



2016 Annual Report

MEET OUR COMMISSIONERS

The Groton Electric Light Department is a municipal electric utility governed by an elected board of three commissioners. Each commissioner is elected for a three-year term. The commissioners are the policy makers and authorize all major expenditures. The regularly scheduled meetings are held on the second Monday of each month at 7:00 p.m. Ratepayers are welcome and encouraged to attend the monthly meetings.

View our website at <u>www.grotonelectric.org</u> or visit the Town website for meeting locations.

Groton Electric Light Board			
Commissioners	Term Expires		
Bruce Easom	2017		
Kevin J. Lindemer	2018		
Rodney R. Hersh	2019		



Bruce Easom - Chairman

Kevin J. Lindemer – Clerk

Rodney R. Hersh - Member

The Groton Electric Light Department is a proud member of:

American Public Power Association Energy Council of the Northeast Massachusetts Municipal Wholesale Electric Company Municipal Electric Association of Massachusetts Northeast Public Power Association Home Energy Loss Prevention Service

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Dear Customer/Owner:

The Groton Electric Light Department turned one hundred and seven years old and we're *feeling at home* in our not-so-new office and garage facilities. It's hard to believe we've been in our "new" building for almost two years now.

GELD completed a customer satisfaction survey in March 2016 and our customers rated us number one compared to the other municipal light departments in Massachusetts that also completed the survey. Our customer service staff and the line staff now have a friendly rivalry of who is the **best** in our customer's eyes. Stay tuned for future survey results.

Although electric revenues were down 1.2% and kWh sales were down .81% GELD had a net income of \$424,750 by keeping costs down combined with a slight rate increase of 2.7% which was effective on the May 31, 2016 bill.

GELD's long term outlook is strong both financially and in terms of infrastructure enhancements. Management monitors power costs monthly with the goal of making sensible business decisions based on the information. We also continue investments in our infrastructure such as pole replacement and overhead line upgrades.

Capital Improvements

Capital expenditures include infrastructure improvements, substation enhancements, line equipment and integrated software to support ongoing projects. Completion of our 2.3 megawatt solar farm on the Town's closed landfill on Cow Pond Brook Road became GELD's major capital project for 2016. We also extended the 3-phase lines from the "four corners area" to the Littleton town line to support the new temple on Boston Road. We continued our aggressive tree-trimming and old pole and equipment replacement. Regular maintenance is crucial to long-term reliability for our customers.

Improvements in our GIS and outage management systems via new software and technology enhancements help to keep GELD on the cutting edge.

Power Supply

The Berkshire Wind Power Project had its fifth full year of operation producing power at 35.9% of its capacity. GELD increased its carbon-free footprint in June 2016 when our 2.3 megawatt (MW) solar farm on the closed town landfill on Cow Pond Brook Road went live. We are also participating in another wind project in Hancock, Maine that went live in December 2016. The solar farm provided up to 25% of GELD's power needs a few hours during the fall (*when the sun was shining*). Wind and Solar energy help to diversify GELD's power supply portfolio and also help to reduce our reliance on fossil fuels.

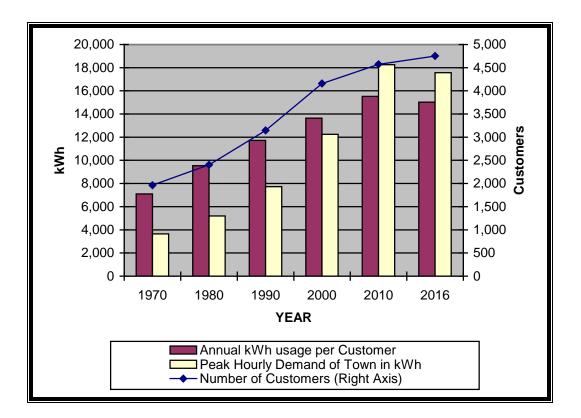
GELD's complete power mix portfolio for 2016 consisted of 41.5% nuclear, 33.4% natural gas, 10.8% hydro-electric, 4.4% refuse, 5.1% wind, 1.6% coal, .5% oil, and 2.8% solar. GELD's power mix was 60.1% carbon-free and 23.1% renewable for 2016.

Natural gas prices were favorable for most of 2016 except for the winter months (January/February) which continue to see higher than normal energy prices because of natural gas transmission constraints in New England. Electric transmission costs continue to increase significantly with no immediate relief in sight. In an effort to ensure stability, the Light Board and Manager monitor power supply options each month to ensure the best value for the ratepayers.

Growth Trends

Our rates continue to remain one of the lowest in Massachusetts. The peak usage in 2016 was in the month of August and was slightly lower than previous years. Groton's kilowatt-hour sales decreased by .81% for

the year. Our customer count increased by 35 new services and we mailed out 4750 bills at the end of the year. The graph below indicates that our number of customers is increasing at a slower rate after decades of rapid growth. Individual customer usage has been declining slightly over the past six years.



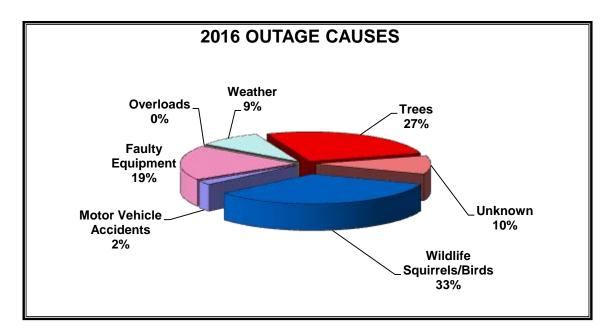
Service & Reliability

GELD was rated #1 in the state by our customers in a customer service satisfaction survey. GELD employees are committed to providing the best custom service to our ratepayers whether it is face to face in our office, via the phone or in the field. Every day we strive to provide excellent customer service and dependable reliability.

GELD trims trees for the reliability and safety of its distribution system. Investing in tree trimming and in our infrastructure ensures long-term reliability for our customer/owners. We make every effort to maintain a fair balance between Groton's beautiful tree-lined streets and the need to trim aggressively to reduce service interruptions. GELD's contractor is a certified arborist and will only remove trees and branches in our easement that are, or will become a direct threat to our electric distribution system.

Over the last several years, the linemen have been aggressively replacing old poles and old service lines which helps contribute to high reliability and less outages. One of our highest priorities is to respond promptly to outages and to restore power in the safest manner possible, no matter the time of day or the weather conditions. Our line crew does a great job maintaining GELD's infrastructure which aids in providing reliable power to our customers every day.

GELD's 2015 reliability was one for the record books, so future years will be compared to 2015's record. Unfortunately, 2016 did not meet the standard that was set in 2015. The number of outages increased from 48 in 2015 to 90 in 2016.



As always, wildlife (mostly squirrels) and trees remain the cause for the highest number of outage incidents in Groton.

Financial Highlights

For 2016, GELD had a net income of \$424,750 or 3.2% of plant value. This was due to the combination of an aggressive approach to keeping costs down combined with a rate increase of approximately 2.7% effective with our May 31 bill. Our plant value has increased due to our infrastructure enhancements.

KWh sales for the year decreased by .81% and electric revenues were down 1.2%. We added a Power Cost Adjustment (PCA) to our bills from January through March, 2016 and we had a rate increase of approximately 2.7% which was effective with the May 31 bill. The PCA is a way for Groton Electric to recoup the increased generation costs associated with higher power and fuel costs. We continue to offer an approximate 10% discount to customers who pay their bill by the 12th of the month and we observe a double discount to celebrate the holidays for the bill received December 1. We ended the year with the sixth lowest rates out of 42 Massachusetts utilities for the average 750 kWh electric user. The two investor-owned utilities that service the surrounding towns, National Grid and Unitil, have rates that are 62.5% and 93.8% higher than Groton Electric respectively.

We're feeling at home in our office and garage facilities and **our mission:** *to provide our customers reliable power and excellent service at affordable prices* remains resolute. Our customer satisfaction is rated number **one**, reliability remains high and our rates remain low.

Thank you to the Light Board of Commissioners for their unwavering commitment and selfless dedication; thank you to my employees for their loyalty and incredible work ethic; and thank you to the Groton ratepayers for the trust and support of their locally owned and operated Light Department!

Sincerely,

Their M. Kelly

Manager

GOULET, SALVIDIO & ASSOCIATES, P.C. CERTIFIED PUBLIC ACCOUNTANTS

INDEPENDENT AUDITORS' REPORT

The Board of Commissioners Groton Electric Light Department Groton, Massachusetts 01450

We have audited the accompanying financial statements of Groton Electric Light Department as of and for the years ended December 31, 2016 and 2015, and the related notes to the financial statements, which collectively comprise the Department's basic financial statements as listed in the table of contents.

Management's Responsibility for the Financial Statements

Management is responsible for the preparation and fair presentation of these financial statements in accordance with accounting 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 an opinion on these financial statements based on our audits. We conducted our audits 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.

Basis for Qualified Opinion

Management has reported its December 31, 2016 portion of the net pension liability (NPL) based on reports provided by the Middlesex County Retirement System (MCRS) that are not in compliance with GASB standards. Government accounting standards require that the NPL be reported using actuarial data that is no more than 30 months and one day old. The MCRS provided NPL information using data from an actuarial valuation dated January 1, 2014. The amount by which this departure would affect the assets, liabilities, fund balance, and revenues of the Department has not been determined.

206 Southbridge Street	324 Grove Street	54 E. Main Street
Auburn MA, 01501	Worcester MA, 01605	Webster, MA 0157

Qualified Opinion

In our opinion, except for the effects of the matter described in the "Basis for Qualified Opinion" paragraph, the financial statements referred to above present fairly, in all material respects, the financial position of the Department as of December 31, 2016 and 2015, and the changes in financial position thereof for the years ended in accordance with accounting principles generally accepted in the United States of America.

Emphasis of Matter

As discussed in Note 1, the financial statements present only the Groton Electric Light Department and do not purport to, and do not, present fairly the financial position of the Town of Groton, Massachusetts, as of December 31, 2016 and 2015, and the changes in financial position, or, where applicable, its cash flows for the years then ended in conformity with accounting principles generally accepted in the United States of America. Our opinion is not modified with respect to this matter.

Other Matters

Required Supplementary Information

Accounting principles generally accepted in the United States of America require that the Management's Discussion and Analysis, Other Post-Employment Benefits information, and Net Pension Liability information on pages three through six and 39 through 41 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 evidence sufficient to express an opinion or provide any assurance.

