REPORT OF THE HUDSON LIGHT & POWER DEPARTMENT
FOR THE YEAR ENDING DECEMBER 31, 1979

To the Municipal Light Board of the Town of Hudson

Gentlemen:

This is the 83rd Annual Report of the operations of the Hudson Light & Power Department.

The attached exhibits of this Report cover statistical and financial matters for the period from January 1, 1979 to December 31, 1979.

The table below represents comparison figures of the 1978 and 1979 operating years.

	1978	1979	% Increase
KWH Production	121,456,960	132,253,462	8.89%
Kwh Demand	24,300	26,800	10.29%

	1978	% Revenue	1979	% Revenue
Revenue from Elec. Sales	$4,762,243.31	98.38%	$5,563,165.38	97.76%
Interest & Other Income	78,294.39	1.62%	127,085.18	2.24%
Total Revenue	$4,840,537.70	100.00%	$5,690,250.56	100.00%
Operating Expenses	$4,304,571.88	88.92%	$5,415,838.95	95.17%
Operating Profit After in lieu of Taxes	$ 388,465.82	8.03%	$ 99,411.61	1.75%
Return in lieu of taxes	$ 147,500.00	3.05%	$ 175,000.00	3.08%
				Increase
Average Fuel Charge	$.0177188 per KWH		$.0184839 per KWH	4.3%

The cost of fuel in 1979 was $2,248,013.53 or 41.5% of the total operating expenses of $5,415,838.95. This fuel cost is recovered through the fuel charge portion of the electric bill and is a direct pass through without mark ups in accordance with state law.

The total revenue increased 17.5% over last year and reflects the 8.89% higher production, as well as, the increase in the fuel charge per KWH. Total expenses increased by 25.8%. This increase was caused by the increased production, the inflationary cost of doing business, as well as, the additional capacity purchase of 2000 KW from the Vermont Yankee Nuclear Unit for 8 months. This additional capacity produced 7,161,600 KWH at a total cost of $151,927.38. The fuel cost for the KWH produced by this unit was only $28,892.09 or $.00403 per KWH. The addition of this unit saved our customers substantial amounts of money on the fuel charge and therefore limited the gross income while at the same time it increased expenses to the Department.

For many of our customers the soaring prices for energy has created real hardship. Because of this, the Department has made a conscious effort to hold the cost of electricit down, to the point where our residential rates are one of the lowest in the Commonwealth. Our income only covered our operating expenses because of interest earned from the Depreciation Account. This combined with the fact that the New England Power Company announced an approximately $210,000.00 increase in the System Unreserved Contract, indicates that there must be a substantial rate increase in 1980 in order to keep this Department financially viable.

The above mentioned 8 month 2000 KW capacity acquisition from the Vermont Yankee Nuclear Plant more than offset the energy loss caused by the 13 weeks shutdown of the Maine Yankee Unit ordered by the Nuclear Regulatory Commission to inspect and to re-calculate the ability of piping supports to withstand certain earthquake conditions. The investigation concluded that the existing construction was safe.

Again, Nuclear generation carried a good share of the Department's total energy requirements, 27.6% compared with 23% in 1978. Total contribution of nuclear generated energy was 34,679,668 KWH in 1979 or 28% over 1978's 27,005,618 KWH and is the highest contribution of nuclear generated energy this Department has received so far.

Nuclear energy was 27.6% of our total energy in 1979, however, the attendant fuel cost of $123,558.00 was only 5.5% of the Department's total fuel cost of $2,248,013.53.

Had the 1979 energy produced by nuclear generation been produced by oil fired generation, 2,569,000 gallons of oil would have been required. At $.765 per gallon a typical figure at year end, this oil would have cost $1,965,285.00. It now becomes apparent that the wisdom of the Municipal Light Board, in approving in the early 1970's life of the unit contracts for the Vermont Yankee, Maine Yankee and Pilgrim #1 units, has preserved this Department's competitive stature.

The cost of fuel oil which is used to power our diesel generators has increased in excess of 100% in 1979, however, our average fuel charge increased only 4.3% over the 1978 fuel charge. The larger nuclear energy contribution is chiefly responsible for this relatively small increase of 4.3%. In addition, the New England Power Exchanges' (NEPEX) dispatching of our generating resources on an economy energy exchange basis has saved our customers in excess of $69,000.

We now have assembled a mix from available energy resources which will produce energy at the least possible cost. Unfortunately, because of increasing fuel prices and other inflationary pressures our projections indicate a steady rise of energy costs, which will only level off after the Seabrook Units have become commercial and mature.

If for whateyer reason, the Seabrook Units do not become operational, we in New England should expect substantially higher electric utility prices, and also shortages in generating capacity, which with the beginning of the 1984 power year will cause interruptions of electric services.

