

TOWN OF LITTLETON, MASSACHUSETTS
MUNICIPAL ELECTRIC LIGHT
DEPARTMENT

Financial Statements

December 31, 2017

(With Accountants' Report Thereon)

Giusti, Hingston and Company
Certified Public Accountants

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Town of Littleton, Massachusetts

Municipal Electric Light Department

FINANCIAL STATEMENTS AND AUDITORS' REPORT

For the Year Ended December 31, 2017

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INDEPENDENT AUDITORS' REPORT ON GENERAL PURPOSE FINANCIAL STATEMENTS –
TOWN OF THE LITTLETON, MASSACHUSETTS, ELECTRIC LIGHT DEPARTMENT

Board of Commissioners and Board of Selectmen
Town of Littleton, Massachusetts
39 Ayer Road
P.O. Box 2406
Littleton, MA 01460

We have audited the accompanying financial statements of the business type activities and the aggregate remaining fund information of the Town of Littleton, Massachusetts, Electric Light Department ("the Department"), and the related notes to the financial statements, as of and for the year ended December 31, 2017.

Management's Responsibility for the Financial Statements

Management is responsible for the preparation and fair presentation of these financial statements in accordance with principles generally accepted in the United States of America; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

Auditor's Responsibility

Our responsibility is to express opinions on these financial statements based on our audit. We conducted our audit in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence, about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Opinion

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of the business activities and the aggregate remaining fund information of the Town of Littleton, Massachusetts, Electric Light Department, as of December 31, 2017, and the results of the respective changes in financial position and, where applicable, cash flows thereof for the year then ended in accordance with accounting principles generally accepted in the United States of America.

Other Matters

Required Supplementary Information

Accounting principles generally accepted in the United States of America require that the management's discussion and analysis, the retirement system schedules and the other post employment benefit schedules

listed in the table of contents be presented to supplement the basic financial statements. Such information, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board, who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

Sincerely,

Giusti, Hingston and Company

Giusti, Hingston and Company
Certified Public Accountants
Georgetown, Massachusetts
October 5, 2018

Littleton Municipal Electric Light Department
Management's Discussion and Analysis
Required Supplementary Information
December 31, 2017

As management of the Littleton Municipal Electric Light Department, we offer readers of these financial statements this narrative overview and analysis of the financial activities of the Littleton Municipal Electric Light Department for the fiscal year ended December 31, 2017.

Financial Highlights

- The assets and deferred outflows of resources of the Littleton Municipal Electric Light Department exceeded its liabilities and deferred inflows of resources at the close of the most recent fiscal year by \$36,537,608 (*net position*).
- The Department's total net position increased by \$1,513,149 or 4.32%.
- At the end of the current fiscal year, the balance in the unrestricted net position account was \$12,362,274, or 38.9% of total expenses.
- During fiscal year 2017, the Department continued funding its Other Post Employment Benefits (OPEB) liability. The balance in the OPEB Trust Fund as of December 31, 2017 was \$2,253,322.

Overview of the Financial Statements

The discussion and analysis are intended to serve as an introduction of the Littleton Municipal Electric Light Department's basic financial statements.

Proprietary funds - The Littleton Municipal Electric Light Department maintains one proprietary fund type. The Littleton Municipal Electric Light Department uses an enterprise fund to account for its electric operations.

Fiduciary funds - Fiduciary funds are used to account for resources held for the benefit of parties outside the government. Fiduciary funds are *not* reflected in the proprietary fund financial statements because the resources of those funds are *not* available to support the Department's own programs. The accounting used for fiduciary funds is much like that used for proprietary funds. The Department maintains fiduciary funds to account for activities related to its Other Post-Employment Benefits (OPEB) trust fund. The OPEB Trust Fund is used to accumulate resources to provide funding for future OPEB liabilities.

Notes to the Financial Statements

The notes to the financial statements provide additional information that is necessary to acquire a full understanding of the data provided in the Department's basic financial statements.

Other Information

In addition to the basic financial statements and the accompanying notes, this report also presents *required supplementary information* concerning the Littleton Electric Light Department's progress in funding its obligation to provide pension and other post employment benefits to its employees.

Financial Analysis

Net Position

The statement of net position presents information on all of the Department's assets/deferred outflows and liabilities/deferred inflows, with the difference between them reported as net position. Over time, increases or decreases in net position may serve as a useful indicator of whether the financial position of the Department is improving or deteriorating.

The following table reflects the condensed net position for the past two years.

	<u>Business-Type Activities</u> <u>2017</u>	<u>Business-Type Activities</u> <u>2016</u>
Current Assets	\$ 10,820,765	\$ 12,219,917
Noncurrent Assets	10,496,725	9,796,125
Capital Assets	24,305,334	22,124,392
Total Assets	<u>45,622,824</u>	<u>44,140,434</u>
Deferred Outflows of Resources	<u>1,398,027</u>	<u>1,187,710</u>
Current Liabilities	2,720,430	2,769,218
Noncurrent Liabilities	7,009,321	7,534,467
Total Liabilities	<u>9,729,751</u>	<u>10,303,685</u>
Deferred Inflows of Resources	<u>753,492</u>	<u>-</u>
Net Position:		
Net Investment in Capital Assets	24,175,334	21,862,657
Restricted for Other Post Employment Benefits		
Unrestricted Net Position	12,362,274	13,161,802
Total Net Position	<u>\$ 36,537,608</u>	<u>\$ 35,024,459</u>

The net position of the Department increased by \$1,513,149 during fiscal year 2017.

Changes in Net Position

The following condensed financial information was derived from the Department's Statement of Revenues, Expenses and Changes in Net Position. It reflects how the Departments net position has changed during the past two fiscal years.

	Business-Type Activities <u>2017</u>	Business-Type Activities <u>2016</u>
Revenues:		
Operating Revenues	\$ 30,925,919	\$ 31,460,945
Nonoperating Revenues	2,342,290	818,279
Total Revenues	<u>33,268,209</u>	<u>32,279,224</u>
Expenses:		
Purchase Power	23,797,576	22,376,126
Operating	969,691	1,034,166
Maintenance	789,765	853,405
General and Administrative	3,311,137	2,900,940
Depreciation	1,029,612	1,006,004
Hurricane Disaster Areas	752,847	-
In Lieu of Tax Payments	760,000	760,000
Contribution of Services to Water Department	285,719	294,378
Contribution to Schools and Towns	42,125	27,117
Interest on Long Term Debt	16,588	21,572
Total Expenses	<u>31,755,060</u>	<u>29,273,708</u>
Increase (Decrease) in Net Position	<u>\$ 1,513,149</u>	<u>\$ 3,005,516</u>

Light rates are structured to cover substantially all operating costs related to the activity.

Financial Analysis of the Department's Funds

Proprietary Fund

Electric Enterprise Fund – The following table reflects the trend in all the components of net position for the past ten fiscal years.

<u>Fiscal Year</u>	Invested in Capital Assets Net of Related		Total
	<u>Debt</u>	<u>Unrestricted</u>	<u>Net Positions</u>
2008	\$ 15,159,291	\$ 17,236,532	\$ 32,395,823
2009	15,530,464	18,092,553	33,623,017
2010	16,530,904	18,173,104	34,704,008
2011	16,777,309	19,215,636	35,992,945
2012	18,552,786	16,993,631	35,546,417
2013	18,704,430	16,019,621	34,724,051
2014	19,123,640	12,008,598	31,132,238
2015	19,372,822	12,811,716	32,184,538
2016	21,862,657	13,161,802	35,024,459
2017	24,175,334	12,362,274	36,537,608

Capital Asset and Debt Administration

Capital Assets

The Littleton Municipal Electric Light Department's investment in capital assets as of December 31, 2017, amounts to \$24,305,334 (net of accumulated depreciation). This investment in capital assets includes land, buildings, improvements, infrastructure, equipment and vehicles. A comparison of the past two years is as follows:

	<u>2017</u>	<u>2016</u>
Land	\$ 1,312,676	\$ 1,312,676
Work In Process	-	2,020,952
Distribution Plant	11,527,601	10,984,771
General Plant	11,465,057	7,805,993
Total	<u>\$ 24,305,334</u>	<u>\$ 22,124,392</u>

Debt

The Department's outstanding debt for the past two years is as follows.

	<u>2017</u>	<u>2016</u>	<u>Increase (Decrease)</u>
Business-Type Activities			
Electric Light Department	<u>\$ 130,000</u>	<u>\$ 261,733</u>	<u>\$ (131,733)</u>

The Department's long term debt decreased by \$131,733 or 50% during fiscal year 2017.

Fiscal Year 2018 Budget

The Department's fiscal year 2018 budget will be funded primarily by electric rates. Fluctuations in power costs are anticipated. However, the Department has the ability to increase rates in order to offset any additional power costs.

Littleton Electric Light Department

Statement of Net Position

December 31, 2017

Assets

Current:

Unrestricted Cash and Investments	\$ 4,650,494
Accounts Receivable:	
Customer (Net of Allowance for Uncollectible Accounts)	3,768,313
Governmental	1,190,224
Other	34,688
Grant	3,000
Prepaid Expenses	421,171
Plant Inventory	752,875
Total Current Assets	<u>10,820,765</u>

Noncurrent:

Restricted Cash	497,068
Restricted Investments	9,791,262
Other Post Employment Benefits Asset	208,395
Fixed Assets:	
Non-Depreciable	1,312,676
Depreciable, Net of Accumulated Depreciation	22,992,658
Total Noncurrent Assets	<u>34,802,059</u>
Total Assets	<u>45,622,824</u>

Deferred Outflows of Resources

Debt Refunding	6,933
Pensions	1,391,094
Total Deferred Outflows of Resources	<u>1,398,027</u>

Liabilities

Current:

Accrued Payroll Payable	96,334
Customer Deposits	145,300
Jobbing Deposits	13,201
Accrued Interest Payable	1,827
Accounts Payable & Other Accrued Liabilities	2,281,473
Bonds Payable	130,000
Accrued Compensated Absences Payable	52,295
Total Current Liabilities	<u>2,720,430</u>

Noncurrent:

Accrued Compensated Absences Payable	191,630
Net Pension Liability	6,817,691
Total Noncurrent Liabilities	<u>7,009,321</u>
Total Liabilities	<u>9,729,751</u>

Deferred Inflows of Resources

Pensions	753,492
Total Deferred Inflows of Resources	<u>753,492</u>

Net Position

Net Investment in Capital Assets	24,175,334
Unrestricted	12,362,274
Total Net Position	<u>\$ 36,537,608</u>

Littleton Electric Light Department
Statement of Revenues, Expenses and Changes in Net Position
For the Year Ended December 31, 2017