Supplementary Information

Our audit was conducted for the purpose of forming an opinion on the financial statements as a whole. The supplementary information presented on pages 42 through 44 is presented for purposes of additional analysis and is not a required part of the financial statements. Such information is the responsibility of management and was derived from and relates directly to the underlying accounting and other records used to prepare the financial statements. The information has been subjected to the auditing procedures applied in the audit of the financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the financial statements and other records used to prepare the financial statements or to the financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the information is fairly stated in all material respects in relation to the financial statements as a whole.

Goulet, Salvidio & Associates, P.C.

Soulet, Selvidio & associates P.C.

Worcester, Massachusetts March 27, 2017

Management's Discussion and Analysis

Within this section of the Groton Electric Light Department's annual financial report, management provides narrative discussion and analysis of the financial activities of the Groton Electric Light Department for the years ended December 31, 2016 and 2015. The Department's performance is discussed and analyzed within the context of the accompanying financial statements and disclosures following this section.

FINANCIAL STATEMENTS

The financial statements include:

The Statements of Net Position are designed to indicate our financial position as of December 31, 2016 and 2015. Net Position, which indicates the value of our plant (substation, distribution system, inventory, cash, etc.) less our liabilities increased by \$392,750 compared to last year.

The Statements of Revenues, Expenses and Changes in Net Position summarize our operating results and reveal how much net income was earned for the year. As discussed in more detail below, our net gain in 2016 was \$424,750 or 3.2% of the value of our net plant, compared to a net loss of \$28,448 in 2015.

The Statements of Cash Flows provide information about the cash receipts and cash payments during the accounting period. They also provide information about the investing and financing activities for the same period. A review of our Statements of Cash Flows indicates that cash receipts from operating activities (electricity sales and related services) adequately covered our operating expenses. We believe that our cash and cash-equivalents are ample to meet our known obligations and exposure to risks.

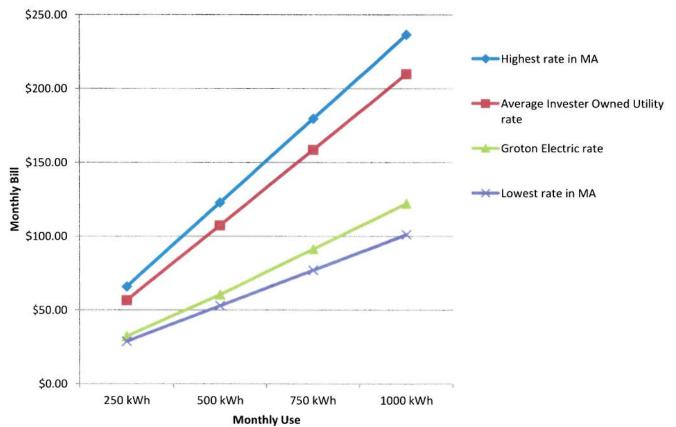
	2016	2015
Current Assets Noncurrent Assets	\$ 2,868,904 15,768,964	\$ 2,738,869 15,630,611
Total Assets	18,637,868	18,369,480
Deferred Outflows of Resources	322,083	156,454
Total Assets and Deferred Outflows of Resources	<u>\$ 18,959,951</u>	<u>\$ 18,525,934</u>
Current Liabilities Noncurrent Liabilities	\$ 1,426,320 5,919,027	\$ 1,333,325 6,116,674
Total Liabilities	7,345,347	7,449,999
Deferred Inflows of Resources	2,725,275	2,579,356
Net Position: Net Investment in Capital Assets Net Position Restricted for Depreciation Unrestricted Net Position	11,382,562 187,623 (2,680,856)	10,991,165 184,434 (2,679,020)
Total Net Position	8,889,329	8,496,579
Total Liabilities, Deferred Inflows of Resources and Net Position	<u>\$ 18,959,951</u>	<u>\$ 18,525,934</u>
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Summary of Net Position

Summary of Changes in Net Position

	-	2016	2015		
Operating Revenue	\$	9,746,547	\$	9,819,035	
Operating Expenses		9,306,921	-	9,841,926	
Operating Income		439,626		(22,891)	
Nonoperating Revenues		(14,876)		(5,557)	
Income before Contributions and Transfers		424,750		(28,448)	
Net Position, January 1		8,496,579		8,557,027	
Transfers Out – Payment in Lieu of Taxes	1 	(32,000)		(32,000)	
Net Position, December 31	<u>\$</u>	8,889,329	<u>\$</u>	8,496,579	

HOW OUR RATES COMPARE Average Rate Jan. – Dec. 2016



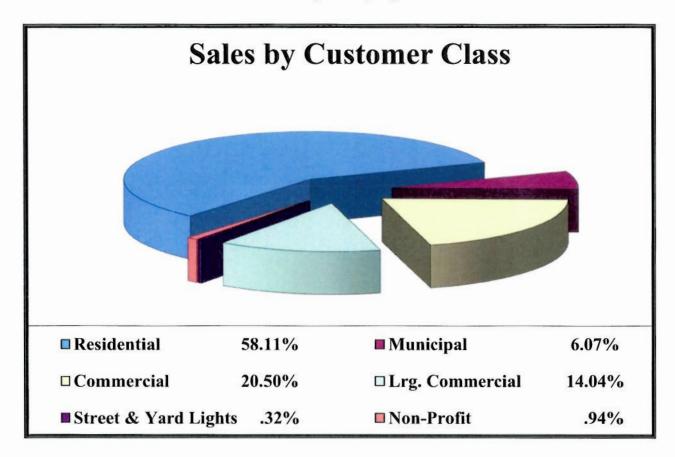
At Various Residential Use Levels

FINANCIAL HIGHLIGHTS

GELD began 2016 facing high energy prices in the winter months caused by natural gas supply constraints. However, a Power Purchase Cost Adjustment (PCA) which was added to our bills in January through March and a \$130,000 withdrawal from our Select Trust assisted in covering those energy costs early in the year. Electric revenues were down 1.2% and kilowatt-hour sales were down .81% for the year. A slight increase in rates and a slightly lower Depreciation percent, pointed GELD towards a modest net income as the fall began. Solid sales in the 4th quarter helped contribute to an operating income of \$439,626 for the year.

Our 2.3 megawatt Solar Farm was completed in late spring and we started receiving power in June. The wind project in Hancock, Maine, a new addition to GELD's portfolio, became operational on December 15th. Investing in Wind and Solar energy projects helps to lower our carbon footprint while diversifying GELD's power supply portfolio and assists in reducing our reliance on fossil fuels.

As illustrated in the following graph, we receive most of our revenue from the residential class. Of the few utilities that have residential rates lower than ours, most of them have large commercial bases. We are proud that we are able to maintain low rates even though we lack a large commercial and industrial base. Our large commercial customer class consists of only three customers and two of them are private schools. We ended 2016 with the sixth lowest rates out of 42 Massachusetts utilities for the twelve month average 750 kWh user. The two investor owned utilities that service the surrounding towns, National Grid and Unitil, have rates 62.5% and 93.8%, respectively, higher than Groton Electric.



Our 2016 peak was 17.56 MW, slightly lower than our peak in 2015 of 17.96 MW. Our goal is to set our rates to produce a net income of 2% over the inflation rate compared to our net plant. This is based on our best forecasts regarding future power costs and sales volume and keeps the net income below the 8% maximum permitted by statute for Massachusetts municipal electric systems.

Debt Administration:

As discussed in more detail following, our financial condition is strong. Our long-term debt is \$1,998,189 which is 11.8% of our total assets. Our cash and cash-equivalents are ample to meet our known obligations and exposure to risks.

Utility Plant:

The net value of our Utility Plant increased from \$13,114,717 to \$13,380,751 during 2016.

Completion of our 2.3 megawatt solar farm on the Town's closed landfill on Cow pond Brook Road became GELD's major capital project for 2016. We also extended the three phase lines from Four Corners to the Littleton town line to support the new temple construction on Boston Road.

Significant Balances and Transactions:

The **depreciation fund** is required by state statute. We set aside 2.5% of our cost-of-plant annually to be used for capital improvements and additions. We currently have \$187,623 in this fund.

Our **insurance reserve fund** has a balance of \$128,519, more than twice the \$50,000 self-retention amount that we are responsible for under our general liability policy. Our current plan is to hold the amount in excess of the self-retention for nuisance claims or where damages exceed the covered limit.

The **rate stabilization fund** was initially set up to mitigate the difference between the market cost of energy and our long-term energy contracts. The \$1,407,831 we now have in the fund is slated to help keep our future rates stable during times of market volatility.

The maintenance fund represents funds on deposit for the payment of current liabilities.

An **OPEB** (other postemployment benefit) trust has been created at MMWEC. This is an irrevocable trust which can only be used for the purpose of paying postemployment benefits. Groton Electric joined the trust with an initial deposit of \$200,000. In 2013, we added an additional deposit of \$104,000; in 2014, we added \$156,000; in 2015, we added \$156,000 and in 2016 we added \$130,000.

The **purchased power working capital** is an amount held by our power supply agent, the Massachusetts Municipal Wholesale Electric Company (MMWEC). In order to pay our bills as they become due, MMWEC requires that it hold enough to cover the costs. This fund is replenished as needed from our monthly invoice payments. MMWEC credits Groton Electric with the interest earned on these funds.

