

**THE COMMONWEALTH OF MASSACHUSETTS**

**RETURN**

**OF THE**

**TOWN OF READING MUNICIPAL LIGHT DEPARTMENT**

**TO THE**

**DEPARTMENT OF  
PUBLIC UTILITIES**

**OF MASSACHUSETTS**

**FOR THE YEAR ENDED DECEMBER 31,**

**2015**

Name of Officer to whom correspondence should  
be addressed regarding this report.

**Colcen M. O'Brien**

Official Title: **General Manager**

Office Address: **230 Ash Street**

**Reading, MA. 01867**

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## GENERAL INFORMATION

- |  |   |
|--|---|
| 1. Name of town (or city) making this report.  | Town of Reading   |
| 2. If the town (or city) has acquired a plant,   |   |
| Kind of plant, whether gas or electric.  | Electric  |
| Owner from whom purchased, if so acquired.   | Created in 1894   |
| Date of votes to acquire a plant in accordance with the provisions of chapter 164 of the General Laws. |   |
| Record of votes: First vote Yes, 94 ; No, 14      Second vote: Yes, 361 ; No, 21                       |   |
| Date when town (or city) began to sell electricity,  | 1895  |
| 3. Name and address of acting general manager of municipal lighting:                                   | Coleen M. O'Brien<br>230 Ash Street<br>Reading, MA. 01867   |
| 4. Name and address of mayor or selectman  | Daniel Ensminger, Chair<br>John R. Halsey, Vice Chair<br>Kevin M. Sexton, Secretary<br>John Arena<br>Barry Berman |
| 5. Name and address of town (or city) treasurer:   | Marsie K. West, Vice Chair<br>Nancy J. Heffernan<br>16 Lowell Street<br>Town Hall<br>Reading, MA. 01867           |
| 6. Name and address of town (or city) clerk:   | Laura A. Gemme<br>16 Lowell Street<br>Town Hall<br>Reading, MA. 01867   |
| 7. Names and addresses of members of municipal light board:  | Thomas O'Rourke, Chair<br>David Talbot, Vice Chair<br>Philip B. Pacino<br>John Stempeck<br>David Hennessy         |
| 8. Total valuation of estates in town (or city) according to last state valuation                      | \$4,270,205,687.00  |
| 9. Tax rate for all purposes during the year:  | \$14.50   |
| 10. Amount of manager's salary:  | \$176,072.00  |
| 11. Amount of manager's bond:  | \$50,000.00   |
| 12. Amount of salary paid to members of municipal light board (each)                                   | \$0.00  |

**FURNISH SCHEDULE OF ESTIMATES REQUIRED BY GENERAL LAWS, CHAPTER 164, SECTION 57 FOR GAS AND ELECTRIC LIGHT PLANTS FOR THE FISCAL YEAR ENDING DECEMBER 31, NEXT**

<b>INCOME FROM PRIVATE CONSUMERS:</b>		
1	From sales of gas.....	
2	From sales of electricity .....	87,392,029.00
3		
4	<b>TOTAL</b>	<b>87,392,029.00</b>
5	<b>Expenses:</b>	
6	For operation, maintenance and repairs.....	79,984,278.00
7	For interest on bonds, notes or scrip.....	
8	For depreciation fund ( 3% on \$132,771,500.00 ).....	3,983,145.00
9	For sinking fund requirements.....	
10	For note payments.....	
11	For bond payments.....	
12	For loss in preceding year.....	
13	<b>TOTAL</b>	<b>83,967,423.00</b>
14		
15	<b>Cost:</b>	
16	Of gas to be used for municipal buildings.....	
17	Of gas to be used for street lights.....	
18	Of electricity to be used for municipal buildings.....	
19	Of electricity to be used for street lights.....	
20	Total of the above items to be included in the tax levy.....	
21		
22	New construction to be included in the tax levy.....	
23	Total amounts to be included in the tax levy.....	

**CUSTOMERS**

Names of cities of towns in which the plant supplies GAS, with the number of customers' meters in each		Names of cities of towns in which the plant supplies ELECTRICITY, with the number of customers' meters in each	
City or Town	Number of Customers' Meters, Dec 31.	City or Town	Number of Customers' Meters, Dec 31.
		Reading	10,349
		Lynnfield	3,119
		North Reading	6,736
		Wilmington	9,488
		Co-Op Resale	20
		<b>TOTAL</b>	<b>29,712</b>

**APPROPRIATIONS SINCE BEGINNING OF YEAR**

(Include also all items charged direct to tax levy, even where no appropriation is made or required.)

**FOR CONSTRUCTION OR PURCHASE OF PLANT:**

* At	meeting	19	, to be paid from {	\$	_____
* At	meeting	19	, to be paid from {	\$	_____

**FOR THE ESTIMATED COST OF THE GAS OR ELECTRICITY TO BE USED BY THE CITY OR TOWN FOR:**

1. Street Lights.....	\$	_____
2. Municipal Buildings.....		_____
	\$	_____

\*Date of meeting and whether regular or special { Here insert bonds, notes or tax levy

**CHANGES IN THE PROPERTY**

1. Describe briefly all the important physical changes in the property during the last fiscal period including additions, alterations or improvements to the works or physical property retired.

In electric property:

**SEE ATTACHED SCHEDULE**

In gas property:

**READING MUNICIPAL LIGHT DEPARTMENT**  
***CALANDER YEAR 2015 CONSTRUCTION HIGHLIGHTS***

**PEAK DEMAND**

The Reading Municipal Light Department's (RMLD) system peak demand in calendar year 2015 was 156,283 kW occurring on July 20, 2015, at 4:00 pm. This was 9.4% lower than the highest peak demand of 172,493 kW set in August 2006. RMLD purchased 718,277,930 kWh in 2015.

**LINE CONSTRUCTION**

Line construction throughout the system is performed to provide reliability enhancement, to connect new loads, or to address areas needing upgrades. This work includes both overhead and underground cable installation, service installation and upgrades, installation and removal of poles, transfers of electrical equipment, and performing work related to Massachusetts Highway Projects.

**READING**

**Circuit Upgrades:**

- Approximately 650 feet of secondary cable was installed on Mineral Street.
- Circuit 4W12 – reconducted 300 circuit feet of underground cable with 15 kV, 750 mcm CU underground cable.

**Commercial/Industrial:**

Notable examples of new service additions or upgrades:

- Cumberland Farms – 303 Salem Street
- Perfecto's – 285 Main Street
- Killam Portable Classroom – Charles Street
- Reading Public Library – Middlesex Avenue
- Reading Woods – Building 7

**Force Account Projects:**

- West Street – replaced, relocated, and transferred 35 poles for the MassDOT West Street Roadway Project.

- Route 129 Rotary – replaced and relocated one pole for the widening of the Haverhill Street access road.

## **WILMINGTON**

### **Circuit Upgrades:**

- Circuit 5W6 – reductedored 250 circuit feet of underground cable with 15 kV, 750 mcm CU underground cable.
- Approximately 1,200 feet of primary underground and two pad-mount transformers were installed on Quail Run.
- Approximately 250 feet of primary and 600 feet of secondary cable were installed on Muse Avenue and Cross Street.
- Approximately 500 feet of primary and 150 feet of secondary cable were installed on Cottage Road.
- Approximately 400 feet of primary and 400 feet of secondary cable were installed on Jaquith Road.

### **Pole Line Upgrade:**

- Replaced 29 poles, transferred five primary circuits, secondary cable, street lights, and services on Lowell Street between West and Woburn Streets.

### **Commercial/Industrial:**

Notable examples of new service additions or upgrades:

- Tecomet – 301 Ballardvale Street

## **NORTH READING**

### **Circuit Upgrades:**

- Approximately 500 feet of primary and 650 feet of secondary cable were installed at the trailer park at 142 Main Street.

Commercial/Industrial:

- Firestone – 157 Main Street
- UPS Store – 151 Main Street

### **LYNNFIELD CENTER**

Circuit Upgrades:

- Installed approximately 4,000 feet of duct bank along Cooks Farm Lane, Cortland Lane and Tophet Road as part of an area upgrade project. Approximately 5,000 feet of underground primary cable and 750 feet of underground secondary cable were installed on Cooks Farm Lane, Cortland Lane and Tophet Road.

Commercial/Industrial:

There were no notable service additions or upgrades.

### **CUSTOMER CALLS**

The Department answered approximately 1,213 trouble calls that were of a routine or emergency nature. A summary of the reasons for these calls include: house service difficulties, trees interfering with power lines, utility poles hit by vehicles, animal contact with energized lines, and transformer and equipment problems for miscellaneous reasons. There were 42 pole damage cases as a result of motor vehicle accidents.

### **POLE REPLACEMENTS**

The Department completed approximately 182 pole installations and replacements. Many of these were in connection with RMLD circuit upgrade projects and the Pole Inspection Program throughout the service area.

### **DIGSAFE**

RMLD marked out underground facilities locations for 4,275 DIGSAFE calls.



## **METERS**

Between the Meter and Line departments, service upgrades, new construction, and renovations resulted in a total of 133 new overhead and underground residential and commercial/industrial services delineated as follows:

- Reading – 48 residential and 19 commercial/industrial
- Lynnfield – 11 residential; there were no commercial/industrial
- North Reading – 6 residential and 8 commercial/industrial
- Wilmington – 24 residential and 17 commercial/industrial

A total of 89 new residential services represent a 46% decrease from new residential services in CY2014 (166). A total of 44 commercial/industrial services were installed representing a 12% decrease over the previous year's total of 50.

One hundred and nine (109) meters were replaced due to routine residential and commercial meter replacements.

## **TREE TRIMMING AND PREVENTATIVE MAINTENANCE**

In 2015, RMLD continued its preventive maintenance, tree-trimming program. Mayer Tree Service of Essex, Massachusetts, was awarded a three-year contract starting in January 2015. In 2015 Mayer Tree crews trimmed 3,055 spans throughout the RMLD service territory, and mowed the 115kv transmission right-of-way feeding the Gaw substation.

## **COMPARATIVE SYSTEM PERFORMANCE STATISTICS**

RMLD utilizes Customer Average Interruption Index (CAIDI), System Average Interruption Duration Index (SAIDI), and System Average Interruption Frequency Index (SAIFI) data to measure system performance.

CAIDI measures the average duration (in minutes) of an interruption experienced by customers. SAIFI measures the average number of instances that a customer will experience an interruption. CAIDI was 61.79 average minutes of outage time, and SAIFI was 0.23 instances (as of December 31 2015).

SAIDI measures the average interruption duration (in minutes) for customers served by the utility. SAIDI was 13.98 minutes (as of December 31, 2015).

RMLD continues to provide reliable service through the development and implementation of a number of proactive maintenance programs.

### **RENEWABLE ENERGY**

RMLD is working with customers who wish to install renewable energy products. At the end of 2015, there were a total of 41 residential (270 kW) and seven commercial (970 kW) sites generating solar energy within RMLD's service territory. In 2015, photovoltaic systems were added at 14 residential locations (three in Reading, two in North Reading, and nine in Wilmington). Three new commercial sites were added (one in North Reading and two in Wilmington).

Additionally, a two-megawatt solar array was installed and began generating in November 2015. This solar array is located at One Burlington Avenue in Wilmington. RMLD is the sole purchaser of the output from this solar project. The Solar Renewable Energy Certificates (SRECS) are retained by the developer.

### **FACILITIES & FLEET**

The Facilities group selected MacRitchie Engineering as the firm to provide engineering, design and project management support for the upgrade of the HVAC system in the main operations/office building located at 230 Ash Street. MacRitchie Engineering has provided support in the following areas:

- Engineering, design and construction documents for the removal and installation of boilers, DX coils and an air-handling unit that services the south end of the building as well as the installation of a new Building Control System.
- Construction/project management of the removal and installation of the above building equipment.
- In October 2015, the new boilers were commissioned by the manufacturer and inspected by the insurance carrier.
- November met the installation of AHU3 that feeds the south end of the building.

The new HVAC equipment will operate at significantly higher efficiency providing lower energy costs. The system will also be controlled with a new Building Control System to further reduce energy usage.

Another means to reduce energy usage was the tightening up of the building envelope, which included insulating the entrances to the main operations/office building. To date, three of the four entrances have been completed. Failed brick at the loading dock area was removed and replaced to eliminate further failure and water damage.

In October 2015, RMLD, in an effort to motivate staff and improve employee health, opened a wellness center where staff can work out before or after work.

Annual fire extinguisher inspection and maintenance was completed in August with over 150 fire extinguishers inspected and maintained. This program ensures that critical safety equipment located in all RMLD vehicles and buildings is available if needed.

*Security:*

Significant upgrades continue to the security systems at all RMLD properties.

*Fleet:*

The Facilities group completed dielectric testing of 16 Line department vehicles. The Facilities group also performed preventive maintenance of 17 Line department vehicles to provide proper operation of the mechanical and lift equipment for daily operation. The maintenance program ensures vehicles are safe and operational at all time, especially during significant weather events. It should be noted that during significant weather events all Line department vehicles maintained proper operation with only minor issues. In addition, preventative maintenance was performed on 22 light-duty trucks and cars during the year.

RMLD contracted with Fleet Counselor Services, Inc., to perform an overall evaluation of the current fleet operations. The evaluation compares findings to industry best practices with a series of recommendations.

In September 2015, RMLD purchased one new Fisher 1.8 cubic yard spreader to replace the current worn and rusted spreader.

**BONDS**

(Issued on Account of Gas or Electric Lighting)

When Authorized*	Date of issue	Amount of Original Issue	Period of Payments		Rate	Interest When Payable	Amount Outstanding
			Amounts	When Payable			
Aug-1894	Oct 1894	50,000.00					
May-1907	Oct-1907	26,000.00					
Jun-1911	Jul-1911	20,000.00					
Aug-1913	Oct-1913	23,500.00					
Sep-1914	Sep-1914	8,000.00					
Mar-1916	May-1916	10,000.00					
Mar-1917	Oct-1917	55,000.00					
Oct-1918	Jan-1919	12,000.00					
Mar-1919	Apr-1919	20,000.00					
Mar-1917	May-1920	20,000.00					
Dec-1923	Dec-1924	10,000.00					
Mar-1928	Aug-1927	13,000.00					
Mar-1930	Jun-1930	15,000.00					
Mar-1931	Apr-1931	40,000.00					
Jan-1951	Oct-1951	150,000.00					
Dec-1952	Jul-1953	150,000.00					
Mar-1955	Dec-1955	125,000.00					
Mar-1956	Sep-1956	600,000.00					
Mar-1970	Nov-1970	600,000.00					
Mar-1970	Aug-1979	1,000,000.00					
Feb-1991	Feb-1991	3,465,000.00					
Dec-1992	Dec-1992	1,860,000.00	210,000.00	February 15	4.10	February 15; August 15	0.00
Jul-1996	Jul-1996	2,978,000.00	296,000.00	July 1	4.83	January 1; July 1	0.00
Dec-1999	Dec-1999	5,500,000.00	550,000.00	September 1	4.57	March 1; September 1	0.00
<b>TOTAL</b>		<b>16,750,500.00</b>	<b>1,056,000.00</b>				<b>-</b>

The bonds and notes outstanding at the end of the year should agree with the balance sheet. When bond and notes are repaid, report the first three columns only.