Operating Revenues:	
Operating Revenue	\$ 30,925,919
Total Operating Revenues	<u>30,925,919</u>
Operating Expenses:	
Purchase Power	23,797,576
Operating	969,691
Maintenance	789,765
General and Administrative	3,311,137
Depreciation	1,029,612
Total Operating Expenses	<u>29,897,781</u>
Operating Income (Loss)	<u>1,028,138</u>
Nonoperating Revenues (Expenses):	
Merchandising and Jobbing Revenue	449,064
Intergovernmental	1,398,718
Earnings on Investments	497,410
Hurricane Disaster Areas	(752,847)
Gain (Loss) on Disposition of Capital Assets	(2,902)
In Lieu of Tax Payments and Indirect Cost Reimbursement	(760,000)
Contribution of Services to Water Department	(285,719)
Contribution to Schools and Towns	(42,125)
Interest on Long Term Debt	(16,588)
Total Nonoperating Revenues (Expenses):	<u>485,011</u>
Net Increase (Decrease) in Net Position	<u>1,513,149</u>
Net Position, January 1, 2017	<u>35,024,459</u>
Net Position, December 31, 2017	<u><u>\$ 36,537,608</u></u>

Littleton Electric Light Department
Statement of Cash Flows
For the Year Ended December 31, 2017

Cash Flows from Operating Activities:	
Receipts from Customers	\$ 30,226,015
Payments to Employees and Vendors	(28,879,993)
	<u>1,346,022</u>
Net Cash Flows Provided (Used) by Operating Activities	<u>1,346,022</u>
Cash Flows from Non Capital Related Financing Activities:	
Merchandising and Jobbing	435,417
Other Income	(547,353)
Payment In Lieu of Taxes	(760,000)
Contribution of Services to Water Department	(285,719)
Contribution to Schools and Towns	(42,125)
	<u>(1,199,780)</u>
Net Cash Flows Provided (Used) by Non Capital Related Financing Activities	<u>(1,199,780)</u>
Cash Flows from Capital and Related Financing Activities:	
Acquisition and Construction of Capital Assets	(3,232,439)
Sale of Capital Assets	18,983
Principal Payments on Bonds	(131,733)
Interest Expense	(11,116)
	<u>(3,356,305)</u>
Net Cash Flows Provided (Used) by Capital and Related Financing Activities	<u>(3,356,305)</u>
Cash Flows from Investing Activities:	
Earnings on Investments	497,410
	<u>497,410</u>
Net Cash Flows Provided (Used) by Investing Activities	<u>497,410</u>
Net Increase (Decrease) in Cash and Cash Equivalents	<u>(2,712,653)</u>
Cash and Cash Equivalents, January 1, 2017	<u>17,651,477</u>
Cash and Cash Equivalents, December 31, 2017	<u><u>\$ 14,938,824</u></u>
Reconciliation of Net Income to Net Cash Provided (Used) by Operating Activities:	
Operating Income (Loss)	\$ 1,028,138
Adjustments to Reconcile Operating Income to Net Cash Provided (Used) by Operating Activities:	
Depreciation and Amortization Expense	1,029,612
(Increase) Decrease in Accounts Receivable	(699,904)
Increase (Decrease) in Other Assets	(208,395)
(Increase) Decrease in Prepayments	58,430
Increase (Decrease) in Payables	138,141
Net Cash Provided by Operating Activities	<u><u>\$ 1,346,022</u></u>

Littleton Electric Light Department
 Statement of Fiduciary Net Position
 Fiduciary Funds
 December 31, 2017

	Other Post Employment Benefits <u>Trust</u>
Assets	
Cash and Investments	
Domestic Equity	\$ 783,705
Domestic Bond	426,779
International Equity	563,331
International Bond	226,684
Cash and Equivalents	201,898
Other	50,925
	<hr/>
Total Assets	\$ 2,253,322
	<hr/>
Liabilities	\$ -
	<hr/>
Total Liabilities	-
	<hr/>
Net Position Restricted for Post	
Employment Benefits Other than Pensions	\$ 2,253,322
	<hr/>

Littleton Electric Light Department
Statement of Changes in Fiduciary Net Position
Fiduciary Funds
For the Year Ended December 31, 2017

	Other Post Employment Benefits <u>Trust</u>
Additions:	
Employer Contributions	\$ 539,069
Net Investment Income	235,555
Total Additions	<u>774,624</u>
Deductions:	
Trust Distributions - Premiums	<u>289,069</u>
Change in Net Position	<u>485,555</u>
Net Position Restricted for Post Employment Benefits Other than Pensions	
Beginning of the Year	<u>1,767,767</u>
End of the Year	<u><u>\$ 2,253,322</u></u>

Town of Littleton, Massachusetts
Municipal Electric Light Department
Notes to the Financial Statements
December 31, 2017

I. Summary of Significant Accounting Policies

The significant accounting policies of the Electric Light Department are as follows:

(a) Reporting Entity

The Littleton Municipal Electric Light Department is an enterprise fund of the Town of Littleton, Massachusetts. The Light Department purchases power from various sources and sells it to customers in the Towns of Littleton and Boxborough at rates submitted to the Massachusetts Department of Telecommunications and Energy. The Board of Commissioners is an elected Board that has full charge of operations and management of the Plant. There are no entities which are component units of the Littleton Electric Light Department.

(b) Measurement Focus and Basis of Accounting

The Light Department maintains its books in accordance with the accounting practices prescribed by the Massachusetts Department of Telecommunications and Energy (DTE). The Department's policy is to prepare its financial statements in accordance with generally accepted accounting principles (GAAP) except that depreciation is charged at a fixed percentage rate (in accordance with practices approved by the DTE). Under the GAAP basis of accounting depreciation is charged over the useful life of the asset.

In accordance with Massachusetts law, the electric rates of the Light Department are set by the Municipal Light Board. Rate schedules are filed with the Massachusetts Department of Telecommunications and Energy. While the DTE exercises general supervisory authority over the Light Department, the Light Department's rates are not subject to DTE approval.

The Department utilizes a proprietary fund to account for its water operations. Proprietary fund financial statements are reported using the flow of economic resources measurement focus and use the accrual basis of accounting. Under this method, revenues are recorded when earned and expenses are recorded when the liabilities are incurred.

Proprietary funds distinguish operating revenues and expenses from non-operating items. Operating revenues and expenses generally result from providing services and producing and delivering goods in connection with the proprietary funds principal ongoing operations. All revenues and expenses not meeting this definition are reported as non-operating revenues and expenses.

The Department utilizes a fiduciary fund to report the activity related to its Other Postemployment Benefits (OPEB) trust fund. The OPEB trust fund is used to accumulate resources for future other postemployment benefits liabilities.

Fiduciary fund financial statements are reported using the flow of economic resources measurement focus and use the accrual basis of accounting. Fiduciary funds are used to account for assets held in a trustee capacity for others that cannot be used to support the government's programs.

(c) Depreciation

The general laws of Massachusetts allow utility plants in service to be depreciated at an annual percentage rate. In order to change this rate, approval must be obtained from the Department of Telecommunications and Energy. Changes in annual depreciation rates may be made for financial factors relating to cash flow rather than for engineering factors relating to estimates of useful lives. The Light Department used a depreciation rate of 3.0% for fiscal year 2017.

(d) Revenues

Revenues from the sale of electricity are recorded on the accrual basis. Bills are prepared monthly (on a cycle basis) based on meter readings.

(e) Unbilled Revenue

Customers are billed monthly based on usage. As a result, some current fiscal year usage is not billed until the subsequent fiscal year. An accounting estimate is made to recognize revenues related to the unbilled usage.

(f) Use of Estimates

The preparation of financial statements in conformity with generally accepted accounting principles requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and the disclosure of contingent assets and liabilities at the date of the financial statements. Estimates also affect the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates.

(g) Pensions

For purposes of measuring the net pension liability, deferred outflows of resources and deferred inflows of resources related to pensions, and pension expense, information about the fiduciary net position of the Middlesex County Retirement System and additions to/deductions from the Middlesex County Retirement System's fiduciary net position have been determined on the same basis as they are reported by the Middlesex County Retirement System. For this purpose, benefit payments (including refunds of employee contributions) are recognized when due and payable in accordance with the benefit terms. Investments are reported at fair value.

(h) Deferred Outflows/Inflows of Resources

In addition to assets, the statement of net position will sometimes report a separate section for deferred outflows of resources. This separate financial statement element, deferred outflows of resources, represents a consumption of net position that applies to a future period(s) and so will not be recognized as an outflow of resources (expense/ expenditure) until then. In addition to liabilities, the statement of net position will sometimes report a separate section for deferred inflows of resources. This separate financial statement element, deferred inflows of resources, represents an acquisition of net position that applies to a future period(s) and so will not be recognized as an inflow of resources (revenue) until that time.

The Department's Statement of Net Position reflects deferred outflows and deferred inflows of resources related to pensions. It, also, reflects deferred outflows related to a debt refunding issue.

II. Prepaid Expenses

The balance in this account represents various purchased power prepayments as of December 31, 2017. It also, includes prepayments related to insurance.

III. Deposits and Investments

a. Deposits

Custodial Credit Risk

Custodial credit risk is the risk that in the event of a bank failure, the Department's deposits may not be returned to it. The Department's deposits are pooled with the deposits of the Town of Littleton, Massachusetts. As a result, the custodial credit risk of the Department is intermingled with the custodial credit risk of the Town.

The Town has a formal investment policy that addresses custodial credit risk. Key sections of the policy are detailed below:

- Bank accounts or Certificate of Deposit accounts (CD's) with no limit to the length of maturity from the date of purchase may be made for unlimited amounts if the depository institution is a member of the Depository Insurance Fund (DIF) or the Share Insurance Fund (SIF). These funds insure all deposits held at a member Massachusetts state chartered savings bank or co-operative bank respectively.
- Bank accounts, Certificate of Deposit accounts (CD's) and/or brokered CD's with no limit to the length of maturity from the date of purchase up to the FDIC coverage limits. All account balances in a single depository institution are considered in the aggregate to determine FDIC coverage limits.
- Bank accounts or Certificate of Deposit accounts (CD's) with no limit to the length of maturity from the date of purchase may be made for unlimited amounts if the deposit is fully collateralized by a third party agreement or securities owned by a depository institution that have been segregated from the day-to-day assets of the institution in order to provide collateralization.
- Uninsured or unsecured bank accounts or Certificate of Deposit accounts (CD's) with a final maturity no greater than one year from the date of purchase are allowed to be held by the Town subject to the following limitations:
 - The aggregate uninsured portion of deposits held at any one institution cannot exceed 5% of the institutions total deposits reflected on the bank's last filed FDIC Call Report.
 - No more than 10% of the Town's funds, applicable to this section, may be held in uninsured accounts.
 - The credit worthiness of the depository will be tracked by Treasurer utilizing the Veribanc rating report.

b. Investments

i) Interest Rate Risk

Interest rate risk is the risk that changes in interest rates will adversely affect the fair value of an investment. The Town's policy that limits investment maturities as a means of managing its exposure to fair value losses arising from increasing interest rates is as follows:

- Short-term investments for funds covered in Section I are by statute limited to one year or less in maturity with all securities held to maturity.
- Longer term investments, other than trust funds under the direction of the Commissioners of Trust Funds, will be made for periods not longer than five years, maintaining an average maturity no greater than three years for the portfolio.

ii) Credit Risk

Credit risk is the risk that an issuer or other counterparty to an investment will not fulfill its obligations. The Town's policy relating to credit risk is as follows.