The 1978 Power Year (November 1, 1978 to October 1979) peak load was below that estimated partially due to a milder than normal winter and partially because we anticipated the new Digital Equipment Corporation to be in full operation. A tabulation of this Department's power year system peaks since 1970 and a peak load projection from power year 1979 to 1988 follows:

POWER YEAR	PEAK LOAD KW	% INCREASE OVER PREVIOUS YEAR
1970	16,200	-
1971	16,500	+ 1.9%
1972	21,200	+30.3%
1973	21,400	+ 0.9%
1974	20,700	- 3.4%
1975	24,000	+15.9%
1976	24,300	+ 1.3%
1977	24,300	-
1978	25,700	+ 5.8%
	PROJECTS PEAKS KW	
1979	30,500	
1980	34,600	
1981	36,400	
1982	38,100	
1983	40,000	
1984	41,700	
1985	43,700	
1986	45,300	
1987	47,200	
1988	49,000	

During 1979 four large manufacturers started constructing new facilities in our service territory. These firms have provided us with their power demands which totaled 6,200 KW in 1980 and is projected by them to grow to 17,700 KW in 1988. This industrial load growth is included in our projected load forecast. Also, these firms could cause certain spin-off load growth for example, new homes, work farmed out to local shops, etc. Since the potential spin-off load growth is not yet identifiable we have not considered these possibilities in our load forecast therefore, this load forecast may be viewed as a conservative one.

POWER SUPPLY

The Hudson Light and Power Department of the Town of Hudson is one of 31 municipal electric departments throughout Massachusetts which are members of the Massachusetts Municipal Wholesale Electric Company (MMWEC), a public corporation of the Commonwealth.

Membership in MMWEC entitles Municipal Light Departments to participate in both power supply planning, tax exempt financing and joined ownership in generating facilities, thus providing a viable alternative to costly power purchases from other sources and therefore keeping the cost of power to the Department's customers lower than it otherwise would be.

MMWEC is a coordinating and planning agency for the development of the bulk power supply requirements of its members. MMWEC is authorized to purchase ownership interests in generating units ("Projects") and to issue revenue bonds to finance such projects. MMWEC sells the capability of each of its Projects to its members and others ("Participants") under power sales agreements. Each power sales agreement needs to be approved by the Light Board before Hudson becomes a participant in any project. The power sales agreement for each Project requires each Participant to pay its share of MMWEC's costs related to the Project (exclusive of costs payable from the proceeds of MMWEC bonds), including debt service on bonds issued by MMWEC to finance the Project plus 10% of debt service to be paid into a Reserve and Contingency Fund. Such amounts are payable solely from each Participant's electric system revenue and are required to be made whether or not the Project is completed or operating and notwithstanding the suspension or interruption of output of the Project.

The Hudson Light and Power Department has power sales agreements with MMWEC for the following projects.

PROJECT	PROJECT COST IN $1000	BONDS ISSUED IN $1000	UNITS	HUDSON KW PARTICIPATION	START OPERATION	HUDSON % PARTICIPATION
Mix #1	$507,000	$180,200	Seabrook #1	64 KW	1984	3.3984%
			Seabrook #2	64 KW	1986	
			Pilgrim #2	5174 KW	1988	
			Milstone #2	626 KW	1986	
Mix #2*	$ 10,100	$ 10,100	NEP #1	2706 KW	Cancel.	3.9161%
			NEP #2	2706 KW	Cancel.	
			Montague #1	653 KW	?	
			Montague #2	653 KW	?	
Project #3	$ 97,500	$ 52,700	Milstone #3	588 KW	1986	1.5997%
Project #4	189,000	$118,500	Seabrook #1	2108 KW	1984	4.23%
			Seabrook #2	2108 KW	1986	
Project #5	$ 52,000	$ 30,500	Seabrook #1	235 KW	1984	1.8613%
			Seabrook #2	235 KW	1986	
Wyman #4	$ 9,400	$ 9,400	Wyman #4	2036 KW	1978	9.2536%
Sears Is.	$147,000	$ 9,500	Sears Island	6000 KW	1989	7.602%
Project #6	$335,000	0	Seabrook #1	13,000 KW	1984	18.3771%
			Seabrook #2	13,000 KW	1986	

*Mix #2, NEP #1 and #2 have been cancelled. The final cost and salvage values were not determined as of 12/31/79.
To date, MMWEC has issued $10.1 million of Bonds for Nuclear Mix #2. Of this amount construction Work-in Progress payments by MMWEC have totaled $2.7 million for NEP #1 and #2, and $0.7 million for Montague through October 31, 1979. The remainder of the funds is invested short term in various accounts until required for payment of bills. At the present time, it is anticipated these obligations would be paid by the participants over the life of Bonds (35 years) or the operating life of Montague. Hudson participation percentage in Mix #2 is 3.9161%

**Project #6 includes $5,000,000. for feasibility studies for low head hydro developments as well as, trash generation and other renewable energy sources.