\*Date of meeting and whether regular or special

Annual Report of: Town of Reading Municipal Light Department

**TOWN NOTES**

(Issued on Account of Gas or Electric Lighting)

When Authorized	Date of Issue	Amount of Original Issue	Period of Payments		Interest		Amount of Outstanding at End of Year
			Amounts	When Payable	Rate	When Payable	
Mar-1896	Mar-1896	7,000.00					
Dec-1896	Dec-1896	1,500.00					
Mar-1898	Jul-1898	3,000.00					
Mar-1903	Dec-1903	1,400.00					
Mar-1909	Nov-1909	2,500.00					
Jan-1909	Jan-1910	1,800.00					
Jan-1910	Mar-1910	12,000.00					
Mar-1911	Jul-1911	2,200.00					
Mar-1913	Apr-1913	13,500.00					
Mar-1915	May-1915	12,000.00					
Mar-1915	Jul-1915	4,000.00					
Mar-1917	Sep-1917	6,500.00					
Nov-1919	Nov-1919	3,000.00					
Mar-1921	Jul-1921	7,000.00					
Dec-1922	Dec-1922	7,000.00					
May-1934	May-1934	20,000.00					
Mar-1935	Jun-1935	20,000.00					
Mar-1937	Apr-1937	60,000.00					
Jun-1939	Nov-1939	25,000.00					
Mar-1939	Jul-1939	15,000.00					
Jun-1939	Jul-1939	36,000.00					
Mar-1941	May-1941	21,000.00					
Mar-1941	May-1941	10,000.00					
Dec-1948	Mar-1949	80,000.00					
Nov-1985	Dec-1985	183,427.00					
Aug-1992	Aug-1992	680,000.00					
Apr-1994	Apr-1994	2,000,000.00					
Aug-1995	Aug-1995	1,090,000.00					
<b>TOTAL</b>		<b>4,324,827.00</b>					<b>0.00</b>

The bonds and notes outstanding at the end of the year should agree with the balance sheet. When bonds and notes are repaid, report the first three columns only.

**TOTAL COST OF PLANT - ELECTRIC**

1. Report below the cost of utility plant in service according to prescribed accounts.  
 2. Do not include as adjustments, corrections of additions and retirements for the current or the preceding year. Such items should be included in column (c) or (d) as appropriate.  
 3. Credit adjustments of plant accounts should be enclosed in parentheses to indicate the negative effect of such amounts.  
 4. Reclassifications or transfers within utility plant accounts should be shown in column (f).

Line No.	Account (a)	Balance Beginning of Year (b)	Additions (c)	Retirements (d)	Adjustments (e)	Transfers (f)	Balance End of Year (g)
1	<b>1. INTANGIBLE PLANT</b>						
2							
3							
4							
5							
6	<b>2. PRODUCTION PLANT</b>						
7	A. Steam Production						
8	310 Land and Land Rights.....						
9	311 Structures and Improvements.....						
10	312 Boiler Plant Equipment.....						
11	313 Engines and Engine Driven Generators.....						
12	314 Turbogenerator Units.....						
13	315 Accessory Electric Equipment.....						
14	316 Miscellaneous Power Plant Equipment.....						
15	<b>Total Steam Production Plant.....</b>						
16	B. Nuclear Production Plant						
17	320 Land and Land Rights.....						
18	321 Structures and Improvements.....						
19	322 Reactor Plant Equipment.....						
20	323 Turbogenerator Units.....						
21	324 Accessory Electric Equipment.....						
22	325 Miscellaneous Power Plant Equipment.....						
23	<b>Total Nuclear Production Plant...</b>						

TOTAL COST OF PLANT - ELECTRIC (Continued)

Line No.	Account (a)	Balance Beginning of Year (b)	Additions (c)	Retirements (d)	Adjustments (e)	Transfers (f)	Balance End of Year (g)
1	<b>C. Hydraulic Production Plant</b>						
2	330 Land and Land Rights.....						
3	331 Structures and Improvements.....						
4	332 Reservoirs, Dams and Waterways						
5	333 Water wheels, Turbines and Generators.....						
6	334 Accessory Electric Equipment.....						
7	335 Miscellaneous Power Plant Equipment.....						
8	336 Roads, Railroads and Bridges.....						
9	<b>Total Hydraulic Production Plant</b>						
10	<b>D. Other Production Plant</b>						
11	340 Land and Land Rights.....						
12	341 Structures and Improvements.....						
13	342 Fuel Holders, Producers and Accessories.....						
14	343 Prime Movers.....						
15	344 Generators.....						
16	345 Accessory Electric Equipment.....						
17	346 Miscellaneous Power Plant Equipment.....						
18	<b>Total Other Production Plant</b>						
19	<b>Total Production Plant</b>						
20	<b>3. Transmission Plant</b>						
21	350 Land and Land Rights.....	25,016.00					25,016.00
22	351 Clearing Land and Rights of Way	1,584,212.00					1,584,212.00
23	352 Structures and Improvements.....	5,774,683.00					5,774,683.00
24	353 Station Equipment.....	86,169.00					86,169.00
25	354 Towers and Fixtures.....	105,937.00					105,937.00
26	355 Poles and Fixtures.....	84,890.00					84,890.00
27	356 Overhead Conductors and Devices...	44,048.00					44,048.00
28	357 Underground Conduits.....	38,468.00					38,468.00
29	358 Underground Conductors and Devices						
30	359 Roads and Trails.....						
31	<b>Total Transmission Plant</b>	<b>7,743,423.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>7,743,423.00</b>

TOTAL COST OF PLANT - ELECTRIC (Continued)							
Line No.	Account (a)	Balance Beginning of Year (b)	Additions (c)	Retirements (d)	Adjustments (e)	Transfers (f)	Balance End of Year (g)
	Balance carried over from page 8A	7,743,423.00	0.00	0.00	0.00	0.00	7,743,423.00
1	<b>4. DISTRIBUTION PLANT</b>						
2	360 Land and Land Rights	843,454.00					843,454.00
3	361 Structures and Improvements	5,111,819.00	271,412.00				5,383,231.00
4	362 Station Equipment	10,329,277.00	92,155.00				10,421,432.00
5	363 Storage Battery Equipment	50,839.00	14,555.00				65,394.00
6	364 Poles, Towers and Fixtures	25,598,389.00	1,361,125.00	77,907.00			26,881,607.00
7	365 Overhead Conductors and Devices	18,126,126.00	604,379.00	87,146.00			18,643,359.00
8	366 Underground Conduits	7,959,380.00	325,417.00	6,544.00			8,278,253.00
9	367 Underground Conductors & Devices	8,904,343.00	246,481.00	25,023.00			9,125,801.00
10	368 Line Transformers	9,994,461.00	409,680.00	214,998.00			10,189,143.00
11	369 Services	5,731,276.00	36,052.00				5,767,328.00
12	370 Meters	4,663,915.00	142,280.00	15,081.00			4,791,114.00
13	371 Installation on Cust's Premises	0.00					0.00
14	372 Leased Prop. on Cust's Premises	0.00					0.00
15	373 Street Light and Signal Systems	2,547,216.00	280,127.00	60,533.00			2,766,810.00
16	Total Distribution Plant	<b>99,860,495.00</b>	<b>3,783,663.00</b>	<b>487,232.00</b>			<b>103,156,926.00</b>
17	<b>5. GENERAL PLANT</b>						
18	389 Land and Land Rights	397,372.00					397,372.00
19	390 Structures and Improvements	7,548,577.00	471,541.00				8,020,118.00
20	391 Office Furniture and Equipment	7,250,977.00	294,084.00	42,500.00			7,502,561.00
21	392 Transportation Equipment	4,585,770.00	6,150.00	328,727.00			4,263,193.00
22	393 Stores Equipment	105,376.00					105,376.00
23	394 Tools, Shop and Garage Equipment	512,489.00	424.00				512,913.00
24	395 Laboratory Equipment	492,759.00					492,759.00
25	396 Power Operated Equipment	0.00					0.00
26	397 Communication Equipment	2,734,968.00	45,472.00				2,780,440.00
27	398 Miscellaneous Equipment	183,150.00					183,150.00
28	399 Other Tangible Property	0.00					0.00
29	Total General Plant	<b>23,811,438.00</b>	<b>817,671.00</b>	<b>371,227.00</b>			<b>24,257,882.00</b>
30	Total Electric Plant in Service	<b>131,415,356.00</b>	<b>4,601,334.00</b>	<b>858,459.00</b>		<b>0.00</b>	<b>135,158,231.00</b>
31							
32							
33							
34							

**TOTAL COST OF PLANT.....**

Less Cost of Land, Land Rights, and Rights of Way  
 Total Cost upon which depreciation is based

**1,265,842.00**  
**133,892,389.00**

The above figures should show the original cost of existing property. In case any part of the property is sold or retired, the cost of such property should be deducted from the cost of the plant. The net cost of the property, less the land values, should be taken as a basis for figuring depreciation.



**COMPARATIVE BALANCE SHEET Assets and Other Debits**

Line No.	Title of Account  (a)	Balance Beginning of Year (b)	Balance End Year	Increase or (Decrease)
1	<b>UTILITY PLANT</b>			
2	101 Utility Plant -Electric.....	69,697,353.00	70,337,310.00	639,957.00
3	101 Utility Plant- Gas.....			
4	123 Investment in Associated Companies.....	26,994.00	26,994.00	0.00
5	<b>Total Utility Plant.....</b>	<b>69,724,347.00</b>	<b>70,364,304.00</b>	<b>639,957.00</b>
6				
7				
8				
9				
10				
11	<b>FUND ACCOUNTS</b>			
12	125 Sinking Funds.....			
13	126 Depreciation Fund (P. 14).....	5,638,141.00	6,426,279.00	788,138.00
14	128 Other Special Funds.....	1,292,906.00	1,284,061.00	(8,845.00)
15	<b>Total Funds.....</b>	<b>6,931,047.00</b>	<b>7,710,340.00</b>	<b>779,293.00</b>
16	<b>CURRENT AND ACCRUED ASSETS</b>			
17	131 Cash (P. 14).....	25,720,914.00	25,468,257.00	(252,657.00)
18	132 Special Deposits.....	835,190.00	903,279.00	68,089.00
19	132 Working Funds.....	3,000.00	3,000.00	0.00
20	141 Notes and Receivables.....			
21	142 Customer Accounts Receivable.....	8,493,074.00	7,459,586.00	(1,033,488.00)
22	143 Other Accounts Receivable.....	148,167.00	295,773.00	147,606.00
23	146 Receivables from Municipality.....			
24	151 Materials and Supplies (P. 14).....	1,429,545.00	1,674,959.00	245,414.00
25				
26	165 Prepayments.....	2,099,150.00	4,298,355.00	2,199,205.00
27	174 Miscellaneous Current Assets			
28	<b>Total Current and Accrued Assets...</b>	<b>38,729,040.00</b>	<b>40,103,209.00</b>	<b>1,374,169.00</b>
29	<b>DEFERRED DEBITS</b>			
30	181 Unamortized Debt Discount.....	0.00	0.00	0.00
31	182 Extraordinary Property Debits.....			
32	185 Other Deferred Debits.....	(2,785,053.00)	(1,359,340.00)	1,425,713.00
33	<b>Total Deferred Debits.....</b>	<b>(2,785,053.00)</b>	<b>(1,359,340.00)</b>	<b>1,425,713.00</b>
34				
35	<b>Total Assets and Other Debits.....</b>	<b>112,599,381.00</b>	<b>116,818,513.00</b>	<b>4,219,132.00</b>

**COMPARATIVE BALANCE SHEET Liabilities and Other Credits**

Line No.	Title of Account (a)	Balance Beginning of Year (b)	Balance End Year	Increase or (Decrease)
1	<b>APPROPRIATIONS</b>			
2	201 Appropriations for Construction.....			
3	<b>SURPLUS</b>			
4	205 Sinking Fund Reserves.....	119,304.00	119,304.00	0.00
5	206 Loans Repayment.....	15,403,000.00	15,403,000.00	0.00
6	207 Appropriations for Construction Repayment..			
7	208 Unappropriated Earned Surplus (P. 12).....	78,709,746.00	77,680,387.00	(1,029,359.00)
8	<b>Total Surplus.....</b>	<b>94,232,050.00</b>	<b>93,202,691.00</b>	<b>(1,029,359.00)</b>
9	<b>LONG TERM DEBT</b>			
10	221 Bonds (P. 6).....	0.00	0.00	0.00
11	231 Notes Payable (P. 7).....			
12	<b>Total Bonds and Notes.....</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
13	<b>CURRENT AND ACCRUED LIABILITIES</b>			
14	232 Accounts Payable.....	5,862,851.00	7,421,224.00	1,558,373.00
15	234 Payables to Municipality.....			
16	235 Customer Deposits.....	835,190.00	903,279.00	68,089.00
17	236 Taxes Accrued.....			
18	237 Interest Accrued.....	2,083.00	3,057,725.00	3,055,642.00
19	242 Miscellaneous Current and Accrued Liabilities	2,918,871.00	3,070,487.00	151,616.00
20	<b>Total Current and Accrued Liabilities...</b>	<b>9,618,995.00</b>	<b>14,452,715.00</b>	<b>4,833,720.00</b>
21	<b>DEFERRED CREDITS</b>			
22	251 Unamortized Premium on Debt.....			
23	252 Customer Advance for Construction.....	565,058.00	938,349.00	373,291.00
24	253 Other Deferred Credits.....			
25	<b>Total Deferred Credits</b>	<b>565,058.00</b>	<b>938,349.00</b>	<b>373,291.00</b>
26	<b>RESERVES</b>			
27	260 Reserves for Uncollectable Accounts.....	261,912.00	253,736.00	(8,176.00)
28	261 Property Insurance Reserve.....			
29	262 Injuries and Damages Reserves.....			
30	263 Pensions and Benefits.....			
31	265 Miscellaneous Operating Reserves.....			
32	<b>Total Reserves.....</b>	<b>261,912.00</b>	<b>253,736.00</b>	<b>(8,176.00)</b>
33	<b>CONTRIBUTIONS IN AID OF CONSTRUCTION</b>			
34	271 Contributions in Aid of Construction.....	7,921,366.00	7,971,022.00	49,656.00
35	<b>Total Liabilities and Other Credits</b>	<b>112,599,381.00</b>	<b>116,818,513.00</b>	<b>4,219,132.00</b>

State below if any earnings of the Municipal Lighting Plant have been used for any purpose other than discharging indebtedness of the plant, the purpose for which used and the amount thereof.