GROTON ELECTRIC LIGHT DEPARTMENT STATEMENTS OF NET POSITION DECEMBER 31, 2016 AND 2015

OPERATING FUND

ASSETS AND DEFERRED OUTFLOWS OF RESOURCES

			IN	NCREASE
	 2016	 2015	(D)	ECREASE)
CURRENT ASSETS:				
Funds on Deposit with Town Treasurer				
Maintenance	\$ 304,447	\$ 147,169	\$	157,278
Accounts Receivable - Customers, Net	916,827	854,401		62,426
Accounts Receivable - Tax Liens	7,202	4,768		2,434
Accounts Receivable - Other	183,555	217,142		(33,587)
Interest Receivable	341	474		(133)
Materials and Supplies	465,279	504,751		(39,472)
Prepaid Expenses	37,159	34,905		2,254
Purchased Power Prepayments	79,527	100,692		(21,165)
Purchased Power Working Capital	 874,567	 874,567		0
TOTAL CURRENT ASSETS	 2,868,904	 2,738,869		130,035
NONCURRENT ASSETS:				
Funds on Deposit with Town Treasurer				
Depreciation Fund	187,623	184,434		3,189
Insurance Reserve Fund	128,519	129,015		(496)
Customer Deposits	259,487	257,434		2,053
Accounts Receivable - Other	3,900	19,500		(15,600)
Investments	1,556	1,556		0
Rate Stabilization Fund	1,407,831	1,397,143		10,688
Select Energy Fund	399,297	526,812		(127,515)
Utility Plant Assets, Net	 13,380,751	 13,114,717		266,034
TOTAL NONCURRENT ASSETS	 15,768,964	 15,630,611		138,353
TOTAL ASSETS	 18,637,868	 18,369,480	<u> </u>	268,388
DEFERRED OUTFLOWS OF RESOURCES:				
Deferred Outflows of Resources Related to Pensions	 322,083	 156,454		165,629
TOTAL ASSETS AND DEFERRED				
OUTFLOWS OF RESOURCES	\$ 18,959,951	\$ 18,525,934	\$	434,017

GROTON ELECTRIC LIGHT DEPARTMENT STATEMENTS OF NET POSITION DECEMBER 31, 2016 AND 2015

OPERATING FUND

LIABILITIES, DEFERRED INFLOWS OF RESOURCES AND NET POSITION

		2016	-	2015		CREASE CREASE)
CURRENT LIABILITIES:						
Accounts Payable	\$	1,072,379	\$	1,004,728	\$	67,651
Bond Payable, Current		122,350	÷	122,350	Ŷ	07,001
Accrued Expenses		231,591		206,247		25,344
TOTAL CURRENT LIABILITIES		1,426,320		1,333,325		92,995
NONCURRENT LIABILITIES:						
Customer Deposits		243,335		242,378		957
Customer Advances for Construction		153,523		144,008		9,515
Bond Payable, Net of Current Portion		1,875,839		2,001,202		(125,363)
Net Pension Liability		3,147,283		3,220,558		(73,275)
Other Postemployment Benefit Obligations		370,528		379,513		(8,985)
Accumulated Provision for Insurance		128,519		129,015		(496)
TOTAL NONCURRENT LIABILITIES	-	5,919,027		6,116,674		(197,647)
TOTAL LIABILITIES		7,345,347	_	7,449,999		(104,652)
DEFERRED INFLOWS OF RESOURCES:						
Deferred Gain on Refinance of Bond		2,122		3,685		(1,563)
Contribution in Aid of Construction, Net		685,063		651,716		33,347
Reserve for Rate Stabilization		1,407,831		1,397,143		10,688
Reserve for Select Energy		399,297		526,812		(127,515)
Deferred Inflows of Resources Related to Pensions		230,962		0		230,962
TOTAL DEFERRED INFLOWS OF RESOURCES		2,725,275		2,579,356		145,919
NET POSITION:						
Net Investment in Capital Assets		11,382,562		10,991,165		391,397
Net Position Restricted for Depreciation		187,623		184,434		3,189
Unrestricted Net Position		(2,680,856)	-	(2,679,020)	(<u>).</u>	(1,836)
TOTAL NET POSITION		8,889,329		8,496,579		392,750
TOTAL LIABILITIES, DEFERRED INFLOWS						
OF RESOURCES AND NET POSITION	\$	18,959,951	\$	18,525,934	\$	434,017

See Accompanying Notes to Financial Statements Page 12

GROTON ELECTRIC LIGHT DEPARTMENT STATEMENTS OF REVENUES, EXPENSES AND CHANGES IN NET POSITION FOR THE YEARS ENDED DECEMBER 31, 2016 AND 2015

OPERATING FUND

	2016	2015	INCREASE (DECREASE)
OPERATING REVENUES:			
Sales of Electricity	\$ 9,337,567	\$ 9,450,895	\$ (113,328)
Other Operating Revenues	408,980	368,140	40,840
TOTAL OPERATING REVENUES	9,746,547	9,819,035	(72,488)
OPERATING EXPENSES:			
Operations	8,114,557	8,677,630	(563,073)
Maintenance	780,346	806,581	(26,235)
Depreciation	412,018	357,715	54,303
TOTAL OPERATING EXPENSES	9,306,921	9,841,926	(535,005)
OPERATING INCOME (LOSS)	439,626	(22,891)	462,517
NONOPERATING REVENUES (EXPENSES):			
Investment Income	25,978	22,693	3,285
Interest Expense	(65,354)	(77,250)	11,896
Grant Revenues	24,500	49,000	(24,500)
TOTAL NONOPERATING REVENUES (EXPENSES)	(14,876)	(5,557)	(9,319)
Income Before Contributions and Transfers	424,750	(28,448)	453,198
NET POSITION - JANUARY 1	8,496,579	8,557,027	(60,448)
Transfers Out - Payment in Lieu of Taxes	(32,000)	(32,000)	0
NET POSITION - DECEMBER 31	\$ 8,889,329	\$ 8,496,579	\$ 392,750

GROTON ELECTRIC LIGHT DEPARTMENT STATEMENTS OF CASH FLOWS FOR THE YEARS ENDED DECEMBER 31, 2016 AND 2015

OPERATING FUND

		2016	-	2015
CASH FLOWS FROM OPERATING ACTIVITIES:				
Cash Received from Customers	\$	9,602,561	\$	9,953,285
Cash Paid to Suppliers	Ψ	(7,114,728)	Ψ	(8,261,914)
Cash Paid to Employees		(1,129,487)		(1,104,367)
Cash Paid for Benefits		(668,963)		(670,358)
Rents from Electric Property		164,806		123,233
Payment in Lieu of Taxes		(32,000)		(32,000)
Net Cash Provided by Operating Activities		822,189		7,879
CASH FLOWS FROM NONCAPITAL				
FINANCING ACTIVITIES:				
Grant Revenues		24,500		49,000
Net Cash Provided by Noncapital Financing Activities		24,500		49,000
CASH FLOWS FROM CAPITAL AND RELATED				
FINANCING ACTIVITIES:				
Additions to Plant Assets		(697,880)		(1,902,908)
Principal Repayment on Bond Payable		(122,350)		(118,280)
Customer Advances for Construction		9,515		(270,348)
Contribution in Aid of Construction		53,174		417,664
Interest Paid	-	(63,387)		(81,171)
Net Cash Used in Capital and Related Financing Activities		(820,928)		(1,955,043)
CASH FLOWS FROM INVESTING ACTIVITIES:				
Investment Income		17,447		16,493
Net Transfers from Rate Stabilization		(10,688)		(11,738)
Transfer from Select Energy Fund		130,000		0
Net Transfer from Operations		(3,189)		1,249,135
Net Cash Provided by Investing Activities		133,570	-	1,253,890
NET INCREASE (DECREASE) IN CASH AND CASH EQUIVALENTS		159,331		(644,274)
CASH AND CASH EQUIVALENTS - BEGINNING	_	404,603		1,048,877
CASH AND CASH EQUIVALENTS - ENDING	\$	563,934	\$	404,603

GROTON ELECTRIC LIGHT DEPARTMENT STATEMENTS OF CASH FLOWS FOR THE YEARS ENDED DECEMBER 31, 2016 AND 2015

OPERATING FUND

	2016		2015
RECONCILIATION OF OPERATING INCOME TO		-	
NET CASH PROVIDED (USED) BY OPERATING ACTIVITIES:			
Operating Income	\$ 439,626	\$	(22,891)
Adjustments to Reconcile Operating Income			
to Net Cash Provided (Used) by Operating Activities:			
Depreciation	412,018		357,715
Allowance for Doubtful Accounts	(3,466)		(742)
Rate Stabilization	10,688		11,738
Select Energy Fund	(127,515)		4,821
Insurance Reserve	(496)		322
Appropriation in Lieu of Taxes	(32,000)		(32,000)
(Increase) Decrease in Assets:			
Accounts Receivable - Customers, Net	(58,960)		176,611
Accounts Receivable - Tax Liens	(2,434)		1,315
Accounts Receivable - Other	49,187		53,526
Deferred Outflows of Resources Related to Pensions	(165,629)		(36,920)
Interest Receivable	133		860
Materials and Supplies	39,472		(34,783)
Prepaid Expenses	(2,254)		13,820
Purchased Power Prepayments	21,165		(32,059)
Increase (Decrease) in Liabilities:			
Accounts Payable	67,651		(492,043)
Customer Deposits	957		8,357
Accrued Expenses	25,344		6,356
Net Pension Liability	(73,275)		46,229
Other Postemployment Benefit Obligations	(8,985)		(22,353)
Deferred Inflows of Resources Related to Pensions	 230,962		0
Net Cash Provided by Operating Activities	\$ 822,189	\$	7,879

SUPPLEMENTAL DISCLOSURES OF CASH FLOW INFORMATION:

The following accounts are considered to be cash or cash equivalents for the statements of cash flows:

	2016	 2015
Maintenance Fund	304,447	147,169
Customer Deposits	259,487	 257,434
	\$ 563,934	\$ 404,603

Cash paid for interest in 2016 and 2015 was \$70,894 and \$81,171, respectively.

See Accompanying Notes to Financial Statements Page 15

GROTON ELECTRIC LIGHT DEPARTMENT STATEMENTS OF NET POSITION DECEMBER 31, 2016 AND 2015

OPEB TRUST FUND

ASSETS

NON CURRENT ASSETS:	2016	2015
Funds on Deposit with MMWEC Cash and Cash Equivalents	\$ 840,857	\$ 657,547
NET POSITION	I.	
Restricted for OPEB	\$ 840,857	<u>\$ 657,547</u>

GROTON ELECTRIC LIGHT DEPARTMENT STATEMENTS OF CHANGES IN NET POSITION DECEMBER 31, 2016 AND 2015

OPEB TRUST FUND

	2016	2015
ADDITIONS: Net Investment Income (Loss) Contributions	\$ 53,310 130,000	\$ (7,484) 156,000
Total Additions	183,310	148,516
CHANGE IN NET POSITION	183,310	148,516
NET POSITION - January 1	657,547	509,031
NET POSITION - December 31	\$ 840,857	\$ 657,547

NOTE 1 - SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES:

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

Reporting Entity

The Groton Electric Light Department is a component unit of the Town of Groton, Massachusetts. The Light Department purchases power from various sources and sells it to the ultimate customer at rates submitted to the Massachusetts Department of Public Utilities (DPU). The Electric Light Department shall appoint a manager of municipal lighting who shall, under the direction and control of the Municipal Light Board, have full charge of the operation and management of the plant.

Regulation and Basis of Accounting

The Department's financial statements are reported using the flow of economic resources measurement focus and the accrual basis of accounting. Under the accrual basis of accounting, revenues are recorded when earned and expenses are recorded at the time liabilities are incurred.

Under Massachusetts law, electric rates of the Light Department are set by the Municipal Light Board and may be changed not more than once every three months. Rate schedules are filed with the Massachusetts Department of Public Utilities (DPU). While the DPU regulates the billing and termination procedures to be adhered to by the Light Department, the Light Department's rates are not subject to DPU approval.

