
Yankee Atomic Electric Company

Annual Report
1976

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YANKEE ATOMIC ELECTRIC COMPANY

20 TURNPIKE ROAD
WESTBOROUGH, MASSACHUSETTS 01581

DIRECTORS

(As of December 31, 1976)

DONALD G. ALLEN, *Vice President, New England Electric System, Westborough, Massachusetts*

JOHN F. G. EICHORN, JR., *President and Chief Executive Officer, Eastern Utilities Associates, Boston, Massachusetts*

WILLIAM B. ELLIS, *Vice President, Northeast Utilities Service Co., Hartford, Connecticut*

MAURICE J. FELDMANN, *Senior Vice President, Boston Edison Company, Boston, Massachusetts*

GEORGE H. GOWDY, *Executive Vice President, New England Gas and Electric Assoc., Cambridge, Massachusetts*

JAMES E. GRIFFIN, *President and Chief Executive Officer, Central Vermont Public Service Corporation, Rutland, Vermont*

CHARLES E. MONTY, *Vice President, Central Maine Power Company, Augusta, Maine*

GUY W. NICHOLS, *President and Chief Executive Officer, New England Electric System, Westborough, Massachusetts*

DONALD C. SWITZER, *Executive Vice President, Northeast Utilities Service Co., Hartford, Connecticut*

WILLIAM C. TALLMAN, *President, Public Service Company of New Hampshire, Manchester, New Hampshire*

JAMES E. TRIBBLE, *Vice President, New England Electric System, Westborough, Massachusetts*

OFFICERS

(As of December 31, 1976)

DONALD G. ALLEN, *President*

DONALD E. VANDENBURGH, *Senior Vice President*

WENDELL P. JOHNSON, *Vice President*

LOUIS H. HEIDER, *Assistant Vice President*

R. LEIGH FITZGERALD, *Treasurer*

RICHARD B. DUNN, *Clerk*

JAMES C. NESBITT, *Assistant Treasurer*

ARMAND R. SOUCY, *Assistant Treasurer*

FREDERIC E. GREENMAN, *Assistant Clerk*

⌈ This report is not to be considered an offer to sell or buy
or solicitation of an offer to sell or buy any security. ⌋

YANKEE ATOMIC ELECTRIC COMPANY

Yankee Atomic Electric Company, an electric utility company, was incorporated in Massachusetts in 1954 under the provisions of the Massachusetts utility law which permits two or more electric companies to join in the construction and operation of a generating plant to serve their common needs. The organization of the Company was sponsored by eleven New England utilities for the purpose of constructing and operating New England's first nuclear power plant. In addition to the corporate power to generate, buy, transmit and sell electricity, it has broad related powers, including the power to conduct research and assist others engaged in a similar business. The eleven sponsoring utilities own the entire common capital stock of the Company and are entitled to and obligated to purchase the output of the plant.

The Yankee plant is located on the Deerfield River in the Berkshire Hills in the Village of Rowe, Massachusetts. The plant was placed in commercial operation in 1961 and has been in full operation since that time except for routine maintenance and refueling shutdowns. The unit is rated at 180 megawatts, and has generated more than 17 billion Kwh of electricity at an average cost of about ten mills per Kwh.

In 1968, the Securities and Exchange Commission authorized the Company to organize a Nuclear Services Division under the Company corporate structure. The Nuclear Services Division has a staff of 175 engineers who provide nuclear engineering services in all aspects of nuclear power plant operation including Reactor Engineering, Environmental Engineering, Operations, Quality Assurance and Construction. Services are performed on a cost basis to other New England nuclear power plant projects.

COOPERS & LYBRAND CERTIFIED PUBLIC ACCOUNTANTS

YANKEE ATOMIC ELECTRIC COMPANY
WESTBOROUGH, MASSACHUSETTS

We have examined the balance sheet of Yankee Atomic Electric Company as of December 31, 1976 and the related statements of income and retained earnings and changes in financial position for the year then ended. Our examination was made in accordance with generally accepted auditing standards and, accordingly, included such tests of the accounting records and such other auditing procedures as we considered necessary in the circumstances. We previously examined and reported upon the financial statements for the year 1975.