**STATEMENT OF INCOME FOR THE YEAR**

Line No.	Account (a)	Current Year	Increase or (Decrease) from Preceding Year
<b>OPERATING INCOME</b>			
2	400 Operating Revenue (P. 37) .....	86,167,397.00	(2,048,892.00)
3	<b>Operating Expenses:</b>		
4	401 Operation Expense (P. 42).....	73,472,532.00	(1,754,360.00)
5	402 Maintenance Expense (P. 42).....	3,294,595.00	(7,956.00)
6	403 Depreciation Expense .....	3,903,129.00	82,579.00
7	407 Amortization of Property Losses.....		
9	408 Taxes (P. 49).....	1,393,947.00	0.00
10	<b>Total Operating Expenses</b> .....	<b>82,064,203.00</b>	<b>(1,679,737.00)</b>
11	Operating Income.....		
12	414 Other Utility Operating Income (P. 50).....		
13			
14	<b>Total Operating Income</b> .....	<b>4,103,194.00</b>	<b>(369,155.00)</b>
<b>OTHER INCOME</b>			
16	415 Income from Merchandising, Jobbing, and Contract Work (P. 51)....	486,759.00	149,910.00
17	419 Interest Income.....	120,923.00	(47,413.00)
18	421 Miscellaneous Income.....		
19	<b>Total Other Income</b> .....	<b>607,682.00</b>	<b>102,497.00</b>
20	<b>Total Income</b> .....	<b>4,710,876.00</b>	<b>(266,658.00)</b>
<b>MISCELLANEOUS INCOME DEDUCTIONS</b>			
22	425 Miscellaneous Change in Accounting Principle.....		
23	426 Other Income Deductions.....		
24	<b>Total Income Deductions</b> .....	<b>0.00</b>	<b>0.00</b>
25	<b>Income before Interest Charges</b> .....	<b>4,710,876.00</b>	<b>(266,658.00)</b>
<b>INTEREST CHARGES</b>			
27	427 Interest on Bonds and Notes.....		
28	428 Amortization of Debt Discount and Expense.....		
29	429 Amortization of Premium on Debt.....		
30	431 Other Interest Expense.....	(493.00)	(1,840.00)
31	432 Interest Charged to Construction-Credit.....		
32	<b>Total Interest Charges</b> .....	<b>(493.00)</b>	<b>(1,840.00)</b>
33	<b>Net Income</b> .....	<b>4,711,369.00</b>	<b>(264,818.00)</b>

**EARNED SURPLUS**

Line No.	(a)	Debits (b)	Credits (c)
34	Unappropriated Earned Surplus (at beginning of period).....		78,709,746.00
35	GASB 68 PRIOR PERIOD ADJUSTMENT		(3,669,527.00)
36			
37	433 Balance Transferred from Income.....		4,711,369.00
38	434 Miscellaneous Credits to Surplus (P. 21).....		313,585.00
39	435 Miscellaneous Debits to Surplus (P. 21).....	61,168.00	
40	436 Appropriations of Surplus (P. 21).....	2,351,654.00	
41	437 Surplus Applied to Depreciation.....		28,036.00
42	208 Unappropriated Earned Surplus (at end of period).....	77,680,387.00	
43			
44	<b>TOTALS</b>	<b>80,093,209.00</b>	<b>80,093,209.00</b>

**CASH BALANCES AT END OF YEAR (Account 131)**

Line No.	Items (a)	Amount (b)
1	Operation Fund.....	25,468,257.00
2	Interest Fund.....	
3	Bond Fund.....	
4	Construction Fund.....	
5		
6		
7		
8		
9		
10		
11		
12	<b>TOTAL</b>	25,468,257.00

**MATERIALS AND SUPPLIES (Account 151-159, 163 )  
Summary per Balance Sheet**

Line No.	Account (a)	Amount End of Year	
		Electric (b)	Gas (c)
13	Fuel (Account 151) (See Schedule, Page 25).....		
14	Fuel Stock Expenses (Account 152).....		
15	Residuals (Account 153).....		
16	Plant Materials and Operating Supplies (Account 154).....	1,674,959.00	
17	Merchandise (Account 155).....		
18	Other Materials and Supplies (Account 156).....		
19	Nuclear Fuel Assemblies and Components - In Reactor (Acct 157)		
20	Nuclear Fuel Assemblies and Components - Stock Acct (Acct 158)		
21	Nuclear Byproduct Materials (Account 159).....		
22	Stores Expense (Account 163).....		
23	<b>Total per Balance Sheet</b>	1,674,959.00	

**Depreciation Fund Account (Account 126)**

Line No.	(a)	Amount (b)
24	<b>DEBITS</b>	
25	Balance of Account at Beginning of Year.....	5,638,141.00
26	Income During Year from Balance on Deposit.....	23,842.00
27	Amount Transferred from Income.....	3,903,129.00
28	<b>TOTAL</b>	9,565,112.00
29		
30	<b>CREDITS</b>	
31	Amount expended for Construction Purposes (Sec. 57C164 of G.L.).....	3,138,833.00
32	Amounts Expended for Renewals.....	
33	Adjustment.....	
34		
35		
36		
37		
38		
39	Balance on Hand at End of Year.....	
40	<b>TOTAL</b>	6,426,279.00



UTILITY PLANT - ELECTRIC (continued)

Line No.	Account (a)	Balance Beginning of Year (b)	Additions (c)	Depreciation (d)	Other Credits (e)	Adjustments Transfers (f)	Balance End of Year (g)
1	<b>c. Hydraulic Production Plant</b>						
2	330 Land and Land Rights.....						
3	331 Structures and Improvements.....						
4	332 Reservoirs, Dams and Waterways						
5	333 Water Wheels, Turbines and Generators.....						
6	334 Accessory Electric Equipment.....						
7	335 Miscellaneous Power Plant Equipment.....						
8	336 Roads, Railroads and Bridges...						
9	<b>Total Hydraulic Production Plant</b>						
10	<b>D. Other Production Plant</b>						
11	340 Land and Land Rights.....						
12	341 Structures and Improvements.....						
13	342 Fuel Holders, Producers and Accessories.....						
14	343 Prime Movers.....						
15	344 Generators.....						
16	345 Accessory Electric Equipment.....						
17	346 Miscellaneous Power Plant Equipment.....						
18	<b>Total Other Production Plant</b>						
19	<b>Total Production Plant</b>						
20	<b>3. TRANSMISSION PLANT</b>						
21	350 Land and Land Rights.....	25,015.00					25,015.00
22	351 Clearing Land and Rights of Way..	0.00					0.00
23	352 Structures and Improvements.....	723,045.00		28,379.00			694,666.00
24	353 Station Equipment.....	4,447,722.00		159,443.00			4,288,279.00
25	354 Towers and Fixtures.....	0.00					0.00
26	355 Poles and Fixtures.....	0.00					0.00
27	356 Overhead Conductors and Device..	19,240.00		1,122.00			18,118.00
28	357 Underground Conduits.....	7,151.00		1,270.00			5,881.00
29	358 Underground Conductors and Dev..	1,744.00		1,154.00			590.00
30	359 Roads and Tralls.....	0.00					0.00
31	<b>Total Transmission Plant</b>	<b>5,223,917.00</b>	<b>0.00</b>	<b>191,368.00</b>	<b>0.00</b>	<b>0.00</b>	<b>5,032,549.00</b>

**PRODUCTION FUEL AND OIL STOCKS (Included in Account 151)**  
 (Except Nuclear Materials)

1. Report below the information called for concerning production fuel and oil stocks.
2. Show quantities in tons of 2,000 lbs., gal., or Mcf., whichever unit of quantity is applicable.
3. Each kind of coal or oil should be shown separately.
4. Show gas and electric fuels separately by specific use.

Line No.	Item (a)	Total Cost (b)	Kinds of Fuel and Oil		
			Quantity (c)	Cost (d)	Quantity (e)
1	On Hand Beginning of year				
2	Received During Year				
3	<b>TOTAL</b>				
4	Used During Year (Note A)				
5					
6					
7					
8					
9					
10					
11	Sold or Transferred				
12	<b>TOTAL DISPOSED OF</b>				
13	<b>BALANCE END OF YEAR</b>				
<b>Kinds of Fuel and Oil – Continued</b>					
Line No.	Item (g)	Quantity (h)	Cost (i)	Quantity (j)	Cost (k)
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					

## UTILITY PLANT - ELECTRIC (continued)

Line No.	Account (a)	Balance Beginning of Year (b)	Additions (c)	Depreciation (d)	Other Credits (e)	Adjustments Transfers (f)	Balance End of Year (g)
1	<b>4. DISTRIBUTION PLANT</b>						
2	360 Land and Land Rights.....	843,454.00					843,454.00
3	361 Structures and Improvements.....	2,898,610.00	271,412.00	126,415.00			3,043,607.00
4	362 Station Equipment.....	4,631,384.00	92,155.00	187,952.00			4,535,587.00
5	363 Storage Battery Equipment.....	27,977.00	14,555.00	1,338.00			41,194.00
6	364 Poles and Fixtures.....	16,897,231.00	1,361,125.00	763,379.00		48.00	17,495,025.00
7	365 Overhead Conductors and Devices.....	14,757,957.00	604,379.00	518,446.00			14,843,890.00
8	366 Underground Conduits.....	3,349,685.00	325,417.00	239,184.00			3,435,918.00
9	367 Underground Conductors and Devices.....	4,587,075.00	246,481.00	283,947.00			4,549,609.00
10	368 Line Transformers.....	4,918,723.00	409,680.00	326,346.00		46,189.00	4,955,868.00
11	369 Services.....	2,020,265.00	36,052.00	182,717.00			1,873,600.00
12	370 Meters.....	3,320,908.00	142,280.00	152,279.00		12,107.00	3,298,802.00
13	371 Installation on Cust's Premises....						
14	372 Leased Prop. on Cust's Premises.....						
15	373 Street Light and Signal Systems.....	745,734.00	280,127.00	80,326.00			945,535.00
16	<b>Total Distribution Plant</b>	<b>58,999,003.00</b>	<b>3,783,663.00</b>	<b>2,862,329.00</b>	<b>0.00</b>	<b>58,344.00</b>	<b>59,862,089.00</b>
17	<b>5. GENERAL PLANT</b>						
18	389 Land and Land Rights.....	397,372.00	0.00				397,372.00
19	390 Structures and Improvements.....	2,292,635.00	471,541.00	233,411.00			2,530,765.00
20	391 Office Furniture and Equipment.....	383,643.00	294,084.00	136,670.00			541,057.00
21	392 Transportation Equipment.....	971,906.00	6,150.00	348,432.00			629,624.00
22	393 Stores Equipment.....	13,175.00	0.00	3,773.00			9,402.00
23	394 Tools, Shop and Garage Equipment.....	8,247.00	424.00	1,513.00			7,158.00
24	395 Laboratory Equipment.....	160,807.00	0.00	14,226.00			146,581.00
25	396 Power Operated Equipment.....						
26	397 Communication Equipment.....	1,185,057.00	45,472.00	104,721.00			1,125,808.00
27	398 Miscellaneous Equipment.....	61,591.00	0.00	6,686.00			54,905.00
28	399 Other Tangible Property.....						
29	<b>Total General Plant</b>	<b>5,474,433.00</b>	<b>817,671.00</b>	<b>849,432.00</b>	<b>0.00</b>	<b>0.00</b>	<b>5,442,672.00</b>
30	<b>Total Electric Plant in Service</b>	<b>69,505,985.00</b>	<b>4,601,334.00</b>	<b>3,903,129.00</b>	<b>0.00</b>	<b>58,344.00</b>	<b>70,337,310.00</b>
31	104 Utility Plant Leased to Others.....	0.00					0.00
32	105 Property Held for Future Use.....	0.00					0.00
33	107 Construction Work in Progress.....	0.00					0.00
34	<b>Total Utility Electric Plant</b>	<b>69,505,985.00</b>	<b>4,601,334.00</b>	<b>3,903,129.00</b>	<b>0.00</b>	<b>58,344.00</b>	<b>70,337,310.00</b>



MISCELLANEOUS NON-OPERATING INCOME (Account 421)		
Line No.	Item (a)	Amount (b)
1		
2		
3		
4		
5		
6	TOTAL	
OTHER INCOME DEDUCTIONS (Account 426)		
Line No.	Item (a)	Amount (b)
7		
8		
9		
10		
11		
12		
13		
14	TOTAL	
MISCELLANEOUS CREDITS TO SURPLUS (Account 434)		
Line No.	Item (a)	Amount (b)
15		
16	Various Refunds (Incl MMWEC Flush)	313,585.00
17		
18		
19		
20		
21		
22		
23	TOTAL	313,585.00
MISCELLANEOUS DEBITS TO SURPLUS (Account 435)		
Line No.	Item (a)	Amount (b)
24		
25		
26	Loss on Disposal of Electric Plant Utility	61,168.00
27		
28		
29		
30		
31		
32	TOTAL	61,168.00
APPROPRIATIONS OF SURPLUS (Account 436)		
Line No.	Item (a)	Amount (b)
33		
34	Transfer to Town of Reading	2,351,654.00
35		
36		
37		
38		
39		
40	TOTAL	2,351,654.00

**MUNICIPAL REVENUES (Accounts 482,444)**  
(K.W.H. Sold under the Provision of Chapter 269, Acts of 1927)

Line No.	Acct No.	Gas Schedule (a)	Cubic Feet (b)	Revenue Received (c)	Average Revenue per M.C.F. [\$0.0000] (d)
1					
2					
3					
4		<b>TOTALS</b>			
Line No.		Electric Schedule (a)	K.W.H. (b)	Revenue Received (c)	Average Revenue per K.W.H. [cents] [\$0.0000] (d)
5					
6					
7					
8					
9	444	Municipal: (Other than Street Lighting)	24,969,955	1,952,950.00	0.0782
10					
11					
12					
13		Municipal Street Lighting	2,813,508	116,130.00	0.0413
14					
15					
16					
17					
18					
19		<b>TOTALS</b>	<b>27,783,463</b>	<b>2,069,080.00</b>	<b>0.0746</b>

**PURCHASED POWER (Account 556)**

Line No.	Names of Utilities from which Electric Energy is Purchased (a)	Where and at What Voltage Received (b)	K.W.H. (c)	Amount (d)	Cost per K.W.H. cents [0.0000] (e)
20	MMWEC Projects		134,705,802	13,468,129.00	0.1000
21	Shell		117,834,830	8,340,048.00	0.0708
22	Nextera		102,416,000	10,274,184.00	0.1003
23	NYP&A		27,543,807	812,069.00	0.0000
24	ISO-NE/REMVEC		76,047,271	16,297,347.00	0.2143
25	BP Energy		112,616,830	5,375,201.00	0.0477
27	National Grid / Co-op Resale		170,054	23,978.00	0.1410
28	Saddleback & Jericho Wind/One Burlington Solar		7,625,370	689,467.00	0.0904
29	Braintree Watson		4,034,023	1,707,197.00	0.4232
30	Swift River Projects / Summit Hydropower		28,956,307	2,474,885.00	0.0855
31	Exelon		106,993,580	4,828,516.00	0.0000
32	HQ I and II			220,315.00	
32	Deferred Fuel			(1,413,099.00)	
		<b>TOTALS</b>	<b>718,943,874</b>	<b>63,098,237.00</b>	<b>0.0878</b>

**SALES FOR RESALE (Account 447)**

Line No.	Names of Utilities to Which Electric Energy is Sold (a)	Where and at What Voltage Received (b)	K.W.H. (c)	Amount (d)	Revenues per K.W.H. [cents] [0.0000] (e)
32	NStar Eversource	Customer Premises	3,190,280	411,156.00	0.1289
33	Town of Wakefield	Customer Premises	974,105	69,098.00	0.0709
34	Town of Middleton	Customer Premises	9,048	1,204.00	0.1331
35					
36					
37					
38					
39					
40					
41		<b>TOTALS</b>	<b>4,173,433</b>	<b>481,458.00</b>	<b>0.1164</b>

**ELECTRIC OPERATING REVENUES (Account 400)**

1. Report below the amount of Operating Revenue for the year for each prescribed account and the amount of increase or decrease over the preceding year.  
2. If increases and decreases are not derived from previously reported figures explain any inconsistencies.  
3. Number of customers should be reported on the basis of number of meters, plus number of flat rate accounts, except that where separate meter readings are

added for billing purposes, one customer shall be counted for each group of meters so added. The average number of customers means the average of the 12 figures at the close of each month. If the customer count in the residential service classification includes customers counted more than once because of special services, such as water heating, etc., indicate in a footnote the number of such duplicate customers included in the classification.