Depreciation

The general laws of Massachusetts allow utility plant in service to be depreciated at an annual rate of 3%. In order to change this rate, approval must be obtained from the Department of Public Utilities. 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 2.5% and 3% for 2016 and 2015, respectively.

The Department charges maintenance to expense when incurred. Replacements and betterments are charged to utility plant.

Cash and Cash Equivalents

For purposes of the statements of cash flows, the Department considers all highly liquid debt instruments purchased with an original maturity of three months or less to be cash equivalents.

Taxes

The Department is exempt from federal income taxes. Although also exempt from property taxes, the Department pays amounts in lieu of taxes to the Town of Groton.

Revenues

Revenues from sale of electricity are recorded on the basis of bills rendered from monthly readings taken on a cycle basis. The revenues are based on rates established by the Department, which are applied to customers' consumption of electricity.

Sales Tax

The Department collects sales tax. The amount received is credited to a liability account and as payments are made, this account is charged. At any point in time, this account represents the net amount owed to the taxing authority for amounts collected but not yet remitted.

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 disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates.

NOTE 1 - SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued):

Accounts Receivable

The Department carries its accounts receivable at cost. The allowance for doubtful accounts recorded is based on a threeyear average of write-offs in conjunction with a review of the aged receivables. The Department can place a lien against a property if payment is not made. For non-owners, the Department requires a deposit that can be applied to any unpaid amounts. On a periodic basis, the Department does evaluate its accounts receivable to determine if any write-offs are necessary.

To encourage customers to pay their bills timely, the Department offers their customers a 10% discount if their bill is paid in full by the twelfth of the month.

Reclassification

Certain prior year amounts have been reclassified to conform to 2016 financial statement presentation with no effect on previously stated net income.

Compensated Absences

In accordance with lighting plant policies, employees are allowed to accumulate sick days with no maximum. Upon termination and after 10 years of service of employment with the light plant, except for involuntary discharge, the employee will be paid half of the accumulated time. Each employee is permitted a total of ten sick days per year.

Employees are permitted to carryover vacation time from one year to the next, up to a maximum of one year's accrual plus one week. Upon termination of employment with the light department, the employee will be paid for unused vacation time based on the employee's base rate of pay at the time of termination.

Materials and Supplies

Materials and supplies are valued using the first-in/first-out (FIFO) method.

Contribution in Aid of Construction

Contribution in Aid of Construction represents non-refundable payments received from consumers and developers for extension of electric services for assets owned and maintained by Groton Electric Light Department. These amounts are recorded as a deferred inflow of resources net of amortization.

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 (System) and additions to/deductions from the System's fiduciary net position have been determined on the same basis as they are reported by the System. For this purpose, benefit payments (including refunds of employee contributions) are recognized when due and payable in accordance with the benefit terms.

Deferred Outflows/Inflows of Resources

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

NOTE 2 - FUTURE IMPLEMENTATION OF GASB PRONOUNCEMENTS:

GASB Statement 75, Accounting and Financial Reporting for Postemployment Benefits Other than Pensions, is required to be implemented for periods beginning after June 15, 2017. The Department is currently evaluating the effect this pronouncement will have on the basic financial statements.

NOTE 3 - INSURANCE RESERVE FUND:

The Department has set up an insurance reserve fund, which is to be used to reduce the future costs of insurance expense.

NOTE 4 - DEPRECIATION FUND:

Pursuant to provisions of the Commonwealth's General Laws, cash in an amount equivalent to the annual depreciation expense is transferred from unrestricted funds to the depreciation fund. Interest earned on the balance of the fund must also remain in the fund. Such cash may be used for the cost of plant, nuclear decommissioning costs, the costs of contractual commitments, and future costs related to such commitments which the Municipal Light Board determines are above market value.

NOTE 5 - RATE STABILIZATION FUND:

The rate stabilization fund was created as an aftermath of the Massachusetts Electricity Restructuring Act of 1997. These funds are for unexpected escalation in costs, such as the decommissioning of nuclear power plants before the end of their operating license, unusual price spikes in fuel prices and transmission cost increases. The stabilization charge (reduction) to power costs in 2016 was \$10,688 and \$11,737 in 2015. The balance in the fund is offset by a deferred inflow of resources for the accumulated provision for rate refund. These funds are commingled and deposited in investment pools. The total amount of this investment pool as of December 31, 2016 was \$75,376,417 of which Groton Electric Light Department's ownership was approximately 1.9%

NOTE 6 - PURCHASED POWER WORKING CAPITAL:

The purchased power working capital is an amount held by Massachusetts Municipal Wholesale Electric Company (MMWEC), the Department's power supply agent. The implementation of the Working Capital Program began August 1, 1985. MMWEC participants approved certain working capital amendments to the various power purchase agreements. MMWEC requires that they hold a set amount of capital from which they may pay the Department's power obligations when they are due. They replenish the fund as needed from the Department's monthly invoice payments. The income earned allocated to the Light Department is applied as a credit to MMWEC Power Sales Billings. The balance in the Fund at December 31, 2016 and 2015 was \$874,567.

NOTE 7 - TRANSACTIONS WITH POWER SUPPLY AGENT:

GELD participates in MMWEC's "All Requirements" power supply program. In this program, MMWEC enters into bulk power purchase contracts and other arrangements to meet the power supply needs of its members as efficiently and economically as possible. One of the contracts that MMWEC entered into on behalf of the All Requirements participants was the "Select Energy Contract". With this contract, MMWEC received power and energy through a 50 megawatt contract with Select Energy. The Select Energy contract provided system power for a term that ran through 2011. During the third quarter of 2005 the contract with Select Energy was terminated. MMWEC on behalf of the ten All Requirements participants received \$82,000,000 in proceeds which they have deposited in a custodial account for the benefit of the current All Requirements participants. There is an irrevocable trust "All Requirements Select Energy Termination Trust" that was established that will protect the funds from creditors of both MMWEC and the participants. The funds are to be used to offset power costs for replacement of energy and capacity above the costs that would have been incurred with the Select contract. GELD's portion of the \$82,000,000 buy-out was \$3,608,000. At December 31, 2016 and 2015 the balance was \$399,297 and \$526,812, respectively.

NOTE 8 - CUSTOMER DEPOSITS:

At December 31, 2016 and 2015, the customer deposit account on deposit with the Town Treasurer was \$259,487 and \$257,434, respectively.

NOTE 9 - RELATED PARTY TRANSACTIONS:

In the ordinary course of business, the Light Department sells electricity to various town departments. During the years ended December 31, 2016 and 2015, sales to these departments totaled \$554,697 and \$577,957, respectively. As of December 31, 2016 and 2015, accounts receivable from these departments was \$57,481 and \$54,348, respectively.

The Light Department reimburses the town for various employee benefits and services, including health insurance, retirement, and payment in lieu of taxes. During the years ended December 31, 2016 and 2015, the total amount paid for these services was \$631,999 and \$572,704, respectively. As of December 31, 2016 and 2015, amounts payable to the town were \$56,834 and \$72,597, respectively.

NOTE 10 - ACCOUNTS RECEIVABLE - CUSTOMERS:

Accounts Receivable - Customers consists of the following:

	2016		2015	
Accounts Receivable – Customers Allowance for Doubtful Accounts	\$	921,441 (4,614)	\$	862,480 (8,079)
Net	<u>\$</u>	916,827	<u>\$</u>	854,401
NOTE 11 - OTHER ACCOUNTS RECEIVABLE:				
Other accounts receivable consist of the following:		2016		2015
Merchandising and Jobbing	\$	114,829	\$	165,993
Purchased Power Receivable		72,626	Ψ 	70,649
Total Other Accounts Receivable		187,455		236,642
Less: Long-term Accounts Receivable		3,900	2	19,500
Current Portion of Other Accounts Receivable	<u>\$</u>	183,555	<u>\$</u>	217,142

NOTE 12 - INVESTMENT:

The Department owns shares of Hydro Quebec Phase II stock. The securities are stated at cost. Fair market value approximates stated value.

NOTE 13 - NET INVESTMENT IN CAPITAL ASSETS:

		2016		2015
Cost of Capital Assets Acquired	\$	19,308,063	\$	18,654,489
Less: Accumulated Depreciation		(5,927,312)		(5, 539, 772)
Less: Outstanding Debt Related to Capital Assets	2	(1,998,189)		(2,123,552)
Net Investment in Capital Assets	<u>s</u>	11,382,562	<u>s</u>	10,991,165

NOTE 14 - UTILITY PLANT ASSETS:

		Balance January 1, 2016		Increases	<u> </u>	Decreases	D	Balance ecember 31, 2016
Capital Assets Not Being Depreciated								
Land	\$	1,219,202	\$	0	\$	0	\$	1,219,202
Construction in Progress		161,458	_	186,848		(130,790)		217,516
Total Capital Assets Not Being Depreciated		1,380,660		186,848		(130,790)		1,436,718
Other Capital Assets:								
Distribution Plant		10,497,491		608,116		(44,306)		11,061,301
General Plant		6,776,338		33,706		0		6,810,044
Total Capital Assets at Historical Cost		17,273,829		641,822		(44,306)		17,871,345
Less Accumulated Depreciation for:								
Distribution Plant		(5,237,098)		(262,439)		44,306		(5,455,231)
General Plant	-	(302,674)	_	(169,407)	-	0		(472,081)
Total Accumulated Depreciation	-	(5,539,772)	-	(431,846)		44,306	_	(5,927,312)
Capital Assets Being Depreciated, Net		11,734,057		209,976		0		11,944,033
Utility Plant Assets, Net	\$	13,114,717	\$	396,824	\$	(130,790)	\$	13,380,751

Depreciation for the years ended December 31, 2016 and 2015 were \$431,846 and \$364,735, respectively. Depreciation expense reported on the Statements of Revenues, Expenses and Changes in Net Position, is net of amortization of \$19,828 and \$7,020 related to contribution in aid of construction for the years ended December 31, 2016 and 2015, respectively.

NOTE 15 - CONSTRUCTION IN PROGRESS:

Academy Hill, a 57 unit subdivision was started in 2006. The Department had received \$261,708 for phase one and two of this project. The Department has received \$11,733 for phase three of the project. The Department has incurred costs of \$265,138 as of December 31, 2016.

The Reedy Meadow Estates Development (Red Pepper Lane) was started in 2015. The Developer has paid \$7,474 for the project. The Department has incurred costs of \$6,489 as of December 31, 2016.