In our opinion, the aforementioned financial statements present fairly the financial position of Yankee Atomic Electric Company at December 31, 1976 and 1975 and the results of its operations and the changes in its financial position for the years then ended, in conformity with generally accepted accounting principles applied on a consistent basis.

Boston, Massachusetts
February 11, 1977

COOPERS & LYBRAND

YANKEE ATOMIC ELECTRIC COMPANY

Balance Sheets

	December 31,	
ASSETS	1976	1975
Utility plant, at original cost (Note A)	\$48,221,067	\$47,368,145
Less accumulated provisions for depreciation	<u>29,717,281</u>	<u>27,351,650</u>
Total net utility plant	<u>18,503,786</u>	<u>20,016,495</u>
Nuclear fuel (Note A):		
In process of refinement, conversion, enrichment and fabrication	7,929,695	3,847,945
Materials and assemblies in stock	683	65,681
Assemblies in reactor	9,993,320	9,912,325
Spent nuclear fuel	<u>10,376,336</u>	<u>10,376,336</u>
Gross nuclear fuel	28,300,034	24,202,287
Less accumulated provision for amortization of nuclear fuel	<u>12,918,724</u>	<u>8,594,255</u>
Net nuclear fuel	<u>15,381,310</u>	<u>15,608,032</u>
Current assets:		
Cash	1,175,786	342,196
Accounts receivable:		
From sales of electric energy	1,563,347	1,944,098
Other	1,443,291	912,564
Materials and supplies, at average cost	671,825	563,295
Prepayments	<u>159,040</u>	<u>275,710</u>
Total current assets	<u>5,013,289</u>	<u>4,037,863</u>
Advance payment - nuclear fuel (Note D)	1,331,250	1,331,250
Deferred charges	<u>22,347</u>	<u>21,959</u>
	<u>\$40,251,982</u>	<u>\$41,015,599</u>
STOCKHOLDERS' EQUITY AND LIABILITIES		
Stockholders' equity:		
Capital stock, par value \$100 per share;		
153,400 shares authorized and outstanding	\$15,340,000	\$15,340,000
Retained earnings	<u>5,138,612</u>	<u>5,195,800</u>
Total capitalization	<u>20,478,612</u>	<u>20,535,800</u>
Current Liabilities:		
Short-term debt (Note E)	14,900,000	16,400,000
Accounts payable	377,062	660,447
Accrued federal income taxes	<u>455,672</u>	<u>455,672</u>
Total current liabilities	<u>15,277,062</u>	<u>17,516,119</u>
Deferred federal income taxes (Note B)	4,038,965	2,676,580
Unamortized investment tax credits (Note B)	457,343	287,100
Commitments and contingencies (Notes A, F and G)	<u>457,343</u>	<u>287,100</u>
	<u>\$40,251,982</u>	<u>\$41,015,599</u>

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

YANKEE ATOMIC ELECTRIC COMPANY
Statements of Income and Retained Earnings

	Year Ended December 31,	
	<u>1976</u>	<u>1975</u>
Operating revenue:		
Sales of electric energy (Note F)	\$18,228,759	\$15,004,435
Operating expenses:		
Other operation	4,519,986	3,940,892
Fuel, after deducting \$167,133 in 1975 for recoverable value of nuclear by-products (Note A)	4,324,469	2,955,808
Maintenance	1,402,969	1,604,755
Depreciation (Note A)	2,367,673	2,280,917
Taxes, other than federal income	706,449	549,756
Federal income taxes (Note B)	1,931,235	1,207,180
Total operating expenses	<u>15,252,781</u>	<u>12,539,308</u>
Operating income	<u>2,975,978</u>	<u>2,465,127</u>
Allowance for funds used during construction (Note A)	6,608	23,419
Other - net, including related taxes	<u>(275)</u>	<u>(300)</u>
Operating and other income	<u>2,982,311</u>	<u>2,488,246</u>
Interest charges:		
Interest on notes payable (Note E)	853,379	1,003,036
Other interest	170	44
Total interest charges	<u>853,549</u>	<u>1,003,080</u>
Net income \$13.88 and \$9.68 per share	2,128,762	1,485,166
Retained earnings at beginning of year	<u>5,195,800</u>	<u>5,206,284</u>
	7,324,562	6,691,450
Cash dividends declared, \$14.25 and \$9.75 per share	<u>2,185,950</u>	<u>1,495,650</u>
Retained earnings at end of year	<u>\$ 5,138,612</u>	<u>\$ 5,195,800</u>