In summary the above table Hudson has Power Sales Agreement with MMWEC for the following units and capacity.

Seabrook #1	15,407 KW	1984	Nuclear
Seabrook #2	15,407 KW	1986	Nuclear
Pilgrim #2	5,174 KW	1988	Nuclear
Milstone #3	1,214 KW	1986	Nuclear
Montague #1	635 KW	?	Nuclear
Montague #2	635 KW	?	Nuclear
Sears Island	6,000 KW	1989	Coal
Wyman #4	2,036 KW	1978	Oil

The Department owns or has life of the unit contracts for the following capacity entitlements. Life of the unit contract means that the Department is entitled to an agreed amount of capacity for the life of the unit and must pay the capacity charge whether the unit operates or not.

	KW	% OF UNIT
Maine Yankee	1,234	.1487%
Pilgrim #1	2,500	.37313%
Vermont Yankee	583	.1112%
Hudson Light & Power	20,000	100.007%

In addition, we made a 3 year contract for 2000 KW of additional Vermont Yankee. This contract is effective from March through October.

The Department also has a System Power Unreserved Contract with the New England Power Company for the following capacity and power years. The availability of this capacity is keyed to the availability of Brayton Point #3, Brayton Point #4 and Salem Harbor #4, 50%, 25% and 25% respectively of the contract capacity.

POWER YEARS							
1979	1980	1981	1982	1983	1984	1985	1986
17,000KW	18,000KW	20,000KW	24,000KW	4,000KW	5,000KW	10,000KW	0KW

Further, the Department obtained a direct ownership share in the following units and intends to use 100% equity financing.

UNITS	KW	YEAR OF OPERATION	% OF UNIT
Seabrook #1	915	1984	.07956%
Seabrook #2	915	1986	.07956%
Pilgrim #2	2050	1988	.174%

The estimated capital requirements for Hudson's direct ownership shares are

	SEABROOK #1 & #2	PILGRIM #2	TOTAL
Prior Payments	$511,074.56	$532,080.80	$1,043,155.36
1980	$466,199.00	$111,365.00	$ 577,564.00
1981	$346,478.00	$151,904.00	$ 498,382.00
1982	$209,727.00	$312,845.00	$ 522,572.00
1983	$155,490.00	$330,464.00	$ 485,954.00
1984	$ 74,352.00	$343,928.00	$ 418,280.00
1985	$ 2,553.00	$431,523.00	$ 434,076.00
1986	$	$349,514.00	$ 349,514.00
		$167,484.00	$ 167,484.00
Total Estimated cost Including Nuclear Fuel	$1,765,873.56	$2,731,107.80	$4,496,981.36
Estimated Cost per KW	$ 964.96	$ 1,332.24	

Our generating resources are sufficient to cover our projected peaks and the attendant mandatory reserves until October of 1983.

We had planned an additional installation of a 10,000 KW generation resources at the Cherry Street Power Plant. The difficulties mentioned in last years report of meeting the requirements of the clean air act, as well as, the prohibition of using oil for new generation as enumerated in the 1978"Power Plant and Industrial Fuel Use Act", have not been overcome as yet. However, we have received indications that short term generation entitlement may be available to cover our anticipated capacity short fall for the 1983 power year.

Due to the uncertainty involved to procure additional generating capacity for our Cherry Street Plant, no recommendation was yet made to the Light Board regarding the coverage of the anticipated 1983-1984 capacity short fall.

In 1979, the Department paid the Town $32,686.60 for Blue Shield and Blue Cross coverage for employees of the Light Department.

In addition, the Town was paid $83,014.24 from the Hudson Municipal Light Department's Employee's Retirement Trust for pensions paid to former employees of the Department who are now retired.

DEPARTMENT ACTIVITIES

The following is a summarization of the activities of the Line Crew, Power Plant and Office segments of the Light and Power Department.

The following areas of the distribution system were converted to 13,800 volts to reduce losses and increase capacity:

Richardson Road, Hudson
Dudley Road, Hudson
Chapin Road, Hudson
Tower Street, Hudson (Lapoint Building)
Washington Street, Hudson (Brooks Drugs & Washington St. Motors)
Whitman Street, Stow (Lower End)
Taylor Road, Stow

Overhead lines were extended on Shay Road and Dean Street in Hudson and underground lines were extended on Karen Circle in Hudson and on Nyra Road and Catherine Circle in Stow.

Three phase 13,800 volt distribution lines were extended on Old Bolton Road, Stow to provide a supply for the new Data Terminal facility and to allow additional conversion of the area from 8,300 volts.