4. Unmetered sales should be included below. The details of such sales should be given in a footnote.  
5. Classification of Commercial and Industrial Sales, Account 442, according to small (or Commercial) and Large (or Industrial) may be according to the basis of classification regularly used by the respondent if such basis of classification is not greater than 1000 Kw of demand. See Account 442 of the Uniform System of Accounts. Explain basis of classification.

Line No.	Account (a)	Operating Revenues			Kilowatt-hours Sold			Average Number of Customers per Month	
		Amount for Year (b)	Increase or (Decrease) from Preceding Year (c)	Amount for Year (d)	Increase or (Decrease) from Preceding Year (e)	Number for Year (f)	Increase or (Decrease) from Preceding Year (g)		
1	<b>SALES OF ELECTRICITY</b>								
2	440 Residential Sales.....	23,453,543.00	(4,486,994.00)	256,939,769	5,660,911	26,312	115		
3	442 Commercial and Industrial Sales:	29,163,451.00	(8,033,391.00)	402,757,216	4,332,251	2,911	14		
4	Small (or Commercial) see instr. 5.....								
5	Large (or Industrial) see instr. 5.....								
6	444 Municipal Sales (P. 22)	2,069,080.00	(793,454.00)	27,783,463	262,724	284	(1)		
7	445 Other Sales to Public Authorities.....								
8	446 Sales to Railroads and Railways.....								
9	448 Interdepartmental Sales.....								
10	449 Miscellaneous Electric Sales.....	117,103.00	15,607.00	955,089	21,555	264	2		
11	449.1 Provision for Rate Refunds/PPA.....	29,370,057.00	11,345,013.00						
12	Total Sales to Ultimate Consumers.....	84,173,234.00	(1,953,219.00)	688,435,537	10,277,441	29,771	130		
13	447 Sales for Resale.....	481,458.00	(1,803.00)	4,173,433	(70,123)	20	0		
14	Total Sales of Electricity*.....	84,654,692.00	(1,955,022.00)	692,608,970	10,207,318	29,791	130		
15	<b>OTHER OPERATING REVENUES</b>								
16	450 Forfeited Discounts.....	836,272.00	(5,304.00)						
17	451 Miscellaneous Service Revenues (ECC).....	676,433.00	2,589.00						
18	453 Sales of Water and Water Power.....								
19	454 Rent from Electric Property.....								
20	455 Interdepartmental Rents.....								
21	456 Other Electric Revenues.....		(91,155.00)						
22									
23									
24									
25	Total Other Operating Revenues.....	1,512,705.00	(93,870.00)						
26	Total Electric Operating Revenues.....	86,167,397.00	(2,048,892.00)						
								32,669,065.02	
								692,608,970	

\*Includes revenues from application of fuel clauses  
Total KWH to which applied

**SALES OF ELECTRICITY TO ULTIMATE CONSUMERS**

Report by account number the K.W.H. sold, the amount derived and the number of customers under each filed schedule or contract. Municipal sales and unbilled sales may be reported separately in total.

Line No.	Account No.	Schedule (a)	K.W.H. (b)	Revenue (c)	Average Revenue per K.W.H. (cents) *(0.0000) (d)	Number of Customers (per Bills Rendered)	
						Jul-15 (e)	Dec-15 (f)
1	Residential - A		256,939,769	23,453,543.00	0.0913	26,348	26,216
2	Industrial - C		402,757,216	29,163,451.00	0.0724	2,907	2,931
3	Municipal - C		24,969,955	1,952,950.00	0.0782	266	261
4	Street Lighting		2,813,508	116,130.00	0.0413	18	18
5	Private Street Lighting		955,089	117,103.00	0.1226	265	268
6							
7	Provision for Purchased Power Adjustments			29,370,057.00			
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
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46							
47							
48	TOTAL SALES TO ULTIMATE						
49	CONSUMERS (Page 37 Line 11)		688,435,537	84,173,234.00	0.1223	29,804	29,692

**ELECTRIC OPERATION AND MAINTENANCE EXPENSES**

1. Enter in the space provided the operation and maintenance expenses for the year.
2. If the increases and decreases are not divided from previously reported figures explain in footnote.

Line No.	Account (a)	Amount for Year (b)	Increase or (Decrease) from Preceding Year (c)
1	<b>POWER PRODUCTION EXPENSE</b>		
2	<b>STEAM POWER GENERATION</b>		
3	<b>Operation:</b>		
4	500 Operation Supervision and Engineering.....		
5	501 Fuel.....		
6	502 Steam Expense.....		
7	503 Steam from Other Sources.....		
8	504 Steam Transferred -- Cr.....		
9	505 Electric Expenses.....		
10	506 Miscellaneous Steam Power Expenses.....		
11	507 Rents.....		
12	<b>Total Operation</b>	0.00	0.00
13	<b>Maintenance:</b>		
14	510 Maintenance Supervision and Engineering.....		
15	511 Maintenance of Structures.....		
16	512 Maintenance of Boiler Plant.....		
17	513 Maintenance of Electric Plant.....		
18	514 Maintenance of Miscellaneous Steam Plant.....		
19	<b>Total Maintenance</b>	0.00	0.00
20	<b>Total Power Production Expenses -- Steam Power</b>	0.00	0.00
21	<b>NUCLEAR POWER GENERATION</b>		
22	<b>Operation:</b>		
23	517 Operation Supervision and Engineering.....		
24	518 Fuel.....		
25	519 Coolants and Water.....		
26	520 Steam Expense.....		
27	521 Steam from Other Sources.....		
28	522 Steam Transferred -- Cr.....		
29	523 Electric Expenses.....		
30	524 Miscellaneous Nuclear Power Expenses.....		
31	525 Rents.....		
32	<b>Total Operation</b>	0.00	0.00
33	<b>Maintenance:</b>		
34	528 Maintenance Supervision and Engineering.....		
35	529 Maintenance of Structures.....		
36	530 Maintenance of Reactor Plant Equipment.....		
37	531 Maintenance of Electric Plant.....		
38	532 Maintenance of Miscellaneous Nuclear Plant.....		
39	<b>Total Maintenance</b>	0.00	0.00
40	<b>Total Power Production Expenses -- Nuclear Power</b>	0.00	0.00
41	<b>HYDRAULIC POWER GENERATION</b>		
42	<b>Operation:</b>		
43	535 Operation Supervision and Engineering.....		
44	536 Water for Power.....		
45	537 Hydraulic Expenses.....		
46	538 Electric Expenses.....		
47	539 Miscellaneous Hydraulic Power Generation Expenses.....		
48	540 Rents.....		
49	<b>Total Operation</b>	0.00	0.00

(continued on page 40)

## ELECTRIC OPERATION AND MAINTENANCE EXPENSES - CONTINUED

Line No.	Account (a)	Amount for Year (b)	Increase or (Decrease) from Preceding Year (c)
1	<b>HYDRAULIC POWER GENERATION - CONTINUED</b>		
2	<b>Maintenance:</b>		
3	541 Maintenance Supervision and Engineering.....		
4	542 Maintenance of Structures.....		
5	543 Maintenance of Reservoirs, Dams and Waterways.....		
6	544 Maintenance of Electric Plant.....		
7	545 Maintenance of Miscellaneous Hydraulic Plant.....		
8	<b>Total Maintenance</b>	<b>0.00</b>	<b>0.00</b>
9	<b>Total Power Production Expenses - Hydraulic Power</b>	<b>0.00</b>	<b>0.00</b>
10	<b>OTHER POWER GENERATION</b>		
11	<b>Operation:</b>		
12	546 Operation Supervision and Engineering.....		
13	547 Fuel.....	32,669,065.00	(3,276,318.00)
14	548 Operation Expenses.....		
15	549 Miscellaneous Other Power Generation Expenses.....		
16	550 Rents.....		
17	<b>Total Operation</b>	<b>32,669,065.00</b>	<b>(3,276,318.00)</b>
18	<b>Maintenance:</b>		
19	551 Maintenance Supervision and Engineering.....		
20	552 Maintenance of Structure.....		
21	553 Maintenance of Generating and Electric Plant.....		
22	554 Maintenance of Miscellaneous Other Power Generation Plant.....		
23	<b>Total Maintenance</b>	<b>0.00</b>	<b>0.00</b>
24	<b>Total Power Production Expenses - Other Power</b>	<b>0.00</b>	<b>0.00</b>
25	<b>OTHER POWER SUPPLY EXPENSES</b>		
26	555 Purchased Power.....	18,110,388.00	1,387,971.00
27	556 System Control and Load Dispatching.....		
28	557 Other Expenses.....	212,148.00	161,593.00
29	<b>Total Other Power Supply Expenses</b>	<b>18,322,536.00</b>	<b>1,549,564.00</b>
30	<b>Total Power Production Expenses</b>	<b>50,991,601.00</b>	<b>(1,726,754.00)</b>
31	<b>TRANSMISSION EXPENSES</b>		
32	<b>Operation:</b>		
33	560 Operation Supervision and Engineering.....		
34	561 Load Dispatching.....		
35	562 Station Expenses.....		
36	563 Overhead Line Expenses.....		
37	564 Underground Line Expenses.....		
38	565 Transmission of Electricity by Others.....	12,106,635.00	545,089.00
39	566 Miscellaneous Transmision Expenses.....		
40	567 Rents.....		
41	<b>Total Operation</b>	<b>12,106,635.00</b>	<b>545,089.00</b>
42	<b>Maintenance:</b>		
43	568 Maintenance Supervision and Engineering.....	2,725.00	0.00
44	569 Maintenance of Structures.....		
45	570 Maintenance of Station Equipment.....		
46	571 Maintenance of Overhead Lines.....		
47	572 Maintenance of Underground Lines.....		
48	573 Maintenance of Miscellaneous Transmission Plant.....		
49	<b>Total Maintenance</b>	<b>2,725.00</b>	<b>0.00</b>
50	<b>Total Transmision Expenses</b>	<b>12,109,360.00</b>	<b>545,089.00</b>

## ELECTRIC OPERATION AND MAINTNANCE EXPENSES - CONTINUED

Line No.	Account (a)	Amount for Year (b)	Increase or (Decrease) from Preceding Year (c)
1	<b>DISTRIBUTION EXPENSES</b>		
2	<b>Operation:</b>		
3	580 Operation Supervision and Engineering.....	542,943.00	22,573.00
4	581 Load Dispatching.....	1,011,600.00	76,383.00
5	582 Station Expenses.....	443,321.00	(52,036.00)
6	583 Overhead Line Expenses.....		
7	584 Underground Line Expenses.....		
8	585 Street Lighting and Signal System Expenses.....	102,850.00	20,884.00
9	586 Meter Expenses.....	227,091.00	19,547.00
10	587 Customer Installations Expenses.....		
11	588 Miscellaneous Distribution Expenses.....	464,846.00	40,717.00
12	589 Rents.....		
13	<b>Total Operation</b>	<b>2,792,651.00</b>	<b>128,068.00</b>
14	<b>Maintenance:</b>		
15	590 Maintenance Supervision and Engineering.....	383,279.00	(9,144.00)
16	591 Maintenance of Structures.....		
17	592 Maintenance of Station Equipment.....		
18	593 Maintenance of Overhead Lines.....	1,870,225.00	25,448.00
19	594 Maintenance of Underground Lines.....	165,796.00	(40,626.00)
20	595 Maintenance of Line Transformers.....	98,348.00	19,310.00
21	596 Maintenance of Street Lighting and Signal Systems.....		
22	597 Maintenance of Meters.....	(461.00)	(1,686.00)
23	598 Maintenance of Miscellaneous Distribution Plant.....		
24	<b>Total Maintenance</b>	<b>2,517,187.00</b>	<b>(6,698.00)</b>
25	<b>Total Distribution Expenses</b>	<b>5,309,838.00</b>	<b>121,370.00</b>
26	<b>CUSTOMER ACCOUNTS EXPENSES</b>		
27	<b>Operation:</b>		
28	901 Supervision.....		
29	902 Meter Reading Expenses.....	22,448.00	9,411.00
30	903 Customer Records and Collection Expenses.....	1,712,375.00	121,508.00
31	904 Uncollectable Accounts.....	49,174.00	(40,660.00)
32	905 Miscellaneous Customer Accounts Expenses.....		
33	<b>Total Customer Accounts Expenses</b>	<b>1,783,997.00</b>	<b>90,259.00</b>
34	<b>SALES EXPENSES</b>		
35	<b>Operation:</b>		
36	911 Supervision.....		
37	912 Demonstrating and Selling Expenses.....		
38	913 Advertising Expenses.....		
39	916 Miscellaneous Sales Expense.....	995,078.00	36,018.00
40	<b>Total Sales Expenses</b>	<b>995,078.00</b>	<b>36,018.00</b>
41	<b>ADMINISTRATIVE AND GENERAL EXPENSES</b>		
42	<b>Operation:</b>		
43	920 Administrative and General Expenses.....	839,196.00	(4,803.00)
44	921 Office Supplies and Expenses.....	358,013.00	40,961.00
45	922 Administrative Expenses Transferred - Cr.....		
46	923 Outside Services Employed.....	557,432.00	113,436.00
47	924 Property Insurance.....	374,737.00	26,077.00
48	925 Injuries and Damages.....	46,397.00	361.00
49	926 Employees Pensions and Benefits.....	2,291,492.00	(992,135.00)
50	928 Regulatory Commission Expenses.....		
51	929 Duplicate Charges - Cr.....		
52	930 Miscellaneous General Expenses.....	143,190.00	4,871.00
53	931 Rents.....	192,113.00	(15,808.00)
54	<b>Total Operation</b>	<b>4,802,570.00</b>	<b>(827,040.00)</b>

