

READING MUNICIPAL LIGHT DEPARTMENT

BOARD OF COMMISSIONERS

REGULAR SESSION

THURSDAY, MARCH 15, 2018

APPROVAL OF BOARD MINUTES JANUARY 25, 2018 ATTACHMENT 1

READING MUNICIPAL LIGHT DEPARTMENT BOARD OF COMMISSIONERS MEETING 230 Ash Street Reading, MA 01867 January 25, 2018

Start Time of Regular Session: 7:30 p.m. End Time of Regular Session: 9:54 p.m.

<u>Commissioners:</u> Phillip B. Pacino, Chair-Absent Dave Hennessy, Vice Chair-Secretary Pro Tem Tom O'Rourke, Commissioner

Staff:

Coleen O'Brien, General Manager Hamid Jaffari, Director of Engineering and Operations Jane Parenteau, Director of Integrated Resources

Citizens Advisory Board: George Hooper, Chair Dave Talbot, Commissioner John Stempeck, Commissioner-Absent

Wendy Markiewicz, Director of Business/Finance Joyce Mulvaney, Communications Manager Tracy Schultz, Executive Assistant

Public: John Rogers, 39 Tower Hill Road, Reading

Call Meeting to Order

Vice Chair Hennessy called the meeting to order and announced that the meeting is being videotaped at the RMLD office at 230 Ash Street, for distribution to the community television stations in Reading, North Reading, Lynnfield, and Wilmington.

Opening Remarks

Vice Chair Hennessy read the RMLD Board of Commissioners' Code of Conduct and invited Reading resident John Rogers to make his public comments.

Public Comment

Mr. Rogers explained that he had e-mailed a letter about RMLD's solar policy to the Board of Commissioners. Mr. Rogers stated that he has a solar system installed on his home and that he would like to make three main points: RMLD's solar policy needs to be updated; fixing it is in RMLD's best interest; fixing it is easy. Mr. Rogers handed out a packet containing excerpts from other municipals' solar policies and explained that Ipswich does a monthly reconciliation that rolls over and then trues up the use and the generation once a year. Mr. Rogers stated that RMLD's meters instantaneously true up and the capacity value his system provides isn't factored in. Mr. Rogers asked the Commission to consider Ipswich's policy or have a monthly true up.

Mr. Talbot asked what changing the solar policy would add up to for Mr. Rogers. What's the difference when the meter reconciles in real time? Mr. Rogers stated that his solar panels generate energy when he's not using power (during the day) and he is getting paid 5 cents a kWh.

Ms. Parenteau stated that when the rate was set up it anticipated the current meters. One channel measures everything a customer purchases from RMLD, one measures how much a customer generates. The rate needs to be modified, but there are pluses and minuses on both sides. RMLD's rate is in the middle right now. RMLD strives to be cost of service.

Mr. Rogers stated that the value of solar assessment is better for utility than homeowner. Most utilities reconcile on an annual basis. Reading does minute to minute. There are 96 residential customers on solar. The next step is for people to install batteries and completely migrate off the grid.

Vice Chair Hennessy thanked Mr. Rogers for his presentation.

Approval of Board Minutes (Attachment 1)

Mr. Talbot made a motion, seconded by Mr. O'Rourke that the Board approve the meeting minutes of September 14, 2017 and November 9, 2017. Motion Carried. 3:0:0

RMLD Board Member Attendance at Citizens' Advisory Board Meeting Report – Mr. O'Rourke

Vice Chair Hennessy thanked Chair Hooper for attending the meeting. Chair Hooper thanked Mr. Rogers for his passionate presentation and stated that Mr. Rogers can also reach out to the CAB.

Mr. O'Rourke stated that the CAB meeting included discussions about a more automated and more responsive outage management system, the storm liaison, and the second Solar Choice program. There was an update on the organizational study. Mr. O'Rourke asked if it would have been appropriate forward Mr. Rogers' letter to the CAB. Ms. O'Brien explained that it was addressed to herself and the Board. Ms. O'Brien stated that she can talk to the Chairman as correspondence is received.

General Manager's Report - Ms. O'Brien

Regarding Mr. Rogers' presentation, Ms. O'Brien stated that RMLD must look through each component of the solar rate. Ms. O'Brien stated that she wrote the one in Danvers and knows what other municipals have.

Ms. O'Brien said that she was asked to go back to the APPA Legislative Rally in Washington D.C. this year. It's important to advocate for municipals retaining local control and making it clear that municipals are not the same as investor-owned utilities. Additionally, RMLD was awarded the \$1 million-dollar grant for the five-megawatt battery storage unit. Ms. O'Brien has been asked to attend and requested to go to the trading floor and attend NextEra Energy Marketing Public Power's Summit. It is a training and a conference. It will be career development training.

Mr. O'Rourke made a motion, seconded by Mr. Talbot, that the Board approve Ms. O'Brien's travel to, and attendance at, the NextEra Energy Marketing Public Power Summit, in Manalapan, Florida, from February 4 to February 7, 2018.

Motion Carried. 3:0:0

Mr. O'Rourke made a motion, seconded by Mr. Talbot, that the Board approve Ms. O'Brien's travel to, and attendance at, the APPA Legislative Rally in Washington DC, from February 25 to March 1, 2018. Motion Carried. 3:0:0

Ms. O'Brien stated that she will report back to the Board following her attendance at both events.

RMLD Response to January 4, 2018 Storm

Ms. O'Brien stated that two commercial customers lost power during the storm. The taps burnt out and the outages were isolated. RMLD was properly prepared for the storm. However, not much happened.

Integrated Resources Division

Community Engagement-Ms. Mulvaney

Ms. Mulvaney announced that RMLD held the award ceremonies for the Elementary School Art Contest winners. Mr. O'Rourke commented on the maturity of the elementary school students. Ms. Mulvaney stated that the art contest for the high school students will kick off with informational sessions in April.

Ms. Mulvaney stated that the previous evening a Save Energy and Money informational session was held for residential customers. Over forty customers attended.

Ms. Mulvaney announced that the RMLD website is going to be updated to improve navigation and streamline content.

Power Supply Report-November 2017-Ms. Parenteau (Attachment 3)

Ms. Parenteau reported on the renewable components of November 2017 purchase power. In 2013 hydro represented about 5.75 percent of RMLD's overall portfolio. In 2017, hydro accounted for 13 percent. RMLD has negotiated several contracts with developers of hydro. The percentage of the portfolio fluctuates because hydro is weather dependent and seasonal. RMLD had no wind in its portfolio prior to 2014. RMLD has since signed two contracts. Wind comprised 3 percent of the portfolio in 2015 and 4.5 percent in 2017. There was no solar in RMLD's portfolio in 2013. In 2015, a 2-megawatt solar installation was put in Wilmington. There have been two other projects since then, making solar 0.47 percent of the portfolio.

Vice Chair Hennessy asked which area of renewables does Ms. Parenteau foresee the most growth in? Ms. Parenteau answered that wind has the largest potential for growth. Hydro projects are limited, as is solar capacity. All renewables in the portfolio in November 2017 totaled 18 percent.

Mr. O'Rourke asked if the new battery storage unit will count as a renewable source of power. Ms. Parenteau answered that it will, and that it is slated for installation in December of this year.

Mr. Talbot asked does selling RECs impact what we can say we're using in terms of renewables. Ms. Parenteau replied that's why she has been careful not to call any of these power sources 'green.' Renewable is the type of generation. Ms. Parenteau stated that she doesn't want to mislead public; she is talking about renewable projects.

Mr. Talbot stated that the ability to call yourself green transfers with the Renewable Energy Certificates (RECs). Mr. Talbot asked what the true percentage is without the RECs. From eighteen percent to what? Ms. Parenteau clarified that she was not referring to renewable energy certificates, just the types of projects.

Chair Pacino called in to express his regret that he was unable to attend the meeting, due to both travel and an illness. Chair Pacino then disconnected the call.

The discussion continued regarding whether 'renewables' can be referred to as 'renewables' when the RECs have been sold. Mr. Rogers gave a history of RECs.

Proposed Rate for Solar Choice Program (Attachment 3)

Ms. Parenteau explained that RMLD is looking to refile its Solar Choice rate. The updated rate has been presented to the CAB. Solar Choice I is fully subscribed with 500 customers and has been online since June 2017. After the first seven months, the savings are greater. The customer cost dropped from \$5 to \$1. Modifications have been made to the rate so that the first six months is \$5 and then each project gets trued up on the actual performance. Solar Choice II is online, 560 customers have signed up, which is 85 percent of the 660 available slots. Customers can sign up for one share in multiple projects. RMLD is adding Solar Choice Business for small and medium commercial customers. It bundles five solar choice shares, and will be \$25 a month for the first six months, at which point it will be trued up. Solar Choice Business Plus will be available for large commercial customers, with an individual customer's share not to exceed 25 percent of the total project, subject to availability. These are all good changes.