- Longer term investments in fixed income securities, other than trust funds under the direction of the Commissioners of Trust Funds, will be made principally for capital preservation and income potential. Corporate debt must be rated "A" or better by either S&P or Moody's rating services. If a security falls below the "A" rating, the security will be monitored by the Treasurer and advisor, if applicable. The security will be noted as an exception to policy if held in the portfolio. The Treasurer and/or advisor may sell the security if a further decline in value is expected.

iii.) Concentration of Credit Risk

Concentration of credit risk is the risk of loss attributed to the magnitude of a government's investment in a single issuer. The Town's policy relating to concentration of credit risk is as follows:

- The Town will minimize any concentration of credit risk by diversifying the investment portfolio so that the impact of potential losses from any one type of security or issuer will be minimized. Specific investment amounts and/or issuer limitations are addressed in the policy.

iv) Foreign Currency Risk

Foreign currency risk is the risk that changes in foreign exchange rates will adversely affect the fair value of an investment or deposit. The Town's policy states that it will not invest in any instrument exposed to foreign currency risk.

v.) Fair Value Measurement

Statement #72 of the Government Accounting Standards Board ("GASB") Fair Value Measurements and Application, sets forth the framework for measuring fair value. That framework provides a fair value hierarchy that prioritizes the inputs to valuation techniques used to measure fair value. The hierarchy gives the highest priority to unadjusted quoted prices in active markets for identical assets or liabilities (Level 1 measurements) and the

lowest priority to unobservable inputs (Level 3 measurements). The three levels of the fair value hierarchy under GASB 72 are described as follows:

Level 1 - Inputs to the valuation methodology are unadjusted quoted prices for identical assets or liabilities in active markets that the Department has the ability to access.

Level 2 - Inputs to the valuation methodology include:

- Quoted prices for similar assets or liabilities in active markets;
- Quoted prices for identical or similar assets or liabilities in inactive markets;
- Inputs other than quoted prices that are observable for the asset or liability;
- Inputs that are derived principally from or corroborated by observable market data by correlation or other means.

Level 3 - Inputs to the valuation methodology are unobservable and significant to the fair value measurement. Unobservable inputs reflect the Departments' own assumptions about the inputs market participants would use in pricing the asset or liability (including assumptions about risk). Unobservable inputs are developed based on the best information available in the circumstances and may include the Department's own data.

The Department holds investments that are measured at fair value on a recurring basis. Because investing is not a core part of the Department's mission, the Department determines that the disclosures related to these investments only need to be disaggregated by major type. The Department chooses a tabular format for disclosing the levels within the fair value hierarchy.

The Department has the following recurring fair value measurements as of December 31, 2017:

		<u>Fair Value Measurements Using</u>		
		<u>Level 1</u>	<u>Level 2</u>	<u>Level 3</u>
		Quoted Prices	Significant	
		in Active	Other	Significant
		Markets for	Observable	Unobservable
		<u>Identical Assets</u>	<u>Inputs</u>	<u>Inputs</u>
	<u>Total</u>			
Investment by Fair Value Level:				
Debt:				
U. S. Treasuries & Agencies	\$ 4,696,189	\$ 4,696,189	\$ -	\$ -
Corporate Bonds	1,120,653	-	1,120,653	-
Money Market Mutual Funds	156,297	156,297	-	-
Mutual Funds	2,426,214	2,426,214	-	-
Certificates of Deposit	600,990	600,990	-	-
Equities:				
Common Stock	3,044,241	3,044,241	-	-
Assets in the Fair Value Hierarchy	<u>\$ 12,044,584</u>	<u>\$ 10,923,931</u>	<u>\$ 1,120,653</u>	<u>\$ -</u>

The investments classified in Level 1 of the fair value hierarchy were valued using prices quoted in active markets for those securities.

IV. Restricted Cash and Investments

Restricted cash and investments as of December 31, 2017 consist of the following:

<u>Account</u>	<u>Cash</u>	<u>Investments</u>
Depreciation Fund	\$ -	\$ 2,537,735
Rate Stabilization	497,068	6,181,032
Pension Trust	-	1,072,495
Total	<u>\$ 497,068</u>	<u>\$ 9,791,262</u>

V. Debt

i Short Term Debt

The Department did not have any bond anticipation notes payable or other short term debt outstanding as of December 31, 2017.

ii Long Term Debt

Bonds payable outstanding at December 31, 2017, consist of general obligation bonds of the Town of Littleton, Massachusetts. The Electric Light Department submits payments to the Town for principal and interest payments as they become due. The bonds outstanding at year end are as follows:

(a) General Obligation Bonds Outstanding at December 31, 2017

<u>General Obligation Bond</u>	<u>Sale Date</u>	<u>Original Borrowing</u>	<u>Interest Rate to Maturities</u>	<u>Final Maturity</u>	<u>Balance 01/01/17</u>	<u>Issued</u>	<u>Redeemed</u>	<u>Balance 12/31/17</u>
Building Renovation/Addition	12/15/2007	\$1,239,333	4.10%	2018	<u>\$261,733</u>	<u>\$0</u>	<u>\$131,733</u>	<u>\$130,000</u>

(b) Summary of Debt Service Requirements to Maturity

<u>Fiscal Year Ended</u>	<u>Principal</u>	<u>Interest</u>	<u>Total</u>
2018	<u>\$130,000</u>	<u>\$6,175</u>	<u>\$136,175</u>
Total	<u>\$130,000</u>	<u>\$6,175</u>	<u>\$136,175</u>

V. Debt (Continued)

(c) Bond Authorizations

The Department did not have any Loans Authorized but Unissued as of December 31, 2017.

iii Changes in the long-term liabilities for the year ended December 31, 2017 are as follows:

	<u>01/01/17</u>	<u>Additions</u>	<u>Deductions</u>	<u>12/31/17</u>	<u>Current</u>
Bonds Payable	\$ 261,733	\$ -	\$ (131,733)	\$ 130,000	\$ 130,000
Compensated Absences	276,174	28,518	(60,767)	243,925	52,295
Other Post Employment Benefits	52,369	278,305	(539,069)	(208,395)	-
Net Pension Liability	<u>7,122,564</u>	<u>272,021</u>	<u>(576,894)</u>	<u>6,817,691</u>	<u>-</u>
Total	<u>\$ 7,712,840</u>	<u>\$ 578,844</u>	<u>\$ (1,308,463)</u>	<u>\$ 6,983,221</u>	<u>\$ 182,295</u>

iv Refunding of Long Term Debt

On December 15, 2007, the Town issued \$4,670,000 of General Obligation Refunding Bonds with an average interest rate of 3.63% to 5.00% to advance refund \$4,420,000 of outstanding debts with interest rates form 4.80% to 7.00% (\$1,239,333 of the new bond was attributable to the Light Department). The net proceeds (after payment of underwriting fees, insurance and other issuance costs) were used to purchase U.S. government securities. Those securities were deposited in an irrevocable trust with an escrow agent to provide for all future debt service payments on the refunded bonds. As a result, the refunded bonds are considered to be defeased. The refunded debt will be paid at the end of the Light Department's fiscal year 2018.

<u>Fiscal Year</u>	Light Department Old Debt Principal & Interest	Light Department Refunding Bonds Principal & Interest
2018	<u>133,770</u>	<u>136,175</u>
Total	<u>\$133,770</u>	<u>\$136,175</u>

The net savings for the Light Department as a result of the refunding issue was \$56,381.

VI. Capital Assets

Capital asset activity for the year ended December 31, 2017 is as follows:

<u>Assets</u>	<u>Cost</u>			<u>Cost</u>	<u>Accumulated Depreciation</u>			<u>Accumulated Depreciation</u>	<u>Net Book</u>
	<u>January 1, 2017</u>	<u>Additions</u>	<u>Dispositions</u>	<u>December 31, 2017</u>	<u>January 1, 2017</u>	<u>Depreciation</u>	<u>Deductions</u>	<u>December 31, 2017</u>	<u>Value</u>
Nondepreciable Assets									
Land and Land Rights	\$ 1,312,676	\$ -	\$ -	\$ 1,312,676	\$ -	\$ -	\$ -	\$ -	\$ 1,312,676
Work in Process	2,020,952	-	(2,020,952)	-	-	-	-	-	-
Total Nondepreciable Assets	3,333,628	-	(2,020,952)	1,312,676	-	-	-	-	1,312,676
 Distribution Plant:									
Structures and Improvements	411,839	-	-	411,839	295,608	11,409	-	307,017	104,822
Station Equipment	4,792,628	43,672	-	4,836,300	2,358,454	132,766	-	2,491,220	2,345,080
Storage Battery Equipment	12,026	10,500	-	22,526	1,867	333	-	2,200	20,326
Poles, Towers and Fixtures	1,991,214	159,294	(23,018)	2,127,490	678,947	55,161	(23,018)	711,090	1,416,400
Overhead Conductors and Equipment	3,339,805	5,700	-	3,345,505	1,966,409	92,519	-	2,058,928	1,286,577
Underground Conduits	1,257,586	308,925	-	1,566,511	490,075	34,838	-	524,913	1,041,598
Underground Conductors and Devices	2,504,974	32,686	-	2,537,660	999,634	69,393	-	1,069,027	1,468,633
Line Transformers	3,843,767	368,287	(84,806)	4,127,248	1,537,875	106,480	(84,806)	1,559,549	2,567,699
Services	902,298	38,253	-	940,551	631,464	24,996	-	656,460	284,091
Meters	687,473	53,580	(8,395)	732,658	98,245	19,044	(8,395)	108,894	623,764
Installations on Customers' Premises	213,329	1,965	-	215,294	143,933	5,910	-	149,843	65,451
Street Lighting and Signal Systems	362,033	82,846	-	444,879	131,690	10,029	-	141,719	303,160
Total Distribution Plant	20,318,972	1,105,708	(116,219)	21,308,461	9,334,201	562,878	(116,219)	9,780,860	11,527,601
 General Plant:									
Structures and Improvements	8,516,318	3,829,865	-	12,346,183	3,167,558	235,920	-	3,403,478	8,942,705
Office Equipment	1,283,755	90,033	-	1,373,788	535,331	35,563	-	570,894	802,894
Transportation Equipment	2,660,137	55,487	(210,405)	2,505,219	1,750,665	152,556	(200,820)	1,702,401	802,818
Stores Equipment	22,835	138,639	(15,000)	146,474	8,247	633	(2,700)	6,180	140,294
Tools, Shop and Garage Equipment	490,832	24,194	-	515,026	252,960	13,597	-	266,557	248,469
Laboratory & Testing Equipment	320,258	-	-	320,258	98,628	8,872	-	107,500	212,758
Power Operated Equipment	205,652	-	-	205,652	195,073	5,697	-	200,770	4,882
Communications Equipment	401,601	9,465	-	411,066	150,548	11,125	-	161,673	249,393
Miscellaneous Equipment	100,011	-	-	100,011	36,396	2,771	-	39,167	60,844
Total General Plant	14,001,399	4,147,683	(225,405)	17,923,677	6,195,406	466,734	(203,520)	6,458,620	11,465,057
Total Depreciable Assets	34,320,371	5,253,391	(341,624)	39,232,138	15,529,607	1,029,612	(319,739)	16,239,480	22,992,658
Total Capital Assets	\$ 37,653,999	\$ 5,253,391	\$ (2,362,576)	\$ 40,544,814	\$ 15,529,607	\$ 1,029,612	\$ (319,739)	\$ 16,239,480	\$ 24,305,334