Phase Three of the Rocky Hill Project was started in 2015. The developer has paid \$21,373 for this project. The Department has incurred costs of \$12,955 as of December 31, 2016.

The Boston Road Temple development was started in 2015. The Department has received \$115,549 for the project and incurred costs of \$101,820 as of December 31. 2016.

The Groton Electric Light Department's Solar Farm project was completed in 2016, and incurred expenses of \$211,868 through December 31, 2016.

The Groton Electric Light Department's Substation High Side Protection Upgrade was started in 2016. The expenses incurred through December 31, 2016 were \$57,877.

NOTE 15 - CONSTRUCTION IN PROGRESS (Continued):

The Prescott Street Groton Woods Project was started in 2016. The Department has incurred costs of \$5,889 through December 31, 2016.

The 291 Old Ayer Road development was started and completed in 2016. The Department received \$4,620 for the Project and incurred costs of \$4,081. The balance was refunded.

The 120 Boston Road development was started and completed in 2016. The Department received \$23,906 for the project. The Department incurred costs of \$23,906.

The Old Dunstable Road Development (542/530) was started and completed in 2016. The Department received \$8,820 and the costs incurred were \$6,384. The balance was refunded.

The Burntmeadow Road Project was started and completed in 2016. The Department received \$2,069 and the costs incurred were \$2,069.

The Worthen Drive Development was started and completed in 2016. The Department received \$3,152 and the costs incurred were \$2,389. The balance was refunded.

The Lawrence Academy Entrance Upgrade was started and completed in 2016. The Department received \$5,117 and the costs incurred were \$5,117.

NOTE 16 - CASH AND INVESTMENTS:

Concentration of Credit Risk

The Groton Electric Light Department's deposits with the Town Treasurer are commingled and invested with deposits from other Town funds. It is not practical to disclose the related bank balance and credit risk of such cash deposits for the Department. Funds on deposit with financial institutions are subject to the insurance coverage limits imposed by the Federal Deposit Insurance Corporation (FDIC) and Securities Investor Protection Corporation (SIPC). The amount of insurance coverage for the Department deposits are not determinable because the limits of insurance are computed on a town-wide basis.

Custodial Credit Risk - Deposits and Investments

In the event of a failure by the counterparty, the Department would not be able to recover the value of its investments.

Interest Rate Risk

The Department invests in term securities out to a maximum of five years to help limit the amount of exposure to fair value losses.

As of December 31, 2016 and 2015, the Department's Depreciation Fund had the following investments and maturities:

	Ratings as of Year End		2016 Fair Value	2016 Under 1 Year	2016 1-5 Years	Fa	2015 ir Value
<u>Term Securities</u> Certificates of Deposit	Exempt	\$	185,533	<u>\$ 100,000</u>	<u>\$ 85,533</u>	\$	184,341
Other Securities Money Market Funds			2,090				93
Total Investments		<u>\$</u>	187,623			\$	184,434

NOTE 16 - CASH AND INVESTMENTS (Continued):

Investments in any one issuer (other than U.S. Treasury securities and mutual funds) that represent 5% or more of total investments are as follows:

Investment Issuer	1	Amount	Total Investments
Bank India New York CD	\$	100,000	53%
Capital One NA CD		35,000	19%
Ally Bank CD		50,000	27%

All investments are invested in certificate of deposits or money market funds, therefore they are not subject to the GASB 72 disclosures.

NOTE 17 - BONDS PAYABLE:

On July 15, 2001, the Town issued a General Obligation Bond in the amount of \$750,000. The bond was used for repair and replacement of equipment at the substation. Principal payments are due annually on July 15. Interest is due biannually on January 15 and July 15 at rates payable from two to five percent. The bond matures on July 15, 2019. The Town refinanced two municipal purpose loans in November 2010, therefore reducing the amount of interest by \$11,319.

The bond refinance gain is deferred and amortized over the life of the old debt or the life of the new debt, whichever is shorter, on a basis that approximates the effective-interest method. This gain is shown as a deferred inflow of resources on the accompanying financial statements.

On August 1, 2014, the Town issued a General Obligation Bond in the aggregate amount of \$2,000,000. The bond was issued for the purpose of designing and constructing a new Groton Electric Light Department building. Principal payments are due annually on November 1. Interest is due semi-annually on each November 1 and May 1 at rates payable from 2% to 3.25%. The bond matures on November 1, 2033.

The debt service requirements on the bonds are as follows:

•			Principal		Interest		Total
For The Year Ending December 31,	2017	\$	122,350	\$	60,637	\$	182,987
	2018		122,350		57,443		179,793
	2019		125,510		53,026		178,536
	2020		90,000		48,550		138,550
	2021		95,000		45,850		140,850
	2022-2026		520,000		184,550		704,550
	2027-2031		605,000		101,588		706,588
	2032-2033		265,000	-	13,001		278,001
			1,945,210	<u>s</u>	564,645	5	2,509,855
Plus: Unamortized Net Premiums			52,979				
Less: Current Maturities of Long Term I	Debt		(122,350)				
		2	1,875,839				

NOTE 18 - OPERATING LEASE AGREEMENT:

The Department rented office space under a non-cancelable operating lease for ten months commencing June 1, 2013 that converted to a month-to-month operating lease after the first eight months had concluded. The office lease ended during 2015. Rent expense for the office was \$0 and \$9,470 for 2016 and 2015, respectively.

NOTE 19 - UNBILLED REVENUE:

No recognition is given to the amount of sales to customers, which are unbilled at the end of the accounting period.

NOTE 20 - MMWEC PARTICIPATION:

Town of Groton, 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'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.

Groton Electric Light Department has entered into PSAs and Purchase Power Agreements (PPAs) with MMWEC. Under both the PSAs and PPAs, the Department is required to make certain payments to MMWEC payable solely from 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).

NOTE 21 - RISK MANAGEMENT:

Self-Insurance Trust

The Department participates in Massachusetts Municipal Self-Insurance Trust Fund (the Trust) with 17 other municipalities for the purpose of sharing excess liability and officers' liability risks. General liability coverage provides for \$500,000 per occurrence, with a \$50,000 deductible that would be paid by the Department. Environmental insurance coverage provides for \$1,500,000 per occurrence, with a \$100,000 deductible that would be paid by the Department. Environmental insurance the Trust Fund. Each participating municipality contributes an annual premium to the Trust based on frequency and severity of claims and share of the group's total kilowatt-hour sales. Payments for claims over the deductible limit are funded by trust assets or, if required, additional contributions from the participants.

Generally accepted accounting principles require that liabilities for self-insured claims be reported if it is probable that a loss has been incurred and the amount can be reasonably estimated. These losses include an estimate of claims that have been incurred but not reported. At December 31, 2016 and 2015, the Light Department considers it's pro rata share of these losses to be immaterial to its financial statements.

NOTE 22 - OTHER POSTEMPLOYMENT BENEFIT LIABILITY TRUST FUND:

The Other Postemployment Benefits Liability Trust Fund was established by vote of the Board of Light Commissioners on September 12, 2011. The Board voted to accept the provisions of MGL Chapter 32B, Section 20 which establishes a separate Fund and a funding schedule for the Fund. The schedule and any future updates shall be designed, consistent with standards issued by the Governmental Accounting Standards Board, to reduce the unfunded actuarial liability of health care and other postemployment benefits to zero as of an actuarially acceptable period of years and to meet the normal cost of all future benefits for which the government unit is obligated. The Fund is held under the custodianship of the Massachusetts Municipal Wholesale Electric Company. The balance in the trust as of December 31, 2016 and 2015 was \$840,857 and \$657,547, respectively.

NOTE 22 - OTHER POSTEMPLOYMENT BENEFIT LIABILITY TRUST FUND (Continued):

For the year ended December 31, 2016, the Trust implemented Governmental Accounting Standards Board (GASB) Statement No. 72, Fair Value Measurement and Application, which provides a definition of 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 and liabilities (Level 1 measurements) and the lowest priority to unobservable inputs (Level 3 measurements). The three levels of the fair value hierarchy under GASB Statement No. 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; and
- Inputs that are derived principally from or corroborated by observable market data by correlation or other means.

If the asset or liability has a specified (contractual) term, the Level 2 input must be observable for substantially the full term of the asset or liability.

Level 3

Inputs to valuation methodology are unobservable and significant to the fair value measurement.

The asset's or liability's fair value measurement level within the fair value hierarchy is based on the lowest level of any input that is significant to the fair value measurement. Valuation techniques used need to maximize the use of observable inputs and minimize the use of unobservable inputs.

Mutual Funds:

Valued at closing price as reported on the active market on which the individual funds are traded.

The preceding methods described may produce a fair value calculation that may not be indicative of net realizable value or reflective of future fair values. Furthermore, although Department management believes its valuations methods are appropriate and consistent with other market participants, the use of different methodologies or assumptions to determine the fair value of certain financial instruments could result in a different fair value measurement at the reporting date.

The following sets forth, by level within the fair value hierarchy, the Department's investments at fair value at December 31, 2016. As of December 31, 2016, the Department did not have any investments that were measured using Level 2 or Level 3 inputs.

FMV Investments:	December 31, 2016 Quoted Prices in Active Markets for Identical Assets (All Level 1)		
Mutual Funds	\$	798,428	
Other Securities:			
Money Market		42,429	
Total	\$	840,857	

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NOTE 22 - OTHER POSTEMPLOYMENT BENEFIT LIABILITY TRUST FUND (Continued):

Gain (Loss) on Investments	2016		
Realized Loss on Investments	\$	(32,276)	
Unrealized Gain (Loss) on Investments		71,956	
Gain (Loss) on Investments	<u>\$</u>	39,680	

As of December 31, 2016, there were no investments in any one issuer (other than U.S. Treasury securities and mutual funds) that represented 5% or more of total investments.

NOTE 23 - OTHER POSTEMPLOYMENT BENEFITS (OPEB):

The Department implemented GASB Statement 45 for the year ended December 31, 2008, Accounting for Financial Reporting by Employers for Postemployment Benefits Other than Pensions. As allowed by GASB 45, the Department has established the net OPEB obligation at zero at the beginning of the transition year and has applied the measurement recognition requirements of GASB 45 on a prospective basis.

Plan Description. The Department participates in the town sponsored single employer defined benefit health plan. The Department provides certain health care and life insurance benefits for eligible retirees and their spouses. Chapter 32B of the MGL assigns authority to establish and amend benefit provisions of the plan. Medical prescription drug benefits are provided to all eligible retirees through a variety of plans offered by Harvard Pilgrim Health Care and Tufts Health Plan.