Mr. Talbot made a motion, seconded by Mr. O'Rourke, that the Board of Commissioners adopt the Solar Choice Rate, MDPU No. 278, dated to be effective February 1, 2018, on the recommendation of the General Manager. **Motion Carried.**

3:0:0

Financial Report- November 2017-Ms. Markiewicz- (Attachment 4)

Ms. Markiewicz reported on the first five months of FY 18 ending November 30. The statement of net assets shows RMLD is doing well. Receivables are 95 percent current, which is up 3 percent from last year, and it is currently moratorium. Ms. Parenteau stated that Ms. Hanifan has been diligently working with customers. RMLD's sources of capital are currently \$6.7 million, of that, RMLD has spent \$2.2 million, leaving capital funds of almost \$4.5 million. If you look at last year, the depreciation fund has decreased. That is due to the capital projects. YTD as compared to the budget profit and loss statement shows purchase power transmission capacity is under collected by about

Financial Report- November 2017-Ms. Markiewicz- (Attachment 4)

\$224,000, which Ms. Parenteau compensates for monthly. If you look at the actual as compared to the budget for the first five months of the year we should have 58.3 percent of the budget remaining. 62.4 percent remains of the budget. It could be due to the timing of projects and payments. Ms. Markiewicz then reviewed the \$94-million-dollar budget, stressing how many of RMLD's costs are fixed.

Engineering and Operations Report-November 2017-Mr. Jaffari (Attachment 5)

Mr. Jaffari reported on November 2017 and explained that lots of projects start in the spring and go into the summer. That's when most of the spending occurs. That will bring the plant value up. RMLD is making great progress on capital projects. Non-project capital improvements totaled \$134,948 in November, bringing YTD to \$546,813. Total Capital Spending in November was \$584,377, bringing YTD to \$2,236,964. The remaining balance is \$5,448,557. Expenditures will start to increase in April. RMLD is making great progress on routine maintenance such as pole inspections. The feeder inspection program was being improved, so there were no inspections done between October and December. Porcelain cutout replacements are ninety-one percent completed.

Mr. Jaffari stated that at a meeting earlier in the week, a North Reading Selectman remarked that they were very pleased with the tree trimming program. Mr. Jaffari continued, explaining that RMLD went from a five-foot span to an eight-foot span. It has improved reliability.

Vice Chair Hennessy asked how do you know that there haven't been as many tree incidents? Mr. Jaffari answered that they are being tracked. GIS also tracks the tree growth. The trimming has been around main feeders and laterals. It is a 5-year cycling program. Most utilities trim a ten-foot span.

Now that the GIS system is completed, the underground subdivisions are being prioritized. There are approximately 150 communities that need equipment upgrades. It will increase reliability.

Mr. Jaffari then moved on double poles and the NJUNS report. Lynnfield has 5 pending transfers. Reading has 21 pending transfers and 57 pull poles for a total 78. North Reading has a total of 33, made up of 13 transfers 20 pull poles. Wilmington has 31 pending transfers and 4 pull poles, for a total of 35. RMLD tries to move ten a week.

Mr. Jaffari then stated that RMLD is doing great reliability-wise. RMLD is below regional and national averages. Mr. Jaffari then presented a bar chart of outage causes, rather than the customary pie chart.

CAB Chair Hooper asked if the tree wardens of each town are contacted before tree trimming occurs. Mr. Jaffari replied that a map is posted before anything is trimmed. Prior to the trimming, the RMLD tree liaison contacts the wardens to let them know where RMLD will be.

RMLD Procurement Requests Requiring Board Approval - Mr. Jaffari (Attachment 6) IFP 2018-26 - 35kV Underground Cable

Mr. Jaffari explained that these are the underground cables between Station 4 and Station 5. RMLD sent notice to 22 potential bidders and received five responses. Wesco. In 2011 the cable cost \$11.87 a foot. Now it costs \$10.05 a foot.

Mr. O'Rourke made a motion, seconded by Mr. Talbot, that proposal 2018-26 for 35kV Underground Cable be awarded to: **WESCO Distribution** for **\$60,300.00**, pursuant to M.G.L. Chapter 164 § 56D on the recommendation of the General Manager.

Motion Carried. 3:0:0.

General Discussion

The future dates of the CAB and Board meetings were discussed. There is a Sub-Committee meeting on the Payment to the Town of Reading on February 13, 2018.

Executive Session

At 9:25 p.m. Mr. O'Rourke made a motion, seconded by Mr. Talbot, that the Board go into Executive Session to discuss trade secrets or confidential, competitively-sensitive or other proprietary information in the course of activities conducted by a governmental body as an energy supplier under a license granted by the Department of Public Utilities, and to consider the purchase of real property and return to Regular Session for the sole purpose of adjournment.

Vice Chair Hennessy called for a poll of the vote: Mr. O'Rourke: Aye; Mr. Talbot: Aye; Vice Chair Hennessy: Aye. Motion Carried 3:0:0.

Adjournment

Mr. O'Rourke made a motion, seconded by Mr. Talbot, to adjourn the Regular Session.

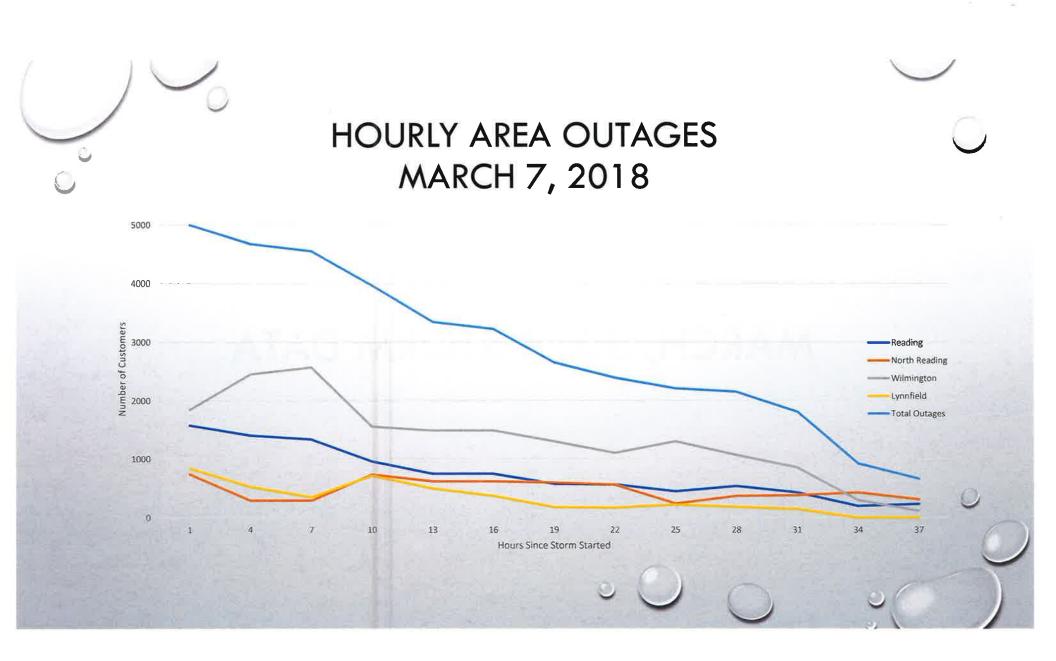
A true copy of the RMLD Board of Commissioners minutes as approved by a majority of the Commission.

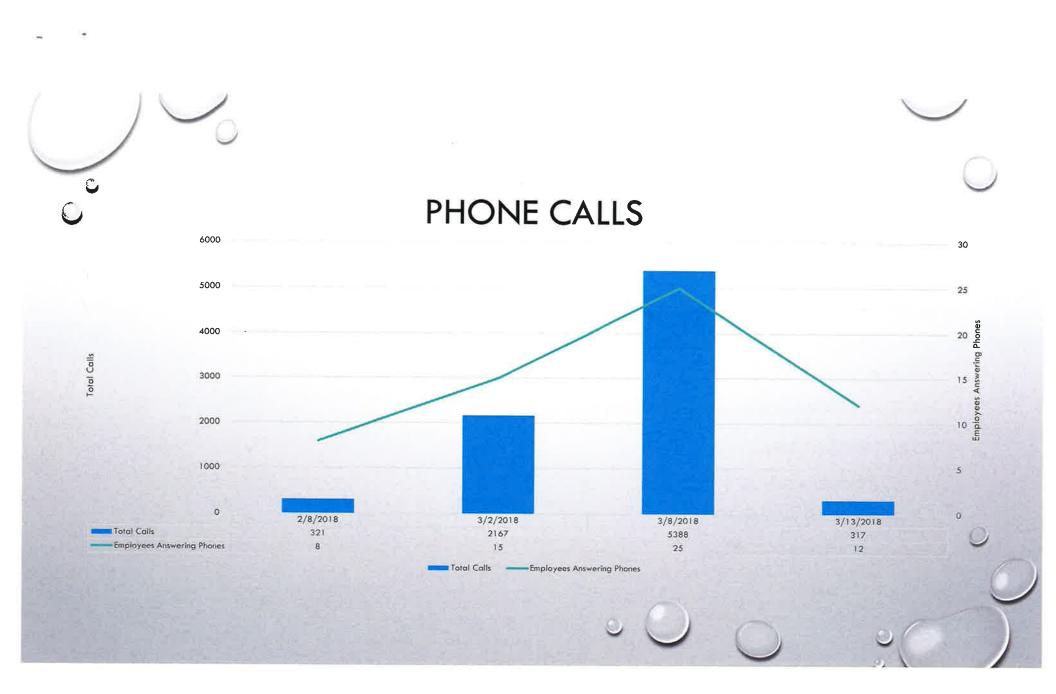
David Hennessy, Vice Chair, Secretary Pro Tem RMLD Board of Commissioners

