

ROPES & GRAY  
225 FRANKLIN STREET  
BOSTON 02110

CABLE ADDRESS ROPGRALOR  
TELEX NUMBER 940519

AREA CODE 617 423-6100

September 21, 1979

L. S. Rubenstein, Branch Chief  
Light Water Reactors, Branch #4  
Division of Project Management  
United States Nuclear Regulatory  
Commission  
Washington, D.C. 20555

Re: Public Service Company of New Hampshire,  
Docket Nos. 50-443 and 50-444; Staff  
Request for Additional Financial Informa-  
tion dated July 17, 1979.

Dear Mr. Rubenstein:

I enclose twenty-five copies of the Final Prospectus dated September 20, 1979 of Public Service Company of New Hampshire relating to its Series B General and Re-funding Mortgage Bonds. The offering was increased to \$60,000,000.

Very truly yours,

  
John A. Ritsher

JAR:dls  
Enclosures

cc: Attached List

Boos  
SE 1/25

7909250 539

1018 282

Copies to:

Alan S. Rosenthal, Chairman  
Atomic Safety and Licensing  
Appeal Board  
U.S. Nuclear Regulatory Commission  
Washington, D.C. 20555

Dr. John H. Buck  
Atomic Safety and Licensing  
Appeal Board  
U.S. Nuclear Regulatory Commission  
Washington, D.C. 20555

Michael C. Farrar, Esquire  
Atomic Safety and Licensing  
Appeal Board  
U.S. Nuclear Regulatory Commission  
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Ivan W. Smith, Esquire  
Atomic Safety and Licensing  
Board Panel  
U.S. Nuclear Regulatory Commission  
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Atomic Safety and Licensing  
Board Panel  
U.S. Nuclear Regulatory Commission  
Washington, D.C. 20555

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Office of the Executive Legal  
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U.S. Nuclear Regulatory Commission  
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Assistant Attorney General  
Environmental Protection Division  
Office of the Attorney General  
208 State House Annex  
Concord, New Hampshire 03301

Karin P. Sheldon, Esquire  
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Suite 506  
1725 I Street, N.W.  
Washington, D.C. 20006

Dr. Ernest O. Salo  
Professor of Fisheries Research  
Institute  
College of Fisheries  
University of Washington  
Seattle, Washington 98195

Dr. Kenneth A. McCollum  
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Stillwater, Oklahoma 74074

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O'Neill Backus Spielman  
116 Lowell Street  
Manchester, New Hampshire 03105

Laurie Burt, Esquire  
Assistant Attorney General  
One Ashburton Place  
Boston, Massachusetts 02108

POOR  
ORIGINAL

1018 283

**\$60,000,000**  
**PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE**  
**GENERAL AND REFUNDING MORTGAGE BONDS,**  
**SERIES B 12% DUE 1999**

Interest is payable March 15 and September 15, commencing March 15, 1980. The Series B Bonds are entitled to a mandatory annual sinking fund payment of \$4,500,000, payable in cash or Series B Bonds, beginning in 1989 with a redemption price of 100% of the principal amount plus accrued interest and are also redeemable at the option of the Company at any time, in whole or in part, at the prices set forth herein, except that prior to September 15, 1984, the Series B Bonds are not refundable at the option of the Company at an interest cost less than 12.30% per annum. The Company may make an additional sinking fund payment in any year in an amount not exceeding the mandatory sinking fund payment for that year. The Series B Bonds will be issuable only in fully registered form without coupons and will be transferable without service charge. See "Description of the Bonds".

The Series B Bonds being offered hereby are secured by a mortgage on substantially all of the Company's properties which is subordinate to the lien of a first mortgage on substantially the same properties and by a pledge of certain First Mortgage Bonds. At July 31, 1979 there was outstanding \$196,724,000 aggregate principal amount of First Mortgage Bonds (exclusive of pledged First Mortgage Bonds). See "Description of the Bonds" for information with respect to the participation of holders of the Series B Bonds in the lien of the first mortgage.

Application will be made to list the Series B Bonds on the New York Stock Exchange. Listing will be subject to meeting the requirements of the Exchange, including those relating to distribution.

**THESE SECURITIES HAVE NOT BEEN APPROVED OR DISAPPROVED BY THE  
SECURITIES AND EXCHANGE COMMISSION NOR HAS THE COMMISSION  
PASSED UPON THE ACCURACY OR ADEQUACY OF THIS PROSPECTUS.  
ANY REPRESENTATION TO THE CONTRARY IS A CRIMINAL OFFENSE.**

	Price to Public(1)	Underwriting Discounts and Commissions(2)	Proceeds to Company(1)(3)
Per Bond .....	100.00%	2.20%	97.80%
Total .....	\$60,000,000	\$1,320,000	\$58,680,000

- (1) Plus accrued interest, if any, from the date of original issue.
- (2) The Company has agreed to indemnify the several Underwriters against certain civil liabilities, including liabilities under the Securities Act of 1933.
- (3) Before deduction of expenses payable by the Company estimated at \$144,000.

The Series B Bonds are offered by the several Underwriters when, as and if issued by the Company and accepted by the Underwriters and subject to their right to reject orders in whole or in part. It is expected that the Series B Bonds will be ready for delivery on or about September 27, 1979.

**BLYTH EASTMAN DILLON & Co.**  
INCORPORATED

**KIDDER, PEABODY & Co.**  
INCORPORATED

The date of this Prospectus is September 20, 1979.

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**IN CONNECTION WITH THIS OFFERING, THE UNDERWRITERS MAY OVER-ALLOT OR EFFECT TRANSACTIONS WHICH STABILIZE OR MAINTAIN THE MARKET PRICE OF THE BONDS OFFERED HEREBY AT LEVELS ABOVE THOSE WHICH MIGHT OTHERWISE PREVAIL IN THE OPEN MARKET. SUCH STABILIZING, IF COMMENCED, MAY BE DISCONTINUED AT ANY TIME.**

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### **AVAILABLE INFORMATION**

Public Service Company of New Hampshire (the "Company") is subject to the informational requirements of the Securities Exchange Act of 1934 and in accordance therewith files reports and other information with the Securities and Exchange Commission. Information for the year 1978 and prior years concerning directors and officers of the Company, remuneration and any material interests of such persons in transactions with the Company, is disclosed in proxy statements distributed to shareholders of the Company and filed with the Commission. Such reports, proxy statements and other information can be inspected at the office of the Commission at Room 6101 at 1100 L Street, N.W., Washington, D. C.; Room 1100, Federal Building, 26 Federal Plaza, New York, N.Y.; Suite 1710, Tishman Building, 10960 Wilshire Boulevard, Los Angeles, California; and Room 1228, Everett McKinley Dirksen Building, 219 South Dearborn Street, Chicago, Illinois. Copies of such material may also be obtained at prescribed rates from the Public Reference Section of the Commission at 500 North Capitol Street, N.W., Washington, D. C. 20549. Certain of the Company's securities are listed on the New York Stock Exchange where reports, proxy material and other information concerning the Company may also be inspected.

### **THE COMPANY**

The Company was incorporated in New Hampshire in 1926. The mailing address of the Company is 1000 Elm Street, Post Office Box 330, Manchester, New Hampshire 03105 and the Company's telephone number is (603) 669-4000.

The Company is the largest electric utility in New Hampshire. It operates a single integrated system furnishing electric service in Manchester, Nashua, Portsmouth, Berlin, Dover, Keene, Laconia, Franklin, Rochester, Somersworth and 187 other New Hampshire municipalities, including about 83% of the total population of the State. It also sells electricity to other utilities and distributes and sells electricity in 6 towns in Vermont and 13 towns in Maine. The area served at retail has a population of about 746,000.

The Company is presently experiencing serious difficulties in financing its construction program and has taken steps to reduce that program. See "Problems Facing the Company" for information concerning the proposed reduction in its construction program and a description of the external financing required in order to enable the Company to maintain its construction program and continue its business operations, pending receipt of regulatory approvals for the proposed reduction. Restrictions in the Company's First Mortgage Indenture prevent at this time the issue of any significant amount of First Mortgage Bonds. See "Financing — Mortgage Bonds".



## PROSPECTUS SUMMARY

The following material is qualified in its entirety by the detailed information and the financial statements and notes appearing elsewhere in this Prospectus. See especially "Problems Facing the Company".

## THE OFFERING

Company .....	Public Service Company of New Hampshire
Bonds Offered .....	\$60,000,000 General and Refunding Mortgage Bonds, Series B 12% due 1999
Sinking Fund .....	\$4,500,000 annually, commencing September 15, 1989, to retire 75% of the issue prior to maturity.
Use of Proceeds .....	To retire short-term debt incurred for construction, to defray construction costs and for other corporate purposes.
Expected Closing Date .....	September 27, 1979
Bonds to be listed .....	New York Stock Exchange

## THE COMPANY

Business .....	Electric utility
Energy Sources (12 months ended June 30, 1979) .....	Oil — 49%, Coal — 38%, Nuclear — 7% and Hydro — 6%
Estimated 1979-1985 Construction Expenditures (excluding allowance for funds used during construction) .....	\$598,300,000*

\*Assuming proposed reduction of ownership interests in nuclear plants under construction. See "Problems Facing the Company"

## FINANCIAL INFORMATION

(A) Amounts in thousands except ratios

	Twelve Months Ended July 31, 1979	Year ended December 31,	
		1978	1977
Operating Revenues .....	\$281,135	\$260,751	\$214,787
Operating Income .....	47,780	48,338	29,174
Net Income .....	39,497	36,507	21,722
Ratio of Earnings to Fixed Charges — Actual .....	2.55	2.87	2.38
Pro Forma .....	1.95	—	—

Capitalization and short-term debt as of July 31, 1979, and as adjusted for the proceeds from the sale of the Series B Bonds (see "Capitalization"):

	Actual	As Adjusted	Percent of Adjusted Capitalization
Long-Term Debt	\$288,427	\$347,107	45.4%
Preferred Stock	112,622	112,622	14.8
Common Stock Equity	304,022	304,022	39.8
	<u>\$705,071</u>	<u>\$763,751</u>	<u>100.0%</u>
Short-Term Debt	\$ 72,100	\$ 13,420	

## PROBLEMS FACING THE COMPANY

The Company is presently experiencing serious difficulties in financing its construction program and in maintaining cash flow adequate to fund this program and the costs of current operations. If the Company's construction program is not reduced as described below, such program would have an estimated cost of \$1,107,300,000 over the period 1979-1985. The major portion of this program is the Company's present 50% ownership interest in the 2300 MW nuclear plant at Seabrook, New Hampshire; the estimated cost of this interest and related nuclear fuel over the same period is approximately \$749,900,000 (see "Construction Program" and "Financing").

The Company's financing program had been based upon the inclusion in the Company's rate base of a portion (approximately 50% on average) of the expenditures for construction work in progress ("CWIP") associated with major generating facilities, and in 1978 the Company's request for such inclusion was granted by the New Hampshire Public Utilities Commission ("NHPUC"). On May 7, 1979, a New Hampshire statute prohibiting the inclusion of CWIP in the Company's rate base became law. By order dated August 29, 1979, the NHPUC excluded CWIP from the Company's rate base as of May 7, 1979, but the NHPUC determined that the Company's rates would remain unchanged as temporary rates as of May 7, 1979, subject to retroactive adjustment to that date, and ordered an investigation to establish new rates which would provide a just and reasonable rate of return for the Company. The Company on August 31, 1979 filed with the NHPUC a new retail tariff providing new permanent rates designed to generate revenues approximately \$18,500,000 (about 8.5%) on an annual basis above those currently received. This filing has been suspended by the NHPUC pending full investigation and has been consolidated with the rate investigation initiated by the NHPUC. Procedural hearings initiating that investigation were held on September 7 and September 17, 1979. See "Business — Rates — New Hampshire Retail".

*Reduction of Construction Program.* In view of the cash stringency which would result from the anticipated elimination of CWIP (see Note D to the Statement of Earnings and "Business — Rates — New Hampshire Retail") and the resultant difficulty of financing the 50% interest in Seabrook, the Company decided on March 3, 1979 to reduce its ownership interest in the Seabrook plant to 28% by offering ownership interests aggregating 22% to other utilities. It has also offered to other utilities its ownership interests in the Pilgrim #2 and Millstone #3 projects. The Company is negotiating contracts for the sale of approximately two-thirds of its interest in Millstone #3 subject to the receipt of necessary regulatory approvals, including that of the Nuclear Regulatory Commission; the Company did not receive expressions of interest in Pilgrim #2. The Company plans to continue its efforts to dispose of its remaining interests in these two units. If all of these reductions were completed, they would result in an adjusted estimated 1979-1985 construction program for the Company of \$598,300,000. At the present time, it appears that the proposed reduction of the Company's interest in the Seabrook plant will be less than 22%, and the adjusted 1979-1985 construction program will accordingly increase. Only a relatively small portion of the proposed reduction in the Company's construction program is attributable to the proposed sale of the Company's interests in Pilgrim #2 and Millstone #3 (\$35,000,000 and \$34,100,000, respectively, for the period 1979-1985). See "Construction Program".

By amendment to the Joint Ownership Agreement relating to the Seabrook plant, nine other New England utilities\* have agreed, subject to necessary regulatory and other approvals, to increase

\*Their names and increases in percentages are: Massachusetts Municipal Wholesale Electric Company ("MMWEC") (13.87446%), New Bedford Gas and Edison Light Company ("New Bedford") (2.17390%), Bangor Hydro-Electric Company (1.80142%), Montaup Electric Company ("Montaup") (1.0%), Central Maine Power Company (1.0%), Central Vermont Public Service Corporation (1.0%), Green Mountain Power Corporation (1.0%), Town of Hudson, Massachusetts, Light and Power Department (0.01957%) and Taunton Municipal Lighting Plant Commission (0.13065%).

gradually over an Adjustment Period of about two years their ownership interests in the Seabrook plant by *pro rata* sharing of costs otherwise attributable to the Company's ownership interest until their aggregate investment in Seabrook will be increased by 22%, and the Company's investment reduced to 28%, of the total investment of all participants. The amendment to the Joint Ownership Agreement will become effective, and the Adjustment Period will begin, only after receipt by the utilities involved of all required regulatory and stockholder approvals. The proceedings on the approvals are expected to be completed by March, 1980 but appeals may be filed by intervenors. Until the Adjustment Period begins, the Company must continue to finance its construction program at its present 50% ownership interest in the Seabrook project.

Action is required on the 22% reduction by regulatory agencies in New Hampshire, Massachusetts and Vermont, and by the Nuclear Regulatory Commission ("NRC"). All required New Hampshire approvals have been received by orders of the NHPUC dated July 27, 1979 and August 10, 1979; the NHPUC denied intervenor requests for rehearing, and one intervenor has taken an appeal to the New Hampshire Supreme Court. All necessary filings have been made with the NRC, but its clearance has not yet been received. No regulatory approvals of the acquisition by the two Maine utilities are required under Maine law.

Of the utilities increasing their interests in the Seabrook plant, MMWEC has agreed to take the major portion of such increase. MMWEC's obligation is subject to its obtaining financing for such increase, which financing requires approval by the Massachusetts Department of Public Utilities ("DPU"). Such DPU approval will be sought when MMWEC has obtained power purchase commitments from its constituent city and town electric departments. Those departments are in the process of considering and voting on such commitments and there is opposition in some of the communities. MMWEC officials have informed the Company that of the 29 electric departments whose commitments are being sought, nineteen have responded affirmatively, four have declined, and six have not yet responded. Consequently it appears that the total commitments will be less than the 13.87446% which MMWEC originally agreed to take.

Under Massachusetts law, the increases of the other two Massachusetts utilities, Montaup and New Bedford, must be approved by their respective parent companies, as stockholders, and by the Company's stockholders, who approved the increases at a meeting held on September 6, 1979. Approval by the DPU is also required; petitions have been filed with the DPU and hearings commenced in August. This proceeding has been consolidated with two other proceedings relating to transfers of Seabrook interests by other participants. The Massachusetts Attorney General has intervened in these proceedings in opposition to the several proposals; in the proceedings relating to other transfers, the Attorney General has challenged the other Massachusetts utilities' need for the power from the Seabrook plant, among other things.

On July 19, 1979 the Vermont Public Service Board issued an opinion conditionally approving a 1% acquisition by each of the two Vermont utilities. Central Vermont Public Service Corporation has indicated that it will not at this time proceed with its acquisition in view of the Board's conditions, and, before deciding whether to proceed, Green Mountain Power Corporation is seeking a clarification of the Board's opinion, which indicated that CWIP would not be included in rate base for the purpose of financing the cost of the Vermont utilities' increased interests in the Seabrook plant and the entire risk of the investment should be borne by the utilities' stockholders during the construction period.

Although, based upon the responses received to date from its constituent electric departments, it appears that MMWEC will take less than 13.87446%, and both of the Vermont utilities may decline to proceed, the Company believes that the participants involved will probably agree to start the Adjustment Period, assuming the major portion of the 22% reduction is approved by regulatory bodies and accepted. The Company may seek to sell any balance of the 22% reduction to other utilities.

*Immediate Financing Program.* The Company has a revolving credit agreement with a group of seven commercial banks under which the Company may borrow up to \$115,000,000 through October 12, 1979 subject to periodic review by the banks. The banks have recently agreed to extend the maturity date from October 15, 1979 to July 1, 1980 and availability to June 30, 1980. The Company believes that the availability of such credit to June 30, 1980 will depend principally upon the success of the Company's financing program described below, and the timely receipt of the regulatory approvals required for the commencement of the Adjustment Period. The same group of commercial banks have extended to the Company a \$25,000,000 term credit due January 3, 1980. The Company has additional lines of credit of \$5,350,000 with New Hampshire banks. At September 19, 1979, an aggregate of \$105,100,000 was outstanding under such agreement and lines of credit. On the date of sale of the Series B Bonds offered hereby, the Company's short-term bank borrowings are expected to be approximately \$112,000,000. In order not to utilize fully its existing credits, the Company, with the concurrence of the parties involved, has deferred temporarily payment of approximately \$4,500,000 of liabilities, principally to Seabrook contractors.