As of December 31, the Department's membership consisted of the following:

Current retirees, beneficiaries	9
Current active members	 12
Total	21

Funding Policy. GELD recognizes the cost of providing these benefits, in accordance with government accounting standards, on a pay-as-you-go basis, by expensing the annual insurance premiums charged GELD by the Town, which aggregated approximately \$1\$1,444 and \$174,10\$ for the years ended December 31, 2016 and 2015, respectively. The cost of providing these benefits for retirees is not readily separable from the costs for active employees. Retired plan members contribute 40% and beneficiaries currently receiving benefits are required to contribute 12.5% of the cost of benefits.

Annual OPEB Costs. The Department's annual other postemployment benefit (OPEB) cost (expense) is calculated based on the annual required contribution (ARC), an amount actuarially determined in accordance with the parameters of GASB Statement 45. The ARC represents a level of funding that, if paid on an ongoing basis, is projected to cover normal costs each year and amortize any unfunded actuarial liabilities (or funding excess) over a period not to exceed thirty years. The table on the following page shows the components of the department's annual OPEB cost for the years ending December 31, 2016 and 2015, the amount actually contributed to the plan, and changes in the Department's net OPEB obligation based on an actuarial valuation as of July 1, 2014.

NOTE 23 - OTHER POSTEMPLOYMENT BENEFITS (OPEB) (Continued):

		2016	2015	
Annual required contribution	\$	153,738	\$	164,434
Expected benefit payments		(32,723)		(30,787)
Contributions to OPEB Trust	-	(130,000)		(156,000)
Increase (Decrease) in net OPEB obligation		(8,985)		(22,353)
Net OPEB obligation beginning of year		379,513	<u></u>	401,866
Net OPEB obligation end of year	\$	370,528	\$	379,513

The Department's annual OPEB cost, the percentage of annual OPEB cost contributed to the plan, and the net OPEB obligation were as follows:

Year ended	Annual costs	OPEB	Percentage of OPEB cost contributed	Net OPEB obligation	
2016	\$	153,738	106%	\$	370,528
2015	\$	164,434	114%	\$	379,513
2014	\$	169,485	118%	\$	401,866

Funded Status and Funding Progress. 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 revisions as actual results are compared with past expectations and new estimates are made about the future. The schedule of funding progress, presented as required supplemental information presents trend information that shows whether the actuarial value of plan assets is increasing or decreasing over time relative to the actuarial accrued liabilities for benefits.

The funded status is as follows:

Actuarial accrued liability (AAL) Value of plan assets	\$ 1,461,856 840,857
Unfunded actuarial accrued liability	\$ 620,999
Funded Ratio (actuarial value of plan assets/AAL)	57.52%
Total Employee Payroll (active plan members)	\$ 1,129,487
UAAL as a percentage of Total Employee payroll	54.98%

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

As of July 1, 2014, actuarial valuation, the projected unit credit cost method was used. The actuarial assumptions included health care costs assumed to increase 7% in fiscal 2015 with trend rates decreasing 0.5% each year to an ultimate rate of 5.0% per year in fiscal 2019 and beyond. The Department's unfunded actuarial accrued liability is being amortized each year as an open 30 year level dollar basis.

NOTE 24 - PENSION PLAN:

Plan Description - The Department, through the Town of Groton, is a member of the Middlesex County Retirement System which, in turn, is a member of the Massachusetts Contributory Retirement System which is governed by M.G.L. c.32 of the Massachusetts General Laws. Membership in the plan is mandatory immediately upon the commencement of employment for all permanent, full-time employees. The plan is a cost-sharing multiple-employer contributory defined benefit plan for all county employees and employees of participating towns and districts except those employees who are covered by teachers' retirement board. The Plan's separately issued financial statements can be obtained by contacting Middlesex County Retirement System at 25 Linnell Circle, Billerica, Massachusetts 01865.

Benefits Provided - The System provides retirement, disability and death benefits to plan members and beneficiaries. Massachusetts Contributory Retirement System benefits are uniform from system to system. The System provides for retirement allowance benefits up to a maximum of 80% of member's highest three-year average annual rate of regular compensation. For members who became members on or after April 2, 2012, average salary is the average annual rate of regular compensation received during the five consecutive years that produce the highest average, or, if greater, during the last five years. Benefit payments are based upon a member's age, length of creditable service, level of compensation, and group classification.

There are three classes of membership in the retirement system: Group 1, Group 2, and Group 4. Group 1 consists of general employees which includes clerical and administrative positions. Group 2 consists of positions that have been specified as hazardous. Lastly, Group 4 consists of police officers, firefighters, and other hazardous positions.

Members become vested after ten years of creditable service. A superannuation retirement allowance may be received upon the completion of twenty years of service or upon reaching the age of 55 with ten years of service if hired after 1978 and if classified in group 1 or 2. A person who became a member on or after April 2, 2012 is eligible for a superannuation retirement allowance upon reaching the age of 60 with 10 years of service if in group 1, 55 years of age with 10 years of service if in group 2, and 55 years of age if classified in group 4 or hired prior to 1978. Normal retirement for most employees occurs at age 65 (for certain hazardous duty and public safety positions normal retirement is at age 55).

Members who become permanently and totally disabled for further duty may be eligible to receive a disability retirement allowance. The amount of benefits to be received in such cases is dependent upon several factors; including whether or not the disability is work related, the member's age, years of creditable service, level of compensation, veterans' status, and group classification.

Employees who resign from state service and who are not eligible to receive a retirement allowance or are under the age of 55 are entitled to request a refund of their accumulated total contributions. Survivor benefits are extended to eligible beneficiaries of members whose death occurs prior to or following retirement.

Cost-of-living adjustments granted between 1981 and 1997 and any increase in other benefits imposed by the Commonwealth's state law during those years are borne by the Commonwealth and are deposited into the pension fund. Cost-of-living adjustments granted after 1997 must be approved by the Board and are borne by the System.

Contributions - Active members are required to contribute at rates from 5-9% of their gross regular compensation. The percentage rate is keyed to the date upon which an employee's membership commences. Members hired after 1978 contribute an additional 2% of annual pay above \$30,000. The Department is required to pay into the System its share of the system-wide actuarial determined contribution that is apportioned among the member units based on the actuarial study. The actuarially determined Department contribution is an amount, when combined with employee contributions, is expected to finance the cost of benefits earned by the employees during the year, with an additional amount to finance the unfunded liability. The Department's required contribution to the System for the years ended December 31, 2016 and 2015 were \$265,683 and \$251,738, respectively.

NOTE 24 - PENSION PLAN (Continued):

Pension Liabilities - At December 31, 2016 and 2015, the Department reported a liability of \$3,147,283 and \$3,220,558, respectively, for its proportionate share of the net pension liability. The 2016 and 2015 net pension liability was measured as of December 31, 2015 and 2014, respectively, and the total pension liability used to calculate the new pension liability was determined by an actuarial valuation as of January 1, 2014. The Town's proportion of the net pension liability was based on a projection of the Town's long-term share of contributions to the pension plan relative to the projected contributions of all participating member units. At December 31, 2015 and 2014, the Town's proportion was 1.59% and 1.62%, respectively. The Department's portion of the net pension liability was based on the percentage of the Department's payroll to the total Town's payroll as of the measured date of December 31, 2015 and 2014. At the measured date of December 31, 2016 and 2015, the Department's portion was 15.28% and 16.52%, respectively, of the Town's total payroll.

Pension Expense - For the years ended December 31, 2016 and 2015 the Department recognized a pension expense of \$278,179 and \$284,368, respectively. For the years ended December 31, 2016 and 2015, the Department reported deferred outflows of resources related to pensions of \$ 322,083 and \$156,454, respectively, consisting of the differences between projected and actual investment earnings which amounted to \$178,816 and \$13,599, respectively, and the amount paid for contributions made subsequent to the measurement date which amounted to \$143,267 and \$142,855, respectively. For the years ended December 31, 2016 and 2015, the Department reported deferred inflows of resources related to pensions of \$230,962 and \$0, respectively, consisting of changes in proportion and differences between employer contributions and proportionate share of contributions at both the Plan and Town level.

The Department's net amortization of deferred outflows and inflows of resources related to pensions will be recognized in pension expense as follows:

Year Ended December 31,	2017	\$ (13,037)
n an	2018	(13,036)
	2019	(13,037)
	2020	 (13,036)
	Total	\$ (52,146)

Actuarial Assumptions - The total pension liability as of December 31, 2016 and 2015 was determined by an actuarial valuation as of January 1, 2014, using the following actuarial assumptions, applied to all periods included in the measurement:

Valuation Date	January 1, 2014
Actuarial Cost Method	Entry Age Normal Cost Method.
Amortization Method	Prior year's total contribution increased by 6.5% for fiscal 2014 through fiscal 2020, 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, 2012, 7 years remaining for 2002 ERI liability, 8 years remaining for 2003 ERI liability, 10 years remaining for 2010 ERI liability and 23 years 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 the market value.
Inflation Rate	4.00%

NOTE 24 - PENSION PLAN (Continued):

Actuarial Assumptions (continued)

Projected Salary Increases	Varies by length of service with ultimate rates of 4.25% for Group 1, 4.50% for Group 2, and 4.75% for Group 4.
Cost of Living Adjustments	3.00% of first \$14,000 of retirement income.
Rates of Retirement	Varies based upon age for general employees, police and fire employees.
Investment Rate of Return	7.875%, net of pension plan investment expense, including inflation
Mortality Rates: Healthy Retirees Disabled Retirees	Pre-Retirement: RP-2000 Employee Mortality Table projected 22 years with Scale AA (Previously, projected 12 years with Scale AA). Post-Retirement: RP-2000 Healthy Annuitant Mortality Table projected 17 years with Scale AA (Previously, projected 12 years with Scale AA). RP-2000 Healthy Annuitant Mortality Table set forward three years projected 17 years with Scale AA (Previously, set forward 2 years and projected 0 years).

Investment Policy - The 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 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 category 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 pensions plan's target asset allocation as of the measured date of December 31, 2015 are summarized in the following table.

Asset Class	Target Allocation	Long-Term Expected Real Rate of Return
Domestic Equity	19.60%	6.49%
International Developed Markets Equity	15.60%	7.16%
International Emerging Markets Equity	6.50%	9.46%
Core Fixed Income	15.30%	1.68%
High Yield Fixed Income	8.30%	4.76%
Real Estate	9.90%	4.37%
Commodities	3.90%	4.13%
Short-term Government Money Market	0.00%	1.11%
Hedge Fund, GTAA, Risk Parity	9.80%	3.60%
Private Equity	11.10%	11.04%

Discount Rate - The discount rate used to measure the total pension liability was 7.875%. 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.