North Shore Drive and Delaney Street, circuits were relocated and reconducted with storm proof cable.

Because of road work performed by the Public Works Department, portions of the pole line on Marlboro Street were relocated.

The football lighting at Morgan Bowl, that was removed in 1978 for safety reasons was redesigned and rebuilt in the summer of 1979. The new layout consists of 32 - 1500 watt metal-halide sports lights mounted on 8 - 70 foot wood poles. This lighting layout results in an average lighting on the field of 30 foot candles.

Voltage levels and radio interference were checked throughout the year and appropriate actions were taken when problems were found.

The following is a tabulation of the work performed by the Line Crews during 1979.

SERVICES

	INSTALLED	REPLACED	REMOVED
Single Phase Overhead	48	28	11
Single Phase URD	35		
3 Phase Overhead	4		
Construction Service	23		17

TRANSFORMATION

3105 KVA Installed

2321 KVA Removed

LIGHTS ADDED

17 - 400 Watt Mercury Yard Lights
1 - 250 Watt Mercury Yard Lights
8 - 175 Watt Mercury Yard Lights
2 - 175 Watt Mercury Street Lights
1 - 92 Watt Incandescent Street Lights

LIGHTS REPLACED

1 - 400 Watt Mercury Flood with 1 - 175 Watt Mercury Vapor
1 - 175 Watt Mercury Street Light with 1 - 92 watt incandescent
2 - 175 Watt Mercury Street Light with 2 - 400 Watt Mercury Vapor
2 - 250 Watt Mercury Street Light with 2 - 400 Watt Mercury Vapor
*80 - 1500 Watt incandescent with 32 - 1500 watt metal-halide

*Morgan Bowl Football lighting

DISTRIBUTION LINES

	INSTALLED	REPLACED
Single Phase URD	2910 ft.	3650 ft.
3 Phase URD	135 ft.	-
Single Phase Overhead	2300 ft.	-
3 Phase Overhead	1800 ft.	10,630 ft.

POLES

SET	REMOVED
8 - 70 ft. Poles	
37 - 40 ft. Poles	
47 - 35 ft. Poles	
6 - 30 ft. Poles	34 Poles of various sizes

At the Power Station, maintenance schedules on pistons, liners, bearing, pumps, filters, generators, exciters, motors, and other miscellaneous equipment on Engine No's. 7-8-9-10-11 & 12 were carried on by our own Maintenance Crew, while the operating group kept the plant available for operation 24 hours a day - 7 days a week. Distribution circuits were phased in and connected to portions of the reconditioned switchgear at the Cherry Street Power Station. This connection provides a dual feed capability which allows sections of the circuit to be by-passed in case of emergency and allows for breaker maintenance as required. In 1979 lightning hit a 4160 volt cable entering the power station and caused a short circuit within the plant. A circuit breaker in the reconditioned switchgear was used to isolate the faulted conductor. The faulted section of circuit was by-passed and service was restored.

The 4160 volt station feed to the cooling tower transformer failed due to worn insulation. The wearing of the insulation occurred in a splice box and was caused by rubbing, induced by the vibration of the building when the plant is running. The cable was replaced and the critical points of rubbing were cushioned to prevent reoccurance of this problem.

No. 12 Engine, A, 7757 H.P. Cooper Bessemer diesel engine and generator had all its pistons changed in December by the Cooper Bessemer Company at their expense because of a design change.

In addition, a new "Gould's" industrial battery charger was installed for the necessary D.C. applications in the plant.

The heating system for the Forest Avenue Office had been evaluated in 1978 and it was determined that if it were replaced by a heat pump system an energy savings of approximately 50% could be achieved. The heat pump system was purchased and by May 1979 had been completely installed with the aid of students and instructor from Assabet Valley Regional Vocational High School. The 1979 energy consumption for the Forest Avenue Facility amounted to 222,000 KWH while the 1978 consumption amounted to 482,040 KWH. This indicates that the heat pump system produced a savings of 260,040 KWH or approximately 54%. At the present energy costs and these energy savings, the heat pump system will pay for itself in close to two full years of operation.

Computer programs are being written on an on going basis to take advantage even further of the machine's capabilities, among which is a transformer evaluation program, which determines the transformer that is most economical to purchase and operate.

Use of the computer has increased to a point that storage disks are full, preventing the installation and optimization of such useful programs as inventory control, pole record management, general ledger, accounts payable and transformer loading analysis. The computer's printer is loaded to the point that some programs must be run at night and on weekends so that printouts can be obtained. This indicates that expansion of the computer in the areas of disk and printer capacity is warranted in the near future.