The Company estimates that, in order to finance its construction program if the Adjustment Period begins in March, 1980, it must raise approximately \$30,000,000 by long-term financing before March 1, 1980 in addition to the proceeds from the sale of Series B Bonds, assuming the extension of the term credit and the continued availability of such \$120,350,000 of short-term bank credit. If the necessary approvals for the commencement of the Adjustment Period are obtained earlier than March, 1980, the Company's financing requirements would be reduced.

In July, 1979, the Company received advance payments aggregating \$10,600,000 from the other Seabrook participants against their present ownership interests in the project. These advances are to be credited against amounts payable by such participants after December 31, 1979, and are secured by the Company's interest in nuclear fuel for the Seabrook project. The Company is negotiating a nuclear fuel financing of up to \$30,000,000, part of the proceeds of which will be credited against such advance payments.

At the present time, the Company is unable to issue any significant amount of First Mortgage Bonds and the amount of General and Refunding Mortgage Bonds which the Company can issue is also limited to the extent described under "Financing — Mortgage Bonds".

Adverse developments in rate proceedings could reduce the availability of external financing, including the availability of short-term bank credit. See "Business — Rates — New Hampshire Retail".

*Consequence of Failure to Obtain Required Approvals or Financing.* There can be no assurance that the required approvals for the proposed reduction in the Company's interest in the Seabrook project will be obtained or that the Company or other Seabrook participants can obtain financing in the necessary amounts or in a timely manner. Moreover, if substantially less than the 22% reduction is taken up by other utilities, the Company's ability to obtain necessary financing might be adversely affected. Timely approvals and financing are essential to enable the Company to maintain its construction program and continue its business operations.

## INDUSTRY PROBLEMS

The Company has experienced and may in the future experience in varying degrees a number of problems generally common to the electric utility industry. These problems include obtaining adequate and timely rate increases, uncertainties caused by increasing political involvement in utility regulation, financing large construction programs during an inflationary period, obtaining sufficient capital on reasonable terms, compliance with environmental regulations, high costs of fossil fuel, delays in licensing and constructing new facilities, and effects of energy conservation.

Events at the Three Mile Island Nuclear Unit No. 2 in Pennsylvania ("TMI") resulted in damage to the plant and release of radioactivity into the surrounding environment and caused widespread concern about the safety of nuclear generating plants. The Company has interests not only in the Seabrook project but also in six other nuclear generating plants which are either operating or planned or under construction in New England (see "Business — Joint Projects"); its interests in the four such operating plants represent approximately 8% of the Company's present generating capacity. The Company cannot predict what effect the events at TMI which have precipitated increased opposition to nuclear power may ultimately have upon the completion or the cost of completion of the Seabrook project or such other planned nuclear units or upon the continued operation of the existing nuclear generating plants in New England or upon its planned reduction of its interest in the Seabrook project. Neither the Seabrook Units nor any of these six other New England plants utilize a nuclear steam supply system furnished by the vendor which supplied TMI. United Engineers & Constructors Inc., the engineer-constructor for the Seabrook project, was constructor of TMI but was not involved in its design. The TMI incident has prompted a rigorous reexamination of safety related equipment and operating procedures in all nuclear facilities. The plants in which the Company has an interest are being reviewed by their owner-operators, and those plants and all other nuclear facilities are being reexamined by the NRC. The TMI incident has also generated a multiplicity of legislative proposals in Congress and various state legislatures. While the ultimate effect of these reexaminations and proposals cannot be specifically predicted, they could cause delays in construction and costly modifications of both the operating and planned nuclear plants in which the Company has an interest.

## USE OF PROCEEDS

The proceeds to the Company from the sale of the Series B Bonds will be used for the Company's continuing construction program, including the reduction of short-term borrowings incurred in connection therewith. On the date of issue of the Series B Bonds, short-term borrowings are expected to be approximately \$112,000,000.

## CONSTRUCTION PROGRAM

The area served by the Company has experienced relatively rapid population and economic growth in the last several years. According to statistics compiled by the United States Department of Commerce, Bureau of the Census, the average annual rate of population growth in the State of New Hampshire was approximately 2% during the period 1970-78, the second highest rate of growth for any state east of Colorado. Figures released by the New Hampshire Department of Employment Security show



that New Hampshire is experiencing one of the lowest unemployment rates in the nation, and the lowest in New England — 2.8% (not seasonally adjusted) for the month of May, 1979.

As a result, the electric needs of the Company's customers have increased (an average annual increase of 7.5% and 4.4% in the Company's annual peak load during the ten-year and five-year periods, respectively, ending December 31, 1978). While there is some controversy concerning the rate of growth the Company will experience in the future, the Company has projected the needs of its customers to increase at an average annual rate of approximately 6.5% at least through 1987, which would be the highest anticipated increase of any major electric utility in New England based upon estimates furnished to the New England Power Pool. The Company's forecasts indicate that its net purchases of capacity will have increased to 454 MW at the time of scheduled completion in 1983 of the first unit of the Seabrook plant described below, of which a 28% share would be 322 MW. Certain of the utilities whose shares in the Seabrook plant are being increased may sell all or part of their increased Seabrook entitlements to the Company for varying periods. If the Company's load growth projections are correct, the Company would be required to purchase capacity from other electric utilities during most of the 1980's. If the Seabrook plant is not completed on schedule, such purchases will increase, and there can be no assurance that the Company would be able to purchase sufficient power to render adequate service to its customers.

On July 30, 1979, the NHPUC issued its finding that the electrical peak growth rate for New Hampshire is 5.0% and that the NHPUC will use that number pending further review.

The Company proposes to meet the projected needs of its customers primarily through its share of the 2,300 MW Seabrook nuclear plant, with two units each having a capacity of 1,150 MW currently planned for completion in 1983 and 1985, respectively. Unit #1 of the Seabrook plant is the only major base load generating station in New England now scheduled to begin service before 1985. In the view of the Company, both units of the plant are essential to meet not only the Company's needs but the New England load as well. As described under "Problems Facing the Company", the Company and nine other New England utilities have agreed to adjust their ownership interests in the Seabrook project, subject to receipt of the necessary regulatory approvals. Assuming an adjustment of the Company's share to 28%, its share of the total cost of Seabrook upon completion, including the initial nuclear fuel, is estimated at \$560,000,000, excluding any allowance for funds used during construction ("AFUDC") (see Note D to the Statement of Earnings), which allowance is estimated to be \$309,600,000. If the Company's ownership interest should remain at 50%, these estimated amounts would be \$1,000,000,000 and \$429,600,000, respectively. See "Problems Facing the Company" and "Financing" for a discussion of the factors affecting the financing of the Seabrook plant, and see "Business — Seabrook Nuclear Project" for a discussion of administrative proceedings and litigation relating to the Seabrook plant.

The Company's aggregate construction program for the seven-year period 1979 through 1985, which is subject to continuing review and adjustment, is currently estimated to be about \$598,300,000 (excluding AFUDC) if its ownership interest in Seabrook is reduced to 28% as described above and under "Problems Facing the Company" and its ownership interests in Pilgrim #2 and Millstone #3 are sold. Such construction expenditures would total \$1,107,300,000 if such interests remain at their present levels. The following table sets forth the Company's estimated construction expenditures for 1979 (assuming no effect in this year of its reduced construction program) and the unadjusted and adjusted construction programs as described above based on current construction sched-

ules and cost projections (including an inflation factor, which in the case of Seabrook is 8% per annum, and excluding AFUDC):

	Estimated Construction Expenditures		
	(Millions of Dollars)		
	1979	Unadjusted 1979-1985	Adjusted 1979-1985
Generating Facilities			
Company's Share of Seabrook Nuclear Project			
Plant	\$134.5	\$ 673.0	\$271.5
Nuclear Fuel	24.2	76.9	38.5
Total	158.7	749.9	310.0
Participation in Other Plants*			
Nuclear Plants	4.9	68.9	6.1
Nuclear Fuel	0.4	6.9	0.6
Total	5.3	75.8	6.7
Other Generation	2.5	12.2	12.2
Total Generating Facilities	166.5	837.9	328.9
Transmission Facilities	11.0	128.0	128.0
Distribution and General Facilities	18.2	141.4	141.4
Total	<u>\$195.7**</u>	<u>\$1,107.3</u>	<u>\$598.3</u>

\*See "Business — Joint Projects."

\*\*Of this amount, approximately \$104,400,000 had been expended through July 31, 1979.

The following table shows the aggregate amount for each of the years 1979 through 1985 of the Company's estimated construction program before and after adjustment to reflect the maximum reduction of the Company's ownership interest in Seabrook to 28% commencing in March, 1980 and the sale of its interests in Pilgrim #2 and Millstone #3 as of that date:

	Unadjusted Construction Program	Adjusted Construction Program
1979	\$ 195,700,000	\$195,700,000
1980	216,800,000	59,300,000
1981	207,100,000	32,400,000
1982	175,600,000	90,800,000
1983	137,200,000	89,700,000
1984	109,700,000	76,900,000
1985	65,200,000	53,500,000
Total	<u>\$1,107,300,000</u>	<u>\$598,300,000</u>

At the present time, it appears that the proposed reduction of the Company's interest in the Seabrook plant will be less than 22%, and the adjusted 1979-1985 construction program will accordingly increase. Actual construction expenditures could vary from these estimates because of changes in the Company's plans and load forecasts, cost fluctuations, delays and other factors. The Company estimates that the ultimate cost of its share of Seabrook would increase between \$5,770,000 and \$7,900,000 for a 28% ownership interest (and between \$10,300,000 and \$14,100,000 for a 50% ownership interest) for each month's delay in completion. Delays of more than one month may result in a higher per month cost; the increase in cost in each case depends upon the cause and length of the delay. It is also possible that additional expenditures may be required to meet regulatory and

environmental requirements at the Seabrook nuclear plant and at the Company's other generating facilities. See "Industry Problems" and "Business — Environmental Matters."

The complexity of present-day electric utility technology and the time required for the construction of generating facilities and for the completion of the necessary licensing and regulatory proceedings, which have become increasingly extensive, have compelled the Company, as well as other electric utilities, to make substantial investments in the construction of such facilities before the licensing and regulatory proceedings are final. At July 31, 1979, the Company had invested approximately \$388,200,000 (including AFUDC of approximately \$47,400,000 and nuclear fuel of \$24,000,000) in the Seabrook nuclear plant. While it is possible that future developments could lead to cancellation of the project, the Company considers such a possibility unlikely not only because the necessary construction permits and approvals have been received (although certain of them are subject to further court appeal and administrative proceedings, see "Business — Seabrook Nuclear Project") and construction is proceeding but also because of the projected need for the plant's power in the Company's service area and in New England generally. However, if the Seabrook project were cancelled, the Company estimates that at the present time its share of the total costs would be substantially more than its investment; the precise amount would depend upon a number of factors, including the amount of termination charges and salvage and the results of negotiations in connection with contract terminations. The Company would apply to regulatory authorities for approval to amortize its share of total costs over an appropriate future period and to recover such costs through the Company's retail and wholesale rates. While the Company cannot predict whether and to what extent regulatory authorities would permit such recovery, construction of the plant was authorized by the New Hampshire Public Utilities Commission based upon its finding that the plant was required to meet the demand for electric power. See "Business — Seabrook Nuclear Project — NHPUC".

## FINANCING

Financing of the Company's adjusted 1979-1985 construction program estimated at \$598,300,000 (assuming its construction program is reduced as described above), and the refinancing at maturity of certain long-term debt and required sinking fund payments together aggregating \$114,235,000 during this period (see Notes 4 and 7 of Notes to Financial Statements), represents a major undertaking for the Company. The Company estimates that approximately \$174,000,000 will be generated from internal funds during this period (principally after 1982). The balance is expected to be financed from external sources.

During 1978, the Company raised approximately \$83,900,000 from permanent financing, consisting of \$23,900,000 from the sale of 1,300,000 shares of Common Stock in May and \$60,000,000 from the sale of General and Refunding Mortgage Bonds in September. During 1979, the Company has raised approximately \$107,380,000 from permanent financing, consisting of \$39,640,000 from the sale of 2,000,000 shares of Common Stock in January, \$30,000,000 from the sale of 1,200,000 shares of Preferred Stock (\$25 Par Value) in May and \$37,740,000 from the sale of 2,000,000 shares of Common Stock in July. The Company's financing plans for the 1979-1985 period include the issuance of common stock, preferred stock and long-term debt, nuclear fuel financing and intermediate-term debt financing.

The success of the Company's financing plan is dependent upon a number of factors, including the Company's ability to obtain adequate and timely rate increases, conditions in the securities markets, economic conditions and the Company's level of sales and particularly resolution of the matters discussed under "Problems Facing the Company".

*Mortgage Bonds.* Due to certain restrictions in the Company's First Mortgage Indenture, no significant amount of First Mortgage Bonds may be issued thereunder until an operating license is obtained for Seabrook Unit #1, now anticipated in late 1982. The Company is considering seeking the consent of the holders of its First Mortgage Bonds (75% in principal amount required) to amend that Indenture by modifying or eliminating these restrictions, but no assurance can be given that such consent will be sought or obtained. If these amendments are made, the Company is required to redeem all outstanding General and Refunding Mortgage Bonds, including the Series B Bonds offered hereby, by exchange for First Mortgage Bonds; until such time, such First Mortgage Bonds as may be issued will be pledged as additional security for the General and Refunding Mortgage Bonds. At July 31, 1979, the Company had \$196,724,000 of First Mortgage Bonds outstanding (exclusive of pledged First Mortgage Bonds) and \$805,786,000 of net Utility Plant, including \$432,405,000 of Unfinished Construction.

Because of the restrictions in the Company's First Mortgage Indenture, the Company has entered into the General and Refunding Mortgage Indenture dated as of August 15, 1978 (the "G&R Indenture"), constituting a second mortgage on the Company's properties to secure General and Refunding Mortgage Bonds. The Company sold \$60,000,000 of such Bonds to institutional investors in September, 1978. The terms of the G&R Indenture are generally similar to those of the First Mortgage Indenture except for elimination of the above-mentioned restrictions on issuance of bonds and the inclusion of a limitation on the amount of other income (including AFUDC) includible in earnings coverage under the G&R Indenture. See "Description of the Bonds". For the twelve months ended July 31, 1979, the earnings coverage of interest on bonds was approximately 3.38, as compared with the requirements for the issuance of additional bonds contained in the G&R Indenture of 2.0. At July 31, 1979 the earnings coverage test would have limited the principal amount of General and Refunding Mortgage Bonds (12% annual interest rate assumed) which could have been issued to \$124,700,000. The exclusion of CWIP from rate base without the substitution of additional revenues would adversely affect the earnings coverage and the amount of Bonds issuable under the G&R Indenture would be significantly reduced.

*Bank Financing.* The Company has a revolving credit agreement with certain commercial banks which prior to August, 1979 permitted the Company, subject to periodic review by the banks, to borrow up to \$115,000,000 until October 12, 1979. In August, 1979, the banks agreed to extend the maturity date to July 1, 1980. See "Problems Facing the Company — Immediate Financing Program". The same group of commercial banks have extended to the Company a \$25,000,000 term credit due January 3, 1980. The Company has additional lines of credit aggregating \$5,350,000 with New Hampshire banks.

As of July 31, 1979, the Company could have incurred approximately \$134,500,000 of short-term unsecured indebtedness under its Articles of Agreement without obtaining the approval of holders of the Preferred Stock. The NHPUC has approved up to \$121,700,000 of short-term borrowings.

*Preferred Stock.* Under the Company's Articles of Agreement additional Preferred Stock may be issued without the affirmative vote of the holders of a majority of either class of the Preferred Stock provided that the ratio of earnings to fixed charges and preferred dividends, including dividends on Preferred Stock to be issued, is at least 1.50. For the twelve months ended July 31, 1979, the ratio of earnings to fixed charges and preferred dividends computed under the method prescribed by the Company's Articles of Agreement was 1.94; and based thereon, the Company could issue, without such vote of the holders of the Preferred Stock, approximately \$77,700,000 of additional Preferred Stock (12% annual dividend rate assumed).

## CAPITALIZATION

The capitalization and short-term debt of the Company as of July 31, 1979 was, and adjusted as of that date to reflect the issuance of \$60,000,000 principal amount of Series B Bonds offered hereby and the application of the proceeds thereof (aggregating \$58,680,000) would have been, as follows:

	Amount Outstanding July 31, 1979		Adjusted	
	Amount	Percent	Amount	Percent
	(Thousands of Dollars)			
Long-Term Debt (including current maturities)				
First Mortgage Bonds (a)	\$196,219		\$196,219	
General and Refunding Mortgage Bonds (b)	60,000		118,680	
Promissory Note	25,000		25,000	
Pollution Control Revenue Bonds	7,208		7,208	
Total Long-Term Debt	288,427	40.9%	347,107	45.4%
Preferred Stock — Cumulative				
\$100 Par Value, Authorized, 1,350,000 shares				
Outstanding, 676,217 shares (c)	67,622		67,622	
Par Value, Authorized, 2,000,000 shares				
Outstanding, 600,000 shares; adjusted, 1,800,000 shares (c)	45,000		45,000	
Total Preferred Stock	112,622	16.0	112,622	14.8
Common Stock Equity				
Common Stock — \$5 Par Value				
Authorized, 18,000,000 shares				
Outstanding, 13,845,472 shares (d)	69,227		69,227	
Other Paid-In Capital	165,140		165,140	
Retained Earnings	69,655		69,655	
Total Common Stock Equity	304,022	43.1	304,022	39.8
Total Capitalization (e)	\$705,071	100.0%	\$763,751	100.0%
Short-Term Debt	\$ 72,100		\$ 13,420 (f)	

- (a) Because of certain restrictions in the First Mortgage Indenture no significant amount of bonds may now be issued thereunder. See "Financing". For a description of the outstanding series, see Note 7 of Notes to Financial Statements.
- (b) The amount of bonds issuable under the General and Refunding Mortgage Indenture is subject to certain restrictions. See "Description of Bonds — Additional G&R Bonds" and "Financing". For a description of the outstanding series, see Note 7 of Notes to Financial Statements.
- (c) For a description of the outstanding series, see Notes 4 and 5 of Notes to Financial Statements.
- (d) In addition, as of July 31, 1979 there were reserved for issuance upon conversion of the 49,217 shares of Convertible Preferred Stock, 5.50% Dividend Series, 218,063 shares of Common Stock based upon the conversion price of \$22.57 per share (the Convertible Preferred Stock being taken at its par value of \$100 per share).
- (e) See Note 8 of Notes to Financial Statements with respect to Commitments and Contingencies.
- (f) On the date of the issue of the Series B Bonds, short-term bank borrowings are expected to be approximately \$112,000,000. See "Use of Proceeds" and Note 3 of Notes to Financial Statements.