NOTE 24 - PENSION PLAN (Continued):

Sensitivity of the Net Pension Liability to Changes in the Discount Rate - The following presents the net pension liability calculated using the discount rate of 7.875%, as well as what the net pension liability would be if it were calculated using a discount rate that is 1-percentage point lower (6.875%) or 1-percentage point higher (8.875%) than the current rate:

				Current		
	19	% Decrease	Di	scount Rate	1%	Increase
		(6.875%)		(7.875%)		(8.875%)
Proportionate share of Net Pension Liability	\$	4,066,468	\$	3,386,434	\$	2,807,337

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.

NOTE 25 - CONTINGENT LIABILITIES:

Legal and Environmental Matters

Groton Electric Light Department is subject to various legal proceedings covering a range of matters that arise in the ordinary course of their business activities. There were no provisions for loss on litigation and/or claims for the years ended December 31, 2016 and 2015. Management does not anticipate any future settlements that would have a material adverse effect on the Department's financial position.

The Department is subject, like other electric utilities, to evolving standards administrated by federal, state and local authorities relating to the quality of the environment. These standards affect the siting of electric property, ambient air and water quality, plant safety and other environmental factors. These standards have had an impact on the Department's operations in the past and they will continue to have an impact on future operations, capital costs and construction schedules.

Berkshire Wind Cooperative Corporation

The Groton Electric Light Department (Department) is a Member of the Berkshire Wind Cooperative Corporation (Cooperative).

The Cooperative is organized under Chapters 157 and 164: Section 47C of the State of Massachusetts Statutes and constitutes a municipal lighting plant cooperative. The Cooperative was formed by Massachusetts Municipal Wholesale Electric Company (MMWEC) and 14 Municipal Light Departments (Members) for the purpose of financing, owning, constructing and operating wind generation facilities located on Brodie Mountain in the towns of Hancock and Lanesborough, Massachusetts (Berkshire Wind Facility).

The Cooperative has constructed and installed 10 1.5-megawatt wind turbines at the Berkshire Wind Facility. The Cooperative provides wind energy to MMWEC pursuant to the Berkshire Wind Power Purchase Agreement dated May 21, 2008 between MMWEC and the Cooperative. Under this agreement, MMWEC entered into a Power Sales Contract with the Cooperative pursuant to which MMWEC has agreed to purchase 100% of the capacity and energy output and, to the extent uncommitted to any third party under existing agreements, associated environmental energy attributes of a wind power generating facility to be owned, constructed and operated by the Cooperative at the Berkshire Wind Facility.

MMWEC sells all of the capability of the Berkshire Wind Facility (Capability) to the Members of the Cooperative (Members) under Power Purchase Agreements (PPAs). Among other things, the PPAs require each Cooperative Member to pay its *pro rata* share of the costs related to the Berkshire Wind Facility, which costs include debt service on the bonds issued by the Cooperative to finance the Berkshire Wind Facility, plus 10% of the debt service to be paid into a Reserve and Contingency Fund. In addition, should a Cooperative Member fail to make any payment when due, other Cooperative Members may be required to increase (step-up) their payments and correspondingly their share of the Capability to an additional amount.

NOTE 25 - CONTINGENT LIABILITIES (Continued):

Berkshire Wind Cooperative Corporation (continued)

The Cooperative has issued revenue bonds, which are payable solely from, and secured solely by, the revenues derived from the Berkshire Wind Facility. The revenues are used solely to provide for the payment of any bond issue relating to the Berkshire Wind Facility and to pay the Cooperative's cost of owning and operating the Berkshire Wind Facility.

The Groton Electric Light Department has entered into a PPA with the Berkshire Wind Cooperative Corporation. Under both the PPA, the Department is required to make certain payments to the Cooperative. Under the PPA, each Participant is unconditionally obligated to make all payments due to the Berkshire Wind Cooperative Corporation, whether or not the Berkshire Wind Facility is completed or operating, and notwithstanding the suspension or interruption of the output of the Berkshire Wind Facility. In addition, under the PPA, the Department is required to pay to the Cooperative its share of the Operation and Maintenance (O&M) costs of the Berkshire Wind Facility.

As of December 31, 2016, total capital expenditures for the Berkshire Wind Facility amounted to \$59,256,145, of which \$3,279,000, represents the amount associated with the Department's share of the Capability of the Berkshire Wind Facility of which it is a Member, although such amount is not allocated to the Department. The Cooperative's debt outstanding for the Berkshire Wind Facility includes bonds totaling \$52,855,000, of which \$2,924,000 is associated with the Department's share of Capability of the Berkshire Wind Facility of which it is a Member, although such amount is not allocated to the Department. As of December 31, 2016, the Cooperative's total future debt service requirement on outstanding bonds issued for the Projects is \$75,587,000 of which \$4,182,000 is anticipated to be billed to the Department in the future.

The estimated aggregate amount of the Groton Electric Light Department's required payments under the PSA, exclusive of the Reserve and Contingency Fund billings, to the Cooperative at December 31, 2016 and estimated for future years is shown below.

		ANNU	AL COSTS
For years ended December 31,	2017	\$	299,000
	2018		299,000
	2019		299,000
	2020		299,000
	2021		299,000
	2022 to 2026		1,493,000
	2027 to 2030		1,194,000
	TOTAL	<u>s</u>	4,182,000

Other Power Supply

The Department has entered into an All Requirements Bulk Power Sales Agreement (All Requirements Agreement) with MMWEC, under which MMWEC provides, delivers and sells all electric power and energy to the Department, whether through owned generation, purchased power contracts or other power supply arrangements.

Under the terms of the All Requirements Agreement, the Department is committed to purchase additional power through MMWEC in the amount of \$1,090,342 in 2017, \$620,000 in 2018 and \$163,450 in 2019.

MMWEC Contingencies and Liabilities

Through membership in MMWEC, the Department is contingently liable on the various projects in which they participate as detailed below.

NOTE 25 - CONTINGENT LIABILITIES (Continued):

MMWEC Contingencies and Liabilities (continued)

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.

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, 2016, total capital expenditures amounted to \$1,636,374,000, of which \$16,947,000 represents the amount associated with the Department's Project Capability. MMWEC's debt outstanding for the Projects from Power Supply System Revenue Bonds totals \$55,795,000, of which \$669,000 is associated with the Department's share of Project Capability. As of December 31, 2016, MMWEC's total future debt service requirement on outstanding bonds issued for the Projects is \$59,281,000, of which \$712,000 is anticipated to be billed to the Department in the future.

The aggregate amount of Groton Electric Light Department's required payments under the PSAs and PPAs, exclusive of the Reserve and Contingency Fund billings, to MMWEC at December 31, 2016 and estimated for future years is shown below.

		ANNU	AL COSTS
For years ended December 31,	2017	\$	579,000
	2018		19,000
	2019		114,000
	TOTAL	<u>\$</u>	712,000

In addition, under the PSAs, the Department is required to pay 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 \$1,505,000 and \$1,584,000 for the years ended December 31, 2016 and 2015, respectively.

	PERCENTAGE SHARE		TAL PROJECT XPENDITURES TO DATE	PA	RTICIPANTS SHARE	& (BT ISSUED DUTSTANDING 2/31/2016		TICIPANTS HARE	0	TOTAL 3T SERVICE N BONDS ISTANDING		IPANTS HARE
Stony Brook Peaking Project	1.0832	S	59,762	S	647	s		s		s		s	2
Stony Brook Intermediate Project	0.8852		174,182		1,542				S2		12		2
Nuclear Mix No. 1-SBK	0.9725		14,443		140						2		-
Nuclear Mix No. 1-MLS	0.9725		120,538		1,172		-				-		-
Nuclear Project No. 3-MLS	0.3074		152,231		468		6,540		20		6,984		21
Nuclear Project No. 4-SBK	0.7380		351,298		2,593		8,455		62		8,802		65
Nuclear Project No. 5-SBK	0.3579		95,231		341		2,970		11		3,119		11
Wyman Project	-		8,805		-						-		2
Project No. 6-SBK	1.5221	_	659,884		10,044		37,830		576		40,376		615
TOTAL		s	1,636,374	s	16,947	s	55,795	s	669	\$	59,281	\$	712

	PERCENTAGE SHARE		PÉRATION & IAINTENANCE 1/1/2016	PA	ARTICIPANTS SHARE	м	PERATION & AINTENANCE 12/31/2016		CTICIPANTS SHARE
Stony Brook Peaking Project	1.0832	s	3,730	S	40	S	4,008	\$	43
Stony Brook Intermediate Project	0.8852		40,083		355		28,039		248
Nuclear Mix No. 1-SBK	0.9725		576		6		723		7
Nuclear Mix No. I-MLS	0.9725		6,369		62		6,038		59
Nuclear Project No. 3-MLS	0.3074		27,329		84		22,939		71
Nuclear Project No. 4-SBK	0.7380		28,086		207		27,748		205
Nuclear Project No. 5-SBK	0.3579		7,530		27		7,615		27
Wyman Project			2,591				961		20
Project No. 6-SBK	1.5221		52,773		803	-	55,538		845
TOTAL		s	169,067	s	1,584	s	153,609	s	1,505

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	PERC'ENTAGE SHARE	AN	2017 NUAL COST		RTICIPANTS	AN1	2018 NUAL COST		TICIPANTS	AN	2019 NUAL COST		TPANTS HARE
Stony Brook Peaking Project	1.0832	S		S	-	S	-	S	120	s	120	s	
Stony Brook Intermediate Project	0.8852		-		-		-		-		1000		-
Nuclear Mix No. 1-SBK	0.9725		-		-		-						
Nuclear Mix No. 1-MLS	0.9725				-		<u></u>				-		
Nuclear Project No. 3-MLS	0.3074		3,639		TE:		3,345		10		-		
Nuclear Project No. 4-SBK	0.7380		8,802		65		-						
Nuclear Project No. 5-SBK	0.3579		2,884		10		235		1		-		12
Wyman Project	-		-		-		-		-		122		1.1
Project No. 6-SBK	1.5221		32,417		493		503		8		7,456		114
TOTAL		S	47,742	\$	579	s	4,083	s	19	s	7,456	s	114

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GROTON ELECTRIC LIGHT DEPARTMENT **REQUIRED SUPPLEMENTARY INFORMATION** OTHER POSTEMPLOYMENT BENEFITS

OPERATING FUND

Schedule of Funding Progress - Other Post-Employment Benefits

Actuarial Valuation Date	For the Year Ending	 Actuarial Value of Assets	Actuarial Accrued Liability (AAL)	Unfunded AAL (UAAL)	Funded Ratio	Total Employee Payroll	UAAL as a Percentage of Payroll
7/1/2008	12/31/2009	\$ -	\$ 1,195,659	\$ 1,195,659	0.00%	\$ 860,000	139.03%
7/1/2008	12/31/2010	\$ -	\$ 1,195,659	\$ 1,195,659	0.00%	\$ 980,466	121.95%
7/1/2008	12/31/2011	\$ 200,000	\$ 1,195,659	\$ 995,659	16.73%	\$ 1,069,662	93.08%
7/1/2011	12/31/2012	\$ 203,773	\$ 1,245,574	\$ 1,041,801	16.36%	\$ 1,119,083	93.09%
7/1/2011	12/31/2013	\$ 328,496	\$ 1,245,574	\$ 917,078	26.37%	\$ 1,116,747	82.12%
7/1/2011	12/31/2014	\$ 509,031	\$ 1,245,574	\$ 736,543	40.87%	\$ 1,123,229	65.57%
7/1/2014	12/31/2015	\$ 657,547	\$ 1,461,856	\$ 804,309	44.98%	\$ 1,104,367	72.83%
7/1/2014	12/31/2016	\$ 840,857	\$ 1,461,856	\$ 620,999	57.52%	\$ 1,129,487	54.98%

Schedule of Actuarial Methods and Assumptions

The Schedule of Actuarial Methods and Assumptions presents factors that significantly affect the identification of trends in the amounts reported.