QUARTERLY UPDATE: ORGANIZATIONAL & RELIABILTY REPORTS ATTACHMENT 2



MARCH, 2018 STORM DATA





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WEBSITE AND TWITTER FOLLOWING DURING MARCH STORMS

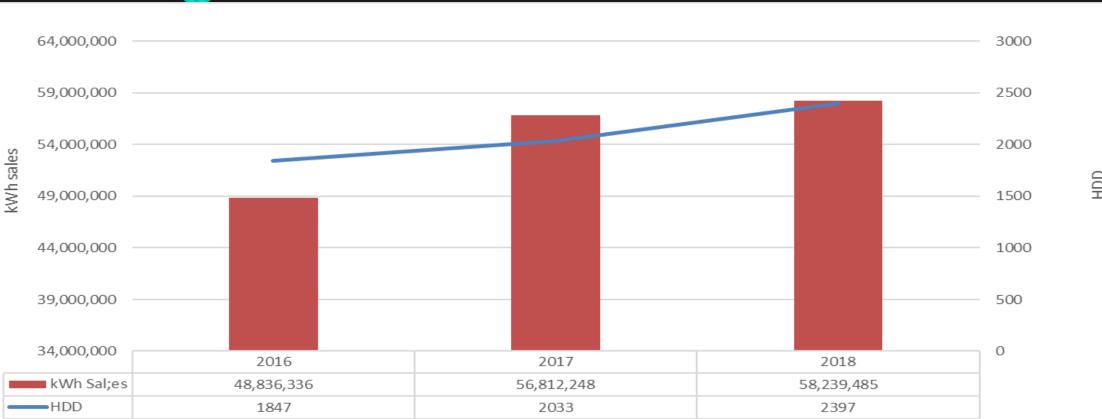
- IN FEBRUARY, 2018 RMLD HAD 1,437 TWITTER FOLLOWERS
 - 3/2 (STORM #1) GAINED 187 TWITTER FOLLOWERS: 1,624
 - 3/8 (STORM #2) GAINED 607 TWITTER FOLLOWERS: 2,231
 - 3/13 (STORM #3) GAINED 30 TWITTER FOLLOWERS: 2,249
- WEBSITE SESSIONS:
 - 3/2 (STORM #1): 1,761
 - 3/8 (STORM #2): 5,677
 - 3/13 (STORM #3): 611

POWER SUPPLY REPORT JANUARY 2018 ATTACHMENT 3

INTEGRATED RESOURCES Board of Commissioners Meeting Reporting for January, 2018 Jane Parenteau, Director of Integrated Resources

March 15, 2018

Heating Degree Days (HDD) vs. kWh Sales January 2016 - 2018



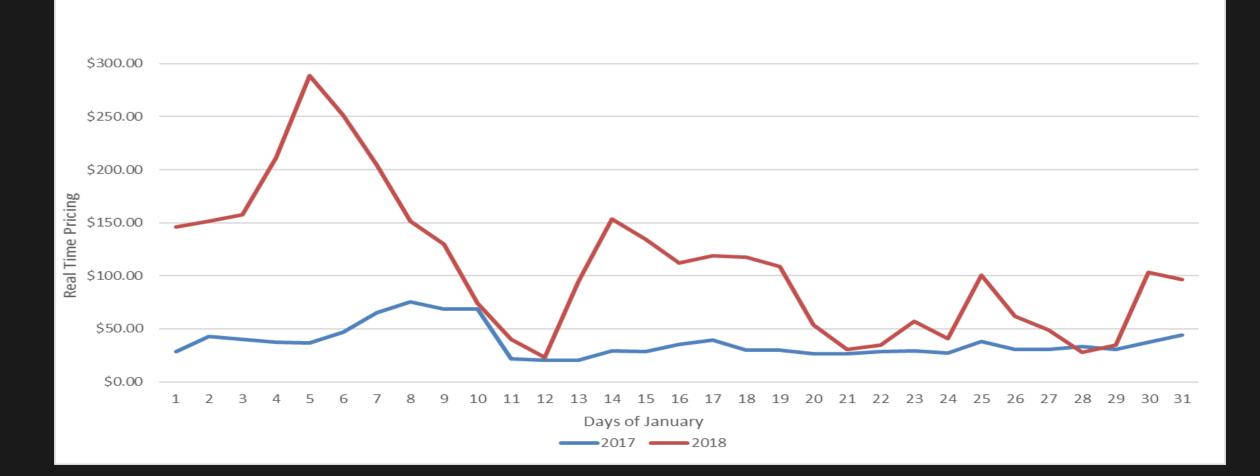
ПDD

Daily Day Ahead Locational Marginal Pricing (LMP) January 2017 vs. 2018



—2017 **—**2018

Daily Real Time Locational Marginal Pricing January 2017 vs. 2018



To:	Coleen O'Brien	1
From:	Maureen McHugh, Jane Parenteau	1
Date:	March 5, 2018	

Subject: Purchase Power Summary – January, 2018

Energy Services Division (ESD) has completed the Purchase Power Summary for the month of January, 2018.

ENERGY

The RMLD's total metered load for the month was 60,158,734 kWh, which is a 4.29% increase from the January, 2017 figures.

Table 1 is a breakdown by source of the energy purchases.

	Amount of	Cost of	% of Total	Total \$	\$ as a
Resource	Energy	Energy	Energy	Costs	%
	(kWh)	(\$/Mwh)			
Millstone #3	3,723,907	\$6.38	6.17%	\$23,752	0.62%
Seabrook	5,909,413	\$5.92	9.79%	\$34,984	0.92%
Stonybrook Intermediate	6,482,558	\$128.95	10.74%	\$835,928	21.93%
Shell Energy	9,311,200	\$57.98	15.42%	\$539,842	14.16%
NYPA	2,648,679	\$4.92	4.39%	\$13,032	0.34%
Nextera	2,812,000	\$80.41	4.66%	\$226,111	5.93%
ISO Interchange	9,191,505	\$87.96	15.23%	\$808,501	21.21%
Nema Congestion	ž	\$0.00	0.00%	-\$374,821	-9.83%
Coop Resales	20,917	\$140.83	0.03%	\$2,946	0.08%
EDF	5,507,200	\$61.32	9.12%	\$337,707	8.86%
Hydro Projects*	3,534,934	\$66.40	5.86%	\$234,703	6.16%
Braintree Watson Unit	943,693	\$216.20	1.56%	\$204,027	5.35%
Saddleback/Jericho Wind	2,365,263	\$48.01	3.92%	\$113,554	2.98%
One Burlington & Comm. Solar	117,771	\$72.27	0.20%	\$8,511	0.22%
Exelon	7,065,600	\$93.76	11.70%	\$662,481	17.38%
Stonybrook Peaking	733,657	\$191.16	1.22%	\$140,246	3.68%
Monthly Total	60,368,297	\$63.14	100.00%	\$3,811,502	100.00%

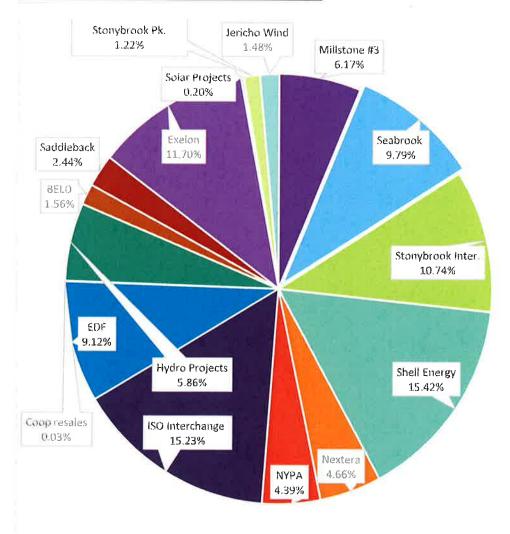
Table 1

*Pepperell, Woronoco,Indian River,Turner Falls,Collins, Pioneer,Hosiery Mills, Aspinook Hydro

Table 2 breaks down the ISO interchange between the DA LMP Settlement and the RT Net Energy for the month of January, 2018.

	Table 2					
Resource	Amount of Energy (kWh)	Cost of Energy (\$/Mwh)	% of Total Energy			
ISO DA LMP * Settlement	5,778,619	\$40.80	9.57%			
RT Net Energy ** Settlement	3,412,887	\$312.49	5.65%			
ISO Interchange (subtotal)	9,191,505	\$87.96	15.23%			

* Independent System Operator Day-Ahead Locational Marginal Price



JANUARY 2018 ENERGY BY RESOURCE

CAPACITY

The RMLD hit a demand of 108,096 kW, which occurred on January 2, at 6 pm. The RMLD's monthly UCAP requirement for January, 2018 was 222,777 kWs.

Table 3 shows the sources of capacity that the RMLD utilized to meet its requirements.

Source	Amount (kWs)	Cost (\$/kW-month)	Total Cost \$	% of Total Cost
Millstone #3	4,950	24.70	\$122,284	5.80%
Seabrook	7,909	18.89	\$149,439	7.08%
Stonybrook Peaking	24,980	1.94	\$48,455	2.30%
Stonybrook CC	42,925	3.31	\$141,898	6.73%
NYPA	0	0.00	-\$16,680	-0.79%
Hydro Quebec	0	0	-\$76,680	-3.63%
Braintree Watson Unit	0	0.00	\$55,118	2.61%
ISO-NE Supply Auction	142,013	11.87	\$1,685,928	79.91%
Total	222,777	\$9.47	\$2,109,761	100.00%

Table 3

Table 4 shows the dollar amounts for energy and capacity per source.