## STATEMENT OF EARNINGS

The following Statement of Earnings, so far as it relates to the five years in the period ended December 31, 1978, has been examined by Peat, Marwick, Mitchell & Co., independent certified public accountants, whose report thereon appears elsewhere in this Prospectus. The information for the twelve months ended July 31, 1979 is unaudited and, in the opinion of management, includes all adjustments (consisting only of normal recurring accruals) necessary to a fair statement of results of operations for such period. This statement should be read in conjunction with the other financial statements and the related notes appearing elsewhere in this Prospectus.

	Twelve Months Ended July 31, 1979  (Unaudited)	Year Ended December 31,  (Thousands of Dollars)				
		1978	1977	1976	1975	1974
Operating Revenues (A)(B)	\$281,135	\$260,751	\$214,787	\$196,674	\$186,393	\$155,930
Operating Expenses						
Operation						
Fuel (B)	96,114	71,996	70,500	54,881	58,511	43,161
Purchased and Interchanged Power	37,775	43,422	37,810	36,468	27,153	32,505
Other	34,110	31,490	27,641	25,058	22,048	19,283
Maintenance (A)	18,096	17,502	14,550	12,930	10,727	8,575
Depreciation (A)	15,170	14,752	14,117	13,791	13,522	11,624
Federal and State Taxes on Income (A)(C)	17,983	19,666	8,399	9,733	9,916	3,702
Other Taxes, Principally Property Taxes	14,107	13,585	12,596	11,860	10,018	9,756
Total Operating Expenses	233,355	212,413	185,613	164,721	151,895	128,606
Operating Income	47,780	48,338	29,174	31,953	34,498	27,324
Other Income and Deductions						
Allowance for Equity Funds Used During Construction (D)	11,309	7,828	6,093	3,205	1,573	1,785
Equity in Earnings of Affiliated Companies (A)	929	870	802	1,007	821	870
Other — Net	1,383	983	491	391	498	2,644
Total Other Income and Deductions	13,621	9,681	7,386	4,603	2,892	5,299
Income Before Interest Charges	61,401	58,019	36,560	36,556	37,390	32,623
Interest Charges						
Interest on Long-Term Debt	25,058	21,073	18,980	17,932	16,680	13,547
Other Interest	11,380	8,201	2,029	290	1,209	4,672
Allowance for Borrowed Funds Used During Construction (D)	(14,534)	(7,762)	(6,171)	(2,661)	(1,307)	(1,896)
Net Interest Charges	21,904	21,512	14,838	15,561	16,582	16,323
Net Income	39,497	36,507	21,722	20,995	20,808	16,300
Preferred Dividend Requirements	7,003	6,391	5,120	4,848	3,604	3,378
Earnings Available for Common Stock	\$ 32,494	\$ 30,116	\$ 16,602	\$ 16,147	\$ 17,204	\$ 12,922
Average Shares of Common Stock Outstanding (Thousands)	10,907	9,275	7,680	6,372	6,124	5,134
Earnings Per Share of Common Stock (E)	\$2.98	\$3.25	\$2.16	\$2.53	\$2.81	\$2.52
Dividends Per Share of Common Stock	\$2.12	\$1.94	\$1.88	\$1.86	\$1.72	\$1.64
Ratio of Earnings To Fixed Charges (F)						
Actual	2.55	2.87	2.38	2.61	2.66	1.93
Pro Forma	1.95	—	—	—	—	—

(See "Management's Discussion and Analysis of the Statement of Earnings".)

(A) See the applicable portion of Note 1 of Notes to Financial Statements.

(B) For the period December 3, 1977 through May 6, 1979 the Company's New Hampshire retail rates were based in part upon the inclusion in the Company's rate base of a portion of the costs

of construction work in progress (CWIP) associated with major generating projects. The inclusion of CWIP in rate base increased revenues from customers to cover the costs of financing such CWIP. On May 7, 1979 a New Hampshire statute prohibiting the inclusion of CWIP in the Company's rate base became effective. By order dated August 29, 1979 the NHPUC excluded CWIP from the Company's rate base as of May 7, 1979, but determined that the Company's rates would remain unchanged as temporary rates as of May 7, 1979 and ordered an investigation to determine the Company's revenue requirements and to establish fair and reasonable rates. These temporary rates are subject to possible retroactive adjustment to May 7, 1979, either upward or downward, upon completion of the investigation. See "Business — Rates — New Hampshire Retail" for information concerning a new tariff filed with the NHPUC on August 31, 1979.

See "Business — Rates — Other" for a discussion of increased rates to wholesale customers put into effect by the Company on July 29, 1978.

During 1977, the Federal Power Commission (FPC) affirmed an Administrative Law Judge's decision which resulted in the Company refunding in October, 1977 approximately \$1,622,000 of 1975 wholesale fuel adjustment clause revenues. This decision was affirmed by the United States Court of Appeals for the District of Columbia Circuit on May 3, 1979. The Company has filed a petition for certiorari with the United States Supreme Court; pending a final decision on this matter, the Company has charged the refund with interest to deferred debits.

In August, 1976, the Company and a fuel supplier reached agreement on the amount of a fuel inventory adjustment. As a result of this settlement, operating revenues and fuel expense for 1976 are each approximately \$4,598,000 less than they otherwise would have been.

(C) See Note 2 of Notes to Financial Statements for information regarding income taxes.

(D) AFUDC is the estimated cost, during the period of construction, of funds invested in the construction program which are not recovered from customers through current revenues. Such allowance is not realized in cash currently but under the rate-making process the amount of the allowance will be recovered in cash over the service life of the plant in the form of increased revenue collected as a result of higher plant costs. The NHPUC, for the period December 3, 1977 through May 6, 1979 permitted the Company to include in rate base a portion of the costs of CWIP associated with major generating projects. Therefore, AFUDC for this period did not include the cost of funds invested in the construction program which were provided by revenues of the Company.

To the extent CWIP is not included in Company's rate base, the cost of funds invested in CWIP (interest on debt and return on equity, including dividends) is not provided by revenues and AFUDC is added to the cost of the plant being constructed with offsetting credits in the Statement of Earnings. Since the credits are not cash items, cash for interest and dividends may need to be provided in whole or in part by additional financing during the construction period. As described in Note B above, as of May 7, 1979, the Company's rates were made temporary and the Company was precluded from basing its rates upon CWIP in the rate base. Therefore, as of May 7, 1979, consistent with the August 29, 1979 rate order, the Company began recording AFUDC for CWIP previously included in the Company's rate base, thereby increasing AFUDC by approximately \$1,962,000 for the twelve months ended July 31, 1979.

AFUDC net of applicable deferred income tax provisions equalled 32.5% and 48.4% of net income for 1978 and the twelve months ended July 31, 1979, respectively. The Company capitalized AFUDC at a net-of-tax rate of 7½% for 1974. Effective January 1, 1975, the Company began using a pre-tax rate of 9½% (increased to 10% effective January 1, 1979) and

began recognizing deferred income tax expense applicable to the current tax reduction resulting from interest expense associated with construction, but these changes had no significant effect on net income.

The Company began compounding AFUDC on February 1, 1977 resulting in an increase in the gross amount of AFUDC capitalized during 1977 and subsequent periods. This change increased 1977 net income and earnings per share of common stock by approximately \$816,000 and \$0.11, respectively.

- (E) Earnings per share are based on the average number of common shares outstanding, after recognition of preferred stock dividend requirements.
- (F) Earnings represent the aggregate of Net Income, less undistributed income of unconsolidated companies, plus provisions for Federal and state taxes on income and fixed charges. Fixed charges represent interest, related amortization and the interest component of annual rentals. The pro forma ratio of earnings to fixed charges is 1.95 after giving effect to (1) the annual interest requirements on long-term debt outstanding at July 31, 1979, (2) the annual interest requirements on the Series B Bonds being offered (\$7,200,000) (3) the prorated interest requirements on additional long-term debt expected to be issued on October 15, 1979 (\$25,000,000 at 12.65% interest rate assumed) and (4) the annual interest requirements on the estimated average short-term debt expected to be outstanding during the twelve months ending July 31, 1980 (\$88,020,000 at 13.17% interest rate assumed).

Supplemental ratios of earnings to fixed charges have been calculated pursuant to Accounting Series Release No. 122 of the Securities and Exchange Commission. Such ratios include in earnings the undistributed income of unconsolidated companies, and include in fixed charges the Company's allocable portion of the fixed charges of the regional nuclear generating companies in which the Company has investments. The supplemental ratios are not materially different from the basic ratios.

- (G) The following quarterly information is unaudited, and, in the opinion of management, is a fair summary of results of operations for such periods. Variations between quarters reflect the seasonal nature of the Company's business, and beginning with the fourth quarter of 1977, additionally includes the effect of rate increases. See "Management's Discussion and Analysis of the Statement of Earnings." The fourth quarter of 1977 also includes an adjustment which decreased maintenance expenses recorded in the first three quarters of 1977 by approximately \$1,000,000.

	Quarter Ended									
	Year 1979			Year 1978			Year 1977			
	June*	March	Dec.	Sept.	June	March	Dec.	Sept.	June	March
	(Thousands except Per Share Amounts)									
Operating Revenues	\$65,866	\$80,072	\$69,346	\$62,387	\$57,038	\$71,980	\$57,091	\$52,678	\$47,491	\$57,527
Operating Income	9,302	14,758	12,324	11,700	10,119	14,195	9,109	6,611	5,252	8,202
Net Income	8,335	12,217	9,359	8,872	7,192	11,084	7,390	5,098	3,244	5,990
Preferred Dividend Requirements	1,952	1,586	1,594	1,598	1,599	1,600	1,516	1,199	1,197	1,208
Earnings Available for Common Stock	6,383	10,631	7,765	7,274	5,593	9,484	5,874	3,899	2,047	4,782
Average Shares of Common Stock Outstanding	11,823	11,319	9,770	9,755	9,109	8,447	8,444	7,823	7,230	7,209
Earnings Per Share of Common Stock	\$0.54	\$0.94	\$0.79	\$0.75	\$0.61	\$1.12	\$0.70	\$0.50	\$0.28	\$0.66

\*Amounts restated to be consistent with the August 29, 1979 rate order of the NHPUC described in Note B above.

## MANAGEMENT'S DISCUSSION AND ANALYSIS OF THE STATEMENT OF EARNINGS

### Twelve Months Ended July 31, 1979 as Compared with Calendar 1978:

*"Operating Revenues"* increased \$20,384,000 principally due to (1) the operation of the fuel adjustment clause (\$11,158,000), (2) an increase in unit power sales (\$2,419,000) and (3) an increase in prime energy sales.

*"Fuel Expense"* increased \$24,118,000 because a larger percentage of total power supply was generated by Company-owned fossil fuel plants and due to increases in the unit costs of coal and oil.

*"Purchased and Interchanged Power"* decreased \$5,647,000 due to the increased generation by Company-owned fossil fuel plants.

*"Federal and State Taxes on Income"* decreased \$1,683,000 primarily due to a decrease in taxable income.

*"Allowance for Equity Funds Used During Construction"* and *"Allowance for Borrowed Funds Used During Construction"* increased due to an increase in the Company's construction program, primarily the Seabrook nuclear plant and because AFUDC has been accrued from May 7, 1979 through July 31, 1979 on CWIP included until May 6, 1979 in New Hampshire rate base.

*"Other Income and Deductions-Other-Net"* increased \$400,000 due to increased interest income from short-term investments and increased miscellaneous income.

*"Interest Charges"* increased principally due to (1) additional long-term debt outstanding and (2) an increase in the rates and level of short-term borrowings from banks as an interim method of financing construction of new facilities.

### 1978 as Compared with 1977:

*"Operating Revenues"* increased \$45,964,000 principally due to a rate increase to New Hampshire retail customers on December 3, 1977 (\$27,000,000 on an annual basis), increased to \$30,000,000 on an annual basis on June 1, 1978; a rate increase to wholesale customers on July 29, 1978 (approximately \$2,400,000 on an annual basis); increased revenue associated with the operation of a fuel adjustment clause (\$10,000,000), and an increase in prime energy sales.

*"Purchased and Interchanged Power"* increased \$5,612,000 principally due to increases in capacity and energy purchases necessary to meet the Company's increased KWH sales and replacement power as required during the shutdown of Merrimack Station.

*"Other Operating Expenses"* increased principally because of the effect of inflation on wages, supplies and services and employee benefits, the exact amount of which cannot be determined individually.

*"Maintenance Expenses"* increased principally due to increased cost of maintenance at Merrimack Station (approximately 60% of the total increase) and because of the effect of inflation on wages and materials (approximately 34%) and on costs of annual maintenance at other generating stations (approximately 6%).

*"Federal and State Taxes on Income"* increased \$11,267,000 principally due to an increase in current taxable income due to increased operating revenues, and an increase in deferred taxable income.

*"Other Taxes, Principally Property Taxes"* increased due primarily to higher real estate property assessments and tax rates.

*"Allowance for Equity Funds Used During Construction"* and *"Allowance for Borrowed Funds Used During Construction"* increased due to an increase in the Company's construction program, primarily the Seabrook nuclear plant.

*"Other Income and Deductions — Other — Net"* increased \$560,000 primarily as a result of increased interest income from short-term investments.

*"Interest Charges"* increased principally due to (1) additional long-term debt outstanding (approximately 25% of the total increase) and (2) an increase in the rates and level of short-term borrowings from banks as an interim method of financing construction of new facilities (approximately 75%).

#### **1977 as Compared with 1976:**

*"Operating Revenues"* increased \$18,113,000 in 1977 principally due to increased revenue associated with the operation of a fuel adjustment clause (\$7,685,000), an increase in unit power sales (\$3,268,000), a rate increase to New Hampshire retail customers on December 3, 1977 (\$27,000,000 on an annual basis) and an increase in prime energy sales.

*"Fuel Expense"* increased \$15,619,000 in 1977 because a larger percentage of total power supply was generated in Company-owned fossil fuel plants (approximately 49% of the total amount) and due to increases in the unit costs of coal and oil (approximately 21%), and also because of the inventory adjustment referred to in Note B to Statement of Earnings (approximately 30%).

*"Other Operating Expenses"* increased in 1977 principally because of the effect of inflation on wages, supplies and services, employee benefits, and additional cost for transmission services associated with additional power purchased.

*"Maintenance Expenses"* increased in 1977 principally due to increased costs of maintenance at Merrimack Station (approximately 12% of the total increase) and because of the effect of inflation on wages and materials (approximately 48%) and on costs of annual maintenance at all generating stations (approximately 40%).

*"Federal and State Taxes on Income"* decreased \$1,334,000 in 1977 primarily due to a decrease in taxable income.

*"Other Taxes, Principally Property Taxes"* increased in 1977 due primarily to higher real estate property tax rates.

*"Allowance for Equity Funds Used During Construction"* and *"Allowance for Borrowed Funds Used During Construction"* increased substantially in 1977 due to (1) an increase in the Company's construction program, primarily the Seabrook nuclear plant and (2) the effect of compounding of AFUDC semi-annually, effective February 1, 1977 as permitted by Federal Power Commission Order No. 561. See Note D to Statement of Earnings.