In accordance with the requirements of Chapter 164, Section 57 of the General Laws, we are submitting an estimate of the expenses and income for the period ending December 31, 1980 as well as an estimated cost of electricity to be used by the Town of Hudson for 1980-1981 fiscal year.

ESTIMATED INCOME SALES OF ELECTRICITY-1980

From Sales to Municipal Consumers	$ 521,200.00
From Sales to Domestic Consumers	3,223,500.00
From Sales to Commercial Consumers	439,000.00
From Sales to Power Consumers	3,042,100.00
For Street Lights: Stow & Other Communities	56,900.00
Hudson	293,200.00
From Capacity Sales to Others	$ 7,575,900.00
TOTAL INCOME	

ESTIMATED EXPENDITURE OF RECEIPTS FROM SALES OF ELECTRICITY

Production, Generation, Purchased Power	$ 5,631,000.00
Distribution and Transmission	363,000.00
General	716,000.00
Capital expenditures on new plant & equipment	58,000.00
Depreciation	493,694.20
Repayment of advances from Contractors	12,800.00
Payments to Hudson in lieu of taxes	175,000.00
TOTAL EXPENDITURES	$ 7,449,494.20

The estimated cost of electricity to be used by the Town of Hudson for all purposes for the year ending June 30, 1981 $248,469.00

In accordance with the requirements of Chapter 164, Section 58 which sets forth the procedure to be followed in charging for street lights and which reads as follows: "Electricity used by the municipality for street lighting shall be charged for a a cost to be determined as follows: the sum of all the operating expenses, interest in the outstanding debt: the requirements of the serial debt or sinking fund established to meet said debt, and also depreciation of the plant reckoned as provided in section fifty-seven, and losses, shall be the dividend: the kilowatt hours sold including those supplied for street lighting shall be the divisor", therefore, based on the aforementioned formula and the financial operating data available to the Department as of December 31, 1977, we estimate the cost of street lights to the Town of Hudson to be $56,200.00 for the fiscal year July 1, 1979 to June 30, 1981

The Light Board voted unanimously that the sum of $175,000.00 shall be paid to the Town in lieu of taxes for the period ending December 31, 1980.

During the closing days of 1979, the Town of Hudson and the Light & Power Department was saddened by the passing of Light Board member, Mr. Robert F. Waugh.

Mr. Waugh was a very dedicated and conscientious individual whose service to the town will be deeply missed by all who knew and worked with him. Mr. Waugh was respected by everyone. We shall miss Mr. Waugh's guidance, but most of all we mourn the passing of a very good friend.

I wish to thank the Municipal Light Board for their counsel, guidance and the sound judgment which was displayed in formulating the directing policies, which have continued to make the Light and Power Department a successful operation and a valuable asset to the citizens of Hudson. I also wish to express my appreciation to the Supervisors and Employees of the Department for their loyal and efficient effort displayed throughout the year.

To the Selectmen and all Town Officials and Employees who have aided in so many ways, I wish to express my sincere thanks for their cooperation and assistance.

Respectfully submitted,

HORST HUEHMER

EXHIBIT #1

BALANCE SHEET

DECEMBER 31, 1979

ASSETS

INVESTMENTS			
Net Utility Plant (app. D)			$ 3,896,486.20
CASH ACCOUNTS			
Operation Cash		$ 81,974.00	
Miscellaneous Cash		46,021.00	
Depreciation Fund		108,114.43	
Depreciation Fund Invested		1,272,093.99	
Construction Cash		7,891.61	
Advances from Contractors		12,971.95	
Customer Deposit Account		88,374.42	
Petty Cash		100.00	
Total Cash			$ 1,617,541.40
OTHER CURRENT AND ACCRUED ASSETS			
Customer Accounts Receivable			
Electric Sales	$ 591,477.74		
Sundry Sales	26,452.78		
Capacity Sales	20,129.72		
Total Customer Accounts Receivable		$ 638,060.24	
Interest Receivable		37,910.01	
Materials & Supplies		454,174.[illegible]	
Prepayments		157,898.[illegible]	
Construction Work in Progress		1,043,155.16	
Total Current & Accrued Assets			$ 2,331,198.71
DEFERRED ASSETS			$ 41,477.39
TOTAL ASSETS			$ 7,886,703.70

LIABILITIES

CURRENT & ACCRUED LIABILITIES		
Accounts Payable	$ 703,347.22	
Customer Deposits & Interest	88,374.42	
Accrued Expenses	2,885.23	
Customer Advances for Construction	38,100.00	
Total Current & Accrued Liabilities		$ 832,706.87
SURPLUS		
Loans Repayment	$1,925,000.00	
Investment of Municipality	20,093.39	
Unappropriated Earned Surplus	5,108,903.44	
Total Surplus		$ 7,053,996.83
TOTAL LIABILITIES & SURPLUS		$ 7,886,703.70