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

YANKEE ATOMIC ELECTRIC COMPANY

Statements of Changes in Financial Position

	Year Ended December 31,	
	1976	1975
Source of funds:		
From operations:		
Net income*	\$ 2,128,762	\$ 1,485,166
Depreciation	2,367,673	2,280,917
Amortization of nuclear fuel	4,324,469	2,955,808
Deferred federal income taxes	1,362,385	(98,720)
Deferred investment tax credit	(47,900)	118,300
Adjustment of prior years' investment tax credit - net	218,143	
Allowance for funds during construction	(6,608)	(23,419)
	<u>10,346,924</u>	<u>6,718,052</u>
Net change in short-term debt	(1,500,000)	4,400,000
Other sources (net)*	6,293	180,818
Total source of funds	<u>\$ 8,853,217</u>	<u>\$11,298,870</u>
Application of funds:		
Construction expenditures*	\$ 855,037	\$ 1,405,482
Nuclear fuel purchased	4,097,747	3,690,133
Dividends on common stock	2,185,950	1,495,650
Advance payment - nuclear fuel		1,331,250
Net increase in working capital excluding short-term debt	<u>1,714,483</u>	<u>3,376,355</u>
Total application of funds	<u>\$ 8,853,217</u>	<u>\$11,298,870</u>
Increase (decrease) in components of working capital:		
Cash	\$ 833,590	\$ (53,468)
Accounts receivable	149,976	(314,008)
Materials and supplies	108,530	59,437
Prepayments	(116,670)	(18,212)
Accounts payable	283,385	4,070,973
Accrued federal income taxes	455,672	(368,367)
	<u>\$ 1,714,483</u>	<u>\$ 3,376,355</u>

*Includes allowance for funds used during construction.

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

YANKEE ATOMIC ELECTRIC COMPANY

Notes to Financial Statements

NOTE A - Summary of Accounting Policies:

1. Accounting System Prescribed:

The accounts of the Company are maintained in accordance with the Uniform System of Accounts prescribed by Regulatory Bodies having jurisdiction.

2. Plant:

The Company capitalizes, as a part of construction costs, a non-cash item of other income called allowance for funds used during construction at 6% which approximates the pretax cost of funds. The Company charges costs of current repairs and minor replacements of plant and properties to maintenance expense accounts as incurred. Plant retired or otherwise disposed of, together with costs of removal less salvage, is charged to accumulated provisions for depreciation.

3. Depreciation:

The Company provides depreciation on a straight-line basis by charges which equal 5% of the cost of depreciable assets (see Note F).

4. Nuclear Fuel:

The total cost of nuclear fuel is amortized and charged to fuel expense over the estimated life of the nuclear core. In 1976, amortization of the current core reflects an estimate of zero for net salvage due to the vendor's cancellation of the Company's nuclear fuel reprocessing contract. For prior cores, including 1975, amortization was reduced by the net value of residual uranium and plutonium byproduct. The residual balance of \$3,080,000 at December 31, 1976, representing the estimated salvage value of spent fuel, will be charged to fuel expense ratably over the estimated life of future cores through 1981. During 1976, \$800,000 was charged to fuel expense. These charges have no effect on the Company's net income since its customers are billed for total operating expenses plus a return on investment.