# OPERATING STATISTICS

Twelve Months  
Ended  
July 31,  
1979

Year Ended December 31,

	1978	1977	1976	1975	1974
MWH Generated and Purchased — Net					
Generated by Water Power	258,521	291,972	332,523	328,701	347,129
Generated by Fuel	4,897,733	3,849,853	4,033,704	5,596,002	3,669,800
Total Generated	5,156,254	4,141,825	4,366,227	3,924,703	4,005,321
Power Purchased — Nuclear Affiliates	623,743	674,337	629,116	670,994	618,787
Other Power Purchased and Interchanged	727,003	1,374,245	999,082	1,092,414	819,437
Total Generated and Purchased	6,507,000	6,190,407	5,994,425	5,688,111	5,443,545
Disposition of MWH Output					
Sold	6,050,581	5,752,784	5,586,378	5,286,507	5,055,673
Used by the Company	28,393	22,734	15,217	13,476	13,047
Absorbed in Delivery	428,026	414,889	392,830	388,128	374,825
Total Output	6,507,000	6,190,407	5,994,425	5,688,111	5,443,545
MWH Sold					
Residential	1,782,775	1,765,553	1,709,528	1,676,980	1,552,212
Industrial	1,830,753	1,743,131	1,568,068	1,539,489	1,396,957
Unit Power	502,409	368,785	545,755	372,321	524,831
Wholesale, Commercial and Other	1,934,644	1,875,315	1,763,027	1,697,717	1,581,673
Total MWH Sold	6,050,581	5,752,784	5,586,378	5,286,507	5,055,673
Sources of Electric Revenue (Thousands of Dollars)					
Residential Sales	\$ 101,713	\$ 98,331	\$ 81,551	\$ 77,153	\$ 72,167
Industrial Sales	69,949	63,565	48,878	45,361	42,049
Unit Power Sales	11,523	9,104	10,297	7,029	9,130
Wholesale, Commercial and Other	89,809	82,549	69,278	63,392	55,992
Miscellaneous Operating Revenue	8,141	7,202	4,783	3,739	7,055
Total Electric Revenues	\$ 281,135	\$ 260,751	\$ 214,787	\$ 196,674	\$ 186,393
Electric Customers (End of Period)					
Residential	247,503	244,008	238,830	232,358	226,215
Industrial	1,093	1,080	1,046	1,018	987
Unit Power	1	1	1	1	1
Wholesale, Commercial and Other	31,915	31,766	30,871	30,115	29,268
Total Electric Customers	280,512	276,855	270,748	263,492	256,471
Diversity of Industrial Revenues					
Textile Products	3.4%	3.7%	3.9%	4.1%	4.5%
Paper Products	17.5	17.2	16.5	16.8	15.7
Leather Products	2.9	3.0	3.2	3.4	3.6
Chemicals	9.7	9.3	9.0	8.3	7.9
Other Non-Durable Products	6.9	7.4	7.9	7.6	7.7
Total Non-Durable Products	40.4	40.6	40.5	40.2	39.4
Machinery	17.0	16.8	16.3	15.2	14.8
Other Durable Products	13.2	13.2	13.0	12.4	12.1
Total Durable Products	30.2	30.0	29.3	27.6	26.9
Total Manufacturing	70.6	70.6	69.8	67.8	66.3
Commercial and Service	29.4	29.4	30.2	32.2	33.7
Total	100.0%	100.0%	100.0%	100.0%	100.0%
Customer Statistics (Annual)					
Average Customers — Residential	245,113	242,416	236,453	230,390	224,886
Average KWH Per Customer — Residential	7,273	7,283	7,230	7,279	6,902
Average Rate — Cents Per KWH					
Residential	5.71	5.57	4.74	4.60	4.65
Industrial	3.82	3.65	3.12	2.95	3.01
Other Utilities	3.50	3.20	3.07	2.85	2.44
Average Annual Bill — Residential	\$414.96	\$405.63	\$344.90	\$334.88	\$320.90
Average Nuclear Fuel Cost per KWH Generated	0.3973¢	0.3638¢	0.3181¢	0.2859¢	0.3506¢
Average Fossil Fuel Cost per KWH Generated	1.9629¢	1.8701¢	1.7575¢	1.6540¢	1.5944¢

## BUSINESS

### ***Power Supply and Properties.***

The electric properties of the Company form a single integrated system including transmission facilities which are part of the New England-wide transmission grid. The maximum one-hour prime peak load experienced to date by the Company's system was 1,173 net MW on February 13, 1979. At that time the Company had available to meet such load 1,154 MW of its own generating capacity, 97 MW from its participations in the four Yankee nuclear generating companies described below under "Joint Projects" and 217 MW of purchased capacity. Because the generation and transmission systems of the major New England utilities, including the Company, are operated as if they were a single system, the ability of the Company to meet its load is dependent on the ability of the New England utilities to meet the New England load. See "New England Power Pool" below.

The Company has one coal-fired 456 MW electric generating station (Merrimack Station), from which the Company has agreed to sell to another utility 100 MW on a single unit basis from Unit #2 through April, 1998, and four oil-fired electric generating stations with an aggregate effective capability of 641 MW, consisting of the Newington plant (420 MW), the Schiller plant (180 MW) and two smaller plants. See "Environmental Matters" below. The availability of the two units at Merrimack Station, the Company's largest fossil fuel station, has been less than desired due to forced outages caused by both the boilers and the turbines. However, the availability record of the Station is roughly comparable to that of other coal-fired generating plants of similar age and design.

The Company also has other generating facilities with an aggregate effective capability of 162 MW as follows: hydro-electric (48 MW), combustion turbine (111 MW) and diesel (3 MW). The Company has participations with other New England utilities in five generating units recently completed, under construction or in design stages, including the two Seabrook units. See "Construction Program", and see "Joint Projects" and "Seabrook Nuclear Project" below.

The Company purchases capacity and energy from other utilities as necessary, together with its own generating capacity, to meet its load growth and its reserve obligations under NEPOOL discussed below. These purchases are expected to increase from 217 MW to approximately 454 MW by April, 1983 when Seabrook Unit #1, in which the Company's reduced interest will be 322 MW, is currently scheduled to be completed and to reduce substantially the need for such purchases. See "Problems Facing the Company".

### ***New England Power Pool.***

A New England Power Pool Agreement ("NEPOOL") to which the major investor-owned utilities in New England, including the Company, and certain municipal and cooperative utilities are parties, has been in effect since 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.

Substantially all planning, operation and dispatching of electric generating capacity for New England is done on a regional basis under NEPOOL. At the time of the 1978-1979 NEPOOL winter peak, the New England utilities had about 21,500 MW of installed capacity to meet the New England peak load of about 14,956 MW.

The Company's capability responsibility under NEPOOL involves carrying an allocated share of a New England capacity requirement which is determined for each period based on certain regional

reliability criteria. It is expected that the Company's capacity will be sufficient through its own generating facilities, its participations and through purchases to meet its NEPOOL obligations in the foreseeable future.

### **Joint Projects.**

The Company is a part owner with other New England electric utilities of four nuclear generating companies. The Company owns a 7% interest in Yankee Atomic Electric Company, a 5% interest in Connecticut Yankee Atomic Power Company, a 5% interest in Maine Yankee Atomic Power Company and a 4% interest in Vermont Yankee Nuclear Power Corporation, each of which owns an operating nuclear generating plant with present net capabilities of 175 MW, 575 MW, 781 MW and 528 MW, respectively. The stockholders of each of the four nuclear generating companies are entitled to the entire output of the plant in proportion to their respective ownerships, and are obligated to pay their proportionate shares of the generating company's operating expenses and return on invested capital.

The Company is participating on a tenancy-in-common basis with other New England utilities in the ownership of five other generating units. One of these, Wyman Unit #4, a 600 MW oil-fired generating unit in Maine in which the Company has a 3.1433% interest, commenced operation at full capacity in February, 1979; the other units are planned or under construction as follows:

	Type	Completion Date (1)	Capacity (MW)	Percent(2)	Capacity (MW)(2)	Company Share	
						Estimated Construction Cost(3)	
						Total (Millions)(2)	Per KW
Seabrook #1 & #2 (New Hampshire)	Nuclear	1983 & 1985	2,300	28.0000	644.0	\$ 869.6	\$1,350
Pilgrim #2 (Massachusetts)	Nuclear	1986	1,150	3.4700	39.9	69.5	1,742
Millstone #3 (Connecticut)	Nuclear	1986	1,150	3.8910	44.7	102.0	2,282

- (1) The completion dates of the four nuclear units have been deferred from time to time and additional deferrals may occur due to licensing delays, economic conditions and other factors.

Due to the time required for the construction of generating facilities and the completion of licensing and regulatory proceedings relating thereto, substantial investments in the above units will be required prior to the completion of licensing and regulatory proceedings. There is no assurance that all necessary approvals, permits or licenses will be obtained, or if obtained, will not be modified or revoked. See "Industry Problems".

- (2) See "Problems Facing the Company" for information concerning the proposed reduction of the Company's interest in Seabrook to 28% and sale of the Company's interests in Pilgrim #2 and Millstone #3. In connection with such reduction, the Company may acquire up to a 5.2% interest in a 568 MW coal-fired unit planned for construction by Central Maine Power Company at Sears Island, Maine. If the Company's ownership interest in Seabrook should remain at 50%, the capacity would be 1,150 MW and the estimated total cost, \$1,429,600,000.

- (3) Including the cost of the initial nuclear fuel and AFUDC on the estimated costs of unfinished construction not included in the Company's rate base. AFUDC was discontinued on December 3, 1977 on the portion of unfinished construction included in rate base. For purposes of this table such portion of unfinished construction has been excluded from rate base effective May 7, 1979 and it has been assumed that AFUDC will be capitalized thereafter on all unfinished construction. See Note D to the Statement of Earnings for a discussion of AFUDC.

Estimated construction expenditures for the jointly owned units used in calculating the estimated cost per KW are based upon information furnished by the utility responsible for the construction of such unit. The Company has been advised by each of the sponsoring utilities that construction budgets are continuously under review in light of increased costs due to deferrals, delays and other factors. The estimated expenditures and completion dates of the nuclear units may also be affected by the licensing and regulatory proceedings relating to each unit and to nuclear power generally and may also be affected by events and conditions which cannot now be predicted.

### ***Seabrook Nuclear Project.***

The Company is the lead owner of the Seabrook project now under construction in Seabrook, New Hampshire and has entered into contracts covering the purchase of equipment and services in connection with the project. The project is planned to consist of two Westinghouse pressurized water nuclear reactors utilizing ocean water for condenser cooling purposes. Other owners of the project presently include The United Illuminating Company ("UI") (20%), New England Power Company (10%) and a number of other utilities with smaller participations. UI has made available for sale to other utilities one-half of its 20% ownership interest in accordance with a recommendation of the Connecticut Department of Business Regulation — Division of Public Utility Control contained in a recent rate decision; however, the UI offering has not been fully subscribed. See "Problems Facing the Company" for information concerning the proposed reduction of the Company's ownership interest in the project.

The project has required numerous approvals and permits from various state and federal regulatory bodies consisting principally of a certificate authorizing construction of the plant (which incorporates related state permits) from the New Hampshire Public Utilities Commission ("NHPUC") under New Hampshire's power plant siting law; approval of the once-through cooling system for the project by the Environmental Protection Agency ("EPA"); and construction permits from the Nuclear Regulatory Commission ("NRC"). All of these approvals and permits have been obtained and, except as described below, there are no appeals or proceedings relating thereto. Construction of the project is continuing and at July 31, 1979, Unit #1 and the portion of the project common to both units were 23.4% complete and Unit #2 was 4.4% complete.

The process of obtaining these approvals and permits has been long and complex, has been consistently opposed by a number of intervening groups, has included demonstrations at the Seabrook site, and has been plagued by lengthy delays which have resulted in greatly increased costs for the project. Court appeals from these federal regulatory approvals have been decided in the Company's favor, but one appeal described below is still pending and further appeals are possible. The Company is unable to predict what effect adverse legislative action, financing problems, work stoppages or

further administrative or court decisions relating to NHPUC, NRC or EPA actions may have on the completion of the project, on the cost of the project or on the Company. See "Problems Facing the Company" and "Construction Program".

**NHPUC.** The state siting proceedings began in 1972, involved lengthy hearings during 1972 and 1973 and culminated in issuance of the requisite certificate on January 29, 1974. A subsequent appeal to the New Hampshire Supreme Court resulted in a remand for further findings but did not invalidate the certificate. The supplemental findings were issued on December 30, 1975; no further appeals were taken. Proceedings before the NHPUC and the New Hampshire Site Evaluation Committee are pending on the Company's petition seeking modification of the certificate to reflect the extension of the cooling water intake tunnel ordered by the EPA, transmission line relocations ordered by the NRC, and certain other transmission line relocations.

**NRC.** The NRC proceedings commenced with the docketing of the application for construction permits on July 9, 1973. The hearings before an Atomic Safety and Licensing Board (the "Licensing Board"), in which seven intervenors in opposition participated, consumed over sixty days during 1975 and 1976 and culminated on June 29, 1976 in the issuance by the Licensing Board of its Initial Decision (one member dissenting), approving the issuance of construction permits for the Seabrook project. The NRC issued the permits on July 7, 1976, and construction commenced shortly thereafter but was subsequently suspended in 1977 and 1978 for periods of seven months and three weeks, respectively, as a result of administrative proceedings and court appeals.

The Initial Decision was affirmed by an NRC Atomic Safety and Licensing Appeal Board (the "Appeal Board") (with one member dissenting) and by the NRC. The dissenting member of the Appeal Board issued his dissenting opinion which relates to the seismic issue on August 3, 1979; the majority issued a supplemental opinion in response to the dissent on September 6, 1979; and the NRC has extended the time for filing petitions to review this issue until September 21, 1979.

On June 30, 1978, the NRC ordered the Appeal Board to conduct further hearings on whether cooling towers (rather than the once-through cooling system presently approved) would be environmentally acceptable at the Seabrook site and whether Seabrook with cooling towers is acceptable over alternate sites. On August 6, 1979, the Appeal Board dismissed this proceeding as moot because no action had been taken to appeal the May 2, 1979 decision of the United States Court of Appeals for the First Circuit referred to below under "EPA". One aspect of the June 30, 1978 order was appealed by certain intervenors to the United States Court of Appeals for the First Circuit which dismissed the appeal on May 30, 1979.

There is presently pending before the United States Court of Appeals for the First Circuit an appeal by intervenors from a decision of the NRC challenging the NRC's refusal in 1976 to suspend the Seabrook construction permits despite a court decision in litigation not involving the Company which set aside the NRC's rule with respect to the environmental effects of reprocessing spent fuel and disposing of nuclear waste. (*Natural Resources Defense Council, Inc. v. NRC*, D. C. Cir. Nos. 74-1385 and 74-1586, which was reversed and remanded by the United States Supreme Court on April 3, 1978 in *Vermont Yankee Nuclear Power Corporation v. Natural Resources Defense Council, Inc.*, No. 76-419). Effective September 4, 1979, the NRC (one member dissenting) has promulgated a new rule (which supersedes the interim rule in place since March, 1977) covering the environmental impact of reprocessing spent fuel and disposing of nuclear waste. The Company believes that the



environmental effects of the fuel cycle, determined in accordance with the new rule, are too small to affect the environmental cost-benefit evaluation of the project.

In March, 1979, after the Company announced its decision to reduce its ownership interest in the Seabrook project, an intervenor filed a request with the NRC staff for issuance of a show cause order as to why the construction permits should not be suspended or revoked because of the Company's alleged lack of financial qualifications and lack of review of financial qualifications of the participants whose ownership interests are proposed to be increased. The staff on April 6, 1979, gave public notice that it would take action on that request within a reasonable time. The staff had previously asked the Company to furnish further details of its financial plans, which were filed on April 23, 1979. On May 2, 1979 the same intervenor filed a further request with the NRC staff for issuance of a show cause order as to why the construction permits should not be suspended or revoked because of the NRC's failure to require development of evacuation plans beyond the low population zone and to evaluate the consequences of certain types of accidents including the possibility of such evacuation. The Company cannot predict when the staff will act on either request or what actions it will take.

Before either of the Seabrook units can be put into operation, the Company must obtain the requisite operating license from the NRC. The Company intends to file the necessary applications therefor in mid-1981 well in advance of the projected in-service date for Unit #1; however, the Company cannot predict the extent of the regulatory proceedings which will result or their outcome.

*EPA.* Under the Federal Water Pollution Control Act, as amended, the EPA has jurisdiction over discharges from the cooling system of the Seabrook plant. In August, 1974, the Company applied to EPA for approval of the once-through cooling system utilizing ocean water and, in June and October, 1975, the regional administrator of Region I of EPA approved the concept subject to extending the intake tunnel further offshore. After a further hearing resulting from a court remand, the EPA Administrator on August 4, 1978 reaffirmed his previous approval of the once-through cooling system and that decision was affirmed by the United States Court of Appeals for the First Circuit on May 2, 1979. The period for seeking further review has expired.

*Other.* The Company is also involved in proceedings or disputes concerning title to a portion of the Seabrook site, the undergrounding of the Seabrook transmission lines and the use of the Company's water wells on the Seabrook site. The Company believes that none of these matters will have a material adverse effect upon the Seabrook project.

*Insurance.* The Federal Price-Anderson Act provides, among other things, that the maximum liability for damages resulting from a nuclear incident would be \$560 million, to be provided by private insurance and governmental sources. As required by NRC regulations, prior to operation of the Seabrook project, the owners of the Seabrook project will insure against this exposure by purchasing the maximum available private insurance (presently \$160 million), the remainder to be covered by the recently implemented retrospective premium insurance and by an indemnity agreement with the NRC. Under recent amendments to that Act, owners of operating nuclear facilities may be assessed a retrospective premium of up to \$5 million for each reactor owned in the event of any one nuclear incident occurring at any reactor in the United States, with a maximum assessment of \$10 million per year per reactor owned. As a part owner of other operating New England facilities (see "Joint Projects" above), the Company would be obligated to pay its proportionate share of any such assessments, which presently amounts to a maximum of \$1,050,000 per incident. While it is not yet

possible to evaluate the claims being asserted as a result of the TMI incident, the Company does not anticipate any assessments being levied under these provisions as a result of that incident.

### **Regulation.**

The Company, as to retail rates, security issues, and various other matters, is subject to the regulatory authority of the NHPUC. A management audit report prepared by an independent management consulting firm at the direction of the NHPUC was released on October 11, 1978, and identifies both management strengths and opportunities for improvement and makes certain recommendations for action. Among the significant strengths identified are the following: tight control of staff levels and employee compensation, sound financial planning, sound management of the Seabrook project, and a strong transmission and distribution system planning and engineering function. According to the report, the more significant opportunities for improvement are in the following areas: the overburdening of top management, correction of operating problems at Merrimack Station, fuel procurement and storage, and public relations. In addition to recommending expansion of the top management group by the creation of several new executive positions, the report recommends reorganization and strengthening of the fuel management function, strengthening of the public affairs function, and a comprehensive review of Merrimack Station operations. The NHPUC requested the Company to comment on the audit report and to state how it proposes to implement the report's recommendations, and the Company has filed a detailed response with the NHPUC. The Company accepted most of the audit report recommendations and is in the process of implementing those recommendations which were accepted. While the implementation of any particular recommendation is not expected to have a material effect upon the Company's operations, overall improvement is expected to improve the efficiency of the Company's operations at an annual cost of approximately \$3,000,000.

As to properties and business in Maine and Vermont, the Company is subject to the regulatory authority of the Public Utilities Commission of Maine ("MPUC") and the Vermont Public Service Board, respectively. Additionally, both the Connecticut Department of Business Regulation — Division of Public Utility Control and the Massachusetts Department of Public Utilities have limited jurisdiction over the Company based on the Company's ownership as a tenant-in-common of portions of the Millstone #3 and Pilgrim #2 nuclear units. See "Joint Projects" above. The Company is also subject, as to some phases of its business, including accounting, certain rates, and licensing of its hydro-electric generating plants, to the jurisdiction of the Federal Energy Regulatory Commission ("FERC") under the Federal Power Act. The various nuclear generating units in which the Company has an ownership interest are subject in their construction and operation to the broad regulatory jurisdiction of the NRC under the Atomic Energy Act of 1954, particularly in regard to public health, safety, environmental and antitrust matters. See also "Environmental Matters" below.