	Resource	Energy	Capacity	Table 4	% of Total Cost	Amt of Energy (kWh)	Cost of Power (\$/kWh)
* * *	Millstone #3 Seabrook Stonybrook Intermediate Hydro Quebec Shell Energy NextEra/EDF NYPA ISO Interchange Nema Congestion EDF Hydro Projects Braintree Watson Unit Saddleback/Jericho Burlington & Community Solar Coop Resales Exelon Energy Stonybrook Peaking	\$23,752 \$34,984 \$835,928 \$0 \$539,842 \$226,111 \$13,032 \$808,501 -\$374,821 \$337,707 \$234,703 \$204,027 \$113,554 \$8,511 \$2,946 \$662,481 \$140,246	\$122,284 \$149,439 \$141,898 -\$76,680 \$0 \$16,680 \$1,685,928 \$0 \$55,118 \$0 \$55,118 \$0 \$0 \$55,118	\$146,036 \$184,423 \$977,826 -\$76,680 \$539,842 \$226,111 -\$3,649 \$2,494,429 -\$374,821 \$337,707 \$234,703 \$259,145 \$113,554 \$8,511 \$2,946 \$662,481 \$188,700	2.47% 3.11% 16.51% -1.30% 9.12% 3.82% -0.06% 42.13% -6.33% 5.70% 3.96% 4.38% 1.92% 0.14% 0.05% 11.19% 3.19%	3,723,907 5,909,413 6,482,558 9,311,200 2,812,000	0.0392 0.0312 0.1508 0.0000 0.0580 0.0804 -0.0014 0.2714 0.0000 0.0613 0.0664 0.2746 0.0480 0.0723 0.1408 0.0938 0.2572
	Monthly Total Renewable Resources once F	\$3,811,502	\$2,109,761	\$5,921,263	100.00%	60,368,297 14,36%	0.0981

Renewable Resources once RECs are sold

14.36%

*Renewable Resources; per RMLD Board Policy, any RECs are sold to offset energy costs for all customers.

RENEWABLE ENERGY CERTIFICATES (RECs)

Table 5 shows the amount of banked and projected RECs for the Swift River Hydro Projects through January, as well as their estimated market value.

			le 5 ummary	
	Pe	eriod - July 2017	7 - January 2018	
	Banked	Projected	Total	Est.
	RECs	RECs	RECs	Dollars
Woronoco	309	946	1,255	\$12,549
Pepperell	461	1,190	1,651	\$16,510
Indian River	51	489	540	\$5,400
Turners Falls	90	422	512	\$5,120
Saddleback	1,408	5,904	7,312	\$73,120
Jericho	865	4,012	4,877	\$48,770
Sub total	3,184	12,963	16,147	161,469
RECs Sold	\$0		0	\$0
Grand Total	3,184	12,963	16,147	\$161,469

TRANSMISSION

The RMLD's total transmission costs for the month of January, 2018 were \$1,176,742. This is an increase of 37.03% from the December transmission cost of \$858,764. In January, 2017 the transmission costs were \$1,019,500.

Table 6

	Current Month	Last Month	Last Year
Peak Demand (kW)	108,096	104,381	105,335
Energy (kWh)	60,368,297	58,902,789	58,270,115
Energy (\$)	\$3,811,502	\$2,979,091	\$2,911,543
Capacity (\$)	\$2,109,761	\$2,021,055	\$1,477,200
Transmission(\$)	\$1,176,742	\$858,764	\$1,019,500
Total	\$7,098,005	\$5,858,910	\$5,408,243

FINANCIAL REPORT JANUARY 2018 ATTACHMENT 4

Town of Reading, Massachusetts Municipal Light Department Statement of Net Assets January 31, 2018

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ASSETS	2018	2017
Current: Unrestricted Cash	¢16 102 670 22	¢45 950 004 04
Restricted Cash	\$16,103,670.32 28,649,043.38	\$15,850,224.24 22,605,998.32
Restricted Investments	1,329,906.48	1,345,663.06
Receivables, Net	9,930,110.92	8,285,113.20
Prepaid Expenses	848,921.46	1,937,910.40
Inventory	1,570,899.03	1,568,809.91
Total Current Assets	58,432,551.59	51,593,719.13
Noncurrent:		
Investment in Associated Companies	212,427.92	26,993.75
Capital Assets, Net	77,092,631.75	73,414,409.00
Total Noncurrent Assets	77,305,059.67	73,441,402.75
Deferred Outflows - Pension Plan	4,135,078.00	6,338,218.00
TOTAL ASSETS	139,872,689.26	131,373,339.88
LIABILITIES		
Accounts Payable	8,994,863.35	6 020 210 44
Accrued Liabilities	734,767.56	6,939,310.44 710,032.79
Customer Deposits	1,157,139.00	986,734.14
Customer Advances for Construction	1,313,671.28	1,110,355.53
Total Current Liabilities	12,200,441.19	9,746,432.90
Non-current		
Accrued Employee Compensated Absences	3,150,134.05	3,257,809.00
Net OPEB Obligation	138,068.00	0.00
Net Pension Liability	13,076,538.00	8,833,549.00
Total Non-current Liabilities	16,364,740.05	12,091,358.00
Deferred Inflows - Pension Plan	714,888.00	883,172.00
TOTAL LIABILITIES	29,280,069.24	22,720,962.90
NET POSITION		
Invested in Capital Assets, Net of Related Debt	77,092,631.75	73,414,409.00
Restricted for Depreciation Fund	5,287,898.22	4,863,316.41
Restricted for Pension Trust	5,683,014.26	0.00
Unrestricted	22,529,075.79	30,374,651.57
		100 000 000 00
TOTAL NET POSITION	110,592,620.02	108,652,376.98

Town of Reading, Massachusetts Municipal Light Department Schedule of Cash and Investments January 31, 2018

	2018	2017
Unrestricted Cash		
Cash - Operating Fund	\$16,100,170.32	\$15,847,224.24
Cash - Petty Cash	3,500.00	3,000.00
Total Unrestricted Cash	16,103,670.32	15,850,224.24
Restricted Cash		
Cash - Depreciation Fund	4,717,650.82	4,863,316.41
Cash - Construction Fund	443,037.57	0.00
Cash - Town Payment	2,299,494.19	2,217,056.31
Cash - Deferred Fuel Reserve	3,956,575.32	4,667,343.23
Cash - Rate Stabilization Fund	6,937,922.43	6,852,727.56
Cash - Pension Trust	5,683,014.26	0.00
Cash - Uncollectible Accounts Receivable	200,000.00	200,000.00
Cash - Sick Leave Benefits	1,857,927.31	1,944,534.17
Cash - Hazard Waste Reserve	750,000.00	150,000.00
Cash - Customer Deposits	1,157,139.00	986,734.14
Cash - Energy Conservation	646,282.48	724,286.50
Total Restricted Cash	28,649,043.38	22,605,998.32
Investments		
Sick Leave Buyback	1,329,906.48	1,345,663.06
Total	\$46,082,620.18	\$39,801,885.62

Town of Reading, Massachusetts Municipal Light Department Capital Funds January 31, 2018

SOURCE OF CAPITAL FUNDS:

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DEPRECIATION FUND BALANCE 7/1/17	\$ 2,406,969.15
CONSTRUCTION FUND BALANCE 7/1/17	2,500,000.00
ADDITIONAL FUNDS ADDED TO CONSTRUCTION FUND BALANCE 12/31/17	1,200,000.00
INTEREST ON DEPRECIATION FUND FY 18	35,414.46
DEPRECIATION TRANSFER FY 18	 2,511,826.94
TOTAL SOURCE OF CAPITAL FUNDS	8,654,210.55
USE OF CAPITAL FUNDS:	
ADDITIONS TO PLANT THRU JANUARY 2018	
TOTAL USE OF CAPITAL FUNDS	3,493,522.16
GENERAL LEDGER CAPITAL FUNDS BALANCE 1/31/18	\$ 5,160,688.39

3

Town of Reading, Massachusetts Municipal Light Department Statement of Revenues, Expenses and Changes in Fund Net Assets January 31, 2018

