>    | <u>\$ (160)</u> | <u>\$19,322</u>                                |



# MASSACHUSETTS MUNICIPAL WHOLESALE ELECTRIC COMPANY

## NOTES TO FINANCIAL STATEMENTS

(Including Notes Applicable to Unaudited Period)

(Continued)

### (5) Debt

#### *Power Supply System Revenue Bonds*

To finance construction or ownership interests in electric generating projects, MMWEC issues, pursuant to its Bond Resolution and Chapter 775 of the Acts of 1975, Power Supply System Revenue Bonds. The Bonds are secured by a pledge of the revenues derived by MMWEC, under terms of power sales agreements, from the ownership and operation of its power supply system. Pursuant to the power sales agreements with the participants, each participant is obligated to pay its share of the actual costs relating to the generating units planned or under construction. The participants' obligations are not contingent upon the completion or operational status of the units.

The Power Supply System Revenue Bonds consist of Serial and Term Bonds. The Bonds, which are comprised of the following issues, are subject to redemption approximately ten years after the issue date, at 103% of the principal amount, descending periodically thereafter to 100%.

| <u>Issue</u>               | <u>Net Interest Cost</u> | <u>December 31,</u><br><u>1979</u> | <u>December 31, 1980</u><br><u>and</u><br><u>March 31, 1981</u> |
|----------------------------|--------------------------|------------------------------------|---|
|                            |                          | (Dollars in Thousands)             |   |
| 1976 Series A .....        | 7.2                      | \$ 75,000                          | \$ 75,000   |
| 1977 Series A .....        | 6.4                      | 177,370                            | 177,370   |
| 1977 Series B .....        | 6.1                      | 83,500                             | 83,500  |
| 1978 Series A .....        | 6.8                      | 75,000                             | 75,000  |
| 1979 Series A .....        | 7.0                      | 150,000                            | 150,000   |
| 1980 Series A .....        | 10.2                     | —                                  | 112,000   |
|                            |                          | <u>\$560,870</u>                   | <u>\$672,870</u>  |
| Less Current Portion ..... |                          | —                                  | (130)   |
| Total Long-Term Debt ..... |                          | <u>\$560,870</u>                   | <u>\$672,740</u>  |

The aggregate annual principal payments due in the next five years are as follow: 1981—\$130,000; 1982—\$135,000; 1983—\$140,000; 1984—\$4,085,000 and 1985—\$5,820,000.

#### *Notes Payable*

The \$35,000,000 of notes outstanding at December 31, 1979, which bore interest at a rate equal to 60% of the bank's prime rate, were repaid from the proceeds of the 1980 Series A bond issue.

#### *Line of Credit*

MMWEC has a \$2,000,000 revolving line of credit which is used to finance temporarily certain power purchases for itself and certain of its members. MMWEC expects to increase this line to \$4,000,000 in the near future. Borrowings under this line are at an interest rate approximating 50% of the prime rate and are secured by the receivables corresponding to the amounts taken-down. The balance outstanding as of December 31, 1980 was \$187,000. There were no other borrowings outstanding at December 31, 1979 or March 31, 1981.

### (6) Unit Cancellations

MMWEC's Nuclear Mix No. 2 was comprised of ownership interests in the NEP Nuclear Units Nos. 1 and 2 sponsored by New England Power Company, and the Montague Nuclear Units Nos. 1 and 2 sponsored by Northeast Utilities.

## MASSACHUSETTS MUNICIPAL WHOLESALE ELECTRIC COMPANY

### NOTES TO FINANCIAL STATEMENTS

(Including Notes Applicable to Unaudited Period)

(Continued)

The NEP units were cancelled prior to 1980, and the Montague units were cancelled on December 31, 1980. MMWEC's costs associated with its Nuclear Mix No. 2, aggregating \$3,607,000, have been recorded as a loss, of which \$934,000 was recognized in 1980, and have been deferred as Costs Recoverable in the Future Under the Terms of the Power Sales Agreements. MMWEC will proceed to decommission and terminate Nuclear Mix No. 2 in accordance with the provisions of the Power Sales Agreements and MMWEC's General Bond Resolution. Such procedures call for the realization of salvage and the satisfaction of liabilities to the extent possible from remaining funds available for such purposes. Any remaining liabilities, including debt service on bonds outstanding, will be recovered from the participants as they become due. There are \$10,060,000 in bonds outstanding which were issued for Nuclear Mix No. 2.

#### (7) Construction and Financing

##### *Construction Program*

MMWEC's plans for construction and acquisition of ownership interest in additional generating capacity are under continuing review. Included in this review is consideration of the acquisition of additional capacity from Millstone Unit No. 3, currently being constructed by Northeast Utilities. Currently forecasted expenditures for the generating facilities, as shown on the following page, amount to approximately \$1.3 billion, including estimates for contingencies, interest, and MMWEC costs charged to projects during construction.

The estimates of total costs and completion dates are those used by MMWEC and its Consulting Engineer for power supply and financial planning purposes. Certain of the completion dates are later than those of the lead participant. Total costs are based on the latest information available from the lead participant, adjusted to reflect later completion dates and other considerations.

Public Service Company of New Hampshire (PSNH) is experiencing difficulties in maintaining cash flow and obtaining external financing. In response to these difficulties, PSNH decided to reduce its 50% ownership in Seabrook by approximately 15% and other utilities, including MMWEC to the extent of 6%, have committed themselves for ownership of 14.77%. The commitments were subject to receipt of required approvals and, in some cases such as MMWEC, to receipt of initial financing. As of January 31, 1981, PSNH's ownership interest had been reduced to 43.7%, and, on February 6, 1981, MMWEC received Massachusetts Department of Public Utilities approval of the financing associated with acquisition of its additional 6% ownership. Estimated cost to MMWEC of this ownership, which is not included in the following table, is approximately \$324,000,000. PSNH has also indicated that adequate rates, timely approvals and financing are all essential to enable it to maintain its construction program.

The electric utility industry has experienced and may continue to experience a number of problems including financing large construction programs during an inflationary period, obtaining sufficient capital, compliance with environmental regulations, delays in constructing new facilities, delays in licensing, particularly nuclear facilities since the Three Mile Island incident, high fossil fuel costs and obtaining adequate rate relief.

# MASSACHUSETTS MUNICIPAL WHOLESALE ELECTRIC COMPANY

## NOTES TO FINANCIAL STATEMENTS

(Including Notes Applicable to Unaudited Period)

(Continued)

### (7) Construction and Financing—(Continued)

#### Construction Program—(Continued)

| Unit (Lead Participant)—<br>Estimated Completion Date                     | Proposed<br>MMWEC<br>Capability<br>(MW) | (Dollars in Thousands) |                  |   | Total<br>Estimated<br>MMWEC<br>Cost |
|---|---|------------------------|------------------|---|-------------------------------------|
|   |   | Costs to December 31,  |                  | Costs to<br>March 31, 1981<br>(Unaudited) |                                     |
|   |   | 1979                   | 1980             |   |                                     |
| Nuclear Mix No. 1   |   |                        |                  |   |                                     |
| Pilgrim Unit No. 2 (Boston Edison)—1990                                   | 152.3                                   | \$ 45,032              | \$ 48,962        | \$ 49,618                                 | \$ 501,599                          |
| Millstone Unit No. 3 (Northeast Utilities)—<br>1985                       | 18.4                                    | 11,025                 | 13,387           | 14,165                                    | 60,904                              |
| Seabrook Units Nos. 1 and 2 (Public Service<br>Co. of N.H.)—1985 and 1987 | 3.7                                     | 1,795                  | 2,312            | 2,411                                     | 12,066                              |
|   | <u>174.4</u>                            | <u>\$ 57,852</u>       | <u>\$ 64,661</u> | <u>\$ 66,194</u>                          | <u>\$ 574,569</u>                   |
| Nuclear Mix No. 2   |   |                        |                  |   |                                     |
| NEP Units Nos. 1 and 2 (New England<br>Power)                             |   | \$ —                   | \$ —             | \$ —                                      |                                     |
| Montague Units Nos. 1 and 2 (Northeast<br>Utilities)                      |   | 688                    | —                | —   |                                     |
| (See Note 6)  |   | <u>\$ 688</u>          | <u>\$ —</u>      | <u>\$ —</u>                               |                                     |
| Nuclear Project No. 3   |   |                        |                  |   |                                     |
| Millstone Unit No. 3 (Northeast Utilities)—<br>1986                       | 36.8                                    | \$ 24,409              | \$ 29,566        | \$ 31,306                                 | \$ 93,453                           |
| Nuclear Project No. 4   |   |                        |                  |   |                                     |
| Seabrook Units Nos. 1 and 2 (Public Service<br>Co. of N.H.)—1985 and 1987 | 99.7                                    | \$ 36,888              | \$ 48,614        | \$ 51,408                                 | \$ 178,220                          |
| Nuclear Project No. 5   |   |                        |                  |   |                                     |
| Seabrook Units Nos. 1 and 2 (Public Service<br>Co. of N.H.)—1985 and 1987 | 25.2                                    | \$ 9,494               | \$ 12,675        | \$ 13,398                                 | \$ 47,869                           |
| Total Nuclear Units   | <u>336.1</u>                            | <u>\$129,331</u>       | <u>\$155,516</u> | <u>\$162,306</u>                          | <u>\$ 894,111</u>                   |
| Sears Island Project  |   |                        |                  |   |                                     |
| Sears Island Coal Unit No. 1 (Central Maine<br>Power)—1989                | 78.9                                    | \$ 1,303               | \$ 1,328         | \$ 1,328                                  | \$ 176,939                          |
| Stony Brook Peaking Project   |   |                        |                  |   |                                     |
| Phase I Peaking Units (MMWEC)—1982  | 170.0                                   | \$ 5,123               | \$ 30,312        | \$ 38,314                                 | \$ 70,441                           |
| Stony Brook Intermediate Project  |   |                        |                  |   |                                     |
| Phase I Intermediate Units (MMWEC)—<br>1981                               | 303.1                                   | \$ 57,818              | \$ 95,596        | \$106,677                                 | \$ 149,451                          |
| Total Fossil-Fueled Units   | <u>552.0</u>                            | <u>\$ 64,244</u>       | <u>\$127,236</u> | <u>\$146,319</u>                          | <u>\$ 396,831</u>                   |
| Total   |   | <u>\$193,575</u>       | <u>\$282,752</u> | <u>\$308,625</u>                          | <u>\$1,290,942</u>                  |

#### Financing Program

To finance its ownership share of the costs of these projects, MMWEC intends to issue additional series of revenue bonds, the timing and size of which will be based upon construction cash flow requirements and bond market conditions prevailing at the time.

# MASSACHUSETTS MUNICIPAL WHOLESALE ELECTRIC COMPANY

## NOTES TO FINANCIAL STATEMENTS

(Including Notes Applicable to Unaudited Period)  
(Continued)

### (8) Retirement Plan

Retirement benefits are provided to MMWEC's eligible employees through its participation in the Retirement and Security Program sponsored by the National Rural Electric Cooperative Association. It is MMWEC's policy to fund all accrued benefits. Pension costs were \$48,000 for 1979, \$105,000 for 1980, and \$41,000 for the quarter ended March 31, 1981. Information from the Plan Administrator is not available to permit MMWEC to determine its share of accumulated benefits nor assets available for plan benefits. There are no unfunded vested benefits associated with this Plan.

### (9) Commitments

#### *Power Purchase*

MMWEC has entered into a contract, subject to the approval of the Canadian National Energy Board and the securing of transmission rights, with the New Brunswick Electric Power Commission (NBEPC) to purchase 100 mw of baseload power from the NBEPC Point Lepreau nuclear unit. Corresponding agreements have been entered into by MMWEC to resell the power to MMWEC members and one other utility.

The Point Lepreau unit is scheduled to be in operation in the first quarter of 1982. The contract is effective from the In Service Date to October 31, 1987 with options for extensions. The contract payment provisions require MMWEC to pay in all events, following commercial operation, certain NBEPC fixed, operation, maintenance and other charges relating to the unit.

#### *Fuel Financing*

MMWEC is currently negotiating, with a group of banks, a \$30,000,000 line of credit to be used to finance fuel oil purchases incident to the operation of its Stony Brook Projects. The terms of the financing agreement are expected to include interest at 70% of the lead bank's prime rate plus a commitment fee of .5% per annum of the unused portion of the line. Borrowings under the line are to be secured by fuel oil purchased and fuel charges billed under the terms of the Power Sales Agreements.



# EXHIBIT II

## DEBT SERVICE REQUIREMENTS

The following table shows the debt service requirements on the Outstanding Bonds, the principal and interest requirements, including sinking fund installments, on the 1981 A Bonds, and total debt service requirements.

| Year<br>Ending<br>July 1 | Debt Service<br>on Outstanding<br>Bonds | 1981 A Bonds |              | Total Debt<br>Service(1) |
|--------------------------|---|--------------|--------------|--------------------------|
|                          |   | Principal    | Interest     |                          |
| 1981                     | \$ 699,920(2)                           | \$ —         | \$ —         | 699,920(2)               |
| 1982                     | 8,592,666(2)                            | —            | 6,068,497(2) | 14,661,163(2)            |
| 1983                     | 33,971,092(2)                           | —            | 12,136,994   | 46,108,086(2)            |
| 1984                     | 51,557,751                              | —            | 12,136,994   | 63,694,745               |
| 1985                     | 53,030,326                              | —            | 12,136,994   | 65,167,320               |
| 1986                     | 53,033,411                              | —            | 12,136,994   | 65,170,405               |
| 1987                     | 54,562,951                              | —            | 12,136,994   | 66,699,945               |
| 1988                     | 56,421,414                              | —            | 12,136,994   | 68,558,408               |
| 1989                     | 56,527,224                              | 495,000      | 12,136,994   | 69,159,218               |
| 1990                     | 56,574,911                              | 540,000      | 12,087,494   | 69,202,405               |
| 1991                     | 56,577,702                              | 600,000      | 12,032,144   | 69,209,846               |
| 1992                     | 56,576,824                              | 660,000      | 11,969,144   | 69,205,968               |
| 1993                     | 56,566,436                              | 725,000      | 11,898,194   | 69,189,630               |
| 1994                     | 56,564,831                              | 805,000      | 11,818,444   | 69,188,275               |
| 1995                     | 56,567,144                              | 895,000      | 11,727,881   | 69,190,025               |
| 1996                     | 56,569,589                              | 995,000      | 11,624,956   | 69,189,545               |
| 1997                     | 56,573,242                              | 1,110,000    | 11,509,536   | 69,192,778               |
| 1998                     | 56,571,444                              | 1,240,000    | 11,379,666   | 69,191,110               |
| 1999                     | 56,554,709                              | 1,385,000    | 11,233,346   | 69,173,055               |
| 2000                     | 56,571,742                              | 1,550,000    | 11,068,531   | 69,190,273               |
| 2001                     | 56,576,931                              | 1,740,000    | 10,882,531   | 69,199,462               |
| 2002                     | 56,567,200                              | 1,955,000    | 10,673,731   | 69,195,931               |
| 2003                     | 56,567,641                              | 2,190,000    | 10,436,688   | 69,194,329               |
| 2004                     | 56,567,442                              | 2,465,000    | 10,171,150   | 69,203,592               |
| 2005                     | 56,578,297                              | 2,770,000    | 9,872,269    | 69,220,566               |
| 2006                     | 56,564,930                              | 3,115,000    | 9,536,406    | 69,216,336               |
| 2007                     | 56,573,472                              | 3,500,000    | 9,158,713    | 69,232,185               |
| 2008                     | 56,570,405                              | 3,940,000    | 8,729,963    | 69,240,368               |
| 2009                     | 31,547,987                              | 4,435,000    | 8,247,313    | 44,230,300               |
| 2010                     | 31,556,679                              | 5,000,000    | 7,704,025    | 44,260,704               |
| 2011                     | 30,854,189                              | 5,625,000    | 7,091,525    | 43,570,714               |
| 2012                     | 30,860,169                              | 6,340,000    | 6,402,463    | 43,602,632               |
| 2013                     | 30,851,299                              | 7,140,000    | 5,625,813    | 43,617,112               |
| 2014                     | 30,857,200                              | 8,040,000    | 4,751,163    | 43,648,363               |
| 2015                     | 24,705,265                              | 9,060,000    | 3,766,263    | 37,531,528               |
| 2016                     | 12,014,706                              | 10,200,000   | 2,656,413    | 24,871,119               |
| 2017                     | 12,018,312                              | 11,485,000   | 1,405,913    | 24,910,225               |
| 2018                     | 747,600                                 | —            | —            | 747,600                  |

- (1) MMWEC presently intends to fund from the proceeds of additional Bonds the interest on Bonds for Projects under construction.
- (2) Exclusive of interest funded from Bond proceeds.

## EXHIBIT III

**PERCENTAGE OWNERSHIP INTERESTS  
IN JOINTLY-OWNED GENERATING UNITS(1)**

|  | Pilgrim<br>No. 2 | Mill-<br>stone<br>No. 3 | Seabrook<br>Nos. 1<br>& 2(2)(3) | W. F.<br>Wyman<br>No. 4 | Sears<br>Island<br>Coal<br>Unit<br>No. 1 | Stony<br>Brook<br>Peaking<br>Unit | Stony<br>Brook<br>Inter-<br>mediate<br>Unit |
|--|------------------|-------------------------|---------------------------------|-------------------------|--|-----------------------------------|---|
| MMWEC .....                                      | 13.24            | 4.80                    | 11.59                           | 3.67                    | 13.90                                    | 100.00                            | 90.76                                       |
| Bangor Hydro-Electric Company .....              | —                | —                       | 2.17                            | 8.33                    | —  | —                                 | —   |
| Boston Edison Company .....                      | 59.03            | —                       | —                               | 5.89                    | —  | —                                 | —   |
| The Connecticut Light & Power<br>Company .....   | —                | 34.45                   | 4.06                            | —                       | —  | —                                 | —   |
| Public Service Co. of New<br>Hampshire .....     | 3.47             | 3.89                    | 35.25                           | 3.14                    | —  | —                                 | —   |
| The Hartford Electric Light<br>Company .....     | —                | 18.20                   | —                               | —                       | —  | —                                 | —   |
| United Illuminating Company .....                | 3.30             | 3.68                    | 17.50                           | —                       | —  | —                                 | —   |
| New England Power Company .....                  | 11.16            | 12.21                   | 9.96                            | 9.27                    | —  | —                                 | —   |
| Western Massachusetts Electric<br>Company .....  | —                | 12.35                   | —                               | —                       | —  | —                                 | —   |
| Central Vermont Public Service<br>Corp. ....     | 1.78             | 1.73                    | 1.59                            | 1.81                    | —  | —                                 | —   |
| Vermont Electric Cooperative .....               | 0.20             | 0.20                    | 0.41                            | —                       | —  | —                                 | —   |
| Central Maine Power Company .....                | 2.85             | 2.50                    | 6.04                            | 59.16                   | 80.82                                    | —                                 | —   |
| Montaup Electric Company .....                   | 2.15             | 4.00                    | 2.90                            | 1.96                    | —  | —                                 | —   |
| Commonwealth Electric<br>Company .....           | 1.53             | —                       | 3.52                            | 1.43                    | —  | —                                 | —   |
| Fitchburg Gas & Electric Light<br>Company .....  | 0.19             | 0.22                    | 0.87                            | 0.18                    | —  | —                                 | —   |
| Burlington Electric Dept.<br>(Vermont) .....     | 0.33             | 0.37                    | —                               | —                       | —  | —                                 | —   |
| Green Mountain Power Corp. ...                   | —                | —                       | —                               | 1.14                    | 5.28                                     | —                                 | 8.80  |
| New Hampshire Electric<br>Cooperative, Inc. .... | —                | —                       | 2.17                            | —                       | —  | —                                 | —   |
| Village of Lyndonville, Vermont .....            | —                | 0.05                    | —                               | —                       | —  | —                                 | 0.44  |
| Chicopee, Mass. ....                             | —                | 1.35                    | —                               | —                       | —  | —                                 | —   |
| Hudson, Mass. ....                               | 0.17             | —                       | 0.08                            | —                       | —  | —                                 | —   |
| Taunton, Mass. ....                              | 0.60             | —                       | 0.43                            | —                       | —  | —                                 | —   |
| Maine Public Service Company .....               | —                | —                       | 1.46                            | 3.35                    | —  | —                                 | —   |
| Newport Electric Corporation .....               | —                | —                       | —                               | 0.67                    | —  | —                                 | —   |
| Total .....                                      | 100.00           | 100.00                  | 100.00                          | 100.00                  | 100.00                                   | 100.00                            | 100.00                                      |

(1) Rounded to the nearest .01%. The table does not reflect certain proposed transfers of ownership interests and additional transfers which may occur in the future.

(2) Gives effect to the transfer of PSNH's approximate 15% interest which occurs over an adjustment period. The transfer of the 0.33% additional ownership interest to Taunton requires approval from its City Council and to Municipal Lighting Plant Commission. The transfer to New Hampshire Electric Co-operative is subject to its receiving initial financing for its 2.17% ownership interest.

(3) Percentage share of interest equal in each unit.

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# **PARTICIPANTS' PERCENTAGE SHARES OF PROJECT CAPABILITY**

| Member<br>Participants                   | Nuclear Mix No. 1                   |  | Nuclear Project No. 3               |  | Nuclear Project No. 4               |  | Nuclear Project No. 5               |  |
|--|-------------------------------------|--|-------------------------------------|--|-------------------------------------|--|-------------------------------------|--|
|  | % Share<br>of Project<br>Capability | Approximate<br>Share of<br>Project<br>Capability<br>(kW) | % Share<br>of Project<br>Capability | Approximate<br>Share of<br>Project<br>Capability<br>(kW) | % Share<br>of Project<br>Capability | Approximate<br>Share of<br>Project<br>Capability<br>(kW) | % Share<br>of Project<br>Capability | Approximate<br>Share of<br>Project<br>Capability<br>(kW) |
| Ashburnham                               | 0.8077                              | 1,409  | 0.5550                              | 204  | 0.5040                              | 502  | 0.2461                              | 62   |
| Boylston                                 | 0.5353                              | 934  | 0.5577                              | 205  | 0.8400                              | 837  | 0.2886                              | 73   |
| Braintree                                | —                                   | —  | —                                   | —  | —                                   | —  | 55.9284                             | 14,108   |
| Danvers                                  | 10.4788                             | 18,280   | 2.9628                              | 1,089  | 7.0720                              | 7,048  | 3.4452                              | 869  |
| Georgetown                               | 0.6956                              | 1,213  | 0.3020                              | 111  | 0.7180                              | 716  | 0.3490                              | 88   |
| Groton                                   | 0.9725                              | 1,697  | 0.3074                              | 113  | 0.7380                              | 736  | 0.3579                              | 90   |
| Hingham                                  | 3.4281                              | 5,980  | 1.4311                              | 526  | 3.4180                              | 3,406  | 1.6644                              | 420  |
| Holden                                   | 2.7392                              | 4,778  | 0.8978                              | 330  | 2.6400                              | 2,631  | 1.0403                              | 262  |
| Holyoke                                  | 7.2615                              | 12,667   | 6.3500                              | 2,334  | 6.1180                              | 6,097  | 2.9821                              | 752  |
| Hudson                                   | 3.3984                              | 5,928  | 1.5997                              | 588  | 4.2300                              | 4,216  | 1.8613                              | 469  |
| Hull                                     | 1.4075                              | 2,455  | 0.4843                              | 178  | 1.1580                              | 1,154  | 0.5638                              | 142  |
| Ipswich                                  | 2.0179                              | 3,520  | 0.8897                              | 327  | 2.1220                              | 2,115  | 1.0335                              | 261  |
| Littleton                                | 1.7544                              | 3,060  | 0.7972                              | 293  | 2.2220                              | 2,214  | 0.9262                              | 234  |
| Mansfield                                | 6.2122                              | 10,837   | 1.8310                              | 673  | 5.7240                              | 5,704  | 2.0447                              | 516  |
| Marblehead                               | 3.7420                              | 6,528  | 2.9546                              | 1,086  | 2.6500                              | 2,641  | 1.2908                              | 326  |
| Middleborough                            | 2.4338                              | 4,246  | 2.3098                              | 849  | 8.0480                              | 8,020  | 1.3781                              | 348  |
| Middleton                                | 1.6535                              | 2,884  | 0.5469                              | 201  | 1.6460                              | 1,640  | 0.6376                              | 161  |
| North Attleborough                       | 4.1590                              | 7,255  | 3.3709                              | 1,239  | 4.4020                              | 4,387  | 1.5884                              | 401  |
| Paxton                                   | 0.8139                              | 1,420  | 0.6121                              | 225  | 0.6100                              | 608  | 0.2752                              | 69   |
| Peabody                                  | 11.3616                             | 19,820   | 3.5913                              | 1,320  | 2.0000                              | 1,993  | 4.1767                              | 1,051  |
| Reading                                  | 14.7191                             | 25,677   | 5.2617                              | 1,934  | 12.5560                             | 12,513   | 6.1186                              | 1,543  |
| Shrewsbury                               | 4.5828                              | 7,994  | 4.9706                              | 1,827  | 4.9160                              | 4,899  | 2.3960                              | 604  |
| South Hadley                             | —                                   | —  | 18.0079                             | 6,619  | 7.4000                              | 7,375  | 1.8769                              | 473  |
| Sterling                                 | —                                   | —  | 0.9196                              | 338  | 3.2760                              | 3,265  | 0.3400                              | 86   |
| Templeton                                | 2.2550                              | 3,934  | 1.0583                              | 389  | 1.3300                              | 1,325  | 0.6488                              | 164  |
| Wakefield                                | 3.8984                              | 6,801  | 4.4755                              | 1,645  | 3.5900                              | 3,578  | 1.9731                              | 498  |
| West Boylston                            | 1.3587                              | 2,370  | 1.7956                              | 660  | 2.9080                              | 2,898  | 0.7204                              | 182  |
| Westfield                                | 7.3131                              | 12,757   | 31.1595                             | 11,453   | 7.1640                              | 7,140  | 3.8479                              | 971  |
| <b>Non-Member<br/>Participants</b>       |                                     |  |                                     |  |                                     |  |                                     |  |
| Green Mountain Power<br>Corporation (VT) | —                                   | —  | —                                   | —  | —                                   | —  | —                                   | —  |
| Stowe (VT)                               | —                                   | —  | —                                   | —  | —                                   | —  | —                                   | —  |
| Ludlow (VT)                              | —                                   | —  | —                                   | —  | —                                   | —  | —                                   | —  |
| Hardwick (VT)                            | —                                   | —  | —                                   | —  | —                                   | —  | —                                   | —  |
| Morrisville (VT)                         | —                                   | —  | —                                   | —  | —                                   | —  | —                                   | —  |
| Swanton (VT)                             | —                                   | —  | —                                   | —  | —                                   | —  | —                                   | —  |
| Lyndonville (VT)                         | —                                   | —  | —                                   | —  | —                                   | —  | —                                   | —  |
| Northfield (VT)                          | —                                   | —  | —                                   | —  | —                                   | —  | —                                   | —  |
| Washington Elec. Co-op<br>(VT)           | —                                   | —  | —                                   | —  | —                                   | —  | —                                   | —  |
| Vermont Elec. Co-op<br>(VT)              | —                                   | —  | —                                   | —  | —                                   | —  | —                                   | —  |
| Pascoag Fire Dist. (RI)                  | —                                   | —  | —                                   | —  | —                                   | —  | —                                   | —  |
| Eastern Maine Co-op<br>(ME)              | —                                   | —  | —                                   | —  | —                                   | —  | —                                   | —  |
| <b>Total</b>                             | <b>100.0000</b>                     | <b>174,444</b>   | <b>100.0000</b>                     | <b>36,756</b>  | <b>100.0000</b>                     | <b>99,658</b>  | <b>100.0000</b>                     | <b>25,225</b>  |



# EXHIBIT IV

| Project No. 6                 |  | Wyman Project                 |  | Sears Island Project          |  | Stony Brook Intermediate Project |  | Stony Brook Peaking Project   |  |
|-------------------------------|--|-------------------------------|--|-------------------------------|--|----------------------------------|--|-------------------------------|--|
| % Share of Project Capability | Approximate Share of Project Capability (kW) | % Share of Project Capability | Approximate Share of Project Capability (kW) | % Share of Project Capability | Approximate Share of Project Capability (kW) | % Share of Project Capability    | Approximate Share of Project Capability (kW) | % Share of Project Capability | Approximate Share of Project Capability (kW) |
| 0.5340                        | 737  | —                             | —  | 0.3953                        | 312  | .7627                            | 2,312  | .9285                         | 1,578  |
| 0.6035                        | 833  | 1.4219                        | 313  | 0.4650                        | 367  | .6537                            | 1,982  | .9120                         | 1,550  |
| —                             | —  | —                             | —  | 9.8648                        | 7,786  | —                                | —  | —                             | —  |
| 10.1948                       | 14,071                                       | —                             | —  | 9.3377                        | 7,370  | 9.3182                           | 28,246                                       | 11.5551                       | 19,639                                       |
| 0.8079                        | 1,115  | —                             | —  | 0.5613                        | 443  | .8105                            | 2,457  | 1.0144                        | 1,724  |
| 1.2397                        | 1,711  | —                             | —  | 1.2100                        | 955  | .8852                            | 2,683  | 1.0832                        | 1,841  |
| 4.0994                        | 5,658  | —                             | —  | 2.6746                        | 2,111  | 4.3870                           | 13,298                                       | 5.3307                        | 9,060  |
| 3.6226                        | 5,000  | —                             | —  | 2.9369                        | 2,318  | 2.4979                           | 7,572  | 3.1984                        | 5,436  |
| —                             | —  | 18.7571                       | 4,129  | 4.7905                        | 3,781  | —                                | —  | 2.8342                        | 4,817  |
| 18.8374                       | 26,000                                       | 9.2536                        | 2,037  | 7.6020                        | 6,000  | —                                | —  | —                             | —  |
| 1.4433                        | 1,992  | 3.4389                        | 757  | 0.9059                        | 715  | 1.6360                           | 4,959  | 2.1793                        | 3,704  |
| —                             | —  | —                             | —  | 1.6610                        | 1,311  | .3233                            | 980  | —                             | —  |
| —                             | —  | 4.5428                        | 1,000  | 2.7570                        | 2,176  | 1.6654                           | 5,048  | 3.0607                        | 5,202  |
| 6.9178                        | 9,548  | —                             | —  | 6.4553                        | 5,095  | 5.6140                           | 17,018                                       | 7.2217                        | 12,274                                       |
| —                             | —  | 7.6137                        | 1,676  | —                             | —  | 2.9573                           | 8,964  | 1.5980                        | 2,716  |
| 1.8410                        | 2,541  | 4.5428                        | 1,000  | 2.2160                        | 1,749  | 2.2761                           | 6,899  | 4.9518                        | 8,416  |
| 3.3546                        | 4,630  | 2.7574                        | 607  | 1.6572                        | 1,308  | .9670                            | 2,931  | 1.8916                        | 3,215  |
| 2.2142                        | 3,056  | 4.5428                        | 1,000  | 5.0680                        | 4,000  | 3.5564                           | 10,780                                       | 5.9838                        | 10,170                                       |
| .789                          | 937  | —                             | —  | 0.8210                        | 648  | .7559                            | 2,291  | .9979                         | 1,696  |
| .678                          | 18,340                                       | —                             | —  | 4.1253                        | 3,256  | 14.3813                          | 43,595                                       | —                             | —  |
| —                             | —  | —                             | —  | 9.8319                        | 7,760  | 15.9249                          | 48,274                                       | 19.5163                       | 33,170                                       |
| 4.4631                        | 6,160  | 11.3614                       | 2,501  | 5.7496                        | 4,538  | 4.3088                           | 13,061                                       | —                             | —  |
| —                             | —  | —                             | —  | 3.0154                        | 2,380  | —                                | —  | —                             | —  |
| 0.7970                        | 1,100  | —                             | —  | 0.5486                        | 433  | .8083                            | 2,450  | 1.1014                        | 1,872  |
| 1.6860                        | 2,327  | —                             | —  | 1.0415                        | 822  | 1.5361                           | 4,656  | 2.3894                        | 4,061  |
| 2.7619                        | 3,812  | 11.9884                       | 2,639  | 3.1688                        | 2,501  | 4.3996                           | 13,336                                       | 6.3791                        | 10,842                                       |
| 0.6151                        | 849  | —                             | —  | 1.7915                        | 1,414  | 1.4135                           | 4,285  | 2.3041                        | 3,916  |
| —                             | —  | 19.7792                       | 4,354  | 9.3479                        | 7,378  | 9.9664                           | 30,212                                       | 13.5684                       | 23,061                                       |
| —                             | —  | —                             | —  | —                             | —  | 4.4294                           | 13,427                                       | —                             | —  |
| —                             | —  | —                             | —  | —                             | —  | 1.8251                           | 5,532  | —                             | —  |
| 1.0013                        | 1,382  | —                             | —  | —                             | —  | .5820                            | 1,764  | —                             | —  |
| —                             | —  | —                             | —  | —                             | —  | .5820                            | 1,764  | —                             | —  |
| 3.2763                        | 4,522  | —                             | —  | —                             | —  | .3880                            | 1,176  | —                             | —  |
| —                             | —  | —                             | —  | —                             | —  | .3880                            | 1,176  | —                             | —  |
| 1.0868                        | 1,500  | —                             | —  | —                             | —  | —                                | —  | —                             | —  |
| 0.3623                        | 500  | —                             | —  | —                             | —  | —                                | —  | —                             | —  |
| 1.9562                        | 2,700  | —                             | —  | —                             | —  | —                                | —  | —                             | —  |
| 7.2453                        | 10,000                                       | —                             | —  | —                             | —  | —                                | —  | —                             | —  |
| 1.4491                        | 2,000  | —                             | —  | —                             | —  | —                                | —  | —                             | —  |
| .227                          | 5,000  | —                             | —  | —                             | —  | —                                | —  | —                             | —  |
| 100.0000                      | 138,021                                      | 100.0000                      | 22,013                                       | 100.0000                      | 78,927                                       | 100.0000                         | 303,128                                      | 100.0000                      | 169,960                                      |

## EXHIBIT V

**CUSTOMERS ACCOUNTING FOR MORE THAN 5% OF EACH  
PARTICIPANT'S REVENUES IN 1980**

| <u>Member<br/>Participant</u> | <u>Customer's Name</u>                                      | <u>Sales<br/>(kWh)</u> | <u>Revenues</u> | <u>Percent<br/>of Total<br/>Participant<br/>Revenues</u> |
|-------------------------------|---|------------------------|-----------------|--|
| Boylston                      | Sibose, Inc. (Formerly<br>State Mutual<br>Broadcasting Co.) | 1,987,800              | \$ 112,208      | 10.6   |
| Danvers                       | Sylvania Corp.  | 31,964,500             | 1,490,811       | 13.0   |
| Groton                        | New England Business  | 1,509,900              | 93,576          | 5.5  |
| Holden                        | Reed Rolled Thread<br>& Dye Co.                             | 6,475,200              | 320,994         | 7.9  |
| Holyoke                       | Pyramid Co.   | 16,072,000             | 879,909         | 5.9  |
| Hudson                        | Digital Equip. Corp.  | 16,616,000             | 809,132         | 10.1   |
| Ipswich                       | Town of Rowley (Sales<br>For Resale)                        | 14,926,800             | 735,377         | 19.5   |
|                               | Sylvania Electric   | 5,386,800              | 268,174         | 7.1  |
| Littleton                     | San-Vel Concrete Corp.                                      | 6,109,200              | 460,291         | 10.3   |
| Mansfield                     | Owens-Illinois, Inc.*                                       | 22,590,400             | 1,169,256       | 13.9   |
|                               | Merckens Chocolate Co.                                      | 11,016,000             | 563,196         | 6.7  |
|                               | Codex   | 10,203,600             | 504,651         | 6.0  |
| Middleborough                 | Ocean Spray   | 9,036,000              | 394,988         | 7.6  |
| Middleton                     | Massachusetts Institute of<br>Technology                    | 8,671,500              | 474,540         | 19.9   |
|                               | Bostik Division   | 5,956,200              | 340,729         | 14.3   |
|                               | Ferncroft Condominiums                                      | 4,655,400              | 249,984         | 10.5   |
|                               | R&K   | 2,224,100              | 147,255         | 6.2  |
| Paxton                        | Anna Maria College  | 800,600                | 53,415          | 5.4  |
| Reading                       | Sweetheart Plastics, Inc.                                   | 48,211,000             | 2,609,722       | 10.4   |
| South Hadley                  | James River Graphics  | 17,648,300             | 856,169         | 15.6   |
|                               | Nonotuck Mfg. Corp.   | 10,341,900             | 486,050         | 8.9  |
|                               | Mt. Holyoke College   | 6,214,000              | 331,366         | 6.1  |
| Sterling                      | Albany International<br>(Industrial Molding Div.)           | 2,160,000              | 110,000         | 7.3  |
| Templeton                     | Baldwinville Products Corp.                                 | 23,376,000             | 1,102,089       | 44.8   |
|                               | Temple Stuart Co.   | 2,322,700              | 139,417         | 5.7  |
| West Boylston                 | Wachusett Moulding Corp.                                    | 3,717,300              | 198,463         | 8.5  |
|                               | George J. Meyers Co.  | 2,359,200              | 126,235         | 5.4  |
| Westfield                     | Digital Equipment Corp.                                     | 19,253,900             | 784,025         | 6.5  |

\* Not a customer in 1981.

EXHIBIT V (Con't)

CUSTOMERS ACCOUNTING FOR MORE THAN 5% OF EACH  
PARTICIPANT'S REVENUES IN 1980

| <u>Non-Member<br/>Participant</u> | <u>Customer's Name</u>                                | <u>Sales<br/>(kWh)</u> | <u>Revenues</u> | <u>Percent<br/>of Total<br/>Participant<br/>Revenues</u> |
|-----------------------------------|---|------------------------|-----------------|--|
| Green Mountain Power Corporation  | International Business Machines Corporation           | 186,328,300            | \$5,100,000     | 8.9  |
| Hardwick                          | Hazen-Union High School                               | 1,066,000              | 62,556          | 5.2  |
| Ludlow                            | Windsor Minerals                                      | 3,782,400              | 122,807         | 8.9  |
| Morrisville                       | Eastern Magnesia Talc Company                         | 9,703,500              | 301,087         | 18.1   |
| Northfield                        | Norwich University                                    | 3,264,000              | 117,417         | 11.3   |
| Stowe                             | Mount Mansfield Company                               | 4,324,351              | 247,823         | 11.7   |
| Swanton                           | Franklin and Lake Electric Company (Sales for Resale) | 3,940,700              | 159,822         | 9.1  |

**EXHIBIT VI**  
**PARTICIPANTS' DATA**  
**POPULATION, CUSTOMERS, ELECTRIC DEPARTMENT STATISTICS, POWER REQUIREMENTS,**  
**ENERGY SALES, OPERATING REVENUES(1)**

| Member Participant | Population(5) | Service Area Square Miles | Total Customers(4) |          | Miles of Distribution Lines | Number of Line Transformers | Line Transformer Total Capacity (kVA) | Number of Meters(6) | Generating Capacity (kW) | 1980 Peak Demand (kW) |
|--------------------|---------------|---------------------------|--------------------|----------|-----------------------------|-----------------------------|---------------------------------------|---------------------|--------------------------|-----------------------|
|                    |               |                           | 1974               | 1980     |                             |                             |                                       |                     |                          |                       |
| Ashburnham         | 4,075         | 39.2                      | 1,982              | 2,074    | 106                         | 623                         | 8,015                                 | 1,905               | —                        | 3,375                 |
| Boylston           | 3,470         | 19.5                      | 1,216              | 1,468    | 49                          | 396                         | 8,613                                 | 1,582               | —                        | 3,760                 |
| Braintree          | 36,337        | 13.7                      | 11,344             | 12,095   | 228                         | 2,272                       | 125,051                               | 11,881              | 101,530                  | 60,000                |
| Danvers            | 24,100        | 13.6                      | 8,613              | 9,097(8) | 155(8)                      | 1,563(8)                    | 75,730(8)                             | 8,959(8)            | —                        | 46,100                |
| Georgetown         | 5,687         | 13.0                      | 1,884              | 1,995    | 48                          | 448                         | 11,202                                | 1,996               | —                        | 4,990                 |
| Groton             | 6,154         | 32.0                      | 2,288              | 2,657    | 87                          | 775                         | 20,854                                | 2,570               | —                        | 5,200                 |
| Hingham            | 20,534        | 25.0                      | 7,374              | 8,160    | 152                         | 1,306                       | 46,650                                | 8,548               | —                        | 22,655                |
| Holden             | 13,336        | 56.0                      | 4,665              | 5,707    | 152                         | 1,308                       | 23,244                                | 5,601               | —                        | 13,600                |
| Holyoke            | 44,678        | 22.8                      | 18,453             | 17,521   | 1,146                       | 2,232                       | 157,951                               | 17,374              | 38,106                   | 46,800                |
| Hudson             | 21,552        | 49.0                      | 7,251              | 7,968    | 191                         | 2,324                       | 55,644                                | 7,842               | 20,200                   | 27,900                |
| Hull               | 9,714         | 2.3                       | 4,466              | 4,491    | 50(9)                       | 450(9)                      | 13,961(9)                             | 4,485(9)            | —                        | 7,217                 |
| Ipswich            | 15,025        | 33.4                      | 4,593              | 4,965    | 118                         | 933                         | 32,044                                | 5,180               | 8,059                    | 13,600                |
| Littleton          | 10,096        | 25.0                      | 2,107              | 4,269    | 111                         | 848                         | 41,339                                | 4,242               | —                        | 13,225                |
| Mansfield          | 13,453        | 20.0                      | 4,063              | 4,538    | 115                         | 997                         | 20,061                                | 4,440               | —                        | 27,600                |
| Marblehead         | 20,126        | 4.4                       | 8,736              | 9,111    | 153                         | 963                         | 33,619                                | 9,077               | 6,636                    | 16,525                |
| Middleborough      | 22,335        | 100.0                     | 7,522              | 8,747    | 228                         | 1,579                       | 48,177                                | 8,455               | —                        | 17,800                |
| Middleton          | 4,135         | 14.3                      | 1,469              | 1,616    | 55                          | 482                         | 9,551                                 | 1,550               | —                        | 8,602                 |
| N. Attleborough    | 21,095        | 24.0                      | 7,388              | 8,463    | 133                         | 1,271                       | 45,290                                | 8,264               | —                        | 20,575                |
| Paxton             | 3,762         | 15.5                      | 1,315              | 1,324    | 37                          | 341                         | 6,630                                 | 1,425               | —                        | 4,065                 |
| Peabody            | 49,702        | 20.0                      | 17,305             | 18,312   | 244                         | 2,647                       | 121,568                               | 18,325              | 30,850                   | 59,300                |
| Reading            | 59,145        | 50.0                      | 18,685             | 20,324   | 473                         | 2,682                       | 78,988                                | 20,152              | —                        | 85,120                |
| Shrewsbury         | 22,674        | 22.0                      | 7,806              | 9,387    | 176                         | 1,494                       | 66,525                                | 9,135               | 13,750                   | 30,350                |
| So. Hadley         | 16,399        | 15.0                      | 5,541              | 6,097    | 129                         | 1,146                       | 40,021                                | 6,116               | —                        | 19,365                |
| Sterling           | 5,440         | 30.5                      | 1,694              | 2,017    | 92                          | 704                         | 14,285                                | 2,122               | —                        | 5,200                 |
| Templeton          | 6,070         | 32.0                      | 2,285              | 2,467    | 87                          | 580                         | 16,587                                | 2,276               | —                        | 8,250                 |
| Wakefield          | 24,895        | 7.5                       | 9,253              | 9,631    | 215                         | 1,040                       | 70,207                                | 9,629               | —                        | 25,300                |
| W. Boylston        | 6,204         | 13.5                      | 2,276              | 2,430    | 93                          | 503                         | 17,895                                | 2,918               | —                        | 8,320                 |
| Westfield          | 36,465        | 47.0                      | 11,793             | 13,123   | 254                         | 2,577                       | 151,401                               | 12,944              | —                        | 47,200                |
| Total              | 526,463       | 740.2                     | 183,367            | 200,054  | 5,077                       | 34,604                      | 1,361,103                             | 198,993             | 219,131                  | 651,994(7)            |

Percent of Total

| Non-member Participant     | Population(5) | Service Area Square Miles | Total Customers(4) |          | Miles of Distribution Lines | Number of Line Transformers | Line Transformer Total Capacity (kVA) | Number of Meters(6) | Generating Capacity (kW) | 1980 Peak Demand (kW) |
|----------------------------|---------------|---------------------------|--------------------|----------|-----------------------------|-----------------------------|---------------------------------------|---------------------|--------------------------|-----------------------|
|                            |               |                           | 1974               | 1980     |                             |                             |                                       |                     |                          |                       |
| Eastern Maine Co-op        | NA            | NA                        | 7,395              | 9,149    | NA                          | NA                          | NA                                    | NA                  | 2,500                    | 21,800(8)             |
| Green Mountain Power Corp. | 171,000       | 1,445.0                   | 50,796             | 61,401   | 2,198(8)                    | 22,226                      | 558,120                               | 59,004              | 115,100                  | 277,500               |
| Hardwick                   | 6,240         | 13.0                      | 2,917              | 3,256    | 327                         | 1,311(8)                    | 18,834(8)                             | 3,051(8)            | 1,400                    | 6,038                 |
| Ludlow                     | 2,500         | 5.0                       | 1,782              | 1,930    | 85(8)                       | 450(8)                      | 22,000(8)                             | 2,100(8)            | —                        | 7,503                 |
| Lyndonville                | 8,000         | NA                        | 2,896              | 3,617    | 300(8)                      | 2,100(8)                    | NA                                    | 3,845               | 2,300                    | 9,467                 |
| Morrisville                | 5,500         | 85.0                      | 2,316              | 2,451    | 180(9)                      | 2,100(9)                    | NA                                    | 2,463               | 2,900                    | 8,594                 |
| Northfield                 | NA            | NA                        | 1,548              | 1,609(8) | NA                          | NA                          | NA                                    | NA                  | —                        | 4,960(8)              |
| Pascoag Fire District      | 8,000         | 30.0                      | 2,751              | 2,782(8) | 100(8)                      | NA                          | 7,000(8)                              | 2,843(8)            | —                        | 4,410(8)              |
| Stowe                      | 2,800         | 10.3                      | 1,661              | 2,019    | NA                          | NA                          | NA                                    | NA                  | —                        | 16,791                |
| Swanton                    | 5,000         | 38.0                      | 2,155              | 2,393    | 99(8)                       | 769(8)                      | 11,500(8)                             | 2,364(8)            | 4,100                    | 10,900                |
| Vermont Electric Co-op     | 30,400        | NA                        | 7,663              | 9,429    | 1,409                       | 7,008                       | 110,426                               | 10,224              | —                        | 26,041                |
| Washington Electric Co-op  | NA            | 1,140.0                   | 5,110              | 5,895    | 1,095                       | 5,037                       | 52,221                                | 5,971               | —                        | 11,736                |

(1) All data shown is for 1980 except as noted.