EXHIBIT #1

INCOME STATEMENT

JANUARY 1, 1979 THRU DECEMBER 31, 1979

Revenue Sales of Electricity		$ 5,563,165.38
Other Operating Revenues		598.60
Total Income		$ 5,563,763.98
Operating Expenses		
Production	$1,097,990.93	
Purchased Power Entitlements	707,753.88	
Purchased Power-NEPEX	81,657.44	
Purchased Power & Expenses	2,087,821.49	
Distribution	153,921.10	
Transmission Expense	180,785.38	
General	618,722.52	
Depreciation	487,186.23	
Total Operating Expenses		$ 5,415,838.97
Total Operating Income		$ 147,925.01
Other Income:		
Income from Contract Work	$ 362.53	
Interest Income	126,060.28	
Misc. non-operating Income	63.77	
Total Other Income		$ 126,486.58
Net Profit before return in lieu of taxes to Town of Hudson		$ 274,411.59
Returned to Town of Hudson		175,000.00
Net Profit after return to Town of Hudson		$ 99,411.59

STATEMENT OF EARNED SURPLUS

Credit Balance January 1, 1979	$ 5,009,491.83
Add: Net Profit for the period 1/1/79 thru 12/31/79	274,411.59
	$ 5,283,903.44
Less: Return to Town of Hudson	175,000.00
Credit Balance December 31, 1979	$ 5,108,903.44

EXHIBIT #1

INCOME STATEMENT DETAIL

JANUARY 1, 1979 TO DECEMBER 31, 1979

OPERATING REVENUE

Sales To Residential Consumers	$ 2,471,673.66
Sales to Commercial Consumers	343,974.53
Sales to Power Consumers	2,108,204.16
Municipal Sales	
Hudson Street Lights	44,686.64
Hudson Municipal Buildings	17,316.52
Hudson Municipal Power	127,245.02
All Elec. Municipal Buildings	214,676.91
Stow, Berlin & Bolton Street Lights	5,393.99
Stow, Maynard & Other Municipal Service	49,241.87
Sales for Resale	180,752.08
Total Revenue from Sale of Electricity	$ 5,563,165.38
OTHER INCOME	
Other Electric Revenues	598.60
TOTAL INCOME	$ 5,563,763.98

EXPENSES

PRODUCTION	
Operation Supervision	$ 8,515.56
Fuel	841,938.41
Generation Expenses	121,502.06
Lubricants	12,458.54
Misc. Generation Expenses	22,242.08
Maintenance Supervision	5,102.21
Maintenance of Structures	15,734.90
Maintenance of Plant	66,730.10
Maintenance of Misc. Plant	3,767.07
Total Production Expenses	$ 1,097,990.93
OTHER POWER SUPPLY EXPENSES	
Purchased Power Entitlements	$ 707,753.88
Purchased Power	2,060,724.84
Purchased Power Expenses	27,096.65
Purchased Power-NEPEX	81,657.44
Total Purchased Power	$ 2,877,232.81
DISTRIBUTION	
Operating Supervision	$ 10,247.31
Overhead Line Expense	555.52
Station Expenses	501.04
Street Lighting Expenses	4,457.85
Meter Expenses	11,563.33
Customer Installation Expenses	6,271.30
Misc. Distribution Expenses	3,207.36
Maintenance Supervision	10,247.31
Maintenance of Overhead Lines	93,922.52
Maintenance of Underground Lines	2,803.53
Maintenance of Line Transformers	(924.71)
Maintenance of Street Lighting System	3,300.35
Maintenace of Meters	1,768.39
Total Distribution Expenses	$ 153,921.10
TRANSMISSION EXPENSES	$ 180,785.38

EXHIBIT #1

JANUARY 1, 1979 TO DECEMBER 31, 1979

EXPENSES (CONTINUED)

GENERAL	
Supervision	$ 4,176.00
Meter Reading Expenses	20,836.62
Customer Expenses	58,178.36
Advertising Expenses	10.00
Administrative and General Salaries	79,642.26
Office Supplies and Expenses	5,577.21
Property Insurance	9,264.19
Injuries and Damages	40,061.13
Employee Fringe Benefits	333,056.85
Miscellaneous General Expenses	4,843.72
Outside Services Employed	13,393.59
Maintenance of General Plant	27,317.58
Transportaiton Expenses	17,934.83
Depreciation	487,186.23
Regulatory Comm. Expense	4,430.16
Total General Expenses	$1,105,908.73
Total Operating Expenses	$5,415,838.95