### **Rates — New Hampshire Retail.**

On May 25, 1978, the NHPUC granted the Company an increase in its New Hampshire retail rates of approximately \$30,000,000 on an annual basis based on a test year ending in April, 1977. The order allowed the Company a return on common equity of 14%, an overall rate of return of 10.19%, and included in rate base CWIP associated with major generating facilities. The order of the NHPUC was affirmed by the New Hampshire Supreme Court on May 17, 1979. The rates filed with the NHPUC in April, 1977 were placed in effect on December 3, 1977 subject to refund; under the NHPUC's May 25, 1978 order, no refunds were necessary. On May 17, 1979 the New Hampshire Supreme Court decided that the Company had unlawfully applied the new higher rates to bills rendered after December 3, 1977 for service rendered before that date, and the Company has been ordered by the NHPUC to make refunds to its New Hampshire retail customers, estimated at approximately \$1,000,000.

On May 7, 1979 a New Hampshire statute prohibiting the inclusion of CWIP in the Company's rate base became effective. The NHPUC has ordered the Company to eliminate CWIP from its rate base but has indicated that the removal of CWIP could not be accomplished without a concurrent reexamination of the entire revenue question and noted its preliminary conclusion that the exclusion of CWIP by increasing the overall risk to investors justifies an overall rate of return to the Company higher than that allowed in the 1978 proceeding.

The Company filed with the NHPUC on August 31, 1979, a new tariff intended to establish new permanent rates designed to generate revenues approximately \$18,500,000 (about 8.5%) on an annual basis higher than those presently in effect. These rates would be based on a test year ending May 31, 1979 and in part on pro forma adjustments to reflect changes since that date, deletion of CWIP from rate base, an increase in depreciation rates for distribution plant, normalization of the income tax effect of liberalized depreciation with respect to property placed in service after 1970, and an 18% return on common equity. The new tariff has been suspended for investigation, and evidentiary hearings are expected to begin in December, 1979 following the filing of testimony and a discovery period. See "Problems Facing the Company".

The Company has a fuel adjustment clause which is designed to recover, after a two months' lag, all fuel costs above base, including the energy portion of the cost of purchased power. A hearing and prior approval by the NHPUC is required with respect to each month's fuel adjustment rate.

In January, 1975, the NHPUC ordered an investigation into the rate structures of the electric utilities under its jurisdiction. Hearings began in July, 1975 and continued from time to time through 1978. While the investigation has not been concluded, the proceeding has involved only the proper distribution of rates among the various customers and customer classes and not overall revenue requirements. Pursuant to an interim order of the NHPUC issued in January, 1977, the Company has implemented peak-load pricing rate experiments involving certain of its customers. Legislation was enacted in 1978 requiring the Company to offer time of day and seasonal rates on an optional basis, and such rates have been made available to its residential customers and have been filed for its other customers.

### ***Rates — Other.***

Rates to the Company's wholesale-for-resale customers increasing revenues from these customers by approximately \$3,865,000 on an annual basis became effective as of April 11, 1976. On April 28, 1978, the Company filed new rates with FERC proposed by the Company to be effective on May 29, 1978 that would increase revenue from the Company's wholesale-for-resale customers by approximately \$2,400,000 or 7.7% on an annual basis based on a 1978 test year; the new rates went into effect subject to refund on July 29, 1978. The Company has also filed with FERC a petition requesting the inclusion of CWIP in rate base. After trial of the CWIP issue, the Administrative Law Judge issued an initial decision on January 25, 1979, which authorized the Company to include in rate base CWIP associated with major generating facilities and which allowed the Company a return on common equity of 13%. That decision has been appealed to FERC. The Company cannot place wholesale rates based on CWIP into effect unless and until FERC issues a final favorable decision on the CWIP issue.

In another proceeding before FERC, the Company's right to collect through a surcharge approximately \$1,850,000 of accrued but unbilled fuel clause revenue was contested by certain wholesale-for-resale customers, and FERC ruled against the surcharge and ordered the Company to refund approximately \$1,622,000 with interest, the balance not having been billed. FERC's decision was affirmed by the United States Court of Appeals for the District of Columbia Circuit, and the Company is seeking Supreme Court review. See Note B to the Statement of Earnings. In another phase of the same pro-

ceeding, FERC has ordered a refund of the higher cost of spot-market purchases of coal by the Company; the Company has been granted a rehearing on the order.

Rates essentially identical to those in effect in New Hampshire prior to December 3, 1977 were placed in effect in Vermont on May 1, 1975, and in Maine on March 2, 1976. On an annual basis, about \$65,000 of additional revenues results from the Vermont increase and approximately \$592,000 results from the Maine increase. In its decision allowing the increase to become effective in Maine, the MPUC commented on the disparity between the allowed rates of the Company and those of Central Maine Power Company (CMP), which serves adjacent territory at lower rates. The decision requested the managements of the two companies to discuss the possibility of a transfer of the Company's Maine business to CMP and stated that in the future the MPUC might use CMP's rates as a yardstick to determine the reasonableness of the Company's rates. While preliminary discussions have been held between the two managements, no conclusions have been reached concerning the desirability of such a transfer. A complaint was filed with the MPUC in April, 1976, by two Maine municipalities and a number of their residents who are customers of the Company alleging that the Company's rates are unreasonable and discriminatory and requesting that the rates be reduced to a level no higher than the rates of CMP. Hearings began in December, 1976, and the proceeding is still pending. In 1978 the Company obtained from its Maine customers approximately 1.4% of its operating revenues.

On August 20, 1979 the Company filed with the MPUC a petition requesting an urgently necessary temporary rate adjustment for its Maine customers, which would increase revenues approximately 9% or \$340,000 on an annual basis. The Company also notified the MPUC that it would be filing for a permanent rate increase by October 31, 1979. The Company has requested prompt action by the MPUC but cannot predict if or when these new rates will go into effect.

The Company intends in the near future to offer for sale its business and properties in Vermont, the revenues from which in 1978 amounted to approximately \$672,000, or about .25% of the Company's operating revenues.

### **Fuel Supply.**

For the twelve months ended June 30, 1979, the Company's firm net output was derived 49% from oil, 38% from coal, 7% from nuclear, and 6% from hydro. As indicated above under "Power Supply and Properties" and "New England Power Pool", substantially all of New England's generation and transmission systems, including those of the Company, are operated as if they were a single system.

**Oil.** The New England electric utilities, including the Company, make greater use of fuel oil for generation of power than those in any other region of the country. Most fuel oil supplies of the New England utilities are derived from foreign sources and are subject to interference by foreign governments and price increases. The Company has a contract expiring on December 31, 1979 with a supplier for fuel oil for the Company's oil-fired plants and the Company is currently soliciting bids for the 1980 supply of fuel oil. The storage capacity for the Company's two large oil-burning plants is approximately 30 days operating at full load, and inventory varies substantially depending upon oil shipments. During 1979, the average inventory through June 28, 1979 was approximately 14 days operating at full load. The two small plants have limited storage capacity. See "Environmental Matters" below.

**Coal.** Coal for the Company's only coal-burning unit, the 456 MW Merrimack plant, is presently being furnished from West Virginia sources under a contract which expires in April, 1983. The

contract generally provides that a 45-day supply of coal is to be maintained for the Company, that the base price of the coal may be changed by the seller annually but the Company's disagreement with the change will result in termination of the contract at the end of the year, and that the price of the coal is subject to certain adjustments for changes in the seller's costs. The Company's policy is to maintain a 60-day supply of coal on hand for the Merrimack plant; at August 18, 1979, a 71-day supply was on hand. The plant, with 119 MW and 337 MW units, presently requires a total of approximately 1,000,000 tons of coal per year. Future annual tonnage requirements of the Company may be more or less than that figure depending upon a number of variables including particularly the relative cost and availability of coal and other fuels and possible conversion of units presently burning oil. See "Environmental Matters" below.

The Company's approximate average costs of oil and coal for 1973 through July 31, 1979 were as follows:

	Oil Per Barrel	Oil Per Million BTU	Coal Per Ton	Coal Per Million BTU	Coal Spot Price Per Ton
1973 .....	\$ 3.75	\$0.61	\$13.78	\$0.51	•
1974 .....	11.32	1.83	21.97	0.82	\$40.67
1975 .....	11.49	1.88	32.55	1.24	37.50
1976 .....	10.95	1.77	34.33	1.25	35.27
1977 .....	12.97	2.09	35.54	1.31	•
1978 .....	12.13	1.95	39.09	1.47	38.54
1979 (through July 31)	13.80	2.21	40.89	1.51	•

\*No spot purchases by the Company during the period.

*Nuclear.* The cycle of production of nuclear fuel consists of (1) the mining and milling of uranium ore, (2) the conversion of uranium concentrate to uranium hexafluoride, (3) the enrichment of the uranium hexafluoride, (4) the fabrication of fuel assemblies and (5) the reprocessing, storage, or disposal of spent fuel.

With respect to the Seabrook units, the Company has long-term contracts for enrichment. The Company also has contracts for conversion services and for the fabrication of the initial cores and six reload regions (each region consisting of one-third of a complete core). These contracts are expected to meet the Company's requirements for fuel cycle services as follows: enrichment through 2008, conversion through 1987, and fabrication through 1986.

The Company has contracted for all of the uranium concentrates required to commence operation of the Seabrook units and is actively seeking additional sources thereof, which it expects will be available when needed. The Company has no contractual arrangements for reprocessing of spent fuel and there are no reprocessing facilities currently operating in the United States; President Carter has stated the position of his Administration to be that the United States should defer indefinitely commercial reprocessing and the recycling of spent nuclear fuel. If such services are not available when required for the Seabrook units, the spent fuel can be stored pending reprocessing or disposal. Although the cost of such storage is not known at the present time, it is anticipated that such cost would be substantial. The Company cannot predict at this time what difficulties will be encountered regarding disposal of nuclear wastes. The NRC, along with other federal agencies, is in the process of developing regulations and guidelines in this area. The Company expects to develop plans for the disposal of its nuclear wastes after promulgation of these regulations and such plans will be subject to regulatory approvals.



The Company has been advised by the companies operating, planning or constructing the other nuclear generating stations in which the Company has an interest that they have contracted for certain segments of the nuclear fuel production cycle through various dates. The Company has further been advised by the sponsors of the four operating nuclear generating stations that they have or will have storage capacity to meet the spent fuel storage needs of the units through various dates ranging from 1985 to the late 1990's. Contracts for other segments of the fuel cycle will be required in the future, and their availability, prices and terms cannot now be predicted.

### ***National Energy Policy.***

A national energy act was recently enacted dealing with coal conversion, gas deregulation, energy conservation, energy taxes and utility rate regulation; the effect of this act on the Company, including its rates and fuel supply, cannot be predicted at this time.

### ***Environmental Matters.***

The Company is subject to regulation with regard to air and water quality, and may be subject to regulation with regard to other environmental considerations, by various federal, state and local authorities. The Company cannot forecast the effect of all such regulations upon its generating, transmission and other facilities, or its operations.

The application of federal, state and local standards to protect the environment, including but not limited to those hereinafter described, involves or may involve review, certification or issuance of permits by various federal, state and local authorities. Such standards, particularly in regard to emissions into the air and water, thermal mixing zones and water temperature variations, may halt, limit or prevent operations, or prevent or substantially increase the cost of construction and operation of installations and may require substantial investments in new equipment at existing installations. They may also require substantial investments above the figures stated under "Construction Program" for proposed new projects.

*Air Quality Control.* Pursuant to the Federal Clean Air Act of 1970, as amended, the State of New Hampshire acting through the New Hampshire Air Pollution Control Commission ("APCC") has adopted regulations containing standards limiting emissions of particulates, sulphur oxides and nitrogen oxides, which are generally designed to achieve and maintain Federal primary ambient air quality standards. The Company believes that its fossil fuel generating units are being operated in compliance with APCC's regulations.

Pursuant to the 1977 amendments to the Clean Air Act, the APCC has proposed lists showing those areas of New Hampshire which have attained or failed to attain national ambient air quality standards, has reviewed the State implementation plan, and has filed a revised State implementation plan with the EPA. It does not appear that any of the revisions in the State implementation plan will require the Company either to modify operations at any of its fossil fuel generating plants or expend funds for additional air pollution control equipment.

While coal now available and expected to be available in the future for the Company's Merrimack Station presently meets all applicable requirements, if more stringent requirements become effective which could not be met by such coal, the Company might have to install sulphur removal equipment at substantial capital cost or take such other actions as may be required by regulatory authorities. The installation of such equipment would increase operating costs and reduce the net capability of the units.

In August, 1976, a hearing by the Federal Energy Administration (now the Department of Energy) was held on the draft Environmental Impact Statement relative to a prohibition order issued by the FEA under the Energy Supply and Environmental Coordination Act of 1974 prohibiting two 50 MW units of the five units at the Company's Schiller Station from burning oil as their primary fuel. On May 7, 1979, the Department of Energy notified the Company that it was rescinding the prohibition order, which had never become effective; however, further action to require conversion to coal might be taken by the Department under the Fuel Use Act of 1978. On July 2, 1979 the NHPUC ordered hearings to commence September 4, 1979 in an investigation to determine whether any of the five Schiller Station units should be converted from burning oil to burning natural gas or coal. Any conversions from oil to coal would require substantial expenditures and reduce the capability of the units affected.

*Water Quality Control.* The Company has received from EPA, or from the Maine Department of Environmental Protection in the case of one generating station located in the State of Maine, all permits required under the Federal Water Pollution Control Act, as amended, for discharges of thermal and other effluents from its generating stations. Such permits have varying expiration dates and the Company has made and expects to make timely applications for renewal. The EPA issued effluent limitations guidelines for steam electric power plants based on application of the best practicable control technology (to be met by July 1, 1977) and of the best available technology economically achievable (to be met by July 1, 1984), and alternate effluent standards with respect to thermal discharges from steam electric power plants. The guidelines and standards impose rigorous limitations upon the industry. An industry group filed an appeal in a Federal Court of Appeals challenging the guidelines and standards, and the Court of Appeals remanded the guidelines and standards to the EPA for reconsideration of certain of them. The Company is in compliance with the July 1, 1977 guidelines.

The discharge permit for the Company's Newington plant contains conditions requiring installation of some type of closed-cycle condenser cooling system if an exemption is not obtained. The Company has been studying the effects of the plant's operation on the aquatic environment of the Piscataqua River and will apply to EPA for an exemption to permit continuation of the present once-through cooling. While it cannot be known what action EPA will take on such application when filed, the Company believes that the results of its studies will support the granting of such exemption. If the Company should be unable to obtain such requested exemption, it would have to make substantial capital expenditures to install the closed-cycle condenser cooling system.

Pursuant to a requirement in its discharge permit for its Merrimack plant located on the Merrimack River, the Company is studying the effects of the plant's operation on the aquatic environment of the Merrimack River and expects to be able to show, as required by the permit, that discharges from the present once-through cooling system either are in compliance with the thermal limitations in the permit or will not interfere with the resident and migratory fish in the affected portion of the Merrimack River.

The Company's construction and operation of the Seabrook plant, including environmental considerations, is subject to regulation by the NRC and the EPA. See "Seabrook Nuclear Project" above.

*Other Environmental Expenditures.* The Company's capital expenditures for environmental protection facilities amounted to approximately \$12,613,000 for 1978, the major portion of which was

for facilities to reduce the thermal effect of the discharge of the Seabrook plant condenser cooling systems, with \$250,000 for the control of water pollution at other Company facilities.

For the years 1979 and 1980 and for the years 1981-1982, there will be approximately \$8,500,000, \$7,500,000 and \$7,500,000, respectively, of further expenditures for these pollution control facilities. The foregoing amounts are included in the construction expenditures set forth under the caption "Unadjusted 1979-1985" in the table under "Construction Program." Any expenditures associated with the conversion at the Schiller Station referred to above would be in addition to these amounts.

### ***Employees, Salaries and Wages.***

The Company has approximately 1,730 employees, of whom 35% are represented by unions with which the Company has contracts. Such contracts became effective June 1, 1979, and will expire on July 31, 1981. The contracts reflect a 7.5% general wage increase effective June 3, 1979 and an additional 7.9% increase effective June 1, 1980. Increases comparable to the June 3, 1979 increase to union-represented employees will be granted to non-represented employees.

### ***Voluntary Wage and Price Guidelines.***

The Company is subject to the voluntary Wage and Price Standards of the Federal Council on Wage and Price Stability, which provide basically that annual increases of wages and benefit payments should not exceed 7% and that prices should not be increased during 1979 more than .5 of 1% below the average annual rate of increase during 1976-1977. The regulatory agencies are asked to assure compliance to the fullest extent possible. The Company is unable to predict what effect these standards will have upon its operations in the future.

### ***Municipalities and Cooperatives.***

New Hampshire law permits municipalities to engage in the production and sale of electricity, including the power to condemn the plant and property of any existing public utility which is located in the municipality. Under legislation enacted in 1975, intended primarily to enable all electric systems (including municipalities) to participate in regional bulk power supply projects, New Hampshire municipalities now have broader powers with respect to contracting and extra-territorial activity, as well as the power to finance through the issuance of revenue bonds the ownership of new generating units of at least 25 MW and new transmission facilities of at least 69 KV. The City of Berlin took preliminary action in 1969 and 1970 authorizing the City to engage in the production, distribution and sale of electricity, but the matter has not been finally determined. The Company's revenues from sales in the City of Berlin in 1978 were about \$6,220,000 including revenues of about \$3,229,000 from a single large industrial customer. If the City of Berlin were to acquire ownership of the Company's property, the Company would be entitled to compensation for the fair value of its property and any severance damages. No other municipality served at retail by the Company is, so far as is known to the Company, taking steps to engage in such business.

New Hampshire Electric Cooperative, Inc., a cooperative association financed by the Rural Electrification Administration, as well as five small municipal electric utilities, operate in areas adjacent to areas served by the Company. The Cooperative purchases most of its electricity from the Company and is subject to regulation by the NHPUC as a public utility.