(2) Does not include revenue from steam sales of \$1,279,072.

(3) Does not include sales to Boylston.

(4) Information obtained from the Participants' Annual Return to their respective state regulatory agencies.

(5) Population based on the most recently available federal or state census, including population of adjoining towns served at retail and wholesale by the Participants.

(6) Number of meters may be less than number of customers due to private-area-lighting where such service is not metered but billed on a fixed amount.

(7) Non-coincident.

(8) 1979 Data.

(9) 1978 Data.



## 1980 Energy Sales (kWh) (000) (4)

| Total      | Residential | Commercial and Industrial | Municipal and Other | Sales for Resale |
|------------|-------------|---------------------------|---------------------|------------------|
| 15,361     | 9,119       | 5,763                     | 479                 | —                |
| 17,324     | 10,685      | 5,914                     | 725                 | —                |
| 306,801    | 78,188      | 173,007                   | 16,095              | 39,511           |
| 198,134(8) | 51,959(8)   | 130,373(8)                | 15,773(8)           | 29(8)            |
| 19,974     | 13,070      | 5,167                     | 1,737               | —                |
| 22,908     | 14,073      | 7,521                     | 1,314               | —                |
| 104,199    | 48,510      | 50,046                    | 5,373               | 270              |
| 63,676     | 33,476      | 26,631                    | 3,569               | —                |
| 214,463    | 70,460      | 128,293                   | 15,695              | 15               |
| 132,077    | 53,056      | 63,683                    | 11,069              | 4,269            |
| 30,964     | 19,856      | 7,215                     | 3,893               | —                |
| 64,536     | 28,122      | 17,352                    | 4,135               | 14,927           |
| 63,451     | 31,380      | 27,259                    | 4,812               | —                |
| 144,524    | 39,529      | 97,247                    | 7,748               | —                |
| 74,060     | 52,735      | 16,325                    | 4,291               | 709              |
| 92,081     | 43,024      | 43,673                    | 5,384               | —                |
| 40,554     | 9,192       | 30,313                    | 841                 | 208              |
| 95,811     | 49,752      | 34,218                    | 9,846               | 1,995            |
| 15,129     | 11,576      | 2,797                     | 734                 | 22               |
| 246,091    | 95,612      | 118,021                   | 31,376              | 1,082            |
| 402,408    | 127,882     | 256,947                   | 16,966              | 613              |
| 147,992    | 68,503      | 62,205                    | 15,595              | 1,689            |
| 100,355    | 36,134      | 56,789                    | 7,058               | 374              |
| 4,510      | 13,713      | 8,821                     | 1,976               | —                |
| 1,190      | 13,406      | 31,644                    | 2,120               | 20               |
| 107,620    | 48,696      | 51,290                    | 7,623               | 11               |
| 43,974(3)  | 16,685      | 25,577                    | 1,712               | — (3)            |
| 219,026    | 68,565      | 139,356                   | 11,105              | —                |
| 3,055,193  | 1,156,958   | 1,623,447                 | 209,044             | 65,744           |
| 100.00     | 37.87       | 53.14                     | 6.84                | 2.15             |

## 1980 Electric Revenues (4)

| Total         | Residential  | Commercial and Industrial | Municipal and Other | Sales for Resale |
|---------------|--------------|---------------------------|---------------------|------------------|
| \$ 1,081,960  | \$ 661,274   | \$ 386,344                | \$ 34,342           | \$ —             |
| 1,062,942     | 635,167      | 381,061                   | 46,714              | —                |
| 19,684,1      | 4,818,686    | 10,193,984                | 949,471             | 3,722,190        |
| 8,643,028(8)  | 2,383,317(8) | 5,590,623(8)              | 667,909(8)          | 1,179(8)         |
| 1,223,174     | 791,325      | 340,975                   | 90,874              | —                |
| 1,665,280     | 1,036,578    | 548,330                   | 80,372              | —                |
| 6,576,108     | 3,187,547    | 3,052,241                 | 317,566             | 18,754           |
| 4,082,608     | 2,337,220    | 1,523,834                 | 221,554             | —                |
| 13,581,408(2) | 4,735,264    | 7,904,244                 | 923,302             | 18,598           |
| 8,003,625     | 3,213,196    | 3,659,492                 | 812,868             | 318,069          |
| 2,146,866     | 1,367,506    | 567,072                   | 212,288             | —                |
| 3,753,463     | 1,793,547    | 1,022,037                 | 202,502             | 735,377          |
| 4,415,401     | 2,218,736    | 1,908,617                 | 288,048             | —                |
| 8,345,438     | 2,172,619    | 5,448,325                 | 724,494             | —                |
| 4,890,142     | 3,452,967    | 1,110,063                 | 261,145             | 65,967           |
| 5,180,561     | 2,572,541    | 2,318,149                 | 289,871             | —                |
| 2,387,740     | 568,231      | 1,755,490                 | 50,287              | 13,732           |
| 6,402,209     | 3,034,218    | 2,475,412                 | 741,354             | 151,225          |
| 982,705       | 739,263      | 197,083                   | 44,752              | 1,607            |
| 15,836,723    | 5,738,533    | 7,829,579                 | 2,088,779           | 179,832          |
| 25,145,460    | 8,484,357    | 15,396,294                | 1,225,084           | 39,725           |
| 8,955,789     | 4,311,012    | 3,651,359                 | 841,688             | 151,730          |
| 5,477,306     | 2,252,713    | 2,889,217                 | 316,304             | 19,072           |
| 1,510,289     | 852,298      | 547,741                   | 110,250             | —                |
| 2,457,164     | 797,960      | 1,547,552                 | 109,863             | 1,789            |
| 6,957,559     | 3,296,435    | 3,269,259                 | 381,312             | 10,553           |
| 2,323,712(3)  | 872,891      | 1,392,218                 | 58,603              | — (3)            |
| 12,146,718    | 4,196,067    | 7,362,722                 | 587,929             | —                |
| \$184,919,709 | \$72,521,468 | \$94,269,317              | \$12,679,525        | \$5,449,399      |

## 1980 Energy Sales (kWh) (000) (4)

| Total     | Residential | Commercial and Industrial | Municipal and Other | Sales for Resale |
|-----------|-------------|---------------------------|---------------------|------------------|
| 76,637    | 38,838      | 32,963                    | 4,836               | —                |
| 1,269,953 | 480,931     | 664,092                   | 4,388               | 120,542          |
| 25,639    | 12,855      | 11,345                    | 781                 | 658              |
| 30,162    | 10,639      | 11,996                    | 229                 | 7,299            |
| 42,763    | 20,821      | 17,934                    | 4,008               | —                |
| 39,585    | 17,321      | 21,402                    | 244                 | 618              |
| 27,269(8) | 10,426(8)   | 7,954(8)                  | 1,898(8)            | 6,991(8)         |
| 19,765    | 12,680      | 6,176                     | 908                 | —                |
| 51,570    | 16,197      | 20,469                    | 1,372               | 13,532           |
| 50,619    | 21,353      | 13,620                    | 1,642               | 14,004           |
| 93,656    | 83,029      | 10,121                    | 300                 | 206              |
| 55,329    | 43,076      | 3,272                     | 8                   | 8,973            |

## 1980 Electric Revenues (4)

| Total        | Residential  | Commercial and Industrial | Municipal and Other | Sales for Resale |
|--------------|--------------|---------------------------|---------------------|------------------|
| \$ 4,469,945 | \$ 2,475,820 | \$ 1,593,062              | \$ 401,063          | \$ —             |
| 56,256,954   | 25,005,648   | 25,658,762                | 348,689             | 5,243,855        |
| 1,188,453    | 529,600      | 563,614                   | 34,992              | 60,245           |
| 1,376,240    | 510,707      | 508,372                   | 10,375              | 346,786          |
| 1,693,090    | 814,858      | 612,574                   | 137,319             | 128,339          |
| 1,540,569    | 685,573      | 785,311                   | 16,627              | 53,058           |
| 896,004(8)   | 350,478(8)   | 310,475(8)                | 86,429(8)           | 148,622(8)       |
| 1,454,705    | 963,575      | 444,948                   | 46,182              | —                |
| 2,100,125    | 675,922      | 896,838                   | 60,352              | 467,013          |
| 1,752,645    | 755,721      | 481,400                   | 56,364              | 459,160          |
| 5,343,166    | 4,774,363    | 537,626                   | 21,150              | 10,027           |
| 3,069,325    | 2,651,631    | 185,385                   | 756                 | 231,553          |

## APPENDIX A

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#### MASSACHUSETTS MUNICIPAL WHOLESALE ELECTRIC COMPANY

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APPENDIX A

R. W. BECK AND ASSOCIATES

ENGINEERS AND CONSULTANTS

PLANNING  
DESIGN  
RATES  
ENVIRONMENTAL  
ECONOMICS  
MANAGEMENT

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GENERAL OFFICE  
SEATTLE, WASHINGTON  
206-622-5000

May 28, 1981

Board of Directors  
Massachusetts Municipal Wholesale Electric Company  
Stony Brook Energy Center  
Post Office Box 426  
Ludlow, Massachusetts 01056

Gentlemen:

*Subject:* Consulting Engineer's Report  
Massachusetts Municipal Wholesale Electric Company  
Power Supply System Revenue Bonds, 1981 Series A

Presented herewith is a report of our analyses and studies concerning the proposal of the Massachusetts Municipal Wholesale Electric Company ("MMWEC") to issue its Power Supply System Revenue Bonds, 1981 Series A ("1981 A Bonds"). The Bonds are being issued to finance a portion of the costs of acquiring MMWEC's 6.001% ownership interest in each of two nuclear units known as Seabrook Nuclear Unit Nos. 1 and 2 ("Seabrook Nos. 1 and 2"). This ownership interest, together with a \$5,000,000 renewable resource development fund, is referred to as Project No. 6.

As of this date, 32 of the 40 municipalities of Massachusetts owning and operating municipal electric departments have become members of MMWEC which is authorized, among other things, to issue revenue bonds to finance the construction and ownership of electric power facilities. Of these 32 members, 28 have entered into Power Sales Agreements pursuant to which each will pay a specific percentage of MMWEC's estimated total costs of one or more of MMWEC's projects included in MMWEC's Power Supply System ("Projects") and are herein referred to as Member Participants. Twenty Member Participants have entered into Power Sales Agreements for Project No. 6. Each of the 28 Member Participants operates typical electric utility properties for the distribution of electric power at retail with minor amounts at wholesale.

Twelve electric systems which are not members of MMWEC have entered into Power Sales Agreements with MMWEC ("Non-Member Participants") for two of its Projects pursuant to which each will pay a specific percentage of the Project cost. Six electric systems are Non-Member Participants in MMWEC's Stony Brook Intermediate Project and eight electric systems are Non-Member Participants in MMWEC's Project No. 6. Of these eight Non-Member Participants, four are municipalities of Vermont, three are electric cooperatives, two operating in Vermont and one operating in Maine, and one is a municipality of Rhode Island. The Non-Member Participants provide electric service to customers who are generally located within their geographic boundaries. The Member Participants and Non-Member Participants are herein collectively referred to as the Participants.

For a further discussion of the Member Participants and Non-Member Participants refer to the sections of the Official Statement captioned "Member Participants" and "Non-Member Participants". A summary of the Participants' statistics is shown in Exhibit VI of the Official Statement and historical power requirements, aggregate number of customers, electric energy sales, gross revenues, operating expenses and financial data for the years 1976-80 are summarized in Appendix B to the Official Statement.

### **POWER SUPPLY PROGRAM**

The goal of MMWEC's power supply program is to minimize the power cost of its members by shifting their sources of power from wholesale power purchases from investor-owned utilities in the region to an economic mix of short and long term sources provided by MMWEC. To meet this goal, MMWEC has developed a Power Supply System of nine Projects which represents MMWEC's ownership interests in the major generating units under construction or planned in New England. MMWEC has entered into Power Sales Agreements with its Member Participants which provide for MMWEC to supply a portion of its Member Participants' requirements from these long term resources. The units from which MMWEC proposes to supply power to its Member Participants are scheduled to become operational during the period from 1981 to 1990 with the exception of the Wyman Project which became operational in December, 1978.

During the 1980's, MMWEC will assist the Member Participants in obtaining most of their capacity and energy requirements beyond that provided by the Projects through short or long-term contracts or the purchase of fixed amounts of capacity under contract demand wholesale arrangements. MMWEC expects these interim arrangements to provide its Members an orderly replacement of wholesale power purchases until the units in its Power Supply System commence operation.

At present the Member Participants, with the exception of Braintree and Holyoke which have power supply resources capable of supplying all their requirements, presently obtain all or a substantial portion of their power supply requirements as wholesale power purchases from investor-owned electric utility companies. Hudson, Ipswich, Marblehead, Peabody and Shrewsbury supply a portion of their power supply requirements from their own generating facilities. Additionally, the Member Participants receive a portion of their power supply requirements through short-term unit contracts for the purchase of generation from specific generating units or sources with other electric utilities in New England. Most of the Member Participants also obtain some of their power supply requirements through long-term contracts for the purchase of generation from specific generating units in the region. Twelve Member Participants currently receive a portion of their power supply requirements through Power Sales Agreements with MMWEC for the Wyman Project.

MMWEC has negotiated interim arrangements through unit contract purchases to meet a portion of its members' requirements during the early 1980's with the New England Power Company ("NEP") and the New Brunswick Electric Power Commission ("NBEP"). Twenty-one MMWEC members have contracted for 150 MW under a three year contract with NEP for capacity in Salem Harbor Nos. 1 through 4 and Canal No. 1 beginning November 1, 1981. Presently all these units are fired with high sulfur No. 6 oil. NEP is proposing to burn coal in Salem Harbor Nos. 1 through 3 beginning during 1981. It proposes to charge customers for energy, including MMWEC, at the cost of a high sulfur No. 6 oil less one-third of the difference between high sulfur No. 6 oil and the cost of the coal burned. In addition, twenty-eight members, of which 27 are Member Participants, and one Non-Member Participant have entered into a longer term contract with MMWEC for 100 MW of output from a 630 MW heavy water (CANDU) reactor presently under construction by NBEP at Point Lepreau, New Brunswick, Canada. The Point Lepreau unit is a deuterium uranium reactor which will be similar to eight other units currently operating in Canada. Under its contract with NBEP, MMWEC will be required to pay its share of NBEP's cost of service following commencement of commercial operation of the unit whether or not the unit subsequently operates. The contract will commence with commercial operation, scheduled for early 1982, and will continue until November 1987. MMWEC will have the option to extend the contract for three



additional one-year periods. The contract is subject to the approval of the Canadian National Energy Board. Hearings by the Board are expected to begin in September 1981. Transmission agreements for the project are currently being finalized with several utilities and the receipt of this energy resource is dependent on satisfactory completion of these agreements.

MMWEC's Power Supply System includes ownership interests in all of the major generating stations under construction in New England (Seabrook Nuclear Units Nos. 1 & 2 and Millstone Nuclear Unit No. 3) or being planned (Pilgrim Nuclear Unit No. 2 and the Sears Island Coal Unit No. 1) and an operating conventional oil unit (W. F. Wyman Unit No. 4). All of these units are being developed by investor-owned utilities in the region. MMWEC's Power Supply System also includes a 90.8% share of the oil-fired Stony Brook Intermediate Unit and 100% of the oil-fired Stony Brook Peaking Unit. These units are being constructed by MMWEC at its Stony Brook Energy Center, and are scheduled for commercial operation in November, 1981 and November, 1982, respectively. The Stony Brook Intermediate Unit will have the capability of burning natural gas as well as oil. The capability planned to be available to the Member Participants from MMWEC's Power Supply System is equal to approximately 73% and 104% of their total projected non-coincident peak demand, exclusive of reserve requirements, in 1985 and 1992, respectively.

MMWEC is continuing to investigate additional power supply resources to be included in its Power Supply System to serve the members' existing and projected power requirements. MMWEC is considering the purchase of an additional interest of Millstone No. 3 and has made recommendations to its members to purchase an additional 41 MW, which the members are currently evaluating. This purchase is subject to further negotiations and approvals. As alternatives to oil-fired generation MMWEC is currently investigating the feasibility of developing several renewable resources. MMWEC has established a Renewable Resource Development Program which is being initially funded with \$5,000,000 of the proceeds from the 1981 A Bonds. Renewable resources being considered include small hydroelectric, wood-fired, refuse to energy, and wind projects. MMWEC's efforts have resulted in its entering into memorandum of understanding on a small hydroelectric project located in Lowell, Massachusetts. MMWEC projects that by the late 1980's, 65 to 70 MW of capacity or up to 6 percent of MMWEC's energy requirements could come from hydroelectric resources. MMWEC is evaluating the feasibility of participating in a proposed 50 MW wood-fired plant. MMWEC is currently participating in efforts to develop a refuse to energy project in Massachusetts in which it could be involved as a purchaser of steam or electric power. We have not included these potential additions to MMWEC's Power Supply System for purposes of our analyses herein.

#### *Historical and Projected Power Requirements*

For a number of years prior to 1974, the average load growth rate of the Member Participants exceeded 8% per year. Like most electric utilities in the United States, these Member Participants experienced a reduction of load growth following the international oil crisis in 1974. The rate of growth in non-coincident peak demand in the years 1974 through 1980 has averaged 3.5%.

Based upon information supplied by the Member Participants, MMWEC estimated the energy and demand requirements of the Member Participants' systems for the years 1979 through 1988 for filing of its load forecast with the Massachusetts Energy Facilities Siting Council ("Siting Council") and we have extended these estimates through 1992. Based upon this forecast, total energy requirements were projected in that forecast to grow at approximately 2.8% and the non-coincident peak demand was projected to increase by 3.3% annually.

We have reviewed MMWEC's estimates of the Member Participants' future energy and demand requirements. Based on our knowledge of the Member Participants and estimates of the energy and demand requirements of other utilities in the region, we believe that MMWEC's estimates are reasonable for power supply and financial planning purposes although MMWEC's continued review of its forecast currently indicates lower growth in both aggregate energy and peak demand primarily during the period through 1985.

### *Electric Department Rates*

The Member Participants have maintained rates for electric service which have been sufficient to provide for all operating and maintenance costs, expenses, debt service, repairs and renewals to and replacements of their electric systems. At the same time, the Member Participants' rates have been generally low by regional standards. A comparison of the cost of electric service under existing retail rate schedules of the Member Participants, with application of prompt payment discounts, and certain investor-owned Massachusetts electric utilities serving areas contiguous to those served by the Member Participants is included as Exhibit 1.

Reference should be made to the section of the Official Statement captioned "The Bonds—Security for the Bonds—Participants' Electric Rates and Financing" for a further discussion of rates.

### **POWER SUPPLY SYSTEM PROJECTS**

MMWEC currently anticipates meeting a portion of its Member Participants' requirements with the output from nine separate power supply Projects. These nine Projects consist of MMWEC's ownership interests in various nuclear or fossil fueled generating units which are operating or under construction for availability during the 1980's or planned for New England in the early 1990's. MMWEC has entered into Power Sales Agreements for each of these Projects. The Power Sales Agreements provide for the sale of specified percentage shares of expected capability from generating units constituting the Projects and for the recovery of all of MMWEC's costs of these Projects through the payment of monthly power costs by the Participants. The respective shares of the Participants in each of the Projects are shown on Exhibit IV to the Official Statement—"Participant's Percentage Shares of Project Capability". The nine Projects that MMWEC projects to be available to meet the requirements of the Participants and for which it has entered into Power Sales Agreements are:

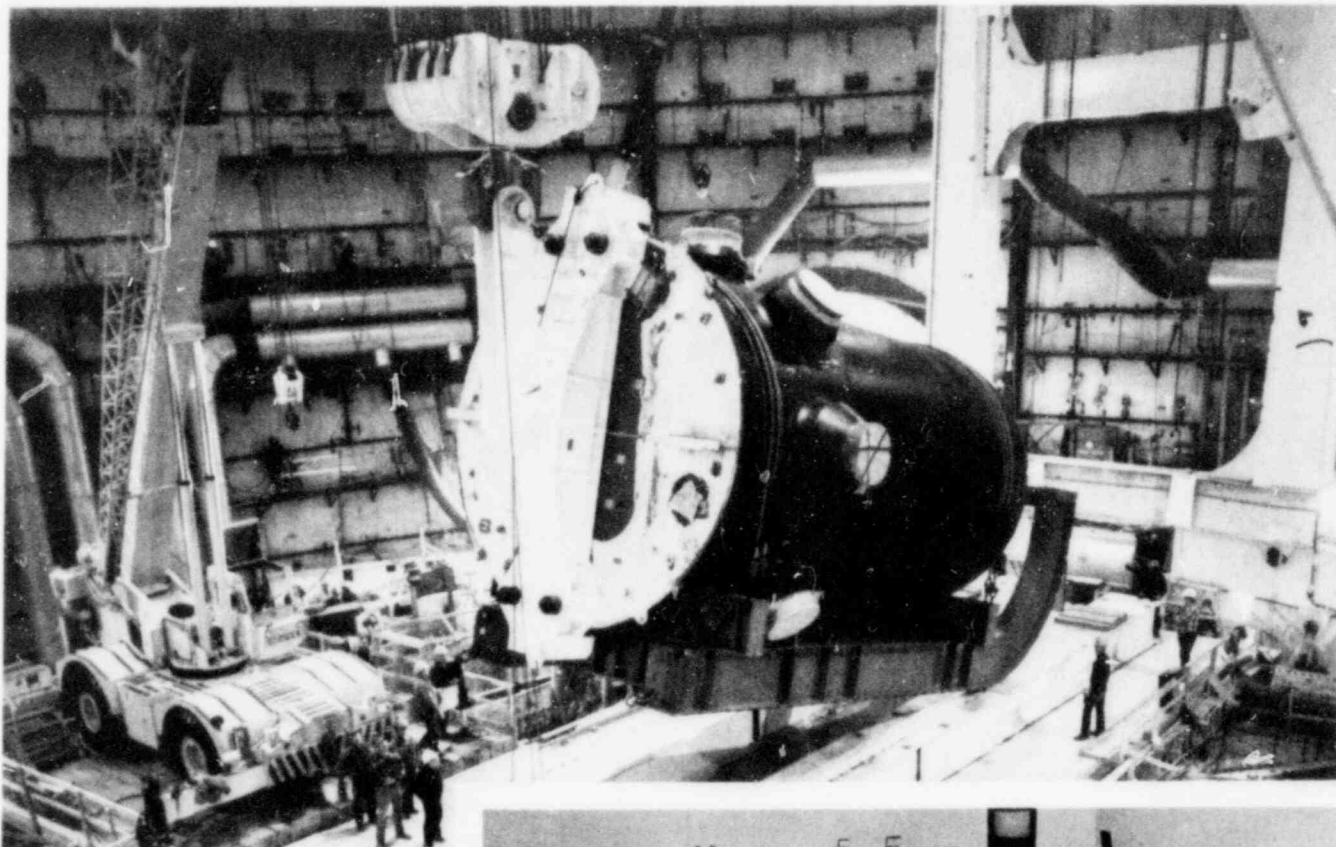
| <u>Projects</u>                        | <u>Type</u> | <u>Approximate<br/>Capability (kW) (1)</u> |
|--|-------------|--|
| <i>In Operation:</i>                   |             |  |
| Wyman Project .....                    | Oil         | 22,013                                     |
| <i>Planned for the 1980's:</i>         |             |  |
| Stony Brook Intermediate Project ..... | Oil/Gas     | 303,128                                    |
| Stony Brook Peaking Project .....      | Oil         | 169,960                                    |
| Nuclear Project No. 3 .....            | Nuclear     | 36,756                                     |
| Nuclear Project No. 4 .....            | Nuclear     | 99,658                                     |
| Nuclear Project No. 5 .....            | Nuclear     | 25,225                                     |
| Project No. 6 .....                    | Nuclear     | 138,021                                    |
| <i>Planned for the 1990's:</i>         |             |  |
| Nuclear Mix No. 1 .....                | Nuclear     | 174,444(2)                                 |
| Sears Island Project .....             | Coal        | 78,927(3)                                  |
| Total .....                            |             | 1,048,132                                  |

(1) Estimated net capability available for transmission to the Participants.

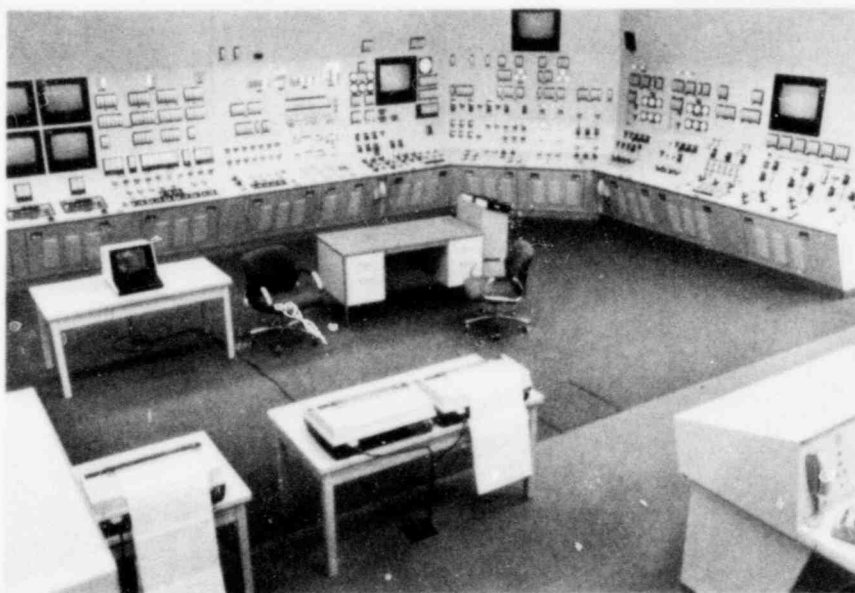
(2) Boston Edison Company ("BECO") has announced that due to regulatory delays with respect to Pilgrim No. 2, which comprises the majority of the Project, no firm date can be established for the commencement of construction or commercial operation of the unit. As a result, BECO does not have a current cost estimate of the unit. BECO has stated that when a more definite schedule is set for the granting of a construction permit, it will be able to develop revised cost estimates and review the feasibility of the project and decide whether to cancel or continue construction of the project.

(3) The expected net capability, construction cost and MMWEC's utilization of the capability of the Sears Island Project, as used in the various evaluations in this Report, have been based upon preliminary or conceptual designs and are not, in our opinion, adequate to identify the amount of actual net capability MMWEC will receive from this Project.

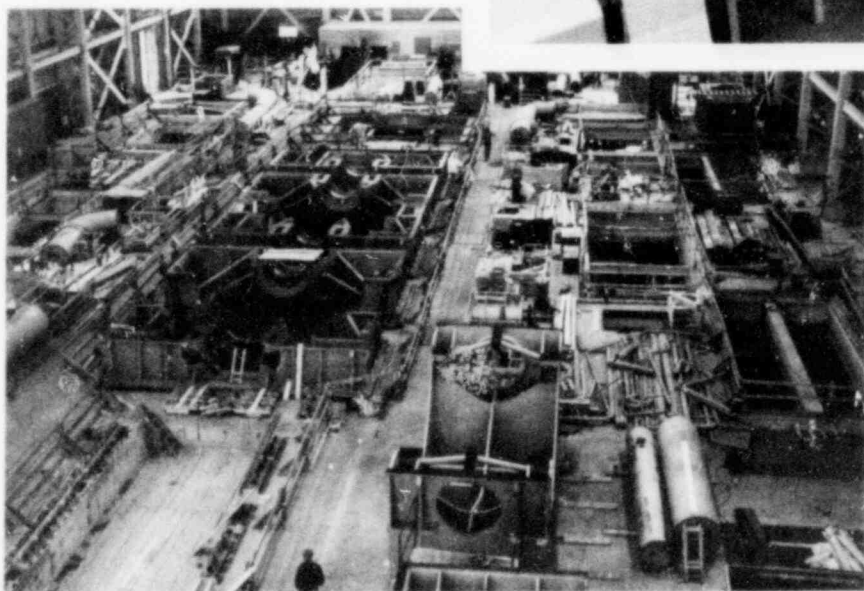
The foregoing table does not include any capability from Nuclear Mix No. 2. All the units in this Project have been cancelled by the sponsoring utilities and MMWEC has terminated the Project. MMWEC issued \$10.1 million of Bonds for the Project and \$3.6 million of the proceeds were expended as of March 31, 1981. Remaining costs are not expected to be material and excess proceeds will be used to retire Bonds issued for such Project.



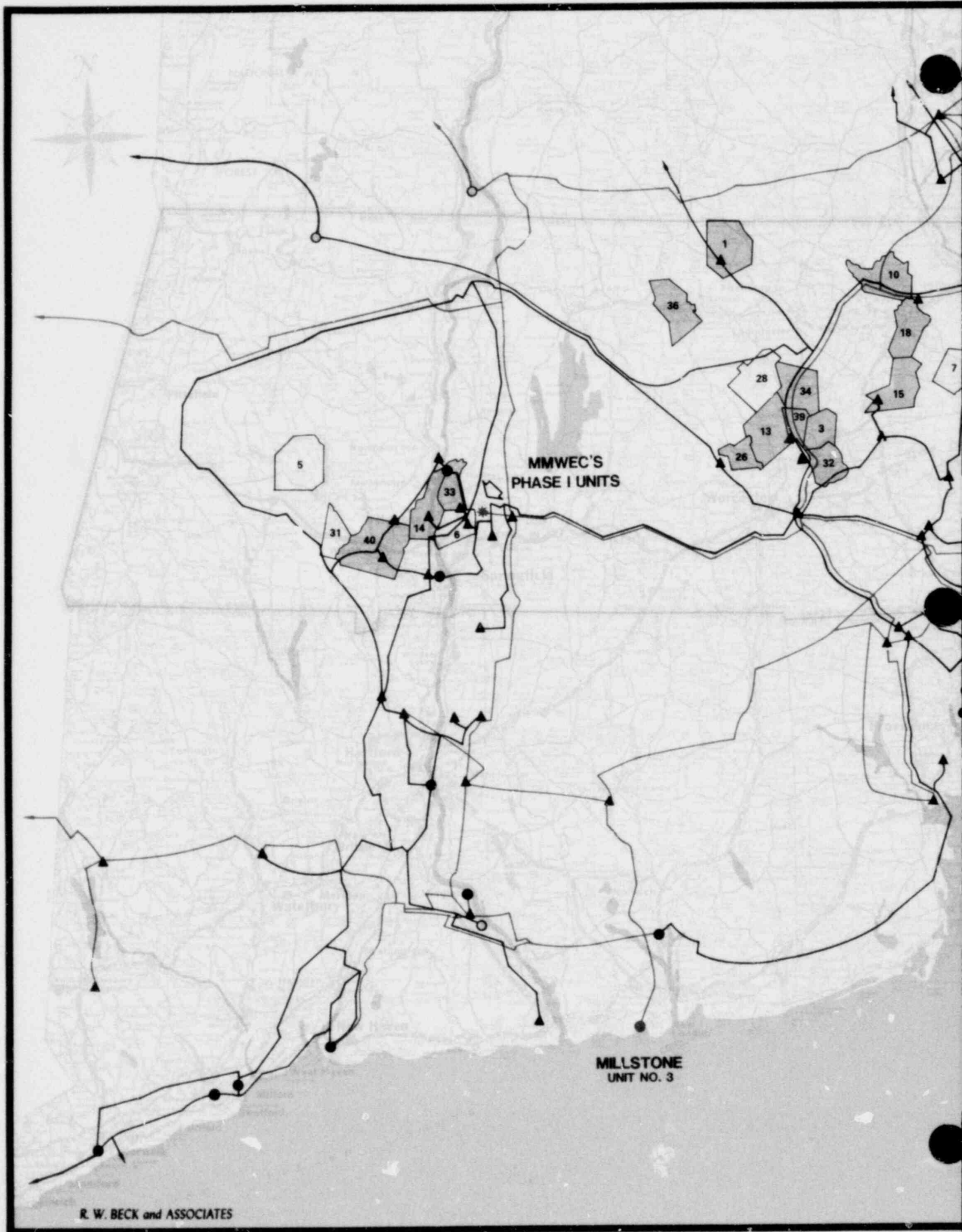
Seabrook Unit No. 1—Reactor Pressure Vessel Being Installed Within Containment Building.



Seabrook Training Center—Simulator Control Room, Placed in Service November 1980.



Seabrook Unit No. 1—Main Turbine Hall Showing Installation of Turbine-Generator.







# MASSACHUSETTS MUNICIPAL ELECTRIC DEPARTMENTS

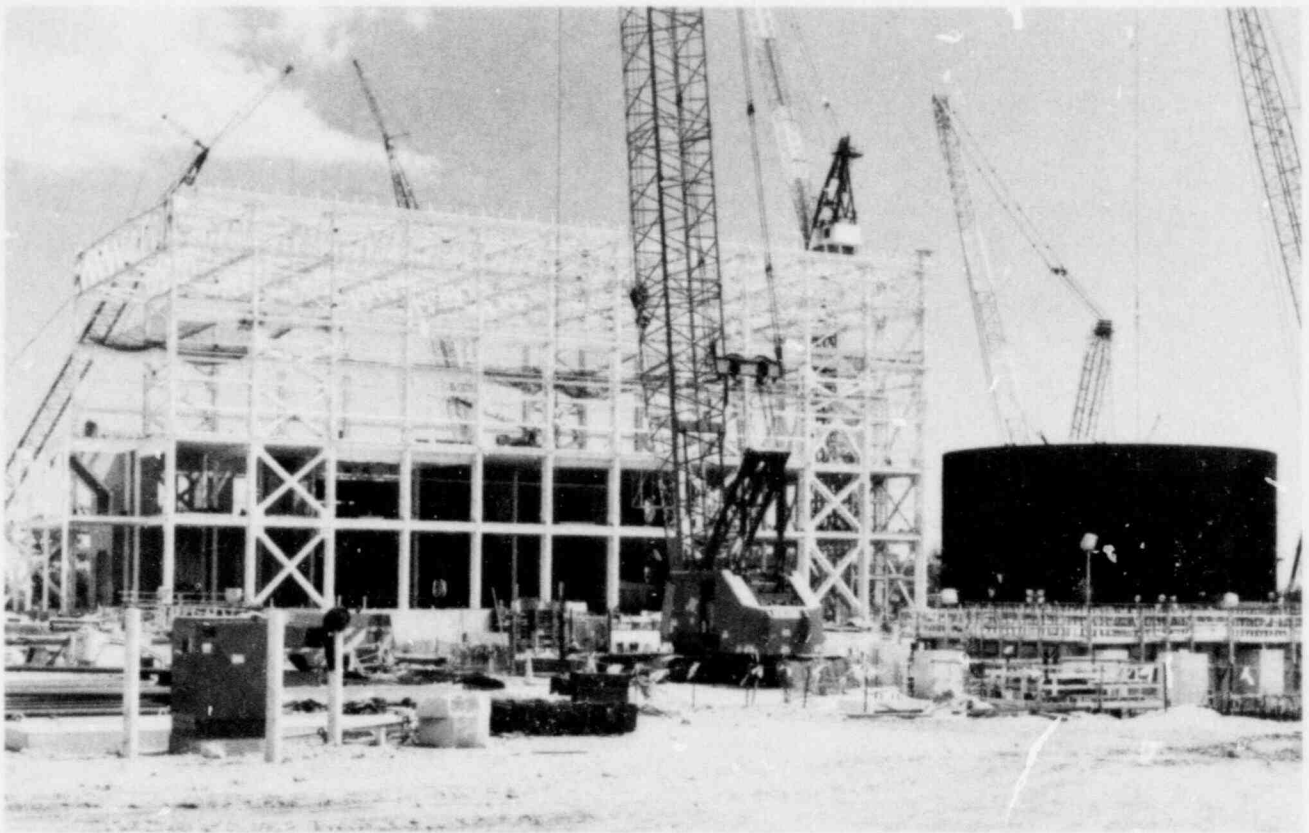
- |               |                     |
|---------------|---------------------|
| 1 ASHBURNHAM  | *21 MERRIMAC        |
| *2 BELMONT    | 22 MIDDLEBOROUGH    |
| 3 BOYLSTON    | 23 MIDDLETON        |
| 4 BRAINTREE   | 24 NO. ATTLEBOROUGH |
| 5 CHESTER     | 25 NORWOOD          |
| *6 CHICOPEE   | 26 PAXTON           |
| 7 CONCORD     | 27 PEABODY          |
| 8 DANVERS     | *28 PRINCETON       |
| 9 GEORGETOWN  | 29 READING          |
| 10 GROTON     | 30 ROWLEY           |
| 11 GROVELAND  | 31 RUSSELL          |
| 12 HINGHAM    | 32 SHREWSBURY       |
| 13 HOLDEN     | 33 SO. HADLEY       |
| 14 HOLYOKE    | 34 STERLING         |
| 15 HUDSON     | 35 TAUNTON          |
| 16 HULL       | 36 TEMPLETON        |
| 17 IPSWICH    | 37 WAKEFIELD        |
| 18 LITTLETON  | 38 WELLESLEY        |
| 19 MANSFIELD  | 39 WEST BOYLSTON    |
| 20 MARBLEHEAD | 40 WESTFIELD        |

NOTE: \*BELMONT, CHICOPEE, MERRIMAC  
AND PRINCETON ARE MEMBERS OF  
MMWEC BUT ARE NOT PARTICIPANTS  
IN ANY MMWEC PROJECT.

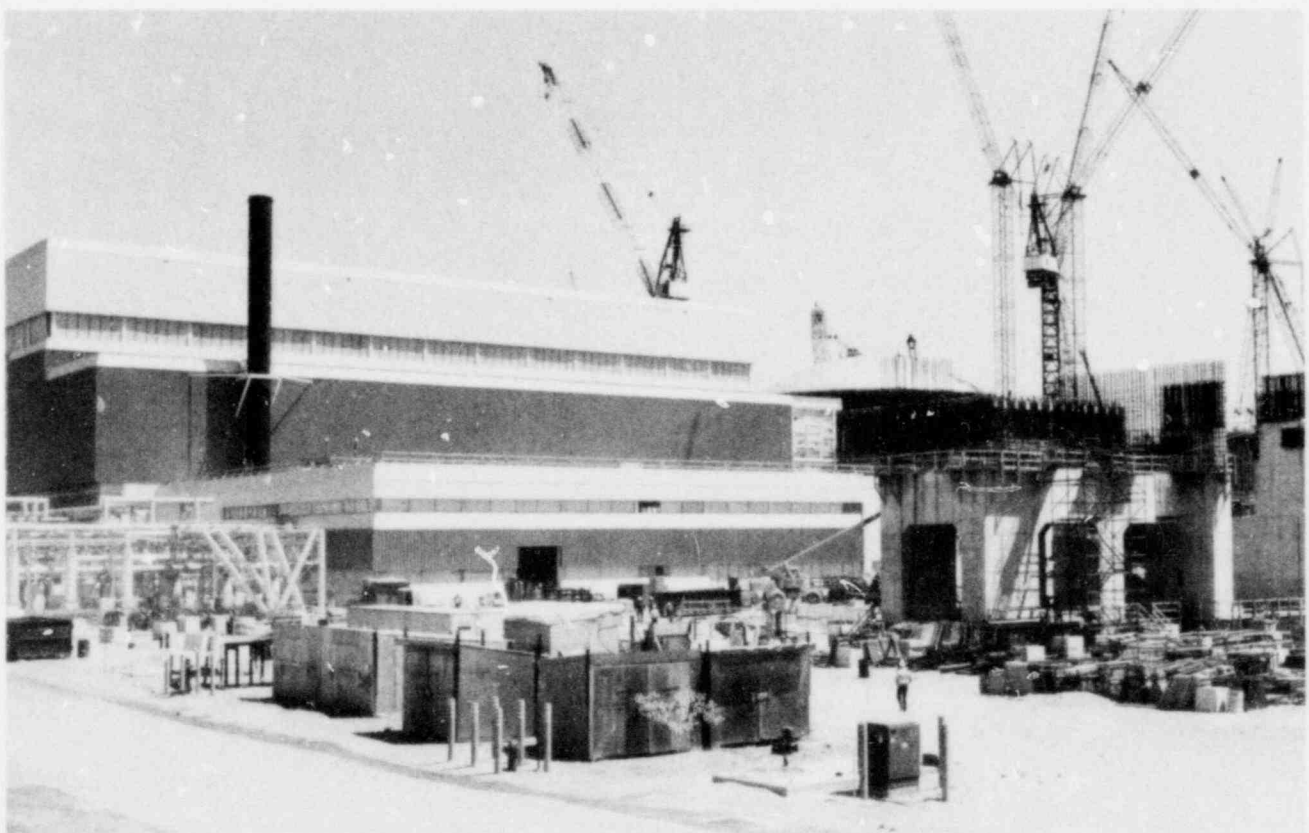
## LEGEND

- |          |  |
|----------|--|
|          | MEMBER PARTICIPANTS  |
|          | OTHER MASSACHUSETTS MUNICIPALS   |
|          | RELATED 345KV TRANSMISSION<br>CORRIDORS (70% EXISTING - 30%<br>PROPOSED) |
|          | SELECTED 230KV & 115KV TRANSMISSION<br>CORRIDORS                         |
|          | SELECTED SUBSTATION  |
| EXISTING |  |
|          | THERMAL GENERATION   |
|          | NUCLEAR UNITS  |
| PROPOSED |  |
|          |  |
|          |  |

LOCATIONS OF MEMBER PARTICIPANTS,  
UNITS IN MMWEC'S PROJECTS AND  
CONNECTING TRANSMISSION FACILITIES



Seabrook Unit No. 1—Turbine Hall Superstructure and Containment Liner, August 1979.



Same View in May 1981.

The generating units comprising the MMWEC Projects are being developed by various utilities including MMWEC in the case of the Stony Brook Intermediate and Peaking Units ("Stony Brook Units").

The information contained herein regarding the electric generating facilities included in each of the Projects, including but not limited to expected amounts of generation, cost estimates, construction expenditure schedules, dates of planned operation, type and availability of fuel supply and description of such facilities, is based upon estimates, data, reports and records furnished by the sponsoring utilities or as otherwise identified herein. While we have not independently verified the accuracy of this information, we believe such sources to be reliable and the information obtained therefrom to be appropriate for the analyses undertaken and the conclusions reached herein.

#### The Wyman Project

The Wyman Project consists of MMWEC's 3.669% ownership interest in the No. 6 low sulfur oil-fired electric generating unit known as W. F. Wyman Unit No. 4 which was placed into commercial operation by Central Maine Power Company ("CMP") on December 1, 1978. The output of the Wyman Project is being sold by MMWEC to 12 Member Participants. W. F. Wyman Unit No. 4 is located on a 122 acre site on Cousins Island, Yarmouth, Maine and is the fourth oil-fired electric generating unit constructed at this site. The date of commercial operation and the level of capability declared by CMP for W. F. Wyman Unit No. 4 are shown below:

| Unit                   | Sponsoring Utility | Date of Commercial Operation | Net Capability (kW) | MMWEC Ownership Interest |        |
|------------------------|--------------------|------------------------------|---------------------|--------------------------|--------|
|                        |                    |                              |                     | (%)                      | (kW)   |
| W. F. Wyman Unit No. 4 | CMP                | 12/78                        | 600,000             | 3.669                    | 22,013 |

CMP has a contract which expires on June 1, 1982 for the supply of essentially all of CMP's oil requirements at world market prices. Under the contract, CMP retains the right to purchase 25% of its quarterly requirements in the open market. The Unit was available for dispatch 60% of the time in 1980.

For a further discussion relating to licenses, permits and other regulatory matters, reference is made to the section in the Official Statement captioned "Massachusetts Municipal Wholesale Electric Company—Status of Units in MMWEC's Power Supply System."

The estimated cost of power from the Wyman Project as delivered to the Member Participants ranges from 108.6 mills/kWh to 113.1 mills/kWh in 1985 at an assumed average plant factor of 70.7% and from 229.5 mills/kWh to 260.8 mills/kWh in 1992 at an assumed average plant factor of 59.5%. The actual cost realized by each Member Participant will vary somewhat from this range depending on exactly how the output of the Wyman Project is utilized by each of them in conjunction with the output of all their other resources as contracted for at that time.

#### Stony Brook Projects

The Stony Brook Units, which are being constructed by MMWEC and are scheduled for commercial operation as originally planned in the early 1980's, are being developed to provide the Member Participants with intermediate and peaking capacity to achieve a mix or combination of power supply resources. The Stony Brook Projects consist of MMWEC's ownership interests in the Stony Brook Units which are being constructed at the Stony Brook Energy Center in Ludlow, Massachusetts.

The dates of commercial operation, as scheduled by MMWEC, amounts of capability projected to be available from the Stony Brook Units and MMWEC's ownership interests therein are as follows:

| Unit              | Utility Sponsoring | Scheduled Dates of Commercial Operation | Expected Net Capability (kW) | MMWEC Ownership Interest |         |
|-------------------|--------------------|---|------------------------------|--------------------------|---------|
|                   |                    |   |                              | (%)                      | (kW)    |
| Intermediate Unit | MMWEC              | 11/81                                   | 334,000                      | 90.757                   | 303,128 |
| Peaking Unit      | MMWEC              | 11/82                                   | 169,960                      | 100.000                  | 169,960 |

The Intermediate Unit will incorporate three combustion turbines, three heat recovery steam generators and a steam turbine generator. The Peaking Unit will incorporate two combustion turbines. All of the units are initially being constructed to burn No. 2 fuel oil.