**ELECTRIC OPERATION AND MAINTENANCE EXPENSES -- Continued**

Line No.	Account (a)	Amount for Year (b)	Increase or (Decrease) from Preceding Year (c)
1	<b>ADMINISTRATIVE EXPENSES</b>		
2	<b>Maintenance:</b>		
3	932 Maintenance of General Plant.....	774,683.00	(1,258.00)
4	<b>Total Maintenance</b>	<b>774,683.00</b>	<b>(1,258.00)</b>
5	<b>Total Administrative and General Expenses</b>	<b>5,577,253.00</b>	<b>(828,298.00)</b>

**SUMMARY OF ELECTRIC OPERATION AND MAINTENANCE EXPENSES**

Line No.	Functional Classification (a)	OPERATION (b)	MAINTENANCE (c)	TOTAL (d)
6	Power Production Expenses			
7	Electric Generation			
8	Steam Power.....			
9	Nuclear Power.....			
10	Hydraulic Power.....			
11	Other Power.....	32,669,065.00		32,669,065.00
12	Other Power Supply Expenses.....	18,325,562.00		18,325,562.00
13	<b>Total Power Production Expenses</b>	<b>50,994,627.00</b>		<b>50,994,627.00</b>
14	Transmission Expenses.....	12,103,609.00	2,725.00	12,106,334.00
15	Distribution Expenses.....	2,792,651.00	2,517,187.00	5,309,838.00
16	Customer Accounts Expenses.....	1,783,997.00		1,783,997.00
17	Sales Expenses.....	995,078.00		995,078.00
18	Administrative and General Expenses.....	4,802,570.00	774,683.00	5,577,253.00
19				
20	<b>Total Electric Operation and Maintenance Expenses</b>	<b>73,472,532.00</b>	<b>3,294,595.00</b>	<b>76,767,127.00</b>

21	Ratio of Operating Expenses to Operating Revenues (carry out decimal two places, (e.g. 0.00% ) Compute by dividing Revenues (acct 400) into the sum of Operation and Maintenance Expenses (Page 42, Line 20 (d), Depreciation (Acct 403) and Amortization (Acct 407).....	93.62%
22	Total salaries and wages of electric department for year, including amounts charged to operating expenses, construction and other accounts.....	8,146,859.11
23	Total number of employees of electric department at end of year including administrative, operating, maintenance and other employees (including part time employees).....	72



**OTHER UTILITY OPERATING INCOME (Account 414)**

Report below the particulars called for in each column.

Line No.	Property (a)	Amount of Investment (b)	Amount of Revenue (c)	Amount of Operating Expenses (d)	Gain or (Loss) from Operation (e)
1					
2					
3					
4					
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47					
48					
49					
50					
51	<b>TOTALS</b>				

**TAXES CHARGED DURING YEAR**

1. This schedule is intended to give the account distribution of total taxes charged to operations and other final accounts during the year.  
 2. Do not include gasoline and other sales taxes which have been charged to accounts to which the material on which the tax was levied was charged. If the actual or estimated amounts of such taxes are known, they should be shown as a footnote and designated whether estimated or actual amounts.  
 3. The aggregate of each kind of tax should be listed under the appropriate heading of "Federal," "State," and "Local" in such manner that the total tax for each State and for all subdivisions can readily be ascertained.  
 4. The accounts to which the taxes charged were distributed should be shown in columns (c) to (h). Show both the utility department and number of account charged. For taxes charged to utility plant show the number of appropriate balance sheet plant account or subaccount.  
 5. For any tax which it was necessary to apportion to more than one utility department or account, state in a footnote the basis of apportioning such tax.  
 6. Do not include in this schedule entries with respect to deferred income taxes, or taxes collected through payroll deductions or otherwise pending transmittal of such taxes to the taxing authority.

Line No.	Kind of Tax (a)	Total Taxes Charged During Year (omit cents) (b)	Distribution of Taxes Charged (omit cents) (Show utility department where applicable and account charged)								
			Electric (Acct. 408, 409) (c)	Gas (Acct. 408,409) (d)	(e)	(f)	(g)	(h)	(i)	(j)	
1											
2											
3											
4	Voluntary Payment to Towns	1,393,947.00	1,393,947.00								
5											
6											
7											
8											
9											
10											
11											
12											
13											
14											
15											
16											
17											
18											
19											
20											
21											
22											
23											
24											
25											
26											
27											
28	<b>TOTAL</b>		1,393,947.00	1,393,947.00							

**INCOME FROM MERCHANDISE, JOBBING AND CONTRACT WORK (Account 415)**

Report by utility departments the revenues, costs, expenses, and net income from merchandising, jobbing, and contract work during year.

Line No.	Item (a)	Electric Department (c)	Gas Department (d)	Other Utility Department (d)	Total (e)
1	Revenues:				
2	Merchandising Sales, less Discounts,				
3	Allowances and Returns.....	620,321.00			620,321.00
4	Contract Work - Street Lights.....				
5	Commissions.....				
6	Other (List according to major classes)				
7					
8					
9					
10	Total Revenues.....	620,321.00			620,321.00
11					
12					
13	Costs and Expenses:				
14	Cost of Sales (List according to major				
15	classes of cost).....	133,562.00			133,562.00
16					
17	Labor				
18	Materials				
19					
20					
21					
22					
23					
24					
25					
26	Sales Expenses.....				
27	Customer Accounts Expenses.....				
28	Administrative and General Expenses.....				
29					
30					
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48					
49					
50	<b>TOTAL COSTS AND EXPENSES</b>	<b>133,562.00</b>			<b>133,562.00</b>
51	<b>Net Profit (or Loss)</b>	<b>486,759.00</b>			<b>486,759.00</b>



**SALES FOR RESALE (Account 447) - Continued**

5. If a fixed number of kilowatts of maximum demand is specified in the power contract as a basis of billings to the customer this number should be shown in column (f).. The number of kilowatts of maximum demand to be shown in column (g) and (h) should be actual based on monthly readings and should be furnished whether or not used in the determination of demand charges. Show in column (i) type of demand reading (instantaneous, 15, 30, or 60 minutes integrated).

6. The number of Kilowatt-hours sold should be the quantities shown by the bills rendered to the purchasers.

7. Explain any amounts entered in column (n) such as fuel or other adjustments.

8. If a contract covers several points of delivery and small amounts of electric energy are delivered at each point, such sale may be grouped.

Type of Demand Reading (i)	Voltage at which Delivered (j)	Kilowatt-hours (k)	Revenue (Omit Cents)				Revenue per Kwh (cents) [0.0000] (p)	Line No.
			Demand Charges (l)	Energy Charges (m)	Other Charges (n)	Total (o)		
								1
								2
								3
								4
								5
								6
								7
								8
								9
								10
								11
								12
								13
								14
								15
								16
			None					17
								18
								19
								20
								21
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								37
								38
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								40
								41
<b>TOTALS</b>								42

**PURCHASED POWER (Account 555)**

1. Report power purchased for resale during the year. Exclude from this schedule and report on page 56 particulars concerning interchange power transactions during the year.

Authorities. For each purchase designate statistical classification in column (b), thus: firm power, FP; dump or surplus power DP; other, O, and place an "X" in column (c) if purchase involves import across a state line.

2. Provide subheadings and classify sales as to (1) Associated Utilities, (2) Nonassociated Utilities, (3) Associated Nonutilities, (4) Other Nonutilities, (5) Municipalities, (6) R.E.A. Cooperatives, and (7) Other Public

3. Report separately firm, dump, and other power purchased from the same company. Describe the nature of any purchases classified as Other Power, column (b).

Line No.	Purchased From	Statistical Classification	Import Across State Lines	Point of Receipt	Substation	Kw or Kva Demand (Specify Which)		
						Contract Demand	Average Monthly Maximum Demand	Annual Maximum Demand
						(f)	(g)	(h)
1	Peaking Project	O		Town Line		24,981	KW	
2	Intermediate Project	O		Town Line		42,925	KW	
3	Nuclear Mix One - Seabrook	O	X	Town Line		292	KW	
4	Nuclear Mix One - Millstone 3	O	X	Town Line		2,893	KW	
5	Nuclear Project Three	O	X	Town Line		2,057	KW	
6	Nuclear Project Four	O	X	Town Line		6,795	KW	
7	Nuclear Project Five	O	X	Town Line		823	KW	
8	NYPA	O	X	Town Line		4,019	KW	
9	JP Morgan	FP	X	Town Line		-		
10	Nextera	FP	X	Town Line		60,000	KW	
11	HQ Phase I Trans Supp VEC	O	X	Town Line		-		
12	HQ Phase I Trans Supp NEE	O	X	Town Line		-		
13	HQ Phase 2	O	X	Town Line		-		
14	REMVEC	O	X	Town Line		-		
15	ISO-NE / LNS	O	X	Town Line		67,412	KW	
16	ISO-NE Other	O	X	Town Line		-		
17	BP Energy	FP	X	Town Line		-		
18	Summit Hydropower	FP		Town Line		-		
19	National Grid and Co-op Resales	O		Town Line		-		
20	Saddleback & one Burlington	O		Town Line		-		
21	Deferred Fuel	O		Town Line		-		
22	Swift River Hydro Projects	FP		Town Line		-		
23	Braintree Watson Unit	FP		Town Line		10,520	KW	
24	Constellation	FP	X	Town Line		-		
25								
26								
27								
28								
29								
30								
31								
32								
33								
34								
35								
36								
37								
38								
39								
40								
41								
42								
<b>TOTALS</b>						<b>222,717</b>		

**PURCHASED POWER (Account 555) - Continued**

(except interchange power)

4. If receipt of power is at a substation indicate ownership in column (e), thus: respondent owned or leased, RS; seller owned or leased, SS. should be furnished whether or not used in the determination of demand charges. Show in column (l) type of demand reading (instantaneous, 15, 30, or 60 minutes integrated).
5. If a fixed number of kilowatts of maximum demand is specified in the power contract as a basis of billing, this number should be shown in column (f). The number of kilowatts of maximum demand to be shown in column (g) and (h) should be actual based on monthly readings and
6. The number of kilowatt hours purchased should be the quantities shown by the power bills.
7. Explain any amount entered in column (n) such as fuel or other adjustments.

Type of Demand Reading (l)	Voltage at which Delivered (j)	Kilowatt-hours (k)	Cost of Energy (Omit Cents)				Cents per KWH (cents) [0.0000] (p)	Line No.
			Charges (l)	Energy Charges (m)	Other Charges (n)	Total (o)		
60 Minute	115,000	487,213	595,626	88,622	31,889	716,137	1.4699	1
60 Minute	115,000	30,937,547	3,985,612	2,354,132	34,619	6,374,363	0.2060	2
60 Minute	115,000	2,272,135	69,571	15,166	181	84,918	0.0374	3
60 Minute	115,000	25,135,478	747,854	168,486	18,098	934,438	0.0372	4
60 Minute	115,000	17,914,516	1,304,652	120,405	12,899	1,437,956	0.0803	5
60 Minute	115,000	51,594,926	3,110,677	344,075	4,118	3,458,870	0.0670	6
60 Minute	115,000	6,363,987	409,291	42,603	508	452,402	0.0711	7
60 Minute	115,000	27,543,807	186,486	135,516	490,067	812,069	0.0295	8
60 Minute	115,000	117,834,830	0	8,340,048	0	8,340,048	0.0708	9
60 Minute	115,000	102,416,000	4,173,000	6,101,184	0	10,274,184	0.1003	10
60 Minute	115,000	0	6,981	0	0	6,981		11
60 Minute	115,000	0	12,439	0	0	12,439		12
60 Minute	115,000	0	200,895	0	0	200,895		13
60 Minute	115,000	0	0	9,834	0	9,834		14
60 Minute	115,000	76,047,271	2,127,566	4,073,935	11,376,462	17,577,963	0.2311	15
60 Minute	115,000	0	0	(1,757,789)	0	(1,757,789)		16
60 Minute	115,000	112,616,830	0	5,375,201	0	5,375,201	0.0477	17
60 Minute	115,000	7,328,981	0	476,384	0	476,384	0.0650	18
60 Minute	115,000	170,054	0	23,978	0	23,978	0.1410	19
60 Minute	115,000	7,625,370	(3,902)	555,575	137,794	689,467	0.0904	20
60 Minute	115,000	0	0	0	0	0		21
60 Minute	115,000	21,627,326	0	2,474,885	0	2,474,885	0.1144	22
60 Minute	115,000	4,034,023	1,395,788	311,409	0	1,707,197	0.4232	23
60 Minute	115,000	106,993,580	0	4,828,516	0	4,828,516	0.0451	24
61 Minute	115,000	0	0	(1,413,099)		(1,413,099)		25
								26
								27
								28
								29
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								31
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								39
								40
								41
<b>TOTALS</b>		<b>718,943,874</b>	<b>18,322,536</b>	<b>32,669,066</b>	<b>12,106,635</b>	<b>63,098,237</b>	<b>0.0878</b>	<b>42</b>

**INTERCHANGE POWER (Included in Account 555)**

1. Report below the Kilowatt-hours received and delivered during the year and the net charge or credit under interchange power agreements.  
 2. Provide subheadings and classify interchanges as to (1) Associated Utilities, (2) Nonassociated Utilities, (3) Associated Nonutilities, (4) Other Nonutilities, (5) Municipalities, (6) R.E.A., Cooperatives, and (7) Other Public Authorities. For each interchange across a state line place an "X" in column (b).  
 3. Particulars of settlements for interchange power

coordination, or other such arrangement, submit a copy of the annual summary of transactions and billings among the parties to the agreement. If the amount of settlement reported in this schedule for any transaction does not represent all of the charges and credits covered by the agreement, furnish in a footnote a description of the other debits and credits and state the amounts and accounts in which such other amounts are included for the year.