	Month Current Year	Month Last Year	Year to Date Current Year	Year to Date Last Year	Percent Change
Operating Revenue	Ourient Teal	Last Teal	Current rear	Last I cai	Change
Base Revenue	\$2,338,527.08	\$2,082,018.94	\$15,736,968.78	\$15,604,822.26	0.8%
Fuel Revenue	2,730,249.25	3,149,834.16	17,240,127.64	20,279,370.80	(15.0%)
Purchased Power Capacity	3,625,660.83	2,904,975.54	23,510,301.26	20,735,924.07	13.4%
Forfeited Discounts	89,217.95	76,354.02	523,862.52	533,226.80	(1.8%)
Energy Conservation Revenue	57,103.94	55,706.82	395,852.73	406,649.34	(2.7%)
NYPA Credit	(118,534.20)	(121,364.18)	(613,164.92)	(655,911.36)	(6.5%)
Total Operating Revenue	8,722,224.85	8,147,525.30	56,793,948.01	56,904,081.91	(0.2%)
Expenses					
Power Expenes:					
547 Purchased Power Fuel Expense	3,815,602.60	2,911,543.18	18,525,019.00	20,087,288.22	(7.8%)
555 Purchased Power Capacity	2,142,038.41	1,513,015.67	14,804,088.18	11,785,879.65	25.6%
565 Purchased Power Transmission	1,176,741.85	1,019,499.88	8,634,969.81	8,110,789.47	6.5%
Total Purchased Power	7,134,382.86	5,444,058.73	41,964,076.99	39,983,957.34	5.0%
Operations and Maintenance Expenses:					
580 Supervision and Engineering	52,680.81	(2,253.32)	335,709.19	235,847.09	42.3%
581 Station Supervison	14,461.20	13,099.46	88,752.50	81,764.82	8.5%
581 Line General	87,331.18	66,244.90	432,659.95	376,950.96	14.8%
582 Control Room	37,613.63	32,181.22	243,079.58	283,064.57	(14.1%)
585 Street Lighting	24,168.94	8,312.22	57,190.74	140,780.93	(59.4%)
586 Meter General	32,469.79	21,408.05	155,123.30	123,314.04	25.8%
588 Materials Management	56,698.86	43,161.34	310,119.24	256,925.41	20.7%
590 Maintenance of Structures and Equipment	44,565.70	36,771.69	270,075.92	273,861.81	(1.4%)
593 Maintenance of Lines - Overhead	120,518.19	231,710.44	912,932.20	1,130,871.43	(19.3%)
594 Maintenance of Lines - Underground	285.59	35,755.43	52,947.04	189,480.78	(72.1%)
595 Maintenance of Line Transformers	10,270.75	1,725.00	71,554.96	20,112.89	255.8%
Total Operations and Maintenance Expenses	481,064.64	488,116.43	2,930,144.62	3,112,974.73	(5.9%)
General & Administration Expenses:					
902 Meter Reading	6,595.56	3,026.87	23,818.96	16,062.35	48.3%
903 Customer Collections	156,142.48	84,708.69	968,684.92	946,694.65	2.3%
904 Uncollectible Accounts	12,500.00	12,500.00	87,500.00	87,500.00	0.0%
916 Energy Audit	39,986.79	46,224.35	278,232.39	289,026.29	(3.7%)
916 Energy Conservation	45,000.79	82,920.66	352,513.40	399,781.08	(11.8%)
920 Administrative and General Salaries	113,576.59	76,169.73	651,359.75	553,552.59	17.7%
921 Office Supplies and Expense	27,255.32	7,700.59	178,450.67	158,803.42	12.4%
923 Outside Services	68,266.39	(41,380.76)	492,329.70	296,093.84	66.3%
924 Property Insurance	27,958.80	7,184.86	196,852.73	173,471.16	13.5%
925 Injuries and Damages	4,732.68	9,233.24	30,253.93	35,995.54	(16.0%)
926 Employee Pensions and Benefits	432,620.17	762,737.55	1,981,782.88	2,283,236.68	(13.2%)
930 Miscellaneous General Expense	4,609.66	11,742.36	68,857.89	85,161.52	(19.1%)
931 Rent Expense	13,445.63	16,398.29	109,524.67	100,569.81	8.9%
933 Transportation Expense	21,895.17	0.00	173,599.23	0.00	(100.0%)
933 Transportation Expense Capital Clearing	(21,530.00)	0.00	(196,633.20)	0.00	100.0%
935 Maintenance of General Plant	15,538.24	13,326.59	213,992.26	182,262.45	17.4%
935 Maintenance of Building & Garage	57,887.92	47,655.24	291,365.93	297,081.86	(1.9%)
Total General & Administration Expenses	1,026,482.19	1,140,148.26	5,902,486.11	5,905,293.24	(0.0%)

Town of Reading, Massachusetts Municipal Light Department Statement of Revenues, Expenses and Changes in Fund Net Assets January 31, 2018

	Month Current Year	Month Last Year	Year to Date Current Year	Year to Date Last Year	Percent Change
Other Operating Expenses:					
403 Depreciation	358,832.42	341,775.67	2,511,826.94	2,392,429.69	5.0%
408 Voluntary Payments to Towns	856,620.67	118,000.00	1,617,730.69	821,372.00	97.0%
Total Other Expenses	1,215,453.09	459,775.67	4,129,557.63	3,213,801.69	28.5%
Operating Income	(1,135,157.93)	615,426.21	1,867,682.66	4,688,054.91	(60.2%)
Non Operating Revenue (Expenses):					
419 Interest Income	20,810.73	11,645.97	135,993.09	85,118.76	59.8%
419 Other	282,347.32	202,725.97	641,758.49	458,880.70	39.9%
426 Return on Investment to Reading	(201,647.50)	(198,722.33)	(1,411,532.50)	(1,391,056.33)	1.5%
431 Interest Expense	(6,698.97)	(182.39)	(9,341.16)	(3,108.30)	200.5%
Total Non Operating Revenue (Expenses)	94,811.58	15,467.22	(643,122.08)	(850,165.17)	(24.4%)
Change in Net Assets	(1,040,346.35)	630,893.43	1,224,560.58	3,837,889.74	(68.1%)
Net Assets at Beginning of Year	109,368,059.44	104,814,487.24	109,368,059.44	104,814,487.24	4.3%
Ending Net Assets	\$ 108,327,713.09 \$	105,445,380.67	\$ 110,592,620.02	\$ 108,652,376.98	1.8%

Town of Reading, Massachusetts Municipal Light Department Statement of Budgeted Revenues, Expenses and Changes in Fund Net Assets January 31, 2018

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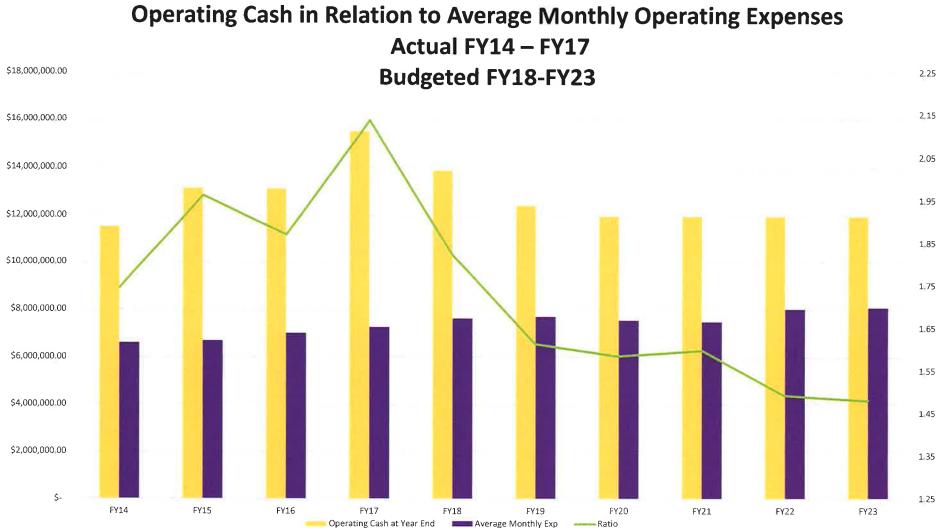
	Actual Year to Date	Budget Full Year	Remaining Budget	Remaining Budget %
Operating Revenue				
Base Revenue	\$15,736,968.78	\$26,337,621.00	\$10,600,652.22	40.2%
Fuel Revenue	17,240,127.64	32,491,810.00	15,251,682.36	46.9%
Purchased Power Capacity	23,510,301.26	38,088,978.00	14,578,676.74	38.3%
Forfeited Discounts	523,862.52	800,000.00	276,137.48	34.5%
Energy Conservation Revenue	395,852.73	675,000.00	279,147.27	41.4%
NYPA Credit Total Operating Revenue	(613,164.92) 56,793,948.01	(1,200,000.00) 97,193,409.00	(586,835.08) 40,399,460.99	48.9%
Expenses	00,700,040.01	37,133,403.00	40,333,400.33	41.07
Power Expenses:				
547 Purchased Power Fuel Expense	18,525,019.00	31,291,810.00	12,766,791.00	40.8%
555 Purchased Power Capacity	14,804,088.18	24,476,161.00	9,672,072.82	39.5%
565 Purchased Power Transmission	8,634,969.81	13,612,817.00	4,977,847.19	36.6%
Total Purchased Power	41,964,076.99	69,380,788.00	27,416,711.01	39.5%
Operations and Maintenance Expenses:				
580 Supervision and Engineering	335,709.19	764,615.00	428,905.81	56.1%
581 Station Supervisor	88,752.50	130,662.00	41,909.50	32.1%
581 Line General	432,659.95	596,007.00	163,347.05	27.49
582 Control Room	243,079.58	466,783.00	223,703.42	47.9%
585 Street Lighting	57,190.74	156,893.00	99,702.26	63.5%
586 Meter General	155,123.30	212,909.00	57,785.70	27.1%
588 Materials Management	310,119.24	458,328.00	148,208.76	32.3%
590 Maintenance of Structures and Equipment	270,075.92	494,936.00	224,860.08	45.4%
593 Maintenance of Lines - Overhead	912,932.20	1,980,611.00	1,067,678.80	53.9%
594 Maintenance of Lines - Underground	52,947.04	197,002.00	144,054.96	73.1%
595 Maintenance of Line Transformers Total Operations and Maintenance Expenses	71,554.96	300,000.00 5,758,746.00	228,445.04 2,828,601.38	<u>76.19</u> 49.19
General & Administration Expenses:	_,,	-,	_,,	
902 Meter Reading	23,818.96	37,461.00	13,642.04	36.4%
903 Customer Collection 904 Uncollectible Accounts	968,684.92	1,869,393.00	900,708.08	48.2%
916 Energy Audit	87,500.00	150,000.00	62,500.00	41.79
916 Energy Conservation	278,232.39 352,513.40	509,232.00	230,999.61	45.49
920 Administrative and General Salaries	651,359.75	952,565.00 1,017,151.00	600,051.60 365,791.25	63.0% 36.0%
921 Office Supplies and Expense	178,450.67	350,000.00	171,549.33	49.0%
923 Outside Services	492,329.70	759,191.00	266,861.30	35.2%
924 Property Insurance	196,852.73	427,200.00	230,347.27	53.9%
925 Injuries and Damages	30,253.93	52,613.00	22,359.07	42.5%
926 Employee Pensions and Benefits	1,981,782.88	3,000,437.00	1,018,654.12	34.0%
930 Miscellaneous General Expense	68,857.89	179,215.00	110,357.11	61.6%
931 Rent Expense	109,524.67	212,000.00	102,475.33	48.3%
933 Transportation Expense	173,599.23	381,116.00	207,516.77	54.4%
933 Transportation Expense Capital Clearing	(196,633.20)	(301,596.00)	(104,962.80)	34.8%
935 Maintenance of General Plant	213,992.26	281,880.00	67,887.74	24.1%
935 Maintenance of Building & Garage	291,365.93	666,457.00	375,091.07	56.3%
Total General & Administration Expenses	5,902,486.11	10,544,315.00	4,641,828.89	44.0%