VII. Accounts Receivable Customer - Reserve for Uncollectible Accounts

The accounts receivable on the statement of net position are as follows:

Customer Accounts Receivable	\$3,815,573
Allowance for Uncollectable	<u>(47,260)</u>
Total Customer Accounts Receivable - Net	<u><u>\$3,768,313</u></u>
Other:	
Jobbings Receivable	<u><u>\$ 34,688</u></u>
Governmental:	
Hurricane Aid Billings	\$ 1,190,224
Grant	<u>3,000</u>
Total Intergovernmental Accounts Receivable	<u><u>\$ 1,193,224</u></u>

VIII. Retirement System

a. General Information about the Pension Plan

Plan Description

The Department provides pension benefits to eligible employees by contributing to the Middlesex County Retirement System, a cost sharing multiple-employer defined benefit pension plan administered by the Middlesex County Retirement System. The System is administered by a five member board on behalf of all eligible current employees and retirees. The system provides retirement benefits, cost of living adjustments, disability benefits and death benefits.

The system is a member of the Massachusetts Contributory Retirement System and is governed by Chapter 32 of the Massachusetts General Laws (M.G.L.). The authority to establish and amend benefit provisions requires a statutory change to Chapter 32. The Middlesex County Retirement System issues a stand-alone financial report that is available to the public at <https://middlesexretirement.org/wp-content/uploads/2018/08/FINAL-MCRS-Audit-Report-of-Financial-Statements-12-31-2017.pdf>

or by writing to the Middlesex County Retirement System, 25 Linnell Circle, P.O. Box 160, Billerica, Massachusetts 01865.

Benefits Provided

The Middlesex County Retirement System provides retirement, disability and death benefits as detailed below:

Retirement Benefits

Employees covered by the Contributory Retirement Law are classified into one of four groups depending on job classification. Group 1 comprises most positions in state and local government. It is the general category of public employees. Group 4 comprises mainly police and firefighters. Group 2 is for other specified hazardous occupations. (Officers and inspectors of the State Police are classified as Group 3.)

For employees hired prior to April 2, 2012, the annual amount of the retirement allowance is based on the member's final three-year average salary multiplied by the number of years and full months of creditable service at the time of retirement and multiplied by a percentage according to the table below based on the age of the member at retirement.

<u>Benefit %</u>	<u>Group 1</u>	<u>Group 2</u>	<u>Group 4</u>
	<u>Hired on or before April 1 2012</u>		
2.50%	65+	60+	55+
2.40%	64	59	54
2.30%	63	58	53
2.20%	62	57	52
2.10%	61	56	51
2.00%	60	55	50
1.90%	59	N/A	49
1.80%	58	N/A	48
1.70%	57	N/A	47
1.60%	56	N/A	46
1.50%	55	N/A	45

For employees hired on April 2, 2012 or later, the annual amount of the retirement allowance is based on the member's final five-year average salary multiplied by the number of years and full months of creditable service at the time of retirement and multiplied by a percentage according to the tables below based on the age and years of creditable service of the member at retirement:

<u>Benefit %</u>	<u>Group 1</u>	<u>Group 2</u>	<u>Group 4</u>
	<u>Hired after April 1 2012</u>		
2.50%	67+	62+	57+
2.35%	66	61	56
2.20%	65	60	55
2.05%	64	59	54
1.90%	63	58	53
1.75%	62	57	52
1.60%	61	56	51
1.45%	60	55	50

For all employees, the maximum annual amount of the retirement allowance is 80 percent of the member's final average salary. Any member who is a veteran also receives an additional yearly retirement allowance of \$15 per year of creditable service, not exceeding \$300. The veteran allowance is paid in addition to the 80 percent maximum.

Retirement Benefits - Superannuation

Members of Group 1, 2 or 4 hired prior to April 2, 2012 may retire upon the attainment of age 55. For retirement at ages below 55, twenty years of creditable service is required.

Members hired prior to April 2, 2012 who terminate before age 55 with ten or more years of creditable service are eligible for a retirement allowance upon the attainment of age 55 (provided they have not withdrawn their accumulated deductions from the Annuity Savings Fund of the System).

Members of Group 1 hired April 2, 2012 or later may retire upon the attainment of age 60. Members of Group 2 or 4 hired April 2, 2012 or later may retire upon the attainment of age 55. Members of Group 4 may retire upon attainment of age 50 with ten years of creditable service.

Members hired April 2, 2012 or later who terminate before age 55 (60 for members of Group 1) with ten or more years of creditable service are eligible for a retirement allowance upon the attainment of age 55 (60 for members of Group 1) provided they have not withdrawn their accumulated deductions from the Annuity Savings Fund of the System.

Ordinary Disability Benefits

A member who is unable to perform his or her job due to a non-occupational disability will receive a retirement allowance if he or she has ten or more years of creditable service and has not reached age 55. The annual amount of such allowance shall be determined as if the member retired for superannuation at age 55 (age 60 for Group 1 members hired on or after April 2, 2012), based on the amount of creditable service at the date of disability. For veterans, there is a minimum benefit of 50 percent of the member's most recent year's pay plus an annuity based on his or her own contributions.

Accidental Disability Benefit

For a job-connected disability, the benefit is 72 percent of the member's most recent annual pay plus an annuity based on his or her own contributions, plus additional amounts for surviving children. Benefits are capped at 75 percent of annual rate of regular compensation for employees who become members after January 1, 1988.

Death Benefits

In general, the beneficiary of an employee who dies in active service will receive a refund of the employee's own contributions. Alternatively, if the employee were eligible to retire on the date of death, a spouse's benefit will be paid equal to the amount the employee would have received under Option C. The surviving spouse of a member who dies with two or more years of credited service has the option of a refund of the employee's contributions or a monthly benefit regardless of eligibility to retire, if they were married for at least one year. There is also a minimum widow's pension of \$500 per month, and there are additional amounts for surviving children.

If an employee's death is job-connected, the spouse will receive 72 percent of the member's most recent annual pay, in addition to a refund of the member's accumulated deductions, plus additional amounts for surviving children. However, in accordance with Section 100 of Chapter 32, the surviving spouse of a police officer, firefighter or corrections officer who is killed in the line of duty will be eligible to receive an annual benefit equal to the maximum salary held by the member at the time of death. Upon the death of a job-connected disability retiree who retired prior to November 7, 1996 and could not elect an Option C benefit, a surviving spouse will receive an allowance of \$9,000 per year if the member dies for a reason unrelated to cause of disability.

Contributions

Active members of the Middlesex County Retirement System contribute either 5%, 7%, 8% or 9% of their gross regular compensation depending on the date upon which their membership began. An additional 2% is required from employees for earnings in excess of \$30,000. The Department is required to pay an actuarially determined rate. The contribution requirement of plan members is determined by M.G.L. Chapter 32. The contribution requirements are established by and may be amended by the Middlesex County Retirement System with the approval of the Public Employee Retirement Administration Commission.

The Department's contractually required contribution rate for the year ended December 31, 2017 was 16.61% of covered payroll, actuarially determined as an amount that, when combined with employee contributions, is expected to finance the costs of benefits earned by employees during the year, with an additional amount to finance any unfunded accrued liability. Contributions to the pension plan from the Department were \$576,984 for the year ending December 31, 2017.

b. Pension Liabilities, Pension Expense, and Deferred Outflows of Resources and Deferred Inflows of Resources Related to Pensions

At December 31, 2017, the Department reported a liability of \$6,817,691 for its proportionate share of the net pension liability. The net pension liability was measured as of December 31, 2017, and the total pension liability used to calculate the net pension liability was determined by an actuarial valuation as of that date. Accordingly, update procedures were utilized to roll forward the liability to the measurement date. The Department's proportion of the net pension liability was based on a projection of the Department's long-term share of contributions to the pension plan relative to the projected contributions of all participating members, actuarially determined. At December 31, 2017, the Department's proportion was 0.446568 %.

For the year ended December 31, 2017, the Department recognized pension expense of \$842,066. At December 31, 2017, the Department reported deferred outflows of resources and deferred inflows of resources related to pensions from the following sources:

	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between expected and actual experience	\$ 21,487	\$ 32,538
Change in assumptions	609,043	-
Net differences between projected and actual earnings on pension plan investments	-	173,063
Changes in proportion and differences between contributions and proportionate share of contribution	760,564	547,891
Contributions subsequent to the measurement date	-	-
	<u>\$ 1,391,094</u>	<u>\$ 753,492</u>

Contributions made subsequent to the measurement date (deferred outflows of resources) are recognized as a reduction of the net pension liability in the next fiscal year. The Department did not have any deferred outflows of resources for contributions made subsequent to the measurement date. Other amounts reported as deferred outflows and deferred inflows of resources related to pensions will be recognized in pension expense as follows:

Year ended June 30:	Amount
2019	\$ 271,659
2020	267,104
2021	136,449
2022	(37,610)
Total	<u>\$ 637,602</u>

Actuarial Assumptions

The total pension liability was determined by an actuarial valuation as of January 1, 2018, using the following actuarial assumptions, applied to all periods included in the measurement that was updated to December 31, 2017:

Valuation date	January 1, 2018
Actuarial Cost Method	Entry age normal cost method
Amortization Method	Prior year's total contribution increased by 6.5% for fiscal year 2018 through fiscal year 2024, and thereafter the remaining unfunded liability will be amortized on a 4.0% annual increasing basis; ERI Liability amortized in level payments.
Remaining Amortization Period	As of July 1, 2018, 1 year remaining for the 2002 ERI liability; 2 years remaining for the 2003 ERI liability; 4 years remaining for the 2010 ERI liability and 17 years for the remaining unfunded liability.
Asset Valuation Method	The difference between the expected return and the actual investment return on a market value basis is recognized over a five-year period. Asset value is adjusted, as necessary, to be within 20% of market value.
Investment Rate of Return/Discount Rate	7.5% net of pension plan investment expense, including inflation (7.75% in previous valuation)
Inflation Rate	3.25% (3.5% in previous valuation)
Projected Salary Increases	Varies by length of service with ultimate rates of 4.00% for Group 1, 4.25% for Group 2 and 4.50% for Group 4
Cost of Living Adjustments	3.00% of first \$14,000
Rates of Retirement	Varies based upon age for general employees, police and fire employees.
Rates of Disability	For general employees, it was assumed that 45% of all disabilities are ordinary (55% are service connected). For police and fire employees, 10% of all disabilities are assumed to be ordinary (90% are service connected).
Mortality Rates were based on the tables noted below:	
Healthy:	
Pre-Retirement	The RP-2014 Blue Collar Mortality Table projected generationally with Scale MP-2017 (previously RP-2000 Employee Mortality Table projected generationally from 2009 with Scale BB2D)
Healthy Retiree	The RP-2014 Blue Collar Healthy Annuitant Mortality Table projected generationally with Scale MP-2017 (previously RP-2000 Health Annuitant Mortality Table projected generationally from 2009 with Scale BB2D)
Disabled	The RP-2014 Blue Collar Health Annuitant Mortality Table set forward one year and projected generationally with Scale MP-2017 (previously RP-2000 Health Annuitant Mortality Table projected generationally from 2015 using Scale BB2D)

In performing the actuarial valuation, various assumptions are made regarding mortality, retirement, disability and withdrawal rates as well as salary increases and investment returns. A comparison of the results of the current valuation and the prior valuation is made to determine how closely actual experience relates to expected. Mortality tables listed in the assumption table were determined to contain provisions appropriate to reasonably reflect future mortality improvement, based on a review of the mortality experience of the plan.

Changes in Assumptions

The following assumption changes were reflected in the January 1, 2018 actuarial valuation:

- The mortality tables for healthy participants were changed from the RP-2000 Employee and Healthy Annuitant Mortality Tables projected generationally using Scale BB2D from 2009 to the RP-2014 Blue Collar Employee and Healthy Annuitant Mortality Tables projected generationally using Scale MP-2017.
- The mortality tables for disabled participants were changed from the RP-2000 Healthy Annuitant Mortality Table projected generationally using Scale BB2D from 2015 to the RP-2014 Blue Collar Healthy Annuitant Mortality Table set forward 1 year projected generationally using Scale MP-2017.
- The long-term salary increase assumption was lowered by 0.25%, to 4.00% for Group 1 participants, 4.25% for Group 2 participants, and 4.50% for Group 4 participants.
- The investment rate of return assumption was reduced from 7.75% to 7.50%. The inflation rate was reduced to 3.25% from the previous rate of 3.50%.

Changes in Plan Provisions

There were not any changes in the Plan provisions.

Investment Policy

The pension plan's policy in regard to the allocation of invested assets is established by PRIT. Plan assets are managed on a total return basis with a long-term objective of achieving a fully funded status for the benefits provided through the pension plan.

The long-term expected rate of return on pension plan investments was determined using a building-block method in which best-estimate ranges of expected future real rates of return (expected returns, net of pension plan investment expense and inflation) are developed for each major asset class. These ranges are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation

percentage and by adding expected inflation. The target allocation and best estimates of arithmetic real rates of return for each major asset class are summarized in the following table:

	<u>Target Allocation</u>	<u>Long Term Expected Rate of Return</u>
Domestic Equity	17.50%	6.15%
International Developed Markets Equity	15.50%	7.11%
International Emerging Markets Equity	6.00%	9.41%
Core Fixed Income	12.00%	1.68%
High-Yield Fixed Income	10.00%	4.13%
Real Estate	10.00%	4.90%
Commodities	4.00%	4.71%
Hedge Funds, GTAA, Risk Parity	13.00%	3.84%
Private Equity	12.00%	10.28%
	<u>100.00%</u>	

Rate of Return

The annual money-weighted rate of return on pension plan investments for December 31, 2017 (net of investment expenses) was 17.25%. (7.35% for December 31, 2016). The money-weighted rate of return expresses investment performance, net of pension plan investment expense, is adjusted for the changing amounts actually invested, measured monthly.

Discount Rate

The discount rate used to measure the total pension liability was 7.5% (7.75 % in the previous valuation). The projection of cash flows used to determine the discount rate assumed plan member contributions will be made at the current contribution rate and that the Middlesex County Retirement System contributions will be made at rates equal to the actuarially determined contribution rates. Based on those assumptions, the pension plan's fiduciary net position was projected to be available to make all projected future benefit payments of current plan members. Therefore, the long-term expected rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the total pension liability.

Sensitivity of the Department's Proportionate Share of the Net Pension Liability to Changes in the Discount Rate

The following presents the net pension liability of the Middlesex County Retirement System, calculated using the discount rate of 7.50%, as well as what the Middlesex County Retirement System's net pension liability would be if it were calculated using a discount rate that is 1-percentage-point lower (6.50%) or 1-percentage-point higher (8.50%) than the current rate:

	1% Decrease 6.50%	Discount Rate 7.50%	1% Increase 8.50%
Entire Town of Littleton's proportionate share of the Net Pension Liability	<u>\$26,305,162</u>	<u>\$21,432,789</u>	<u>\$17,324,720</u>
Electric Light Department's share based on the Net Pension Liability allocation percentage	<u>\$8,367,672</u>	<u>6,817,691</u>	<u>\$5,510,993</u>

Pension Plan Fiduciary Net Position

Detailed information about the pension plan's fiduciary net position is available in the separately issued Middlesex County Retirement System financial report. The System issues a stand-alone financial report is available that can be obtained through the System's website at <https://middlesexretirement.org/wp-content/uploads/2018/08/FINAL-MCRS-Audit-Report-of-Financial-Statements-12-31-2017.pdf>

IX. Other Post-Employment Benefits (OPEB) Disclosures

The Governmental Accounting Standards Board (GASB) issued Statement #74 *Financial Reporting for Postemployment Benefit Plans Other Than Pension Plans* which became effective for the current reporting period. GASB Statement #74 relates to reporting requirements of the Department's OPEB Trust fund. The net other post-employment benefits **liability** reported in the GASB Statement #74 disclosures differs from the net other post-employment benefits **obligation** amount reported in the Department's statement of net position. The reporting requirements related to the Department's statement of net position are currently guided by GASB Statement #45 *Accounting and Financial Reporting by Employers for Postemployment Benefits Other Than Pensions*. Under GASB Statement #45, the reporting of the Department's net other post-employment benefits liability is being "phased in" over a thirty year period. Concurrent with GASB Statement #74, the GASB issued Statement #75, *Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions*. Statement #75 (effective for the December 31, 2018 reporting period) which eliminates the thirty year phase in of the other post-employment benefits liability. Therefore, the net other post employment liability reported in the Department's December 31, 2018 statement of net position will agree with the GASB Statement #74 disclosures related to the Department's OPEB Trust.

Plan Description.

Plan Administration: The Department administers all activity related to the other post-employment benefits plan - a single employer defined benefit plan that is used to provide postemployment benefits other than pensions (OPEB) for all eligible employees of the Department. Management of the plan is vested in the Commissioners and the Treasurer of the Town of Littleton.

Plan Membership: At December 31, 2017, the plans membership consisted of the following:

Inactive plan members or beneficiaries currently receiving benefit payments	29
Inactive plan members entitled to but not yet receiving benefit payments	0
Active Plan Members	<u>25</u>
Total	<u>54</u>

Benefits Provided: The Department provides retired employees and their spouses and dependents with payments for a portion of their health care, dental care and life insurance benefits. Benefits are provided through a third party insurer.

Contributions. The Department pays 70% of the total premiums for health insurance and 70% of the premiums for a \$5,000 life insurance policy for employees hired prior to July 1, 2010 (50% for employees hired on or after July 1, 2010). The contribution requirements of plan members and the Department are established by union agreements and may be amended from time to time.

Investments

Investment Policy: The plan's policy in regard to the allocation of invested assets is approved and may be amended by the Commissioners. The policy pursues an investment strategy that reduces risk through the prudent diversification of the portfolio across a broad selection of distinct asset classes. The following was the adopted asset allocation policy as of December 31, 2017:

	<u>Target Allocation</u>
Domestic Equity	35.00%
Domestic Bond	20.00%
International Equity	20.00%
International Bond	5.00%
Cash and Equivalents	0.00%
Other	20.00%
Total	<u><u>100.00%</u></u>

Concentrations

The OPEB plan did not hold investments in any one organization that represent 5 percent or more of the OPEB plan's fiduciary net position.

Rate of Return

For the year ended December 31, 2017, the annual money-weighted rate of return on investments, net of investment expense, was 12.89%. The money-weighted rate of return expresses investment performance, net of investment expense, adjusted for the changing amounts actually invested.

Net OPEB Liability

The components of the Net OPEB liability of the Department at December 31, 2017 were as follows:

Total OPEB Liability	\$ 4,010,312
Plan Fiduciary Net Position	<u>(2,253,322)</u>
Net OPEB Liability	<u><u>\$1,756,990</u></u>
Plan fiduciary net position as a percentage of the total OPEB liability	56.19%

Actuarial assumptions. The total OPEB liability was determined by an actuarial valuation as of January 1, 2016, using the following actuarial assumptions, applied to all periods included in the measurement, unless otherwise specified:

Inflation	2.60%
Investment Rate of Return	7.5%, net of investment expense, including inflation
Discount Rate	7.5% per year
Health Cost Trend Rates	7.0% decreasing by 0.5% per year to an ultimate rate of 5% in year seven

Mortality Rates were based on the tables noted below:

Pre-Retirement Mortality - General and Public Safety Employees:	RP-2000 Employees Mortality Table, base year 2009, projected with generational mortality using Scale BB.
Post-Retirement Mortality - General and Public Safety Employees:	RP-2000 Healthy Annuitant Mortality Table, base year 2009, projected with generational mortality using Scale BB.

Changes in Assumption:

The actuarial cost method was changed from projected unit credit method to the entry age normal method for the GASB Statement #74 amounts reported

The long-term expected rate of return on OPEB plan investments was determined using a building-block method in which best-estimate ranges of expected future real rates of return (expected returns, net of investment expense and inflation) are developed for each major asset class. These ranges are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation. Best estimates of arithmetic real rates of return for each major asset class included in the target asset allocation as of December 31, 2017, are summarized in the table below:

Long Term Expected <u>Rate of Return</u>	
Domestic Equity	5.05%
Domestic Bond	2.47%
International Equity	5.80%
International Bond	2.40%
Cash and Equivalents	0.00%
Other	4.80%

Discount rate: The discount rate used to measure the total OPEB liability was 7.5% (same as the prior valuation). The projection of cash flows used to determine the discount rate assumed that Department contributions will be made at rates equal to the plan's funding policy. Based on those assumptions, the OPEB plan's fiduciary net position was projected to be available to make all projected future benefit payments of current plan members. Therefore, the long-term expected rate of return on OPEB plan investments was applied to all periods of projected benefit payments to determine the total OPEB liability.