EXHIBIT #1

APPENDIX A

Statistics

Kilowatthours, Generated, Purchased, Sold and Used

January 1, 1979 - December 31, 1979

Kilowatthours Generated at Station	29,184,350			
Kilowatthours Purchased	103,069,112			
Total Generated and Purchased	132,253,462			
Kilowatthours Sold		Hudson	Stow	Other Areas
Residence Service "A"		21,739,813	7,595,477	471,908
Residence Service "A" (water heaters)		7,021,080	3,538,988	243,660
All Electric Service "F"		8,408,579	4,315,383	125,368
Heating & Air Condition for Business		84,190	68,338	-
Seasonal Service "B"		31,243	129,056	-
Commercial Service "C"		3,534,200	1,306,434	39,150
Large Power "D"		41,142,859	4,007,963	-
Departmental Usage		244,227	-	-
Municipal All Electric		1,357,200		4,813,200
Municipal Service "C"		268,248	77,027	8,969
Municipal Power "D"		2,584,833	853,560	
Street Lighting		1,114,483	66,447	1,176
Yard Lighting		365,891	58,571	1,504
Total Kilowatthours each zone		87,896,846	22,017,244	5,704,935
Total Kilowatthours distributed				115,619,025
Kilowatthours used at Station and Miscellaneous				1,612,300
Kilowatthours lost in Station & Transmission				5,356,164
Kilowatthours lost in Distribution Lines				6,334,475
Capacity Sales				3,331,498
Total				132,253,462
Percent lost in Distribution Lines	4.8%			
Percent lost in Station & Transmission Lines	4.0%			

EXHIBIT #1

APPENDIX B

REVENUE FROM SALES OF ELECTRICITY

JANUARY 1, 1979 - DECEMBER 31, 1979

	Hudson	Stow	Other Areas
Residence Service "A"	$1,117,107.38	$ 374,584.47	$ 23,433.5
Residence Service "A" (water heaters)	299,843.66	149,334.45	10,219.(
All Electric Service "F"	318,729.38	163,787.31	4,808.
Commercial Heating & Air Conditioning	3,173.39	2,731.76	-
Seasonal Service "B"	2,138.89	7,686.28	-
Commercial Service "C"	222,444.53	82,377.26	2,344.
Large Power "D"	1,907,914.09	200,290.07	-
Municipal All Electric	47,196.33	-	167,480.
Municipal Service "C"	16,012.01	4,618.94	554
Municipal Power "D"	127,245.02	43,744.88	-
Street Lighting	44,686.64	5,294.14	99
Yard Lighting	27,856.64	4,563.57	111
Total Revenue Each Zone	$4,134,347.96	$1,039,013.13	$ 209,052
Sales for Resale			180,752

Total Revenue from Sale of Electricity -- $5,563,165.38

EXHIBIT #1

APPENDIX D

COMPARISONS OF TOTAL AND PRESENT VALUE OF PLANT - DECEMBER 31, 1979

	Total Cost of Plant	Present Value of Plant
Land & Land Rights - Nuclear	$ 944.00	$ 944.00
Land & Land Rights - Other Production Plant	5,500.00	5,500.00
Structures	330,739.70	34,204.18
Fuel Holders	123,688.30	27,350.81
Prime Movers	2,226,533.45	394,941.04
Generators	287,549.94	51,459.11
Accessory Electric Equipment	832,325.87	159,079.42
Miscellaneous Power Plant Equipment	18,689.07	725.84
Land and Land Rights - Transmission	53,804.14	53,804.14
Clearing Land Rights of Way	41,486.83	33,121.92
Structures and Improvements	126,679.25	101,913.55
Station Equipment	607,333.74	472,370.85
Poles and Fixtures	657,459.02	524,896.67
Overhead Conductors and Devices	227,329.01	181,493.05
Underground Conduit Transmission	258.07	232.06
Structures and Improvements	3,441.77	1,816.36
Station Equipment	189,688.83	77,014.38
Poles, Fixtures, Towers	399,575.26	85,444.88
Overhead Conductors	1,041,710.21	328,809.78
Underground Conduit Distribution	71,741.60	46,383.11
Underground Conductors	205,914.71	162,507.71
Line Transformers	829,742.46	351,154.53
Services	264,065.60	98,970.63
Meters	268,017.44	93,329.89
Installations on Customer's Premises	88.77	.00
Street Lighting System	223,831.05	55,458.51
Structures and Improvements	425,771.05	251,123.15
Office Equipment	153,498.75	116,270.22
Transportation Equipment	247,359.51	133,111.36
Stores Equipment	10,704.97	8,437.66
Tools, Shop and Garage Equipment	7,472.70	5,215.78
Laboratory Equipment	17,691.33	17,513.43
Power Operated Equipment	1,138.25	1,073.89
Communication	22,698.70	11,851.59
Miscellaneous Equipment	3,306.00	2,609.24
Other tangible property	6,353.46	6,353.46
	$9,934,132.21	$3,896,486.20

The difference in amounts between the two columns represents the amount the various equipment has been depreciated since its installation.