5. Retirement Plan:

The plans in effect for substantially all employees are funded plans and provide retirement benefits, principally fixed and variable annuities. Unfunded prior service costs are estimated to be \$907,000 at December 31, 1976. Prior service costs are being amortized over a 20-year period. Total pension costs in 1976 and 1975, charged principally to operating expenses and billable services were \$466,630 and \$363,900, respectively, and included the amortization of prior service costs. The increase in pension expense in 1976 resulted principally from an increase in the number and salaries of the employees covered by the plans. The market value of pension fund assets exceeded the actuarially computed value of vested benefits as of April 1, 1976, the last valuation date.

YANKEE ATOMIC ELECTRIC COMPANY

Notes to Financial Statements

NOTE B – Federal Income Taxes:

Federal income taxes consists of the following components:

	<u>1976</u>	<u>1975</u>
Federal income taxes	\$ 616,750	\$1,187,600
Deferred federal income taxes	1,362,385	(98,720)
Investment tax credits – net	(47,900)	118,300
	<u>\$1,931,235</u>	<u>\$1,207,180</u>

Factors affecting federal income tax expense are as follows:

	<u>1976</u>	<u>1975</u>
Computed "expected" federal income tax expense at 48%	\$1,948,799	\$1,292,182
Tax effect resulting from:		
State tax expense	102,734	(44,839)
Amortization of investment tax credits	(96,400)	(12,300)
All other differences	(23,898)	(28,163)
Federal income tax provisions	<u>\$1,931,235</u>	<u>\$1,206,880</u>
Effective federal income tax rate	<u>47.6%</u>	<u>44.8%</u>

The Company has adopted comprehensive interperiod tax allocation (normalization) consistent with regulatory approval. The following table details the components of deferred federal income taxes.

	<u>1976</u>	<u>1975</u>
Reversal of prior years' deferrals	\$ (116,228)	\$(98,720)
Additional amortization of nuclear fuel salvage value (see Note A)	1,478,613	
	<u>\$1,362,385</u>	<u>\$(98,720)</u>

Investment tax credits are deferred and amortized over the estimated lives of the property giving rise to the credits. Investment tax credits-net reflects reductions in federal income taxes attributable to such investment tax credits which have been deferred.

Federal income tax returns for the Company have been examined and reported upon by the Internal Revenue Service through 1974.

NOTE C – Nuclear Services Division:

The Company, an electric utility subsidiary of two registered holding companies, operates a Nuclear Services Division under the applicable rules and regulations of the Public Utility Holding Company Act for the purpose of furnishing nuclear engineering services, at the cost of such services, to its sponsoring utilities and the organizations in which they may have a substantial financial or contractual interest. The cost of such services and the related revenues are not included in the accompanying statement of income and retained earnings. A summary of these is as follows:

	<u>1976</u>	<u>1975</u>
Revenues	<u>\$8,297,640</u>	<u>\$7,132,982</u>
Cost of services:		
Salaries and related fringe benefits	\$4,619,037	\$3,727,201
Outside services	1,632,816	1,686,235
Taxes other than income	219,662	154,396
Other general and administrative expenses	1,826,125	1,565,150
	<u>\$8,297,640</u>	<u>\$7,132,982</u>

YANKEE ATOMIC ELECTRIC COMPANY

Notes to Financial Statements

NOTE D – Advance Payment – Nuclear Fuel:

On September 2, 1975, the Company made an advance payment in the amount of \$1,331,250 under an agreement to purchase uranium as yellowcake.

NOTE E – Short-Term Borrowing Arrangements:

Information as to short-term borrowings is summarized as follows:

Amount outstanding at end of year:	1976	1975
Commercial paper	\$14,900,000	\$16,400,000
Weighted average interest rate at end of year	4.8%	5.9%
Maximum amount of borrowings at any month-end	\$16,300,000	\$16,400,000
Weighted average borrowings during year	\$14,634,000	\$14,075,000
Effective weighted average interest rate during year	5.8%	7.1%

The Company has a bank line of credit totaling \$20,000,000 which includes a commitment of \$14,000,000 supporting commercial paper offerings, the terms of which provide for borrowings at the prime rate or the prime rate plus a fraction thereof. Amounts reported as cash in the accompanying balance sheets are demand deposits which provide operating funds and compensating balances informally required to support bank borrowings, no amount of which is legally restricted.