## REPORT OF INDEPENDENT CERTIFIED PUBLIC ACCOUNTANTS

The Board of Directors

PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE

We have examined the balance sheet of Public Service Company of New Hampshire as of December 31, 1978 and the related statements of earnings, retained earnings, other paid-in capital and changes in financial position for each of the five years in the period 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 aforementioned financial statements present fairly the financial position of Public Service Company of New Hampshire at December 31, 1978 and the results of its operations and the changes in its financial position for each of the five years in the period then ended, in conformity with generally accepted accounting principles applied on a consistent basis.

PEAT, MARWICK, MITCHELL & CO.

Boston, Massachusetts

February 16, 1979, except as to Note 8,  
which is as of March 5, 1979

# PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE

## BALANCE SHEET

### ASSETS

	July 31, 1979	December 31, 1978
	(Unaudited)	
	(Thousands of Dollars)	
Utility Plant, at Original Cost (Note 1):		
Electric Plant .....	\$516,360	\$507,711
Less Accumulated Provision for Depreciation .....	142,979	134,373
	<u>373,381</u>	<u>373,338</u>
Unfinished Construction (Principally Nuclear Generating Projects) (Note 8) .....	432,405	346,382
Net Utility Plant .....	<u>805,786</u>	<u>719,720</u>
Investments (Note 1):		
Nuclear Generating Companies .....	9,670	9,529
Real Estate Subsidiary .....	4,188	4,472
Other, at Cost .....	184	184
Total Investments .....	<u>14,042</u>	<u>14,185</u>
Current Assets:		
Cash (Note 3) .....	2,177	1,879
Accounts Receivable .....	24,132	27,588
Unbilled Revenue, Estimated (Note 1) .....	19,328	8,057
Fuel, Materials and Supplies, at Cost .....	24,288	20,743
Prepayments .....	1,170	3,330
Total Current Assets .....	<u>71,095</u>	<u>71,597</u>
Other Assets:		
Miscellaneous Properties .....	453	314
Deferred Debits .....	6,237	5,359
Unamortized Debt Expense .....	985	926
Total Other Assets .....	<u>7,675</u>	<u>6,599</u>
	<u><u>\$898,598</u></u>	<u><u>\$812,101</u></u>

See accompanying Notes to Financial Statements.



# PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE

## BALANCE SHEET

### CAPITALIZATION AND LIABILITIES

Capitalization:	July 31, 1979	December 31, 1978
Common Stock Equity:	(Unaudited)	
Common Stock — \$5 Par Value (Note 5)	(Thousands of Dollars)	
Authorized: 18,000,000 Shares		
Outstanding: 13,845,472 Shares (1978 — 9,786,969)	\$ 69,227	\$ 48,935
Other Paid-In Capital	165,140	108,232
Retained Earnings (Note 6)	69,655	71,140
Total Common Stock Equity	<u>304,022</u>	<u>228,307</u>
Redeemable Preferred Stocks (Sinking Fund) (Note 4):		
<u>Dividend</u> <u>Par Value</u> <u>Shares Outstanding</u>		
7.64%      \$100      120,000	12,000	12,000
9.00%      \$100      180,000	18,000	18,000
11.24%      \$ 25      1,200,000 (1978—None)	30,000	—
Total Redeemable Preferred Stocks	<u>60,000</u>	<u>30,000</u>
Non-Redeemable Preferred Stocks (Notes 4 and 5):		
<u>Dividend</u> <u>Par Value</u> <u>Shares Outstanding</u>		
3.35%      \$100      102,000	10,200	10,200
4.50%      \$100      75,000	7,500	7,500
5.50%      \$100      49,217 (1978—58,622)	4,922	5,862
7.92%      \$100      150,000	15,000	15,000
11.00%      \$ 25      600,000	15,000	15,000
Total Non-Redeemable Preferred Stocks	<u>52,622</u>	<u>53,562</u>
Long-Term Debt — Net (Note 7)	<u>261,211</u>	<u>287,252</u>
Current Liabilities:		
Notes Payable — Banks (Note 3)	72,100	85,325
Long-Term Debt to be Retired Within One Year (Note 7)	27,216	5,231
Accounts Payable (Note 3)	47,756	68,035
Dividends Payable	9,704	—
Accrued Taxes	12,444	12,349
Accrued Interest	8,541	6,215
Other	1,247	1,145
Total Current Liabilities	<u>179,008</u>	<u>178,300</u>
Deferred Credits:		
Accumulated Deferred Investment Tax Credits (Note 1)	13,744	12,488
Accumulated Deferred Taxes on Income (Note 1)	27,469	21,716
Other	522	476
Total Deferred Credits	<u>41,735</u>	<u>34,680</u>
Commitments and Contingencies (Note 8)		
	<u>\$898,598</u>	<u>\$812,101</u>

See accompanying Notes to Financial Statements.

# PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE

## STATEMENT OF RETAINED EARNINGS

	Seven Months Ended July 31, 1979  (Unaudited)	Year Ended December 31,				
		1978	1977	1976	1975	1974
		(Thousands of Dollars)				
Balance at Beginning of Period	\$71,140	\$58,725	\$56,084	\$51,936	\$45,070	\$40,613
Net Income	23,919	36,507	21,722	20,995	20,808	16,300
	<u>95,059</u>	<u>95,232</u>	<u>77,806</u>	<u>72,931</u>	<u>65,878</u>	<u>56,913</u>
Deduct:						
Dividends Declared:						
Preferred Stock, at Required Annual Rates	5,544	6,394	4,925	4,854	3,416	3,379
Common Stock	19,860	17,698	14,156	11,993	10,526	8,464
Total Dividends	<u>25,404</u>	<u>24,092</u>	<u>19,081</u>	<u>16,847</u>	<u>13,942</u>	<u>11,843</u>
Balance at End of Period (Note 6)	<u>\$69,655</u>	<u>\$71,140</u>	<u>\$58,725</u>	<u>\$56,084</u>	<u>\$51,936</u>	<u>\$45,070</u>

## STATEMENT OF OTHER PAID-IN CAPITAL

	Seven Months Ended July 31, 1979  (Unaudited)	Year Ended December 31,				
		1978	1977	1976	1975	1974
		(Thousands of Dollars)				
Balance at Beginning of Period	\$108,232	\$ 90,409	\$70,821	\$54,411	\$53,102	\$38,348
Excess of Proceeds over the Par Value on the Issuance of Common Stock:						
Sold — 1,650,000 Shares in 1974, 1,000,000 Shares in 1976, 1,200,000 Shares in 1977, 1,321,284 Shares in 1978 and 4,017,474 Shares in 1979	57,448	17,461	18,961	15,781	(24)	14,665
Conversions — 5.50% Convertible Pre- ferred Stock, 3,632 Shares in 1974, 97,545 Shares in 1975, 35,000 Shares in 1976, 37,092 Shares in 1977, 21,171 Shares in 1978 and 41,029 Shares in 1979	735	407	751	739	2,061	89
Preferred Stock Issuance Expenses	(1,275)	(45)	(124)	(110)	(728)	—
Balance at End of Period	<u>\$165,140</u>	<u>\$108,232</u>	<u>\$90,409</u>	<u>\$70,821</u>	<u>\$54,411</u>	<u>\$53,102</u>

See accompanying Notes to Financial Statements.

# PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE

## STATEMENT OF CHANGES IN FINANCIAL POSITION

	Twelve Months Ended July 31, 1979	Year Ended December 31,				
	(Unaudited)	1978	1977	1976	1975	1974
		(Thousands of Dollars)				
Source of Funds:						
From Operations:						
Net Income	\$ 39,497	\$ 36,507	\$ 21,722	\$ 20,995	\$ 20,808	\$ 16,300
Principal Non-Cash Charges						
(Credits) to Income:						
Depreciation	15,170	14,752	14,117	13,791	13,522	11,624
Allowance for Equity Funds						
Used During Construction	(11,309)	(7,828)	(6,093)	(3,205)	(1,573)	(1,785)
Deferred Taxes and Investment						
Credit Adjustments	10,431	7,024	5,610	2,517	6,400	4,136
Total from Operations	53,789	50,455	35,356	34,098	39,157	30,275
From Outside Sources:						
Sale of Long-Term Bonds and						
Notes	60,000	60,000	25,000	15,000	22,300	45,000
Sale of Preferred Stock	30,000	—	18,000	—	15,000	—
Sale of Common Stock	78,162	24,309	25,092	20,370	—	23,022
Change in Short-Term Borrowing	2,775	30,212	55,113	—	(28,400)	(20,880)
Advance Payments from Joint						
Project Participants	10,598	—	—	—	—	—
Total from Outside Sources	181,535	114,521	123,205	35,870	8,900	47,142
Decrease in Working Capital	—	33,510	—	44,939	5,100	—
Total	\$235,324	\$198,486	\$158,561	\$114,907	\$ 53,157	\$ 77,417
Application of Funds:						
Property Additions	\$194,500	\$173,539	\$114,310	\$ 70,252	\$ 38,313	\$ 46,926
Allowance for Equity Funds Used						
During Construction	(11,309)	(7,828)	(6,093)	(3,205)	(1,573)	(1,785)
Dividends	32,171	24,092	19,081	16,847	13,942	11,843
Reduction of Long-Term Debt	2,756	5,947	9,271	29,517	947	882
Increase in Working Capital	12,847	—	20,378	—	—	19,528
Other Applications—Net	4,359	2,736	1,614	1,496	1,528	23
Total	\$235,324	\$198,486	\$158,561	\$114,907	\$ 53,157	\$ 77,417
Increase (Decrease) in Working Capital Other Than Short-Term Debt:						
Cash and Cash Investments	\$ (3,346)	\$ (3,050)	\$ (442)	\$ (2,467)	\$ 1,370	\$ 1,625
Receivables	4,229	5,596	2,195	(1,157)	(3,414)	10,481
Inventories	7,352	3,707	(3,020)	2,564	3,696	6,814
Long-Term Debt to be Retired						
Within One Year	7,741	3,327	20,332	(28,911)	95	25
Accounts Payable	(4,141)	(33,125)	(1,520)	(13,338)	(6,344)	(5,053)
Dividends Payable	(3,521)	—	—	—	—	—
Accrued Taxes	(2,090)	(11,470)	3,090	(1,054)	(2,220)	(270)
Other	6,623	1,435	(257)	(576)	1,717	5,906
Total Increase (Decrease) In Working Capital Other Than Short-Term Debt	\$ 12,847	\$ (33,510)	\$ 20,378	\$ (44,939)	\$ (5,100)	\$ 19,528

See accompanying Notes to Financial Statements.

## NOTES TO FINANCIAL STATEMENTS

(Information related to periods subsequent to December 31, 1978 is unaudited)

### 1. SUMMARY OF ACCOUNTING POLICIES

*Regulations and Operations:* The Company is subject, as to rates, accounting and other matters, to the regulatory authority of the New Hampshire Public Utilities Commission (NHPUC), the Federal Energy Regulatory Commission (FERC) and, to a lesser extent, the public utilities commissions in other New England states where the Company does business.

*Investments:* The Company follows the equity method of accounting for its investments in nuclear generating companies and in its wholly-owned real estate subsidiary. The Company's investment in this subsidiary is principally in the form of advances. The Company's investments in nuclear generating companies are:

<u>Company</u>	<u>Ownership Percent</u>	<u>July 31, 1979</u>	<u>December 31, 1978</u>
(Thousands of Dollars)			
Yankee Atomic Electric Company .....	7%	\$1,530	\$1,443
Connecticut Yankee Atomic Power Company .....	5%	2,439	2,335
Maine Yankee Atomic Power Company .....	5%	3,371	3,427
Vermont Yankee Nuclear Power Corporation .....	4%	2,330	2,324
		<u>\$9,670</u>	<u>\$9,529</u>

In the case of each of the nuclear generating companies, pursuant to provisions of purchased power contracts which are regulated by the FERC, the Company is entitled to its ownership percent of total plant output and is obligated to pay a similar share of each company's operating expenses and return on invested capital. Approximately 10.9% and 10.5% of the Company's total energy requirements were furnished by these companies in 1978 and 1977, respectively.

*Utility Plant:* Provision for depreciation of utility plant is computed on a straight line method at rates based on estimated service lives and salvage values of the several classes of property. The depreciation provisions were equivalent to overall effective rates ranging from 3.11% to 3.19% of depreciable property for the five years ended December 31, 1978. The rate for 1978 was 3.19%.

Maintenance and repairs of property are charged to maintenance expense. Replacements and betterments are charged to utility plant. At the time properties are retired, the cost of property retired plus costs of removal less salvage are charged to the accumulated provision for depreciation.

*Operating Revenues:* Revenues are based on billing rates authorized by applicable federal and state regulatory commissions which are applied to customers' consumption of electricity. The Company records estimated unbilled revenue, including amounts to be billed under a retail fuel adjustment clause, at the end of accounting periods.

*Income Taxes:* The tax effect of differences between pretax income in the financial statements and income subject to tax, which are the result of timing differences, are accounted for as prescribed by and in accordance with the ratemaking policies of the NHPUC. Accordingly, provisions for deferred income taxes are recognized only for specified timing differences. Tax reductions attributable

**NOTES TO FINANCIAL STATEMENTS — Continued**  
**(Information related to periods subsequent to December 31, 1978 is unaudited)**

**1. SUMMARY OF ACCOUNTING POLICIES — Continued**

to other timing differences are flowed through to net income as reductions of income tax expense. See Note 2.

Investment tax credits earned are deferred and amortized to income over the lives of the related properties.

*Allowance for Funds Used During Construction:* Allowance for funds used during construction is the estimated cost, during the period of construction, of equity funds and borrowed funds used for construction purposes which are not recovered from customers through revenues. See Note D to Statement of Earnings.

*Pension Plan:* The Company has a non-contributory pension plan covering all full-time employees who have met a minimum service requirement. The Company's policy is to fund current pension costs accrued. Pension plan costs were as follows: 1974 — \$1,320,000, 1975 — \$1,650,000, 1976 — \$1,850,400, 1977 — \$2,112,000, 1978 — \$2,400,000 and the twelve months ended July 31, 1979 — \$2,654,000. At December 31, 1978, vested benefits under the plan exceeded the market value of the plan's assets by approximately \$5,296,000. At that date, the total unfunded past service liability was approximately \$4,943,000.

*Earnings Per Share:* Earnings per share are based on the average number of common shares outstanding, after recognition of preferred dividend requirements.

**2. INCOME TAXES**

The components of income tax expense are as follows:

	Twelve Months Ended July 31, 1979		Year Ended December 31,				
		1978	1977	1976	1975	1974	
			(Thousands of Dollars)				
Federal:							
Operating Income	\$ 4,843	\$10,166	\$ 1,297	\$ 5,815	\$ 2,038	\$(1,342)	
Other Income and Deductions	134	(46)	(113)	(96)	159	(2,333)	
	4,977	10,120	1,184	5,719	2,197	(3,675)	
State, Included in Operating Income	2,705	2,468	1,492	1,407	1,480	987	
Total Current Income Taxes	7,682	12,588	2,676	7,126	3,677	(2,688)	
Deferred Federal:							
Operating Income	9,071	5,527	3,882	1,709	2,183	3,754	
Other Income and Deductions	(4)	(8)	—	6	2	79	
	9,067	5,519	3,882	1,715	2,185	3,833	
Deferred State:							
Operating Income	150	93	3	(37)	60	278	
Total Deferred Income Taxes	9,217	5,612	3,885	1,678	2,245	4,111	
Investment Tax Credit Adjustment	1,214	1,412	1,725	839	4,155	25	
Total Income Taxes	\$18,113	\$19,612	\$ 8,286	\$ 9,643	\$10,077	\$ 1,448	



**NOTES TO FINANCIAL STATEMENTS — Continued**  
**(Information related to periods subsequent to December 31, 1978 is unaudited)**

**2. INCOME TAXES — Continued**

In accordance with the requirements of the NHPUC, provisions for deferred income taxes are recognized only for the following timing differences:

	Twelve Months Ended July 31, 1979	Year Ended December 31,				
		1978	1977	1976	1975	1974
		(Thousands of Dollars)				
A portion of Depreciation and Amortization of Plant Facilities* .....	\$ 814	\$ 858	\$ 895	\$ 815	\$ 948	\$ 904
Accrued and Unbilled Fuel Adjustment Charges .....	1,667	1,049	36	(417)	669	3,128
The Interest Component of Allowance for Funds Used During Construction (See Note D to Statement of Earnings) .....	6,740	3,713	2,954	1,274	626	—
Other .....	(4)	(8)	—	6	2	79
	<u>\$9,217</u>	<u>\$5,612</u>	<u>\$3,885</u>	<u>\$1,678</u>	<u>\$2,245</u>	<u>\$4,111</u>

\*Current income tax reductions attributable to (1) the tax depreciation permitted under the Class Life ADR System of the 1971 Revenue Act in excess of the tax depreciation permitted under the Guideline Lives provisions of the 1969 Revenue Act and (2) the amortization of certain pollution control facilities over five year periods.

The principal reasons for the difference between the total tax expense and the amount calculated by applying the Federal income tax rate to income before tax are as follows:

	Twelve Months Ended July 31, 1979	Year Ended December 31,				
		1978	1977	1976	1975	1974
		(Thousands of Dollars)				
Income Before Income Tax	\$57,610	\$56,119	\$30,008	\$30,638	\$30,885	\$17,748
Federal Statutory Rate (1979 Approx.)	46.82%	48%	48%	48%	48%	48%
Expected Tax Expense	26,974	26,937	14,404	14,706	14,825	8,519
Increases (Reductions) in Taxes Resulting from:						
Interest and Overhead Charged to Construction and Expensed for Tax Purposes	(6,245)	(4,544)	(3,377)	(1,859)	(979)	(2,109)
Excess of Tax Over Book Depreciation	(2,166)	(2,265)	(2,318)	(2,773)	(3,019)	(3,924)
State Taxes Net of Federal Income Tax Benefits	1,518	1,332	777	712	800	658
Unbilled Revenues	(573)	(629)	(200)	(181)	(457)	(501)
Other Deductions, each less than 5% of Expected Tax Expense	(1,395)	(1,219)	(1,000)	(962)	(1,093)	(1,195)
Total Income Taxes	\$18,113	\$19,612	\$ 8,286	\$ 9,643	\$10,077	\$ 1,448

The Company has made an election under certain provisions of the Internal Revenue Code which will result in the availability of additional investment tax credits for 1978 and prior years. Such election will not affect net income but will reduce the amount of income taxes currently payable by approximately \$6,900,000.