Town of Reading, Massachusetts Municipal Light Department Statement of Budgeted Revenues, Expenses and Changes in Fund Net Assets January 31, 2018

	Actual Year to Date	Budget Full Year	Remaining Budget	Remaining Budget %
Other Operating Expenses:				
403 Depreciation 408 Voluntary Payments to Towns	2,511,826.94 1,617,730.69		1,850,173.06 (117,730.69)	42.4% (7.8%)
Total Other Expenses	4,129,557.63	5,862,000.00	1,732,442.37	29.6%
Operating Income	1,867,682.66	5,647,560.00	3,779,877.34	66.9%
Non Operating Revenue (Expenses):				
419 Interest Income	135,993.09	150,000.00	14,006.91	9.3%
419 Other Income	641,758.49	890,000.00	248,241.51	27.9%
426 Return on Investment to Reading/Loss on				
Disposal	(1,411,532.50)	(2,570,438.00)	(1,158,905.50)	45.1%
431 Interest Expense	(9,341.16)	(2,500.00)	6,841.16	(273.6%)
Total Non Operating Revenue (Expenses)	(643,122.08)	(1,532,938.00)	(889,815.92)	58.0%
Net Income	\$ 1,224,560.58	\$ 4,114,622.00	\$ 2,890,061.42	70.2%

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FINANCIAL REPORT MARCH 15, 2018



FY16 FY17 FY18 FY19 Operating Cash at Year End Average Monthly Exp

Reinvestment Plan Capital Infrastructure Actual FY14-FY17 Budgeted FY18-FY23 \$14,000,000.00 9.00% 8.00% \$12,000,000.00 7.00% \$10,000,000.00 6.00% \$8,000,000.00 5.00% 4.00% \$6,000,000.00 3.00% \$4,000,000.00 2.00% \$2,000,000.00 1.00% \$0.00 0.00% FY14 FY15 FY16 FY17 FY18 FY19 FY20 FY21 FY22 FY23

Net Income Capital Projects ----- ROR %

ENGINEERING & OPERATIONS REPORT JANUARY 2018 ATTACHMENT 5

Engineering & Operations Report

RMLD Board of Commissioners Meeting March 15, 2018

January 2018 Reporting Period

Hamid Jaffari, Director of Engineering & Operations

Engineering & Operations Capital Improvement Projects

	Project #	DESCRIPTION	% COMPLETE	JAN	YTD ACTUAL	BUDGETED	REMAINING BALANCE
	100	Distributed Gas Generation Pilot (Demand Management)	100%		186,561	-	(186,561)
	102	Pad mount Switchgear Upgrade at Industrial Parks	8%	3,560	247,817	196,285	(51,532)
	103	Grid Modernization and Optimization	On-going	135,910	267,454	227,183	(40,271)
	105	New Wilmington Substation	6%	6,117	25,819	650,000	624,181
	106	Underground Facilities Upgrades (URDs, Manholes, etc.)	On-going	124	124,507	344,725	220,218
/	107	13.8kV Upgrade (Step-down Areas, etc.)	On-going	19,023	65,372	70,851	5,479
	108	115 kV Transmission Line Upgrade	50%	115,070	145,028	95,098	(49,930)
	109	35 kV Underground Cable Upgrade Station 4, 5 and RR ROW	0%		-	206,817	206,817
	110	4W9 Getaway Replacement - Station 4	100%		131,611	-	(131,611)
	111	Substation Equipment Upgrade	On-going		-	50,218	50,218
/	112	AMI Mesh Network Expansion	On-going		-	120,311	120,311
	116	Transformers & Capacitors	On-going	163,364	273,509	560,500	286,991
	117	Meter Purchases	On-going		15,963	60,000	44,037
	125	GIS	100%	18,812	115,614	218,726	103,112
	126	Communication Equipment (Fiber Optic)	On-going		-	214,629	214,629
	130	Remote Terminal Unit (RTU) Replacement - Station 3	100%		27,164	-	(27,164)
	131	LED Street Lights Upgrade - All Towns	89%	99,923	491,071	1,169,332	678,261
	133	Station 3: Relay Upgrades and SCADA Integration	100%		20,548	76,103	55,555
	137	Pole Line Upgrade - Woburn Street (West to Concord), W	30%		1,200	200,284	199,084
	138	Station 3 Reactors	40%		157,992	561,347	403,355
	175	Pole Replacement Program	On-going		58,868	209,000	150,132
	458	Secondary and Main Replacement Program	On-going	6,471	67,669	222,285	154,616
	various	New Service Installations (Residential/Commercial/Industrial)	On-going	14,331	83,365	155,936	72,571

Engineering & Operations

Routine Capital Construction

Description	JAN	YTD
Pole Setting/Transfers	\$37,457	\$132,233
Overhead/Underground	\$44,200	\$190,880
 Projects Assigned as Required Voltage Regulators, LF 	\$15,274	\$93,720
 Pole Damage/Knockdowns - Some Reimbursable Work was done to repair or replace six (6) poles. 	\$9,217	\$78,832
Station Group	\$1,876	\$11,867
 Hazmat/Oil Spills Cherokee Lane, W 	\$1,965	\$1,965
Porcelain Cutout Replacement Program	-	-
Lighting (Street Light Connections)	-	\$22,472
Storm Trouble	\$8,175	\$79,988
 Underground Subdivisions (new construction) Martins Landing, Lowell Road, North Reading 	\$663	\$68,933
Animal Guard Installation	-	\$415
Miscellaneous Capital Costs	\$14,061	\$124,490
TOTAL	<u>\$132.888</u>	<u>\$805.795</u>

Facilities, IRD and IT Capital Projects/Purchases

	JAN	ACTUAL YTD	FY18 BUDGET	REMAINING BALANCE
Facilities	1,256	82,257	657,000	574,743
Integrated Resources Division (IRD)	1,813	16,620	35,000	18,380
Information Technology (IT)	38,300	81,717	340,000	258,283

TOTAL CAPITAL SPENDING YTD (All Divisions)

JAN	YTD FY18 BUDGET		REMAINING BALANCE		
\$756,962	\$3,493,520	\$7,685,521	\$4,192,001		

Routine Maintenance

Transformer Replacement (through December 2017)

Pad mount 28.24% Overhead 18.92%

Pole Inspection (as of 3/6/2018)

187 poles have been replaced 172 of 187 transfers have been completed

• Quarterly Inspection of Feeders (as of 2/13/2018)

Inspected Circuits (Jan-Mar): 3W7, 3W8, 3W14, 3W18, 4W4, 4W6, 4W9, 4W24, 5W4, 5W5, 5W6, 5W8, 5W9

Manhole Inspection (through January 2018)

961 of 1,237 manholes have been inspected.

Porcelain Cutout Replacement (through January 2018)

91% complete

246 remaining to be replaced

Routine Maintenance (continued)

Tree Trimming

Dec: 71 spans YTD: 728 spans through December

Substation Maintenance

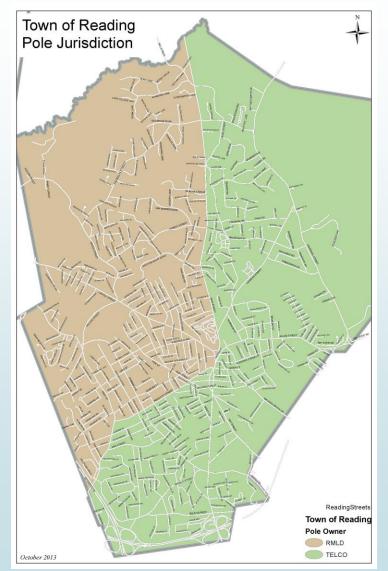
Infrared Scanning – through January complete – no hot spots found

Underground Subdivisions Upgrade

Recent Completed: Crestwood Estates (NR), Aspen Road (NR), Long Hill Lane (NR) In Progress: Shasta Drive (NR), Westover Drive (LF), Greenbriar Drive (NR), Great Neck Drive (W), Gandalf Estates (W), Deerfield Place (NR), Cherokee Lane (W)

Double Poles

- Ownership: 16,000 (approximately)
 50% RMLD
 50% Verizon
 - Custodial: Reading – split (see map) North Reading – RMLD Lynnfield – Verizon Wilmington - Verizon



NJUNS "Next to Go" as of March 6, 2018

	Count of
	Ticket
NTG Member and JobType	Number
	6
Lynnfield Fire Department	
TRANSFER	6
	9
🗏 Reading Municipal Light Depart	tment
TRANSFER	7
PULL POLE	2
	5
Verizon Massachusetts	
TRANSFER	5
🗄 (blank)	
Grand Total	20