MMWEC has entered into a three-year contract terminating in mid-1984 to supply one million barrels of No. 2 fuel oil annually for the Units which represents a major portion of the Units' estimated fuel requirements. Two of the combustion turbines in the Intermediate Unit are also being modified to provide for the burning of natural gas, when available and economical. This modification will provide MMWEC with a more diverse fuel mix. At present, MMWEC has made preliminary arrangements to provide enough gas, on an interruptible basis, to be used in one of the combustion turbines from April 1, 1982 through June 30, 1985. MMWEC has obtained necessary approvals to burn natural gas through 1985 and additional legislative action will be required for utilization of natural gas beyond 1985. Additionally, MMWEC's gas supplier requires certain approvals before it can provide natural gas to MMWEC.

MMWEC has obtained all of the major permits, licenses and approvals for the construction and operation of the Stony Brook Units using No. 2 fuel oil. Certain approvals are subject to certain conditions, none of which are considered burdensome by MMWEC. Startup and testing procedures for the Intermediate Unit are underway with firing of combustion turbines in single cycle operation expected by August, 1981. The substation and transmission lines required to interconnect the Stony Brook Units with the regional transmission grid have been completed, tested and energized.

For a further discussion relating to licenses, permits and other regulatory matters reference is made to the Section in the Official Statement captioned "Massachusetts Municipal Wholesale Electric Company—Status of Units in MMWEC's Power Supply System".

*Estimated Capital Costs and Financing Required.* MMWEC has reported that as of March 31, 1981, engineering and design on the Stony Brook Units was approximately 98% complete, construction was approximately 76% complete, approximately 95% of all contracts and purchase orders had been awarded and approximately 84% of the total estimated project costs of the Stony Brook Units had been committed.

The total construction cost of the generating facilities included in the Intermediate and Peaking Units are estimated by MMWEC as of March 31, 1981 to be \$113,100,000 and \$37,999,000, respectively. These amounts are based on the architect-engineer's present design and construction schedules which reflect the scheduled commercial operation dates of the Intermediate Unit of November 1981 and the Peaking Unit of November 1982. MMWEC's ownership share of the generating facilities cost included in the Intermediate Unit construction cost is \$103,738,000.

The total estimated capital cost of the Intermediate and Peaking Projects are \$136,663,000 and \$50,291,000, respectively. The following table summarizes MMWEC's estimated capital costs of the Stony Brook Projects.

#### Summary of Estimated Capital Cost

##### Stony Brook Projects

(000)

|  | Intermediate |             | Peaking<br>Project |
|--|--------------|-------------|--------------------|
|  | Unit         | Project (1) |                    |
| Total Generating Facilities Cost                       | \$113,100    | \$103,738   | \$37,999           |
| Total Switchyard and Transmission Line Facilities Cost |              | 7,113       | 3,556              |
| Total Owner's Facilities Cost                          |              | 25,812      | 8,736              |
| Total Project Capital Cost                             |              | \$136,663   | \$50,291           |

(1) Includes the costs associated with MMWEC's 90.757% ownership interest in the Unit.



Based on the estimated capital costs of \$136,663,000 and \$50,291,000 for the Stony Brook Intermediate and Peaking Projects, respectively, we have estimated that funds available from the previously issued Bonds of \$177,000,000 and \$85,000,000 for the Stony Brook Intermediate and Peaking Projects, respectively, will be sufficient to fund the Projects to completion.

The Units have relatively low fixed costs per kW and high variable costs per kWh typically characteristic of intermediate (cycling) and peaking units. The total estimated annual cost per kWh will vary significantly for each Member Participant depending on utilization of each of these Projects as part of its mix of power supply resources. The estimated fixed costs for the Intermediate Project are \$69.60/Kw-year and \$83.84/Kw-year for 1985 and 1992, respectively and the estimated variable costs are 101.85 mills/kWh and 240.03 mills/kWh for 1985 and 1992, respectively. The estimated fixed costs for the Peaking Project are \$61.71/Kw-year and \$66.01/Kw-year for 1985 and 1992, respectively and the estimated variable costs are 154.53 mills/kWh and 341.60 mills/kWh for 1985 and 1992, respectively.

### Nuclear Project No. 3

Nuclear Project No. 3 consists of a 3.196% ownership interest in Millstone No. 3 under construction by Northeast Utilities ("NU") and scheduled for commercial operation in the mid-1980's. MMWEC has contracted to sell the output of the Project to 27 Member Participants. MMWEC also has a 1.603% ownership interest in this Unit as part of Nuclear Mix No. 1.

Nuclear Project No. 3 is planned to supply a portion of the base load requirements of the Member Participants. The date of commercial operation as scheduled by the sponsoring utility, the date assumed by MMWEC for the receipt of energy for power supply and financial planning purposes, the amounts of expected net capacity from the unit and MMWEC's ownership interest in such unit are shown below:

| Unit            | Sponsoring<br>Utility | Scheduled<br>Date of<br>Commercial<br>Operation | MMWEC<br>Energy<br>Planning<br>Date | Expected<br>Net<br>Capacity<br>(kW) | MMWEC<br>Ownership<br>Interest |        |
|-----------------|-----------------------|---|-------------------------------------|-------------------------------------|--------------------------------|--------|
|                 |                       |   |                                     |                                     | (%)                            | (kW)   |
| Millstone No. 3 | NU                    | 5/86  | 5/86                                | 1,150,000                           | 3.196                          | 36,756 |

Millstone No. 3 is a 1,150,000 kW nuclear-fueled electric generating unit under construction by NU on a 500-acre site in the Town of Waterford, Connecticut on the north shore of Long Island Sound. Millstone No. 3 will be the third nuclear unit constructed on the site. Millstone Nos. 1 and 2, wholly-owned by NU, were placed in commercial operation in 1970 and 1975, respectively. Millstone No. 3 will use a Westinghouse Electric Corporation ("Westinghouse") pressurized light water reactor as its nuclear steam supply system.

NU obtained a Nuclear Regulatory Commission ("NRC") construction permit for Millstone No. 3 in 1974. As a result of the construction schedule delays of Millstone No. 3, certain permits require extension to permit the continuation of construction and the terms of such permits may be subject to reconsideration. The NRC has extended the Millstone No. 3 construction permit to December 1985. Under the NRC's present procedures, an operating license for Millstone No. 3 can be obtained only when the construction of the unit has been completed.

For a further discussion of licenses, permits and other regulatory matters reference is made to the section in the Official Statement captioned "Massachusetts Municipal Wholesale Electric Company—Status of Units in MMWEC's Power Supply System".

The uranium presently committed for Millstone No. 3 is for the initial core and is to be supplied in part by Westinghouse under a court order and settlement agreement arising from litigation by NU on behalf of the joint owners against Westinghouse and in part by another supplier. NU has informed us that as a result of the Westinghouse settlement agreement the joint owners will receive credits through April 1986 totaling an estimated \$47.5 million, encompassing the areas of fuel and plant services and equipment which will be provided by Westinghouse for Millstone No. 3 at no cost or at a discount.

Credits associated with nonfuel services and equipment have resulted in a reduction in nuclear fuel cash flow. Additional credits are expected to extend into the early 1990's.

The Westinghouse contract for the supply of uranium in the form of uranium hexafluoride includes conversion of the uranium and the fabrication of the fuel bundles for the initial core and three reload regions. NU is currently negotiating with Westinghouse for additional conversion and fabrication services for ore to be supplied by other suppliers.

NU has reported that, as of March 31, 1981, construction was approximately 36% complete and expenditures were made for equipment and construction which represent an estimated \$676,188,000 or approximately 39% of the total cost of the unit, as estimated by NU, excluding nuclear fuel, site and common facilities and an allowance for funds used during construction ("AFUDC").

*Estimated Capital Cost and Financing Required.* Our estimate of capital cost relating to Millstone No. 3 is based on information supplied to us by NU and information contained in its quarterly report to joint owners of the unit for the period ending December 31, 1980. The estimated construction cost supplied by NU for Millstone No. 3, based upon a May 1986 commercial operation date, is \$1,749,104,000 excluding nuclear fuel and AFUDC but including NU's contingency, site and common facilities costs.

The following table sets forth MMWEC's total estimated capital cost associated with this Project, based on NU's existing construction cost estimate of \$1,749,104,000 including its contingencies of 35% of the remaining construction costs to be expended on the unit. In determining our estimate of MMWEC's capital cost relating to Millstone No. 3 we have not included an additional contingency amount above that of NU which should be adequate to meet currently estimated costs of the unit.

**Summary of Estimated Capital Cost  
Nuclear Project No. 3  
(000)**

|   |          |
|---|----------|
| MMWEC's Net Cost of Acquiring a 3.196% Ownership Interest Including Contingencies ..... | \$59,831 |
| Nuclear Fuel—Initial Core .....   | 3,315(1) |
| Total Plants Costs .....  | \$63,146 |
| Transmission Support Payments .....   | 155      |
| Interest on Funds Expended by NU .....  | 749      |
| Other MMWEC Capital Costs:  |          |
| Working Capital .....   | 900      |
| Administrative Costs .....  | 654      |
| Fuel Working Funds .....  | 928      |
| MMWEC Total Estimated Capital Cost .....  | \$66,532 |

(1) Adjusted for a credit resulting from the Westinghouse settlement.

Based on the estimated capital cost of \$66,532,000 the total estimated financing required by MMWEC is \$106,990,000. Of this amount, \$52,690,000 of Bonds has previously been issued by MMWEC. MMWEC has obtained approval from the DPU to borrow up to \$104,000,000 to finance costs associated with Nuclear Project No. 3 and additional DPU approval will be required to finance above this amount.

The estimated annual average cost of power from Nuclear Project No. 3 as delivered to the Member Participants based upon the above estimated costs ranges from 69.7 mills/kWh to 70.1 mills/kWh at an assumed average plant factor of 73% in 1992.

**Project No. 6 and Nuclear Projects Nos. 4 and 5**

Project No. 6 and Nuclear Projects Nos. 4 and 5 consist of MMWEC's 6.001%, 4.333% and 1.097% respective ownership interests in Seabrook Nos. 1 and 2, which are presently under construction by the

Public Service Company of New Hampshire ("PSNH"). As part of its power supply program for the 1980's MMWEC plans that the Seabrook Units will supply a portion of the base load requirements of the Member Participants. The output of Project No. 6 and Nuclear Projects Nos. 4 and 5 will be sold by MMWEC to 20, 27 and 28 Member Participants, respectively, and in the case of Project No. 6 to 8 Non-Member Participants. MMWEC also has a 0.163% ownership interest in Seabrook Nos. 1 and 2 as part of Nuclear Mix No. 1.

The dates of commercial operation, as scheduled by the sponsoring utility, the dates assumed by MMWEC for the receipt of energy for power supply and financial planning purposes, the amounts of expected net capability from the units and MMWEC's ownership interests in the units are shown below:

| Unit                | Sponsoring Utility | Scheduled Dates of Commercial Operation | MMWEC Energy Planning Dates | Expected Net Capability (kW) | MMWEC Ownership Interest |         |                       |        |                       |        |
|---------------------|--------------------|---|-----------------------------|------------------------------|--------------------------|---------|-----------------------|--------|-----------------------|--------|
|                     |                    |   |                             |                              | Project No. 6(2)         |         | Nuclear Project No. 4 |        | Nuclear Project No. 5 |        |
|                     |                    |   |                             |                              | (%)                      | (kW)    | (%)                   | (kW)   | (%)                   | (kW)   |
| Seabrook Nos. 1 & 2 | PSNH               | 2/84,<br>5/86                           | 6/85,<br>4/87               | 2,300,000                    | 6.001                    | 138,021 | 4.333                 | 99,658 | 1.097                 | 25,225 |

*Description and Status.* Seabrook Nos. 1 and 2 is planned to be a two-unit, nuclear-fueled electric generating plant located on a site on the western shore of Hampton Harbor in Rockingham County in the Town of Seabrook, New Hampshire. The site is approximately eleven air miles south of Portsmouth, New Hampshire and two miles west of the open Atlantic Ocean. Seabrook Nos. 1 and 2 will utilize Westinghouse pressurized light water reactors as their nuclear steam supply systems and each unit will be capable of producing a net electrical output of approximately 1,150,000 kW under expected operating conditions.

*Permits and Approvals.* Under the terms of the Sharing Agreement, PSNH is authorized to obtain any and all necessary certificates and permits for the construction and operation of Seabrook Nos. 1 and 2. The major permits, approvals and certificates required for construction and operation of Seabrook Nos. 1 and 2 and their current status are as follows:

| Permit  | Status              |
|---|---------------------|
| Local:  |                     |
| Town of Seabrook—Building Permit  | Permit obtained     |
| State of New Hampshire:   |                     |
| Public Utilities Commission—Certificate Authorizing Construction  | Certificate issued  |
| Water Supply and Pollution Control Commission—Permit Authorizing Discharges   | Permit obtained     |
| Federal:  |                     |
| Nuclear Regulatory Commission—  |                     |
| Construction Permits  | Permits obtained(1) |
| Operating Permits   | To be applied for   |
| Environmental Protection Agency ("EPA")—once through cooling system   | Approval obtained   |
| Corps of Engineers—(Construction of tunnels, offshore intake and discharge structures and barge landing facilities) | Permits obtained    |

(1) For a discussion of pending proceedings refer to the section in the Official Statement "Massachusetts Municipal Wholesale Electric Company—Status of Units in MMWEC's Power Supply System."

Before either of the Seabrook units can be put into operation, PSNH must obtain the requisite operating license from the NRC. PSNH has informed us that it intends to file the necessary applications this year. PSNH has stated it cannot predict the extent of the regulatory proceedings which will result or their outcome.

For a further discussion relating to licenses, permits, and other regulatory matters, reference is made to the section in the Official Statement captioned "Massachusetts Municipal Wholesale Electric Company—Status of Units in MMWEC's Power Supply System."

*Nuclear Fuel.* Generally the supply of fuel for nuclear generating units involves the mining and milling of uranium ore to uranium concentrate, the conversion of uranium concentrate to uranium hexafluoride, enrichment of that material and fabrication of the enriched uranium into usable fuel assemblies.

PSNH has contracted for the uranium concentrates which it estimates will be sufficient for the initial cores of Seabrook Nos. 1 and 2 plus additional reloads. PSNH has indicated that it expects additional sources of uranium concentrates to be available when needed. PSNH has long-term contracts with the Department of Energy ("DOE") for nuclear fuel enrichment and has contracted for the fabrication of the initial core and additional reloads for each unit with Westinghouse through 1986 and for conversion services through 1987 with British Nuclear Fuel Limited. PSNH also has a long-term contract with the DOE for nuclear fuel enrichment through 2008. PSNH has notified the DOE of its desire to defer the schedule for certain of the enrichment services under arrangements offered by the DOE.

A supplier of uranium concentrates under one of the contracts for a portion of the uranium for Seabrook Nos. 1 and 2 has sued the joint owners for alleged breach of the contract and violation of anti-trust laws alleging damages of about \$5,000,000 and seeking treble damage. The joint owners have counterclaimed and filed a separate action against the supplier, alleging among other things antitrust violations. An agreement in principle has been reached in settlement of this litigation which will result in cancellation of the existing agreement, dismissal of the litigation, and cash payments to the supplier by the Seabrook joint owners over a two year period. Because the current market price for uranium concentrates is lower than the contract price, the settlement is expected to result in a net benefit to the joint owners.

PSNH currently has no commitments for reprocessing spent nuclear fuel. There are no reprocessing facilities presently operating commercially in the country. The alternative to reprocessing is extended storage of the spent fuel either on or off site. PSNH has advised us that the spent-fuel storage facilities of Seabrook Nos. 1 and 2 are being designed to store the spent-fuel resulting from approximately 10 years of use by the Seabrook reactors with reserve space available for storage of one full core. In the event that reprocessing facilities or offsite storage facilities do not become available, PSNH may incur substantial costs in obtaining alternate storage facilities. The costs of permanent storage are not sufficiently known at this time to be accurately estimated. However, an allowance for permanent storage of the spent fuel has been included in our nuclear fuel cost estimates. In addition, no credit for residual value has been taken in determining the cost of fuel.

*Estimated Capital Costs.* PSNH has reported that, as of March 20, 1981, engineering and design on Seabrook Nos. 1 and 2 was approximately 92% complete and construction approximately 47% and 8% complete on Units No. 1 and No. 2, respectively. Expenditures which have been made for equipment, construction and the site represent an estimated \$1,026,000,000 or approximately 42% of the total cost of the units, as estimated by PSNH, excluding AFUDC. The total estimated construction costs of Seabrook Nos. 1 and 2 is based on information supplied to us on April 29, 1981 by PSNH and information contained in its quarterly report to joint owners of the units for the period ending December 31, 1980. The present estimated construction cost supplied by PSNH for Seabrook Nos. 1 and 2 based upon commercial operation dates of 1984 and 1986 is \$2,470,000,000, excluding nuclear fuel and AFUDC but including PSNH's contingency, site and common facilities costs. This construction cost estimate reflects the reduction in the overall level of construction in 1980 and 1981 and the resulting revision in scheduled dates of commercial operation for the Units by PSNH. This schedule is based upon resumption by PSNH of the normal level of construction activity upon completion of this financing.

The estimate of MMWEC's capital costs for the Projects is based on MMWEC's energy planning dates of June 1985 and April 1987 for Seabrook Nos. 1 and 2, respectively. Additionally the capital cost estimates include an amount equal to approximately 18% of MMWEC's share



of total construction costs as a further allowance for MMWEC to provide for contingencies and escalation. We believe that the inclusion of this allowance is prudent for planning the financing of Project No. 6 and Nuclear Projects Nos. 4 and 5. Such allowances in the amounts of \$25,874,000, \$18,691,000 and \$4,730,000 together with MMWEC's share of the estimated construction costs of \$142,972,000, \$103,234,000 and \$26,136,000 result in a total estimated construction cost of \$168,846,000, \$121,925,000 and \$30,866,000 for Project No. 6 and Nuclear Projects Nos. 4 and 5, respectively. Further delays beyond MMWEC's presently estimated planning dates could result in additional cost increases.

For the purposes of estimating the total capital cost of MMWEC's ownership interests and the cost of power from Project No. 6 and Nuclear Projects Nos. 4 and 5 we have utilized nuclear fuel cost information supplied by PSNH for each unit, as well as costs estimated by us for acquisition and processing of nuclear fuel for units planned for operation during this period. Based on the foregoing, the cost for the initial nuclear fuel core included as a part of the total capital costs of Project No. 6 and Nuclear Projects Nos. 4 and 5 are estimated to be \$11,222,000, \$8,103,000 and \$2,051,000, respectively.

PSNH may also have to purchase and pay for uranium ore, conversion, and enrichment services prior to the commercial operation dates of the units to provide reload nuclear fuel. Therefore, MMWEC may also have to pay its share of these costs prior to commercial operation. In our analysis of nuclear fuel costs we have assumed MMWEC would need approximately \$3,222,000 for Project No. 6, \$2,327,000 for Nuclear Project No. 4 and \$589,000 for Nuclear Project No. 5, to pay its share of these costs and have identified such costs as fuel working funds.

In addition to the total estimated construction costs of Project No. 6 and Nuclear Projects Nos. 4 and 5 including allowances for contingencies, escalation and estimated nuclear fuel costs, we have included amounts for additional capital cost items as shown in the following table. The resultant total estimated capital costs for Project No. 6 and Nuclear Projects Nos. 4 and 5 are \$197,326,000, \$138,763,000 and \$35,855,000, respectively.

**Summary of Estimated Capital Cost**  
**Project No. 6 and Nuclear Projects Nos. 4 and 5**  
**(000)**

| Item   | Seabrook<br>Nos. 1 and 2 |                             |                             |
|--|--------------------------|-----------------------------|-----------------------------|
| Estimated Costs as Provided by PSNH(1):                                  |                          |                             |                             |
| Construction Costs:  |                          |                             |                             |
| Land and Land Rights(2)  | \$ 4,000                 |                             |                             |
| Structures and Improvements  | 549,000                  |                             |                             |
| Reactor Plant Equipment  | 377,500                  |                             |                             |
| Turbine Generator Equipment  | 150,500                  |                             |                             |
| Accessory Electrical Equipment   | 119,500                  |                             |                             |
| Miscellaneous Power Plant Equipment                                      | 50,000                   |                             |                             |
| Station Equipment  | 25,500                   |                             |                             |
| Subtotal Construction Costs  | \$1,276,000              |                             |                             |
| Estimated Other Costs:   |                          |                             |                             |
| Engineering  | 477,500                  |                             |                             |
| Owner's Cost   | 8,000                    |                             |                             |
| Other Costs  | 365,500                  |                             |                             |
| Escalation   | 255,500                  |                             |                             |
| Subtotal Other Costs   | \$1,106,500              |                             |                             |
| Total Construction Cost Excluding Contingencies                          | \$2,382,500              |                             |                             |
|  | Project<br>No. 6         | Nuclear<br>Project<br>No. 4 | Nuclear<br>Project<br>No. 5 |
| MMWEC Ownership Interest   | 6.001%                   | 4.333%                      | 1.097%                      |
| MMWEC Share of Total Construction Cost (Exclusive of Con-<br>tingencies) | \$142,972                | \$103,234                   | \$26,136                    |
| MMWEC Contingencies at Approximately 18%                                 | 25,874                   | 18,691                      | 4,730                       |
| Subtotal MMWEC Construction Costs  | \$168,846                | \$121,925                   | \$30,866                    |
| Nuclear Fuel—Initial Core(3)   | 11,222                   | 8,103                       | 2,051                       |
| Total Plant Costs  | \$180,068                | \$130,028                   | \$32,917                    |
| Transmission Support Payments(4)   | 1,587                    | 1,146                       | 289                         |
| Interest Paid to Prior Joint Owners                                      | 672                      | 3,090                       | 782                         |
| Other MMWEC Capital Costs:   |                          |                             |                             |
| Working Capital(5)   | 4,000                    | 1,200                       | 350                         |
| Administrative Costs(5)  | 2,777                    | 972                         | 928                         |
| Fuel Working Funds(6)  | 3,222                    | 2,327                       | 589                         |
| Renewable Resource Fund  | 5,000                    | —                           | —                           |
| MMWEC Total Estimated Capital Cost                                       | \$197,326                | \$138,763                   | \$35,855                    |

(1) As of April 29, 1981.

(2) Includes \$2,500,000 for franchise and licenses.

(3) Based on information supplied by PSNH and costs estimated by us to be generally prevailing for acquiring and processing nuclear fuel delivered in the 1985-1987 time period.

(4) Includes an estimated amount of support payments to be made to PSNH prior to commercial operation of the units for MMWEC's share of the cost of unit related transmission facilities.

(5) Estimated by MMWEC and the Consulting Engineer.

(6) Estimated funds required prior to commercial operation for expenditures for reload fuel which were based on information supplied by PSNH and costs estimated by us to be generally prevailing for acquiring and processing fuel delivered in the 1985-1987 time period.

Based on the foregoing estimate of the total capital cost and the estimated cash flow requirements for Seabrook Nos. 1 and 2, as furnished by PSNH and adjusted by us, we have prepared the following estimate of the cash flow of total capital cost for Project No. 6 and Nuclear Projects Nos. 4 and 5. Actual cash flow requirements may vary depending upon construction and commercial operation schedules as realized by PSNH.

**Estimated Cash  
Flow Requirements  
(000)**

|  | <b>Project<br/>No. 6</b> | <b>Nuclear<br/>Project<br/>No. 4</b> | <b>Nuclear<br/>Project<br/>No. 5</b> |
|--|--------------------------|--------------------------------------|--------------------------------------|
| Accumulated costs through March 31, 1981 | \$ —                     | \$ 52,067                            | \$13,227                             |
| 1981 Remainder of Year                   | 83,620                   | 13,331                               | 3,417                                |
| 1982                                     | 35,668                   | 18,528                               | 4,754                                |
| 1983                                     | 27,001                   | 19,456                               | 4,997                                |
| 1984                                     | 21,589                   | 15,543                               | 4,015                                |
| 1985                                     | 17,555                   | 11,972                               | 3,253                                |
| 1986                                     | 8,954                    | 6,566                                | 1,806                                |
| 1987                                     | 2,939                    | 1,300                                | 386                                  |
| <b>Total</b>                             | <b>\$197,326</b>         | <b>\$138,763</b>                     | <b>\$35,855</b>                      |

*Estimated Financing Required.* MMWEC's long-term financing program for Project No. 6 and Nuclear Projects Nos. 4 and 5 contemplates the issuance of Bonds in several series to finance the estimated total capital cost of these Projects. Based on the cash flow, capital costs and financing assumptions included herein, the proceeds of the 1981 A Bonds designated for Project No. 6 are estimated to be sufficient to provide for cash flow requirements to December 1981 prior to which additional Bonds or notes in anticipation of Bonds are planned to be issued. Any significant change in cash flow may affect the estimated financing required for Project No. 6.

Based on the cash flow, capital costs and financing assumptions for Project No. 6 and Nuclear Projects Nos. 4 and 5, we have estimated the total financing by MMWEC to be \$389,900,000, \$204,600,000 and \$55,200,000, respectively. Of these amounts \$118,500,000 and \$30,500,000 of Bonds have previously been issued by MMWEC for Nuclear Projects Nos. 4 and 5, respectively. MMWEC has obtained approval from the DPU to borrow funds up to \$335,000,000, \$222,000,000 and \$75,000,000 to finance costs associated with Project No. 6 and Nuclear Projects Nos. 4 and 5, respectively and additional DPU approval will be required to finance above these amounts. Of this amount for Project No. 6, approximately \$325,000,000 is for MMWEC's proposed ownership interest in Seabrook Nos. 1 and 2 and approximately \$10,000,000 is for MMWEC's development of renewable resources.

A summary of the total estimated amount of Bonds required to be issued to finance Project No. 6 as set forth herein, is shown in the following table:

**Estimated Financing Required  
Project No. 6(1)  
(000)**

|   | <b>1981A<br/>Bonds</b> | <b>Future<br/>Additional<br/>Bonds</b> | <b>Total(2)</b>  |
|---|------------------------|--|------------------|
| MMWEC Total Estimated Capital Cost                                  | \$ 79,194              | \$118,132                              | \$197,326(3)     |
| Reserve Account in Bond Fund(4)                                     | 13,000                 | 32,541                                 | 45,541           |
| Funded Interest   | 6,500(5)               | 177,842(6)                             | 184,342          |
| Reserve and Contingency Fund  | —0—                    | 3,000                                  | 3,000            |
| Bond Discount, Financing Expense, Engineering and Legal Expenses(7) | 3,500                  | 10,146                                 | 13,646           |
| <b>Total Capital Requirements</b>                                   | <b>\$102,194</b>       | <b>\$341,661</b>                       | <b>\$443,855</b> |
| Less Investment Income  | (2,194)(8)             | (51,761)(9)                            | (53,955)         |
| <b>Principal Amount of Bonds</b>                                    | <b>\$100,000</b>       | <b>\$289,900</b>                       | <b>\$389,900</b> |

(1) Does not include any notes MMWEC may issue in anticipation of Bonds. Based on information provided by MMWEC's financial advisor the issuance of these notes would not materially affect the projected amount of additional Bonds required.

(2) Estimated amount of Bonds required to fund the Project through completion.

(3) Based upon information contained in the Summary of Estimated Capital Cost table previously shown.

(footnotes continued on next page)

- (4) Equal to maximum annual interest on the Bonds.
- (5) Funds interest at 13% annual interest rate for the 1981 A Bonds to January 1, 1982. The 13% interest rate has been estimated by MMWEC's financial advisor.
- (6) Interest funded at 12% and 11%, as estimated by MMWEC's financial advisor, for varying periods for the additional Bond issues assumed after the issuance of the 1981 A Bonds. Future additional Bonds are planned to fund interest on all Bonds to January 1, 1987.
- (7) Estimated by MMWEC's financial advisor at 3.5% of the principal amount of the Bonds.
- (8) Includes estimated income from investments during the construction period at an annual interest rate of approximately 13% as estimated by MMWEC's financial advisor.
- (9) Includes estimated income from investments during the construction period at an annual interest rate of approximately 13% and 12% for varying periods for the additional Bond issues assumed after the issuance of the 1981 A Bonds, as estimated by MMWEC's financial advisor.

#### *Power Output and Estimated Annual Fixed and Variable Costs*

One of the economic goals of NEPOOL is to reduce New England system operating costs through central dispatching and the use of those units with the lowest incremental costs including fuel costs. In accordance with these central dispatching policies, the Seabrook Units are anticipated to be dispatched by NEPOOL for base load service requirements. Seabrook Nos. 1 and 2, under base loading, are assumed to operate at plant factors of approximately 73% and 69% in 1992. These plant factors represent our projection of the maximum amount of energy available from the Units based on maturity schedules for the Units.

For billing purposes to its members, NEPOOL assumes that energy from a generating unit will be available to meet a member's needs based on that member's energy requirements and load characteristics. Based on these criteria, average plant factors of approximately 73% and 69% in 1992 for Unit No. 1 and Unit No. 2, respectively for the Member Participants' shares in these Units have been assumed for Project No. 6 and Nuclear Projects Nos. 4 and 5.

The plant factors that we have assumed relating to the Member Participants' receipt of energy from these Projects are within the operational capabilities of the Units comprising the Projects since the Units will be providing energy to meet the base load requirements of the Member Participants. Additionally, these plant factors fall within the regional guidelines used by NEPOOL and those used by other utilities planning the construction of units of a similar type scheduled for operation during the same time period.

The Non-member Participants have informed us that their power supply plans indicate a need for the capacity that they will obtain from Project No. 6. However, we have not performed the analysis necessary to estimate the plant factors relating to their utilization of the output of this Project.

The following table presents the estimated annual average cost of power excluding transmission for these Projects for 1992.

#### **Estimated Annual Average Cost of Power in 1992 For the Member Participants**

|  | <b>Project<br/>No. 6</b> | <b>Nuclear<br/>Project<br/>No. 4</b> | <b>Nuclear<br/>Project<br/>No. 5</b> |
|--|--------------------------|--------------------------------------|--------------------------------------|
| Project Net Capability (kW) .....                    | 110,417                  | 99,658                               | 25,225                               |
| Generation (kWh x 1,000) .....                       | 687,719                  | 620,707                              | 157,117                              |
| Assumed Plant Factor (%) (1) .....                   | 71.1                     | 71.1                                 | 71.1                                 |
| Annual Costs Excluding Transmission (000)            |                          |                                      |                                      |
| Operating(2) .....                                   | \$ 5,085                 | \$ 4,706                             | \$ 1,503                             |
| Fuel(3) .....  | 10,990                   | 9,920                                | 2,511                                |
| Debt Service(4) .....                                | 36,785                   | 18,815                               | 5,250                                |
| Payments to Reserve and Contingency<br>Fund(5) ..... | 3,679                    | 1,882                                | 525                                  |
| Subtotal .....                                       | \$ 56,539                | \$ 35,323                            | \$ 9,789                             |
| Less Investment Income(6) .....                      | (3,405)                  | (1,752)                              | (476)                                |
| Total Annual Cost to MMWEC .....                     | \$ 53,134                | \$ 33,571                            | \$ 9,313                             |
| Annual Average Cost (mills/kWh) (7) .....            | 77.26                    | 54.09                                | 59.27                                |

(footnotes continued on next page)



(1) Assumes capability from Seabrook Nos. 1 and 2 will be available to MMWEC in June, 1985 and April, 1987 respectively. The estimated plant factors at which Seabrook Nos. 1 and 2 are expected to operate should improve to a 73% value after six years of operation.

(2) Based on costs estimated by us and data furnished by PSNH and includes MMWEC's share of materials and supplies, PSNH's administrative and general costs, transmission support charges and insurance directly allocable to the units.

(3) Based on information supplied by PSNH and costs estimated by us to be generally prevailing for acquiring and processing nuclear fuel delivered in the 1989-1992 time period. Includes an allowance for decommissioning of Seabrook Nos. 1 and 2 and a charge for spent fuel disposal. No credit has been assumed for recovered fuel.

(4) Debt service on the portion of the total amount of Bonds estimated for Project No. 6 and Nuclear Project Nos. 4 and 5 which is assumed to be allocated to Seabrook No. 1 assumes interest will be paid from Bond proceeds to January 1, 1986, interest only will be paid to January 1, 1987, and level debt service commencing July 1, 1987. Debt service on that portion of the total amount of Bonds assumed to be allocated to Seabrook No. 2 assumes interest will be paid from Bond Proceeds to January 1, 1988, interest only will be paid to January 1, 1989, and level debt service commencing July 1, 1989. Debt service is based on a 30-year amortization schedule and a 13% annual interest rate on the 1981 A Bonds plus 12% on Bonds proposed for issuance in 1982 and 11% on Bonds proposed for issuance thereafter as estimated by MMWEC's financial advisor. Actual debt service on the Bonds may be other than as indicated.

(5) Assumes payments to the Reserve and Contingency Fund equal to 10% of debt service without any offsetting credit for application of any amounts in excess of the Reserve and Contingency Fund requirement to the reduction of annual power costs.

(6) Assumed at an 11% interest rate for earnings on the Reserve Account and Reserve and Contingency Fund as estimated by MMWEC's financial advisor.

(7) Based on the total output of Project No. 6 and Nuclear Projects Nos. 4 and 5 delivered into the regional transmission system.

The transmission and substation facilities which will be utilized to deliver the power from Project No. 6 and Nuclear Projects Nos. 4 and 5 to the Participants consist of facilities located at the Seabrook Units' site, facilities required to interconnect the Seabrook Units with the NEPOOL regional transmission grid, facilities comprising the NEPOOL regional transmission grid and lower voltage facilities that the Participants utilize to interconnect their electric systems to the NEPOOL regional grid.

The costs for certain of the facilities at the Seabrook Units' site (unit related facilities) are borne by joint owners such as MMWEC as part of the construction cost of the Units. The remaining site facilities' costs are billed to the joint owners in the form of annual support payments (annual fixed costs).

The costs for use of the NEPOOL regional transmission grid are set periodically in accordance with formulations included in the NEPOOL agreement.

The final transmission cost components, used to interconnect the Participants' systems with the regional grid, are set by the electric utilities whose facilities are actually used for the interconnection.

In total, these costs are estimated by us to be in the range of \$6.50/kW-year to \$10.10/kW-year, remaining fairly level through the 1992 period.

The addition of these transmission and substation costs to those annual costs previously shown result in the range of annual average costs of power for 1992 as delivered to the Member Participants from 78.30 to 78.88 mills/kWh, 55.13 to 55.71 mills/kWh and 60.31 to 60.89 mills/kWh for Project No. 6, and Nuclear Projects Nos. 4 and 5, respectively.

#### **Nuclear Mix No. 1**

Nuclear Mix No. 1 consists of MMWEC's ownership interests in four proposed nuclear-fueled electric generating units, the output of which MMWEC will sell to 25 Member Participants as a single power supply resource. Nuclear Mix No. 1 is planned to supply a portion of the base load electric power requirements of these Member Participants. A substantial portion of the capability expected to be available from this Project is anticipated to come from Pilgrim No. 2 being planned by BECO which MMWEC currently projects will be available to meet a portion of its Members Participants' requirements

in the early 1990's. For a discussion of Millstone No. 3 and Seabrook Nos. 1 and 2, which comprise the balance of this Project, refer to the sections captioned, "Project No. 6 and Nuclear Projects Nos. 4 and 5" and "Nuclear Project No. 3". The dates of commercial operation as scheduled by the sponsoring utilities, the dates assumed by MMWEC for the receipt of energy for power supply and financial planning purposes, the amounts of expected net capability from the units and MMWEC's ownership interests in the units are shown below:

| Unit                                | Sponsoring Utility | Scheduled Dates of Commercial Operation | MMWEC Energy Planning Dates | Expected Net Capability (kW) | MMWEC Ownership Interest |         |
|-------------------------------------|--------------------|---|-----------------------------|------------------------------|--------------------------|---------|
|                                     |                    |   |                             |                              | (%)                      | (kW)    |
| Pilgrim No. 2                       | BECO               | (1)                                     | 11/90                       | 1,150,000                    | 13.240                   | 152,260 |
| Millstone No. 3                     | NU                 | 5/86                                    | 5/86                        | 1,150,000                    | 1.603                    | 18,440  |
| Seabrook Nos. 1 & 2                 | PSNH               | 2/84, 5/86                              | 6/85, 4/87                  | 2,300,000                    | 0.163                    | 3,744   |
| Total MMWEC Expected Net Capability |                    |   |                             |                              |                          | 174,444 |

(1) The last date established by BECO was November 1987. BECO has announced that because of delays in regulatory proceedings, no firm date can be established at this time.

Pilgrim No. 2 is a nuclear-fueled electric generating unit proposed for construction and sponsored by BECO at a 528 acre site located in the Town of Plymouth, Massachusetts. BECO has acquired approximately 1,093 acres of land adjacent to the site. Pilgrim No. 2 is the second nuclear unit to be constructed on the site. Pilgrim No. 1 has been in commercial operation at this site since December 1972. As presently proposed, Pilgrim No. 2 will have a Combustion Engineering, Inc. pressurized light water reactor as its nuclear steam supply system. The unit will be capable of producing a net electrical output of approximately 1,150,000 kW under expected operating conditions.

BECO has applied to the NRC for a limited work authorization and construction permit for Pilgrim No. 2 but these have not been issued. BECO is continuing its efforts to obtain these permits but there is no assurance that they will be issued in a timely fashion. A favorable partial initial decision dealing with certain construction permit matters has been issued by an agency of the NRC. This decision has been appealed within the NRC. BECO has announced that due to the time required for the construction of the unit, and completion of licensing and regulatory proceedings and the greatly increasing construction costs no firm date can be established for the commencement of construction or commercial operation of the unit. As a result, BECO does not have a current cost estimate of the unit. BECO has stated that when a more definitive schedule is set for the granting of a construction permit, it will be able to develop revised cost estimates and review the feasibility of the project and decide whether to cancel or continue construction of the project. At present, further procurement commitments and detailed design work for the project are being deferred.

As a result of these matters, and particularly BECO's inability to estimate either the date for commencement of construction or commercial operation of the Unit we have made certain assumptions regarding the construction schedule of the unit for purposes of MMWEC's financial planning and power supply. Assuming commencement of construction by November 1981, we have projected that the unit will commence commercial operation during November 1990 based on a typical construction schedule for a unit of this type.

For a further discussion relating to licenses, permits and other regulatory matters reference is made to the section in the Official Statement captioned "Massachusetts Municipal Wholesale Electric Company—Status of Units in MMWEC's Power Supply Plan."

BECO has advised that it has contractual commitments for supplies of uranium concentrate and related fuel services which would be adequate to provide 100% of the initial core of Pilgrim No. 2. BECO has further advised that arrangements have been made for obtaining a portion of the uranium ore required for subsequent reloading of the unit, and that it has obtained contracts for conversion of the initial core and four reloads, fabrication services for initial core and first reload, and enrichment services for 30 years from the date of first delivery.

BECO reported that, as of February 28, 1981, \$286,666,000, excluding nuclear fuel and AFUDC, has been expended.

*Estimated Capital Costs and Financing Required.* Our estimate of capital cost relating to Pilgrim No. 2 is based on information previously supplied to us by BECO, previously achieved levels of engineering and design completion as well as commitments for contracts and purchase orders, and, in the absence of a current cost estimate for the unit, our general estimate for the construction of a unit of this type. We have assumed a start of construction by November 1981. Delays in the start of construction beyond that date would result in additional construction cost increases greater than those currently assumed.

For a discussion of the capital costs relating to Millstone No. 3 and Seabrook Nos. 1 and 2 reference should be made to the sections captioned "Nuclear Project No. 3" and "Project No. 6 and Nuclear Projects Nos. 4 and 5", respectively.

The following table sets forth a summary of the estimated construction cost of the units comprising Nuclear Mix No. 1 and MMWEC's total estimated capital cost associated with this Project.

#### Summary of Estimated Capital Cost

##### Nuclear Mix No. 1

(000)

|   | <u>Pilgrim<br/>No. 2</u> | <u>Millstone<br/>No. 3</u> | <u>Seabrook<br/>Nos. 1 and 2</u> | <u>Nuclear<br/>Mix No. 1</u> |
|---|--------------------------|----------------------------|----------------------------------|------------------------------|
| Total Construction Cost (Excluding Contingencies) .....                   | (1)                      | \$1,524,104                | \$2,382,500                      |                              |
| MMWEC Ownership Interest .....  | 13.240%                  | 1.603%                     | 0.163%                           |                              |
| MMWEC Share of Total Construction Cost (Exclusive of Contingencies) ..... | (1)                      | \$ 24,431                  | \$ 3,883                         |                              |
| MMWEC Contingencies at Approximately .....                                | (1)                      | 15%                        | 18%                              |                              |
| MMWEC Contingencies .....   | (1)                      | \$ 3,607                   | \$ 703                           |                              |
| Subtotal MMWEC Construction Costs .....                                   | \$ 275,507               | \$ 28,038                  | \$ 4,586                         | \$308,131                    |
| Nuclear Fuel-Initial Core .....   |                          |                            |                                  | 15,481                       |
| Total Plant Costs .....   |                          |                            |                                  | \$323,612                    |
| Transmission Support Payments .....                                       |                          |                            |                                  | 4,100                        |
| Interest Paid to Prior Joint Owners .....                                 |                          |                            |                                  | 2,469                        |
| Other MMWEC Capital Costs:  |                          |                            |                                  |                              |
| Working Capital .....   |                          |                            |                                  | 6,000                        |
| Administrative Costs .....  |                          |                            |                                  | 2,124                        |
| Fuel Working Funds .....  |                          |                            |                                  | 35,005                       |
| MMWEC Total Estimated Capital Cost .....                                  |                          |                            |                                  | \$373,310                    |

(1) Estimated capital costs for a unit scheduled to be available in 1990 assuming a typical nuclear unit construction schedule and commencement of construction during November 1981.

Based on the capital cost of \$373,310,000, we have estimated the total financing required by MMWEC to be \$667,900,000. Of this amount, \$180,200,000 of Bonds have previously been issued by MMWEC. MMWEC has obtained approval from the DPU to borrow funds up to \$335,000,000 to finance costs associated with Nuclear Mix No. 1 and additional DPU approval will be required to finance above this amount.

The estimated annual average cost of power for 1992 from Nuclear Mix No. 1 as delivered to the Member Participants, based upon the preceding cost estimates, ranges from 96.50 mills/kWh to 97.14 mills/kWh at an assumed average plant factor of 63.1%.

### Sears Island Project

The Sears Island Project consists of MMWEC's 13.896% ownership interest in the Sears Island Coal Unit No. 1 presently proposed for construction by CMP, the output of which MMWEC intends to sell to 27 Member Participants. The Sears Island Project is planned to supply a portion of the base/intermediate load power requirements of the Member Participants in the early 1990's.

Sears Island Coal Unit No. 1, as presently proposed by CMP, will be a coal-fired electric generating unit of approximately 568,000 kW net capability located on a site in Searsport, Maine on the Maine coast and is presently scheduled for commercial operation during November 1989. The date of commercial operation as scheduled by CMP, the date assumed by MMWEC for the receipt of energy for power supply and financial planning purposes, the amount of projected net capability from the unit and MMWEC's ownership interest in the unit are shown below:

| Unit                         | Sponsoring Utility | Scheduled Date of Commercial Operation | MMWEC Energy Planning Date | Expected Net Capability (kW) | MMWEC Ownership Interest |        |
|------------------------------|--------------------|--|----------------------------|------------------------------|--------------------------|--------|
|                              |                    |  |                            |                              | (%)                      | (kW)   |
| Sears Island Coal Unit No. 1 | CMP                | 11/89                                  | 11/89                      | 568,000                      | 13.896                   | 78,927 |

In December 1979 the Maine Public Utilities Commission ("PUC") denied CMP's request for a certificate of public convenience and necessity based on findings that CMP's projected need for base load power in 1987 did not justify construction of a 568 MW facility of which CMP's proposed share was 459 MW or approximately 80%. CMP petitioned on January 18, 1980 for a rehearing before the PUC and such petition has been granted. In its petition for rehearing CMP deferred the estimated date of commercial operation of the proposed plant from 1987 to 1989 and stated its intention to reduce its ownership share of the plant from approximately 80% to between 55% and 60%. The PUC has commenced hearings on CMP's revised proposal.

For a further discussion relating to licenses, permits and other regulatory matters reference is made to the section in the Official Statement captioned "Massachusetts Municipal Wholesale Electric Company—Status of Units in MMWEC's Power Supply System".

As of the date of this Report, the construction cost estimate for the Sears Island Coal Unit No. 1 has been based on preliminary or conceptual designs and are adequate, in our opinion, to provide a basis for only an order of magnitude estimate of the total costs to MMWEC of the Sears Island Project and the amount of capacity that will ultimately be available to MMWEC. On this basis, we have estimated the total amount of Bonds required for the Sears Island Project to be at least \$217,900,000 of which \$9,500,000 has previously been issued by MMWEC to pay certain preliminary costs relating to the Sears Island Project. MMWEC has obtained approval from the DPU to borrow funds up to \$15,000,000 to finance initial costs associated with MMWEC's ownership interest in the Sears Island Coal Unit No. 1.

### PRINCIPAL CONSIDERATIONS AND ASSUMPTIONS USED IN PROJECTING REVENUE REQUIREMENTS

We have prepared estimates of the capital and annual costs of Project No. 6 and reviewed our previous estimates of costs for the Stony Brook Intermediate and Peaking Projects, Nuclear Mix No. 1, Nuclear Projects Nos. 3, 4 and 5, and the Wyman Project based, in part, upon information made available to us by the sponsoring utilities, Bechtel Power Corporation (architect-engineer for the Stony Brook Units), NEPOOL, MMWEC and MMWEC's financial advisor, upon our analysis of the projected operations of the Member Participants and a general review of the Non-Member Participants. Our projections of the revenue requirements of the Member Participants for 1985 and 1992 are discussed in the section of the Official Statement captioned, "The Member Participants—Summary of Projected Revenue Require-



ments". These estimates and revisions of previous estimates are based upon the following principal considerations and assumptions:

1. We have made certain statements and assumptions about the units included in Project No. 6, the Stony Brook Projects, Nuclear Mix No. 1, Nuclear Projects Nos. 3, 4 and 5, and the Wyman Project based upon information furnished by the sponsoring utility of each unit.

a. The estimated construction cost, average cost of power, amount of capacity, and date of availability for each unit are based upon information furnished to us by the sponsoring utility and analyses performed by us. Construction costs have been escalated by us at 9.5% for 1981, at 8.8% for the next four years and at 8.1% thereafter.

b. The sponsoring utility for each unit is solely responsible, on behalf of all the joint owners of each unit, for the licensing, design, construction, operation, and maintenance of each unit and for obtaining all necessary permits, certificates and approvals required to complete construction of and to operate each unit on the schedule and at the operating plant factors set forth herein.

c. The estimated capital cost for the initial nuclear fuel cores, the total capital cost, and the cost of reload fuel of the nuclear units is based on cost information provided by the sponsoring utilities as well as costs estimated by us for acquisition and processing of nuclear fuel.

d. Operating expenses, excluding fuel for each of the units, will be at the estimated cost furnished by the sponsoring utility for the initial years of operation and will escalate for subsequent years at approximately 8.1% annually.