Sensitivity of the net OPEB liability to changes in the discount rate: The following presents the net OPEB liability of the Department, as well as what the Department's net OPEB liability would be if it were calculated using a discount rate that is 1-percentage-point lower (6.5%) or 1-percentage-point higher (8.5%) than the current discount rate:

	1% Decrease <u>6.50%</u>	Discount Rate <u>7.50%</u>	1% Increase <u>8.50%</u>
Net OPEB Liability (asset)	\$2,268,506	\$1,756,990	\$1,370,660

Sensitivity of the net OPEB liability to changes in the healthcare cost trend rates: The following presents the net OPEB liability of the Department, as well as what the Department's net OPEB liability would be if it were calculated using healthcare cost trend rates that are 1 percentage-point lower (6.0% decreasing to 4.0%) or 1-percentage-point higher (8% percent decreasing to 6.0%) than the current healthcare cost trend rates:

	1% Decrease (6.0% decreasing <u>to 4.0%</u>)	Healthcare Cost Trend (7.0% decreasing <u>to 5.0%</u>)	1% Increase (8.0% decreasing <u>to 6.0%</u>)
Net OPEB Liability (asset)	\$1,262,891	\$1,756,990	\$2,425,748

Employer's Reporting (GASB Statement #45)

- a. **Annual OPEB Cost and OPEB Obligation.** The annual Other Postemployment Benefit (OPEB) cost is calculated based on the Annual Required Contribution (ARC) of the Department, an amount that has been actuarially determined in accordance with the parameters of GASB 45. The ARC represents a level of funding that, if paid on an ongoing basis, is projected to cover normal costs each year and to amortize any unfunded actuarial liabilities over a period not to exceed thirty years. The following table shows the components of the Department's annual OPEB cost for the fiscal year ended December 31, 2017, the amount actually contributed to the plan, and the Department's Net OPEB Obligation (NOO):

Annual Required Contribution (ARC)	\$279,074
Interest on Net OPEB Obligation	3,928
Adjustment to Annual Required Contribution	<u>(4,697)</u>
Annual OPEB Cost (Expense)	278,305
Contributions Made:	
Expected Benefit Payments	289,069
Contributions to OPEB Trust	<u>250,000</u>
Total Contributions	<u>539,069</u>
Increase (Decrease) in Net OPEB Obligation	<u>(260,764)</u>
Net OPEB Obligation (NOO) - Beginning of Year	<u>52,369</u>
Net OPEB Obligation (NOO) - End of Year	<u><u>(\$208,395)</u></u>

The Department's annual required contribution, the percentage of the annual required contribution contributed to the plan and the net OPEB obligation for recent years are as follows:

<u>Fiscal Year</u> <u>Ended December 31</u>	<u>Annual</u> <u>Required</u> <u>Contribution (ARC)</u>	<u>Percentage of</u> <u>ARC</u> <u>Contributed</u>	<u>Net OPEB</u> <u>Obligation</u>
2017	\$279,074	193.2%	\$(208,395)
2016	296,496	175.8%	52,369
2015	315,611	168.5%	281,024

- b. **Funded Status and Funding Progress.** As of January 1, 2016, the most recent actuarial valuation date the Actuarial Accrued Liability (AAL) for benefits was \$4,222,174 and the actuarial value of assets was \$1,426,735, resulting in an Unfunded Actuarial Accrued Liability (UAAL) of \$2,795,439. The actuarial value of the assets as a percentage of the Actuarial Accrued Liability (funded ratio) was 33.79%. The covered payroll as of the valuation date was \$2,469,286 and the UAAL as a percentage of covered payroll was 113.2%. **Subsequent to the most recent valuation, the Light Department made contributions to and had earnings in the OPEB trust. The balance in the OPEB trust as of December 31, 2017, was \$2,253,322. The plan assets are recorded and reported in the Department's fiduciary fund financial statements.**

Actuarial valuations of an ongoing plan involve estimates of the value of reported amounts and assumptions about the probability of occurrence of events far into the future. Examples include assumptions about future employment, mortality, and the healthcare cost trend. Amounts determined regarding the funded status of the plan and the annual required contributions of the employer are subject to continual revision as actual results are compared with past expectations and new estimates are made about the future. The schedule of funding progress, presented as Required Supplementary Information (RSI) following the notes to the financial statements, presents multiyear trend information about whether the actuarial value of plan assets is increasing or decreasing over time relative to the actuarial accrued liability for benefits.

- c. **Actuarial Methods and Assumptions.** Projections of benefits for financial reporting purposes are based on the substantive plan (the plan as understood by the employer and the plan members). The projections consider the types of benefits provided at the time of each valuation and the historical pattern of sharing of benefit costs between the employer and plan members to that point. The actuarial methods and assumptions used include techniques that are designed to reduce the effects of short-term volatility in actuarial accrued liabilities and the actuarial value of assets, consistent with the long-term perspective of the calculations.

In the January 1, 2016, actuarial valuation, the projected unit credit method was used. The actuarial assumptions included a 7.5% investment rate of return (the same as the previous valuation) and an annual healthcare cost trend rate of 7% initially, reduced by 0.5% decrements to an ultimate rate of 5% in year five (previously 7% graded to 5% in year three). The actuarial value of assets was determined using market value. The UAAL is being amortized over a thirty year closed amortization period.

X. Compensated Absences

Vacation Leave - All permanent full time employees are granted vacation leave based on years of employment. Vacation leave may only be carried forward to the subsequent fiscal year with the approval of the supervisor and if appropriate within the terms of the employee's contract. The accumulated vacation leave liability is reflected in the compensated absences liability in the accompanying financial statements.

Sick Leave - Employees of the Department are allowed 120 hours of sick leave per year. Sick leave may be accumulated and bought back upon retirement or after 20 years of service. The buyback is limited to 50% of up to 1,160 hours of accumulated sick leave at the employee's current rate of pay. The accumulated sick leave liability is reflected in the compensated absences liability in the accompanying financial statements.

XI. Risk Management

The government is exposed to various risks of loss related to torts; theft of, damage to and destruction of assets; errors and omissions; and natural disasters for which the government carries commercial insurance. There were no significant reductions in insurance coverage from the previous year.

XII. Litigation

A claim was filed against the Littleton Electric Light Department seeking approximately \$444,000. The litigation is in its very early stages. The Littleton Electric Light Department intends to vigorously oppose the claim.

XIII. Contingent Liabilities

The Town of Littleton acting through its Light Department is a Participant in certain Projects of the Massachusetts Municipal Wholesale Electric Company (MMWEC).

MMWEC is a public corporation and a political subdivision of the Commonwealth of Massachusetts, created as a means to develop a bulk power supply for its Members and other utilities. MMWEC is authorized to construct, own or purchase ownership interests in, and to issue revenue bonds to finance, electric facilities (Projects). MMWEC has acquired ownership interests in electric facilities operated by other entities and also owns and operates its own electric facilities. MMWEC sells all of the capability (Project Capability) of each of its Projects to its Members and other utilities (Project Participants) under Power Sales Agreements (PSAs). Among other things, the PSAs require each Project Participant to pay its *pro rata* share of MMWEC's costs related to the Project, which costs include debt service on the revenue bonds issued by MMWEC to finance the Project, plus 10% of MMWEC's debt service to be paid into a Reserve and Contingency Fund. In addition, should a Project Participant fail to make any payment when due, other Project Participants of that Project may be required to increase (step-up) their payments and correspondingly their Participant's share of that Project's Project Capability to an additional amount not to exceed 25% of their original Participant's share of that Project's Project Capability. Project Participants have covenanted to fix, revise and collect rates at least sufficient to meet their obligations under the PSAs.

MMWEC has issued separate issues of revenue bonds for each of its eight Projects, which are payable solely from, and secured solely by, the revenues derived from the Project to which the bonds relate, plus available funds pledged under MMWEC's Amended and Restated General Bond Resolution (GBR) with respect to the bonds of that Project. The MMWEC revenues derived from each Project are used solely to provide for the payment of the bonds of any bond issue relating to such Project and to pay MMWEC's cost of owning and operating such Project and are not used to provide for the payment of the bonds of any bond issue relating to any other Project.

MMWEC operates the Stony Brook Intermediate Project and the Stony Brook Peaking Project, both fossil-fueled power plants. MMWEC has a 3.7% interest in the W.F. Wyman Unit No. 4 plant, which is operated and owned by its majority owner, FPL Energy Wyman IV, LLC, a subsidiary of NextEra Energy Resources LLC, and a 4.8% ownership interest in the Millstone Unit 3 nuclear unit, operated by Dominion Nuclear Connecticut, Inc. (DNCI), the majority owner

and an indirect subsidiary of Dominion Resources, Inc. DNCI also owns and operates the Millstone Unit 2 nuclear unit. The operating license for the Millstone Unit 3 nuclear unit extends to November 25, 2045.

A substantial portion of MMWEC's plant investment and financing program is an 11.6% ownership interest in the Seabrook Station nuclear generating unit operated by NextEra Energy Seabrook, LLC (NextEra Seabrook) the majority owner and an indirect subsidiary of NextEra Energy Resources LLC. The operating license for Seabrook Station extends to March 15, 2030. NextEra Seabrook has submitted an application to extend the Seabrook Station operating license for an additional 20 years.

Pursuant to the PSAs, the MMWEC Seabrook and Millstone Project Participants are liable for their proportionate share of the costs associated with decommissioning the plants, which costs are being funded through monthly Project billings. Also, the Project Participants are liable for their proportionate share of the uninsured costs of a nuclear incident that might be imposed under the Price-Anderson Act (Act). Originally enacted in 1957, the Act has been renewed several times. In July 2005, as part of the Energy Policy Act of 2005, Congress extended the Act until the end of 2025.

Littleton Electric Light & Water has entered into PSAs and PPAs with MMWEC. Under both the PSAs and PPAs, the Department is required to make certain payments to MMWEC payable solely from Municipal Light Department revenues. Under the PSAs, each Participant is unconditionally obligated to make payments due to MMWEC whether or not the Project(s) is completed or operating and notwithstanding the suspension or interruption of the output of the Project(s).

MMWEC is involved in various legal actions. In the opinion of management, the outcome of such litigation or claims will not have a material adverse effect on the financial position of the company.

As of December 31, 2017, total capital expenditures amounted to \$1,583,481,000, of which \$16,881,000 represents the amount associated with the Departments' Project Capability. MMWEC's debt outstanding for the Projects from Power Supply System Revenue Bonds total \$10,680,000, of which \$27,000 is associated with the Departments' share of Project Capability. As of December 31, 2017, MMWEC's total future debt service requirement on outstanding bonds issued for the Projects is \$11,425,000, of which \$29,000 is anticipated to be billed to the Department in the future.