NORTH READING	
Count	of
Ticket	t
NTG Member and JobType 🖃 Numbe	er
	15
Comcast Massachusetts	
TRANSFER	15
	38
North Reading Fire Department	
TRANSFER	38
	47
Reading Municipal Light Department	
TRANSFER	12
PULL POLE	35
	7
🗏 Verizon Massachusetts	
TRANSFER	6
PULL POLE	1
🖲 (blank)	
Grand Total	107

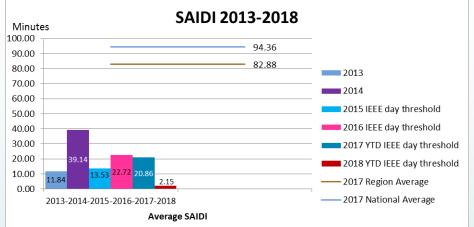
READING	
	Count of
	Ticket
NTG Member and JobType	🕂 Number
	14
Comcast Massachusetts	
TRANSFER	14
■ NP3PMA	4
Non-participating 3rd Party Attac	:her -
Massachusetts	
TRANSFER	4
■ RDNGFD	4
Reading Fire Department	
TRANSFER	4
RMLD	83
🗏 Reading Municipal Light Departm	nent
TRANSFER	24
PULL POLE	59
	12
🗏 Verizon Massachusetts	
TRANSFER	10
PULL POLE	2
🗄 (blank)	
Grand Total	117

Count of TicketNTG Member and JobTypeI NumberRMLD36Reading Municipal Light Department TRANSFER32PULL POLE4VZNEDR41Verizon Massachusetts TRANSFER37PULL POLE4WLMFIB11Town of Wilmington TRANSFER11WMGNFD82Wilmington Fire Department TRANSFER82	WILMINGTON	
NTG Member and JobTypeI NumberRMLD36Reading Municipal Light DepartmentTRANSFER32PULL POLE4VZNEDR41Verizon MassachusettsTRANSFER37PULL POLE4WLMFIB11Town of Wilmington11TRANSFER11WMGNFD82Wilmington Fire Department82	Count	of
RMLD36Reading Municipal Light DepartmentTRANSFERYULL POLEVZNEDRVerizon MassachusettsTRANSFERTRANSFERYULL POLEVULL POLEWUMFIBTRANSFERTRANSFER11Town of WilmingtonTRANSFER11WMGNFD82Wilmington Fire Department	Ticke	et
Reading Municipal Light Department TRANSFER 32 PULL POLE 4 VZNEDR 41 Verizon Massachusetts 77 TRANSFER 37 PULL POLE 4 WLMFIB 11 Town of Wilmington 11 TRANSFER 11 WMGNFD 82 Wilmington Fire Department 82	NTG Member and JobType 🚽 Numb	er
TRANSFER32PULL POLE4VZNEDR41Verizon Massachusetts7TRANSFER37PULL POLE4WLMFIB11Town of Wilmington11TRANSFER11WMGNFD82Wilmington Fire Department82		36
PULL POLE 4 VZNEDR 41 Verizon Massachusetts TRANSFER 37 PULL POLE 4 WLMFIB 11 Town of Wilmington TRANSFER 11 WMGNFD 82 Wilmington Fire Department	Reading Municipal Light Department	
VZNEDR 41 Verizon Massachusetts 37 TRANSFER 37 PULL POLE 4 WLMFIB 11 Town of Wilmington 11 TRANSFER 11 WMGNFD 82 Wilmington Fire Department 82	TRANSFER	32
Image: Second state of the second s	PULL POLE	4
Image: Second state of the second s		
TRANSFER37PULL POLE4WLMFIB11Town of Wilmington11TRANSFER11WMGNFD82Wilmington Fire Department		41
PULL POLE 4 Image: WLMFIB 11 Town of Wilmington 11 TRANSFER 11 WMGNFD 82 Wilmington Fire Department 82	Verizon Massachusetts	
Image: State of the state	TRANSFER	37
Town of Wilmington TRANSFER WMGNFD Wilmington Fire Department	PULL POLE	4
Town of Wilmington TRANSFER WMGNFD Wilmington Fire Department		
TRANSFER 11 WMGNFD 82 Wilmington Fire Department	WLMFIB	11
WMGNFD 82 Wilmington Fire Department	Town of Wilmington	
Wilmington Fire Department	TRANSFER	11
Wilmington Fire Department		
- ·	■WMGNFD	82
TRANSFER 82	Wilmington Fire Department	-i
	TRANSFER	82
🗄 (blank)		
Grand Total 170	Grand Total 1	170

RMLD Reliability Indices

Minutes

160.00

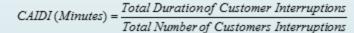


 $SAIDI (Minutes) = \frac{Total Duration of Customer Interruptions}{Total Number of Customers Served}$

Note: The major event (ME) threshold allows a utility to remove outages that exceed the IEEE 2.5 beta threshold for events. These events could be severe weather, which can lead to unusually long outages in comparison to your distribution system's typical outage.

 $SAIFI = \frac{Total Number of Customer Interruptions}{Total Number of Customers Served}$

2013
 2014
 2015 IEEE day threshold
 2016 IEEE day threshold
 2017 YTD IEEE day threshold
 2018 YTD IEEE day threshold
 2017 Region Average
 2017 National Average
 2017 National Average



CAIDI 2013-2018

134.18

2013

2014

2015

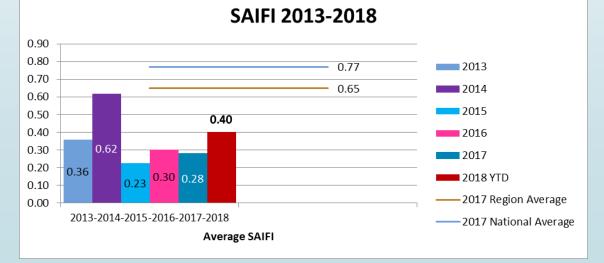
2016

2017

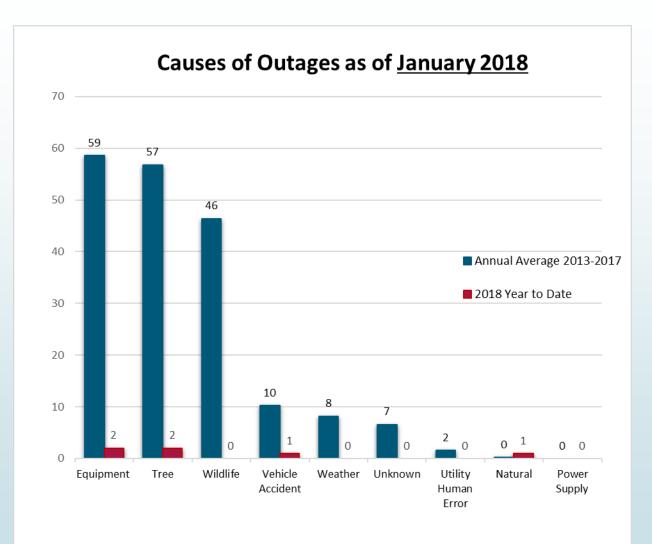
2018 YTD

2017 Region Average

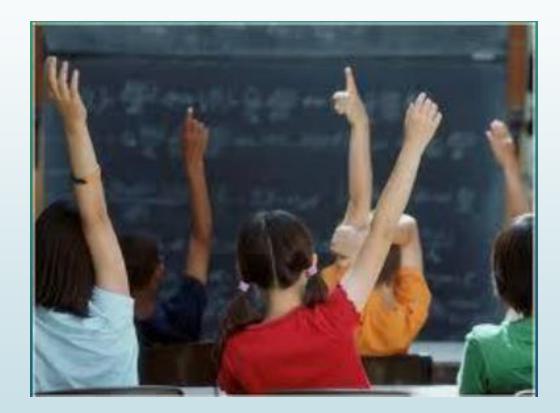
— 2017 National Average 493.54



Note: Regional and national averages have been updated for 2017.



Questions ?



RMLD PROCUREMENT REQUESTS REQUIRING BOARD APPROVAL ATTACHMENT 6



Reading Municipal Light Department RELIABLE POWER FOR GENERATIONS

230 Ash Street, P.O. Box 150 Reading, MA 01867-0250

March 7, 2018

Town of Reading Municipal Light Board

Subject: IFP 2018-37 Pole Mounted Transformers

Pursuant to M.G.L. c. 164 § 56D, on February 14, 2018, a bid invitation was placed as a legal notice in the Middlesex East section of the Daily Times Chronicle requesting sealed proposals for Pole Mounted Transformers.

An invitation for proposals was sent to the following fifteen companies:

EDI	Graybar Electric	Hasgo Power
IF Gray	Stuart C. Irby Company	Power Sales Group
Power Tech-UPSC	Prime Vendor, Inc.	Robinson Sales
Shamrock Power Sales Inc.	Transformer Exchange	Ward Transformer Sales
Weidmann Electrical Technology	WESCO Distribution, Inc.	Yale Electric Supply

Sealed proposals were received from four companies: Stuart C. Irby Company, Graybar Electric, Howard Industries, Inc. c/o Power Sales Group and WESCO Distribution, Inc.

The sealed proposals were publicly opened and read aloud at 11:00 a.m., February 28, 2018, in the Town of Reading Municipal Light Department's Audio Visual Spurr Room, 230 Ash Street, Reading, Massachusetts.

The proposals were reviewed, analyzed, and evaluated by staff and recommended to the General Manager.

Move that proposal 2018-37 for Pole Mounted Transformers be awarded to: WESCO Distribution, Inc. for \$91,628.00 and Graybar Electric for \$9,040.00, for a total of \$100,668, pursuant to M.G.L. c. 164 § 56D on the recommendation of the General Manager.