2. We have made certain statements and assumptions about escalation rates which are based on inflation rates and other conditions currently prevailing. To the extent that these assumptions are not realized, costs will vary accordingly.

3. We have made certain statements and assumptions concerning certain future requirements, costs, and responsibilities of the Member Participants and/or the Non-Member Participants.

a. The load projections for the Member Participants, which were developed by MMWEC and reviewed by us, and such projections as extended by us, will be realized.

b. Operating expenses for the Member Participants, other than for power supply, will increase at a rate projected on the basis of historical increases after adjusting for extraordinary items.

c. The Member Participants will be required to maintain capability in excess of their projected peak demand to provide reserves for future years in accordance with then effective NEPOOL requirements which are estimated to range from 16% to 20%.

4. We have made certain statements and assumptions concerning power supply resources and transmission facilities and their associated costs, which are based upon information supplied by MMWEC, NEPOOL, the Participants and other authoritative sources.

a. The average cost per kilowatt of NEPOOL transmission service will remain relatively constant through 1992.

b. The average cost of wholesale power will increase from the 1981 level for each wholesale supplier on the basis of its projected power requirements, facility additions, and costs as projected by us.

c. The projected power supply resources utilized by the Member Participants to meet their power requirements will be from a combination of existing and future resources including the MMWEC Projects, joint ownership entitlements, the Member Participants' own generating units, long and short term unit contracts, and wholesale power purchases from utilities currently supplying this type of power.

d. The Member Participants' own generating resources projected to be available will operate in a peaking mode with the exception of Braintree's combined cycle generating unit which will operate in an intermediate and/or peaking mode.

e. The Member Participants' own generating additions and retirements and the cost of their own existing and proposed generation will be as stated by the Member Participants and as documented in MMWEC's Long Range Forecast and the 1979 Supplement which were filed with and approved by the Siting Council.

f. Projected operating costs for Hudson include costs associated with Hudson's ownership interests in Pilgrim No. 2 and Seabrook Nos. 1 and 2 which will be financed by the use of internally generated funds.

g. Power supply resources in 1985 and 1992 include amounts of nuclear capacity and energy as currently included in the Power Supply System which are expected to be available to the Member Participants in those time periods. Power supply resources in 1985 also include nuclear capacity and energy from Point Lepreau and capacity and energy through a unit contract purchase with NEP in Salem Harbor Nos. 1 through 4. Power supply resources in 1992 also include minor amounts of additional nuclear and coal capacity projected to be available at that time.

h. Revenues from the sale of surplus peaking and intermediate capacity projected to occur in 1985 and 1992 have been included in determining each Member Participant's projected revenue requirements. These revenues for 1985 and 1992 are based on the present cost of peaking capacity of \$13.50/kW-year expected to be available through 1992.

5. Pilgrim No. 2, Millstone No. 3 and Seabrook Nos. 1 and 2 are estimated to operate at an average plant factor of 59% in their first full year of commercial operation. As these units mature over the following six years, they are anticipated to operate at a maximum plant factor of approximately 73%. For the purposes of our analyses for 1985 and 1992, we have used plant factors for the Wyman Project and the Stony Brook Projects which are based upon the projected requirements of the Member Participants for energy from these units.

6. We estimate that MMWEC will issue \$942,700,000 in additional Bonds to pay the cost of acquisition and construction of Nuclear Mix No. 1, Nuclear Projects Nos. 3, 4 and 5 and Project No. 6. Our estimate assumes that such additional Bonds for Nuclear Mix No. 1 will be issued in the amounts of \$72,400,000 in 1983, \$165,500,000 in 1986, \$146,900,000 in 1988 and \$102,900,000 in 1990. Our estimate assumes that additional Bonds for Nuclear Project No. 3 will be issued in the amounts of \$25,300,000 in 1983 and \$29,000,000 in 1985. Our estimate assumes that additional Bonds for Nuclear Project No. 4 will be issued in the amounts of \$58,900,000 in 1983 and \$27,200,000 in 1986. Our estimate assumes that additional Bonds for Nuclear Project No. 5 will be issued in the amounts of \$17,200,000 in 1983 and \$7,500,000 in 1986. Our estimate assumes that additional Bonds for Project No. 6 will be issued in the amounts of \$65,200,000 in 1981, \$110,400,000 in 1982 and \$114,300,000 in 1984.

Based upon information supplied by MMWEC's financial advisor, the following interest rates have been used: 13% on the 1981 A Bonds and 13% on investments made with the proceeds of such Bonds, 12% on Bonds and 13% on investments on Bonds issued in 1982, and 11% on Bonds and 12% on investments on Bonds issued after 1982 and total financing costs equal to 3.5% of the Bonds for all such Bonds.

7. We have made certain statements and assumptions relating to the cost of fuel for Nuclear Mix No. 1, Nuclear Projects Nos. 3, 4 and 5, Project No. 6, the Wyman Project, the Stony Brook Projects and the Sears Island Project based upon the following assumptions:

a. An adequate fuel supply will be available to meet the projected requirements of the power supply resources of the Member Participants.

b. The cost of fuel is based upon 1981 levels escalated annually at the rate of approximately 7% for nuclear fuel, approximately 12% for oil and approximately 7% for coal. In view of recent wide fluctuations in prices of oil and other factors affecting fuel oil costs the escalation rate assumed for oil is particularly susceptible to change.

c. The estimated delivered cost of No. 2 fuel oil as it relates to the average cost of power from the Stony Brook Project is escalated from a base of \$8.00/MBtu in 1981.

d. The estimated delivered cost of low sulphur coal for the initial coal inventory and as it relates to the average cost of power from the Sears Island Project is escalated from a base of \$2.21/MBtu in 1981.

e. The estimated delivered cost of No. 6 low sulphur fuel oil for the Wyman Project is escalated from a base of \$6.60/MBtu in 1981.

f. The estimated delivered cost of No. 6 low sulphur fuel oil as it relates to the average cost of power to the Member Participants from wholesale purchases and other sources is escalated from a base of \$5.38/MBtu in 1981.

g. The estimated fuel cost of the nuclear units comprising the Projects will be as follows: \$0.79/MBtu in 1985 and \$1.52/MBtu in 1992 for Seabrook Nos. 1 and 2, \$1.45/MBtu for Millstone No. 3 in 1992 and \$1.36/MBtu for Pilgrim No. 2, in 1992, and the units' heat rates will be 10,500 Btu/kWh. These estimated costs of fuel are based on a nuclear fuel cycle which does not include any credit for recovered spent fuel but does include a cost allowance ranging from 2.36 to 4.55 mills/kWh for permanent disposal of spent fuel although such costs are not sufficiently known at this time to be accurately determined. Also included in MMWEC's annual costs for these nuclear units is an allowance of 0.3 mills/kWh for decommissioning of these units. This cost is based on engineering judgment, since present experience has been limited to the decommissioning of relatively small, experimental and prototype reactors.

8. The estimated average cost of power to the Member Participants from the Sears Island Project and other required resources have been estimated using recently developed order of magnitude construction and operating costs which are currently available for planning purposes by MMWEC and us.

### CONCLUSIONS OF THE CONSULTING ENGINEER

On the basis of our studies with respect to the sale of the 1981 A Bonds, we are of the opinion that:

1. The Power Supply System, as presently proposed, which contemplates the development of a mix of electric generating resources to meet the Member Participants' projected power requirements, is being developed in a manner consistent with sound utility power supply planning.

2. Nuclear Mix No. 1, Nuclear Projects Nos. 3, 4 and 5 and the Stony Brook Intermediate Project, will, upon completion, constitute significant sources of base and intermediate generation which will be required to meet the projected capacity needs of the Member Participants and MMWEC's ownership of these Projects is reasonable. The Wyman Project, which is in operation, constitutes a source of base/intermediate generation that is currently contributing to the existing capacity needs of the Member Participants.

3. It is prudent for MMWEC to acquire the additional interest in the Seabrook Units, identified as Project No. 6, since Project No. 6 will, upon completion, constitute a significant additional source of base load generation which can be economically utilized by the Member Participants. The economics of such utilization are not dependent upon load growth but are derived from the displace-

ment of oil generation, which is projected by us to be higher in cost than generation from Project No. 6.

4. The development of Project No. 6 and the arrangements for the Member Participants' receipt of capability from Project No. 6 is technically sound and is consistent with MMWEC's program to develop an economical mix of electric generating resources to meet the Member Participants' projected power requirements.

5. The Member Participants' ability to utilize Project No. 6 as part of their power supply resources is not dependent upon participation in other Projects in MMWEC's Power Supply System.

6. The estimated costs of construction of Project No. 6, including the allowances for escalation and contingencies included in our analysis, are comparable to costs estimated for similar nuclear projects being developed for commercial operation during the same time period.

7. The Stony Brook Peaking Project will provide a long term independent source of peaking generation to the Member Participants and an additional resource in the event the other planned resources in the Power Supply System are not available as currently projected.

8. It is reasonable for MMWEC to participate in developmental costs for the Sears Island Project, based upon the Member Participants' projected need for this type of capacity in the future, even though this Project is in the preliminary design stage and the information available is not sufficient to determine MMWEC's cost of participating in the Project.

9. As projected by us, electric system revenues of the Member Participants are expected to be sufficient to meet their costs, including obligations under the Power Sales Agreements, and their participation in the Power Supply System is reasonably expected to permit the Member Participants to maintain the position of generally having retail rates that are low by regional standards.

We have reviewed the Official Statement to which this Consulting Engineer's Report is appended, and in our opinion the information presented therein which is taken from our Report or which otherwise is attributed to us is accurately presented.

Respectfully submitted,

/s/ R. W. BECK AND ASSOCIATES



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**COMPARISON OF MONTHLY  
ELECTRIC RATES INCLUDING DISCOUNTS  
FOR PROMPT PAYMENT(1)(2)**

| Participants                                   | Rate<br>Schedule | Residential Electric Service |         |         | Rate<br>Schedule |
|--|------------------|------------------------------|---------|---------|------------------|
|  |                  | Energy Used                  |         |         |                  |
|  |                  | 100 kWh                      | 250 kWh | 500 kWh |                  |
| Ashburnham(3)                                  | A                | \$10.67                      | \$22.30 | \$40.93 | D                |
| Boylston(3)                                    | A                | 10.68                        | 21.83   | 38.98   | C(4)             |
| Braintree                                      | A-1              | 10.53                        | 24.76   | 46.47   | G-1              |
| Danvers  | A                | 9.52                         | 20.62   | 36.29   | C                |
| Georgetown                                     | A                | 9.62                         | 20.73   | 37.75   | SGSF             |
| Groton   | A-1              | 10.25                        | 21.89   | 40.30   | C + 1(4)         |
| Hingham  | A-8              | 10.76                        | 22.54   | 41.66   | B-8              |
| Holden   | RSR              | 10.51                        | 23.89   | 44.98   | SCR              |
| Holyoke(6)                                     | RES              | 9.37                         | 19.65   | 35.96   | GSS(4)           |
| Hudson   | A                | 10.16                        | 23.57   | 44.77   | D                |
| Hull   | A                | 13.70                        | 25.93   | 46.31   | C                |
| Ipswich  | A                | 9.44                         | 20.40   | 37.11   | C                |
| Littleton(3)                                   | NMD(7)           | 5.82                         | 23.80   | 38.35   | MD(4)            |
| Mansfield                                      | R                | 10.02                        | 21.54   | 39.40   | C                |
| Marblehead(3)                                  | A                | 10.55                        | 21.52   | 39.79   | C                |
| Middleborough                                  | R-1              | 9.09                         | 19.12   | 34.26   | C-1              |
| Middleton                                      | A                | 9.35                         | 19.98   | 35.60   | B                |
| North Attleborough(3)                          | A-1              | 8.60                         | 21.50   | 41.00   | EP-6             |
| Paxton(3)                                      | A                | 9.40                         | 22.90   | 43.40   | C                |
| Peabody  | R                | 9.47                         | 18.70   | 34.09   | Q                |
| Reading  | A                | 10.50                        | 23.29   | 41.38   | C(4)             |
| Shrewsbury(3)                                  | R                | 10.00                        | 22.45   | 41.45   | C                |
| South Hadley                                   | GSS              | 11.92                        | 24.30   | 44.94   | GSS              |
| Sterling                                       | A                | 9.07                         | 20.93   | 40.67   | D                |
| Templeton                                      | A                | 9.80                         | 21.95   | 40.95   | C-3(             |
| Wakefield                                      | A                | 10.91                        | 22.80   | 41.83   | C                |
| West Boylston                                  | R                | 8.18                         | 18.74   | 34.63   | LC               |
| Westfield(3)                                   | RES              | 9.65                         | 21.63   | 41.60   | CEB(11)          |
| <b>Investor-Owned Utility Companies(3)(12)</b> |                  |                              |         |         |                  |
| Boston Edison(13)                              | B                | 12.96                        | 26.78   | 51.16   | G-1              |
| Eastern Edison                                 | I                | 12.06                        | 25.24   | 45.36   | 21               |
| Mass. Electric                                 | A-22             | 11.10                        | 24.85   | 46.51   | G-22             |
| Western Mass. Elect.(15)                       | 10               | 11.55                        | 25.37   | 44.38   | 20               |
| <b>Non-Member Participants(3)</b>              |                  |                              |         |         |                  |
| E. Maine Elec. Coop                            | RS               | 11.51                        | 21.28   | 37.55   | SC&I             |
| Green Mt. Pwr. Corp.                           | 01               | 8.88                         | 13.96   | 25.33   | 06               |
| Hardwick(13)                                   | I                | 6.25                         | 7.80    | 18.80   | II               |
| Ludlow   | RES(13)          | 6.45                         | 13.35   | 24.85   | 2                |
| Lyndonville(13)                                | A                | 8.60                         | 12.50   | 22.25   | GS               |
| Morrisville(13)                                | I                | 5.10                         | 10.05   | 22.43   | 2                |
| Northfield                                     | R(13)            | 4.20                         | 7.50    | 16.90   | GS               |
| Pascoag(22)                                    | A                | 13.67                        | 29.45   | 54.72   | B                |
| Stowe  | 25(13)           | 4.00                         | 9.28    | 21.40   | 26               |
| Swanton(13)                                    | A                | 6.00                         | 9.38    | 20.00   | B                |
| Vt. Elect. Coop                                | A                | 10.08                        | 19.93   | 36.34   | B                |
| Wash. Elec. Coop(13)                           | 38R&F            | 11.30                        | 18.20   | 31.33   | 38C              |

(1) Discounts have not been applied to fuel adjustment amounts unless noted.

(2) Fuel adjustments are as of February 15, 1981.

(3) Does not include any allowance for prompt payment discount in rate schedule.

(4) Assumed 85% power factor.

(5) Based on "LGSR" rate schedule.

(6) Discount also applies to fuel adjustment amount.

(7) Rate NMD is structured to provide a low charge for minimum monthly kWh usage.

(8) The effective date applicable to Rate "A" is April 1, 1979, to Rate "B" is December 1, 1979 and to Rate "E" is August 1, 1978.

(9) Based on "EP-7" rate schedule.

(10) The effective date applicable to Rate "A" is March 2, 1981 and to Rate "D" is May 4, 1981.

(11) Assumed 90% power factor.

(12) Includes conservation adjustment.

## Commercial Electric Service

## Industrial Electric Service

## Demand/Energy Used

## Demand/Energy Used

| 12 kW<br>1,500 kWh | 30 kW<br>6,000 kWh | 40 kW<br>10,000 kWh | Rate<br>Schedule | 150 kW<br>30,000 kWh | 300 kW<br>60,000 kWh | 1,000 kW<br>200,000 kWh | Effective<br>Date |
|--------------------|--------------------|---------------------|------------------|----------------------|----------------------|-------------------------|-------------------|
| \$139.78           | \$484.12           | \$775.21            | D                | \$2,295.62           | \$4,501.25           | \$14,514.16             | 8- 1-77           |
| 151.03             | 507.32             | 810.26              | C(4)             | 2,402.62             | 4,756.74             | 15,742.62               | 3- 1-81           |
| 143.46             | 562.49             | 927.76              | P-1(3)(4)        | 2,739.40             | 5,478.80             | 18,262.66               | 1- 1-81           |
| 135.33             | 499.25             | 808.72              | G(3)             | 2,227.66             | 4,427.38             | 14,537.74               | 5- 1-80           |
| 123.22             | 461.49             | 770.00(5)           | LGSR(3)          | 2,375.00             | 4,715.00             | 15,635.00               | 4- 1-81           |
| 138.63             | 481.85             | 782.57              | C + I(4)         | 2,236.37             | 4,416.47             | 14,590.27               | 1- 1-78           |
| 126.12             | 493.00             | 819.12              | C-6              | 2,297.37             | 4,567.74             | 15,162.80               | 11- 1-78          |
| 141.88             | 524.79             | 862.34              | GSR              | 2,757.77             | 5,182.57             | 15,572.09               | 2- 1-80           |
| 124.61             | 453.87             | 730.71              | IND(4)           | 1,972.30             | 3,370.50             | 11,020.50               | 3- 1-81           |
| 160.95             | 538.10             | 862.00              | D                | 2,522.00             | 4,966.10             | 15,993.90               | 4- 1-81           |
| 166.61             | 577.64             | 939.80              | H                | 3,380.94             | 6,604.74             | 21,302.64               | 4- 1-81           |
| 123.69             | 411.03             | 645.87              | C                | 1,919.96             | 3,782.51             | 12,195.38               | 10- 1-80          |
| 159.15             | 502.58             | 780.68              | MD(4)            | 2,442.91             | 4,868.32             | 16,186.91               | 12- 1-79          |
| 118.96             | 449.39             | 743.10              | HTR(3)           | 2,447.84             | 4,803.68             | 15,293.60               | 7- 1-75           |
| 136.65             | 525.60             | 805.00              | C                | 2,292.00             | 4,380.00             | 14,124.00               | 7- 1-78           |
| 105.22             | 411.67             | 684.07              | C1 POWER(4)      | 1,960.18             | 3,775.00             | 12,244.18               | 10- 1-72          |
| 124.50             | 457.50             | 722.00              | E-1              | 2,304.30             | 4,608.60             | 15,362.00               | (8)               |
| 138.00             | 552.00             | 826.00(9)           | EP-7             | 2,650.50             | 5,301.00             | 17,670.00               | 1- 1-81           |
| 154.50             | 555.00             | 890.00              | C                | 2,765.00             | 5,500.00             | 18,170.00               | 7- 1-77           |
| 121.05             | 464.31             | 769.43              | L(4)             | 2,301.15             | 4,474.80             | 14,542.00               | 4- 1-80           |
| 148.97             | 524.72             | 833.85              | C(4)             | 2,534.75             | 5,007.15             | 15,877.19               | 5- 1-81           |
| 138.30             | 498.30             | 818.30              | GS               | 2,415.00             | 4,695.00             | 15,185.00               | 4- 1-78           |
| 121.21             | 464.40             | 769.46              | GSS(3)           | 2,324.52             | 4,531.47             | 14,550.58               | 12- 1-80          |
| 143.40             | 502.20             | 809.50              | D                | 2,437.50             | 4,843.50             | 16,071.50               | (10)              |
| 137.70             | 483.70             | 800.70              | C-1(3)           | 2,320.00             | 4,615.00             | 15,325.00               | 11- 1-80          |
| 156.89             | 534.93             | 847.51              | C                | 2,547.21             | 4,996.41             | 16,308.41               | 3- 1-81           |
| 120.14             | 452.05             | 713.52              | I                | 2,243.15             | 4,486.30             | 14,954.34               | 1- 1-78           |
| 145.17             | 521.25             | 835.97              | GPB(11)          | 2,053.40             | 4,053.80             | 13,389.00               | 5- 1-81           |
| 214.54             | 685.84(14)         | 1,055.90(14)        | G-2              | 3,241.01             | 6,248.99             | 20,278.23               | 2-13-81           |
| 156.98             | 543.78             | 884.14              | 31               | 2,533.29             | 4,926.69             | 15,785.89               | 12- 8-80          |
| 162.84             | 547.01             | 855.17              | G-22             | 2,555.11             | 5,028.01             | 16,224.01               | 1- 1-81           |
| 187.62             | 631.99             | 918.67              | 35(11)           | 2,088.13             | 4,092.62             | 13,438.70               | (16)              |
| 101.64             | 373.73             | 612.46              | LC&I             | 1,809.00             | 3,603.00             | 11,975.00               | 5-13-80           |
| 72.24              | 258.94             | 424.90              | 14               | 1,354.60             | 2,699.20             | 8,974.00                | (17)              |
| 73.60              | 376.50(18)         | 539.00(18)          | III              | 1,786.50             | 3,549.00             | 11,774.00               | 12- 1-80          |
| 82.00(13)          | 313.50(19)         | 443.50(19)          | 2A               | 1,540.50             | 3,067.50             | 10,135.00               | 11- 1-80          |
| 67.00              | 247.00             | 407.00              | GS-L             | 1,222.00             | 2,422.00             | 8,022.00                | 12-15-80          |
| 80.25              | 365.50(20)         | 514.00(20)          | 3                | 1,727.50             | 3,430.00             | 11,375.00               | 4-20-81           |
| 63.00(13)          | 252.00(21)         | 450.00(21)          | LPC-A            | 1,545.00             | 3,090.00             | 10,300.00               | 11- 1-79          |
| 163.41             | 665.72(23)         | 1,076.20(23)        | C                | 3,158.60             | 6,229.70             | 20,561.50               | 3-31-76           |
| 75.00(13)          | 276.00(24)         | 400.00(24)          | 27               | 1,380.00             | 2,760.00             | 9,200.00                | 7- 1-80           |
| 66.00              | 241.50             | 397.50              | D                | 1,182.50             | 2,352.50             | 7,812.50                | 12-10-80          |
| 107.00             | 360.80             | 579.00              | LP(4)            | 1,957.99             | 3,915.99             | 13,053.30               | 1- 1-81           |
| 91.50              | 330.00             | 542.00              | 38LP(11)         | 1,282.50             | 2,505.00             | 8,210.00                | 7-20-80           |

(13) Based on the average cost of peak and non-peak rates.

(14) Based on "G-2" rate schedule.

(15) Includes surcharge of 37.39% effective October 29, 1980.

(16) The effective date applicable to Rate "10" is November 1, 1980, to Rate "20" is December 16, 1975 and to Rate "35" is September 1, 1978.

(17) Based on rates filed with the Vermont Public Service Board which have not been approved but have been put into effect as of July, 1980.

(18) Based on "III" rate schedule.

(19) Based on "2A" rate schedule.

(20) Based on "3" rate schedule.

(21) Based on "LPC-A" rate schedule.

(22) Includes purchased power cost adjustment clause "A" effective March 31, 1976.

(23) Based on "C" rate schedule.

(24) Based on "27" rate schedule.

**EXHIBIT 2**  
**MEMBER PARTICIPANTS'**  
**POWER REQUIREMENTS AND SUPPLY(1)(2)**

Historical 1974 and 1980

Projected 1985 and 1992

(kW)

| Participant                      | Requirements(3) |         |         |         | Resources                          |         |         |         |                                      |         |         |        |
|----------------------------------|-----------------|---------|---------|---------|------------------------------------|---------|---------|---------|--------------------------------------|---------|---------|--------|
|                                  | 1974            | 1980    | 1985    | 1992    | Municipal Department Generation(4) |         |         |         | Long Term Unit Purchase Contracts(5) |         |         |        |
|                                  |                 |         |         |         | 1974                               | 1980    | 1985    | 1992    | 1974                                 | 1980    | 1985    | 1992   |
| Ashburnham                       | 3,210           | 3,375   | 4,100   | 4,600   | —                                  | —       | —       | —       | 176                                  | 185     | 1,781   | 185    |
| Boylston                         | 3,120           | 3,760   | 4,800   | 5,800   | —                                  | —       | —       | —       | 748                                  | 793     | 2,366   | 760    |
| Braintree                        | 48,000          | 60,000  | 68,500  | 74,500  | 38,830                             | 101,530 | 101,530 | 101,530 | 5,229                                | 40,188  | 45,118  | 5,188  |
| Danvers                          | 34,050          | 46,100  | 53,800  | 64,300  | —                                  | —       | —       | —       | 2,903                                | 4,517   | 26,428  | 3,033  |
| Georgetown                       | 4,181           | 4,950   | 5,400   | 5,900   | —                                  | —       | —       | —       | 387                                  | 404     | 2,574   | 404    |
| Groton                           | 4,300           | 5,200   | 6,200   | 7,100   | —                                  | —       | —       | —       | —                                    | —       | 2,623   | —      |
| Hingham                          | 19,234          | 22,655  | 26,200  | 29,300  | —                                  | —       | —       | —       | 1,875                                | 1,959   | 11,666  | 1,959  |
| Holden                           | 11,498          | 13,600  | 18,600  | 24,700  | —                                  | —       | —       | —       | —                                    | —       | 7,122   | —      |
| Holyoke                          | 36,400          | 46,800  | 60,500  | 64,900  | 42,906                             | 38,106  | 32,606  | 32,606  | 16,752                               | 21,125  | 21,347  | 15,125 |
| Hudson                           | 21,400          | 27,900  | 43,700  | 58,400  | 20,200                             | 20,200  | 20,200  | 20,200  | 4,242                                | 4,321   | 9,191   | 4,321  |
| Hull                             | 6,860           | 7,217   | 8,800   | 9,000   | —                                  | —       | —       | —       | 700                                  | 731     | 3,851   | 731    |
| Ipswich                          | 11,900          | 13,600  | 16,500  | 19,300  | 9,195                              | 8,059   | 10,237  | 10,237  | 1,403                                | 1,466   | 3,746   | 1,466  |
| Littleton                        | 9,675           | 13,225  | 16,000  | 18,400  | —                                  | —       | —       | —       | 1,513                                | 1,538   | 7,834   | 1,538  |
| Mansfield                        | 16,731          | 27,600  | 31,200  | 39,100  | —                                  | —       | —       | —       | —                                    | —       | 15,090  | —      |
| Marblehead                       | 16,700          | 16,525  | 19,000  | 20,100  | 1,136                              | 6,636   | 6,636   | 6,636   | 2,762                                | 3,030   | 9,906   | 2,842  |
| Middleborough                    | 13,481          | 17,800  | 25,600  | 34,300  | —                                  | —       | —       | —       | 2,250                                | 2,895   | 6,005   | 2,319  |
| Middleton                        | 5,675           | 8,602   | 12,100  | 14,500  | —                                  | —       | —       | —       | 514                                  | 912     | 5,411   | 537    |
| N. Attleborough                  | 17,904          | 20,575  | 28,900  | 34,600  | —                                  | —       | —       | —       | 2,859                                | 5,943   | 11,883  | 2,943  |
| Paxton                           | 3,578           | 4,065   | 5,600   | 6,700   | —                                  | —       | —       | —       | 354                                  | 370     | 2,237   | —      |
| Peabody                          | 52,200          | 59,300  | 74,900  | 84,300  | 30,850                             | 30,850  | 30,850  | 30,850  | 6,058                                | 6,868   | 34,313  | —      |
| Reading                          | 63,200          | 85,120  | 100,200 | 129,300 | —                                  | —       | —       | —       | 5,000                                | 5,000   | 17,000  | 5,000  |
| Shrewsbury                       | 27,350          | 30,350  | 37,600  | 42,800  | 5,500                              | 13,750  | 13,750  | 13,750  | 6,086                                | 7,341   | 20,778  | 6,241  |
| So. Hadley                       | 17,841          | 19,365  | 24,000  | 25,200  | —                                  | —       | —       | —       | —                                    | —       | —       | —      |
| Sterling                         | 4,000           | 5,200   | 8,200   | 11,000  | —                                  | —       | —       | —       | 324                                  | 338     | 3,056   | 338    |
| Templeton                        | 4,936           | 8,250   | 13,100  | 14,000  | —                                  | —       | —       | —       | 543                                  | 555     | 5,574   | 555    |
| Wakefield                        | 23,900          | 25,300  | 30,400  | 32,900  | —                                  | —       | —       | —       | 3,380                                | 4,559   | 15,167  | 3,487  |
| W. Boylston                      | 7,480           | 8,320   | 10,600  | 12,100  | —                                  | —       | —       | —       | 1,205                                | 1,569   | 5,562   | 1,237  |
| Westfield                        | 40,896          | 47,200  | 57,100  | 66,800  | —                                  | —       | —       | —       | 5,216                                | 5,382   | 8,882   | 5,382  |
| Total                            | 529,700         | 651,994 | 811,600 | 953,900 | 148,617                            | 219,131 | 215,809 | 215,809 | 72,479                               | 121,989 | 306,511 | 72,224 |
| Percent of<br>Total Requirements | 100.0           | 100.0   | 100.0   | 100.0   | 28.1                               | 33.6    | 26.6    | 22.6    | 13.7                                 | 18.7    | 37.8    | 7.6    |

- (1) Historical information obtained from annual returns to the DPU and from monthly power bills of the Member Participants.
- (2) Due to the inclusion of the reserve requirement and losses the total of the columns of different resources as a percent of total requirements will exceed 100%.
- (3) Non-coincident peak demands exclusive of reserves.
- (4) Additions to and retirements of generating plant based upon information supplied by individual managers of the Member Participants. Nameplate capacity ratings used.
- (5) Consists of contracts for power from Maine Yankee, Vermont Yankee, Pilgrim No. 1, New Brunswick Purchase, Northfield Mountain, Point Lepreau, Canal No. 2, Middletown No. 4 and Salem Harbor.
- (6) Consists of joint ownerships in New Haven Harbor No. 1, Pilgrim No. 2 and Seabrook Nos. 1 and 2.
- (7) Consists of Member Participants' shares of expected capability from the Projects in MMWEC's Power Supply System.
- (8) This amount is calculated based on projected requirements, resources, a reserve requirement of 20% and transmission losses of 3%.
- (9) The remaining capability for these years was acquired as wholesale purchases.
- (10) Although surplus capacity is projected to exist in certain years, that surplus consists primarily of generating resources designed to serve intermediate and peak loads at fuel costs which are typically higher than costs attributable to base load resources, and the Member Participants can economically utilize the base load resources shown.



# Resources

| Joint Ownership Entitlements(6) |       |       |        | MMWEC Power Sales Agreements(7) |        |         |         | Deficiency or Surplus of Capability(8) |         |          |          |
|---------------------------------|-------|-------|--------|---------------------------------|--------|---------|---------|--|---------|----------|----------|
| 1974                            | 1980  | 1985  | 1992   | 1974                            | 1980   | 1985    | 1992    | 1974(9)                                | 1980(9) | 1985(10) | 1992(10) |
| —                               | —     | —     | —      | —                               | —      | 4,556   | 7,116   | 3,074                                  | 3,213   | 1,264*   | 1,609*   |
| —                               | —     | —     | —      | —                               | 306    | 4,720   | 7,087   | 2,544                                  | 2,860   | 1,147*   | 671*     |
| —                               | —     | —     | —      | —                               | —      | 7,054   | 21,893  | 13,113                                 | 68,512* | 69,937*  | 38,399*  |
| —                               | —     | —     | —      | —                               | —      | 59,076  | 96,612  | 31,815                                 | 42,279  | 18,930*  | 20,081*  |
| —                               | —     | —     | —      | —                               | —      | 5,154   | 7,867   | 3,883                                  | 4,645   | 1,047*   | 971*     |
| —                               | —     | —     | —      | —                               | —      | 5,811   | 9,825   | 4,300                                  | 5,200   | 763*     | 1,041*   |
| —                               | —     | —     | —      | —                               | —      | 27,164  | 40,459  | 17,790                                 | 20,987  | 6,412*   | 6,165*   |
| —                               | —     | —     | —      | —                               | —      | 17,005  | 28,326  | 11,498                                 | 13,600  | 1,116*   | 2,164    |
| —                               | 5,000 | 5,000 | 5,000  | —                               | 4,029  | 12,407  | 34,478  | 12,895*                                | 11,195* | 2,403    | 7,691*   |
| —                               | —     | 915   | 3,832  | —                               | 1,988  | 17,395  | 45,191  | 1,138                                  | 5,943   | 5,564    | 1,864*   |
| —                               | —     | —     | —      | —                               | 739    | 11,072  | 16,038  | 6,321                                  | 6,005   | 4,033*   | 5,630*   |
| —                               | —     | —     | —      | —                               | —      | 2,205   | 8,512   | 3,464                                  | 5,676   | 3,791    | 3,244    |
| —                               | 1,003 | 1,003 | 1,003  | —                               | 976    | 12,483  | 19,204  | 8,510                                  | 10,341  | 1,525*   | 987      |
| —                               | —     | —     | —      | —                               | —      | 37,292  | 61,665  | 16,731                                 | 27,600  | 13,772*  | 13,282*  |
| —                               | —     | —     | —      | —                               | 1,636  | 14,869  | 23,896  | 13,664                                 | 7,194   | 7,905*   | 8,506*   |
| —                               | —     | —     | —      | —                               | 976    | 21,792  | 34,045  | 11,748                                 | 14,612  | 3,757    | 5,887    |
| —                               | —     | —     | —      | —                               | 593    | 9,985   | 17,563  | 5,279                                  | 7,356   | 427*     | 162*     |
| —                               | 2,005 | 2,005 | 2,005  | —                               | 976    | 25,925  | 42,262  | 15,703                                 | 13,308  | 4,057*   | 4,402*   |
| —                               | —     | —     | —      | —                               | —      | 4,810   | 7,894   | 3,305                                  | 3,751   | 119*     | 24       |
| —                               | —     | —     | —      | —                               | —      | 54,502  | 89,378  | 22,855                                 | 27,928  | 27,121*  | 22,464*  |
| —                               | —     | —     | —      | —                               | —      | 88,749  | 130,872 | 59,350                                 | 80,754  | 17,663   | 23,364   |
| —                               | —     | —     | —      | —                               | 2,440  | 21,419  | 41,525  | 18,264                                 | 10,941  | 9,561*   | 8,723*   |
| —                               | —     | —     | —      | —                               | —      | 3,924   | 16,847  | 17,841                                 | 19,365  | 24,994   | 13,898   |
| —                               | —     | —     | —      | —                               | —      | 6,547   | 9,543   | 3,751                                  | 4,907   | 525      | 3,615    |
| —                               | —     | —     | —      | —                               | —      | 10,668  | 17,678  | 4,518                                  | 7,770   | 36*      | 913*     |
| —                               | —     | —     | —      | —                               | 2,575  | 30,770  | 45,588  | 21,297                                 | 19,455  | 8,321*   | 8,366*   |
| —                               | —     | —     | —      | —                               | —      | 10,191  | 16,574  | 6,552                                  | 7,023   | 2,637*   | 2,839*   |
| —                               | —     | —     | —      | —                               | 4,248  | 61,713  | 97,220  | 36,880                                 | 39,258  | 43       | 19,945*  |
| —                               | 8,008 | 8,923 | 11,840 | —                               | 21,482 | 589,258 | 995,158 | 352,293                                | 332,264 | 121,390* | 120,541* |
| .0                              | 1.3   | 1.1   | 1.2    | .0                              | 3.5    | 72.6    | 104.3   | 66.5                                   | 51.0    | 15.0*    | 12.6*    |

\* Denotes surplus.

## **APPENDIX B**

### **Summaries of Historical Operating Results for 1976-1980 and Condensed Balance Sheets as of December 31, 1979 and 1980 for the Participants**

The tables presented in this Appendix summarize Participant operating results for the years ended December 31, 1976 through 1980 or as otherwise indicated. They also include Participant condensed balance sheets as of December 31, 1979 and 1980 or as otherwise indicated.

Information for the Member Participants is provided on pages B-1 to B-28 and for the Non-Member Participants on pages B-29 to B-40.

# ASHBURNHAM MUNICIPAL LIGHT DEPARTMENT

ESTABLISHED 1907

Appendix B  
Exhibit 1-1

## Summary of Operating Results (1)

|                                      | (Unaudited) |            |            |            |              |
|--------------------------------------|-------------|------------|------------|------------|--------------|
|                                      | 1976        | 1977       | 1978       | 1979       | 1980         |
| Customers .....                      | 2,013       | 2,014      | 1,987      | 2,021      | 2,074        |
| Requirements                         |             |            |            |            |              |
| Peak Demands—kW .....                | 3,322.      | 3,200.     | 3,300.     | 3,325.     | 3,375.       |
| Energy—kWh(000) .....                | 15,056.     | 15,694.    | 15,828.    | 16,723.    | 16,608.      |
| Total Energy Sales—kWh(000)(2) ..... | 14,390.     | 14,430.    | 14,919.    | 15,670.    | 15,361.      |
| Total Operating Revenues(3) .....    | \$702,948.  | \$779,365. | \$800,308. | \$894,788. | \$1,085,307. |
| Operating Expenses                   |             |            |            |            |              |
| Production(4) .....                  | 0.          | 0.         | 0.         | 0.         | 0.           |
| Purchased Power                      |             |            |            |            |              |
| MMWEC Certified                      |             |            |            |            |              |
| Projects(6) .....                    | 0.          | 0.         | 0.         | 0.         | 0.           |
| MMWEC Other(7) .....                 | 0.          | 0.         | 0.         | 3,136.     | 37,371.      |
| All Other(8) .....                   | 437,901.    | 514,027.   | 494,998.   | 625,357.   | 708,972.     |
| Total Power Supply                   |             |            |            |            |              |
| Expense .....                        | 437,901.    | 514,027.   | 494,998.   | 628,493.   | 746,343.     |
| All Other Operating                  |             |            |            |            |              |
| Expenses(9) .....                    | 181,533.    | 195,871.   | 225,069.   | 197,006.   | 218,809.     |
| Total Operating                      |             |            |            |            |              |
| Expenses .....                       | 619,434.    | 709,898.   | 720,067.   | 825,499.   | 965,152.     |
| Net Operating Revenues .....         | 83,514.     | 69,467.    | 80,241.    | 69,289.    | 120,155.     |
| Other Income(10)(11) .....           | 2,635.      | 2,694.     | 3,377.     | 9,455.     | 69,242.      |
| Revenues Available for Debt          |             |            |            |            |              |
| Service and Other Purposes ...       | 86,149.     | 72,161.    | 83,618.    | 78,744.    | 189,397.     |
| Debt Service                         |             |            |            |            |              |
| Revenue Bonds(12) .....              | 0.          | 0.         | 0.         | 0.         | 0.           |
| General Obligation Bonds(13) .....   | 0.          | 0.         | 0.         | 0.         | 0.           |
| Total Debt Service ..                | 0.          | 0.         | 0.         | 0.         | 0.           |
| Balance Available for Other          |             |            |            |            |              |
| Lawful Purposes(14) .....            | \$ 86,149.  | \$ 72,161. | \$ 83,618. | \$ 78,744. | \$ 189,397.  |

## CONDENSED BALANCE SHEET(1)

(Unaudited)

|  | 1979      | 1980        |
|--|-----------|-------------|
| ASSETS:                                    |           |             |
| Net Utility Plant .....                    | \$581,217 | \$ 621,436  |
| Fund Accounts .....                        | 76,536    | 79,994      |
| Current and Accrued Assets .....           | 234,164   | 275,237     |
| Deferred Debits .....                      | 3,541     | 77,901      |
| Total Assets .....                         | \$895,458 | \$1,054,568 |
| LIABILITIES:                               |           |             |
| Appropriations for Construction .....      | \$ 0      | \$ 0        |
| Surplus .....                              | 678,483   | 810,943     |
| Long Term Debt .....                       | 0         | 0           |
| Current and Accrued Liabilities .....      | 140,255   | 173,509     |
| Deferred Credits .....                     | 7,904     | 0           |
| Reserves .....                             | 0         | 1,300       |
| Contributions in Aid of Construction ..... | 68,816    | 68,816      |
| Total Liabilities .....                    | \$895,458 | \$1,054,568 |

# BOYLSTON MUNICIPAL LIGHT DEPARTMENT

ESTABLISHED 1912

## Summary of Operating Results (1)

Appendix B

Exhibit 1-2

(Unaudited)

|  | 1976       | 1977       | 1978       | 1979       | 1980         |
|--|------------|------------|------------|------------|--------------|
| Customers .....  | 1,322      | 1,413      | 1,435      | 1,639      | 1,468        |
| Requirements   |            |            |            |            |              |
| Peak Demands—kW .....                                      | 3,600.     | 3,840.     | 3,640.     | 3,840.     | 3,760.       |
| Energy—kWh(000) .....                                      | 16,860.    | 17,430.    | 18,056.    | 18,260.    | 19,114.      |
| Total Energy Sales—kWh(000)(2) .....                       | 15,600.    | 16,103.    | 16,810.    | 16,684.    | 17,324.      |
| Total Operating Revenues(3) .....                          | \$645,197. | \$691,851. | \$734,101. | \$768,233. | \$1,062,942. |
| Operating Expenses   |            |            |            |            |              |
| Production(4) .....  | 0.         | 0.         | 0.         | 0.         | 0.           |
| Purchased Power  |            |            |            |            |              |
| MMWEC Certified  |            |            |            |            |              |
| Projects(6) .....  | 0.         | 0.         | 1,257.     | 14,314.    | 37,932.      |
| MMWEC Other(7) .....                                       | 0.         | 0.         | 0.         | 0.         | 1,395.       |
| All Other(8) .....   | 475,958.   | 554,070.   | 564,612.   | 627,881.   | 884,075.     |
| Total Power Supply Expense .....                           | 475,958.   | 554,070.   | 565,869.   | 642,195.   | 923,402.     |
| All Other Operating Expenses(9) .....                      | 107,200.   | 110,309.   | 124,076.   | 137,641.   | 139,164.     |
| Total Operating Expenses .....                             | 583,158.   | 664,379.   | 689,945.   | 779,836.   | 1,062,566.   |
| Net Operating Revenues (Loss) .....                        | 62,039.    | 27,472.    | 44,156.    | (11,603.)  | 376.         |
| Other Income(10)(11) .....                                 | 32,485.    | 29,235.    | 30,292.    | 51,719.    | 116,818.     |
| Revenues Available for Debt Service and Other Purposes ... | 94,524.    | 56,767.    | 74,448.    | 40,116.    | 117,194.     |
| Debt Service   |            |            |            |            |              |
| Revenue Bonds(12) .....                                    | 0.         | 0.         | 0.         | 0.         | 0.           |
| General Obligation Bonds(13) .....                         | 28,050.    | 17,475.    | 16,325.    | 15,390.    | 16,748.      |
| Total Debt Service .....                                   | 28,050.    | 17,475.    | 16,325.    | 15,390.    | 16,748.      |
| Balance Available for Other Lawful Purposes(14) .....      | \$ 66,474. | \$ 39,292. | \$ 58,123. | \$ 24,726. | \$ 100,446.  |

## CONDENSED BALANCE SHEET(1)

(Unaudited)

|  | 1979      | 1980      |
|--|-----------|-----------|
| ASSETS:                                    |           |           |
| Net Utility Plant .....                    | \$530,123 | \$540,546 |
| Fund Accounts .....                        | 139,103   | 121,182   |
| Current and Accrued Assets .....           | 156,136   | 279,192   |
| Deferred Debits .....                      | 752       | 7,308     |
| Total Assets .....                         | \$826,114 | \$948,228 |
| LIABILITIES:                               |           |           |
| Appropriations for Construction .....      | \$ 0      | \$ 0      |
| Surplus .....                              | 599,027   | 678,723   |
| Long Term Debt .....                       | 90,000    | 80,000    |
| Current and Accrued Liabilities .....      | 136,520   | 188,944   |
| Deferred Credits .....                     | 567       | 561       |
| Reserves .....                             | 0         | 0         |
| Contributions in Aid of Construction ..... | 0         | 0         |
| Total Liabilities .....                    | \$826,114 | \$948,228 |



# BRAINTREE ELECTRIC LIGHT DEPARTMENT

ESTABLISHED 1893

Appendix B

Exhibit 1-3

## Summary of Operating Results (1)

|  | (Unaudited)  |               |               |               |               |
|--|--------------|---------------|---------------|---------------|---------------|
|  | 1976         | 1977          | 1978          | 1979          | 1980          |
| Customers .....  | 11,603       | 11,722        | 11,894        | 12,018        | 12,095        |
| Requirements   |              |               |               |               |               |
| Peak Demands—kW .....                                      | 54,000.      | 58,000.       | 59,000.       | 55,000.       | 60,000.       |
| Energy—kWh(000) .....                                      | 270,258.     | 298,172.      | 293,177.      | 300,098.      | 330,480.      |
| Total Energy Sales—kWh(000)(2) .....                       | 257,927.     | 284,742.      | 278,087.      | 281,320.      | 306,801.      |
| Total Operating Revenues(3) .....                          | \$9,583,934. | \$12,935,091. | \$13,719,845. | \$15,491,832. | \$19,707,328. |
| Operating Expenses   |              |               |               |               |               |
| Production(4)(16) .....                                    | 2,404,500.   | 2,443,986.    | 2,137,079.    | 2,052,929.    | 7,160,084.    |
| Purchased Power  |              |               |               |               |               |
| MMWEC Certified  |              |               |               |               |               |
| Projects(6) .....  | 0.           | 0.            | 0.            | 0.            | 0.            |
| MMWEC Other(7) .....                                       | 0.           | 0.            | 0.            | 0.            | 0.            |
| All Other(8) .....   | 4,705,618.   | 6,147,427.    | 6,008,917.    | 7,555,433.    | 8,254,621.    |
| Total Power Supply Expense .....                           | 7,110,118.   | 8,591,413.    | 8,145,996.    | 9,608,362.    | 15,414,705.   |
| All Other Operating Expenses(9) .....                      | 1,064,142.   | 1,130,724.    | 1,191,790.    | 1,621,400.    | 1,823,130.    |
| Total Operating Expenses .....                             | 8,174,260.   | 9,722,137.    | 9,337,786.    | 11,229,762.   | 17,237,835.   |
| Net Operating Revenues .....                               | 1,409,674.   | 3,212,954.    | 4,382,059.    | 4,262,070.    | 2,469,493.    |
| Other Income (Deductions)(10) ..                           | 17,803.      | (12,630.)     | (62,510.)     | (28,032.)     | 52,703.       |
| Revenues Available for Debt Service and Other Purposes ... | 1,427,477.   | 3,200,324.    | 4,319,549.    | 4,234,038.    | 2,522,196.    |
| Debt Service   |              |               |               |               |               |
| Revenue Bonds(12) .....                                    | 0.           | 0.            | 0.            | 0.            | 0.            |
| General Obligation Bonds(13)(15) .....                     | 217,817.     | 1,525,825.    | 2,807,346.    | 2,654,943.    | 2,448,763.    |
| Total Debt Service ..                                      | 217,817.     | 1,525,825.    | 2,807,346.    | 2,654,943.    | 2,448,763.    |
| Balance Available for Other Lawful Purposes(14) .....      | \$1,209,660. | \$ 1,674,499. | \$ 1,512,203. | \$ 1,579,095. | \$ 73,433.    |