The aggregate amount of Littleton Electric Light & Water's required payments under the PSAs and PPAs, exclusive of the Reserve and Contingency Fund billings, to MMWEC at December 31, 2017 and estimated for future years is shown below.

	<u>Annual Costs</u>
For years ended December 31,	
2018	\$ 29,000
TOTAL	<u><u>\$29,000</u></u>

In addition, under the PSAs, the Department is required to pay to MMWEC its share of the Operation and Maintenance (O&M) costs of the Projects in which it participates. The Department's total O&M costs including debt service under the PSAs were \$1,118,000 and \$1,624,000 for the years ended December 31, 2017 and 2016, respectively.

LITTLETON ELECTRIC LIGHT DEPARTMENT
AS OF DECEMBER 31, 2017

<u>PROJECTS</u>	<u>PERCENTAGE SHARE</u>	<u>TOTAL PROJECT EXPENDITURES TO DATE</u>	<u>PARTICIPANT'S SHARE</u>	<u>DEBT ISSUED & OUTSTANDING 12/31/2017</u>	<u>PARTICIPANT'S SHARE</u>	<u>TOTAL DEBT SERVICE ON BONDS OUTSTANDING</u>	<u>PARTICIPANT'S SHARE</u>
Stony Brook Peaking Project	3.0607	\$ 59,762	\$ 1,830	\$ -	\$ -	\$ -	\$ -
Stony Brook Intermediate Project	1.6654	174,406	2,905	-	-	-	-
Nuclear Mix No. 1 -SBK	1.7544	12,578	221	-	-	-	-
Nuclear Mix No. 1 -MLS	1.7544	119,823	2,102	-	-	-	-
Nuclear Project No.3 - MLS	0.7972	148,404	1,183	3,195	25	3,312	26
Nuclear Project No. 4-SBK	2.2220	333,722	7,415	-	-	-	-
Nuclear Project No. 5-SBK	0.9262	90,779	841	225	1	231	2
Wyman Project	4.5428	8,452	384	-	-	-	-
Project No. 6-SBK	-	635,525	-	7,260	-	7,882	1
TOTAL		<u>\$ 1,583,451</u>	<u>\$ 16,881</u>	<u>\$ 10,680</u>	<u>\$ 27</u>	<u>\$ 11,425</u>	<u>\$ 29</u>

<u>PROJECTS</u>	<u>PERCENTAGE SHARE</u>	<u>OPERATION & MAINTENANCE 12/31/2016</u>	<u>PARTICIPANT'S SHARE</u>	<u>OPERATION & MAINTENANCE 12/31/2017</u>	<u>PARTICIPANT'S SHARE</u>
Stony Brook Peaking Project	3.0607	\$ 4,008	\$ 123	\$ 4,487	\$ 137
Stony Brook Intermediate Project	1.6654	28,039	467	16,662	277
Nuclear Mix No. 1 -SBK	1.7544	723	13	686	12
Nuclear Mix No. 1 -MLS	1.7544	6,038	106	6,532	115
Nuclear Project No.3 - MLS	0.7972	22,939	183	15,756	126
Nuclear Project No.4 - SBK	2.2220	27,748	617	16,344	363
Nuclear Project No.5 - SBK	0.9262	7,615	71	4,704	44
Wyman Project	4.5428	961	44	976	44
Project No. 6 - SBK	-	55,538	-	37,834	-
TOTAL		<u>\$ 153,609</u>	<u>\$ 1,624</u>	<u>\$ 103,981</u>	<u>\$ 1,118</u>

LITTLETON ELECTRIC LIGHT DEPARTMENT
AS OF DECEMBER 31, 2017
(\$000)

<u>PROJECTS</u>	<u>PERCENTAGE SHARE</u>	2018	<u>PARTICIPANT'S SHARE</u>	2019	<u>PARTICIPANT'S SHARE</u>
		<u>ANNUAL COST</u>		<u>ANNUAL COST</u>	
Stony Brook Peaking Project	3.0607	\$ -	\$ -	\$ -	\$ -
Stony Brook Intermediate Project	1.6654	-	-	-	-
Nuclear Mix No. 1 -SBK	1.7544	-	-	-	-
Nuclear Mix No. 1 -MLS	1.7544	-	-	-	-
Nuclear Project No.3 - MLS	0.7972	3,346	27	-	-
Nuclear Project No. 4-SBK	2.2220	-	-	-	-
Nuclear Project No. 5-SBK	0.9262	235	2	-	-
Wyman Project	4.5428	-	-	-	-
Project No. 6-SBK	-	503	-	7,456	-
		<hr/>	<hr/>	<hr/>	<hr/>
TOTAL		\$ 4,084	\$ 29	\$ 7,456	\$ -
		<hr/>	<hr/>	<hr/>	<hr/>

XIV. Implementation of New GASB Pronouncements

During fiscal year 2017, the following GASB pronouncements were implemented:

- The GASB issued Statement No. 73, *Accounting and Financial Reporting for Pensions and Related Assets That Are Not within the Scope of GASB Statement 68, and Amendments to Certain Provisions of GASB Statements 67 and 68*, which is required to be implemented in fiscal year 2017. The implementation of this pronouncement did not impact the financial statements.
- The GASB issued Statement No. 74, *Financial Reporting for Postemployment Benefit Plans Other Than Pension Plans*, which is required to be implemented in fiscal year 2017. The implementation of this pronouncement required new disclosures and required supplementary information schedules related to the Department's Other Post-Employment Benefits Trust Fund.
- The GASB issued Statement No. 80, *Blending Requirements for Certain Component Units - an amendment of GASB Statement No. 14* which is required to be implemented in fiscal year 2017. The implementation of this pronouncement did not impact the financial statements.
- The GASB issued Statement No. 81 *Irrevocable Split-Interest Agreements*, which is required to be implemented in fiscal years beginning after December 15, 2016. The implementation of this pronouncement did not impact the financial statements.
- The GASB issued Statement No. 82, *Pension Issues—an amendment of GASB Statements No. 67, No. 68, and No. 73* which is required to be implemented in fiscal years beginning after June 15, 2016. The implementation of this pronouncement did not impact the financial statements.

The following GASB pronouncements will be implemented in future fiscal years:

- The GASB issued Statement No. 75, *Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions*, which is required to be implemented in fiscal years beginning after June 15, 2017.
- The GASB issued Statement No. 83, *Certain Asset Retirement Obligations* which is required to be implemented in fiscal years beginning after June 15, 2018.
- The GASB issued Statement No. 84, *Fiduciary Activities* which is required to be implemented in fiscal years beginning after December 15, 2018.
- The GASB issued Statement No. 85, *Omnibus 2017* which is required to be implemented in fiscal years beginning after June 15, 2017.
- The GASB issued Statement No. 86, *Certain Debt Extinguishment Issues* which is required to be implemented in reporting periods beginning after June 15, 2017.
- The GASB issued Statement No. 87, *Leases* which is required to be implemented in reporting periods beginning after December 15, 2019.

- The GASB issued Statement No. 88, *Certain Disclosures Related to Debt, including Direct Borrowings and Direct Placements* which is required to be implemented in reporting periods beginning after June 15, 2018.
- The GASB issued Statement No. 89, *Accounting for Interest Cost Incurred before the End of a Construction Period* which is required to be implemented in reporting periods beginning after December 15, 2019.
- The GASB issued Statement No. 90 *Majority Equity Interests—an amendment of GASB Statements No. 14 and No. 61* which is required to be implemented in reporting periods beginning after December 15, 2018

Management is currently assessing the impact that the implementation of these pronouncements will have on the basic financial statements. Management's current assessment is that GASB Statement #75 will have a significant impact on the Department's basic financial statements by recognizing the entire actuarially accrued liability and expense, related to the Department's Other Post-Employment Benefits.

REQUIRED SUPPLEMENTARY INFORMATION

Required Supplementary Information
Schedule of the Littleton Electric Light Departments' Proportionate Share of the Net Pension Liability
Middlesex County Retirement System
Last Ten Fiscal Years**

<u>Electric Light Department</u>	<u>2017</u>	<u>2016</u>	<u>2015</u>	<u>2014</u>	<u>2013</u>	<u>2012</u>	<u>2011</u>	<u>2010</u>	<u>2009</u>	<u>2008</u>
Department's proportionate share of net pension liability (asset) (%)	0.446568%	0.493093%	0.487053%	<i>(Historical information prior to implementation of GASB 67/68 is not required)</i>						
Department's proportionate share of net pension liability (asset) (\$)	6,817,691	7,122,564	5,851,043							
Department's covered-employee payroll	3,474,055	3,294,436	3,189,161							
Department's proportionate share of net pension liability (asset) as a percentage of its covered-employee payroll	196.25%	216.20%	183.47%							
Plan fiduciary net position as a percentage of the pension liability	49.27%	45.49%	47.65%							

The amounts reported above were based on an allocation of the Middlesex County Retirement System's actuarial report (Town total) to the Town's enterprise funds

** The amounts presented for each fiscal year were determined as of December 31.

See Notes to the Required Supplementary Information

Required Supplementary Information
Schedule of the Littleton Electric Light Departments' Contributions
Middlesex County Retirement System
Last Ten Fiscal Years

	<u>2017</u>	<u>2016</u>	<u>2015</u>	<u>2014</u>	<u>2013</u>	<u>2012</u>	<u>2011</u>	<u>2010</u>	<u>2009</u>	<u>2008</u>
Contractually required contribution	\$ 576,984	\$ 557,481	\$ 541,928	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
	<i>(Historical information prior to implementation of GASB 67/68 is not required)</i>									
Contributions in relation to the contractually required contribution	<u>(576,984)</u>	<u>(557,481)</u>	<u>(541,928)</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>
Contribution deficiency (excess)	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>
Department's covered-employee payroll	\$ 3,474,055	\$ 3,294,436	\$ 3,189,161							
Contributions as a percentage of covered-employee payroll	16.61%	16.92%	16.99%							

See Notes to the Required Supplementary Information

Littleton Electric Light Department
Required Supplementary Information
Schedules of Funding Progress and Employer's Contributions - Other Post Employment Benefits
Fiscal Year Ended December 31, 2017

Schedule of Funding Progress

Actuarial Valuation <u>Date</u>	Actuarial Value of Assets <u>(a)</u>	Actuarial Accrued Liability (AAL) <u>(b)</u>	Unfunded AAL (UAAL) <u>(b) - (a)</u>	Funded Ratio <u>(a) / (b)</u>	Covered Payroll <u>(c)</u>	UAAL as a Percentage of Covered Payroll <u>[(b) - (a) / (c)]</u>
01/01/2016	\$1,426,735	\$4,222,174	\$2,795,439	33.79%	\$2,469,286	113.2%
01/01/2014	\$886,735	\$4,187,388	\$3,300,653	21.18%	\$2,729,436	120.9%
01/01/2012	\$370,151	\$4,287,032	\$3,916,881	8.63%	\$2,428,997	161.3%

This schedule of funding progress presents multi-year trend information about whether the actuarial value of plan assets is increasing or decreasing over time relative to the actuarial accrued liability for benefits.