The remaining FY18 Capital Budget amount (\$212,000) for Transformers & Capacitors will be used for this purchase.

Brian Smith

Hamid Jaffar

Coleen O'Brien

Pole Mounted Transformers IFP 2018-37

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Bidder	Manufacturer	Delivery Date	Unit Price	<u>Qty</u>	Total Net <u>Price</u>	Awarding <u>Prices</u>
WESCO Distribution, Inc.						
Item 1 25 kVa Single Phase 120/240	Ermco	8 - 10 weeks	\$1,084.00	10	\$10,840.00	
Item 2 112 1/2 kVa Three Phase 120/208	Ermco	8 - 10 weeks	\$4,184.00	6	\$25,104.00	25,104.00
Item 3 150 kVa Three Phase 120/208	Ermco	8 - 10 weeks	\$5,326.00	6	\$31,956.00	31,956.00
Item 4 112 1/2 kVa Three Phase 277/480	Ermco	8 - 10 weeks	\$4,057.00	4	\$16,228.00	16,228.00
Item 5 150 kVa Three Phase 277/480	Ermco	8 - 10 weeks	\$4,585.00	4	\$18,340.00	18,340.00
				-	\$102,468.00	\$91,628.00
Stuart C. Irby Company						
Item 1 25 kVa Single Phase 120/240	ABB	12 - 14 weeks	\$1.338.00	10	\$13,380.00	
Item 2 112 1/2 kVa Three Phase 120/208	ABB	12 - 14 weeks	+ · · ·	6	\$32,724.00	
Item 3 150 kVa Three Phase 120/208	ABB	12 - 14 weeks	+-,	6	\$35,292.00	
Item 4 112 1/2 kVa Three Phase 277/480	ABB	12 - 14 weeks	+ = , = = = = = =	4		
Item 5 150 kVa Three Phase 277/480	ABB	12 - 14 weeks		4		
				3	\$120,248.00	\$0.00
Howard Industries, Inc. (Power Sales Group) Item 1 25 kVa Single Phase 120/240 Item 2 112 1/2 kVa Three Phase 120/208 Item 3 150 kVa Three Phase 120/208	Howard Industries, Inc Howard Industries, Inc Howard Industries, Inc	6 - 8 weeks 10 - 12 weeks 10 - 12 weeks	\$11,314.00 \$13,231.00	10 6 6	\$12,990.00 \$67,884.00 \$79,386.00	
Item 4 112 1/2 kVa Three Phase 277/480	Howard Industries, Inc	10 - 12 weeks	+	4	\$18,616.00	
Item 5 150 kVa Three Phase 277/480	Howard Industries, Inc	10 - 12 weeks	\$6,935.00	4	Q	AA AA
				3	\$206,616.00	\$0.00
Graybar Electric						
Item 1 25 kVa Single Phase 120/240	GE - Prolec	10 weeks	\$904.00	10	\$9,040.00	9,040.00
Item 2 112 1/2 kVa Three Phase 120/208	no quote		-	6	\$0.00	
Item 3 150 kVa Three Phase 120/208	no quote			6	\$0.00	
Item 4 112 1/2 kVa Three Phase 277/480	no quote			4	\$0.00	
Item 5 150 kVa Three Phase 277/480	no quote			4	\$0.00	60.040.00
				3	\$9,040.00	\$9,040.00

Cost for all of the lowest unit price items \$100,668.00



Reading Municipal Light Department RELIABLE POWER FOR GENERATIONS

230 Ash Street, P.O. Box 150 Reading, MA 01867-0250

March 7, 2018

Town of Reading Municipal Light Board

Subject: IFP 2018-39 Capacitor Banks

Pursuant to M.G.L. c. 164 § 56D, on February 14, 2018, a bid invitation was placed as a legal notice in the Middlesex East section of the Daily Times Chronicle requesting sealed proposals for Capacitor Banks.

An invitation for proposals was sent to the following sixteen companies:

Controllix Corporation	E.L. Flowers & Associates	Genergy Corporation
Graybar Electric	Hasgo Power Equipment	Stuart C. Irby Company
J.F. Gray & Associates	Omicron Electronics	Onvia
Power Sales Group, Inc.	Powertech / Utility Power Supply Company	Prime Vendor, Inc.
Robinson Sales	Shamrock Power Sales	Siemens Industry, Inc.
WESCO Distribution, Inc.		

Sealed proposals were received from two companies: Graybar Electric and WESCO Distribution, Inc.

The sealed proposals were publicly opened and read aloud at 11:00 a.m., February 28, 2018, in the Town of Reading Municipal Light Department's Audio Visual Spurr Room, 230 Ash Street, Reading, Massachusetts.

The proposals were reviewed, analyzed and evaluated by staff and recommended to the General Manager.

Move that proposal 2018-39 for Capacitor Banks be awarded to: **Graybar Electric for \$24,314.60** pursuant to M.G.L. c. 164 § 56D on the recommendation of the General Manager.

The remaining FY18 Capital Budget amount (\$212,000) for Transformers & Capacitors will be used for this purchase.

Brian Smith

Hamid Jaffar

Coleen O'Brien

Capacitor Banks IFP 2018-39

Bidder	Manufacturer	Unit Price Qt	<u>Total Price</u>	Delivery
Graybar Electric Capacitor Bank	Cooper Power / Eaton	\$12,157.30 2	\$24,314.60	14 weeks
WESCO Distributior Capacitor Bank	n, Inc. Cooper Power / Eaton	\$12,550.00 2	\$25,100.00	12 - 14 weeks

BOARD MATERIAL AVAILABLE BUT NOT DISCUSSED

RATE COMPARISONS READING & SU	IRROUNDING TOWNS						
	RESIDENTIAL 750 kWh's	RESIDENTIAL-TOU 1500 kWh's 75/25 Split	RES. HOT WATER 1000 kWh's	COMMERCIAL 7,300 kWh's 25.000 kW Demand	SMALL COMMERCIAL 1,080 kWh's 10.000 kW Demand	SCHOOL RATE 35000 kWh's 130.5 kW Demand	INDUSTRIAL - TOU 109,500 kWh's 250.000 kW Demand 80/20 Split
READING MUNICIPAL LIGHT DEPT.	¢400.04	\$214.88	¢450.40	¢4 402 07	£040.64	¢E 450 ¢E	¢044.076.44
TOTAL BILL PER KWH CHARGE	\$123.01 \$0.16402	\$214.00 \$0.14326	\$150.18 \$0.15018	\$1,103.87 \$0.15121	\$210.61 \$0.19501	\$5,158.65 \$0.14739	\$814,876.44 \$0.11845
	ψ0.1040Z	ψ0.14020	φ0.10010	ψ0.10121	40.10001	ψ0.14700	ψ0.11040
NATIONAL GRID							
TOTAL BILL	\$176.21	\$407.40	\$220.64	\$1,684.69	\$257.76	\$6,411.12	\$1,169,516.60
PER KWH CHARGE	\$0.23494	\$0.27160	\$0.22064	\$0.23078	\$0.23867	\$0.18317	\$0.17000
% DIFFERENCE	43.24%	89.59%	46.92%	52.62%	22.39%	24.28%	43.52%
EVERSOURCE(NSTAR)							
TOTAL BILL	\$179.24	\$291.96	\$236.84	\$1.588.38	\$259.97	\$7,553.17	\$1,383,766.70
PER KWH CHARGE	\$0.23898	\$0.19464	\$0.23684	\$0.21759	\$0.24071	\$0.21580	\$0.20114
% DIFFERENCE	45.70%	35.87%	57.71%	43.89%	23.44%	46.42%	69.81%
PEABODY MUNICIPAL LIGHT PLANT							
TOTAL BILL	\$79.70	\$153.20	\$104.20	\$885.59	\$141.20	\$4,389.33	\$575,406.92
PER KWH CHARGE	\$0.10627	\$0.10213	\$0.10420	\$0.12131	\$0.13074	\$0.12541	\$0.08364
% DIFFERENCE	-35.21%	-28.71%	-30.61%	-19.77%	-32.96%	-14.91%	-29.39%
MIDDLETON MUNICIPAL LIGHT DEPT							
TOTAL BILL	\$98.74	\$201.66	\$132.75	\$959.51	\$168.44	\$4,762.93	\$807,171.40
PER KWH CHARGE	\$0.13165	\$0.13444	\$0.13275	\$0.13144	\$0.15596	\$0.13608	\$0.11733
% DIFFERENCE	-19.74%	-6.15%	-11.61%	-13.08%	-20.02%	-7.67%	-0.95%
WAKEFIELD MUNICIPAL LIGHT DEPT							
TOTAL BILL	\$132.36	\$247.17	\$166.88	\$1,257.54	\$199.78	\$5,910.58	\$1,007,556.30
PER KWH CHARGE	\$0.17648	\$0.16478	\$0.16688	\$0.17227	\$0.18499	\$0,16887	\$0.14646
% DIFFERENCE	7.60%	15.03%	11.12%	13.92%	-5.14%	14.58%	23.65%

March-18

TOWN OF READING MUNICIPAL LIGHT DEPARTMENT

Good afternoon,

2.16.18, 2.23.18, 3.2.18, and 3.9.18 AP.2.19.18 and 3.5.18 Payroll.There were no Commissioner questions. This e-mail will be included in the 2-22-18Board Book.

Tracy Schultz Executive Assistant **Reading Municipal Light Department** 230 Ash Street. Reading. MA. 01867 Tel: 781.942.6489