**NOTES TO FINANCIAL STATEMENTS — Continued**  
**(Information related to periods subsequent to December 31, 1978 is unaudited)**

**3. COMPENSATING BALANCES AND SHORT-TERM BORROWINGS**

The Company uses borrowings from banks as an interim method of financing construction of new facilities. At December 31, 1978, the Company had a revolving credit agreement which permitted the Company to borrow up to \$95,000,000 through April 30, 1979 and also had line of credit agreements which aggregated \$5,350,000. See "Problems Facing the Company — Immediate Financing Program" for information concerning an extension of and increase in the revolving credit agreement. The Company pays commitment fees on the revolving credit agreement and maintains compensating balances for certain line of credit agreements. The effective cost of borrowing under the revolving credit agreement, including fees and assuming the available credit is fully utilized, is 116% of the prime interest rate of a specified bank. Compensating balances amounted to \$305,000 at December 31, 1978 and July 31, 1979.

The average interest rate on short-term borrowings at December 31, 1978 and July 31, 1979 was 12.64% at both dates. During 1978, maximum short-term borrowings were \$88,112,500; the average amount outstanding (based on month-end balances) was \$66,911,458; and the weighted average interest rate was 11.36% computed with commitment fees included in interest expense. During the twelve months ended July 31, 1979, maximum short-term borrowings were \$114,100,000; the average amount outstanding was \$78,741,667; and the weighted average interest rate was 13.49%.

At December 31, 1978, accounts payable included deferred payments to vendors of approximately \$7,500,000. Such deferrals, with interest, were paid in January, 1979. At July 31, 1979, accounts payable included advance payments aggregating \$10,600,000 from other Seabrook participants against their present ownership interests in the project. These advances are secured by the Company's interest in nuclear fuel for the Seabrook project.

**4. REDEEMABLE PREFERRED STOCKS**

The Articles of Agreement authorize the Company to issue 1,350,000 shares of Preferred Stock, \$100 Par Value and 2,000,000 shares of Preferred Stock, \$25 Par Value. The dividends of all series outstanding are cumulative.

Redeemable preferred stocks issued during the five years and seven months ended July 31, 1979 were \$18,000,000, 9% Dividend Series in October 1977 and \$30,000,000, 11.24% Dividend Series in May, 1979.

Sinking Fund provisions require the Company to redeem all shares at par on the basis of 4,800 shares annually beginning in 1984 for the 7.64% series, 10,800 shares annually beginning in 1982 for the 9% series and 60,000 shares annually beginning in 1985 for the 11.24% series. The annual Sinking Fund requirements with respect to Redeemable Preferred Stock are as follows: 1979 through 1981 — none, 1982 — \$1,080,000, 1983 — \$1,080,000 and 1984 — \$1,560,000.

Subject to certain refunding limitations, Redeemable Preferred Stocks are redeemable for other than Sinking Funds at redemption prices of \$106.37, \$109.00 and \$27.75 for the 7.64%, 9.00% and 11.24% series, respectively.

**5. NON-REDEEMABLE PREFERRED STOCKS**

During the five years and seven months ended July 31, 1979, the Company issued (in October 1975) \$15,000,000, 11% Dividend Series Preferred Stock without mandatory redemption requirements.

General redemption prices of preferred stocks without mandatory redemption requirements are: 3.35% Series \$100.00, 4.50% Series \$102.00, 5.50% Series \$100.00, 7.92% Series \$105.94 and 11% Series \$27.75.

# NOTES TO FINANCIAL STATEMENTS — Continued

(Information related to periods subsequent to December 31, 1978 is unaudited)

## 5. NON-REDEEMABLE PREFERRED STOCKS — Continued

At July 31, 1979 there were reserved for issuance upon conversion of the 49,217 shares of Convertible Preferred Stock, 5.50% Dividend Series, 218,063 shares of Common Stock based upon the conversion price of \$22.57 per share (the Convertible Preferred Stock being taken at its par value of \$100 per share).

## 6. DIVIDEND RESTRICTION

Pursuant to terms of the General and Refunding Mortgage Indenture, dividends may not be paid on the Common Stock in excess of Net Income accumulated after January 1, 1978 less the aggregate amount of all dividends paid or declared on the Preferred Stock of the Company during such period plus \$32,000,000. At December 31, 1978, and at July 31, 1979 Retained Earnings of \$44,415,000 and \$42,929,000, respectively, were not subject to dividend restriction.

## 7. LONG-TERM DEBT

	July 31, 1979	December 31, 1978
	(Thousands of Dollars)	
First Mortgage Bonds:		
Series E — 3 %, Due 1979	\$ —	\$ 3,356
Series H — 3¼ %, Due 1984	10,483	10,483
Series I — 3⅞ %, Due 1986	7,012	7,047
Series M — 4⅝ %, Due 1992	21,964	22,149
Series N — 6⅛ %, Due 1996	15,874	15,910
Series O — 6¼ %, Due 1997	14,122	14,173
Series P — 7⅛ %, Due 1998	14,247	14,277
Series Q — 9 %, Due 2000	19,205	19,206
Series R — 7⅝ %, Due 2002	19,455	19,455
Series S — 9 %, Due 2004	19,643	19,778
Series T — 12¾ %, Due 1981	24,719	25,000
Series U — 10¾ %, Due 1985	15,000	15,000
Series V — 9⅛ %, Due 2006	15,000	15,000
Series W — 10⅛ %, Due 1993	10,000*	10,000*
	206,724	210,834
Less — Deposited with Trustee of the General and Refunding Mortgage Indenture as additional security for General and Refunding Bonds	10,000*	10,000*
Total First Mortgage Bonds	196,724	200,834
General and Refunding Mortgage Bonds:		
Series A — 10⅛ %, Due 1993	60,000	60,000
Promissory Note, Due January 3, 1980 with interest at 116% of lending bank's prime rate plus 0.25%	25,000	25,000
Pollution Control Revenue Bonds:		
8¼ %, Due December 1979	1,500	1,500
9 %, Due December 1984	5,800	5,800
Total Long-Term Debt	289,624	293,134
Less: Long-Term Debt To Be Retired Within One Year	27,216	5,231
Unamortized Premium and Discount	597	651
	27,813	5,882
Long-Term Debt — Net	\$261,211	\$287,252

## NOTES TO FINANCIAL STATEMENTS — Continued

(Information related to periods subsequent to December 31, 1978 is unaudited)

### 7. LONG-TERM DEBT — Continued

The annual Sinking Fund requirements with respect to First Mortgage Bonds, which may be met by the payment of cash or bonds or, up to one-half of their amounts, by the certification of additional property, are as follows: 1979 — \$2,213,241, 1980 — \$2,463,241, 1981 — \$2,636,318, 1982 — \$2,052,984, 1983 — \$2,052,984 and 1984 — \$2,052,984. Annual Sinking Fund requirements with respect to the General and Refunding Mortgage Bonds are \$5,460,000 payable in cash beginning in 1983.

Long-term debt maturities, excluding the aforementioned Sinking Fund requirements, are as follows: 1979 — \$4,856,000, 1980 — \$25,000,000, 1981 — \$25,000,000, 1982 — None, 1983 — None and 1984 — \$16,283,000.

Under the terms of the First Mortgage Indenture and the General and Refunding Mortgage Indenture, substantially all utility property of the Company is subject to the liens thereof.

### 8. COMMITMENTS AND CONTINGENCIES

The Company (both as sole and as joint owner of facilities) and the nuclear generating companies in which the Company has investments, in common with other electric utilities, are subject to present and developing regulations with regard to air and water quality, nuclear plant licensing and safety, land use and other environmental matters by various Federal, state and local authorities. It is possible that compliance with such regulations may require additional capital expenditures and increased operating costs not now determinable in amount.

If the Company's construction program is not reduced as described in the next paragraph, construction program expenditures are forecast to be \$195,700,000 for 1979 and \$911,600,000 for 1980 through 1985 (excluding allowance for funds used during construction). These estimates included \$158,700,000 and \$591,200,000, respectively, for the Company's interest in a nuclear generating station under construction in Seabrook, New Hampshire, and \$5,300,000 and \$70,500,000, respectively, for the Company's interests in other nuclear generating units owned on a tenancy-in-common basis with other New England utilities. The Company's ownership interests and its share of total expenditures included in Unfinished Construction for the jointly-owned nuclear facilities in which it is participating are as follows:

	Ownership Percent	July 31, 1979	December 31, 1978
		(Thousands of Dollars)	
Seabrook #1 and #2 .....	50.0000%	\$388,200	\$307,800
Pilgrim #2 .....	3.4700	10,800	9,600
Millstone #3 .....	3.8910	23,800	21,200
		<u>\$422,800</u>	<u>\$338,600</u>

On March 3, 1979, the Company's Board of Directors directed management to proceed to sell all of the Company's Pilgrim #2 and Millstone #3 ownership interests and to reduce its ownership interest in the Seabrook nuclear plant by offering 22% to other Seabrook participants. See "Problems

**NOTES TO FINANCIAL STATEMENTS — Continued**  
**(Information related to periods subsequent to December 31, 1978 is unaudited)**

**8. COMMITMENTS AND CONTINGENCIES — Continued**

Facing the Company" for a description of the proposed arrangements for the reduction of the Company's interest and the effect of such agreements on the Company's financing plans for 1979 and subsequent years.

Construction of the Seabrook project has required numerous approvals and permits from various state and Federal regulatory agencies. The process of obtaining these approvals and permits has been long and complex, has been consistently opposed by a number of intervening groups, has included demonstrations at the Seabrook site and has been plagued by lengthy delays which have resulted in greatly increased costs for the project. One court appeal from Federal regulatory approvals is pending and further appeals are possible. The Company is unable to predict what effect financing problems or further administrative or court decisions relating to Nuclear Regulatory Commission or Environmental Protection Agency actions may have on the Company's ability to complete the project or on the cost of the project.

**9. UNAUDITED REPLACEMENT COST INFORMATION**

The replacement cost data described in this note has been compiled in response to regulations promulgated by the Securities and Exchange Commission and represents, in the opinion of management, reasonable estimates of replacement costs given the guidelines of the regulations. However, imprecisions exist and subjective judgments have been made in the estimating process. Also, certain income effects which might result from the replacement of productive capacity are not required to be described by the regulations and have not been evaluated, including the impact of replacement on capital costs and taxes. Furthermore, the regulations do not call for a description of all factors which may result from inflation, including the impact of long-term debt outstanding in a time of inflation and these have not been evaluated or included in the replacement cost data presented. Consequently, in the opinion of management this note is of limited usefulness in the evaluation of the impact of inflation on the financial position or results of operations of the Company. Furthermore, the disclosure of this replacement cost data should not be construed as a plan to replace existing productive capacity, and the actual replacement of productive capacity may not take the form implied by the techniques used to develop the estimates. Finally, the replacement cost data presented in this note should not be taken to be management's estimate of the current value of existing property, plant and equipment.

The Company's operating costs and the recovery of its investment in utility property are significantly affected by inflation and the current and expected more stringent environmental regulations. Replacing existing utility property with equivalent productive capacity will require substantially greater dollars of capital investment than was required to construct or acquire the property originally; but replacement cost is not normally considered in the rate making process, since only the historical cost of utility property is normally included in the rate base upon which the Company is allowed to earn a fair rate of return. However, the cost of replacement property, when existing productive capacity is actually replaced, is expected to be included in the rate base.



**NOTES TO FINANCIAL STATEMENTS — Continued**  
**(Information related to periods subsequent to December 31, 1978 is unaudited)**

**9. UNAUDITED REPLACEMENT COST INFORMATION — Continued**

The computed replacement cost of the Company's productive capacity, depreciated replacement cost and related depreciation expense and corresponding historical cost data are presented below for December 31, 1978 and 1977:

	December 31, 1978		December 31, 1977	
	Historical Cost	Estimated Replacement Cost	Historical Cost	Estimated Replacement Cost
	(Thousands of Dollars)			
Utility Plant:				
Plant in Service Subject to Replacement				
Cost Disclosure	\$493,080	\$1,452,671	\$472,510	\$1,345,446
Construction Work in Progress	346,382	346,382	196,825	196,825
Other Property, at Historical Costs	14,631	14,631	14,558	14,558
Total	854,093	1,813,684	683,893	1,556,829
Accumulated Provision for Depreciation	134,373	435,985	122,364	381,292
Net Utility Plant	<u>\$719,720</u>	<u>\$1,377,699</u>	<u>\$561,529</u>	<u>\$1,175,537</u>
Depreciation Expense	<u>\$ 15,417</u>	<u>\$ 45,479</u>	<u>\$ 14,731</u>	<u>\$ 42,163</u>

*Generating Plants:* Fuel generation replacement costs were estimated on the basis of current construction cost per megawatt at December 31, 1978 and 1977 developed by engineering studies and applied to essentially the generation mix at the end of each year. Hydro generation replacement costs were calculated using the Handy-Whitman Index.

*Transmission and Distribution Plant:* High voltage transmission line replacement costs were computed based on engineering studies which determined the cost per mile of line at the end of each year. The replacement costs of certain transmission substations were computed based on costs and technology at the end of each year. The replacement costs of the remainder of transmission facilities along with the replacement costs of all distribution plant were calculated using the Handy-Whitman Index.

*General Plant:* Estimated replacement costs of buildings were developed by applying the estimated cost per square foot at the end of each year to the then present facilities. Estimated replacement costs for all other general plant were developed by applying unit prices or the appropriate Wholesale Price Index at the end of each year. Other property consists primarily of land and land rights.

*Reserve For Depreciation:* Related accumulated depreciation based on replacement costs was developed by applying the same percentage relationship that existed between depreciable plant and accumulated depreciation by functional groups on an historical cost basis at December 31, 1977 and 1978 to the current replacement costs of the same groups.

*Depreciation Expense:* Depreciation expense for the replacement costs of utility plant was developed by applying the actual average rates and methods by functional groups in use to the average of beginning and year end balances of depreciable replacement costs.

## DESCRIPTION OF THE BONDS

The Series B Bonds will mature on September 15, 1993 and will be issued under and secured by a General and Refunding Mortgage Indenture dated as of August 15, 1978 and a First Supplemental Indenture to be dated as of September 15, 1979 (the "G&R Indenture") between the Company and New England Merchants National Bank, as Trustee. The lien of the G&R Indenture is subject to the prior lien of the Company's First Mortgage (see "Security and Priority" below).

Interest on the Series B Bonds will accrue from the date of their initial issue and will be payable semi-annually on each March 15 and September 15 to holders of record on the preceding March 1 or September 1, respectively. Principal and interest will be payable at the principal corporate trust office of the Trustee in Boston, Massachusetts, and at an office of Manufacturers Hanover Trust Company, Paying Agent, in New York City. The Series B Bonds will be issued only in fully registered form without coupons in denominations of \$1,000 or multiples thereof. No service charge will be made for any transfer or exchange of Series B Bonds.

The brief summary herein of certain provisions of the G&R Indenture is merely an outline and does not purport to be complete. It uses terms defined in the G&R Indenture and is qualified in its entirety by reference to the G&R Indenture which is an exhibit to the registration statement. Where references are made to the Company's First Mortgage Indenture dated as of January 1, 1943 and supplements thereto (the "First Mortgage"), such references are qualified in their entirety by reference to the First Mortgage, which is an exhibit to the registration statement.

### Redemption

Series B Bonds will be redeemable at the option of the Company as a whole or in part at any time prior to maturity, on at least 30 days' notice given as provided in the G&R Indenture, at the general redemption prices shown in the table below, expressed as percentages of the principal amount; *provided, however*, that neither the Series B Bonds nor any portion thereof shall be redeemed prior to September 15, 1984, if such redemption is for the purpose or in anticipation of refunding such Bonds, or any portion thereof, through the use, directly or indirectly, of funds borrowed by the Company at an effective interest cost to the Company (computed in accordance with generally accepted financial practice) of less than 12.30% per annum, and the Series B Bonds will also be redeemable for the sinking fund on September 15, 1989, or any September 15 thereafter (and at any time prior to maturity through the application of certain release, insurance, eminent domain, and replacement fund moneys and certain other moneys required to be deposited with and held by the Trustee, as a whole or in part) on like notice, at the principal amount thereof, together in each case with accrued and unpaid interest to the redemption date.

**If redeemed at any time in the respective twelve-month period beginning September 15 in each of the following years:**

Year	General Redemption Price	Year	General Redemption Price
1979	112.00%	1989	105.68%
1980	111.37	1990	105.05
1981	110.74	1991	104.42
1982	110.11	1992	103.79
1983	109.47	1993	103.16
1984	108.84	1994	102.53
1985	108.21	1995	101.89
1986	107.58	1996	101.26
1987	106.95	1997	100.63
1988	106.32	1998	100.00

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All outstanding G&R Bonds, including the Series B Bonds, may also be redeemed in whole but not in part on at least 30 days' notice at the option of the Company, by issuance in exchange therefor of an equal aggregate principal amount of First Mortgage Bonds; and the Company covenants that, if the First Mortgage is amended to permit the issuance of First Mortgage Bonds against unlicensed or disconnected property additions, it will so redeem all outstanding G&R Bonds by exchange of First Mortgage Bonds. The First Mortgage Bonds exchanged for the G&R Bonds shall bear interest at the same rate, shall have the same maturity, interest payment dates and redemption prices, shall be so dated that no gain or loss in interest shall result from the exchange, and shall be entitled to the benefits of the same sinking funds (except as the First Mortgage may otherwise require) and the same dividend limitations and the same restrictions on the right of redemption, shall be entitled to the benefits of the same replacement fund or maintenance and renewal covenant.