Schedule of Employer's Contributions

Fiscal Year <u>Ended December 31</u>	Annual Required <u>Contribution (ARC)</u>	Percentage <u>Contributed</u>	Net OPEB <u>Obligation</u>
2017	\$279,074	193.2%	(\$208,395)
2016	\$296,496	175.8%	\$52,369
2015	\$315,611	168.5%	\$281,024

See Notes to the Required Supplementary Information

Littleton Electric Light Department
 Required Supplementary Information - Other Post Employments Benefits
 Valuation Details - GASB #45
 December 31, 2017

Valuation Date	January 1, 2016
Actuarial Cost Method	Projected Unit Credit
Amortization Method	Level Dollar amount per year over 25 years on a closed amortization period for full pre-funding
Asset Valuation Method	Market Value

Actuarial Assumptions:

Investment Rate of Return	7.5%, pre-funding; (the same as in the previous report).
Medical/Drug Cost Trend Rate	7.0% graded to 5.0% in year 5; previous report utilized 7.0% graded to 5.0% in year 3.

Plan Membership:

Current retirees, beneficiaries, and dependents	38
Current active members	<u>26</u>
Total	64

See Notes to the Required Supplementary Information

Required Supplementary Information
Schedule of Changes in the Net OPEB Liability and Related Ratios (GASB 74)
June 30, 2017
Last 10 Fiscal Year

	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008
Total OPEB liability										
	<i>This schedule is intended to show information for 10 years. Additional years' information will be displayed as it becomes available.</i>									
Service cost	\$ 69,247									
Interest	289,872									
Benefit payments	(289,069)									
Net change in total OPEB liability	70,050									
Total OPEB liability - beginning	3,940,262									
Total OPEB liability - ending (a)	<u>\$ 4,010,312</u>									
Plan Fiduciary net position										
Contributions - employer	\$ 539,069									
Net investment income	235,555									
Benefit payments	(289,069)									
Administrative expense	-									
Net change in plan fiduciary net position	485,555									
Plan fiduciary net position - beginning	1,767,767									
Plan fiduciary net position - ending (b)	<u>\$ 2,253,322</u>									
Department's net OPEB liability - ending (a) - (b)	<u>\$ 1,756,990</u>									
Plan fiduciary net position as a percentage of the total OPEB liability	56.19%									
Covered-employee payroll	\$ 2,238,651									
Department's net OPEB liability as a percentage of covered - employee payroll	78.48%									

See Notes to the Required Supplementary Information

Littleton Electric Light Department
Required Supplementary Information
Schedule of Contributions (GASB 74)
June 30, 2017
Last 10 Fiscal Year

	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008
Actuarial determined contribution	\$279,074	<i>This schedule is intended to show information for 10 years. Additional years' information will be displayed as it becomes available.</i>								
Contributions in relating to the actuarially determined contribution	539,069									
Contribution deficiency (excess)	<u>\$ (259,995)</u>									
Covered-employee payroll	\$ 2,238,651									
Contributions as a percentage of covered-employee payroll	24.08%									

Notes to Schedule

Valuation date: Actuarially determined contributions are determined as of January 1, one year prior to the end of the fiscal year in which contributions are reported

Methods and assumptions used to determine contribution rates:

Actuarial cost method	Entry Age Normal Cost
Amortization method	Level Dollar Amount over 25 years on a closed amortization period
Amortization period	25 years
Asset valuation method	Market Value
Inflation	2.6%
Healthcare cost trend rates	7.0% decreasing by 0.5% per year to an ultimate rate of 5%
Investment rate of return	7.5%, net of OPEB plan investment expense, including inflation

Mortality

Pre-Retirement Mortality - General and Public Safety Employees:	RP-2000 Employees Mortality Table, base year 2009, projected with generational mortality using Scale BB.
Post-Retirement Mortality - General and Public Safety Employees:	RP-2000 Healthy Annuitant Mortality Table, base year 2009, projected with generational mortality using Scale BB.

See Notes to the Required Supplementary Information

Littleton Electric Light Department
 Required Supplementary Information
 Schedule of Investment Returns (GASB 74)
 June 30, 2017
 Last 10 Fiscal Year

	<u>2017</u>	<u>2016</u>	<u>2015</u>	<u>2014</u>	<u>2013</u>	<u>2012</u>	<u>2011</u>	<u>2010</u>	<u>2009</u>	<u>2008</u>
Annual money-weighted rate of return, net of investment expense	12.89%	<i>This schedule is intended to show information for 10 years. Additional years' information will be displayed as it becomes available.</i>								

See Notes to the Required Supplementary Information

I Pension Plans

i. Plan Description

The Department provides pension benefits to eligible employees by contributing to the Middlesex County Retirement System, a cost sharing multiple-employer defined benefit pension plan administered by the Middlesex County Retirement System. The System is administered by a five member board on behalf of all eligible current employees and retirees. The system provides retirement benefits, cost of living adjustments, disability benefits and death benefits.

The Department is a member of the Massachusetts Contributory Retirement System and is governed by Chapter 32 of the Massachusetts General Laws (MGL). The authority to establish and amend benefit provisions requires a statutory change to Chapter 32. The Middlesex County Retirement System issues a stand-alone financial report that is available to the public at:

<https://middlesexretirement.org/wp-content/uploads/2018/08/FINAL-MCRS-Audit-Report-of-Financial-Statements-12-31-2017.pdf> or by writing to the Middlesex County Retirement System, 25 Linnell Circle, P.O. Box 160, Billerica, Massachusetts 01865.

ii. Funding Plan

Active members of the Middlesex County Retirement System contribute either 5%, 7%, 8% or 9% of their gross regular compensation depending on the date upon which their membership began. An additional 2% is required from employees for earnings in excess of \$30,000. The Department is required to pay an actuarially determined rate. The contribution requirements of plan members are determined by M.G.L. Chapter 32. The Department's contribution requirement is established and may be amended by the Middlesex County Retirement System with the approval of the Public Employee Retirement Administration Commission.

iii. Change in Assumptions

The following assumption changes were reflected in the January 1, 2018 actuarial valuation:

- The mortality tables for healthy participants were changed from the RP-2000 Employee and Healthy Annuitant Mortality Tables projected generationally using Scale BB2D from 2009 to the RP-2014 Blue Collar Employee and Healthy Annuitant Mortality Tables projected generationally using Scale MP-2017.
- The mortality tables for disabled participants were changed from the RP-2000 Healthy Annuitant Mortality Table projected generationally using Scale BB2D from 2015 to the RP-2014 Blue Collar Healthy Annuitant Mortality Table set forward 1 year projected generationally using Scale MP-2017.
- The long-term salary increase assumption was lowered by 0.25%, to 4.00% for Group 1 participants, 4.25% for Group 2 participants, and 4.50% for Group 4 participants.

- The investment rate of return assumption was reduced from 7.75% to 7.50%. The inflation rate was reduced to 3.25% from the previous rate of 3.50%.

Changes in Plan Provisions

There were not any changes in the Plan provisions.

iv. Schedule of Department's Proportionate Share of the Net Pension Liability - Middlesex County Retirement System

The schedule details the Department's percentage of the collective net pension liability, the proportionate amount of the collective net pension liability, the Department's covered-employee payroll, the Department's proportionate share of the collective net pension liability as a percentage of the Department's covered-employee payroll and the fiduciary net position of the plan as a percentage of the total pension liability. As more information becomes available, this will be a ten-year schedule.

v. Schedule of the Department's Contributions - Middlesex County Retirement System

The schedule details the Department's contractually required contributions, the contributions made by the Department, the deficiency/(excess) of contributions made by the Department, the Department's covered-employee payroll and the Department's contributions as a percentage of covered-employee payroll. As more information becomes available, this will be a ten-year schedule.

II. Other Postemployment Benefits (OPEB) Disclosures

The Governmental Accounting Standards Board (GASB) issued Statement #74 *Financial Reporting for Postemployment Benefit Plans Other Than Pension Plans* which became effective for the current reporting period. GASB Statement #74 relates to reporting requirements of the Department's OPEB Trust fund. The net other post-employment benefits **liability** reported in the GASB Statement #74 disclosures differs from the net other post-employment benefits **obligation** amount reported in the Department's statement of net position. The reporting requirements related to the Department's statement of net position are currently guided by GASB Statement #45 *Accounting and Financial Reporting by Employers for Postemployment Benefits Other Than Pensions*. Under GASB Statement #45, the reporting of the Department's net other post-employment benefits liability is being "phased in" over a thirty-year period. Concurrent with GASB Statement #74, the GASB issued Statement #75, *Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions*. Statement #75 (effective for the December 31, 2018 reporting period) which eliminates the thirty-year phase in of the other post-employment benefits liability. Therefore, the net other post employment liability reported in the Department's December 31, 2018 statement of net position will agree with the GASB Statement #74 disclosures related to the Department's OPEB Trust.

i. Plan Description

Plan Administration: The Department administers all activity related to the other post-employment benefits plan - a single employer defined benefit plan that is used to provide postemployment benefits other than pensions (OPEB) for all eligible employees of the Department. Management of the plan is vested in the Commissioners and the Treasurer of the Town of Littleton.

Benefits Provided: The Department provides retired employees and their spouses and dependents with payments for a portion of their health care, dental care and life insurance benefits. Benefits are provided through a third party insurer.

Contributions. The Department pays 70% of the total premiums for health insurance and 70% of the premiums for a \$5,000 life insurance policy for employees hired prior to July 1, 2010 (50% for employees hired on or after July 1, 2010). The contribution requirements of plan members and the Department are established by union agreements and may be amended from time to time.

ii. Schedule of Funding Progress and Employer's Contributions – GASB 45 Employer Reporting

The schedule presents multi-year trend information which compares, over time, the actuarial accrued liability for benefits with the actuarial value of accumulated plan assets and information about the employer's contribution relative to the annual required contribution.

iii. Schedule of Valuation Details – GASB 45

The schedule presents dates, methods and assumptions utilized in the valuation.

iv. Schedule of Net OPEB Liability and Related Ratios – GASB 74

The schedule provides information about the changes in the OPEB liability and the changes in the fiduciary net position of the plan. The schedule, also, provides the plan fiduciary net position as a percentage of the total OPEB liability, the covered employee payroll and the Department's net OPEB liability as a percentage of covered employee payroll.

v. The Schedule of Contributions - Other Post Employment Benefits – GASB 74

The schedule details the Department's actuarially required contributions, the contributions made by the Department, the deficiency/(excess) of contributions made by the Department, the Department's covered-employee payroll and the Department's contributions as a percentage of covered-employee payroll.

vi. The Schedule of Investment Rate of Returns - Other Post Employment Benefits – GASB 74

The schedule details the Department's annual money weighted rate of return, net of investment expense.