Actuarial Methods:

Valuation Date	7/1/2014
Actuarial Cost Method	Projected Unit Credit
Amortization Method	Open 30-year level dollar basis

Actuarial Assumptions: **Discount Rate** Medical/Drug Cost Trend Rate

4.00% Heath care costs were assumed to increase 7% in fiscal 2015 with trend rates expected to decrease by 0.5% each year to an ultimate rate of 5.0% in fiscal 2019 and beyond.

GROTON ELECTRIC LIGHT DEPARTMENT REQUIRED SUPPLEMENTARY INFORMATION NET PENSION LIABILITY

OPERATING FUND

Schedule of the Department's Proportionate Share of the Net Pension Liability (NPL)

30.000	Actuarial uation Date	Measurement Date	For the Year Ending	Department's Portion of the NPL	Department's Proportionate Share of the NPL		Department's Total Employee Payroll		NPL as a Percentage of Total Employee Payroll	Plan Fiduciary Net Position as a Percentage of the Total Pension Liability		
	1/1/2014	12/31/2014	12/31/2015	0.2681%	\$	3,220,558	\$	1,104,367	291.62%	47.94%		
	1/1/2014	12/31/2015	12/31/2016	0.2440%	5	3,147,283	\$	1,129,487	278.65%	46.13%		

Schedule of Contributions

				Rel	ation to the					
		A	ctuarially	A	ctuarially	Cont	ribution	D	epartment's	
Measurement	For the Year	D	etermined	Determined		Deficiency		Total Employee		Contribution as a Percentage of the
Date	Ending	Co	Intribution	Co	ontribution	(E)	(cess)		Payroll	Department's Total Employee Payroll
12/31/2014	12/31/2015	\$	251,738	\$	251,738	\$	-	\$	1,104,367	22.79%
									1,129,487	23.52%
	Date	Date Ending	Measurement For the Year Dependence Date Ending Co 12/31/2014 12/31/2015 \$	Date Ending Contribution 12/31/2014 12/31/2015 \$ 251,738	Ret Actuarially A Measurement For the Year Determined D Date Ending Contribution Contribution 12/31/2014 12/31/2015 \$ 251,738 \$	Measurement For the Year Determined Determined Date Ending Contribution Contribution 12/31/2014 12/31/2015 \$ 251,738 \$ 251,738	Relation to the Actuarially Actuarially Cont Measurement For the Year Determined Determined Determined Determined Determined (Est Date Ending Contribution (Est	Measurement For the Year Determined Relation to the Date Ending Contribution Determined Deficiency 12/31/2014 12/31/2015 \$ 251,738 \$ 251,738 \$ -	Relation to the Relation to the Measurement For the Year Determined Determined Deficiency To Date Ending Contribution Contribution (Excess) 12/31/2014 \$ 251,738 \$ 251,738 \$ - \$	Relation to the Measurement For the Year Determined Determined Deficiency Total Employce Date Ending Contribution Contribution (Excess) Payroll 12/31/2014 12/31/2015 \$ 251,738 \$ 251,738 \$ - \$ 1,104,367

Note: These schedules are intended to present information for 10 years. Until a 10 year trend is compiled, information is presented for those years for which information is available.

See Independent Auditors' Report Page 37

GROTON ELECTRIC LIGHT DEPARTMENT NOTES TO REQUIRED SUPPLEMENTARY INFORMATION

OPERATING FUND

NOTE A - PENSION PLAN:

Changes in Assumptions

The actuarial cost method was changed to better reflect the impact of the plan changes effective for employees hired on or after April 2, 2012.

The pre-retirement mortality assumption was changed from the RP-2000 Employee Mortality Table projected 12 years with Scale AA to the RP-2000 Employee Mortality Table projected 22 years with Scale AA.

The mortality assumption for non-disabled retirees was hanged from the RP-2000 Healthy Annuitant Mortality Table projected 12 years with Scale AA to the RP-2000 Healthy Annuitant Mortality Table projected 17 years with Scale AA.

The mortality assumption for disabled participants was changed from the RP-2000 Healthy Annuitant Mortality Table set forward two years to the RP-2000 Healthy Mortality Table set forward three years projected 17 years with Scale AA.

The investment return assumption was decreased from 8.00% to 7.875%.

The salary increase assumption was changed from level rates of 4.75% per year for Group 1 and Group 2 members and 5.25% per year for Group 4 Members, including an allowance for inflation of 4.5% per year, to rates based on years of service with ultimate rates of 4.25% per year for Group 1 members, 4.5% per year for Group 2 members and 4.75% per year for Group 4 members, including an allowance for inflation of 4.0% per year.

The assumed retirement age for inactive vested participants was changed from age 65 to 60 for Group 1 and 2 members and remained the same at age 55 for Group 4 members hired prior to April 2, 2012. For participants hired April 2, 2012 or later, the assumption is 60 for Group 1 Members, 55 for Group 2 members, and 50 for Group 4 members.

The administrative expense assumption was increased from \$3,100,000 for calendar 2012 to \$3,400,000 for calendar 2014.

Changes in Plan Provisions

Members hired on or after April 2, 2012 are covered by the provisions of Chapter 32 as amended by Chapter 176 of the acts of 2011 and Chapter 139 of the Acts of 2012.

GROTON ELECTRIC LIGHT DEPARTMENT SCHEDULES OF SALES OF ELECTRICITY FOR THE YEARS ENDED DECEMBER 31, 2016 AND 2015

OPERATING FUND

	2016		2015		INCREASE (DECREASE)	
SALES OF ELECTRICITY:						
Residential	\$	5,408,360	\$	5,476,795	\$	(68,435)
Commercial		1,851,323		1,856,506		(5,183)
Large Commercial		1,311,292		1,323,916		(12,624)
Municipal		567,197		593,107		(25,910)
Not for Profit Sales		87,983		86,146		1,837
Private Yard Lighting		29,977		31,176		(1,199)
Residential Farm		18,112		19,028		(916)
Commercial Farm		63,323		64,221		(898)
TOTAL SALES OF ELECTRICITY	\$	9,337,567	\$	9,450,895	\$	(113,328)

GROTON ELECTRIC LIGHT DEPARTMENT SCHEDULES OF OPERATIONS AND MAINTENANCE EXPENSES FOR THE YEARS ENDED DECEMBER 31, 2016 AND 2015

OPERATING FUND

OPED ATIONS EVENIGES	2016			2015	INCREASE (DECREASE)		
OPERATIONS EXPENSES:							
POWER PRODUCTION EXPENSES	\$	6,591,292	\$	7,155,725	\$	(564,433)	
DISTRIBUTION EXPENSES							
Miscellaneous Distribution Expenses		12,864		29,030		(16,166)	
Line Expenses		20,999		12,855		8,144	
CUSTOMER ACCOUNTS							
Customer Accounting and Collection Expense		209,886		198,747		11,139	
Customer Service and Information Expense		17,462		18,574		(1,112)	
Meter Reading Expense		76,896		64,311		12,585	
Uncollectible Accounts		(1,804)		10,399		(12,203)	
GENERAL AND ADMINISTRATIVE EXPENSES							
Administrative and General Salaries		266,952		256,385		10,567	
Office Supplies and Expenses		55,460		74,229		(18,769)	
Rent		0		9,470		(9,470)	
Outside Services Employed		36,790		42,054		(5,264)	
Property Insurance		61,810		59,158		2,652	
Employees' Pension and Benefits		659,978		648,005		11,973	
Dues, Meetings, and Other General Expenses		24,619		31,072		(6,453)	
Transportation Expenses		81,353	-	67,616	-	13,737	
TOTAL OPERATIONS EXPENSES	\$	8,114,557	\$	8,677,630	\$	(563,073)	
MAINTENANCE EXPENSES							
Maintenance of Lines	\$	593,635	\$	618,913	\$	(25,278)	
Maintenance - Other		186,711		187,668		(957)	
TOTAL MAINTENANCE EXPENSES	\$	780,346	\$	806,581	\$	(26,235)	

MEET OUR EMPLOYEES

Employees

Office Staff: Kevin Kelly, Manager Elaine Johnson, Accountant

Tammi Lemire, Executive Assistant Barbara Cronin, Customer Accts./HR Liaison

Line Crew: Gil Finch, Foreman

Rob Blood, Truck Foreman Dan Johnson, Truck Foreman

Ryan Andrews, 1st Class Lineman Bruce Dubey Jr., 1st Class Lineman

Jon Patterson, 1st Class Lineman Luke Condon, Meter Technician

Our office hours are open to the public: Monday 7:30 a.m. – 7 p.m. Tuesday through Thursday 7:30 a.m. – 4 p.m. Friday 8:00 a.m. – 1:00 p.m.

Our line crew work 7:00 a.m. - 3:30 a.m. Monday - Friday during daylight savings time and 7:30 a.m. - 4:00 p.m. Monday - Friday standard time.

Our customer service department is available to accept payments and to discuss issues ranging from energy conservation to requests for tree trimming to billing complaints.

Our line crew is available at a moment's notice to provide timely and expert service to all customers of the Light Department no matter the time of day or the weather conditions. They are committed to restoring service as quickly as possible.



LUKE & RYAN "FEELING AT HOME"

Feeling at Home...