**A. Summary of Interchange According to Companies and Points of Interchange**

Line No.	Name of Company (a)	Interchange Across State Lines (b)	Point of Interchange (c)	Voltage at Which Interchanged (d)	Kilowatt-hours			Amount of Settlement (h)
					Received (e)	Delivered (f)	Net Difference (g)	
1	ISO-NE	NO	NEPEX	115,000	76,047,271		76,047,271	4,543,579
2								
3								
4								
5								
6								
7								
8								
9								
10								
11								
12			TOTALS	TOTALS	76,047,271	0	76,047,271	4,543,579

**B. Details of Settlement for Interchange Power**

Line No.	Name of Company (i)	Explanation (j)	Amount (k)
13	NEPEX		
14		Kwh Received	
15		Adjusted Net Interchange	
16			
17		Kwh Delivered	
18		Adjusted Net Interchange	
19			
20			
21		TOTALS	76,047,271



**ELECTRIC ENERGY ACCOUNT**

Report below the information called for concerning the disposition of electric generated, purchased, and Interchanged during the year.

Line No.	Item (a)	Kilowatt-hours (b)
<b>SOURCES OF ENERGY</b>		
1		
2	Generation (excluding station use):	
3	Steam.....	
4	Nuclear.....	
5	Hydro.....	
6	Other.....	
7	Total generation.....	
8	Purchases.....	642,896,603
9	{ In (gross) .....	76,047,271
10	Interchanges.....{ Out (gross) .....	0
11	{ Net (Kwh).....	
12	{ Received.....	
13	Transmission for/by others (Wheeling).....{ Delivered.....	
14	{ Net (kwh).....	
15	<b>TOTAL</b> .....	<b>718,943,874</b>
<b>DISPOSITION OF ENERGY</b>		
16		
17	Sales to ultimate consumers (including interdepartmental sales).....	688,435,537
18	Sales for resale.....	4,173,433
19	Energy furnished without charge .....	
20	Energy used by the company (excluding station use).....	
21	Electric department only.....	765,000
22	Energy losses:	
23	Transmission and conversion losses.....	25,569,904
24	Distribution losses.....	
25	Unaccounted for losses.....	0
26	Total energy losses.....	25,569,904
27	Energy losses as percent of total on line 15.....	3.56%
28	Losses within RMLD system.....	0.00%
	<b>TOTAL</b>	<b>718,943,874</b>

**MONTHLY PEAKS AND OUTPUT**

- Report hereunder the information called for pertaining to simultaneous peaks established monthly (in kilowatts) and monthly output (in kilowatt-hours) for the combined sources of electric energy of respondent.
- Monthly peak col. (b) should be respondent's maximum Kw load as measured by the sum of its coincidental net generation and purchases plus or minus net interchange minus temporary deliveries (not interchange) or emergency power to another system. Monthly peak including such emergency deliveries should be shown in a footnote with a brief explanation as to the nature of the emergency.
- State type of monthly peak reading (instantaneous 15, 30, or 60 minute integrated.)
- Monthly output should be the sum of respondent's net generation and purchases plus or minus net interchange and plus or minus net transmission or wheeling. Total for the year should agree with line 15 above.
- If the respondent has two or more power systems and physically connected, the information called for below should be furnished for each system.

System

**Monthly Peak**

Line No.	Month (a)	Kilowatts (b)	Day of Week (c)	Day of Month (d)	Hour (e)	Type of Reading (f)	Monthly Output (kwh) See Instr. 4) (g)
29	January	109,061	Thursday	8	1800	Integrated	61,776,997
30	February	108,041	Monday	2	1900	Integrated	57,903,974
31	March	102,366	Tuesday	3	1900	Integrated	58,925,210
32	April	92,907	Wednesday	8	2000	Integrated	51,959,397
33	May	138,424	Thursday	28	1700	Integrated	58,248,608
34	June	133,390	Tuesday	23	1800	Integrated	60,483,802
35	July	158,283	Monday	20	1600	Integrated	72,332,184
36	August	153,225	Monday	17	1700	Integrated	72,200,480
37	September	154,933	Wednesday	9	1600	Integrated	62,864,230
38	October	92,325	Tuesday	13	1900	Integrated	53,541,382
39	November	99,819	Monday	30	1800	Integrated	52,688,129
40	December	100,307	Tuesday	29	1800	Integrated	56,019,481
41						<b>TOTAL</b>	<b>718,943,874</b>

**GENERATING STATION STATISTICS (Large Stations)**  
(Except Nuclear, See Instruction 10)

1. Large stations for the purpose of this schedule are steam and hydro stations of 2,500 Hw\* or more of installed capacity and other stations of 500 Kw\* or more of installed capacity (name plate ratings). (\*10,000 Kw and 2,500 Kw, respectively, if annual electric operating revenues of respondent are \$25,000,000 or more.)

2. If any plant is leased, operated under a license from the Federal Power Commission, or operated as a joint facility, indicate such facts by the use of asterisks and footnotes.

3. Specify if total plant capacity is reported in kva instead of kilowatts as called for on line 5.

4. If peak demand for 60 minutes is not available, give that which is available, specifying period.

5. If a group of employees attends more than one generating station, report on line 11 the approximate average number of employees assignable to each station.

6. If gas is used and purchased on a term basis, the B.t.u. content of the gas should be given and the quantity of fuel consumed converted to M cu. ft.

7. Quantities of fuel consumed and the average cost per unit of fuel consumed should be consistent with charges to expense 501 and

Line No.	Item (a)	Plant (b)	Plant (c)	Plant (d)
1	Kind of plant (steam, hydro, int. com., gas turbine)			
2	Type of plant construction (conventional, outdoor boiler, full outdoor, etc.)			
3	Year originally constructed			
4	Year last unit was installed			
5	Total installed capacity (maximum generator name plate ratings in kw)			
6	Net peak demand on plant-kilowatts (60 min.)			
7	Plant hours connected to load			
8	Net continuous plant capability, kilowatts:			
9	(a) When not limited by condenser water			
10	(b) When limited by condenser water			
11	Average number of employees			
12	Net generation, exclusive of station use			
13	Cost of plant (omit cents):			
14	Land and land rights			
15	Structures and improvements			
16	Reservoirs, dams, and waterways			
17	Equipment costs			
18	Roads, railroads, and bridges			
19	<b>Total cost</b>			
20	<b>Cost per kw of installed capacity</b>			
21	Production expenses:			
22	Operation supervision and engineering			
23	Station labor			
24	Fuel			
25	Supplies and expenses, including water			
26	Maintenance			
27	Rents			
28	Steam from other sources			
29	Steam transferred -- Credit			
30	<b>Total production expenses</b>			
31	<b>Expenses per net Kwh (5 places)</b>			
32	Fuel: Kind			
33	Unit: (Coal-tons of 2,000 lb.) (Oil-barrels of 42 gals.) (Gas-M cu. ft.) (Nuclear, Indicate)			
34	Quantity (units) of fuel consumed			
35	Average heat content of fuel (B.t.u. per lb. of coal, per gal. of oil, or per cu. ft. of gas)			
36	Average cost of fuel per unit, del. f.o.b. plant			
37	Average cost of fuel per unit consumed			
38	Average cost of fuel consumed per million B.t.u.			
39	Average cost of fuel consumed per kwh net gen.			
40	Average B.t.u. per kwh net generation			
41				
42				

**STEAM GENERATING STATIONS**

1. Report the information called for concerning generating stations and equipment at end of year.
2. Exclude from this schedule, plant, the book cost of which is included in Account 121, Nonutility Property.
3. Designate any generating station or portion thereof for which the respondent is not the sole owner. If such property is leased from another company, give name of

lessor, date and term of lease, and annual rent. For any generating station, other than a leased station or portion thereof for which the respondent is not the sole owner but which the respondent operates or shares in the operation of, furnish a succinct statement explaining the arrangement and giving particulars as to such matters as percent ownership by respondent, name of co-owner, basis of sharing output,

Line No.	Name of Station (a)	Location of Station (b)	Number and Year Installed (c)	Boilers			
				Kind of Fuel and Method of Firing (d)	Rated Pressure in lbs. (e)	Rated Steam Temperature* (f)	Rated Max. Continuous M lbs. Steam per Hour (g)
1							
2							
3							
4							
5							
6							
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Note Reference:

\* Indicates reheat boilers thusly, 1050/1000.

**GENERATING STATION STATISTICS (Large Stations) -- Continued**  
(Except Nuclear, See Instruction 10)

547 as shown on Line 24

8. The items under cost of plant and production expenses represents accounts or combinations of accounts prescribed by the Uniform System of Accounts. Production expenses, however, do not include Purchased Power, System Control and Load Dispatching, and Other Expenses classified as "Other Power Supply Expenses."

9. If any plant is equipped with combinations of steam, hydro, internal combustion engine or gas turbine equipment, each should be reported as a separate plant. However, if a gas turbine unit functions in a combined

operations with a conventional steam unit, the gas turbine should be included with the steam station.

10. If the respondent operates a nuclear power generating station submit: (a) a brief explanatory statement concerning accounting for the cost of power generated including any attribution of excess costs to research and development expenses; (b) a brief explanation of the fuel accounting specifying the accounting methods and types of cost units used with respect to the various components of the fuel cost, and (c) such additional information as may be informative concerning the type of plant, kind of fuel used, and other physical and operating characteristics of the plant.

Plant (e)	Plant (f)	Plant (g)	Plant (h)	Plant (i)	Plant (j)	Line No.
						1
						2
						3
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						40
						41
						42

**STEAM GENERATING STATIONS -- Continued**

expenses or revenues, and how expenses and/or revenues are accounted for and accounts affected. Specify if lessor, co-owner, or other party is an associated company.  
4. Designate any generating station or portion thereof leased to another company and give name of lessee, date and term of lease and annual rent and how determined. Specify whether lessee is an associated company.

5. Designate any plant or equipment owned, not operated, and not leased to another company. If such plant or equipment was not operated within the past year explain whether it has been retired in the books of account or what disposition of the plant or equipment and its book cost are contemplated.

**Turbine-Generators\***

Year Installed (h)	Type (l)	Steam Pressure at Throttle p.s.i.g. (j)	R.P.M. (k)	Name Plate Rating in Kilowatts		Hydrogen Pressure**		Power Factor (p)	Voltage K.v.++ (q)	Station Capacity Maximum Name Plate Rating*+ (r)	Line No.
				At Minimum Hydrogen Pressure (l)	At Maximum Hydrogen Pressure (m)	Min. (n)	Max. (o)				
											1
											2
											3
											4
											5
											6
											7
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**Note references:**

- \*Report cross-compound turbine-generator units on two lines -- H.P. section and L.P. section.
- + Indicate tandem-compound (T.C.); cross-compound (C.C.); all single casing (S.C.); topping unit ( T), and noncondensing (N.C.). Show back pressures.
- \*\* Designate air cooled generators.
- ++ If other than 3 phase, 60 cycle, indicate other characteristics.
- \*+ Should agree with column (m).

**HYDROELECTRIC GENERATING STATIONS**

1. Report the information called for concerning generating stations and equipment at end of year. Show associated prime movers and generators on the same line.  
 2. Exclude from this schedule, plant, the book cost of which is included in Account 121, Nonutility Property.  
 3. Designate any generating station or portion thereof for which the respondent is not the sole owner. If such

property is leased from another company give name of lessor, date and term of lease, and annual rent. For any generating station, other than a leased station, or portion thereof, for which the respondent is not the sole owner but which the respondent operates or shares in the operation of, furnish a succinct statement explaining the arrangement and giving particulars as to such matters as

Line No.	Name of Station (a)	Location (b)	Name of Stream (c)	Water Wheels			
				Attended or Unattended (d)	Type of Unit* (e)	Year Installed (f)	Gross Static Head with Pond Full (g)
1							
2							
3							
4							
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37							

\* Horizontal or vertical. Also indicate type of runner -- Francis (F), fixed propeller (FP), automatically adjustable propeller (AP), Impulse (I).

**HYDROELECTRIC GENERATING STATIONS -- Continued**

percent of ownership by respondent, name of co-owner basis of sharing output, expenses, or revenues, and how expenses and/or revenues are accounted for and accounts affected. Specify if lessor, co-owner, or other party is an associated company.  
 4. Designate any generating station or portion thereof leased to another company and give name of lessee, date and term of lease and annual rent and how determined.

Specify whether lessee is an associated company.  
 5. Designate any plant or equipment owned, not operated and not leased to another company. If such plant or equipment was not operated within the past year explain whether it has been retired in the books of account or what disposition of the plant or equipment and its book cost are contemplated.

Water Wheels -- Continued			Generators						Total Installed Generating Capacity in Kilowatts (name plate ratings) (q)	Line No.
Design Head (h)	R.P.M. (i)	Maximum hp. Capacity of Unit at Design Head (j)	Year Installed (k)	Voltage (l)	Phase (m)	Frequency or d.c. (n)	Name Plate Rating of Unit in Kilowatts (o)	Number of Units in Station (p)		
									1	
									2	
									3	
									4	
									5	
									6	
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<b>TOTALS</b>									39	

**COMBUSTION ENGINE AND OTHER GENERATING STATIONS**  
(except nuclear stations)

1. Report the information called for concerning generating stations and equipment at end of year. Show associated prime movers and generators on the same line.  
 2. Exclude from this schedule, plant, the book cost of which is included in Account 121, Nonutility Property.  
 3. Designate any generating station or portion thereof for which the respondent is not the sole owner. If such

property is leased from another company, give name of lessor, date and term of lease, and annual rent. For any generating station, other than a leased station, or portion thereof, for which the respondent is not the sole owner but which the respondent operates or shares in the operation of, furnish a succinct statement explaining the arrangement and giving particulars as to such matters as percent owner-

Line No.	Name of Station (a)	Location of Station (b)	Prime Movers				
			Diesel or Other Type Engine (c)	Name of Maker (d)	Year Installed (e)	2 or 4 Cycle (f)	Belted or Direct Connected (g)
1							
2							
3							
4							
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**COMBUSTION ENGINE AND OTHER GENERATING STATIONS -- Continued**

(except nuclear stations)

ship by respondent, name of co-owner, basis of sharing output, expenses, or revenues, and how expenses and/or revenues are accounted for and accounts affected. Specify if lessor, co-owner, or other party is an associated company.  
 4. Designate any generating station or portion thereof leased to another company and give name of lessee, date and term of lease and annual rent and how determined.

Specify whether lessee is an associated company.  
 5. Designate any plant or equipment owned, not operated and not leased to another company. If such plant or equipment was not operated within the past year explain whether it has been retired in the books of account or what disposition of the plant or equipment and its book cost are contemplated.