## CONDENSED BALANCE SHEET(1)

(Unaudited)

|  | 1979         | 1980         |
|--|--------------|--------------|
| ASSETS:                                    |              |              |
| Net Utility Plant .....                    | \$36,269,092 | \$35,446,158 |
| Fund Accounts .....                        | 835,483      | 106,582      |
| Current and Accrued Assets .....           | 5,654,004    | 7,481,836    |
| Deferred Debits .....                      | 56,142       | 91,679       |
| Total Assets .....                         | \$42,814,721 | \$43,126,255 |
| LIABILITIES:                               |              |              |
| Appropriations for Construction .....      | \$ 0         | \$ 0         |
| Surplus .....                              | 20,709,320   | 20,586,606   |
| Long Term Debt(15) .....                   | 19,273,227   | 18,006,898   |
| Current and Accrued Liabilities .....      | 2,717,215    | 4,375,889    |
| Deferred Credits .....                     | 62,454       | 60,541       |
| Reserves .....                             | 52,505       | 96,321       |
| Contributions in Aid of Construction ..... | 0            | 0            |
| Total Liabilities .....                    | \$42,814,721 | \$43,126,255 |

# DANVERS ELECTRIC DEPARTMENT

ESTABLISHED 1889

## Summary of Operating Results(1)

Appendix B  
Exhibit 1-4

(Unaudited)

|   | 1975        | 1976        | 1977        | 1978        | 1979        | 12 Months<br>Ended<br>9-30-79 | 12 Months<br>Ended<br>9-30-80 |
|---|-------------|-------------|-------------|-------------|-------------|-------------------------------|-------------------------------|
| Customers .....   | 8,729       | 8,794       | 8,885       | 8,998       | 9,097       | 8,929                         | 8,999                         |
| Requirements  |             |             |             |             |             |                               |                               |
| Peak Demand—kW .....  | 37,550      | 39,250      | 41,770      | 43,240      | 42,330      | 42,330                        | 46,100                        |
| Energy—kWh(000) .....   | 194,051     | 203,056     | 203,928     | 200,916     | 215,806     | 215,527                       | 220,813                       |
| Total Energy Sales—kWh(000)(2) .....                            | 180,290     | 186,894     | 193,131     | 193,146     | 198,134     | 196,711                       | 203,476                       |
| Total Operating Revenues(3) .....                               | \$6,655,126 | \$7,103,147 | \$7,738,099 | \$8,068,002 | \$8,655,928 | \$8,333,474                   | \$10,708,275                  |
| Operating Expenses  |             |             |             |             |             |                               |                               |
| Production(4) .....   | 0           | 0           | 0           | 0           | 0           | 0                             | 0                             |
| Purchased Power   |             |             |             |             |             |                               |                               |
| MMWEC Certified Projects(6) .....                               | 0           | 0           | 0           | 0           | 0           | 0                             | 0                             |
| MMWEC Other(7) .....  | 0           | 0           | 0           | 0           | 40,593      | 0                             | 338,228                       |
| All Other(8) .....  | 5,461,791   | 5,655,903   | 6,727,859   | 6,547,347   | 7,294,753   | 6,501,210                     | 8,956,657                     |
| Total Power Supply Expense .....                                | 5,461,791   | 5,655,903   | 6,727,859   | 6,547,347   | 7,335,346   | 6,501,210                     | 9,294,885                     |
| All Other Operating Expenses(9) .....                           | 602,954     | 728,047     | 844,902     | 835,718     | 1,083,474   | 1,139,556                     | 1,275,502                     |
| Total Operating Expenses .....                                  | 6,064,745   | 6,383,950   | 7,572,761   | 7,383,065   | 8,418,820   | 7,640,766                     | 10,570,387                    |
| Net Operating Revenues .....                                    | 590,381     | 719,197     | 165,338     | 684,937     | 237,108     | 692,708                       | 137,888                       |
| Other Income (Deductions)(10)(11) .....                         | 26,485      | 6,030       | 13,845      | 44,146      | 34,352      | (6,739)                       | 677,644                       |
| Revenues Available for Debt Service and<br>Other Purposes ..... | 616,866     | 725,227     | 179,183     | 729,083     | 271,460     | 685,969                       | 815,532                       |
| Debt Service  |             |             |             |             |             |                               |                               |
| Revenue Bonds(12) .....   | 0           | 0           | 0           | 0           | 0           | 0                             | 0                             |
| General Obligation Bonds(13) .....                              | 0           | 15,875      | 102,800     | 98,240      | 306,177     | 247,138                       | 209,840                       |
| Total Debt Service .....  | 0           | 15,875      | 102,800     | 98,240      | 306,177     | 247,138                       | 209,840                       |
| Balance Available for Other Lawful<br>Purposes(14) .....        | \$ 616,866  | \$ 709,352  | \$ 76,383   | \$ 630,843  | \$ (34,717) | \$ 438,831                    | \$ 605,692                    |

## CONDENSED BALANCE SHEET(1)

(Unaudited)

|  | 1978               | 1979               | 9-30-80            |
|--|--------------------|--------------------|--------------------|
| ASSETS:                                    |                    |                    |                    |
| Net Utility Plant .....                    | \$4,379,544        | \$4,371,554        | \$4,435,637        |
| Fund Accounts .....                        | 787,945            | 983,808            | 1,009,315          |
| Current and Accrued Assets .....           | 1,274,111          | 1,281,936          | 1,176,141          |
| Deferred Debits .....                      | 13,573             | 49,405             | 126,807            |
| Total Assets .....                         | <u>\$6,455,173</u> | <u>\$6,686,703</u> | <u>\$6,747,900</u> |
| LIABILITIES:                               |                    |                    |                    |
| Appropriations for Construction .....      | \$ 0               | \$ 0               | \$ 0               |
| Surplus .....                              | 3,528,523          | 3,190,989          | 3,885,087          |
| Long Term Debt .....                       | 2,240,000          | 2,060,000          | 1,980,000          |
| Current and Accrued Liabilities .....      | 686,650            | 1,415,783          | 862,882            |
| Deferred Credits .....                     | 0                  | 0                  | 0                  |
| Reserves .....                             | 0                  | 19,931             | 19,931             |
| Contributions in Aid of Construction ..... | 0                  | 0                  | 0                  |
| Total Liabilities .....                    | <u>\$6,455,173</u> | <u>\$6,686,703</u> | <u>\$6,747,900</u> |

# GEORGETOWN MUNICIPAL LIGHT DEPARTMENT

ESTABLISHED 1912

Appendix B  
Exhibit 1-5

## Summary of Operating Results (1)

|  | (Unaudited) |            |            |            |              |
|--|-------------|------------|------------|------------|--------------|
|  | 1976        | 1977       | 1978       | 1979       | 1980         |
| Customers Requirements                                 | 1,930       | 1,954      | 1,979      | 1,992      | 1,995        |
| Peak Demand—kW   | 4,358.      | 4,576.     | 4,700.     | 4,706.     | 4,990.       |
| Energy—kWh(000)  | 21,026.     | 21,418.    | 21,893.    | 21,757.    | 22,625.      |
| Total Energy Sales—kWh(000)(2)                         | 19,010.     | 19,309.    | 19,376.    | 19,699.    | 19,974.      |
| Total Operating Revenues(3)                            | \$807,706.  | \$889,386. | \$866,945. | \$995,571. | \$1,223,174. |
| Operating Expenses                                     |             |            |            |            |              |
| Production(4)  | 0.          | 0.         | 0.         | 0.         | 0.           |
| Purchased Power  |             |            |            |            |              |
| MMWEC Certified  |             |            |            |            |              |
| Projects(6)  | 0.          | 0.         | 0.         | 0.         | 0.           |
| MMWEC Other(7)   | 0.          | 0.         | 0.         | 8,608.     | 85,864.      |
| All Other(8)   | 601,883.    | 740,473.   | 715,078.   | 789,094.   | 999,539.     |
| Total Power Supply Expense                             | 601,883.    | 740,473.   | 715,078.   | 797,702.   | 1,085,403.   |
| All Other Operating Expenses(9)                        | 104,183.    | 108,856.   | 115,363.   | 96,497.    | 139,730.     |
| Total Operating Expenses                               | 706,066.    | 849,329.   | 830,441.   | 894,199.   | 1,225,133.   |
| Net Operating Revenues (Loss)                          | 101,640.    | 40,057.    | 36,504.    | 101,372.   | (1,959.)     |
| Other Income (Deductions)(10)(11)                      | (623.)      | (441.)     | 1,315.     | 2,088.     | 111,743.     |
| Revenues Available for Debt Service and Other Purposes | 101,017.    | 39,616.    | 37,819.    | 103,460.   | 109,784.     |
| Debt Service   |             |            |            |            |              |
| Revenue Bonds(12)                                      | 0.          | 0.         | 0.         | 0.         | 0.           |
| General Obligation Bonds(13)                           | 0.          | 0.         | 0.         | 0.         | 0.           |
| Total Debt Service                                     | 0.          | 0.         | 0.         | 0.         | 0.           |
| Balance Available for Other Lawful Purposes(14)        | \$101,017.  | \$ 39,616. | \$ 37,819. | \$103,460. | \$ 109,784.  |

## CONDENSED BALANCE SHEET(1)

(Unaudited)

|                                      | 1979        | 1980        |
|--------------------------------------|-------------|-------------|
| ASSETS:                              |             |             |
| Net Utility Plant                    | \$ 589,526  | \$ 593,620  |
| Fund Accounts                        | 242,269     | 273,592     |
| Current and Accrued Assets           | 220,604     | 304,615     |
| Deferred Debits                      | 3,054       | 12,409      |
| Total Assets                         | \$1,055,553 | \$1,184,236 |
| LIABILITIES:                         |             |             |
| Appropriations for Construction      | \$ 0        | \$ 0        |
| Surplus                              | 869,806     | 950,381     |
| Long Term Debt                       | 0           | 0           |
| Current and Accrued Liabilities      | 67,450      | 115,558     |
| Deferred Credits                     | 1,901       | 1,901       |
| Reserves                             | 0           | 0           |
| Contributions in Aid of Construction | 116,396     | 116,396     |
| Total Liabilities                    | \$1,055,553 | \$1,184,236 |

# GROTON ELECTRIC LIGHT DEPARTMENT

ESTABLISHED 1909

Appendix B  
Exhibit 1-6

## Summary of Operating Results (1)

|  | (Unaudited) |              |              |              |              |
|--|-------------|--------------|--------------|--------------|--------------|
|  | 1976        | 1977         | 1978         | 1979         | 1980         |
| Customers .....  | 2,267       | 2,355        | 2,530        | 2,551        | 2,657        |
| Requirements   |             |              |              |              |              |
| Peak Demands—kW .....                                      | 4,725.      | 4,850.       | 5,050.       | 5,225.       | 5,200.       |
| Energy—kWh(000) .....                                      | 21,414.     | 21,738.      | 23,111.      | 24,868.      | 25,433.      |
| Total Energy Sales—kWh(000)(2) .....                       | 19,496.     | 19,986.      | 21,200.      | 22,639.      | 22,908.      |
| Total Operating Revenues(3) .....                          | \$949,560.  | \$1,059,747. | \$1,166,934. | \$1,400,688. | \$1,694,929. |
| Operating Expenses   |             |              |              |              |              |
| Production(4) .....  | 0.          | 0.           | 0.           | 0.           | 0.           |
| Purchased Power  |             |              |              |              |              |
| MMWEC Certified  |             |              |              |              |              |
| Projects(6) .....  | 0.          | 0.           | 0.           | 0.           | 0.           |
| MMWEC Other(7) .....                                       | 0.          | 0.           | 0.           | 7,805.       | 90,509.      |
| All Other(8) .....   | 651,092.    | 731,710.     | 748,620.     | 932,753.     | 1,156,319.   |
| Total Power Supply Expense .....                           | 651,092.    | 731,710.     | 748,620.     | 940,558.     | 1,246,828.   |
| All Other Operating Expenses(9) .....                      | 159,171.    | 166,836.     | 180,314.     | 277,057.     | 234,967.     |
| Total Operating Expenses .....                             | 810,263.    | 898,546.     | 928,934.     | 1,217,615.   | 1,481,795.   |
| Net Operating Revenues .....                               | 139,297.    | 161,201.     | 238,000.     | 183,073.     | 213,134.     |
| Other Income(10)(11) .....                                 | 4,772.      | 4,036.       | 4,525.       | 11,844.      | 119,971.     |
| Revenues Available for Debt Service and Other Purposes ... | 144,069.    | 165,237.     | 242,525.     | 194,917.     | 333,105.     |
| Debt Service   |             |              |              |              |              |
| Revenue Bonds(12) .....                                    | 0.          | 0.           | 0.           | 0.           | 0.           |
| General Obligation Bonds(13) .....                         | 67,050.     | 65,100.      | 63,150.      | 61,200.      | 59,250.      |
| Total Debt Service ..                                      | 67,050.     | 65,100.      | 63,150.      | 61,200.      | 59,250.      |
| Balance Available for Other Lawful Purposes(14) .....      | \$ 77,019.  | \$ 100,137.  | \$ 179,375.  | \$ 133,717.  | \$ 273,855.  |

## CONDENSED BALANCE SHEET(1)

(Unaudited)

|  | 1979        | 1980        |
|--|-------------|-------------|
| ASSETS:                                    |             |             |
| Net Utility Plant .....                    | \$1,454,017 | \$1,543,501 |
| Fund Accounts .....                        | 117,191     | 91,260      |
| Current and Accrued Assets .....           | 351,863     | 553,376     |
| Deferred Debits .....                      | 5,924       | 19,742      |
| Total Assets .....                         | \$1,928,995 | \$2,207,879 |
| LIABILITIES:                               |             |             |
| Appropriations for Construction .....      | \$ 86,393   | \$ 86,394   |
| Surplus .....                              | 1,194,367   | 1,423,503   |
| Long Term Debt .....                       | 465,000     | 435,000     |
| Current and Accrued Liabilities .....      | 183,235     | 262,982     |
| Deferred Credits .....                     | 0           | 0           |
| Reserves .....                             | 0           | 0           |
| Contributions in Aid of Construction ..... | 0           | 0           |
| Total Liabilities .....                    | \$1,928,995 | \$2,207,879 |



# HINGHAM MUNICIPAL LIGHTING PLANT

ESTABLISHED 1894

## Summary of Operating Results(1)

Appendix B  
Exhibit 1-7

|  | (Unaudited)  |              |              |              |              |
|--|--------------|--------------|--------------|--------------|--------------|
|  | 1976         | 1977         | 1978         | 1979         | 1980         |
| Customers .....  | 7,546        | 7,611        | 7,856        | 8,018        | 8,160        |
| Requirements   |              |              |              |              |              |
| Peak Demands—kW .....                                      | 20,909.      | 20,422.      | 20,625.      | 21,356.      | 22,655.      |
| Energy—kWh(000) .....                                      | 101,873.     | 102,714.     | 105,781.     | 106,838.     | 118,096.     |
| Total Energy Sales—kWh(000)(2) .....                       | 91,168.      | 93,303.      | 93,297.      | 96,75...     | 104,199.     |
| Total Operating Revenues(3) .....                          | \$4,113,774. | \$4,515,109. | \$4,503,189. | \$5,582,099. | \$6,659,447. |
| Operating Expenses   |              |              |              |              |              |
| Production(4) .....  | 0.           | 0.           | 0.           | 0.           | 0.           |
| Purchased Power  |              |              |              |              |              |
| MMWEC Certified  |              |              |              |              |              |
| Projects(6) .....  | 0.           | 0.           | 0.           | 0.           | 0.           |
| MMWEC Other(7) .....                                       | 0.           | 0.           | 0.           | 23,263.      | 351,569.     |
| All Other(8) .....   | 2,773,747.   | 3,360,473.   | 3,220,976.   | 3,895,805.   | 5,143,751.   |
| Total Power Supply Expense .....                           | 2,773,747.   | 3,360,473.   | 3,220,976.   | 3,919,068.   | 5,495,320.   |
| All Other Operating Expenses(9) .....                      | 592,683.     | 639,883.     | 694,641.     | 732,315.     | 801,761.     |
| Total Operating Expenses .....                             | 3,366,430.   | 4,000,356.   | 3,915,617.   | 4,651,383.   | 6,297,081.   |
| Net Operating Revenues .....                               | 747,344.     | 514,753.     | 587,572.     | 930,716.     | 362,366.     |
| Other Income(10)(11) .....                                 | 20,813.      | 29,095.      | 29,719.      | 67,097.      | 522,313.     |
| Revenues Available for Debt Service and Other Purposes ... | 768,157.     | 543,848.     | 617,291.     | 997,813.     | 884,679.     |
| Debt Service   |              |              |              |              |              |
| Revenue Bonds(12) .....                                    | 0.           | 0.           | 0.           | 0.           | 0.           |
| General Obligation Bonds(13) .....                         | 0.           | 0.           | 0.           | 0.           | 0.           |
| Total Debt Service .....                                   | 0.           | 0.           | 0.           | 0.           | 0.           |
| Balance Available for Other Lawful Purposes(14) .....      | \$ 768,157.  | \$ 543,848.  | \$ 617,291.  | \$ 997,813.  | \$ 884,679.  |

## CONDENSED BALANCE SHEET(1)

(Unaudited)

|  | 1979        | 1980        |
|--|-------------|-------------|
| ASSETS:                                    |             |             |
| Net Utility Plant .....                    | \$2,965,082 | \$2,962,508 |
| Fund Accounts .....                        | 1,103,981   | 1,535,720   |
| Current and Accrued Assets .....           | 1,934,969   | 2,177,959   |
| Deferred Debits .....                      | 19,617      | 67,069      |
| Total Assets .....                         | \$6,023,649 | \$6,743,256 |
| LIABILITIES:                               |             |             |
| Appropriations for Construction .....      | \$ 0        | \$ 0        |
| Surplus .....                              | 5,291,320   | 5,689,712   |
| Long Term Debt .....                       | 0           | 0           |
| Current and Accrued Liabilities .....      | 640,241     | 948,607     |
| Deferred Credits .....                     | 0           | 0           |
| Reserves .....                             | 92,088      | 104,937     |
| Contributions in Aid of Construction ..... | 0           | 0           |
| Total Liabilities .....                    | \$6,023,649 | \$6,743,256 |

# HOLDEN MUNICIPAL LIGHT DEPARTMENT

ESTABLISHED 1912

## Summary of Operating Results(1)

Appendix B  
Exhibit 1-8

(Unaudited)

|                                      | 1976         | 1977         | 1978         | 1979         | 1980         |
|--------------------------------------|--------------|--------------|--------------|--------------|--------------|
| Customers .....                      | 4,847        | 4,930        | 4,958        | 5,023        | 5,101        |
| Requirements                         |              |              |              |              |              |
| Peak Demands—kW .....                | 13,162.      | 13,125.      | 13,900.      | 13,725.      | 13,600.      |
| Energy—kWh(000) .....                | 62,094.      | 66,276.      | 68,134.      | 71,185.      | 71,395.      |
| Total Energy Sales—kWh(000)(2) ..... | 56,647.      | 60,257.      | 61,639.      | 64,882.      | 63,676.      |
| Total Operating Revenues(3) .....    | \$2,397,602. | \$2,709,851. | \$2,747,364. | \$3,064,940. | \$4,082,608. |
| Operating Expenses                   |              |              |              |              |              |
| Production(4) .....                  | 0.           | 0.           | 0.           | 0.           | 0.           |
| Purchased Power                      |              |              |              |              |              |
| MMWEC Certified                      |              |              |              |              |              |
| Projects(6) .....                    | 0.           | 0.           | 0.           | 0.           | 0.           |
| MMWEC Other(7) .....                 | 0.           | 0.           | 0.           | 15,610.      | 241,724.     |
| All Other(8) .....                   | 1,728,130.   | 2,150,682.   | 2,080,923.   | 2,645,516.   | 3,197,650.   |
| Total Power Supply                   |              |              |              |              |              |
| Expense .....                        | 1,728,130.   | 2,150,682.   | 2,080,923.   | 2,661,126.   | 3,439,374.   |
| All Other Operating                  |              |              |              |              |              |
| Expenses(9) .....                    | 331,600.     | 329,020.     | 341,979.     | 345,349.     | 451,617.     |
| Total Operating                      |              |              |              |              |              |
| Expenses .....                       | 2,059,730.   | 2,479,702.   | 2,422,902.   | 3,006,475.   | 3,890,991.   |
| Net Operating Revenues .....         | 337,872.     | 230,149.     | 324,462.     | 58,465.      | 191,617.     |
| Other Income(10)(11) .....           | 17,757.      | 30,178.      | 63,507.      | 108,843.     | 377,721.     |
| Revenues Available for Debt          |              |              |              |              |              |
| Service and Other Purposes .....     | 355,629.     | 260,327.     | 387,969.     | 167,308.     | 569,338.     |
| Debt Service                         |              |              |              |              |              |
| Revenue Bonds(12) .....              | 0.           | 0.           | 0.           | 0.           | 0.           |
| General Obligation Bonds(13) .....   | 19,375.      | 18,438.      | 17,500.      | 16,849.      | 10,339.      |
| Total Debt Service .....             | 19,375.      | 18,438.      | 17,500.      | 16,849.      | 10,339.      |
| Balance Available for Other          |              |              |              |              |              |
| Lawful Purposes(14) .....            | \$ 336,254.  | \$ 241,889.  | \$ 370,469.  | \$ 150,459.  | \$ 558,999.  |

## CONDENSED BALANCE SHEET(1)

(Unaudited)

|  | 1979        | 1980        |
|--|-------------|-------------|
| ASSETS:                                    |             |             |
| Net Utility Plant .....                    | \$1,592,461 | \$1,580,153 |
| Fund Accounts .....                        | 558,543     | 635,149     |
| Current and Accrued Assets .....           | 996,480     | 1,414,621   |
| Deferred Debits .....                      | 53,714      | 96,859      |
| Total Assets .....                         | \$3,201,198 | \$3,726,782 |
| LIABILITIES:                               |             |             |
| Appropriations for Construction .....      | \$ 0        | \$ 0        |
| Surplus .....                              | 2,719,708   | 3,063,277   |
| Long Term Debt .....                       | 10,000      | 0           |
| Current and Accrued Liabilities .....      | 471,490     | 663,505     |
| Deferred Credits .....                     | 0           | 0           |
| Reserves .....                             | 0           | 0           |
| Contributions in Aid of Construction ..... | 0           | 0           |
| Total Liabilities .....                    | \$3,201,198 | \$3,726,782 |

# HOLYOKE GAS AND ELECTRIC DEPARTMENT

ESTABLISHED 1902

## Summary of Operating Results(1)

Appendix B  
Exhibit 1-9

(Unaudited)

|                                  | 1976         | 1977         | 1978          | 1979          | 1980          |
|----------------------------------|--------------|--------------|---------------|---------------|---------------|
| Customers .....                  | 17,995       | 17,868       | 17,794        | 17,741        | 17,521        |
| Requirements                     |              |              |               |               |               |
| Peak Demand—kW .....             | 38,200.      | 42,050.      | 41,650.       | 45,550.       | 46,800.       |
| Energy—kWh(000) .....            | 199,182.     | 202,422.     | 207,865.      | 222,316.      | 234,288.      |
| Total Energy Sales—kWh(000)(2)   | 180,471.     | 186,479.     | 191,432.      | 203,910.      | 214,463.      |
| Operating Revenues               |              |              |               |               |               |
| Sales of Electricity .....       | \$7,531,773. | \$7,796,484. | \$ 8,551,195. | \$ 9,691,970. | \$13,581,408. |
| Other(17) .....                  | 1,254,712.   | 1,451,420.   | 1,497,539.    | 1,174,447.    | 1,279,072.    |
| Total Operating Revenue (3) ..   | \$8,786,485. | \$9,247,904. | \$10,048,734. | \$10,866,417. | \$14,860,480. |
| Operating Expenses               |              |              |               |               |               |
| Production(4)(5)(17) .....       | 2,554,358.   | 2,633,270.   | 2,687,927.    | 3,074,654.    | 2,649,503.    |
| Purchased Power                  |              |              |               |               |               |
| MMWEC Certified                  |              |              |               |               |               |
| Projects(6) .....                | 0.           | 0.           | 16,579.       | 188,828.      | 500,389.      |
| MMWEC Other(7) .....             | 0.           | 0.           | 0.            | 0.            | 385,916.      |
| All Other(8) .....               | 3,375,451.   | 3,860,626.   | 4,150,971.    | 4,718,781.    | 7,873,542.    |
| Total Power Supply               |              |              |               |               |               |
| Expense .....                    | 5,929,809.   | 6,493,896.   | 6,855,477.    | 7,982,263.    | 11,409,350.   |
| All Other Operating              |              |              |               |               |               |
| Expenses(9) .....                | 1,752,889.   | 1,725,302.   | 1,842,701.    | 2,003,866.    | 2,180,434.    |
| Total Operating                  |              |              |               |               |               |
| Expenses .....                   | 7,682,698.   | 8,219,198.   | 8,698,178.    | 9,986,129.    | 13,589,784.   |
| Net Operating Revenues .....     | 1,103,787.   | 1,028,706.   | 1,350,556.    | 880,288.      | 1,270,696.    |
| Other Income (Deductions)(10) .. | 31,561.      | 29,016.      | (35,366.)     | 27,633.       | 21,133.       |
| Revenues Available for Debt      |              |              |               |               |               |
| Service and Other Purposes ..    | 1,135,348.   | 1,057,722.   | 1,315,190.    | 907,921.      | 1,291,829.    |
| Debt Service                     |              |              |               |               |               |
| Revenue Bonds(12) .....          | 110,786.     | 207,715.     | 209,115.      | 210,215.      | 203,915.      |
| General Obligation Bonds(13)     | 391,563.     | 340,412.     | 329,412.      | 317,083.      | 175,934.      |
| Total Debt Service ..            | 502,349.     | 548,127.     | 538,527.      | 527,298.      | 379,849.      |
| Balance Available for Other      |              |              |               |               |               |
| Lawful Purposes(14) .....        | \$ 632,999.  | \$ 509,595.  | \$ 776,663.   | \$ 380,623.   | \$ 911,980.   |

## CONDENSED BALANCE SHEET(1)

(Unaudited)

|  | 1979         |             | 1980         |             |
|--|--------------|-------------|--------------|-------------|
|  | Electric     | Gas         | Electric     | Gas         |
| ASSETS:                                    |              |             |              |             |
| Net Utility Plant .....                    | \$13,184,489 | \$4,957,915 | \$13,763,498 | \$5,071,006 |
| Fund Accounts .....                        | 544,462      | 91,738      | 1,318,403    | 484,571     |
| Current and Accrued Assets .....           | 3,275,493    | 1,739,808   | 4,189,241    | 2,216,326   |
| Deferred Debits .....                      | 65,116       | 0           | 30,933       | 0           |
| Total Assets .....                         | \$17,069,560 | \$6,789,461 | \$19,352,075 | \$7,771,903 |
| LIABILITIES:                               |              |             |              |             |
| Appropriations for Construction .....      | \$ 0         | \$ 0        | \$ 0         | \$ 0        |
| Surplus .....                              | 12,221,612   | 4,986,771   | 12,805,067   | 5,208,180   |
| Long Term Debt .....                       | 2,936,000    | 609,000     | 2,740,250    | 549,750     |
| Current and Accrued Liabilities .....      | 1,889,090    | 1,181,548   | 3,783,868    | 2,001,863   |
| Deferred Credits .....                     | 0            | 0           | 0            | 0           |
| Reserves .....                             | 22,858       | 12,142      | 22,890       | 12,110      |
| Contributions in Aid of Construction ..... | 0            | 0           | 0            | 0           |
| Total Liabilities .....                    | \$17,069,560 | \$6,789,461 | \$19,352,075 | \$7,771,903 |

# HUDSON LIGHT AND POWER DEPARTMENT

ESTABLISHED 1897

## Summary of Operating Results(1)

Appendix B  
Exhibit 1-10

|  | (Unaudited)  |              |              |              |              |
|--|--------------|--------------|--------------|--------------|--------------|
|  | 1976         | 1977         | 1978         | 1979         | 1980         |
| Customers(18)  | 7,452        | 7,578        | 7,721        | 7,854        | 7,968        |
| Requirements(18)                                       |              |              |              |              |              |
| Peak Demands—kW  | 24,000.      | 24,300.      | 24,300.      | 26,800.      | 27,900.      |
| Energy—kWh(000)  | 109,442.     | 113,932.     | 121,352.     | 130,641.     | 147,133.     |
| Total Energy Sales—kWh(000)(2)                         | 100,335.     | 103,277.     | 108,136.     | 118,706.     | 132,077.     |
| Total Operating Revenues(3)                            | \$4,201,830. | \$4,786,637. | \$4,762,243. | \$5,563,764. | \$8,004,830. |
| Operating Expenses                                     |              |              |              |              |              |
| Production(4)(5)                                       | 920,167.     | 614,097.     | 286,713.     | 1,097,991.   | 1,280,044.   |
| Purchased Power  |              |              |              |              |              |
| MMWEC Certified  |              |              |              |              |              |
| Projects(6)  | 0.           | 0.           | 8,179.       | 93,156.      | 246,861.     |
| MMWEC Other(7)   | 0.           | 0.           | 0.           | 0.           | 208,613.     |
| All Other(8)   | 1,877,797.   | 2,486,321.   | 2,805,798.   | 2,784,077.   | 4,314,629.   |
| Total Power Supply Expense                             | 2,797,964.   | 3,100,418.   | 3,100,690.   | 3,975,224.   | 6,050,147.   |
| All Other Operating Expenses(9)                        | 636,906.     | 719,326.     | 723,871.     | 3,429.       | 1,010,059.   |
| Total Operating Expenses                               | 3,434,870.   | 3,819,744.   | 3,824,561.   | 4,928,653.   | 7,060,206.   |
| Net Operating Revenues                                 | 766,960.     | 966,893.     | 937,682.     | 635,111.     | 944,624.     |
| Other Income(10)(11)                                   | 24,023.      | 35,458.      | 78,284.      | 126,487.     | 243,940.     |
| Revenues Available for Debt Service and Other Purposes | 790,983.     | 1,002,351.   | 1,015,966.   | 761,598.     | 1,188,564.   |
| Debt Service   |              |              |              |              |              |
| Revenue Bonds(12)                                      | 0.           | 0.           | 0.           | 0.           | 0.           |
| General Obligation Bonds(13)                           | 31,388.      | 30,488.      | 0.           | 0.           | 0.           |
| Total Debt Service                                     | 31,388.      | 30,488.      | 0.           | 0.           | 0.           |
| Balance Available for Other Lawful Purposes(14)        | \$ 759,595.  | \$ 971,863.  | \$1,015,966. | \$ 761,598.  | \$1,188,564. |

## CONDENSED BALANCE SHEET(1)

(Unaudited)

|                                      | 1979        | 1980        |
|--------------------------------------|-------------|-------------|
| ASSETS:                              |             |             |
| Net Utility Plant                    | \$4,939,642 | \$4,975,882 |
| Fund Accounts                        | 1,447,093   | 1,450,087   |
| Current and Accrued Assets           | 1,458,492   | 2,090,177   |
| Deferred Debits                      | 41,477      | 275,240     |
| Total Assets                         | \$7,886,704 | \$8,791,386 |
| LIABILITIES:                         |             |             |
| Appropriations for Construction      | \$ 0        | \$ 0        |
| Surplus                              | 7,053,997   | 7,571,522   |
| Long Term Debt                       | 0           | 0           |
| Current and Accrued Liabilities      | 794,607     | 1,181,414   |
| Deferred Credits                     | 38,100      | 38,450      |
| Reserves                             | 0           | 0           |
| Contributions in Aid of Construction | 0           | 0           |
| Total Liabilities                    | \$7,886,704 | \$8,791,386 |



# HULL MUNICIPAL LIGHTING PLANT

ESTABLISHED 1894

## Summary of Operating Results(1)

### Appendix B

### Exhibit 1-11

|  | (Unaudited)  |              |              |              |              |
|--|--------------|--------------|--------------|--------------|--------------|
|  | 1976         | 1977         | 1978         | 1979         | 1980         |
| Customers .....  | 4,487        | 4,439        | 4,428        | 4,438        | 4,491        |
| Requirements   |              |              |              |              |              |
| Peak Demands—kW .....  | 6,940.       | 7,328.       | 6,840.       | 6,780.       | 7,217.       |
| Energy—kWh(000) .....  | 33,154.      | 33,591.      | 33,224.      | 33,502.      | 34,529.      |
| Total Energy Sales—kWh(000)(2) .....                         | 30,570.      | 30,450.      | 30,910.      | 30,081.      | 30,964.      |
| Total Operating Revenues(3) .....                            | \$1,604,520. | \$1,757,764. | \$1,774,300. | \$1,804,186. | \$2,213,792. |
| Operating Expenses   |              |              |              |              |              |
| Production(4) .....  | 0.           | 0.           | 0.           | 0.           | 0.           |
| Purchased Power  |              |              |              |              |              |
| MMWEC Certified  |              |              |              |              |              |
| Projects(6) .....  | 0.           | 0.           | 4,015.       | 34,619.      | 91,741.      |
| MMWEC Other(7) .....   | 0.           | 0.           | 0.           | 0.           | 0.           |
| All Other(8) .....   | 993,076.     | 1,132,964.   | 1,087,856.   | 1,214,826.   | 1,388,564.   |
| Total Power Supply Expense .....                             | 993,076.     | 1,132,964.   | 1,091,871.   | 1,249,445.   | 1,480,305.   |
| All Other Operating Expenses(9) .....                        | 338,606.     | 320,372.     | 387,037.     | 344,867.     | 514,807.     |
| Total Operating Expenses .....                               | 331,682.     | 1,453,336.   | 1,478,908.   | 1,594,312.   | 1,995,112.   |
| Net Operating Revenues .....                                 | 272,838.     | 304,428.     | 295,392.     | 209,874.     | 218,680.     |
| Other Income (Deductions)(10) ..                             | 495.         | 1,228.       | 1,978.       | (16,207.)    | (483.)       |
| Revenues Available for Debt Service and Other Purposes ..... | 273,333.     | 305,656.     | 297,370.     | 193,667.     | 218,197.     |
| Debt Service   |              |              |              |              |              |
| Revenue Bonds(12) .....                                      | 0.           | 0.           | 0.           | 0.           | 0.           |
| General Obligation Bonds(13) .....                           | 0.           | 0.           | 0.           | 0.           | 0.           |
| Total Debt Service .....                                     | 0.           | 0.           | 0.           | 0.           | 0.           |
| Balance Available for Other Lawful Purposes(14) .....        | \$ 273,333.  | \$ 305,656.  | \$ 297,370.  | \$ 193,667.  | \$ 218,197.  |

## CONDENSED BALANCE SHEET(1)

(Unaudited)

|  | 1979        | 1980        |
|--|-------------|-------------|
| ASSETS:                                    |             |             |
| Net Utility Plant .....                    | \$3,000,179 | \$3,063,599 |
| Fund Accounts .....                        | 0           | 0           |
| Current and Accrued Assets .....           | 821,085     | 980,053     |
| Deferred Debits .....                      | 3,951       | 22,061      |
| Total Assets .....                         | \$3,825,215 | \$4,065,713 |
| LIABILITIES:                               |             |             |
| Appropriations for Construction .....      | \$ 0        | \$ 0        |
| Surplus .....                              | 2,818,472   | 2,929,136   |
| Long Term Debt .....                       | 0           | 0           |
| Current and Accrued Liabilities .....      | 350,385     | 477,387     |
| Deferred Credits .....                     | 0           | 0           |
| Reserves .....                             | 55,721      | 42,630      |
| Contributions in Aid of Construction ..... | 600,637     | 616,560     |
| Total Liabilities .....                    | \$3,825,215 | \$4,065,713 |

# IPSWICH MUNICIPAL LIGHT DEPARTMENT

ESTABLISHED 1904

## Summary of Operating Results(I)

Appendix B  
Exhibit 1-12

(Unaudited)

|                                | 1976         | 1977         | 1978         | 1979         | 1980         |
|--------------------------------|--------------|--------------|--------------|--------------|--------------|
| Customers                      | 4,664        | 4,707        | 4,780        | 4,920        | 4,965        |
| Requirements(19)               |              |              |              |              |              |
| Peak Demands—kW                | 13,200.      | 13,600.      | 13,600.      | 14,400.      | 13,600.      |
| Energy—kWh(000)                | 62,211.      | 66,703.      | 68,893.      | 71,727.      | 72,254.      |
| Total Energy Sales—kWh(000)(2) | 57,211.      | 59,749.      | 61,437.      | 66,752.      | 64,536.      |
| Total Operating Revenues(3)    | \$2,387,771. | \$2,698,255. | \$2,673,780. | \$3,245,024. | \$3,767,399. |
| Operating Expenses             |              |              |              |              |              |
| Production(4)                  | 383,866.     | 201,033.     | 223,144.     | 356,899.     | 457,425.     |
| Purchased Power                |              |              |              |              |              |
| MMWEC Certified                |              |              |              |              |              |
| Projects(6)                    | 0.           | 0.           | 0.           | 0.           | 0.           |
| MMWEC Other(7)                 | 0.           | 0.           | 0.           | 0.           | 0.           |
| All Other(8)                   | 1,351,270.   | 1,757,198.   | 1,750,930.   | 2,099,766.   | 2,800,458.   |
| Total Power Supply             |              |              |              |              |              |
| Expense                        | 1,735,136.   | 1,958,231.   | 1,974,074.   | 2,456,665.   | 3,257,883.   |
| All Other Operating            |              |              |              |              |              |
| Expenses(9)                    | 388,375.     | 460,603.     | 450,186.     | 491,968.     | 506,165.     |
| Total Operating                |              |              |              |              |              |
| Expenses                       | 2,123,511.   | 2,418,834.   | 2,424,260.   | 2,948,633.   | 3,764,049.   |
| Net Operating Revenues         | 264,260.     | 279,421.     | 249,520.     | 296,391.     | 3,350.       |
| Other Income(10)               | 5,785.       | 6,713.       | 6,826.       | 5,020.       | 145,792.     |
| Revenues Available for Debt    |              |              |              |              |              |
| Service and Other Purposes     | 270,045.     | 286,134.     | 256,346.     | 301,411.     | 149,142.     |
| Debt Service                   |              |              |              |              |              |
| Revenue Bonds(12)              | 0.           | 0.           | 0.           | 0.           | 0.           |
| General Obligation Bonds(13)   | 46,360.      | 44,808.      | 42,539.      | 31,676.      | 36,146.      |
| Total Debt Service             | 46,360.      | 44,808.      | 42,539.      | 31,676.      | 36,146.      |
| Balance Available for Other    |              |              |              |              |              |
| Lawful Purposes(14)            | \$ 223,685.  | \$ 241,326.  | \$ 213,807.  | \$ 269,735.  | \$ 117,996.  |

## CONDENSED BALANCE SHEET(I)

(Unaudited)

|                                      | 1979        | 1980        |
|--------------------------------------|-------------|-------------|
| ASSETS:                              |             |             |
| Net Utility Plant                    | \$2,322,804 | \$2,667,828 |
| Fund Accounts                        | 155,829     | 61,675      |
| Current and Accrued Assets           | 855,787     | 1,071,734   |
| Deferred Debits                      | 7,694       | 12,380      |
| Total Assets                         | \$3,342,114 | \$3,813,617 |
| LIABILITIES:                         |             |             |
| Appropriations for Construction      | \$ 0        | \$ 0        |
| Surplus                              | 2,760,331   | 2,662,831   |
| Long Term Debt                       | 190,000     | 370,000     |
| Current and Accrued Liabilities      | 331,618     | 740,507     |
| Deferred Credits                     | 0           | 0           |
| Reserves                             | 28,886      | 0           |
| Contributions in Aid of Construction | 31,279      | 31,279      |
| Total Liabilities                    | \$3,342,114 | \$3,813,617 |

# LITTLETON ELECTRIC LIGHT AND WATER DEPARTMENT

ESTABLISHED 1912

Appendix B  
Exhibit 1-13

## Summary of Operating Results(1)

|  | (Unaudited)  |              |              |              |              |
|--|--------------|--------------|--------------|--------------|--------------|
|  | 1976         | 1977         | 1978         | 1979         | 1980         |
| Customers(20) .....  | 3,742        | 3,860        | 3,925        | 4,360        | 4,269        |
| Requirements   |              |              |              |              |              |
| Peak Demands—kW .....  | 11,725.      | 12,500.      | 12,950.      | 13,325.      | 13,225.      |
| Energy—kWh(000) .....  | 26,236.      | 55,948.      | 62,689.      | 63,718.      | 68,580.      |
| Total Energy Sales—kWh(000)(2) .....                         | 51,732.      | 52,979.      | 56,242.      | 59,263.      | 63,451.      |
| Total Operating Revenues(3) .....                            | \$2,364,937. | \$2,427,678. | \$2,767,405. | \$3,076,050. | \$4,449,813. |
| Operating Expenses   |              |              |              |              |              |
| Production(4)(5) .....                                       | 58,866.      | 105,527.     | 114,615.     | 176,669.     | 227,231.     |
| Purchased Power  |              |              |              |              |              |
| MMWEC Certified  |              |              |              |              |              |
| Projects(6) .....  | 0.           | 0.           | 4,015.       | 45,732.      | 121,190.     |
| MMWEC Other(7) .....   | 0.           | 0.           | 0.           | 31,220.      | 365,812.     |
| All Other(8) .....   | 1,405,516.   | 1,634,381.   | 1,645,693.   | 2,010,365.   | 2,653,102.   |
| Total Power Supply Expense .....                             | 1,464,382.   | 1,739,908.   | 1,764,323.   | 2,263,986.   | 3,367,335.   |
| All Other Operating Expenses(9) .....                        | 333,708.     | 406,353.     | 414,619.     | 524,629.     | 655,009.     |
| Total Operating Expenses .....                               | 1,798,090.   | 2,146,261.   | 2,178,942.   | 2,788,615.   | 4,022,344.   |
| Net Operating Revenues .....                                 | 566,847.     | 281,417.     | 588,463.     | 287,435.     | 427,469.     |
| Other Income (Deductions)(10)(11) .....                      | (38,843.)    | 1,838.       | (4,802.)     | (1,317.)     | 173,830.     |
| Revenues Available for Debt Service and Other Purposes ..... | 528,004.     | 283,255.     | 583,661.     | 286,118.     | 601,299.     |
| Debt Service   |              |              |              |              |              |
| Revenue Bonds(12) .....                                      | 25,517.      | 40,819.      | 40,778.      | 40,378.      | 45,257.      |
| General Obligation Bonds(13) .....                           | 87,500.      | 85,209.      | 80,746.      | 73,942.      | 71,442.      |
| Total Debt Service .....                                     | 113,017.     | 126,028.     | 121,524.     | 114,320.     | 116,699.     |
| Balance Available for Other Lawful Purposes(14) .....        | \$ 414,987.  | \$ 157,227.  | \$ 462,137.  | \$ 171,798.  | \$ 484,600.  |

## CONDENSED BALANCE SHEET(1)

(Unaudited)

|  | 1979        | 1980        |
|--|-------------|-------------|
| ASSETS:                                    |             |             |
| Net Utility Plant .....                    | \$2,808,413 | \$2,852,185 |
| Fund Accounts .....                        | 43,358      | 168,448     |
| Current and Accrued Assets .....           | 1,209,590   | 1,499,206   |
| Deferred Debits .....                      | 58,147      | 61,350      |
| Total Assets .....                         | \$4,119,508 | \$4,581,189 |
| LIABILITIES:                               |             |             |
| Appropriations for Construction .....      | \$ 0        | \$ 0        |
| Surplus .....                              | 2,513,287   | 2,813,285   |
| Long Term Debt .....                       | 1,035,000   | 978,333     |
| Current and Accrued Liabilities .....      | 495,338     | 713,488     |
| Deferred Credits .....                     | 5,000       | 5,000       |
| Reserves .....                             | 0           | 0           |
| Contributions in Aid of Construction ..... | 70,883      | 71,083      |
| Total Liabilities .....                    | \$4,119,508 | \$4,581,189 |