### **Sinking Fund**

The G&R Indenture requires that the Company shall on or before September 15, 1989 and each September 15 thereafter, up to and including September 15, 1998, deposit with the Trustee the sum of \$4,500,000, payable in cash or an equivalent principal amount of Series B Bonds. The Company may, at its option, pay to the Trustee prior to any sinking fund date as an additional sinking fund payment an amount payable in cash or in Series B Bonds not exceeding the amount of the mandatory sinking fund payment; the right to make such additional sinking fund payment in any year shall not be cumulative.

### **Replacement Fund**

So long as any First Mortgage Bonds remain outstanding, the Company will comply with the requirements of the maintenance and renewal covenant under the First Mortgage, as described below. When said requirements cease, the Company will be obligated under the G&R Indenture to pay to the Trustee as a replacement fund  $2\frac{1}{4}\%$  of the average of its investment in depreciable property on the last day of each month of the previous calendar year. The replacement fund requirement may be satisfied by cash, G&R Bonds of any series, or Available Amount of Additional Property. Additional property evidenced under either the maintenance and renewal covenant of the First Mortgage or the replacement fund under the G&R Indenture may be used to offset certain retirements in computing Available Net Additional Property.

### **Maintenance and Renewal Covenant**

The First Mortgage contains a specific maintenance and renewal covenant providing that the Company will, during each calendar year, in the aggregate expend for, or allocate Additional Property to, or deposit in cash with the Trustee on account of maintenance, repairs, renewals and replacements, a total of not less than 15% of the gross operating revenues (after deduction of the aggregate cost of electric energy, gas and steam purchased for resale) during such period from the physical properties, other than leased properties, covered by the First Mortgage and used for the Primary Purposes of the Company's Business. Expenditures, deposits and allocations from insurance and eminent domain proceedings and certain other sources may not be included.

## Security and Priority

The Series B Bonds will be secured by the G&R Indenture equally and ratably with G&R Bonds of other series by a mortgage lien on substantially all the properties and franchises owned by the Company at the time of the execution and delivery of the First Supplemental Indenture and on substantially all property and franchises subsequently acquired by the Company, except real property in Maine and Massachusetts acquired after the filing of the First Supplemental Indenture and before the filing of a further supplemental indenture specifically subjecting such after-acquired property to such lien; subject, however, to the payment of the Trustee's charges, to the lien of the First Mortgage, to liens on after-acquired property existing at the time of acquisition or created in connection with the purchase thereof not exceeding 60% of the Cost or Fair Value, whichever is less, to certain exceptions set forth in the descriptions of properties in the G&R Indenture and in the deeds referred to in such descriptions, and to Permitted Liens. Certain types of property are excepted from the lien of the G&R Indenture, including, among others; fuel, nuclear cores and materials; all gas, oil, and other mineral properties and personal property related thereto; supplies; cash; securities; contracts; and accounts receivable. While the principal currently operating generating stations, dams, and sub-stations are on land owned by the Company, the principal transmission lines are mostly on lands of others pursuant to easement rights. Ownership of generating stations now under construction is held in undivided joint ownership with other utility participants.

No debt may be created by the Company ranking prior to or on a parity with the Series B Bonds with respect to the security provided by the G&R Indenture, except additional G&R Bonds issued in the manner summarized below, First Mortgage Bonds pledged with the Trustee under the G&R Indenture, obligations supported by additions and enlargements to property already subject to certain types of prior liens (none of which currently exist), and purchase money obligations existing or created in connection with the acquisition of after-acquired property not to exceed 60% of its cost or value. Prior liens and purchase money obligations, other than First Mortgage Bonds, shall not exceed 25% of the sum of all outstanding G&R Bonds and obligations (other than Pledged Bonds) representing liens prior to the G&R Indenture.

G&R Bonds are further secured by First Mortgage Bonds which the Company is obligated to issue and pledge with the G&R Trustee. Upon any application to issue G&R Bonds (including the Series B Bonds) or certain other actions, the Company is required to deposit as a pledge with the G&R Trustee First Mortgage Bonds ("Pledged Bonds") in the maximum amount then issuable, subject to certain optional limitations. The Pledged Bonds are secured, together with all First Mortgage Bonds now issued and outstanding under the First Mortgage, by a direct first mortgage lien on substantially all the property of the Company, and after-acquired property to the extent permitted by law, subject only to excepted property and Permitted Encumbrances. Under the First Mortgage, additional First Mortgage Bonds may be issued against the retirement at maturity of a like amount of First Mortgage Bonds or against 60% of the Net Amount of Additional Property; however, in the G&R Indenture the Company has covenanted to issue First Mortgage Bonds only for pledging with the G&R Trustee. The Company has also covenanted in the G&R Indenture not to permit certain modifications to the First Mortgage which could reduce the amounts of First Mortgage Bonds issuable in the future, for the purpose of pledging under the G&R Indenture. The Pledged Bonds will be nontransferable.

In 1978, when \$60,000,000 of G&R Bonds, Series A, were issued, the Company deposited \$10,000,000 of Pledged Bonds and the Company intends to issue \$9,302,000 of additional Pledged

Bonds upon the issuance of the Series B Bonds. Because of provisions in the First Mortgage which limit the availability of property additions to support issuance of additional bonds (see "Financing — Mortgage Bonds"), there can be no assurance that the deposit of significant amounts of Pledged Bonds will occur when subsequent series of G&R Bonds are issued. The Company does not pay interest on the Pledged Bonds. The principal benefit to holders of G&R Bonds provided by the Pledged Bonds will be that, in the event of a reorganization or insolvency of the Company, the allocation to the holders of G&R Bonds may be increased by reason of their participation in the lien of the First Mortgage through the Pledged Bonds. Upon the retirement of all non-pledged First Mortgage Bonds (in 2006, or earlier if such First Mortgage Bonds are called for redemption), the First Mortgage will be discharged and the G&R Bonds will become first mortgage bonds.

Under the Atomic Energy Act, neither the Trustee nor any other transferee of the Company's property may operate a nuclear generating station without authorization from the Nuclear Regulatory Commission.

### **Release and Substitution of Property**

The G&R Indenture provides that subject to various limitations property may be released from the lien thereof on a sale or other disposition upon the deposit with the Trustee of cash, purchase money obligations or Additional Property equal to the Fair Value of the property released.

### **Additional G&R Bonds**

Additional G&R Bonds of any series may be issued as follows: (A) against 60% of the Available Net Additional Property, (B) to refund a like amount of First Mortgage Bonds of any series which are not then Funded, (C) to refund a like amount of bonds which are not then Funded originally issued under a mortgage (the lien of which is prior to the lien of the G&R Indenture) existing on property at or immediately prior to the time of acquisition by the Company of such property, (D) to refund a like amount of G&R Bonds of any series which are not then Funded, and (E) against the deposit of money. Money so deposited may be withdrawn in amounts equal to the principal amount of G&R Bonds otherwise issuable against Available Net Additional Property or to refund bonds.

When issuing G&R Bonds against Additional Property or the deposit of money, the Company must demonstrate that Net Earnings (not including any AFUDC in excess of 10% of Net Operating Revenues but including revenues subject to refund unless there has been issued a final decision, which has not been stayed, of a regulatory commission or a court ordering a refund of such revenues) for any 12 consecutive calendar months within the preceding 15 calendar months are at least twice the annual interest charges on all G&R Bonds outstanding and applied for and on all equal or prior lien indebtedness (excluding Pledged Bonds). Except in certain instances, no earnings test is required in connection with the refunding of a like amount of bonds.

Of the \$60,000,000 principal amount of Series B Bonds, \$9,302,000 will be issued against the retirement at maturity in 1978 and 1979 of a like principal amount of First Mortgage Bonds, Series D and E and the balance will be issued against 60% of Available Net Additional Property. As of July 31, 1979, the approximate Available Net Additional Property against which G&R Bonds might be issued was \$306,940,002, which will be reduced to \$222,443,335 after giving effect to issuance of Series B Bonds. The actual earnings coverage ratio under the G&R Indenture is 3.38 for the twelve months ended July 31, 1979. The pro forma earnings coverage ratio is 2.54 after giving effect to the issuance of the Series B Bonds.



### **Dividend Restriction**

So long as any of the Series B Bonds are outstanding, the Company may not declare or pay any dividend (other than dividends payable solely in shares of common stock), or make any other distribution on, or purchase, any shares of its common stock at any time outstanding (other than by new common stock financing), if after such action the amount of such dividends, distributions, and purchases (at cost) subsequent to December 31, 1977, would exceed its Net Income subsequent thereto, less the amount of all dividends paid or declared on its preferred stock, plus \$32,000,000.

### **Modification of the G&R Indenture**

The G&R Indenture may be modified with the consent of the holders of 66 $\frac{2}{3}$ % of the G&R Bonds at the time outstanding (or, if one or more but less than all the series of G&R Bonds would be materially adversely affected, 66 $\frac{2}{3}$ % of the total bonds of the one or more series so affected). No such modification shall (a) affect the payment of principal, premium, and interest on any G&R Bonds, or extend the maturity or time of payment, without the consent of the holder of the G&R Bond affected, (b) reduce the above specified percentages of G&R Bondholders, or (c) permit the creation by the Company of any lien not otherwise permitted ranking prior to or on a parity with the lien of the G&R Indenture. No modification may be made which would conflict with the Trust Indenture Act of 1939 as then in effect. The Trustee is not obligated to execute a supplemental indenture which would affect its own rights, duties, or immunities under the G&R Indenture.

### **The Trustee**

If the Trustee acquires any conflicting interest it shall either eliminate it or resign. There are limitations on the rights of the Trustee in respect of certain payments and property received by the Trustee within four months prior to default. The Trustee may become the owner or pledgee of G&R Bonds as freely as if it were not the Trustee.

The holders of a majority in principal amount of the G&R Bonds outstanding may require the Trustee to take certain action, except when forbidden by law or when the Trustee in good faith shall by its responsible officers determine that such action would involve the Trustee in personal liability or would be unjustly prejudicial to the other G&R Bondholders.

### **Defaults**

The following are termed events of default: (a) failure to pay principal, premium or sinking fund installment when due; (b) failure for 5 days to pay interest; (c) failure for 30 days to pay any replacement or analogous fund installment; (d) default under the First Mortgage or certain other mortgages; (e) failure for 30 days after notice from the Trustee to perform any other covenant or agreement; and (f) certain events of bankruptcy, insolvency, or reorganization. The Trustee may withhold notice to the G&R Bondholders of any default, except default in the payment of principal, interest, or any sinking, replacement, or analogous fund installment, if its responsible officers in good faith determine that withholding such notice is in the interests of the G&R Bondholders.

### **Evidence to be Furnished Trustee**

Evidence is required periodically as to the absence of default in connection with certain annual sinking and replacement fund requirements and as to compliance with certain other terms of the G&R Indenture. Further, prior to issuance of additional G&R Bonds, release of property, withdrawal of cash, and various other actions under the G&R Indenture, evidence as to the absence of default and as to compliance with certain terms of the G&R Indenture is required.

## LEGAL OPINIONS

The validity of the Series B Bonds will be passed upon for the Company by Ralph H. Wood, Esquire, Vice President and General Counsel of the Company, and by Messrs. Ropes & Gray, Boston, Massachusetts, and for the Underwriters by Messrs. Choate, Hall & Stewart, Boston, Massachusetts, both of which firms, as to the organization and existence of the Company, approvals of state commissions and legal conclusions affected by the laws of New Hampshire, Vermont, Maine and Connecticut, may rely upon Ralph H. Wood. Ralph H. Wood owns, jointly with his wife, 300 shares of the Company's Common Stock.

## EXPERTS

The financial statements included herein so far as they pertain to each of the five years in the period ended December 31, 1978 have been so included in reliance upon the report of Peat, Marwick, Mitchell & Co., independent certified public accountants, and upon the authority of said firm as experts in accounting and auditing.

Ralph H. Wood, Esquire, Vice President and General Counsel of the Company, has reviewed the statements made herein as to matters of law and legal conclusions under the subcaptions "Joint Projects", "Seabrook Nuclear Project", "Regulation", "Rates — New Hampshire Retail", "Rates — Other", "Fuel Supply", "Environmental Matters", "Employees, Salaries and Wages" and "Municipalities and Cooperatives" under the caption "Business", and under the caption "Description of the Bonds". Messrs. Ropes & Gray have reviewed the statements made herein as to matters of law and legal conclusions under the subcaptions "Mortgage Bonds" and "Preferred Stock" under the caption "Financing", under the subcaptions "New England Power Pool" and "Seabrook Nuclear Project" under the caption "Business", under the caption "Description of the Bonds" and concerning the jurisdiction of FERC, the NRC and the Massachusetts Department of Public Utilities under the caption "Business — Regulation." Such statements are included on the authority of such person and firm as experts.

## UNDERWRITING

The names of the several Underwriters and the respective principal amounts of Series B Bonds which they have severally agreed to purchase from the Company, subject to the terms and conditions specified in the Underwriting Agreement filed as an exhibit to the Registration Statement, are as follows:

Name	Principal Amount	Name	Principal Amount
Blyth Eastman Dillon & Co. Incorporated	\$ 9,425,000	Josephthal & Co. Incorporated	\$ 250,000
Kidder, Peabody & Co. Incorporated	9,425,000	Ladenburg, Thalmann & Co. Inc.	650,000
Advest, Inc.	650,000	Laidlaw Adams & Peck Inc.	250,000
American Securities Corporation	650,000	Lazard Freres & Co.	1,000,000
A. E. Ames & Co. Incorporated	650,000	Legg Mason Wood Walker Incorporated	350,000
Bache Halsey Stuart Shields Incorporated	1,000,000	Lehman Brothers Kuhn Loeb Incorporated	1,000,000
Bacon, Whipple & Co.	350,000	A. E. Masten & Co. Incorporated	250,000
Robert W. Baird & Co. Incorporated	350,000	McDonald & Company	350,000
Barrett & Company	250,000	Merrill Lynch, Pierce, Fenner & Smith Incorporated	1,000,000
Bateman Eichler, Hill Richards Incorporated	350,000	Moore, Leonard & Lynch, Incorporated	350,000
George K. Baum & Company Incorporated	250,000	Moseley, Hallgarten, Estebrook & Weeden Inc.	650,000
Bear, Stearns & Co.	1,000,000	Neuberger & Berman	250,000
Sanford C. Bernstein & Co., Incorporated	350,000	The Ohio Company	350,000
William Blair & Company	350,000	Oppenheimer & Co., Inc.	650,000
Blunt Ellis & Loewi Incorporated	350,000	Paine, Webber, Jackson & Curtis Incorporated	1,000,000
Boettcher & Company	350,000	Parker/Hunter Incorporated	350,000
J. C. Bradford & Co.	350,000	Wm. E. Pollock & Co., Inc.	650,000
Alex. Brown & Sons	650,000	Prescott, Ball & Turben	350,000
Burgess & Leith Incorporated	350,000	Rauscher Pierce Refsnes, Inc.	350,000
Butcher & Singer Inc.	350,000	The Robinson-Humphrey Company, Inc.	350,000
Robert C. Carr & Co., Inc.	250,000	Rotan Mosle Inc.	350,000
Dain Bosworth Incorporated	350,000	L. F. Rothschild, Unterberg, Towbin	1,000,000
Dillon, Read & Co. Inc.	1,000,000	Salomon Brothers	1,000,000
Donaldson, Lufkin & Jenrette Securities Corporation	1,000,000	Shearson Hayden Stone Inc.	1,000,000
Drexel Burnham Lambert Incorporated	1,000,000	Smith Barney, Harris Upham & Co. Incorporated	1,000,000
A. G. Edwards & Sons, Inc.	650,000	Stuart Brothers	650,000
Fahnestock & Co.	350,000	Suez American Corporation	350,000
Ferris & Company, Incorporated	250,000	Sutro & Co. Incorporated	350,000
First Albany Corporation	250,000	Thomas & Company Incorporated	250,000
The First Boston Corporation	1,000,000	Thomson McKinnon Securities Inc.	650,000
First of Michigan Corporation	350,000	Tucker, Anthony & R. L. Day, Inc.	650,000
Foster & Marshall Inc.	250,000	Burton J. Vincent, Chesley & Co.	250,000
Freeman Securities Company, Inc.	350,000	Warburg Paribas Becker Incorporated	1,000,000
Goldman, Sachs & Co.	1,000,000	Wertheim & Co., Inc.	1,000,000
Gruntal & Co.	250,000	Wheat, First Securities, Inc.	350,000
Herzfeld & Stern	250,000	Dean Witter Reynolds Inc.	1,000,000
E. F. Hutton & Company Inc.	1,000,000	Wood Gundy Incorporated	650,000
Janney Montgomery Scott Inc.	350,000		
Johnston, Lemon & Co. Incorporated	650,000		
		Total	\$60,000,000

The Underwriting Agreement provides that the several Underwriters are required to take and pay for all of the Series B Bonds offered hereby if any are taken. The obligations of the Underwriters are subject to certain conditions precedent.

The Company has been advised by Blyth Eastman Dillon & Co. Incorporated and Kidder, Peabody & Co. Incorporated, as Representatives of the several Underwriters, that the Underwriters propose to offer the Series B Bonds to the public initially at the offering price set forth on the cover page of this Prospectus and to certain dealers at such price less a concession of not in excess of 1.5%, and that the Underwriters and such dealers may reallow a discount of not in excess of 1.0% to other dealers. The public offering price and the concessions and discounts to dealers may be changed by the Representatives.

No dealer, salesman or any other person has been authorized to give any information or to make any representations other than those contained in this Prospectus and, if given or made, such information or representations must not be relied upon as having been authorized by the Company or the Underwriters. This Prospectus does not constitute an offer to sell, or a solicitation of an offer to buy, any of these securities by any Underwriter in any jurisdiction to any person to whom it is unlawful to make such offer or solicitation in such jurisdiction. The delivery of this Prospectus does not imply that the information herein is correct as of any time subsequent to its date.

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\$60,000,000

**PSNH PUBLIC SERVICE**  
Company of New Hampshire

## GENERAL AND REFUNDING MORTGAGE BONDS, SERIES B 12% DUE 1999

## PROSPECTUS

**BLYTH EASTMAN DILLON & Co.**  
INCORPORATED

**KIDDER, PEABODY & Co.**  
INCORPORATED

September 20, 1979

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