Prime Movers -- Continued			Generators					Total Installed Generating Capacity in Kilowatts (name plate ratings) (q)	Line No.
Rated hp. of Unit (h)	Total Rated hp. of Station Prime Movers (l)	Year Installed (j)	Voltage (k)	Phase (l)	Frequency or d.c. (m)	Name Plate Rating of Unit in Kilowatts (n)	Number of Units in Station (o)		
									1
									2
									3
									4
									5
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<b>TOTALS</b>									38
									39

**GENERATING STATION STATISTICS (Small Stations)**

1. Small generating stations, for the purpose of this schedule, are steam and hydro stations of less than 2,500 KW\* and other stations of less than 500 KW\* installed capacity (name plate ratings). (\*10,000 KW and 2,500 KW, respectively, if annual electric operating revenues of respondent are \$25,000,000 or more.  
 2. Designate any plant leased from others, operated under a license from the Federal Power Commission,

or operated as a joint facility, and give a concise statement of the facts in a footnote.  
 3. List plants appropriately under subheadings for steam, hydro, nuclear internal combustion engine and gas turbine stations. For nuclear, see instructions 10 page 59.  
 4. Specify if total plant capacity is reported in kva instead of kilowatts.

5. If peak demand for 60 minutes is not available, give that which is available, specifying period.  
 6. If any plant is equipped with combustions of steam, hydro, internal combustion engine or gas turbine equipment, each should be reported as a separate plant. However, if the exhaust heat from the gas turbine is utilized in a steam turbine regenerative feed water cycle, report as one plant.

Line No.	Name of Plant (a)	Year Const. (b)	Installed Capacity Name Plate Rating - KW (c)	Peak Demand KW (60 Min.) (d)	Net Generation Excluding Station Use (e)	Cost of Plant (Omit Cents) (f)	Plant Cost Per KW Inst. Capacity (g)	Production Expenses Exclusive of Depreciation and Taxes (Omit Cents)			Kind of Fuel (k)	Fuel Cost Per KWH Net Generation (Cents) 0.00 (l)
								Labor (h)	Fuel (i)	Other (j)		
1												
2												
3												
4												
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<b>TOTALS</b>												

**TRANSMISSION LINE STATISTICS**

Report information concerning transmission lines as indicated below.

Line No.	Designation		Operating Voltage (c)	Type of Supporting Structure (d)	Length (Pole Miles)		Number of Circuits (g)	Size of Conductor and Material (h)
	From (a)	To (b)			On Structures of Line Designated (e)	On Structures of Another Line (f)		
1	Woburn/	Causeway Rd.	115 kV	Single Wood Poles	.46 Miles	No	1.00	795 MCM ALL ALUM
2	Reading	Reading						
3	211-503							
4								
5	Woburn/	Causeway Rd.	115 kV	Single Wood Poles	.46 Miles	No	1.00	795 MCM ALL ALUM
6	Reading	Reading						
7	211-504							
8								
9								
10								
11								
12								
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44								
45								
46								
47	<b>TOTALS</b>							

\* Where other than 60 cycle, 3 phase, so indicate.

**SUBSTATIONS**

1. Report below the information called for concerning substations of the respondent as of the end of the year.  
 2. Substations which serve but one industrial or street railway customer should not be listed hereunder.  
 3. Substations with capacities of less than 5000 Kva, except those serving customers with energy for resale, may be grouped according to functional character, but the number of such substations must be shown.

4. Indicate in column (b) the functional character or each sub-station, designating whether transmission or distribution and whether attended or unattended.  
 5. Show in columns (i), (j), and (k) special equipment such as rotary converters, reflectors, condensers, etc. and auxiliary equipment for increasing capacity.  
 6. Designate substations or major items of equipment leased from others, jointly owned with others, or operated otherwise than by

reason of sole ownership by the respondent. For any substation or equipment operated under lease, give name of lessor, date and period of lease and annual rent. For any substation or equipment operated other than by reason of sole ownership or lease, give name of co-owner or other party, explain basis of sharing expenses of other accounting between the parties, and state amounts and accounts affected in respondent's books of account. Specify in each case whether lessor, co-owner, or other party is an associated company.

Line No.	Name and Location of Substation (a)	Character of Substation (b)	VOLTAGE			Capacity of Substation in Kva (in Service) (f)	Number Of Transformers in Service (g)	Number of Spare Transformers (h)	Conversion Apparatus and Special Equipment		
			Primary (c)	Secondary (d)	Tertiary (e)				Type of Equipment (i)	Number Of Units (j)	Total Capacity (k)
1	Gaw Station - Causeway Rd., Reading	unattended dist.	115 kv	19,900 / 34,500	---	80,000	2	0			
2			115 kv	7,970	---	180,000	3	0			
3				13,800	---						
4					---						
5					---						
6					---						
7					---						
8					---						
9					---						
10	Wildwood St., Wilmington	unattended dist.	35,000	7,970 / 13,800	---	80,000	2	0			
11					---						
12	Chestnut St., North Reading	unattended dist.	115 kv	7,970 / 13,800	---	120,000	2	0			
13					---						
14					---						
15					---						
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25					---						
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27					---						
28					---						
29					---						
30					---						
31					---						
32					---						

All transformer ratings are at the top forced air rating.

**OVERHEAD DISTRIBUTION LINES OPERATED**

Line No.		Length (Pole Miles)		
		Wood Poles	Steel Towers	TOTAL
1	Miles - Beginning of Year	335.22	0.00	335.22
2	Added During Year	0.17		0.17
3	Retired During Year	0.09		0.09
4	Miles - End of Year	335.30	0.00	335.30
5				
6				
7				
8	Distribution System Characteristics - A.C. or D.C., or Phase and Operating Voltages for Light and Power.			
9				
10				
11	3 Phase 4 Wire 4160 GRDY / 2400			
12	4 Phase 4 Wire 13800 GRDY / 7970			
13				
14				
15				

**ELECTRIC DISTRIBUTION SERVICES, METERS AND LINE TRANSFORMERS**

Line No.	Item	Electric Services	Number of Watt-hour Meters	Line Transformers	
				Number	Total Capacity (Kva)
16	Number at beginning of year.....	29,963	30,841	4,471	304,317.5
17	Additions during year:				
18	Purchased.....		174	113	11,820.0
19	Installed.....	133			
20	Associated with Utility Plant Acquired.....				
21	<b>Total additions.....</b>	<b>133</b>	<b>174</b>	<b>113</b>	<b>11,820.0</b>
22	Reduction During Year:				
23	Retirements.....	18	107	43	6,465.5
24	Associated with Utility Plant Sold.....				
25	<b>Total Reductions.....</b>	<b>18</b>	<b>107</b>	<b>43</b>	<b>6,465.5</b>
26	<b>Number at End of Year.....</b>	<b>30,078</b>	<b>30,908</b>	<b>4,541</b>	<b>309,672.0</b>
27	In Stock.....		830	0	0.0
28	Locked Meters on Customers' Premises.....				
29	Inactive Transformers on System.....				
30	In Customers' Use.....		30,078		
31	In Company's Use.....				
32	<b>Number at End of Year.....</b>		<b>30,908</b>	<b>4,541</b>	<b>309,672.0</b>

**CONDUIT, UNDERGROUND CABLE AND SUBMARINE CABLE – (Distribution System)**

Report below the information called for concerning conduit, underground cable, and submarine cable at end of year.

Line No.	Designation of Underground Distribution System (a)	Miles of Conduit Bank (All sizes and Types) (b)	Underground Cable		Submarine Cable	
			Miles* (c)	Operating voltage (d)	Feet* (e)	Operating Voltage (f)
1						
2						
3						
4						
5						
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32						
33						
34						
	<b>TOTALS</b>					

\*Indicate number of conductors per cable.

**STREET LAMPS CONNECTED TO SYSTEM**

Line No.	City or Town (a)	Total (b)	TYPE							
			Incandescent		Mercury Vapor		Fluorescent / LED		High Press. Sodium	
			Municipal (c)	Other (d)	Municipal (e)	Other (f)	Municipal (g)	Other (h)	Municipal (i)	Other (j)
1	Reading	2,400	0	0	6	0	399	0	1,995	0
2	Lynnfield	812	0	0	332	0	169	0	311	0
3	North Reading	1,333	0	0	75	0	162	0	1,096	0
4	Wilmington	2,651	0	0	661	0	361	0	1,629	0
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52	<b>TOTALS</b>	<b>7,196</b>	<b>0</b>		<b>1,074</b>				<b>5,031</b>	

**RATE SCHEDULE INFORMATION**

1. Attach copies of all Filed Rates for General Consumers.
2. Show below the changes in rate schedules during year and the estimated increase or decrease in annual revenue predicted on the previous year's operations.

Date Effective	M.D.P.U. Number	Rate Schedule	Estimated Effect of Annual Revenues	
			Increases	Decrease



**Town of Reading, Massachusetts  
Municipal Light Department**

**MDPU # 250 supersedes  
and cancels MDPU # 237**

**Residential Schedule A Rate**

**Designation:**

Residential A Rate

**Available in:**

Reading, Lynnfield Center, North Reading, and Wilmington

**Applicable to:**

Individual residential customers for all domestic uses where service is taken through one meter. Incidental commercial use, not exceeding 20% of the total energy used on the same premises is permitted.

**Character of service:**

A.C. 60 cycles: single phase.

**Customer Charge:**

\$4.10 per month

**Distribution Energy Charge:**

\$.05368 per Kilowatt-hour for all Kilowatt-hours usage

**Budget Billing:**

The customers under this rate will have available to them a budget billing program under which the customer is required to pay a levelized amount to the Department each billing period during the calendar year. The specifics of this program are outlined in the Department's General Terms and Conditions.

**Low Income Discount**

The Customer Charge under this rate will be waived upon verification of a low-income customer's receipt of any means-tested public benefit, or verification of eligibility for the low-income home energy assistance program, or its successor program, for which eligibility does not exceed 200 percent of the federal poverty level based on a household's gross income. In a program year in which maximum eligibility for LIHEAP exceeds 200 percent of the federal poverty level, a household that is income eligible under LIHEAP shall be eligible for the low-income electric discount. It is the responsibility of the customer to annually certify, by forms provided by the utility, the continued compliance with the foregoing qualifications.

**Rate Filed: June 30, 2015**

**Effective: On Billings on or After July 1, 2015**

**Filed By: Colcen M. O'Brien, General Manager**

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**Residential Schedule RW  
Controlled Water Heater Rate**

**Designation:**

Residential RW Rate

**Available in:**

Reading, Lynnfield Center, North Reading, and Wilmington

**Applicable to:**

Individual residential customers for all domestic uses where service is taken through one meter. Incidental commercial use, not exceeding 20% of the total energy used on the same premises is permitted.

**Character of service:**

A.C. 60 cycles: single phase.

**Terms of Use:**

When a customer regularly uses an electric water heater of a type approved by the Department, service to the water heater will be controlled by a Department owned timing device. Customer also needs a customer owned internet connection. Internal wiring will be the responsibility of the customer. Water heater with two elements shall be interlocked to prevent simultaneous operation.

**Customer Charge:**

\$4.11 per month.

**Distribution Energy Charge:**

\$.04117 per Kilowatt-hour for all Kilowatt-hours usage

**Budget Billing:**

The customers under this rate will have available to them a budget billing program under which the customer is required to pay a levelized amount to the Department each billing period during the calendar year. The specifics of this program are outlined in the Department's General Terms and Conditions.

**Rate Filed: June 30, 2015**

**Effective: On Billings on or After July 1, 2015**

**Filed By: Colcen M. O'Brien, General Manager**

**Town of Reading, Massachusetts  
Municipal Light Department**

**MDPU # 252 supersedes  
and cancels MDPU # 239**

**Residential Time-of-Use Schedule A2 Rate**

**Designation:**

**Available in:**

Reading, Lynnfield Center, North Reading, and Wilmington

**Applicable to:**

Individual residential customers for all domestic uses where service is taken through one On-Peak and Off-Peak meter. Incidental commercial use, not exceeding 20% of the total energy used on the same premises is permitted.

**Character of service:**

A.C. 60 cycles: single phase.

**Customer Charge:**

\$6.50 per month.

**Distribution Energy Charge:**

\$.07998 per Kilowatt-hour for all Kilowatt-hours usage during the On-Peak hours.

\$.01650 per Kilowatt-hour for all Kilowatt-hours usage during the Off-peak hours.

**Definition of Periods:**

The On-Peak period is defined as the hours between 12:00 Noon and 7:00 P.M. Monday through Friday except holidays as listed under the "Granted Holidays" paragraph listed below. The Off-Peak period is defined as the hours between 7:00 P.M. and 12:00 Noon Monday through Friday and all hours Saturday, Sunday and granted holidays as listed below.

**Controlled Water Heater Allowance:**

When a customer regularly uses an electric water heater of a type approved by the Department, 333 kWh will be credited to usage during the Off-Peak period and will be billed at \$.00300 per kWh. All kWh used Off-Peak above 333 kWh will be charged at the regular Off-Peak rate. If less than 333 kWh are used Off-Peak then only that amount of kWh will be billed at \$.00300 per kWh. Water heater with two elements shall be interlocked to prevent simultaneous operation. Service to the water heater will be controlled by a Department owned time switch in an approved outdoor socket.

**Term:**

A customer electing to be billed under this rate must remain on this rate for a minimum of one year. At the end of one year on this rate a customer may elect to remain on this rate or be billed under the Residential A Rate.

**Rate Filed: June 30, 2015**

**Effective: On Billings on or After July 1, 2015**

**Filed By: Coleen M. O'Brien, General Manager**

**Town of Reading, Massachusetts  
Municipal Light Department**

**MDPU # 252 supersedes  
and cancels MDPU # 239**

**Residential Time-of-Use Schedule A2 Rate (cont'd)**

**Granted Holidays**

Under the Residential Time-of-Use Schedule A2 Rate the holidays granted for Off-Peak are: New Year's Day, President's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, Columbus Day, Veteran's Day and Christmas Day.

**General Terms and Conditions:**

Service hereunder is subject to the General Terms and Conditions which are incorporated herein and are a part of this rate schedule.

**Rate Filed: June 30, 2015**

**Effective: On Billings on or After July 1, 2015**

**Filed By: Colcen M. O'Brien, General Manager**

**Town of Reading, Massachusetts  
Municipal Light Department**

**MDPU # 253 supersedes  
and cancels MDPU # 240**

**Commercial Schedule C Rate**

**Designation:**

Commercial C Rate

**Available in:**

Reading, Lynnfield Center, North Reading, and Wilmington

**Applicable to:**

Service under this rate is available to industrial or commercial customers who take all their requirements under this rate. All electricity furnished under this rate will be metered through one service unless it is convenient for the Department to do otherwise.

**Character of service:**

AC 60 cycles: single phase or three phase.

**Customer Charge:**

\$7.05 per month.

**Distribution Demand Charge:**

\$7.38 per Kilowatt for all demand usage.

**Distribution Energy Charge:**

\$.01566 per Kilowatt-hour for all Kilowatt-hours usage.

**Budget Billing:**

The customers under the C Rate may elect the Budget Billing program under which the customer is required to pay the levelized amount to the Department each billing period during the calendar year. This rate is not available to C Rate Customers electing the Contract Demand Rate, or the Non-Firm Demand Rate. The specifics of this program are outlined in the Department's General Terms and Conditions.