**MANSFIELD MUNICIPAL LIGHT DEPARTMENT**

ESTABLISHED 1904

**Summary of Operating Results(1)**

**Appendix B  
Exhibit 1-14**

|  | (Unaudited)  |              |              |              |              |
|--|--------------|--------------|--------------|--------------|--------------|
|  | 1976         | 1977         | 1978         | 1979         | 1980         |
| Customers .....  | 4,232        | 4,350        | 4,416        | 4,508        | 4,538        |
| Requirements   |              |              |              |              |              |
| Peak Demands—kW .....  | 22,869.      | 23,636.      | 23,488.      | 26,983.      | 27,600.      |
| Energy—kWh(000) .....  | 122,060.     | 125,306.     | 132,164.     | 145,695.     | 154,383.     |
| Total Energy Sales—kWh(000)(2) .....                         | 113,993.     | 116,748.     | 121,446.     | 137,049.     | 144,524.     |
| Total Operating Revenues(3) .....                            | \$4,153,152. | \$4,776,438. | \$4,889,521. | \$5,646,478. | \$8,390,224. |
| Operating Expenses   |              |              |              |              |              |
| Production(4) .....  | 0.           | 0.           | 0.           | 0.           | 0.           |
| Purchased Power  |              |              |              |              |              |
| MMWEC Certified  |              |              |              |              |              |
| Project(6) .....   | 0.           | 0.           | 0.           | 0.           | 0.           |
| MMWEC Other(7) .....   | 0.           | 0.           | 0.           | 62,478.      | 851,237.     |
| All Other(8) .....   | 3,164,790.   | 3,811,449.   | 3,852,472.   | 4,957,914.   | 6,498,205.   |
| Total Power Supply Expense .....                             | 3,164,790.   | 3,811,449.   | 3,852,472.   | 5,020,392.   | 7,349,442.   |
| All Other Operating Expenses(9) .....                        | 376,184.     | 483,571.     | 439,113.     | 407,999.     | 56,920.      |
| Total Operating Expenses .....                               | 3,540,974.   | 4,295,020.   | 4,291,585.   | 5,428,391.   | 7,906,362.   |
| Net Operating Revenues .....                                 | 612,178.     | 481,418.     | 597,936.     | 218,087.     | 483,862.     |
| Other Income   |              |              |              |              |              |
| (Deductions)(10)(11) .....                                   | 829.         | 609.         | 576.         | 1,303.       | (34,390.)    |
| Revenues Available for Debt Service and Other Purposes ..... | 613,007.     | 482,027.     | 598,512.     | 219,390.     | 449,472.     |
| Debt Service   |              |              |              |              |              |
| Revenue Bonds(12) .....                                      | 0.           | 0.           | 0.           | 0.           | 0.           |
| General Obligation Bonds(13) .....                           | 92,045.      | 89,081.      | 86,358.      | 81,825.      | 81,943.      |
| Total Debt Service .....                                     | 92,045.      | 89,081.      | 86,358.      | 81,825.      | 81,943.      |
| Balance Available for Other Lawful Purposes(14) .....        | \$ 520,962.  | \$ 392,946.  | \$ 512,154.  | \$ 137,565.  | \$ 367,529.  |

**CONDENSED BALANCE SHEET(1)**

(Unaudited)

|  | 1979        | 1980        |
|--|-------------|-------------|
| <b>ASSETS:</b>                             |             |             |
| Net Utility Plant .....                    | \$1,873,662 | \$1,914,680 |
| Fund Accounts .....                        | 324,327     | 588,584     |
| Current and Accrued Assets .....           | 1,201,119   | 1,608,884   |
| Deferred Debits .....                      | 6,987       | 375,279     |
| Total Assets .....                         | \$3,406,095 | \$4,487,427 |
| <b>LIABILITIES:</b>                        |             |             |
| Appropriations for Construction .....      | \$ 0        | \$ 0        |
| Surplus .....                              | 2,473,714   | 2,647,818   |
| Long Term Debt .....                       | 230,000     | 160,000     |
| Current and Accrued Liabilities .....      | 749,381     | 1,634,918   |
| Deferred Credits .....                     | (67,000)    | 0           |
| Reserves .....                             | 20,000      | 44,691      |
| Contributions in Aid of Construction ..... | 0           | 0           |
| Total Liabilities .....                    | \$3,406,095 | \$4,487,427 |

# MARBLEHEAD MUNICIPAL LIGHT DEPARTMENT

ESTABLISHED 1895

Appendix B  
Exhibit 1-15

## Summary of Operating Results(1)

|  | (Unaudited)  |              |              |              |              |
|--|--------------|--------------|--------------|--------------|--------------|
|  | 1976         | 1977         | 1978         | 1979         | 1980         |
| Customers .....  | 8,767        | 8,843        | 8,990        | 9,098        | 9,111        |
| Requirements   |              |              |              |              |              |
| Peak Demand—kW .....   | 17,850.      | 17,600.      | 16,905.      | 17,325.      | 16,525.      |
| Energy—kWh(000) .....  | 79,744.      | 77,814.      | 78,637.      | 78,838.      | 79,083.      |
| Total Energy Sales—kWh(000)(2) .....                         | 72,247.      | 72,820.      | 72,585.      | 73,481.      | 74,060.      |
| Total Operating Revenues(3) .....                            | \$3,060,594. | \$3,248,057. | \$3,465,859. | \$3,909,121. | \$4,896,043. |
| Operating Expenses   |              |              |              |              |              |
| Production(4) .....  | 59,888.      | 48,455.      | 51,936.      | 96,047.      | 237,773.     |
| Purchased Power  |              |              |              |              |              |
| MMWEC Certified  |              |              |              |              |              |
| Projects(6) .....  | 0.           | 0.           | 6,729.       | 76,647.      | 203,113.     |
| MMWEC Other(7) .....   | 0.           | 0.           | 0.           | 0.           | 0.           |
| All Other(8) .....   | 2,055,541.   | 2,454,918.   | 2,324,223.   | 2,617,767.   | 3,266,306.   |
| Total Power Supply Expense .....                             | 2,115,429.   | 2,503,373.   | 2,382,888.   | 2,790,461.   | 3,707,192.   |
| All Other Operating Expenses(9) .....                        | 515,819.     | 555,272.     | 598,879.     | 657,356.     | 795,073.     |
| Total Operating Expenses .....                               | 2,631,248.   | 3,058,645.   | 2,981,767.   | 3,447,817.   | 4,502,265.   |
| Net Operating Revenues .....                                 | 429,346.     | 189,412.     | 484,092.     | 461,304.     | 393,778.     |
| Other Income(10)(11) .....                                   | 8,226.       | 10,596.      | 13,992.      | 60,690.      | 291,953.     |
| Revenues Available for Debt Service and Other Purposes ..... | 437,572.     | 200,008.     | 498,084.     | 521,994.     | 685,731.     |
| Debt Service   |              |              |              |              |              |
| Revenue Bonds(12) .....                                      | 0.           | 0.           | 0.           | 0.           | 0.           |
| General Obligation Bonds(13) .....                           | 100,988.     | 97,688.      | 94,388.      | 91,088.      | 87,788.      |
| Total Debt Service .....                                     | 100,988.     | 97,688.      | 94,388.      | 91,088.      | 87,788.      |
| Balance Available for Other Lawful Purposes(14) .....        | \$ 336,584.  | \$ 102,320.  | \$ 403,696.  | \$ 430,906.  | \$ 597,943.  |

## CONDENSED BALANCE SHEET(1)

(Unaudited)

|  | 1979        | 1980        |
|--|-------------|-------------|
| ASSETS:                                    |             |             |
| Net Utility Plant .....                    | \$2,260,985 | \$2,203,739 |
| Fund Accounts .....                        | 744,088     | 762,798     |
| Current and Accrued Assets .....           | 1,119,611   | 1,621,184   |
| Deferred Debits .....                      | 13,637      | 18,830      |
| Total Assets .....                         | \$4,138,321 | \$4,606,551 |
| LIABILITIES:                               |             |             |
| Appropriations for Construction .....      | \$ 0        | \$ 0        |
| Surplus .....                              | 3,259,563   | 3,629,225   |
| Long Term Debt .....                       | 300,000     | 300,000     |
| Current and Accrued Liabilities .....      | 577,758     | 151,322     |
| Deferred Credits .....                     | 0           | 0           |
| Reserves .....                             | 1,000       | 1,000       |
| Contributions in Aid of Construction ..... | 0           | 0           |
| Total Liabilities .....                    | \$4,138,321 | \$4,606,551 |



# MIDDLEBOROUGH GAS AND ELECTRIC DEPARTMENT

ESTABLISHED 1895

## Summary of Operating Results(1)

Appendix B  
Exhibit 1-16

(Unaudited)

|  | 1976         | 1977         | 1978         | 1979         | 1980         |
|--|--------------|--------------|--------------|--------------|--------------|
| Customers(21) .....  | 7,897        | 8,176        | 8,472        | 8,458        | 8,747        |
| Requirements   |              |              |              |              |              |
| Peak Demands—kW .....  | 16,300.      | 16,800.      | 17,000.      | 17,900.      | 17,800.      |
| Energy—kWh(000) .....  | 82,330.      | 85,112.      | 91,021.      | 96,364.      | 97,448.      |
| Total Energy Sales—kWh(000)(2) .....                         | 74,564.      | 78,826.      | 85,635.      | 90,846.      | 92,081.      |
| Total Operating Revenues(3) .....                            | \$3,354,642. | \$3,532,585. | \$3,869,053. | \$4,500,792. | \$5,180,561. |
| Operating Expenses   |              |              |              |              |              |
| Production(4) .....  | 0.           | 0.           | 0.           | 0.           | 0.           |
| Purchased Power  |              |              |              |              |              |
| MMWEC Certified  |              |              |              |              |              |
| Projects(6) .....  | 0.           | 0.           | 4,015.       | 45,732.      | 121,190.     |
| MMWEC Other(7) .....   | 0.           | 0.           | 0.           | 0.           | 0.           |
| All Other(8) .....   | 2,121,666.   | 2,378,137.   | 2,567,562.   | 3,062,456.   | 3,925,340.   |
| Total Power Supply Expense .....                             | 2,121,666.   | 2,378,137.   | 2,571,577.   | 3,108,188.   | 4,047,530.   |
| All Other Operating Expenses(9) .....                        | 478,925.     | 519,836.     | 564,871.     | 578,588.     | 717,217.     |
| Total Operating Expenses .....                               | 2,600,591.   | 2,897,973.   | 3,136,448.   | 3,686,776.   | 4,764,747.   |
| Net Operating Revenues .....                                 | 754,051.     | 634,612.     | 732,605.     | 814,016.     | 415,814.     |
| Other Income(10) .....                                       | 16,828.      | 21,647.      | 38,530.      | 64,755.      | 50,289.      |
| Revenues Available for Debt Service and Other Purposes ..... | 770,879.     | 656,259.     | 771,135.     | 878,771.     | 466,103.     |
| Debt Service   |              |              |              |              |              |
| Revenue Bonds(12) .....                                      | 0.           | 0.           | 0.           | 0.           | 0.           |
| General Obligation Bonds(13) .....                           | 158,050.     | 151,600.     | 145,150.     | 138,700.     | 132,250.     |
| Total Debt Service .....                                     | 158,050.     | 151,600.     | 145,150.     | 138,700.     | 132,250.     |
| Balance Available for Other Lawful Purposes(14) .....        | \$ 612,829.  | \$ 504,659.  | \$ 625,985.  | \$ 740,071.  | \$ 333,853.  |

## CONDENSED BALANCE SHEET(1)

(Unaudited)

|  | 1979        |           | 1980        |           |
|--|-------------|-----------|-------------|-----------|
|  | Electric    | Gas       | Electric    | Gas       |
| ASSETS:                                    |             |           |             |           |
| Net Utility Plant .....                    | \$3,030,435 | \$436,684 | \$3,242,466 | \$452,756 |
| Fund Accounts .....                        | 503,972     | 133,696   | 399,049     | 106,716   |
| Current and Accrued Assets .....           | 1,408,709   | 373,708   | 1,281,775   | 342,781   |
| Deferred Debits .....                      | 0           | 0         | 0           | 0         |
| Total Assets .....                         | \$4,943,116 | \$944,088 | \$4,923,290 | \$902,253 |
| LIABILITIES:                               |             |           |             |           |
| Appropriations for Construction .....      | \$ 0        | \$ 0      | \$ 0        | \$ 0      |
| Surplus .....                              | 3,951,258   | 813,606   | 3,947,091   | 748,162   |
| Long Term Debt .....                       | 500,000     | 0         | 400,000     | 0         |
| Current and Accrued Liabilities .....      | 428,889     | 113,777   | 490,629     | 131,207   |
| Deferred Credits .....                     | 0           | 0         | 0           | 0         |
| Reserves .....                             | 62,969      | 16,705    | 85,570      | 22,884    |
| Contributions in Aid of Construction ..... | 0           | 0         | 0           | 0         |
| Total Liabilities .....                    | \$4,943,116 | \$944,088 | \$4,923,290 | \$902,253 |

# MIDDLETON MUNICIPAL LIGHT DEPARTMENT

ESTABLISHED 1914

## Summary of Operating Results(2)

Appendix B  
Exhibit 1-17

(Unaudited)

|  | 1976         | 1977         | 1978         | 1979         | 1980         |
|--|--------------|--------------|--------------|--------------|--------------|
| Customers .....  | 1,493        | 1,534        | 1,563        | 1,633        | 1,616        |
| Requirements   |              |              |              |              |              |
| Peak Demands—kW .....  | 7,600.       | 7,753.       | 7,956.       | 8,628.       | 8,602.       |
| Energy—kWh(000) .....  | 40,242.      | 40,620.      | 42,464.      | 44,145.      | 43,922.      |
| Total Energy Sales—kWh(000)(2) .....                         | 34,479.      | 37,634.      | 39,863.      | 41,706.      | 40,554.      |
| Total Operating Revenues(3) .....                            | \$1,474,018. | \$1,670,292. | \$1,862,828. | \$1,988,137. | \$2,387,740. |
| Operating Expenses   |              |              |              |              |              |
| Production(4) .....  | 0.           | 0.           | 0.           | 0.           | 0.           |
| Purchased Power  |              |              |              |              |              |
| MMWEC Certified  |              |              |              |              |              |
| Projects(6) .....  | 0.           | 0.           | 0.           | 27,759.      | 73,560.      |
| MMWEC Other(7) .....   | 0.           | 0.           | 0.           | 15,610.      | 178,078.     |
| All Other(8) .....   | 1,103,413.   | 1,316,592.   | 1,320,280.   | 1,491,723.   | 1,675,634.   |
| Total Power Supply Expense .....                             | 1,103,413.   | 1,316,592.   | 1,320,280.   | 1,535,092.   | 1,927,272.   |
| All Other Operating Expenses(9) .....                        | 186,027.     | 216,717.     | 203,538.     | 257,706.     | 300,510.     |
| Total Operating Expenses .....                               | 1,289,440.   | 1,533,309.   | 1,523,818.   | 1,792,798.   | 2,227,782.   |
| Net Operating Revenues .....                                 | 184,578.     | 136,983.     | 339,010.     | 195,339.     | 159,958.     |
| Other Income(10) .....                                       | 3,117.       | 8,733.       | 15,418.      | 22,582.      | 51,808.      |
| Revenues Available for Debt Service and Other Purposes ..... | 187,695.     | 145,716.     | 354,428.     | 217,921.     | 211,766.     |
| Debt Service   |              |              |              |              |              |
| Revenue Bonds(12) .....                                      | 0.           | 0.           | 0.           | 0.           | 0.           |
| General Obligation Bonds(13) .....                           | 0.           | 0.           | 4,025.       | 21,647.      | 20,843.      |
| Total Debt Service .....                                     | 0.           | 0.           | 4,025.       | 21,647.      | 20,843.      |
| Balance Available for Other Lawful Purposes(14) .....        | \$ 187,695.  | \$ 145,716.  | \$ 350,403.  | \$ 196,274.  | \$ 190,923.  |

## CONDENSED BALANCE SHEET(1)

(Unaudited)

|  | 1979        | 1980        |
|--|-------------|-------------|
| ASSETS:                                    |             |             |
| Net Utility Plant .....                    | \$ 973,580  | \$ 914,820  |
| Fund Accounts .....                        | 366,769     | 283,088     |
| Current and Accrued Assets .....           | 175,968     | 340,211     |
| Deferred Debits .....                      | 7,325       | 33,553      |
| Total Assets .....                         | \$1,523,642 | \$1,571,672 |
| LIABILITIES:                               |             |             |
| Appropriations for Construction .....      | \$ 0        | \$ 0        |
| Surplus .....                              | 1,367,882   | 1,430,198   |
| Long Term Debt .....                       | 126,000     | 112,000     |
| Current and Accrued Liabilities .....      | 21,842      | 21,556      |
| Deferred Credits .....                     | 2,754       | 2,754       |
| Reserves .....                             | 0           | 0           |
| Contributions in Aid of Construction ..... | 5,164       | 5,164       |
| Total Liabilities .....                    | \$1,523,642 | \$1,571,672 |

# NORTH ATTLEBOROUGH ELECTRIC DEPARTMENT

ESTABLISHED 1894

Appendix B  
Exhibit 1-18

## Summary of Operating Results(1)

|                                      | (Unaudited)  |              |              |              |              |
|--------------------------------------|--------------|--------------|--------------|--------------|--------------|
|                                      | 1976         | 1977         | 1978         | 1979         | 1980         |
| Customers .....                      | 7,658        | 7,900        | 8,005        | 8,374        | 8,463        |
| Requirements                         |              |              |              |              |              |
| Peak Demand—kW .....                 | 20,048.      | 20,122.      | 20,050.      | 20,889.      | 20,575.      |
| Energy—kWh(000) .....                | 99,534.      | 96,966.      | 99,687.      | 103,120.     | 104,912.     |
| Total Energy Sales—kWh(000)(2) ..... | 93,123.      | 90,617.      | 92,707.      | 96,519.      | 95,811.      |
| Total Operating Revenues(3) .....    | \$3,714,131. | \$4,200,570. | \$4,157,713. | \$5,070,106. | \$6,468,360. |
| Operating Expenses                   |              |              |              |              |              |
| Production(5) .....                  | 116,877.     | 215,633.     | 234,094.     | 361,376.     | 462,579.     |
| Purchased Power                      |              |              |              |              |              |
| MMWEC Certified                      |              |              |              |              |              |
| Projects(6) .....                    | 0.           | 0.           | 4,015.       | 45,732.      | 121,190.     |
| MMWEC Other(7) .....                 | 0.           | 0.           | 0.           | 0.           | 25,940.      |
| All Other(8) .....                   | 2,429,508.   | 2,689,438.   | 2,616,041.   | 3,216,187.   | 4,248,067.   |
| Total Power Supply                   |              |              |              |              |              |
| Expense .....                        | 2,546,365.   | 2,905,071.   | 2,854,150.   | 3,623,295.   | 4,857,776.   |
| All Other Operating                  |              |              |              |              |              |
| Expenses(9) .....                    | 590,799.     | 652,556.     | 721,772.     | 814,387.     | 953,110.     |
| Total Operating                      |              |              |              |              |              |
| Expenses .....                       | 3,137,184.   | 3,557,627.   | 3,579,922.   | 4,437,682.   | 5,810,886.   |
| Net Operating Revenues .....         | 576,947.     | 642,943.     | 581,791.     | 632,424.     | 657,474.     |
| Other Income(10)(11) .....           | 48,159.      | 39,222.      | 62,973.      | 87,744.      | 193,074.     |
| Revenues Available for Debt          |              |              |              |              |              |
| Service and Other Purposes .....     | 625,106.     | 682,165.     | 644,764.     | 720,168.     | 850,548.     |
| Debt Service                         |              |              |              |              |              |
| Revenue Bonds(12) .....              | 51,029.      | 82,417.      | 81,156.      | 80,356.      | 79,557.      |
| General Obligation Bonds(13) .....   | 91,535.      | 88,049.      | 0.           | 0.           | 0.           |
| Total Debt Service .....             | 142,564.     | 170,466.     | 81,156.      | 80,356.      | 79,557.      |
| Balance Available for Other          |              |              |              |              |              |
| Lawful Purposes(14) .....            | \$ 482,542.  | \$ 511,699.  | \$ 563,608.  | \$ 639,812.  | \$ 770,991.  |

## CONDENSED BALANCE SHEET(1)

(Unaudited)

|  | 1979        | 1980        |
|--|-------------|-------------|
| ASSETS:                                    |             |             |
| Net Utility Plant .....                    | \$3,306,583 | \$3,364,178 |
| Fund Accounts .....                        | 717,346     | 1,179,433   |
| Current and Accrued Assets .....           | 610,137     | 1,544,330   |
| Deferred Debits .....                      | 137,868     | 283,601     |
| Total Assets .....                         | \$5,771,934 | \$6,371,542 |
| LIABILITIES:                               |             |             |
| Appropriations for Construction .....      | \$ 0        | \$ 0        |
| Surplus .....                              | 3,854,090   | 4,228,137   |
| Long Term Debt (11) .....                  | 920,900     | 906,666     |
| Current and Accrued Liabilities .....      | 767,076     | 995,009     |
| Deferred Credits .....                     | 0           | 0           |
| Reserves .....                             | 6,038       | 5,129       |
| Contributions in Aid of Construction ..... | 224,730     | 236,601     |
| Total Liabilities .....                    | \$5,771,934 | \$6,371,542 |

# PAXTON MUNICIPAL LIGHT PLANT

ESTABLISHED 1914

## Summary of Operating Results(1)

Appendix B  
Exhibit 1-19

|  | (Unaudited) |            |            |            |            |
|--|-------------|------------|------------|------------|------------|
|  | 1976        | 1977       | 1978       | 1979       | 1980       |
| Customers .....  | 1,343       | 1,361      | 1,382      | 1,239      | 1,324      |
| Requirements   |             |            |            |            |            |
| Peak Demands—kW .....  | 4,075.      | 3,769.     | 3,850.     | 3,975.     | 4,065.     |
| Energy—kWh(000) .....  | 16,460.     | 16,015.    | 16,992.    | 17,097.    | 17,184.    |
| Total Energy Sales—kWh(000)(2) .....                         | 14,709.     | 15,024.    | 15,188.    | 15,731.    | 15,129.    |
| Total Operating Revenues(3) .....                            | \$687,046.  | \$752,160. | \$780,997. | \$842,382. | \$988,756. |
| Operating Expenses   |             |            |            |            |            |
| Production(4) .....  | 0.          | 0.         | 0.         | 0.         | 0.         |
| Purchased Power  |             |            |            |            |            |
| MMWEC Certified  |             |            |            |            |            |
| Projects(6) .....  | 0.          | 0.         | 0.         | 0.         | 0.         |
| MMWEC Other(7) .....   | 0.          | 0.         | 0.         | 7,805.     | 66,965.    |
| All Other(8) .....   | 489,038.    | 543,677.   | 565,257.   | 636,984.   | 704,510.   |
| Total Power Supply Expense .....                             | 489,038.    | 543,677.   | 565,257.   | 644,789.   | 771,475.   |
| All Other Operating Expenses(9) .....                        | 89,795.     | 89,380.    | 95,676.    | 121,287.   | 103,880.   |
| Total Operating Expenses .....                               | 578,833.    | 633,057.   | 660,933.   | 766,076.   | 875,355.   |
| Net Operating Revenues .....                                 | 108,213.    | 119,103.   | 120,064.   | 76,306.    | 113,401.   |
| Other Income(10)(11) .....                                   | 6,069.      | 9,025.     | 5,055.     | 23,375.    | 121,370.   |
| Revenues Available for Debt Service and Other Purposes ..... | 114,282.    | 128,128.   | 125,119.   | 99,681.    | 234,771.   |
| Debt Service   |             |            |            |            |            |
| Revenue Bonds(12) .....                                      | 0.          | 0.         | 0.         | 0.         | 0.         |
| General Obligation Bonds(13) .....                           | 30,360.     | 48,750.    | 35,106.    | 33,950.    | 32,781.    |
| Total Debt Service .....                                     | 30,360.     | 48,750.    | 35,106.    | 33,950.    | 32,781.    |
| Balance Available for Other Lawful Purposes(14) .....        | \$ 83,922.  | \$ 79,378. | \$ 90,013. | \$ 65,731. | \$201,990. |

## CONDENSED BALANCE SHEET(1)

(Unaudited)

|  | 1979      | 1980        |
|--|-----------|-------------|
| ASSETS:                                    |           |             |
| Net Utility Plant .....                    | \$751,668 | \$ 744,200  |
| Fund Accounts .....                        | 71,656    | 169,965     |
| Current and Accrued Assets .....           | 100,400   | 106,119     |
| Deferred Debits .....                      | 4,154     | 43,717      |
| Total Assets .....                         | \$927,878 | \$1,064,001 |
| LIABILITIES:                               |           |             |
| Appropriations for Construction .....      | \$ 2,457  | \$ 2,457    |
| Surplus .....                              | 722,192   | 880,288     |
| Long Term Debt .....                       | 162,500   | 137,500     |
| Current and Accrued Liabilities .....      | 9,141     | 12,168      |
| Deferred Credits .....                     | 0         | 0           |
| Reserves .....                             | 0         | 0           |
| Contributions in Aid of Construction ..... | 31,588    | 31,588      |
| Total Liabilities .....                    | \$927,878 | \$1,064,001 |

# PEABODY MUNICIPAL LIGHT PLANT

ESTABLISHED 1894

Appendix B  
Exhibit 1-20

## Summary of Operating Results(1)

|                                      | (Unaudited)   |               |               |               |               |
|--------------------------------------|---------------|---------------|---------------|---------------|---------------|
|                                      | 1976          | 1977          | 1978          | 1979          | 1980          |
| Customers(22) .....                  | 17,571        | 17,639        | 17,465        | 16,660        | 18,312        |
| Requirements                         |               |               |               |               |               |
| Peak Demands—kW .....                | 51,000.       | 58,200.       | 58,187.       | 57,912.       | 59,300.       |
| Energy—kWh(000) .....                | 250,783.      | 258,611.      | 264,546.      | 273,708.      | 265,724.      |
| Total Energy Sales—kWh(000)(2) ..... | 232,541.      | 234,937.      | 245,909.      | 251,091.      | 246,091.      |
| Total Operating Revenues(3) .....    | \$10,360,733. | \$11,015,506. | \$11,321,540. | \$12,437,517. | \$15,836,723. |
| Operating Expenses                   |               |               |               |               |               |
| Production(4) .....                  | 519,616.      | 460,903.      | 470,884.      | 679,791.      | 1,037,853.    |
| Purchased Power                      |               |               |               |               |               |
| MMWEC Certified                      |               |               |               |               |               |
| Projects(6) .....                    | 0.            | 0.            | 0.            | 0.            | 0.            |
| MMWEC Other(7) .....                 | 0.            | 0.            | 0.            | 0.            | 160,215.      |
| All Other(8) .....                   | 6,282,643.    | 7,626,295.    | 7,514,508.    | 9,147,275.    | 11,325,255.   |
| Total Power Supply                   |               |               |               |               |               |
| Expense .....                        | 6,802,259.    | 8,087,198.    | 7,985,392.    | 9,827,066.    | 12,523,323.   |
| All Other Operating                  |               |               |               |               |               |
| Expenses(9) .....                    | 1,716,603.    | 1,653,159.    | 1,648,011.    | 1,764,125.    | 2,108,230.    |
| Total Operating                      |               |               |               |               |               |
| Expenses .....                       | 8,518,862.    | 9,740,357.    | 9,633,403.    | 11,591,191.   | 14,631,553.   |
| Net Operating Revenues .....         | 1,841,871.    | 1,275,149.    | 1,688,137.    | 846,326.      | 1,205,170.    |
| Other Income(10) .....               | 130,358.      | 14,909.       | 66,331.       | 34,163.       | 714,780.      |
| Revenues Available for Debt          |               |               |               |               |               |
| Service and Other Purposes .....     | 1,972,229.    | 1,290,058.    | 1,754,468.    | 880,489.      | 1,919,950.    |
| Debt Service                         |               |               |               |               |               |
| Revenue Bonds(12) .....              | 0.            | 0.            | 0.            | 0.            | 0.            |
| General Obligation Bonds(13) .....   | 287,356.      | 434,628.      | 396,203.      | 383,078.      | 369,953.      |
| Total Debt Service .....             | 287,356.      | 434,628.      | 396,203.      | 383,078.      | 369,953.      |
| Balance Available for Other          |               |               |               |               |               |
| Lawful Purposes(14) .....            | \$ 1,684,873. | \$ 855,431.   | \$ 1,358,265. | \$ 497,411.   | \$ 1,549,997. |

## CONDENSED BALANCE SHEET(1)

(Unaudited)

|  | 1979         | 1980         |
|--|--------------|--------------|
| ASSETS:                                    |              |              |
| Net Utility Plant .....                    | \$ 8,170,324 | \$ 8,102,367 |
| Fund Accounts .....                        | 304,076      | 625,015      |
| Current and Accrued Assets .....           | 3,385,052    | 4,471,323    |
| Deferred Debits .....                      | 46,122       | 164,823      |
| Total Assets .....                         | \$11,905,574 | \$13,363,528 |
| LIABILITIES:                               |              |              |
| Appropriations for Construction .....      | \$ 0         | \$ 0         |
| Surplus .....                              | 7,524,860    | 7,607,845    |
| Long Term Debt .....                       | 2,275,000    | 2,025,000    |
| Current and Accrued Liabilities .....      | 1,755,714    | 3,275,683    |
| Deferred Credits .....                     | 0            | 0            |
| Reserves .....                             | 350,000      | 455,000      |
| Contributions in Aid of Construction ..... | 0            | 0            |
| Total Liabilities .....                    | \$11,905,574 | \$13,363,528 |



# READING MUNICIPAL LIGHT DEPARTMENT

ESTABLISHED 1894

## Summary of Operating Results(1)

Appendix B

Exhibit 1-21

(Unaudited)

|  | 1976          | 1977          | 1978          | 1979          | 1980          |
|--|---------------|---------------|---------------|---------------|---------------|
| Customers(23) . . . . .  | 19,029        | 19,649        | 19,827        | 19,950        | 20,324        |
| Requirements   |               |               |               |               |               |
| Peak Demand—kW . . . . .   | 71,360.       | 74,960.       | 76,160.       | 79,200.       | 85,120.       |
| Energy—kWh(000) . . . . .  | 365,309.      | 374,481.      | 394,136.      | 415,088.      | 426,564.      |
| Total Energy Sales—kWh(000)(2) . . . . .                         | 342,642.      | 349,186.      | 371,484.      | 387,511.      | 402,408.      |
| Total Operating Revenues(3) . . . . .                            | \$14,873,481. | \$16,919,533. | \$16,778,737. | \$19,654,611. | \$25,163,314. |
| Operating Expenses   |               |               |               |               |               |
| Production(4) . . . . .  | 0.            | 0.            | 0.            | 0.            | 0.            |
| Purchased Power  |               |               |               |               |               |
| MMWEC Certified  |               |               |               |               |               |
| Projects(6) . . . . .  | 0.            | 0.            | 0.            | 0.            | 0.            |
| MMWEC Other(7) . . . . .   | 0.            | 0.            | 0.            | 0.            | 245,111.      |
| All Other(8) . . . . .   | 11,663,755.   | 13,410,451.   | 12,853,959.   | 15,714,035.   | 20,855,700.   |
| Total Power Supply Expense . . . . .                             | 11,663,755.   | 13,410,451.   | 12,853,959.   | 15,714,035.   | 21,100,819.   |
| All Other Operating Expenses(9) . . . . .                        | 1,734,509.    | 1,692,903.    | 1,804,045.    | 1,882,708.    | 1,994,488.    |
| Total Operating Expenses . . . . .                               | 13,398,264.   | 15,103,354.   | 14,658,004.   | 17,596,743.   | 23,095,307.   |
| Net Operating Revenues . . . . .                                 | 1,475,217.    | 1,816,179.    | 2,120,733.    | 2,057,868.    | 2,068,007.    |
| Other Income(10) . . . . .                                       | 89,241.       | 149,687.      | 181,479.      | 294,105.      | 335,382.      |
| Revenues Available for Debt Service and Other Purposes . . . . . | 1,564,458.    | 1,965,866.    | 2,302,212.    | 2,351,973.    | 2,403,389.    |
| Debt Service   |               |               |               |               |               |
| Revenue Bonds(12) . . . . .                                      | 0.            | 0.            | 0.            | 0.            | 0.            |
| General Obligation Bonds(13) . . . . .                           | 87,355.       | 54,975.       | 53,175.       | 73,042.       | 199,408.      |
| Total Debt Service . . . . .                                     | 87,355.       | 54,975.       | 53,175.       | 73,042.       | 199,408.      |
| Balance Available for Other Lawful Purposes(14) . . . . .        | \$ 1,477,103. | \$ 1,910,891. | \$ 2,249,037. | \$ 2,278,931. | \$2,203,981.  |

## CONDENSED BALANCE SHEET(1)

(Unaudited)

|  | 1979         | 1980         |
|--|--------------|--------------|
| ASSETS:  |              |              |
| Net Utility Plant . . . . .                    | \$ 9,163,375 | \$10,089,330 |
| Fund Accounts . . . . .                        | 838,768      | 1,157,692    |
| Current and Accrued Assets . . . . .           | 6,655,563    | 5,909,819    |
| Deferred Debits . . . . .                      | (150,221)    | 579,057      |
| Total Assets . . . . .                         | \$16,507,585 | \$17,735,898 |
| LIABILITIES:                                   |              |              |
| Appropriations for Construction . . . . .      | \$ 0         | \$ 0         |
| Surplus . . . . .                              | 11,781,990   | 12,715,053   |
| Long Term Debt . . . . .                       | 1,330,000    | 1,200,000    |
| Current and Accrued Liabilities . . . . .      | 1,761,961    | 2,683,148    |
| Deferred Credits . . . . .                     | 166,302      | 206,785      |
| Reserves . . . . .                             | 1,256,053    | 709,633      |
| Contributions in Aid of Construction . . . . . | 211,279      | 221,279      |
| Total Liabilities . . . . .                    | \$16,507,585 | \$17,735,898 |

# SHREWSBURY ELECTRIC LIGHT PLANT

ESTABLISHED 1908

Appendix B  
Exhibit 1-22

## Summary of Operating Results(1)

|  | (Unaudited)  |              |              |              |              |
|--|--------------|--------------|--------------|--------------|--------------|
|  | 1976         | 1977         | 1978         | 1979         | 1980         |
| Customers .....  | 8,552        | 8,770        | 9,096        | 9,226        | 9,387        |
| Requirements   |              |              |              |              |              |
| Peak Demand—kW .....   | 31,000.      | 31,300.      | 30,800.      | 32,300.      | 30,350.      |
| Energy—kWh(000) .....  | 144,993.     | 145,834.     | 152,514.     | 155,621.     | 161,730.     |
| Total Energy Sales—kWh(000)(2) .....                         | 137,882.     | 134,902.     | 140,993.     | 143,993.     | 147,992.     |
| Total Operating Revenues(3) .....                            | \$5,220,271. | \$5,424,586. | \$6,029,217. | \$6,752,257. | \$8,955,789. |
| Operating Expenses   |              |              |              |              |              |
| Production(4) .....  | 121,696.     | 99,182.      | 97,076.      | 254,472.     | 542,631.     |
| Purchased Power  |              |              |              |              |              |
| MMWEC Certified  |              |              |              |              |              |
| Projects(6) .....  | 0.           | 0.           | 10,042.      | 114,375.     | 303,092.     |
| MMWEC Other(7) .....   | 0.           | 0.           | 0.           | 0.           | 211,027.     |
| All Other(8) .....   | 3,410,116.   | 3,983,210.   | 3,935,883.   | 4,585,174.   | 5,984,426.   |
| Total Power Supply Expense .....                             | 3,531,812.   | 4,082,392.   | 4,043,911.   | 4,954,021.   | 7,041,176.   |
| All Other Operating Expenses(9) .....                        | 689,495.     | 785,448.     | 830,826.     | 980,069.     | 1,088,121.   |
| Total Operating Expenses .....                               | 4,221,307.   | 4,867,840.   | 4,873,827.   | 5,934,090.   | 8,129,297.   |
| Net Operating Revenues .....                                 | 998,964.     | 556,746.     | 1,155,390.   | 818,167.     | 826,492.     |
| Other Income(10)(11) .....                                   | 62,314.      | 58,709.      | 23,321.      | 18,268.      | 392,299.     |
| Revenues Available for Debt Service and Other Purposes ..... | 1,061,278.   | 615,455.     | 1,178,711.   | 836,435.     | 1,218,791.   |
| Debt Service   |              |              |              |              |              |
| Revenue Bonds(12) .....                                      | 0.           | 0.           | 0.           | 0.           | 0.           |
| General Obligation Bonds(13) .....                           | 385,314.     | 374,427.     | 328,465.     | 442,694.     | 421,545.     |
| Total Debt Service .....                                     | 385,314.     | 374,427.     | 328,465.     | 442,694.     | 421,545.     |
| Balance Available for Other Lawful Purposes(14) .....        | \$ 675,964.  | \$ 241,028.  | \$ 850,246.  | \$ 393,741.  | \$ 797,246.  |

## CONDENSED BALANCE SHEET(1)

(Unaudited)

|  | 1979        | 1980        |
|--|-------------|-------------|
| ASSETS:                                    |             |             |
| Net Utility Plant .....                    | \$7,007,079 | \$7,143,191 |
| Fund Accounts .....                        | 398,415     | 67,304      |
| Current and Accrued Assets .....           | 1,587,272   | 2,427,121   |
| Deferred Debits .....                      | 50,255      | 99,669      |
| Total Assets .....                         | \$9,043,021 | \$9,737,285 |
| LIABILITIES:                               |             |             |
| Appropriations for Construction .....      | \$ 0        | \$ 0        |
| Surplus .....                              | 6,148,419   | 6,884,474   |
| Long Term Debt .....                       | 2,290,000   | 1,995,000   |
| Current and Accrued Liabilities .....      | 594,625     | 848,183     |
| Deferred Credits .....                     | 5,573       | 5,224       |
| Reserves .....                             | 0           | 0           |
| Contributions in Aid of Construction ..... | 4,404       | 4,404       |
| Total Liabilities .....                    | \$9,043,021 | \$9,737,285 |

# SOUTH HADLEY ELECTRIC LIGHT DEPARTMENT

ESTABLISHED 1914

## Summary of Operating Results(1)

Appendix B

Exhibit 1-23

(Unaudited)

|                                      | 1976         | 1977         | 1978         | 1979         | 1980         |
|--------------------------------------|--------------|--------------|--------------|--------------|--------------|
| Customers .....                      | 5,729        | 5,760        | 5,837        | 5,959        | 6,097        |
| Requirements                         |              |              |              |              |              |
| Peak Demands—kW .....                | 20,043.      | 20,006.      | 18,530.      | 19,379.      | 19,365.      |
| Energy—kWh(000) .....                | 102,124.     | 104,032.     | 104,660.     | 108,363.     | 105,964.     |
| Total Energy Sales—kWh(000)(2) ..... | 94,612.      | 99,821.      | 100,638.     | 102,907.     | 100,355.     |
| Total Operating Revenues(3) .....    | \$2,978,662. | \$3,311,050. | \$5,728,647. | \$4,223,840. | \$5,477,347. |
| Operating Expenses                   |              |              |              |              |              |
| Production(4) .....                  | 0.           | 0.           | 0.           | 0.           | 0.           |
| Purchased Power                      |              |              |              |              |              |
| MMWEC Certified                      |              |              |              |              |              |
| Projects(6) .....                    | 0.           | 0.           | 0.           | 0.           | 0.           |
| MMWEC Other(7) .....                 | 0.           | 0.           | 0.           | 0.           | 0.           |
| All Other(8) .....                   | 2,318,607.   | 2,713,055.   | 3,242,059.   | 3,553,306.   | 4,408,009.   |
| Total Power Supply                   |              |              |              |              |              |
| Expense .....                        | 2,318,607.   | 2,713,055.   | 3,242,059.   | 3,553,306.   | 4,408,009.   |
| All Other Operating                  |              |              |              |              |              |
| Expenses(9) .....                    | 346,213.     | 419,873.     | 526,119.     | 468,696.     | 512,162.     |
| Total Operating                      |              |              |              |              |              |
| Expenses .....                       | 2,664,820.   | 3,132,928.   | 3,768,178.   | 4,022,002.   | 4,920,171.   |
| Net Operating Revenues (Loss) ..     | 313,842.     | 178,122.     | (39,531.)    | 201,838.     | 557,176.     |
| Other Income (Deductions)(10) ..     | 287.         | (44.)        | 57.          | 1,265.       | (227.)       |
| Revenues Available for Debt          |              |              |              |              |              |
| Service and Other Purposes ...       | 314,129.     | 178,078.     | (39,474.)    | 203,103.     | 556,949.     |
| Debt Service                         |              |              |              |              |              |
| Revenue Bonds(12) .....              | 0.           | 0.           | 0.           | 0.           | 0.           |
| General Obligation Bonds(13) .....   | 0.           | 0.           | 0.           | 0.           | 0.           |
| Total Debt Service ..                | 0.           | 0.           | 0.           | 0.           | 0.           |
| Balance Available for Other          |              |              |              |              |              |
| Lawful Purposes(14) .....            | \$ 314,129.  | \$ 178,078.  | \$ (39,474.) | \$ 203,103.  | \$ 556,949.  |

## CONDENSED BALANCE SHEET(1)

(Unaudited)

|  | 1979        | 1980        |
|--|-------------|-------------|
| ASSETS:                                    |             |             |
| Net Utility Plant .....                    | \$3,281,072 | \$3,388,103 |
| Fund Accounts .....                        | 2,048       | 2,048       |
| Current and Accrued Assets .....           | 215,367     | 400,950     |
| Deferred Debits .....                      | 13,916      | 21,322      |
| Total Assets .....                         | \$3,512,403 | \$3,812,423 |
| LIABILITIES:                               |             |             |
| Appropriations for Construction .....      | \$ 0        | \$ 0        |
| Surplus .....                              | 2,225,727   | 2,534,598   |
| Long Term Debt .....                       | 0           | 0           |
| Current and Accrued Liabilities .....      | 749,032     | 740,181     |
| Deferred Credits .....                     | 228         | 228         |
| Reserves .....                             | 0           | 0           |
| Contributions in Aid of Construction ..... | 537,416     | 537,416     |
| Total Liabilities .....                    | \$3,512,403 | \$3,812,423 |

# STERLING MUNICIPAL ELECTRIC LIGHT PLANT

ESTABLISHED 1911

## Summary of Operating Results(1)

Appendix B  
Exhibit 1-24

(Unaudited)

|  | 1976       | 1977       | 1978         | 1979         | 1980         |
|--|------------|------------|--------------|--------------|--------------|
| Customers Requirements                                 | 1,791      | 1,997      | 1,926        | 1,993        | 2,017        |
| Peak Demand—kW   | 4,700.     | 4,850.     | 5,225.       | 5,350.       | 5,200.       |
| Energy—kWh(000)  | 21,117.    | 22,258.    | 24,166.      | 26,078.      | 26,511.      |
| Total Energy Sales—kWh(000)(2)                         | 19,370.    | 20,715.    | 22,682.      | 24,697.      | 24,510.      |
| Total Operating Revenues(3)                            | \$806,921. | \$887,065. | \$1,011,708. | \$1,248,733. | \$1,510,289. |
| Operating Expenses                                     |            |            |              |              |              |
| Production(4)  | 0.         | 0.         | 0.           | 0.           | 0.           |
| Purchased Power  |            |            |              |              |              |
| MMWEC Certified  |            |            |              |              |              |
| Projects(6)  | 0.         | 0.         | 0.           | 0.           | 0.           |
| MMWEC Other(7)   | 0.         | 0.         | 0.           | 0.           | 8,853.       |
| All Other(8)   | 618,237.   | 725,971.   | 743,143.     | 992,413.     | 1,343,293.   |
| Total Power Supply Expense                             | 618,237.   | 725,971.   | 743,143.     | 992,413.     | 1,352,146.   |
| All Other Operating Expenses(9)                        | 122,102.   | 141,497.   | 167,911.     | 173,488.     | 255,319.     |
| Total Operating Expenses                               | 740,339.   | 867,468.   | 911,054.     | 1,165,901.   | 1,607,465.   |
| Net Operating Revenues (Loss)                          | 66,582.    | 19,597.    | 100,654.     | 82,832.      | (97,176.)    |
| Other Income(10)(11)                                   | 9,802.     | 10,861.    | 16,008.      | 19,912.      | 160,806.     |
| Revenues Available for Debt Service and Other Purposes | 79,384.    | 30,458.    | 116,662.     | 102,744.     | 63,630.      |
| Debt Service   |            |            |              |              |              |
| Revenue Bonds(12)                                      | 0.         | 0.         | 0.           | 0.           | 0.           |
| General Obligation Bonds(13)                           | 0.         | 0.         | 0.           | 0.           | 0.           |
| Total Debt Service                                     | 0.         | 0.         | 0.           | 0.           | 0.           |
| Balance Available for Other Lawful Purposes(14)        | \$ 76,384. | \$ 30,458. | \$ 116,662.  | \$ 102,744.  | \$ 63,630.   |

## CONDENSED BALANCE SHEET(1)

(Unaudited)

|                                      | 1979        | 1980        |
|--------------------------------------|-------------|-------------|
| ASSETS:                              |             |             |
| Net Utility Plant                    | \$1,102,770 | \$1,754,435 |
| Fund Accounts                        | 275,579     | 331,884     |
| Current and Accrued Assets           | 326,354     | 513,530     |
| Deferred Debits                      | 1,460       | 1,460       |
| Total Assets                         | \$1,706,163 | \$2,601,309 |
| LIABILITIES:                         |             |             |
| Appropriations for Construction      | \$ 2,197    | \$ 2,197    |
| Surplus                              | 1,152,919   | 1,123,583   |
| Long Term Debt                       | 0           | 0           |
| Current and Accrued Liabilities      | 162,790     | 212,844     |
| Deferred Credits                     | 0           | 0           |
| Reserves                             | 0           | 0           |
| Contributions in Aid of Construction | 388,257     | 1,262,685   |
| Total Liabilities                    | \$1,706,163 | \$2,601,309 |