Short-term debt outstanding at December 31, 1976 has maturities ranging from 10 to 95 days.

NOTE F – Pending Rate Proceedings:

Effective June 2, 1975, the Company was permitted to increase its rates subject to possible refund upon final determination by the Federal Power Commission (FPC). Additional revenue related to such increase was \$2,100,000 in 1976 and \$1,400,000 in 1975 which increased net income by approximately \$1,100,000 in 1976 and \$750,000 in 1975. Witnesses for the FPC Staff and certain intervenors have opposed the increase in rates. During 1976 the Presiding Administrative Law Judge rendered an initial decision calling for a fixed 9.72% rate of return after deducting the amount of accumulated deferred taxes in determining the net investment to which the rate of return is applied and no change in depreciation rate. Although all parties have appealed the initial decision, the Company and its outside legal counsel believe it is unlikely that the return portion of the increased rates will be materially less than actually collected. With respect to depreciation, because of the billing provision of the power contract, any change would have no effect on net income.

NOTE G – Commitments:

The Company has contracts for the fabrication, conversion and enrichment of nuclear fuel through 1999. Minimum contractual obligations under these agreements amounted to approximately \$4,600,000 at December 31, 1976.

The Company has contracted to purchase quantities of uranium with delivery between June 1977 and May 1980. Payments are scheduled as follows:

1977	\$ 2,900,000
1978	4,200,000
1980	5,000,000
	\$12,100,000

YANKEE ATOMIC ELECTRIC COMPANY

Summary of Operations (in thousands except per share data)

	Year Ended December 31,				
	1976	1975	1974	1973	1972
Operating revenue	\$18,229	\$15,004	\$12,285	\$10,279	\$10,280
Operating expenses, excluding federal income taxes	13,322	11,332	10,147	7,800	7,505
Federal income taxes	1,931	1,207	461	763	1,023
Operating income	2,976	2,465	1,677	1,716	1,752
Other income	6	23	32	22	37
Operating and other income	2,982	2,488	1,709	1,738	1,789
Interest charges	853	1,003	1,122	892	600
Net income	<u>\$ 2,129</u>	<u>\$ 1,485</u>	<u>\$ 587</u>	<u>\$ 846</u>	<u>\$ 1,189</u>
Common dividends	\$ 2,186	\$ 1,496	\$ 537	\$ 882	\$ 1,112
Earnings per share	\$13.88	\$9.68	\$3.83	\$5.52	\$7.75
Net generation (millions of Kwh)	1,248	1,193	911	1,046	644

Management's Discussion and Analysis of the Summary of Operations

The Company has power contracts with its stockholders through June 1991 which provide that these utilities must purchase all of the electrical output of the plant at a cost equal to total operating expenses plus a return on investment. Increases in operating revenue of \$3,200,000 in 1976 and \$2,700,000 in 1975 were directly related to increased operating expenses and a higher return on investment.

Nuclear fuel expense increased by \$1,369,000 in 1976 due primarily to amortization of \$809,000 of the salvage value of depleted nuclear fuel. During the year 1976, the Company's spent fuel reprocessing contract was cancelled by the fuel processor, and the Company considered the most realistic salvage estimate for depleted fuel to be zero. See Note A of Notes to Financial Statements. The balance of the increase in nuclear fuel expense was due primarily to a reduction in the estimated output of the current core.

Operation expenses increased by \$579,000 in 1976 and \$550,000 in 1975 due primarily to increased regulatory requirements concerning security and safety related matters.

Federal income taxes increased by \$724,000 in 1976 and \$746,000 in 1975 due to increased income. See Note B of Notes to Financial Statements.

Interest charges decreased by \$150,000 in 1976 and \$118,000 in 1975 due to reduced interest rates.

Net income increased by \$644,000 in 1976 and \$898,000 in 1975 due to the increased rate of return allowed, beginning June 2, 1975, under a revised power contract filed with the Federal Power Commission. See Note F of Notes to Financial Statements.