**Energy Conservation Charge:**

The bill for service hereunder may be increased or decreased as provided by the Energy Conservation Charge.

**Fuel Adjustment:**

The bill for service hereunder may be increased or decreased as provided by the Standard Fuel Adjustment Clause.

**Purchase Power Capacity and Transmission Charge:**

The bill for service hereunder may be increased or decreased as provided by the Purchase Power Capacity and Transmission Charge.

**Rate Filed: June 30, 2015**

**Effective: On Billings on or After July 1, 2015**

**Filed By: Coleen M. O'Brien, General Manager**

**Town of Reading, Massachusetts  
Municipal Light Department**

**MDPU # 253 supersedes  
and cancels MDPU # 240**

**Commercial Schedule C Rate (cont'd)**

**Meter Reading and Billing:**

Bills under this schedule will be rendered monthly. A prompt payment discount of 15% will be allowed on the Customer Charge, Distribution Demand Charge and Distribution Energy Charge, only if the entire bill is paid-in-full by the discount due date.

**General Terms:**

Service hereunder is subject to the General Terms and Conditions which are incorporated herein and are a part of this rate schedule.

**Rate Filed: June 30, 2015**

**Effective: On Billings on or After July 1, 2015**

**Filed By: Coleen M. O'Brien, General Manager**

**Industrial Time-of-Use Schedule I Rate**

**Designation:**

Industrial Time-of-Use I Rate

**Available in:**

Reading, Lynnfield Center, North Reading, and Wilmington

**Applicable to:**

Service under this rate is available to industrial or commercial customers who take all their requirements under this rate. All electricity furnished under this rate will be metered using an electronic meter capable of metering On-Peak and Off-Peak energy as well as kW demand.

**Character of service:**

A.C. 60 cycles: single phase or three phase.

**Customer Charge:**

\$32.52 per month.

**Distribution Demand Charge:**

\$8.13 per Kilowatt for all demand usage.

**Definition of Periods:**

The On-Peak period is defined as the hours between 12:00 Noon and 7:00 P.M., Monday through Friday except holidays as listed below. The Off-Peak period is defined as the hours between 7:00 P.M. and 12:00 Noon, Monday through Friday and all hours Saturday, Sunday and granted holidays as listed below.

**Term:**

A customer electing to be billed under this rate must remain on this rate for a minimum of one year. At the end of one year on this rate a customer may elect to remain on this rate or be billed under the Commercial C Rate.

**Energy Conservation Charge:**

The bill for service hereunder may be increased or decreased as provided by the Energy Conservation Charge.

**Fuel Adjustment:**

The bill for service hereunder may be increased or decreased as provided by the Standard Fuel Adjustment Clause.

**Rate Filed: June 30, 2015**

**Effective: On Billings on or After July 1, 2015**

**Filed By: Coleen M. O'Brien, General Manager**

**Town of Reading, Massachusetts  
Municipal Light Department**

**MDPU # 254 supersedes  
and cancels MDPU # 241**

**Industrial Time-of-Use Schedule I Rate (cont'd)**

**Meter Reading and Billing:**

Bills under this schedule will be rendered monthly. A prompt payment discount of 15% will be allowed on the Customer Charge, Distribution Demand Charge and Distribution Energy Charge, only if the entire bill is paid-in-full by the discount due date.

**Granted Holidays**

Under the Industrial Time-of-Use Schedule I Rate the holidays granted for Off-Peak are; New Year's Day, President's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, Columbus Day, Veteran's Day and Christmas Day.

**General Terms and Conditions:**

Service hereunder is subject to the General Terms and Conditions which are incorporated herein and are a part of this rate schedule.

**Rate Filed: June 30, 2015**

**Effective: On Billings on or After July 1, 2015**

**Filed By: Colcen M. O'Brien, General Manager**



**School Schedule SCH Rate**

**Designation:**

School SCH Rate

**Available in:**

Reading, Lynnfield Center, North Reading, and Wilmington

**Applicable to:**

Applicable to public or private schools offering kindergarten, regular elementary, middle, and high school as approved by the Department, who take all their requirements under this rate. All electricity furnished under this rate will be metered through one service unless it is convenient for the Department to do otherwise.

**Character of service:**

AC 60 cycles: single phase or three phase.

**Customer Charge:**

\$6.50 per month.

**Distribution Demand Charge:**

\$6.80 per Kilowatt for all demand usage.

**Distribution Energy Charge:**

\$.01073 per Kilowatt-hour for all Kilowatt-hours usage.

**Budget Billing:**

The customers under the School Rate may elect the Budget Billing program under which the customer is required to pay levelized amount to the Department each billing period during the calendar year.

**Energy Conservation Charge:**

The bill for service hereunder may be increased or decreased as provided by the Energy Conservation Charge.

**Fuel Adjustment:**

The bill for service hereunder may be increased or decreased as provided by the Standard Fuel Adjustment Clause.

**Rate Filed: June 30, 2015**

**Effective: On Billings on or After July 1, 2015**

**Filed By: Coleen M. O'Brien, General Manager**

**Town of Reading, Massachusetts  
Municipal Light Department**

**MDPU # 255 supersedes  
and cancels MDPU # 242**

**School Schedule SCH Rate (cont'd)**

**General Terms:**

Service hereunder is subject to the General Terms and Conditions which are incorporated herein and are a part of this rate schedule.

**Rate Filed: June 30, 2015**

**Effective: On Billings on or After July 1, 2015**

**Filed By: Coleen M. O'Brien, General Manager**

**Private Street Lighting Rate Schedule D**

**Designation:**

Street Light D Rate

**Available:**

Reading, Lynnfield Center, North Reading, and Wilmington

**Applicable to:**

Street and Area Light service on all public, private, and unaccepted streets and areas where the Department has facilities for supplying electricity and where the installation work involved is limited to the necessary lighting unit and connection on the same pole. This Schedule does not apply to Public Street Lighting Service supplied directly to the Municipalities.

**Energy Charge:**

The rate per year for the standard 4,000-hour schedule is as follows:

<u>Fixture Type</u>	<u>Annual Rate \$</u>	<u>Annual kWh</u>
100 Watt Mercury	57.99	500
175 Watt Mercury	64.46	860
400 Watt Mercury	106.90	1,900
50 Watt HPS	66.78	240
100 Watt HPS	85.23	500
250 Watt HPS	112.54	1,200
400 Watt HPS	156.32	1,900
25 Watt LED - Standard	56.28	100
42 Watt LED - Non - Standard	62.80	168
101 Watt LED - Non - Standard	101.24	404
93 Watt LED Flood - Standard	144.88	372
134 Watt LED Flood - Non - Standard	177.39	536

**Note:** Mercury lamps will no longer be supplied for new installations.

**Fuel Adjustment:**

The bill for service hereunder may be increased or decreased as provided by the Standard fuel Adjustment Clause.

The Fuel Adjustment will appear on the bill as the monthly fuel charge multiplied by one twelfth of the Annual kWh shown above for each Fixture Type.

**Rate Filed: June 30, 2015**

**Effective: On Billings on or After July 1, 2015**

**Filed By: Coleen M. O'Brien, General Manager**

**Town of Reading, Massachusetts**

**MDPU # 257 supersedes  
and cancels MDPU #249**

**Municipal Light Department**

**Municipal LED Street Lighting Rate**

**Designation:**

LED Street Light Rate

**Available:**

Reading, Lynnfield Center, North Reading, and Wilmington

**Applicable to:**

Public Street Light service using LED fixtures supplied directly to the Municipalities where the Department has private facilities for supplying electricity and where the installation work involved is limited to the necessary lighting unit and connection to the same pole.

**Energy Charge:**

The rate per year for the standard 4,000-hour schedule is as follows:

<u>Fixture Type</u>	<u>Annual Rate \$</u>	<u>Annual kWh</u>
25 Watt LED – Standard	21.81	100
42 Watt LED – Non-Standard	22.43	168
101 Watt LED – Non - Standard	29.43	404
93 Watt LED Flood - Standard	44.65	372
134 Watt LED Flood – Non - Standard	51.29	536

**Fuel Adjustment:**

The bill for service hereunder may be increased or decreased as provided by the Standard fuel Adjustment Clause. The Fuel Adjustment will appear on the bill as the monthly fuel charge multiplied by one twelfth of the Annual kWh shown above for each Fixture Type.

**Purchase Power Adjustment:**

The bill for service hereunder may be increased or decreased as provided by the Purchase Power Adjustment. The Purchase power Adjustment will appear on the bill as the monthly charge multiplied by one twelfth of the Annual kWh shown above for each Fixture Type.

**Rate Filed: June 30, 2015**

**Effective: On Billings on or After July 1, 2015**

**Filed By: Colcen M. O'Brien, General Manager**

**Cooperative Resale Schedule G Rate**

**Designation:**

Cooperative G Rate

**Available in:**

Available to municipal lighting plants and private companies whose service territory is adjacent to the service territory of the Department and for distribution to such customers that cannot be served from the existing distribution lines, provided that the Department has available facilities for furnishing the service

**Character of Service:**

A.C. 60 cycles: single phase.

**Customer Charge:**

\$3.78 per month.

**Distribution Energy Charge:**

\$.04481 per Kilowatt-hour for all Kilowatt-hours usage.

**Fuel Adjustment:**

The bill for service hereunder may be increased or decreased as provided by the Standard Fuel Adjustment Clause.

**Purchase Power Capacity and Transmission Charge:**

The bill for service hereunder may be increased or decreased as provided by the Purchase Power Capacity and Transmission.

**Meter Reading and Billing:**

Bills under this schedule will be rendered monthly. A prompt payment discount of 15% will be allowed on the Customer Charge and Distribution Energy Charge, only if the entire bill is paid-in-full by the discount due date.

**General Terms and Conditions:**

Service hereunder is subject to the General Terms and Conditions which are incorporated herein and are a part of this rate schedule.

Rate Filed: June 30, 2015

Effective: On Billings on or After July 1, 2015

Filed By: Coleen M. O'Brien, General Manager

**Municipal Street Lighting Schedule F Formula Rate**

**Designation:**

Street Light F Rate

**Available:**

Reading, Lynnfield Center, North Reading and Wilmington

**Applicable to:**

Public Street Lighting Service supplied directly to the Municipalities where the Department has private facilities for supplying electricity and where the installation work involved is limited to the necessary lighting unit and connection on the same pole.

**Energy Charge:**

The rate per kilowatt-hour will be determined annually using the following formula as set forth in Massachusetts General Law Chapter 164 Section 58:

$$\frac{\textit{Total Operating Expenses \& Interest on Outstanding Debt \& Depreciation Expense}}{\textit{Total kilowatt – hours sold including street lighting}}$$

This rate will be calculated prior to each Fiscal Year based on budgeted expenses and kilowatt-hours and will be trued up to actual expenses and kilowatt-hours, with any adjustment being carried forward to the next Fiscal Year. For purposes of calculating the kilowatt-hours used by each type of fixture the following values will be used:

<u>Fixture Type</u>	<u>Annual KWh</u>
50 Watt HPS	240
100 Watt HPS	500
100 Watt Mercury	500
175 Watt Mercury	860
250 Watt HPS	1,200
400 Watt Mercury	1,900
400 Watt HPS	1,900

**Note:** Mercury lamps will no longer be supplied for new installations.

**General Terms and Conditions:**

**Rate Filed: December 24, 2014**

**Effective: January 1, 2015**

**Filed By: Coleen M. O'Brien, General Manager**

**Town of Reading, Massachusetts  
Municipal Light Department**

**MDPU #247 supersedes  
and cancels MDPU # 245**

Service hereunder is subject to the General Terms and Conditions which are incorporated herein and are a part of this rate schedule.

**Rate Filed: December 24, 2014  
Effective: January 1, 2015  
Filed By: Coleen M. O'Brien, General Manager**

**Municipal Street Lighting Schedule F Formula Rate**

**Designation:**

Street Light F Rate

**Available:**

Reading, Lynnfield Center, North Reading and Wilmington

**Applicable to:**

Public Street Lighting Service supplied directly to the Municipalities where the Department has private facilities for supplying electricity and where the installation work involved is limited to the necessary lighting unit and connection on the same pole.

**Energy Charge:**

The rate per kilowatt-hour will be determined annually using the following formula as set forth in Massachusetts General Law Chapter 164 Section 58:

$$\frac{\textit{Total Operating Expenses \& Interest on Outstanding Debt \& Depreciation Expense}}{\textit{Total kilowatt – hours sold including street lighting}}$$

This rate will be calculated prior to each Fiscal Year based on budgeted expenses and kilowatt-hours and will be trued up to actual expenses and kilowatt-hours, with any adjustment being carried forward to the next Fiscal Year. For purposes of calculating the kilowatt-hours used by each type of fixture the following values will be used:

<u>Fixture Type</u>	<u>Annual KWh</u>
58 Watt Incandescent	232
92 Watt Incandescent	368
50 Watt HPS	244
100 Watt HPS	508
100 Watt Mercury	520
175 Watt Mercury	860
250 Watt HPS	1,228
400 Watt Mercury	1,840
400 Watt HPS	1,828

**Note:** Incandescent and Mercury lamps will no longer be supplied for new installations.

**Rate Filed: June 30, 2014**

**Effective: July 1, 2014**

**Filed By: Colcen M. O'Brien, General Manager**



**Town of Reading, Massachusetts  
Municipal Light Department**

**MDPU #245**

**General Terms and Conditions:**

Service hereunder is subject to the General Terms and Conditions which are incorporated herein and are a part of this rate schedule.

**Rate Filed: June 30, 2014  
Effective: July 1, 2014  
Filed By: Coleen M. O'Brien, General Manager**

THIS RETURN IS SIGNED UNDER THE PENALTIES OF PERJURY

..... Mayor.

*C. O'Brien*

Coleen M. O'Brien, General Manager

..... Manager of Electric Light

*T. O'Rourke*

Thomas O'Rourke, Chair

..... Selectmen

*D. Talbot*

David Talbot, Vice Chair

..... or

*P. Pacino*

Philip B. Pacino

..... Members

John Stempick

..... of the Municipal

*D. Hennessy*

David Hennessy

..... Light Board

SIGNATURES OF ABOVE PARTIES AFFIXED OUTSIDE THE COMMONWEALTH OF  
MASSACHUSETTS MUST BE PROPERLY SWORN TO

Middlesex

ss

3/31/16

Then personally appeared.....

*Coleen M. O'Brien*

*Thomas O'Rourke*

*David Talbot*

*Philip B. Pacino*

*John Stempick*

*David Hennessy*



Commonwealth of Massachusetts  
Notary Public  
Jeanne M. Foti  
My Commission Expires 3/12/2021

and severally made oath to the truth of the foregoing statement by them subscribed according to their best knowledge and belief.

*Jeanne M. Foti*

Notary Public or  
Justice of the Peace