# TEMPLETON MUNICIPAL LIGHT DEPARTMENT

ESTABLISHED 1906

## Summary of Operating Results(1)

Appendix B  
Exhibit 1-25

|                                  | (Unaudited) |             |             |             |             |
|----------------------------------|-------------|-------------|-------------|-------------|-------------|
|                                  | 1976        | 1977        | 1978        | 1979        | 1980        |
| Customers .....                  | 2,321       | 2,353       | 2,410       | 2,464       | 2,467       |
| Requirements                     |             |             |             |             |             |
| Peak Demands—kW .....            | 6,975       | 7,300       | 7,600       | 8,375       | 8,250       |
| Energy—kWh(000) .....            | 38,810      | 39,380      | 42,057      | 47,750      | 51,005      |
| Total Energy Sale—kWh(000)(2) .. | 36,633      | 37,183      | 38,663      | 44,732      | 47,190      |
| Total Operating Revenues(3) .... | \$1,390,122 | \$1,463,604 | \$1,511,850 | \$1,903,200 | \$2,460,444 |
| Operating Expenses               |             |             |             |             |             |
| Production(4) .....              | 0.          | 0.          | 0.          | 0.          | 0.          |
| Purchased Power                  |             |             |             |             |             |
| MMWEC Certified                  |             |             |             |             |             |
| Projects(6) .....                | 0.          | 0.          | 0.          | 0.          | 0.          |
| MMWEC Other(7) ....              | 0.          | 0.          | 0.          | 24,985      | 355,569     |
| All Other(8) .....               | 1,029,889   | 1,224,476   | 1,221,556   | 1,599,318   | 1,838,748   |
| Total Power Supply               |             |             |             |             |             |
| Expense .....                    | 1,029,889   | 1,224,476   | 1,221,556   | 1,624,303   | 2,194,317   |
| All Other Operating              |             |             |             |             |             |
| Expenses(9) .....                | 142,242     | 173,388     | 161,704     | 177,855     | 232,158     |
| Total Operating                  |             |             |             |             |             |
| Expenses .....                   | 1,172,131   | 1,397,864   | 1,383,260   | 1,802,158   | 2,426,475   |
| Net Operating Revenues .....     | 217,991     | 65,740      | 128,590     | 101,042     | 33,969      |
| Other Income(10)(11) .....       | 3,259       | 7,905       | 16,105      | 25,690      | 131,961     |
| Revenues Available for Debt      |             |             |             |             |             |
| Service and Other Purposes ...   | 221,250     | 73,645      | 144,695     | 126,732     | 165,930     |
| Debt Service                     |             |             |             |             |             |
| Revenue Bonds(12) .....          | 0.          | 0.          | 0.          | 0.          | 0.          |
| General Obligation Bonds(13)     | 0.          | 0.          | 0.          | 0.          | 0.          |
| Total Debt Service ..            | 0.          | 0.          | 0.          | 0.          | 0.          |
| Balance Available for Other      |             |             |             |             |             |
| Lawful Purposes(14) .....        | \$ 221,250  | \$ 73,645   | \$ 144,695  | \$ 126,732  | \$ 165,930  |

## CONDENSED BALANCE SHEET(1)

(Unaudited)

|  | 1979        | 1980        |
|--|-------------|-------------|
| ASSETS:                                    |             |             |
| Net Utility Plant .....                    | \$ 764,682  | \$ 785,350  |
| Fund Accounts .....                        | 199,203     | 211,660     |
| Current and Accrued Assets .....           | 378,517     | 379,584     |
| Deferred Debits .....                      | 10,297      | 256,593     |
| Total Assets .....                         | \$1,352,699 | \$1,633,187 |
| LIABILITIES:                               |             |             |
| Appropriations for Construction .....      | \$ 0        | \$ 0        |
| Surplus .....                              | 1,033,877   | 1,077,657   |
| Long Term Debt .....                       | 0           | 0           |
| Current and Accrued Liabilities .....      | 294,344     | 508,236     |
| Deferred Credits .....                     | 0           | 0           |
| Reserves .....                             | 0           | 0           |
| Contributions in Aid of Construction ..... | 24,478      | 47,294      |
| Total Liabilities .....                    | \$1,352,699 | \$1,633,187 |



# WAKEFIELD MUNICIPAL LIGHT DEPARTMENT

ESTABLISHED 1894

## Summary of Operating Results(1)

Appendix B  
Exhibite 1-26

|  | (Unaudited)  |              |              |              |              |
|--|--------------|--------------|--------------|--------------|--------------|
|  | 1976         | 1977         | 1978         | 1979         | 1980         |
| Customers .....  | 9,369        | 9,386        | 9,498        | 9,614        | 9,631        |
| Requirements   |              |              |              |              |              |
| Peak Demand—kW .....                                       | 24,300.      | 25,800.      | 23,800.      | 23,800.      | 25,300.      |
| Energy—kWh(000) .....                                      | 118,082.     | 120,817.     | 116,354.     | 114,863.     | 118,617.     |
| Total Energy Sales—kWh(000)(2) .....                       | 109,623.     | 111,624.     | 107,209.     | 108,280.     | 107,620.     |
| Total Operating Revenues(3) .....                          | \$4,932,581. | \$5,510,858. | \$5,290,077. | \$5,841,432. | \$6,960,649. |
| Operating Expenses   |              |              |              |              |              |
| Production(4) .....  | 0.           | 0.           | 0.           | 0.           | 0.           |
| Purchased Power  |              |              |              |              |              |
| MMWEC Certified  |              |              |              |              |              |
| Projects(6) .....  | 0.           | 0.           | 10,596.      | 120,687.     | 319,818.     |
| MMWEC Other(7) .....                                       | 0.           | 0.           | 0.           | 0.           | 0.           |
| All Other(8) .....   | 3,178,161.   | 3,827,838.   | 3,611,523.   | 4,047,195.   | 5,043,136.   |
| Total Power Supply Expense .....                           | 3,178,161.   | 3,827,838.   | 3,622,119.   | 4,167,882.   | 5,362,954.   |
| All Other Operating Expenses(9) .....                      | 857,246.     | 962,041.     | 952,139.     | 999,118.     | 1,157,399.   |
| Total Operating Expenses .....                             | 4,035,407.   | 4,789,879.   | 4,574,258.   | 5,167,000.   | 6,520,353.   |
| Net Operating Revenues .....                               | 897,174.     | 720,979.     | 715,819.     | 674,432.     | 440,296.     |
| Other Income(10) .....                                     | (1,472.)     | 4,792.       | (7,193.)     | 14,480.      | 135,573.     |
| Revenues Available for Debt Service and Other Purposes ... | 895,702.     | 725,771.     | 708,626.     | 688,912.     | 575,869.     |
| Debt Service   |              |              |              |              |              |
| Revenue Bonds(12) .....                                    | 0.           | 0.           | 0.           | 0.           | 0.           |
| General Obligation Bonds(13) .....                         | 113,721.     | 110,611.     | 107,501.     | 96,399.      | 111,605.     |
| Total Debt Service .....                                   | 113,721.     | 110,611.     | 107,501.     | 96,399.      | 111,605.     |
| Balance Available for Other Lawful Purposes(14) .....      | \$ 781,981.  | \$ 615,160.  | \$ 601,125.  | \$ 592,513.  | \$ 464,264.  |

## CONDENSED BALANCE SHEET(1)

(Unaudited)

|  | 1979        |             | 1980        |             |
|--|-------------|-------------|-------------|-------------|
|  | Electric    | Gas         | Electric    | Gas         |
| ASSETS:                                    |             |             |             |             |
| Net Utility Plant .....                    | \$2,342,987 | \$ 864,553  | \$2,281,070 | \$1,042,402 |
| Fund Accounts .....                        | 321,306     | 83,617      | 346,541     | 93,232      |
| Current and Accrued Assets .....           | 1,097,451   | 285,600     | 1,422,108   | 382,597     |
| Deferred Debits .....                      | 15,475      | 4,027       | 41,279      | 11,105      |
| Total Assets .....                         | \$3,777,219 | \$1,237,797 | \$4,090,998 | \$1,529,336 |
| LIABILITIES:                               |             |             |             |             |
| Appropriations for Construction .....      | \$ 51,297   | \$ 13,349   | \$ 36,531   | \$ 9,828    |
| Surplus .....                              | 2,729,853   | 1,168,218   | 2,874,357   | 1,394,377   |
| Long Term Debt .....                       | 780,000     | 0           | 715,000     | 0           |
| Current and Accrued Liabilities .....      | 195,021     | 50,752      | 465,110     | 125,131     |
| Deferred Credits .....                     | 0           | 0           | 0           | 0           |
| Reserves .....                             | 21,048      | 5,478       | 0           | 0           |
| Contributions in Aid of Construction ..... | 0           | 0           | 0           | 0           |
| Total Liabilities .....                    | \$3,777,219 | \$1,237,797 | \$4,090,998 | \$1,529,336 |

# WEST BOYLSTON MUNICIPAL LIGHT PLANT

ESTABLISHED 1910

## Summary of Operating Results(1)

Appendix B  
Exhibit 1-27

(Unaudited)(24)

|  | 1976         | 1977         | 1978         | 1979         | 1980         |
|--|--------------|--------------|--------------|--------------|--------------|
| Customers .....  | 2,328        | 2,344        | 2,360        | 2,399        | 2,430        |
| Requirements   |              |              |              |              |              |
| Peak Demand—kW .....                                       | 8,640.       | 8,240.       | 8,520.       | 8,800.       | 8,320.       |
| Energy—kWh(000) .....                                      | 42,266.      | 42,680.      | 44,543.      | 45,099.      | 47,619.      |
| Total Energy Sales—kWh(000)(2) .....                       | 40,198.      | 41,047.      | 41,661.      | 42,476.      | 43,974.      |
| Total Operating Revenues(3) .....                          | \$1,490,908. | \$1,599,417. | \$1,739,134. | \$1,882,137. | \$2,323,712. |
| Operating Expenses   |              |              |              |              |              |
| Production(4) .....  | 0.           | 0.           | 0.           | 0.           | 0.           |
| Purchased Power  |              |              |              |              |              |
| MMWEC Certified  |              |              |              |              |              |
| Projects(6) .....  | 0.           | 0.           | 0.           | 0.           | 0.           |
| MMWEC Other(7) .....                                       | 0.           | 0.           | 0.           | 8,608.       | 81,422.      |
| All Other(8) .....   | \$1,161,978. | \$1,264,346. | \$1,397,975. | \$1,567,784. | \$1,876,371. |
| Total Power Supply Expense .....                           | 1,161,978.   | 1,264,346.   | 1,397,975.   | 1,576,392.   | 1,957,793.   |
| All Other Operating Expenses(9) .....                      | 212,845.     | 217,004.     | 233,354.     | 239,554.     | 251,137.     |
| Total Operating Expenses .....                             | 1,374,823.   | 1,481,350.   | 1,631,329.   | 1,815,946.   | 2,208,930.   |
| Net Operating Revenues .....                               | 116,085.     | 118,067.     | 107,805.     | 66,191.      | 114,782.     |
| Other Income(10) .....                                     | 13,487.      | 19,582.      | 21,994.      | 35,016.      | 89,389.      |
| Revenues Available for Debt Service and Other Purposes ... | 129,572.     | 137,649.     | 129,799.     | 101,207.     | 204,171.     |
| Debt Service   |              |              |              |              |              |
| Revenue Bonds(12) .....                                    | 0.           | 0.           | 0.           | 0.           | 0.           |
| General Obligation Bonds(13) .....                         | 0.           | 0.           | 0.           | 0.           | 0.           |
| Total Debt Service .....                                   | 0.           | 0.           | 0.           | 0.           | 0.           |
| Balance Available for Other Lawful Purposes(14) .....      | \$ 129,572.  | \$ 137,649.  | \$ 129,799.  | \$ 101,207.  | \$ 204,171.  |

## CONDENSED BALANCE SHEET(1)

(Unaudited)

|  | 1979        | 1980        |
|--|-------------|-------------|
| ASSETS:                                    |             |             |
| Net Utility Plant .....                    | \$1,121,679 | \$1,088,473 |
| Fund Accounts .....                        | 267,732     | 339,195     |
| Current and Accrued Assets .....           | 394,730     | 500,298     |
| Deferred Debits .....                      | 0           | 0           |
| Total Assets .....                         | \$1,784,141 | \$1,927,966 |
| LIABILITIES:                               |             |             |
| Appropriations for Construction .....      | \$ 0        | \$ 0        |
| Surplus .....                              | 1,743,380   | 1,884,176   |
| Long Term Debt .....                       | 0           | 0           |
| Current and Accrued Liabilities .....      | 33,761      | 36,790      |
| Deferred Credits .....                     | 0           | 0           |
| Reserves .....                             | 7,000       | 7,000       |
| Contributions in Aid of Construction ..... | 0           | 0           |
| Total Liabilities .....                    | \$1,784,141 | \$1,927,966 |

# WESTFIELD GAS AND ELECTRIC LIGHT DEPARTMENT

ESTABLISHED 1897

Appendix B  
Exhibite 1-28

## Summary of Operating Results(1)

|  | (Unaudited)  |              |              |              |               |
|--|--------------|--------------|--------------|--------------|---------------|
|  | 1976         | 1977         | 1978         | 1979         | 1980          |
| Customers .....  | 12,044       | 12,191       | 12,255       | 12,676       | 13,123        |
| Requirements   |              |              |              |              |               |
| Peak Demand—kW .....                                       | 44,352.      | 49,539.      | 45,500.      | 45,700.      | 47,200.       |
| Energy—kWh(000) .....                                      | 229,133.     | 229,801.     | 235,839.     | 241,842.     | 234,202.      |
| Total Energy Sales—kWh(000)(2) .....                       | 212,313.     | 216,862.     | 227,021.     | 231,690.     | 219,026.      |
| Total Operating Revenues(3) .....                          | \$7,136,537. | \$7,957,787. | \$9,258,151. | \$9,460,246. | \$12,146,718. |
| Operating Expenses   |              |              |              |              |               |
| Production(4) .....  | 0.           | 0.           | 0.           | 0.           | 0.            |
| Purchased Power  |              |              |              |              |               |
| MMWEC Certified  |              |              |              |              |               |
| Projects(6) .....  | 0.           | 0.           | 17,482.      | 199,118.     | 527,656.      |
| MMWEC Other(7) .....                                       | 0.           | 0.           | 0.           | 136,977.     | 1,530,814.    |
| All Other(8) .....   | 5,328,098.   | 6,518,399.   | 6,917,659.   | 7,632,902.   | 7,611,844.    |
| Total Power Supply Expense .....                           | 5,328,098.   | 6,518,399.   | 6,935,141.   | 7,968,997.   | 9,670,314.    |
| All Other Operating Expenses(9) .....                      | 964,893.     | 985,290.     | 1,221,571.   | 1,302,252.   | 1,432,516.    |
| Total Operating Expenses .....                             | 6,292,991.   | 7,503,689.   | 8,156,714.   | 9,271,249.   | 11,102,830.   |
| Net Operating Revenues .....                               | 843,546.     | 454,098.     | 1,101,37.    | 188,997.     | 1,043,888.    |
| Other Income(10) .....                                     | 30,569.      | 63,702.      | 66,620.      | 65,008.      | 138,085.      |
| Revenues Available for Debt Service and Other Purposes ... | 874,115.     | 517,800.     | 1,168,057.   | 254,005.     | 1,181,973.    |
| Debt Service   |              |              |              |              |               |
| Revenue Bonds(12) .....                                    | 0.           | 0.           | 0.           | 0.           | 0.            |
| General Obligation Bonds(13)(25) .....                     | 143,820.     | 141,778.     | 108,773.     | 178,386.     | 187,655.      |
| Total Debt Service .....                                   | 143,820.     | 141,778.     | 108,773.     | 178,386.     | 187,655.      |
| Balance Available for Other Lawful Purposes(14) .....      | \$ 730,295.  | \$ 376,022.  | \$1,059,284. | \$ 75,619.   | \$ 994,318.   |

## CONDENSED BALANCE SHEET(1)

(Unaudited)

|  | 1979        |             | 1980         |             |
|--|-------------|-------------|--------------|-------------|
|  | Electric    | Gas         | Electric     | Gas         |
| ASSETS:                                    |             |             |              |             |
| Net Utility Plant .....                    | \$6,721,069 | \$1,627,009 | \$ 6,765,361 | \$1,678,719 |
| Fund Accounts .....                        | 51,041      | 17,050      | 33,653       | 10,532      |
| Current and Accrued Assets .....           | 2,087,107   | 697,187     | 3,208,940    | 1,133,334   |
| Deferred Debits .....                      | 5,098       | 1,703       | 6,502        | 2,297       |
| Total Assets .....                         | \$8,864,315 | \$2,342,949 | \$10,014,456 | \$2,824,882 |
| LIABILITIES:                               |             |             |              |             |
| Appropriations for Construction .....      | \$ 0        | \$ 0        | \$ 0         | \$ 0        |
| Surplus .....                              | 5,958,744   | 1,511,648   | 6,604,573    | 1,620,580   |
| Long Term Debt(25) .....                   | 1,341,252   | 308,748     | 1,108,500    | 391,500     |
| Current and Accrued Liabilities .....      | 1,021,321   | 341,167     | 1,425,878    | 503,591     |
| Deferred Credits .....                     | 383,333     | 128,051     | 730,952      | 258,158     |
| Reserves .....                             | 159,665     | 53,335      | 144,553      | 51,053      |
| Contributions in Aid of Construction ..... | 0           | 0           | 0            | 0           |
| Total Liabilities .....                    | \$8,864,315 | \$2,342,949 | \$10,014,456 | \$2,824,882 |

**GREEN MOUNTAIN POWER CORPORATION  
BURLINGTON, VERMONT**

Appendix B  
Exhibit 1-29

(Notes Omitted)

**Summary of Operating Results(1)**

(000)

(Unaudited)

|  | <u>1976</u>     | <u>1977</u>     | <u>1978</u>     | <u>1979</u>     | <u>1980</u>     |
|--|-----------------|-----------------|-----------------|-----------------|-----------------|
| Operating Revenues(26) .....                                   | \$40,100        | \$40,391        | \$42,350        | \$42,727        | \$57,336        |
| Total Operating Expenses .....                                 | <u>35,360</u>   | <u>35,623</u>   | <u>37,269</u>   | <u>37,410</u>   | <u>50,134</u>   |
| Operating Income .....   | 4,740           | 4,768           | 5,081           | 5,317           | 7,212           |
| Allowance for equity funds used<br>during construction .....   | 0               | 98              | 88              | 0               | 0               |
| Other income—net .....   | <u>1,151</u>    | <u>1,054</u>    | <u>920</u>      | <u>995</u>      | <u>1,183</u>    |
| Income before interest charges ...                             | 5,891           | 5,920           | 6,089           | 6,312           | 8,395           |
| Interest Charges .....   | 2,843           | 2,439           | 2,641           | 3,137           | 4,230           |
| Allowance for borrowed funds<br>used during construction ..... | (53)            | (94)            | (141)           | (384)           | (234)           |
| Net Income .....   | <u>\$ 3,101</u> | <u>\$ 3,575</u> | <u>\$ 3,589</u> | <u>\$ 3,559</u> | <u>\$ 4,399</u> |

**CONDENSED BALANCE SHEET(1)**

(Unaudited)

(Notes Omitted)

|   | <u>1979</u>         | <u>1980</u>         |
|---|---------------------|---------------------|
| <b>ASSETS:</b>                                |                     |                     |
| Net Utility Plant .....                       | \$53,378,376        | \$56,924,678        |
| Other Property and Investments .....          | 13,607,454          | 13,922,183          |
| Current and Accrued Assets .....              | 10,325,035          | 19,668,317          |
| Deferred Charges .....                        | 4,280,126           | 8,846,278           |
| Total Assets .....                            | <u>\$81,590,991</u> | <u>\$99,361,456</u> |
| <b>CAPITALIZATION AND LIABILITIES:</b>        |                     |                     |
| Total Common Stock Equity .....               | \$23,530,947        | \$25,632,073        |
| Cumulative Preferred Stock .....              | 6,195,100           | 5,907,800           |
| Long Term Debt, Less Current Maturities ..... | <u>36,627,000</u>   | <u>35,603,000</u>   |
| Total Capitalization .....                    | \$66,353,047        | \$67,142,873        |
| Current Liabilities .....                     | 14,448,591          | 30,297,414          |
| Deferred Credits and Operating Reserves ..... | 789,353             | 1,921,169           |
| Total Capitalization and Liabilities .....    | <u>\$81,590,991</u> | <u>\$99,361,456</u> |

**VILLAGE OF HARDWICK ELECTRIC DEPARTMENT**  
**HARDWICK, VERMONT**

Appendix B  
Exhibit 1-30

Summary of Operating Results(1)

|                                      | (Unaudited) |            |            |             |              |
|--------------------------------------|-------------|------------|------------|-------------|--------------|
|                                      | 1976        | 1977       | 1978       | 1979        | 1980         |
| Customers(27) .....                  | 3,097       | 3,181      | 3,163      | 3,203       | 3,256        |
| Requirements                         |             |            |            |             |              |
| Peak Demand—kW .....                 | 5,603.      | 5,720.     | 5,960.     | 5,793.      | 6,038.       |
| Energy—kWh(000) .....                | 26,853.     | 26,425.    | 27,293.    | 27,944.     | 28,267.      |
| Total Energy Sales—kWh(000)(2) ..... | 23,216.     | 23,680.    | 24,656.    | 24,831.     | 25,210.      |
| Total Operating Revenues(3) .....    | \$834,886.  | \$804,954. | \$929,919. | \$957,097.  | \$1,211,870. |
| Operating Expenses                   |             |            |            |             |              |
| Production Electric                  |             |            |            |             |              |
| Department(4) .....                  | 48,278.     | 73,034.    | 39,564.    | 47,735.     | 66,946.      |
| Purchased Power(8) .....             | 396,600.    | 411,346.   | 534,735.   | 569,556.    | 683,944.     |
| Total Power Supply                   |             |            |            |             |              |
| Expense .....                        | 444,878.    | 484,380.   | 574,299.   | 617,291.    | 750,890.     |
| All Other Operating                  |             |            |            |             |              |
| Expenses(9) .....                    | 215,093.    | 241,701.   | 282,082.   | 310,009.    | 396,556.     |
| Total Operating                      |             |            |            |             |              |
| Expenses .....                       | 659,971.    | 726,081.   | 856,381.   | 927,300.    | 1,147,446.   |
| Net Operating Revenues .....         | 174,915.    | 78,873.    | 73,538.    | 29,797.     | 64,424.      |
| Other Income (Deductions)(10) ..     | (17,396.)   | (16,350.)  | (21,385.)  | (22,704.)   | (989.)       |
| Revenues Available for Debt          |             |            |            |             |              |
| Service and Other Purposes ...       | 157,519.    | 62,523.    | 52,153.    | 7,093.      | 63,435.      |
| Debt Service                         |             |            |            |             |              |
| Revenue Bonds .....                  | 0.          | 0.         | 0.         | 0.          | 0.           |
| General Obligation Bonds(13)         | 0.          | 0.         | 17,000.    | 38,870.     | 39,742.      |
| Total Debt Service ..                | 0.          | 0.         | 17,000.    | 38,870.     | 39,742.      |
| Balance Available for Other          |             |            |            |             |              |
| Lawful Purposes(14) .....            | \$157,519.  | \$ 62,523. | \$ 35,153. | \$(31,777.) | \$ 23,693.   |

**CONDENSED BALANCE SHEET(1)**  
(Unaudited)

|  | 1979        | 1980        |
|--|-------------|-------------|
| ASSETS:                                    |             |             |
| Net Utility Plant .....                    | \$1,143,887 | \$1,186,892 |
| Other Property and Investments .....       | 14,075      | 14,075      |
| Current and Accrued Assets .....           | 207,514     | 252,696     |
| Deferred Debits .....                      | 0           | 0           |
| Total Assets .....                         | \$1,365,476 | \$1,453,663 |
| LIABILITIES:                               |             |             |
| Appropriations for Construction .....      | \$ 0        | \$ 0        |
| Proprietary Capital .....                  | 852,476     | 812,126     |
| Long Term Debt .....                       | 306,000     | 306,000     |
| Current and Accrued Liabilities .....      | 201,904     | 333,093     |
| Deferred Credits .....                     | 5,096       | 2,444       |
| Reserves .....                             | 0           | 0           |
| Contributions in Aid of Construction ..... | 0           | 0           |
| Total Liabilities .....                    | \$1,365,476 | \$1,453,663 |



**VILLAGE OF LUDLOW ELECTRIC LIGHT DEPARTMENT**  
**LUDLOW, VERMONT**

**Appendix B**  
**Exhibit 1-31**

Summary of Operating Results(1)

|                                      | (Unaudited)       |                   |                     |                     |                     |
|--------------------------------------|-------------------|-------------------|---------------------|---------------------|---------------------|
|                                      | 1976              | 1977              | 1978                | 1979                | 1980                |
| Customers(28) .....                  | 1,890             | 1,794             | 1,830               | 2,068               | 1,930               |
| Requirements                         |                   |                   |                     |                     |                     |
| Peak Demand—kW .....                 | 6,475.            | 6,550.            | 6,769.              | 6,645.              | 7,503.              |
| Energy—kWh(000) .....                | 20,630.           | 21,163.           | 32,249.             | 29,956.             | 33,094.             |
| Total Energy Sales—kWh(000)(2) ..... | 18,311.           | 18,191.           | 28,617.             | 27,393.             | 30,163.             |
| Total Operating Revenues(3) .....    | <u>\$694,972.</u> | <u>\$758,214.</u> | <u>\$1,040,421.</u> | <u>\$1,153,816.</u> | <u>\$1,380,033.</u> |
| Operating Expenses                   |                   |                   |                     |                     |                     |
| Production Electric                  |                   |                   |                     |                     |                     |
| Department(4) .....                  | 0.                | 0.                | 0.                  | 0.                  | 0.                  |
| Purchased Power(8) .....             | <u>530,459.</u>   | <u>601,146.</u>   | <u>797,072.</u>     | <u>892,245.</u>     | <u>1,193,087.</u>   |
| Total Power Supply                   |                   |                   |                     |                     |                     |
| Expense .....                        | 530,459.          | 601,146.          | 797,072.            | 892,245.            | 1,193,087.          |
| All Other Operating                  |                   |                   |                     |                     |                     |
| Expenses(9) .....                    | <u>124,535.</u>   | <u>135,820.</u>   | <u>175,304.</u>     | <u>179,283.</u>     | <u>171,018.</u>     |
| Total Operating                      |                   |                   |                     |                     |                     |
| Expenses .....                       | <u>654,994.</u>   | <u>736,966.</u>   | <u>972,376.</u>     | <u>1,071,528.</u>   | <u>1,364,105.</u>   |
| Net Operating Revenues .....         | 39,978.           | 21,248.           | 68,045.             | 82,288.             | 15,928.             |
| Other Income (Deductions)(10) ..     | <u>(9,363.)</u>   | <u>28.</u>        | <u>670.</u>         | <u>811.</u>         | <u>(522.)</u>       |
| Revenues Available for Debt          |                   |                   |                     |                     |                     |
| Service and Other Purposes ...       | <u>30,615.</u>    | <u>21,276.</u>    | <u>68,715.</u>      | <u>83,099.</u>      | <u>15,406.</u>      |
| Debt Service                         |                   |                   |                     |                     |                     |
| Revenue Bonds .....                  | 0.                | 0.                | 0.                  | 0.                  | 0.                  |
| General Obligation Bonds(13)         | <u>0.</u>         | <u>29,795.</u>    | <u>28,895.</u>      | <u>27,995.</u>      | <u>27,170.</u>      |
| Total Debt Service ..                | <u>0.</u>         | <u>29,795.</u>    | <u>28,895.</u>      | <u>27,995.</u>      | <u>27,170.</u>      |
| Balance Available for Other          |                   |                   |                     |                     |                     |
| Lawful Purposes(14) .....            | <u>\$ 30,615.</u> | <u>\$(8,519.)</u> | <u>\$ 39,820.</u>   | <u>\$ 55,104.</u>   | <u>\$ (11,764.)</u> |

**CONDENSED BALANCE SHEET(1)**  
**(Unaudited)**

|  | 1979             | 1980               |
|--|------------------|--------------------|
| ASSETS:                                    |                  |                    |
| Net Utility Plant .....                    | \$716,014        | \$ 701,354         |
| Other Property and Investments .....       | 40,699           | 32,601             |
| Current and Accrued Assets .....           | 206,699          | 276,973            |
| Deferred Debits .....                      | 4,925            | 7,465              |
| Total Assets .....                         | <u>\$968,337</u> | <u>\$1,018,393</u> |
| LIABILITIES:                               |                  |                    |
| Appropriations for Construction .....      | \$ 0             | \$ 0               |
| Proprietary Capital .....                  | 527,458          | 476,749            |
| Long Term Debt .....                       | 200,000          | 185,000            |
| Current and Accrued Liabilities .....      | 198,688          | 314,453            |
| Deferred Credits .....                     | 0                | 0                  |
| Reserves .....                             | 0                | 0                  |
| Contributions in Aid of Construction ..... | 42,191           | 42,191             |
| Total Liabilities .....                    | <u>\$968,337</u> | <u>\$1,018,393</u> |

**VILLAGE OF LYNDONVILLE ELECTRIC DEPARTMENT**  
**LYNDONVILLE, VERMONT**

Appendix B  
Exhibit 1-32

Summary of Operating Results(1)

|                                      | (Unaudited)         |                     |                     |                     |                      |
|--------------------------------------|---------------------|---------------------|---------------------|---------------------|----------------------|
|                                      | 1976                | 1977                | 1978                | 1979                | 1980                 |
| Customers .....                      | 3,000               | 3,057               | 3,146               | 3,397               | 3,617                |
| Requirements                         |                     |                     |                     |                     |                      |
| Peak Demand—kW .....                 | 8,058.              | 8,051.              | 8,792.              | 9,204.              | 9,467.               |
| Energy—kWh(000) .....                | 38,389.             | 44,628.             | 43,883.             | 57,507.             | 51,632.              |
| Total Energy Sales—kWh(000)(2) ..... | 35,231.             | 41,915.             | 40,232.             | 52,952.             | 47,350.              |
| Total Operating Revenues(3) .....    | <u>\$1,315,808.</u> | <u>\$1,450,937.</u> | <u>\$1,698,581.</u> | <u>\$1,756,159.</u> | <u>\$1,693,090.</u>  |
| Operating Expenses                   |                     |                     |                     |                     |                      |
| Production Electric                  |                     |                     |                     |                     |                      |
| Department(4) .....                  | 39,508.             | 44,591.             | 36,076.             | 46,860.             | 59,804.              |
| Purchased Power(8) .....             | <u>668,675.</u>     | <u>834,759.</u>     | <u>1,075,045.</u>   | <u>1,156,386.</u>   | <u>1,298,515.</u>    |
| Total Power Supply                   |                     |                     |                     |                     |                      |
| Expense .....                        | 708,183.            | 879,350.            | 1,111,121.          | 1,203,246.          | 1,358,319.           |
| All Other Operating                  |                     |                     |                     |                     |                      |
| Expenses(9) .....                    | <u>307,118.</u>     | <u>283,577.</u>     | <u>270,925.</u>     | <u>301,883.</u>     | <u>347,128.</u>      |
| Total Operating                      |                     |                     |                     |                     |                      |
| Expenses .....                       | <u>1,015,301.</u>   | <u>1,162,927.</u>   | <u>1,382,046.</u>   | <u>1,505,129.</u>   | <u>1,705,447.</u>    |
| Net Operating Revenues (Loss) ..     | 300,507.            | 288,010.            | 316,535.            | 251,030.            | (12,357.)            |
| Other Income(10) .....               | <u>64,136.</u>      | <u>66,514.</u>      | <u>48,964.</u>      | <u>58,063.</u>      | <u>46,752.</u>       |
| Revenues Available for Debt          |                     |                     |                     |                     |                      |
| Service and Other Purposes ...       | <u>364,643.</u>     | <u>354,524.</u>     | <u>365,499.</u>     | <u>309,093.</u>     | <u>34,395.</u>       |
| Debt Service                         |                     |                     |                     |                     |                      |
| Revenue Bonds .....                  | 0.                  | 0.                  | 0.                  | 0.                  | 0.                   |
| General Obligation Bonds(13)         | <u>108,923.</u>     | <u>105,183.</u>     | <u>101,277.</u>     | <u>240,989.</u>     | <u>276,378.</u>      |
| Total Debt Service ....              | <u>108,923.</u>     | <u>105,183.</u>     | <u>101,277.</u>     | <u>240,989.</u>     | <u>276,378.</u>      |
| Balance Available for Other          |                     |                     |                     |                     |                      |
| Lawful Purposes(14) .....            | <u>\$ 255,720.</u>  | <u>\$ 249,341.</u>  | <u>\$ 264,222.</u>  | <u>\$ 68,104.</u>   | <u>\$ (241,983.)</u> |

**CONDENSED BALANCE SHEET(1)**  
**(Unaudited)**

|  | 1979               | 1980               |
|--|--------------------|--------------------|
| ASSETS:                                    |                    |                    |
| Net Utility Plant .....                    | \$4,493,950        | \$4,813,462        |
| Other Property and Investments .....       | 562,898            | 384,991            |
| Current and Accrued Assets .....           | 440,143            | 544,425            |
| Deferred Debits .....                      | 19,933             | 13,288             |
| Total Assets .....                         | <u>\$5,516,924</u> | <u>\$5,756,166</u> |
| LIABILITIES:                               |                    |                    |
| Appropriations for Construction .....      | \$ 0               | \$ 0               |
| Proprietary Capital .....                  | 2,043,339          | 1,741,677          |
| Long Term Debt .....                       | 2,660,000          | 2,810,000          |
| Current and Accrued Liabilities .....      | 328,973            | 644,609            |
| Deferred Credits .....                     | 473                | 236                |
| Reserves .....                             | 0                  | 0                  |
| Contributions in Aid of Construction ..... | 484,139            | 559,644            |
| Total Liabilities .....                    | <u>\$5,516,924</u> | <u>\$5,756,166</u> |

**VILLAGE OF MORRISVILLE WATER AND LIGHT DEPARTMENT**  
**MORRISVILLE, VERMONT**

**Appendix B**  
**Exhibit 1-33**

Summary of Operating Results(1)

|                                      | (Unaudited)         |                     |                     |                     |                     |
|--------------------------------------|---------------------|---------------------|---------------------|---------------------|---------------------|
|                                      | 1976                | 1977                | 1978                | 1979                | 1980                |
| Customers .....                      | 2,382               | 2,457               | 2,536               | 2,561               | 2,595               |
| Requirements                         |                     |                     |                     |                     |                     |
| Peak Demand—kW .....                 | 8,100.              | 8,687.              | 8,580.              | 8,400.              | 8,594.              |
| Energy—kWh(000) .....                | 39,907.             | 40,017.             | 45,129.             | 42,724.             | 42,919.             |
| Total Energy Sales—kWh(000)(2) ..... | 35,630.             | 37,219.             | 41,167.             | 40,461.             | 39,585.             |
| Total Operating Revenues(3) .....    | <u>\$1,185,822.</u> | <u>\$1,192,812.</u> | <u>\$1,429,589.</u> | <u>\$1,534,593.</u> | <u>\$1,662,092.</u> |
| Operating Expenses                   |                     |                     |                     |                     |                     |
| Production Electric                  |                     |                     |                     |                     |                     |
| Department(4) .....                  | 105,105.            | 105,061.            | 92,469.             | 101,093.            | 122,545.            |
| Purchased Power(8) .....             | <u>585,034.</u>     | <u>667,551.</u>     | <u>920,595.</u>     | <u>850,766.</u>     | <u>1,105,025.</u>   |
| Total Power Supply                   |                     |                     |                     |                     |                     |
| Expense .....                        | 690,139.            | 772,612.            | 1,013,064.          | 951,859.            | 1,227,570.          |
| All Other Operating                  |                     |                     |                     |                     |                     |
| Expenses(9) .....                    | <u>263,229.</u>     | <u>280,032.</u>     | <u>276,804.</u>     | <u>333,167.</u>     | <u>350,125.</u>     |
| Total Operating                      |                     |                     |                     |                     |                     |
| Expenses .....                       | <u>953,368.</u>     | <u>1,052,644.</u>   | <u>1,289,868.</u>   | <u>1,285,026.</u>   | <u>1,577,695.</u>   |
| Net Operating Revenues .....         | 232,454.            | 140,168.            | 139,721.            | 249,567.            | 84,397.             |
| Other Income (Deductions)(10) ..     | <u>(13,889.)</u>    | <u>(7,447.)</u>     | <u>(15,813.)</u>    | <u>(22,370.)</u>    | <u>(14,072.)</u>    |
| Revenues Available for Debt          |                     |                     |                     |                     |                     |
| Service and Other Purposes ..        | <u>218,565.</u>     | <u>132,721.</u>     | <u>123,908.</u>     | <u>227,197.</u>     | <u>70,325.</u>      |
| Debt Service                         |                     |                     |                     |                     |                     |
| Revenue Bonds .....                  | 0.                  | 0.                  | 0.                  | 0.                  | 0.                  |
| General Obligation Bonds(13)         | <u>109,848.</u>     | <u>106,890.</u>     | <u>103,840.</u>     | <u>100,790.</u>     | <u>160,966.</u>     |
| Total Debt Service ..                | <u>109,848.</u>     | <u>106,890.</u>     | <u>103,840.</u>     | <u>100,790.</u>     | <u>160,966.</u>     |
| Balance Available for Other          |                     |                     |                     |                     |                     |
| Lawful Purposes(14) .....            | <u>\$ 108,717.</u>  | <u>\$ 25,831.</u>   | <u>\$ 20,068.</u>   | <u>\$ 126,407.</u>  | <u>\$ (90,641.)</u> |

CONDENSED BALANCE SHEET(1)

(Unaudited)

|  | 1979               | 1980               |
|--|--------------------|--------------------|
| ASSETS:                                    |                    |                    |
| Net Utility Plant .....                    | \$2,884,159        | \$2,851,493        |
| Other Property and Investments .....       | 15,800             | 15,800             |
| Current and Accrued Assets .....           | 508,546            | 492,629            |
| Deferred Debits .....                      | 57,639             | 91,827             |
| Total Assets .....                         | <u>\$3,466,144</u> | <u>\$3,451,749</u> |
| LIABILITIES:                               |                    |                    |
| Appropriations for Construction .....      | \$ 0               | \$ 0               |
| Proprietary Capital .....                  | 1,705,426          | 1,555,158          |
| Long Term Debt .....                       | 1,032,750          | 1,074,250          |
| Current and Accrued Liabilities .....      | 504,193            | 577,203            |
| Deferred Credits .....                     | 0                  | 0                  |
| Reserves .....                             | 0                  | 0                  |
| Contributions in Aid of Construction ..... | 223,775            | 245,138            |
| Total Liabilities .....                    | <u>\$3,466,144</u> | <u>\$3,451,749</u> |

**VILLAGE OF NORTHFIELD, ELECTRIC DEPARTMENT**  
**NORTHFIELD, VERMONT**

Appendix B  
Exhibit 1-34

Summary of Operating Results(1)

|                                  | (Unaudited)                |                          |                         |                          |                            |
|----------------------------------|----------------------------|--------------------------|-------------------------|--------------------------|----------------------------|
|                                  | 1976                       | 1977                     | 1978                    | 1979                     | 1980                       |
| Customers .....                  | 1,639                      | 1,617                    | 1,589                   | 1,609                    | 1,598                      |
| Requirements                     |                            |                          |                         |                          |                            |
| Peak Demand—kW .....             | 4,755.                     | 4,675.                   | 4,675.                  | 4,960.                   | 6,619.                     |
| Energy—kWh(000) .....            | 21,202.                    | 24,767.                  | 30,718.                 | 29,989.                  | 29,474.                    |
| Total Energy Sales—kWh(000)(2)   | 20,104.                    | 22,965.                  | 29,135.                 | 27,937.                  | 26,788.                    |
| Total Operating Revenues(3) .... | <u>\$ 675,099.</u>         | <u>\$777,496.</u>        | <u>\$927,651.</u>       | <u>\$901,835.</u>        | <u>\$1,036,781.</u>        |
| Operating Expenses               |                            |                          |                         |                          |                            |
| Production Electric              |                            |                          |                         |                          |                            |
| Department(4) .....              | 0.                         | 0.                       | 0.                      | 0.                       | 0.                         |
| Purchased Power(8) .....         | <u>442,325.</u>            | <u>507,992.</u>          | <u>684,785.</u>         | <u>659,530.</u>          | <u>911,681.</u>            |
| Total Power Supply               |                            |                          |                         |                          |                            |
| Expense .....                    | 442,325.                   | 507,992.                 | 684,785.                | 659,530.                 | 911,681.                   |
| All Other Operating              |                            |                          |                         |                          |                            |
| Expenses(9) .....                | <u>105,267.</u>            | <u>139,301.</u>          | <u>163,856.</u>         | <u>171,401.</u>          | <u>182,492.</u>            |
| Total Operating                  |                            |                          |                         |                          |                            |
| Expenses .....                   | <u>547,592.</u>            | <u>647,293.</u>          | <u>848,641.</u>         | <u>830,931.</u>          | <u>1,094,173.</u>          |
| Net Operating Revenues (Loss)... | 127,507.                   | 130,203.                 | 79,010.                 | 70,904.                  | (57,392.)                  |
| Other Income (Deductions)(10) .. | <u>(17,970.)</u>           | <u>8,144.</u>            | <u>4,898.</u>           | <u>15,247.</u>           | <u>27,804.</u>             |
| Revenues Available for Debt      |                            |                          |                         |                          |                            |
| Service and Other Purposes ...   | <u>109,537.</u>            | <u>138,347.</u>          | <u>83,908.</u>          | <u>86,151.</u>           | <u>(29,588.)</u>           |
| Debt Service                     |                            |                          |                         |                          |                            |
| Revenue Bonds .....              | 0.                         | 0.                       | 0.                      | 0.                       | 0.                         |
| General Obligation Bonds(13)     | <u>329,694.</u>            | <u>60,733.</u>           | <u>58,933.</u>          | <u>57,133.</u>           | <u>55,333.</u>             |
| Total Debt Service ....          | <u>329,694.</u>            | <u>60,733.</u>           | <u>58,933.</u>          | <u>57,133.</u>           | <u>55,333.</u>             |
| Balance Available for Other      |                            |                          |                         |                          |                            |
| Lawful Purposes(14) .....        | <u><u>\$(220,157.)</u></u> | <u><u>\$ 77,614.</u></u> | <u><u>\$24,975.</u></u> | <u><u>\$ 29,018.</u></u> | <u><u>\$ (84,921.)</u></u> |

**CONDENSED BALANCE SHEET(1)**

(Unaudited)

|  | 1979                    | 1980                    |
|--|-------------------------|-------------------------|
| ASSETS:                                    |                         |                         |
| Net Utility Plant .....                    | \$492,699               | \$499,295               |
| Other Property and Investments .....       | 58,176                  | 7,904                   |
| Current and Accrued Assets .....           | 241,029                 | 286,726                 |
| Deferred Debits .....                      | 21,120                  | 18,752                  |
| Total Assets .....                         | <u><u>\$813,024</u></u> | <u><u>\$812,677</u></u> |
| LIABILITIES:                               |                         |                         |
| Appropriations for Construction .....      | \$ 0                    | \$ 0                    |
| Proprietary Capital .....                  | 323,290                 | 234,037                 |
| Long Term Debt .....                       | 420,000                 | 390,000                 |
| Current and Accrued Liabilities .....      | 68,660                  | 188,640                 |
| Deferred Credits .....                     | 1,074                   | 0                       |
| Reserves .....                             | 0                       | 0                       |
| Contributions in Aid of Construction ..... | 0                       | 0                       |
| Total Liabilities .....                    | <u><u>\$813,024</u></u> | <u><u>\$812,677</u></u> |

**VILLAGE OF STOWE, WATER AND LIGHT DEPARTMENT**  
**STOWE, VERMONT**

**Appendix B**  
**Exhibit 1-35**

**Summary of Operating Results(1)**

|                                      | (Unaudited)         |                     |                     |                      |                      |
|--------------------------------------|---------------------|---------------------|---------------------|----------------------|----------------------|
|                                      | 1976                | 1977                | 1978                | 1979                 | 1980                 |
| Customers .....                      | 1,741               | 1,812               | 1,900               | 1,974                | 2,058                |
| Requirements                         |                     |                     |                     |                      |                      |
| Peak Demands—kW .....                | 10,035.             | 8,786.              | 9,705.              | 10,705.              | 16,791.              |
| Energy—kWh(000) .....                | 34,890.             | 34,106.             | 40,463.             | 41,143.              | 54,847.              |
| Total Energy Sales—kWh(000)(2) ..... | 32,178.             | 32,354.             | 36,230.             | 35,407.              | 38,038.              |
| Total Operating Revenues(3) .....    | <u>\$1,260,700.</u> | <u>\$1,281,804.</u> | <u>\$1,441,957.</u> | <u>\$1,474,239.</u>  | <u>\$2,110,540.</u>  |
| Operating Expenses                   |                     |                     |                     |                      |                      |
| Production Electric                  |                     |                     |                     |                      |                      |
| Department(4) .....                  | 0.                  | 0.                  | 0.                  | 0.                   | 0.                   |
| Purchased Power(8) .....             | <u>932,201.</u>     | <u>939,446.</u>     | <u>1,153,365.</u>   | <u>1,415,670.</u>    | <u>2,091,211.</u>    |
| Total Power Supply                   |                     |                     |                     |                      |                      |
| Expense .....                        | 932,201.            | 939,446.            | 1,153,365.          | 1,415,670.           | 2,091,211.           |
| All Other Operating                  |                     |                     |                     |                      |                      |
| Expenses(9) .....                    | <u>116,651.</u>     | <u>133,352.</u>     | <u>156,253.</u>     | <u>186,100.</u>      | <u>213,063.</u>      |
| Total Operating                      |                     |                     |                     |                      |                      |
| Expenses .....                       | <u>1,048,852.</u>   | <u>1,072,798.</u>   | <u>1,309,618.</u>   | <u>1,601,770.</u>    | <u>2,304,274.</u>    |
| Net Operating Revenues (Loss) ..     | 211,848.            | 209,006.            | 132,339.            | (127,531.)           | (193,734.)           |
| Other Income(10) .....               | <u>7,584.</u>       | <u>12,587.</u>      | <u>6,665.</u>       | <u>6,653.</u>        | <u>4,206.</u>        |
| Revenues Available for Debt          |                     |                     |                     |                      |                      |
| Service and Other Purposes ...       | <u>219,432.</u>     | <u>221,593.</u>     | <u>139,004.</u>     | <u>(120,878.)</u>    | <u>(189,528.)</u>    |
| Debt Service                         |                     |                     |                     |                      |                      |
| Revenue Bonds .....                  | 0.                  | 0.                  | 0.                  | 0.                   | 0.                   |
| General Obligation Bonds(13)         | <u>0.</u>           | <u>0.</u>           | <u>0.</u>           | <u>0.</u>            | <u>0.</u>            |
| Total Debt Service ..                | <u>0.</u>           | <u>0.</u>           | <u>0.</u>           | <u>0.</u>            | <u>0.</u>            |
| Balance Available for Other          |                     |                     |                     |                      |                      |
| Lawful Purposes(14) .....            | <u>\$ 219,432.</u>  | <u>\$ 221,593.</u>  | <u>\$ 139,004.</u>  | <u>\$ (120,878.)</u> | <u>\$ (189,528.)</u> |