APPENDIX E

CUSTOMER AND STREET LIGHTING STATISTICS

YEAR END 1979

Number of Customers in 1979	7,722
Number of Customers in 1969	6,257
Average annual kilowatthours per cust. for Domestic use in 1979	7,863
Increase in Domestic consumption over 1978	2.6%
Increase in Commercial lighting over 1978	3.7%
Increase in D Power use over 1978	19.7%
Decrease in Municipal Sales over 1978	6.9%
Total number of street lights in Hudson	1,525
Payments received from tax levy for street lights in 1979	44,612.02
Cost to Department for street lighting improvements and maintenance	19,136.26
Total KWH supplied for Hudson street lighting purposes	1,114,483

EXHIBIT #2

CUSTOMER & STREET LIGHTING STATISTICS

DECEMBER 31, 1979

Hudson Residential Consumers	5148	
Hudson Seasonal Consumers	20	
Hudson Commercial Consumers	442	
Hudson Power Consumers	135	
Hudson Municipal Consumers	45	
Total Hudson Consumers		5790
Stow Residential Consumers	1575	
Stow Seasonal Consumers	37	
Stow Commercial Consumers	164	
Stow Power Consumers	31	
Stow & Maynard Municipal Consumers	21	
Total Stow & Maynard Consumers		1828
Boxboro, Bolton, Berlin, Marlboro, etc.		
Residential Consumers	94	
Commercial Consumers	6	
Municipal Consumers	4	
Total Boxboro, Bolton, Berlin, etc. Consumers		104
Total Consumers on System		7722
Hudson Street Lights:		
250 Watt Mercury Vapor Type		15
92 Watt Bracket Type Multiple		398
189 Watt Bracket Type Multiple		99
405 Watt Upsweep Type Multiple		2
175 Watt Mercury Vapor Type		966
400 Watt Mercury Vapor Type		44
400 Watt Mercury Vapor Flood Type		1
Stow Street Lights:		
92 Watt Bracket Type Multiple		94
189 Watt Bracket Type Multiple		10
295 Watt Bracket Type Multiple		1
175 Watt Mercury Vapor Type		9
250 Watt Mercury Vapor Type		5
400 Watt Mercury Vapor Type		2
400 Watt Mercury Vapor Flood Light		2
Berlin & Bolton Street Lights		
92 Watt Bracket Type Multiple		3
Total Street Lights		1651
Hudson Yard Lights:		
250 Watt Mercury Vapor Type		36
175 Watt Mercury Vapor Pole Top		45
92 Watt Bracket Type Multiple		4
189 Watt Bracket Type Multiple		12
405 Watt Upsweep Type Multiple		2
175 Watt Mercury Vapor Type		68
400 Watt Mercury Vapor Type		26
400 Watt High Pressure Sodium		7
400 Watt Mercury Vapor Flood Type		99
Stow Yard Lights:		
92 Watt Bracket Type Multiple		2
175 Watt Mercury Vapor Type		23
250 Watt Mercury Vapor Type		6
400 Watt Mercury Vapor Type		1
400 Watt Mercury Vapor Flood Light		18
Berlin, Bolton & Marlboro Yard Lights:		
175 Watt Mercury Vapor Type		1
400 Watt Mercury Vapor Flood Light		1
Total Yard Lights		351

EXHIBIT #1

APPENDIX C

CASH

RECEIPTS & EXPENDITURES

JANUARY 1, 1979 - DECEMBER 31, 1979

RECEIVED		
Cash Balance - January 1, 1979		$1,606,742.07
RECEIPTS		
Residential Sales	$2,433,642.61	
Commercial Sales	308,135.40	
Industrial Sales	2,052,651.85	
Street Lighting	49,951.74	
Yard Lighting	31,820.45	
Municipal Sales	405,511.42	
Consumer Deposits	23,260.00	
Interest on Consumers Deposits	5,344.64	
Interest on Invested Funds	111,389.47	
Advances from Contractors	11,500.00	
Sundry Revenues	501,151.92	
Capacity Sales	176,332.89	
Total Receipts		$6,110,692.39
PAID OUT		
Returned to Town	$ 175,000.00	
Consumers' Deposits Refunded	18,642.81	
Consumers' Deposits Interest Allowed	3,967.35	
Overpayment Refunds	709.68	
Contractor Advances Refunded	11,550.00	
Payrolls	579,655.88	
Invoices for Supplies, Services, etc.	5,007,005.64	
Employee's Retirement Trust	303,361.70	
Total Expenditures		$6,099,893.06
Cash Balance - December 31, 1979		$1,617,541.40