**CONDENSED BALANCE SHEET(1)**  
**(Unaudited)**

|  | 1979               | 1980               |
|--|--------------------|--------------------|
| <b>ASSETS:</b>                             |                    |                    |
| Net Utility Plant .....                    | \$ 863,438         | \$ 877,172         |
| Fund Accounts .....                        | 0                  | 0                  |
| Current and Accrued Assets .....           | 451,239            | 502,558            |
| Deferred Debits .....                      | 16,541             | 41,611             |
| Total Assets .....                         | <u>\$1,331,218</u> | <u>\$1,421,341</u> |
| <b>LIABILITIES:</b>                        |                    |                    |
| Appropriations for Construction .....      | \$ 0               | \$ 0               |
| Proprietary Capital .....                  | 1,038,013          | 796,592            |
| Long Term Debt .....                       | 0                  | 0                  |
| Current and Accrued Liabilities .....      | 293,205            | 624,749            |
| Deferred Credits .....                     | 0                  | 0                  |
| Reserves .....                             | 0                  | 0                  |
| Contributions in Aid of Construction ..... | 0                  | 0                  |
| Total Liabilities .....                    | <u>\$1,331,218</u> | <u>\$1,421,341</u> |



**SWANTON VILLAGE INCORPORATED**  
**SWANTON, VERMONT**

Appendix B  
Exhibit 1-36

Summary of Operating Results(1)

|                                      | (Unaudited)         |                     |                     |                      |                     |
|--------------------------------------|---------------------|---------------------|---------------------|----------------------|---------------------|
|                                      | 1976                | 1977                | 1978                | 1979                 | 1980                |
| Customers .....                      | 2,223               | 2,273               | 2,313               | 2,340                | 2,385               |
| Requirements                         |                     |                     |                     |                      |                     |
| Peak Demand—kW .....                 | 8,174.              | 7,824.              | 8,874.              | 9,674.               | 10,900.             |
| Energy—kWh(000) .....                | 39,441.             | 41,424.             | 41,988.             | 45,213.              | 55,107.             |
| Total Energy Sales—kWh(000)(2) ..... | 37,001.             | 38,263.             | 38,334.             | 41,419.              | 49,512.             |
| Total Operating Revenues(3) .....    | <u>\$1,005,117.</u> | <u>\$1,113,540.</u> | <u>\$1,180,549.</u> | <u>\$1,364,098.</u>  | <u>\$1,759,348.</u> |
| Operating Expenses                   |                     |                     |                     |                      |                     |
| Production Electric                  |                     |                     |                     |                      |                     |
| Department(4) .....                  | 131,347.            | 57,542.             | 118,982.            | 239,597.             | 100,292.            |
| Purchased Power(8) .....             | <u>637,431.</u>     | <u>772,838.</u>     | <u>785,119.</u>     | <u>927,776.</u>      | <u>1,260,823.</u>   |
| Total Power Supply                   |                     |                     |                     |                      |                     |
| Expense .....                        | 768,778.            | 830,380.            | 904,101.            | 1,167,373.           | 1,361,115.          |
| All Other Operating                  |                     |                     |                     |                      |                     |
| Expenses(9) .....                    | <u>199,950.</u>     | <u>270,508.</u>     | <u>267,890.</u>     | <u>331,423.</u>      | <u>344,336.</u>     |
| Total Operating                      |                     |                     |                     |                      |                     |
| Expenses .....                       | <u>968,728.</u>     | <u>1,100,888.</u>   | <u>1,171,991.</u>   | <u>1,498,796.</u>    | <u>1,705,451.</u>   |
| Net Operating Revenues (Loss) ..     | 36,389.             | 12,652.             | 8,558.              | (134,698.)           | 53,897.             |
| Other Income (Deductions)(10) ..     | <u>(8,948.)</u>     | <u>(25,477.)</u>    | <u>(20,961.)</u>    | <u>(58,012.)</u>     | <u>(79,407.)</u>    |
| Revenues Available for Debt          |                     |                     |                     |                      |                     |
| Service and Other Purposes ...       | <u>27,441.</u>      | <u>(12,825.)</u>    | <u>(12,403.)</u>    | <u>(192,710.)</u>    | <u>(25,510.)</u>    |
| Debt Service                         |                     |                     |                     |                      |                     |
| Revenue Bonds .....                  | 0.                  | 0.                  | 0.                  | 0.                   | 0.                  |
| General Obligation Bonds(13)         | <u>36,538.</u>      | <u>25,718.</u>      | <u>25,005.</u>      | <u>24,292.</u>       | <u>23,580.</u>      |
| Total Debt Service ...               | <u>36,538.</u>      | <u>25,718.</u>      | <u>25,005.</u>      | <u>24,292.</u>       | <u>23,580.</u>      |
| Balance Available for Other          |                     |                     |                     |                      |                     |
| Lawful Purposes(14) .....            | <u>\$ (9,097.)</u>  | <u>\$ (38,543.)</u> | <u>\$ (37,408.)</u> | <u>\$ (217,002.)</u> | <u>\$ (49,090.)</u> |

**CONDENSED BALANCE SHEET(1)**  
**(Unaudited)**

|  | 1979               | 1980               |
|--|--------------------|--------------------|
| ASSETS:                                    |                    |                    |
| Net Utility Plant .....                    | \$1,258,013        | \$1,326,560        |
| Other Property and Investments .....       | 236,726            | 453,006            |
| Current and Accrued Assets .....           | 190,389            | 278,435            |
| Deferred Debits .....                      | 0                  | 0                  |
| Total Assets .....                         | <u>\$1,685,128</u> | <u>\$2,058,001</u> |
| LIABILITIES:                               |                    |                    |
| Appropriations for Construction .....      | \$ 0               | \$ 0               |
| Proprietary Capital .....                  | 336,212            | 226,458            |
| Long Term Debt .....                       | 180,000            | 165,000            |
| Current and Accrued Liabilities .....      | 1,168,916          | 1,666,533          |
| Deferred Credits .....                     | 0                  | 0                  |
| Reserves .....                             | 0                  | 0                  |
| Contributions in Aid of Construction ..... | 0                  | 0                  |
| Total Liabilities .....                    | <u>\$1,685,128</u> | <u>\$2,058,001</u> |

## VERMONT ELECTRIC COOPERATIVE, INC.

## JOHNSON, VERMONT

Appendix B  
Exhibit 1-37

## Summary of Operating Results(1)

|                                      | (Unaudited)         |                     |                     |                     |                      |
|--------------------------------------|---------------------|---------------------|---------------------|---------------------|----------------------|
|                                      | 1976                | 1977                | 1978                | 1979                | 1980                 |
| Customers(29) .....                  | 8,406               | 8,316               | 8,755               | 9,121               | 9,429                |
| Requirements                         |                     |                     |                     |                     |                      |
| Peak Demand—kW .....                 | 25,751.             | 26,542.             | 25,680.             | 28,297.             | 26,041.              |
| Energy—kWh(000) .....                | 94,657.             | 95,010.             | 99,560.             | 100,325.            | 103,093.             |
| Total Energy Sales—kWh(000)(2) ..... | 88,675.             | 85,999.             | 91,269.             | 90,688.             | 93,656.              |
| Total Operating Revenues(3) ....     | <u>\$4,631,083.</u> | <u>\$4,484,657.</u> | <u>\$4,882,963.</u> | <u>\$5,036,517.</u> | <u>\$5,508,867.</u>  |
| Operating Expenses                   |                     |                     |                     |                     |                      |
| Production Electric                  |                     |                     |                     |                     |                      |
| Department(4) .....                  | 0.                  | 0.                  | 0.                  | 0.                  | 0.                   |
| Purchased Power(8) .....             | <u>1,868,598.</u>   | <u>1,859,202.</u>   | <u>2,145,935.</u>   | <u>2,264,648.</u>   | <u>2,768,480.</u>    |
| Total Power Supply                   |                     |                     |                     |                     |                      |
| Expense .....                        | <u>1,868,598.</u>   | <u>1,859,202.</u>   | <u>2,145,935.</u>   | <u>2,264,648.</u>   | <u>2,768,480.</u>    |
| All Other Operating                  |                     |                     |                     |                     |                      |
| Expenses(9) .....                    | <u>1,633,283.</u>   | <u>1,769,646.</u>   | <u>1,905,413.</u>   | <u>2,005,303.</u>   | <u>2,157,522.</u>    |
| Total Operating                      |                     |                     |                     |                     |                      |
| Expenses .....                       | <u>3,501,881.</u>   | <u>3,628,848.</u>   | <u>4,051,348.</u>   | <u>4,269,951.</u>   | <u>4,926,002.</u>    |
| Net Operating Revenues .....         | <u>1,129,207</u>    | <u>855,809.</u>     | <u>831,615.</u>     | <u>766,566.</u>     | <u>582,865.</u>      |
| Other Income Deductions(10) ....     | <u>79,493.</u>      | <u>142,079.</u>     | <u>193,510.</u>     | <u>268,834.</u>     | <u>343,916.</u>      |
| Revenues Available for Debt          |                     |                     |                     |                     |                      |
| Service and Other Purposes ...       | <u>1,208,700.</u>   | <u>997,888.</u>     | <u>1,025,125.</u>   | <u>1,035,400.</u>   | <u>926,781.</u>      |
| Debt Service .....                   | <u>488,477.</u>     | <u>654,124.</u>     | <u>740,590.</u>     | <u>847,169.</u>     | <u>1,039,342.</u>    |
| Balance Available for Other          |                     |                     |                     |                     |                      |
| Lawful Purposes(14) .....            | <u>\$ 720,223.</u>  | <u>\$ 343,764.</u>  | <u>\$ 284,535.</u>  | <u>\$ 188,231.</u>  | <u>\$ (112,561.)</u> |

## CONDENSED BALANCE SHEET(1)

(Unaudited)

|  | 1979                | 1980                |
|--|---------------------|---------------------|
| ASSETS:                                    |                     |                     |
| Net Utility Plant .....                    | \$17,243,245        | \$20,862,305        |
| Other Property and Investments .....       | 991,102             | 1,049,077           |
| Current and Accrued Assets .....           | 1,184,426           | 1,435,985           |
| Deferred Debits .....                      | 345,300             | 886,474             |
| Total Assets .....                         | <u>\$19,764,073</u> | <u>\$24,233,841</u> |
| LIABILITIES:                               |                     |                     |
| Appropriations for Construction .....      | \$ 0                | \$ 0                |
| Proprietary Capital .....                  | 2,820,479           | 2,781,404           |
| Long Term Debt .....                       | 15,635,172          | 18,446,813          |
| Current and Accrued Liabilities .....      | 1,261,119           | 2,965,189           |
| Deferred Credits .....                     | 28,050              | 20,133              |
| Reserves .....                             | 19,253              | 20,302              |
| Contributions in Aid of Construction ..... | 0                   | 0                   |
| Total Liabilities .....                    | <u>\$19,764,073</u> | <u>\$24,233,841</u> |

**WASHINGTON ELECTRIC COOPERATIVE, INC.**  
**EAST MONTPELIER, VERMONT**

Appendix B  
Exhibit 1-38

Summary of Operating Results(1)

|                                      | (Unaudited)         |                     |                     |                     |                     |
|--------------------------------------|---------------------|---------------------|---------------------|---------------------|---------------------|
|                                      | 1976                | 1977                | 1978                | 1979                | 1980                |
| Customers(30) .....                  | 5,242               | 5,410               | 5,551               | 5,725               | 5,893               |
| Requirements                         |                     |                     |                     |                     |                     |
| Peak Demand—kW .....                 | 11,578.             | 10,611.             | 10,470.             | 12,264.             | 12,600.             |
| Energy—kWh(000) .....                | 50,253.             | 49,697.             | 54,434.             | 56,483.             | 61,127.             |
| Total Energy Sales—kWh(000)(2) ..... | 44,369.             | 44,814.             | 48,637.             | 50,075.             | 55,329.             |
| Total Operating Revenues(3) .....    | <u>\$2,217,489.</u> | <u>\$2,099,595.</u> | <u>\$2,294,310.</u> | <u>\$2,774,556.</u> | <u>\$3,215,475.</u> |
| Operating Expenses                   |                     |                     |                     |                     |                     |
| Production Electric                  |                     |                     |                     |                     |                     |
| Department(4) .....                  | 0.                  | 0.                  | 0.                  | 0.                  | 0.                  |
| Purchased Power(3) .....             | <u>986,253.</u>     | <u>1,006,595.</u>   | <u>1,211,609.</u>   | <u>1,338,545.</u>   | <u>1,830,751.</u>   |
| Total Power Supply                   |                     |                     |                     |                     |                     |
| Expense .....                        | 986,253.            | 1,006,595.          | 1,211,609.          | 1,338,545.          | 1,830,751.          |
| All Other Operating                  |                     |                     |                     |                     |                     |
| Expenses(9) .....                    | <u>682,530.</u>     | <u>778,484.</u>     | <u>735,596.</u>     | <u>829,715.</u>     | <u>897,705.</u>     |
| Total Operating                      |                     |                     |                     |                     |                     |
| Expenses .....                       | <u>1,668,783.</u>   | <u>1,785,079.</u>   | <u>1,947,205.</u>   | <u>2,168,260.</u>   | <u>2,728,456.</u>   |
| Net Operating Revenues .....         | 548,706.            | 314,516.            | 347,105.            | 606,296.            | 487,019.            |
| Other Income (Deductions)(10) ..     | <u>23,646.</u>      | <u>8,574.</u>       | <u>16,354.</u>      | <u>(39,207.)</u>    | <u>10,523.</u>      |
| Revenues Available for Debt          |                     |                     |                     |                     |                     |
| Service and Other Purposes ..        | <u>572,352.</u>     | <u>323,090.</u>     | <u>363,459.</u>     | <u>567,089.</u>     | <u>497,542.</u>     |
| Debt Service .....                   | <u>394,828.</u>     | <u>417,113.</u>     | <u>451,342.</u>     | <u>426,486.</u>     | <u>310,543.</u>     |
| Balance Available for Other          |                     |                     |                     |                     |                     |
| Lawful Purposes .....                | <u>\$ 177,524.</u>  | <u>\$ (94,023.)</u> | <u>\$ (87,883.)</u> | <u>\$ 140,603.</u>  | <u>\$ 186,999.</u>  |

**CONDENSED BALANCE SHEET(1)**  
**(Unaudited)**

|  | 1979               | 1980               |
|--|--------------------|--------------------|
| ASSETS:                                    |                    |                    |
| Net Utility Plant .....                    | \$7,599,508        | \$7,983,681        |
| Other Property and Investments .....       | 584,717            | 612,587            |
| Current and Accrued Assets .....           | 762,012            | 821,351            |
| Deferred Debits .....                      | 101,419            | 91,272             |
| Total Assets .....                         | <u>\$9,047,656</u> | <u>\$9,508,891</u> |
| LIABILITIES:                               |                    |                    |
| Appropriations for Construction .....      | \$ 0               | \$ 0               |
| Proprietary Capital .....                  | 125,606            | 92,358             |
| Long Term Debt .....                       | 7,370,552          | 7,770,428          |
| Current and Accrued Liabilities .....      | 772,264            | 759,678            |
| Deferred Credits .....                     | 54,155             | 64,484             |
| Reserves .....                             | 0                  | 0                  |
| Contributions in Aid of Construction ..... | 725,079            | 821,943            |
| Total Liabilities .....                    | <u>\$9,047,656</u> | <u>\$9,508,891</u> |

**EASTERN MAINE ELECTRIC COOPERATIVE, INC.**  
**CALAIS, MAINE**

**Appendix B**  
**Exhibit 1-39**

Summary of Operating Results(1)

(Unaudited)

|                                      | 1976                | 1977                | 1978                | 1979                | 1980                |
|--------------------------------------|---------------------|---------------------|---------------------|---------------------|---------------------|
| Customers(31) .....                  | 7,694               | 8,645               | 8,852               | 9,038               | 9,110               |
| Requirements                         |                     |                     |                     |                     |                     |
| Peak Demands—kW .....                | 20,477.             | 13,805.             | 15,717.             | 15,325.             | 15,605.             |
| Energy—kWh(000) .....                | 81,724.             | 77,142.             | 79,825.             | 78,732.             | 86,034.             |
| Total Energy Sales—kWh(000)(2) ..... | 73,911.             | 68,012.             | 71,130.             | 69,991.             | 76,637.             |
| Total Operating Revenues(3) .....    | <u>\$2,828,932.</u> | <u>\$3,359,091.</u> | <u>\$3,638,299.</u> | <u>\$3,897,809.</u> | <u>\$4,555,679.</u> |
| Operating Expenses                   |                     |                     |                     |                     |                     |
| Production Electric                  |                     |                     |                     |                     |                     |
| Department(4) .....                  | 13,782.             | 12,564.             | 13,725.             | 17,170.             | 19,512.             |
| Purchased Power(8) .....             | <u>1,663,015.</u>   | <u>2,047,373.</u>   | <u>2,281,907.</u>   | <u>2,462,191.</u>   | <u>2,967,025.</u>   |
| Total Power Supply                   |                     |                     |                     |                     |                     |
| Expense .....                        | 1,676,797.          | 2,059,937.          | 2,295,632.          | 2,479,361.          | 2,986,537.          |
| All Other Operating                  |                     |                     |                     |                     |                     |
| Expenses(9) .....                    | <u>662,341.</u>     | <u>773,750.</u>     | <u>761,275.</u>     | <u>885,962.</u>     | <u>1,046,868.</u>   |
| Total Operating                      |                     |                     |                     |                     |                     |
| Expenses .....                       | <u>2,339,138.</u>   | <u>2,833,687.</u>   | <u>3,056,907.</u>   | <u>3,365,323.</u>   | <u>4,033,405.</u>   |
| Net Operating Revenues .....         | 489,794.            | 525,404.            | 581,392.            | 532,486.            | 522,274.            |
| Other Income (Deductions)(10) ..     | <u>18,542.</u>      | <u>6,424.</u>       | <u>(48,123.)</u>    | <u>(57,092.)</u>    | <u>(24,095.)</u>    |
| Revenues Available for Debt          |                     |                     |                     |                     |                     |
| Service and Other Purposes ...       | <u>508,336.</u>     | <u>531,828.</u>     | <u>533,269.</u>     | <u>475,394.</u>     | <u>498,179.</u>     |
| Debt Service .....                   | <u>302,490.</u>     | <u>321,993.</u>     | <u>263,323.</u>     | <u>408,016.</u>     | <u>447,793.</u>     |
| Balance Available for Other          |                     |                     |                     |                     |                     |
| Lawful Purposes(14) .....            | <u>\$ 205,846.</u>  | <u>\$ 209,835.</u>  | <u>\$ 269,946.</u>  | <u>\$ 67,378.</u>   | <u>\$ 50,386.</u>   |

**CONDENSED BALANCE SHEET(1)**

(Unaudited)

|  | 1979               | 1980                |
|--|--------------------|---------------------|
| ASSETS:                                    |                    |                     |
| Net Utility Plant .....                    | \$8,196,348        | \$ 9,016,522        |
| Other Property and Investments .....       | 252,301            | 287,042             |
| Current and Accrued Assets .....           | 1,318,469          | 1,433,514           |
| Deferred Debits .....                      | 36,212             | 203,005             |
| Total Assets .....                         | <u>\$9,803,330</u> | <u>\$10,940,083</u> |
| LIABILITIES:                               |                    |                     |
| Appropriations for Construction .....      | \$ 0               | \$ 0                |
| Proprietary Capital .....                  | 240,365            | 128,981             |
| Long Term Debt .....                       | 9,134,282          | 9,857,514           |
| Current and Accrued Liabilities .....      | 416,576            | 913,480             |
| Deferred Credits .....                     | 12,107             | 40,108              |
| Reserves .....                             | 0                  | 0                   |
| Contributions in Aid of Construction ..... | 0                  | 0                   |
| Total Liabilities .....                    | <u>\$9,803,330</u> | <u>\$10,940,083</u> |

**PASCOAG FIRE DISTRICT -ELECTRIC DEPARTMENT**  
**PASCOAG, RHODE ISLAND**

Appendix B  
Exhibit 1-40

Summary of Operating Results(1)

|                                      | Years Ending October 31, (Unaudited) |                   |                     |                     |                     |
|--------------------------------------|--------------------------------------|-------------------|---------------------|---------------------|---------------------|
|                                      | 1976                                 | 1977              | 1978                | 1979                | 1980                |
| Customers(32) .....                  | 2,835                                | 2,751             | 2,807               | 2,843               | 2,85                |
| Requirements                         |                                      |                   |                     |                     |                     |
| Peak Demand—kW .....                 | 3,850.                               | 4,130.            | 4,240.              | 4,410.              | 4,780.              |
| Energy—kWh(000) .....                | 18,851.                              | 20,038.           | 20,874.             | 21,730.             | 22,962.             |
| Total Energy Sales—kWh(000)(2) ..... | 6,866.                               | 17,863.           | 18,738.             | 19,605.             | 19,778.             |
| Total Operating Revenues(3) .....    | <u>\$ 16,780.</u>                    | <u>\$951,112.</u> | <u>\$1,008,402.</u> | <u>\$1,076,156.</u> | <u>\$1,454,706.</u> |
| Operating Expenses                   |                                      |                   |                     |                     |                     |
| Production Electric                  |                                      |                   |                     |                     |                     |
| Department(4) .....                  | 0.                                   | 0.                | 0.                  | 0.                  | 0.                  |
| Purchased Power(8) .....             | <u>573,749.</u>                      | <u>625,896.</u>   | <u>640,749.</u>     | <u>684,953.</u>     | <u>921,494.</u>     |
| Total Power Supply                   |                                      |                   |                     |                     |                     |
| Expense .....                        | <u>573,749.</u>                      | <u>625,896.</u>   | <u>640,749.</u>     | <u>684,953.</u>     | <u>921,494.</u>     |
| All Other Operating                  |                                      |                   |                     |                     |                     |
| Expenses(9) .....                    | <u>207,237.</u>                      | <u>210,180.</u>   | <u>230,280.</u>     | <u>262,822.</u>     | <u>267,893.</u>     |
| Total Operating                      |                                      |                   |                     |                     |                     |
| Expenses .....                       | <u>780,986.</u>                      | <u>836,076.</u>   | <u>871,029.</u>     | <u>947,775.</u>     | <u>1,189,387.</u>   |
| Net Operating Revenues .....         | 135,794.                             | 115,036.          | 137,373.            | 128,381.            | 265,319.            |
| Other Income (Deductions)(10) ..     | <u>2,432.</u>                        | <u>6,242.</u>     | <u>28.</u>          | <u>10,787.</u>      | <u>(17,609.)</u>    |
| Revenues Available for Debt          |                                      |                   |                     |                     |                     |
| Service and Other Purposes .....     | <u>138,226.</u>                      | <u>121,278.</u>   | <u>137,401.</u>     | <u>139,168.</u>     | <u>247,710.</u>     |
| Debt Service                         |                                      |                   |                     |                     |                     |
| Notes Payable .....                  | <u>27,753.</u>                       | <u>25,333.</u>    | <u>14,681.</u>      | <u>13,825.</u>      | <u>13,209.</u>      |
| Total Debt Service .....             | <u>27,753.</u>                       | <u>25,333.</u>    | <u>14,681.</u>      | <u>13,825.</u>      | <u>13,209.</u>      |
| Balance Available for Other          |                                      |                   |                     |                     |                     |
| Lawful Purposes(14) .....            | <u>\$110,473.</u>                    | <u>\$ 95,945.</u> | <u>\$ 122,720.</u>  | <u>\$ 125,343.</u>  | <u>\$ 234,501.</u>  |

**CONDENSED BALANCE SHEET(1)**  
(Unaudited)

|  | October 31,      |                    |
|--|------------------|--------------------|
|  | 1979             | 1980               |
| ASSETS:                                    |                  |                    |
| Net Utility Plant .....                    | \$713,488        | \$ 735,692         |
| Other Property and Investments .....       | 51,144           | 70,449             |
| Current and Accrued Assets .....           | 208,093          | 344,247            |
| Deferred Debits .....                      | 2,457            | 16,272             |
| Total Assets .....                         | <u>\$975,182</u> | <u>\$1,166,660</u> |
| LIABILITIES:                               |                  |                    |
| Appropriations for Construction .....      | \$ 0             | \$ 0               |
| Proprietary Capital .....                  | 777,099          | 949,228            |
| Long Term Debt .....                       | 54,167           | 40,000             |
| Current and Accrued Liabilities .....      | 97,387           | 128,758            |
| Deferred Credits .....                     | 0                | 0                  |
| Reserves .....                             | 0                | 0                  |
| Contributions in Aid of Construction ..... | 46,529           | 48,674             |
| Total Liabilities .....                    | <u>\$975,182</u> | <u>\$1,166,660</u> |



**FOOTNOTES FOR SUMMARIES OF OPERATING RESULTS AND BALANCE SHEETS**

**General Footnotes Applicable to All Participants**

- (1) All historical information is based on information supplied by the Participants, annual reports filed with the Massachusetts Department of Public Utilities (DPU) by the Member Participants and with the Vermont Public Service Board (PSB), the Maine Public Utilities Commission (MPUC), the Rhode Island Public Utilities Commission (RIPUC) and the Federal Energy Regulatory Commission (FERC) by the Non-member Participants and audited financial reports where available. The Summary of Operating Results and Condensed Balance Sheet are as of December 31 or as otherwise indicated.
- (2) The sum of retail and wholesale electric sales.
- (3) The sum of revenues is derived from retail and wholesale electric sales. Revenues from the sales of surplus capacity are reflected as an offset to the applicable operating expense. The sum of revenues also consists of forfeited discounts, miscellaneous service revenues, rent from electric properties, interdepartmental rents and other electric revenues.
- (4) Represents the Participant's power production expenses associated with its own generation.
- (5) Represents Participant's share of New Haven Harbor No. 1 production expenses, including all fixed costs, variable costs and fuel costs.
- (6) Participant's share of debt service, operation and maintenance expense, fuel cost and all other costs incurred in connection with the MMWEC Wyman Project. For the Participant's share of Project Capability refer to Exhibit IV in the Official Statement.
- (7) Represents cost of power purchased through various contracts negotiated by or with MMWEC.
- (8) Consists of the cost of purchased power required in addition to that available from MMWEC under Power Sales Agreements.
- (9) Consists of transmission, distribution, customer accounts, sales and administrative and general expenses of each Participant.
- (10) Consists of investment income plus income from merchandising, jobbing and contract work plus miscellaneous non-operating income less other income deductions. In the case of Holyoke, Littleton and North Attleborough, the amount also includes investment income in the reserve and contingency fund and bond reserve fund associated with joint ownership of New Haven Harbor No. 1.
- (11) Other income includes portions of power cost refunds received in 1980. The remainder of these power cost refunds were recorded as a reduction of power cost expense in the current year. All material amounts of refunds received in prior years were recorded as reductions of power cost expense and were not included in amounts reported as other income. The change in reporting method had no material effect on the balance available for other lawful purposes, and the operating results for the years 1976 through 1979 have not been restated. The amounts of power cost refunds were in most cases greater in 1980, contributing to increases in the balance available for other lawful purposes in that year. In the case of Mansfield, other deductions in 1980 include pension cost adjustments.
- (12) Consists of principal and interest payments on Chapter 164A bonds. The amount of these Bonds outstanding on December 31, 1980 was \$1,885,000 for Holyoke, \$453,333 for Littleton and \$906,667 for North Attleborough. In addition, Holyoke is seeking legislative authority for the issuance of revenue bonds to finance the costs of a transmission project.
- (13) Consists of debt service on general obligation bonds issued by the municipality for electric purposes and paid by the Participant.
- (14) Includes, among other things, amounts for depreciation and voluntary payments to communities.

## FOOTNOTES FOR SPECIFIC PARTICIPANTS

### **Braintree**

- (15) General obligation bonds were issued in the amounts of \$17,000,000 in 1975 and \$5,000,000 in 1976 for the construction of a 96 MW oil-fired combined cycle generating unit including associated 115-kV transmission and substation facilities. Under an agreement with BECO, Braintree sells a proportion of the capacity to BECO, beginning with 53% in 1976 and ending with 18% in 1984, and BECO pays its share of the unit's costs.
- (16) Increased utilization of the Braintree unit resulted in higher production expenses in 1980.

### **Holyoke**

- (17) Includes gross revenues and production expenses for steam sales and production.

### **Hudson**

- (18) Hudson's service area includes customers in the Massachusetts town of Stow and a small number of customers in the Massachusetts towns of Berlin, Bolton, Boxborough, Harvard and Marlborough.

### **Ipswich**

- (19) The demand and energy requirements include the total power requirements of the Rowley Municipal Light Plant of Rowley, Massachusetts which buys power at wholesale from Ipswich. Rowley has recently taken certain actions to accept the Act and Chapter 164A which could affect its future status as a customer.

### **Littleton**

- (20) Littleton's service area includes customers in the town of Boxborough, Massachusetts.

### **Middleborough**

- (21) Middleborough's service area includes customers in the town of Lakeville, Massachusetts.

### **Peabody**

- (22) Peabody's service area includes customers in the town of Lynnfield, Massachusetts.

### **Reading**

- (23) Reading's service area includes customers in the towns of Lynnfield, North Reading and Wilmington, Massachusetts.

### **West Boylston**

- (24) Excludes certain Operating Results for Boylston which are included in West Boylston's DPU report since Boylston receives its power through a jointly owned substation located in West Boylston.

### **Westfield**

- (25) Debt service and long-term debt outstanding have been restated for 1979 and 1980 to allocate these between the gas and electric departments and reflect the Westfield Gas and Electric Light Department's current reporting policy.

### **Green Mountain Power**

- (26) Green Mountain Power is an investor owned utility serving about 60,000 retail customers in north-central Vermont and four smaller areas located in the southern and southeastern portion of the state.

### **Hardwick, Vermont**

- (27) Hardwick's service area includes customers in East Hardwick, Greensboro, Craftsbury, Woodbury, East Calais, Elmore, Hyde Park, Stunard and Walden, Vermont.

**FOOTNOTES FOR SPECIFIC PARTICIPANTS (Continued)**

**Ludlow, Vermont**

- (28) Ludlow's service area includes customers in the towns of Proctorville and Plymouth, Vermont.

**Vermont Electric Cooperative**

- (29) The Cooperative's service area includes customers in 28 communities located in northeastern Vermont.

**Washington Electric Cooperative**

- (30) The Cooperatives' service area includes customers in 41 communities located in central and northern Vermont.

**Eastern Maine Electric Cooperative**

- (31) The Cooperative's service area includes customers in 80 communities located in eastern Maine.

**Pascoag, Rhode Island**

- (32) Pascoag's service area includes customers in the town of Harrisville, Rhode Island.

Form of Opinion  
of  
Wood & Dawson

June , 1981

Board of Directors  
Massachusetts Municipal Wholesale  
Electric Company  
Ludlow, Massachusetts

Dear Sirs:

**MASSACHUSETTS MUNICIPAL WHOLESALE ELECTRIC COMPANY,  
POWER SUPPLY SYSTEM REVENUE BONDS, 1981 SERIES A, \$100,000,000**

At your request we have examined into the validity of \$100,000,000 Power Supply System Revenue Bonds, 1981 Series A (the "Bonds"), of the Massachusetts Municipal Wholesale Electric Company ("MMWEC"). The Bonds are issuable in coupon form, registrable as to principal only, in the denomination of \$5,000 each, and in fully registered form, without coupons, in the denomination of \$5,000 or any multiple thereof. The coupon Bonds are numbered from 1 upwards and the fully registered Bonds are numbered from R-1 upwards. The coupon Bonds are dated June 1, 1981, and the fully registered Bonds, except fully registered Bonds initially issued, which shall be dated June 1, 1981, shall be dated so that no gain or loss of interest shall result from exchanges or transfers thereof as provided therein and in the resolutions hereinafter mentioned. The Bonds mature on July 1 in each of the years and in the principal amounts, and bear interest payable January 1, 1982 and semi-annually thereafter on July 1 and January 1 at the rates per annum, as follows:

| <u>Year</u> | <u>Amount</u> | <u>Interest<br/>Rate</u> | <u>Year</u> | <u>Amount</u> | <u>Interest<br/>Rate</u> |
|-------------|---------------|--------------------------|-------------|---------------|--------------------------|
| 1989 .....  | \$ 495,000    | 10.00%                   | 1997 .....  | \$ 1,110,000  | 11.70%                   |
| 1990 .....  | 540,000       | 10.25                    | 1998 .....  | 1,240,000     | 11.80                    |
| 1991 .....  | 600,000       | 10.50                    | 1999 .....  | 1,385,000     | 11.90                    |
| 1992 .....  | 660,000       | 10.75                    | 2000 .....  | 1,550,000     | 12.00                    |
| 1993 .....  | 725,000       | 11.00                    | 2001 .....  | 1,740,000     | 12.00                    |
| 1994 .....  | 805,000       | 11.25                    | 2006 .....  | 12,495,000    | 12½                      |
| 1995 .....  | 895,000       | 11.50                    | 2017 .....  | 74,765,000    | 12¼                      |
| 1996 .....  | 995,000       | 11.60                    |             |               |                          |

The Bonds are subject to redemption prior to maturity upon the terms and conditions set forth therein, and recite that they are issued under the authority of and in full compliance with the Constitution and statutes of the Commonwealth of Massachusetts, including, particularly, Massachusetts Statutes, 1975, Chapter 775, and under and pursuant to a resolution duly adopted by the Board of Directors of MMWEC on August 26, 1976, and a supplemental resolution duly adopted by said Board on May 28, 1981 (collectively, the "Resolution"), and that the Bonds are part of an issue of bonds issued, or to be issued, for the purpose of paying all or part of the costs of electric power facilities or interests therein or the power and energy or the capacity and output thereof (the "Projects").

We have examined the Constitution and statutes of the Commonwealth of Massachusetts, certified copies of the proceedings of MMWEC authorizing the issuance of the Bonds, including the Resolution, such other records and documents as we have considered necessary or appropriate for the purposes of this opinion and an executed coupon bond.

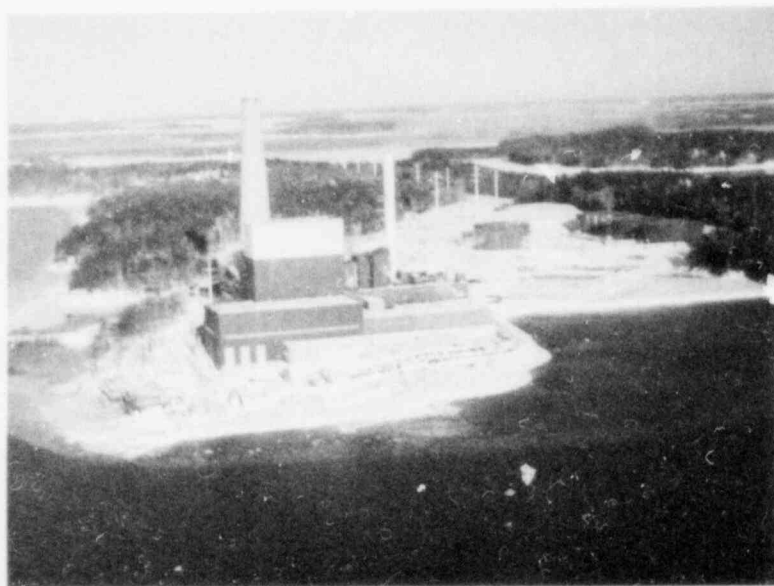
In our opinion the Resolution has been duly adopted and the provisions thereof are valid and binding upon MMWEC, and the Bonds have been duly authorized and issued in accordance with the Constitution and the statutes of the Commonwealth of Massachusetts and constitute valid and legally binding obligations of MMWEC payable solely from and secured by a lien upon and pledge of the Revenues (as defined in the Resolution) derived by MMWEC from the Projects and certain other moneys, all as set forth and provided in the Resolution, on a parity with the bonds heretofore and any bonds which hereafter may be issued under the Resolution.

It is to be understood that the rights of the holders of the Bonds under the same and under the Resolution and the enforceability thereof may be subject to judicial discretion, the valid exercise of the sovereign police powers of the Commonwealth of Massachusetts and of the constitutional powers of the United States of America, and valid bankruptcy, insolvency, reorganization, moratorium and other laws affecting creditors' rights.

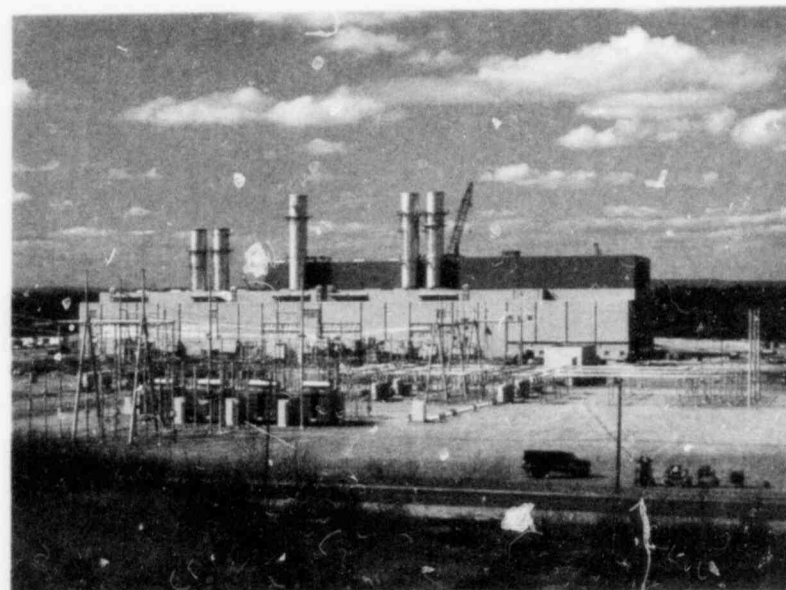
It is also our opinion that, under existing laws and regulations, the interest on the Bonds is exempt from income taxation by the United States of America and the income on the Bonds, including any profit made on the sale thereof, is exempt from Massachusetts personal income taxes.

Very truly yours,

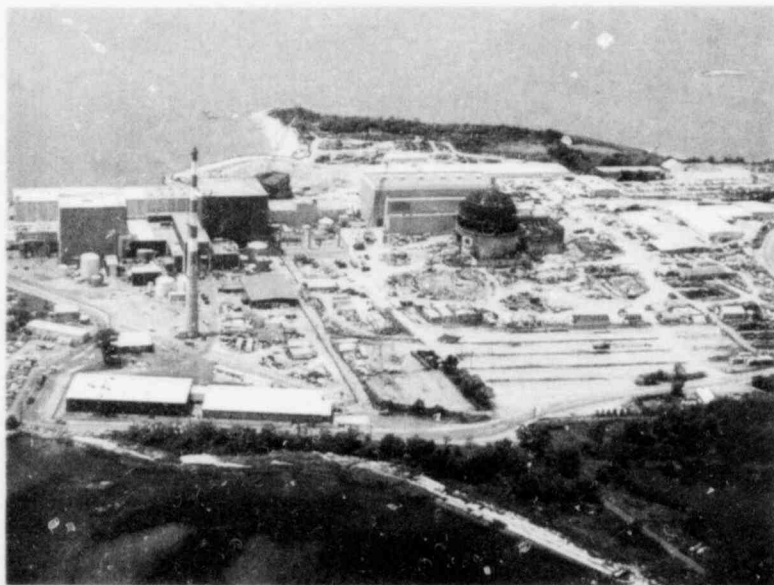




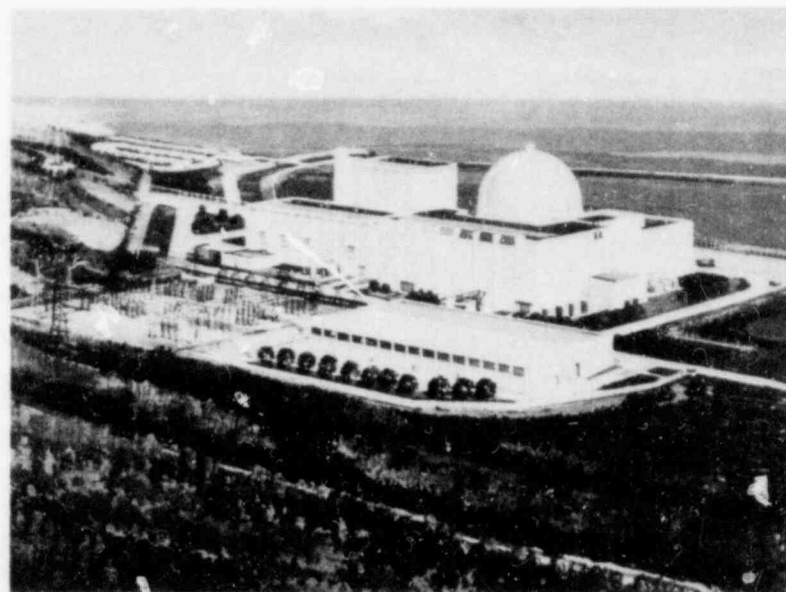
W. F. Wyman Unit No. 4  
In Operation, December 1978.



Stony Brook Intermediate and Peaking Units  
Under Construction, March 1981.



Millstone Point  
Unit 3 (right) Under Construction, March 1981  
Units 1 and 2 (left and center), In Operation.



Artist's Rendering of Pilgrim No. 1  
(left, In Operation, December 1972)  
and Pilgrim No. 2, Construction Permit Requested.



**MMWEC**

STONY BROOK ENERGY CENTER • POST OFFICE BOX 426 • LUDLOW, MASSACHUSETTS, 01056 • 413-589-0141

MONTAUP ELECTRIC COMPANY

Units No.1 and No. 2

Seabrook Nuclear Power Station

Seabrook, New Hampshire

Information furnished pursuant to § 50.33  
of Commission's Rules and Regulations with  
respect to the particular Applicant named  
above as part of Final Safety Analysis  
Report and Operating License Application  
for the above Units.

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July 1981

I. ORGANIZATION AND CONTROL

(a) Name of Applicant

Montaup Electric Company (Montaup)

(b) Address of Applicant

1606 Riverside Avenue  
Somerset, Massachusetts 02726

(c) Description of Business of Applicant

Montaup is a generation and transmission company, which supplies electricity to its parent (Eastern Edison Company) to Blackstone Valley Electric Company, an affiliated company, and to several municipal and other unaffiliated utilities for resale. Eastern Edison Company and Blackstone Valley Electric Company are wholly-owned subsidiaries of Eastern Utilities Associates (EUA). EUA is a registered holding company under the Public Utility Holding Company Act of 1935.

About 43% of the generating capacity of Montaup (aggregating 936 MWH) comes from units jointly-owned with others in which Montaup's share is 4.5% or less, or from units in which Montaup has long-term power contracts for shares ranging from 2.5% to 72.7% of the units capacity. However, Montaup owns all of the 246 MW Somerset plant and 50% of the 584 MW Canal No. 2 plant, both of which are oil-fired.

Montaup is a member of the New England Power Pool (NEPOOL) which provides for the operation of approximately 98% of existing generating capacity in New England and of related transmission facilities essentially as if they were one system. Because of its participation in NEPOOL, Montaup's operating revenues and costs are affected to some extent by the operation of other members.

(d) Corporate Organization

Montaup, a wholly-owned subsidiary of Eastern Edison Company, is a corporation organized under the laws of the Commonwealth of Massachusetts.

(e) Corporate Officers and Directors

The names and residence addresses of Montaup's directors and principal officers are as follows:

| <u>Title</u>                                  | <u>Name</u>            | <u>Business Address</u> |
|---|------------------------|-------------------------|
| President                                     | John F.G. Eichorn, Jr. | (4)                     |
| Executive Vice President                      | Robert E. Maguire      | (4)                     |
| Vice President, General<br>Mgr. & Asst. Clerk | Robert F. Dinnie       | (1)                     |
| Vice President, Asst.<br>Treas. & Asst. Clerk | Donald G. Pardus       | (4)                     |
| Vice President                                | William R. Bisson      | (4)                     |
| Treasurer & Clerk                             | Everett H. Eddleston   | (1)                     |

- (1) Montaup Electric Company, P.O. Box 391, Fall River, MA 02722
- (2) Blackstone Valley Electric Company, P.O. Box 1111, Lincoln, R.I. 02865
- (3) Eastern Edison Company, P.O. Box 471, Brockton, MA 02401
- (4) Eastern Utilities Associates, EUA Service Corporation, P.O. Box 2333, Boston, MA 02107

All of the directors and principal officers of Montaup are citizens of the United States of America. Montaup is not owned, controlled or dominated by an alien, foreign corporation or foreign government.

## II. FINANCIAL QUALIFICATIONS

Under the Joint Ownership Agreement, Montaup is responsible for its Ownership Share of the operation and maintenance cost of the Units which, when the pending transactions described herein have been consummated prior to commercial operation, will be 2.89989% of those costs, and a similar percentage of the ultimate cost of decommissioning the Units.

Based upon the estimates set forth above under Part IV of the General Information, Montaup's share of these costs should amount approximately to \$4,350,000 and \$4,350,000 for the first five years of operations of Units 1 and 2, respectively; and approximately \$1,218,000 to \$2,494,000 for the decommissioning of the two Units. In addition, Montaup's share of fuel expenses during the period would be \$14,876,000.

As evidence of its financial qualifications to meet those costs, Montaup submits herewith:

- (i) 1980 Annual Report to Shareholders of Eastern Utilities Associates.  
(Exhibit A-1).
- (ii) 1980 Annual Report on Form 10-K of Eastern Edison Company.  
(Exhibit A-2).



(iii) 1981 Quarterly Report on Form 10-Q of Eastern Edison Company.

(Exhibit A-3).

(iv) Preliminary Prospectus, dated June 5, 1981, of Eastern Edison relating to \$30,000,000 of First Mortgage and Collateral Trust Bonds.

(Exhibit A-4).

(v) M-6 rate increase, subject to refund, effective 1/19/81.

(Exhibit A-5).

### III. REGULATORY AGENCIES AND PUBLICATIONS

#### (a) Regulatory Agencies

The name and address of the regulatory agency which has jurisdiction over the rates incident to the generation of energy by Montaup is as follows:

Federal Regulatory Commission  
Washington, D.C. 20426

#### (b) Publications

The activities of Montaup from time to time are subject to the jurisdiction of various state and Federal regulatory agencies. The trade and news publications used for notification of these various activities are designated by the regulatory agency having jurisdiction over the activity currently taking place.

Those publications most frequently designated are as follows:

Fall River Herald News  
Pocasset Street  
Fall River, Massachusetts 02722

Boston Herald American  
300 Harrison Avenue  
Boston, Massachusetts 02106