

**Reading Municipal Light Board of Commissioners**

**Regular Session**

**230 Ash Street**

**Reading, MA 01867**

**December 15, 2016**

**Start Time of Regular Session: 7:34 p.m.**

**End Time of Regular Session: 9:47 p.m.**

**Commissioners:**

**Thomas J. O'Rourke, Chairman**

**Philip B. Pacino, Vice Chair – Absent**

**Dave Hennessy, Commissioner, Secretary, Pro Tem**

**David Talbot, Commissioner**

**John Stempeck, Commissioner**

**Staff:**

**Coleen O'Brien, General Manager**

**Hamid Jaffari, Director of Engineering and Operations**

**Jane Parenteau, Director of Integrated Resources**

**Wendy Markiewicz, Director of Business Finance**

**Jeanne Foti, Executive Assistant**

**Tracy Schultz, Executive Assistant**

**Town of Reading Finance Committee:**

**Peter Lydecker, Member**

**Call Meeting to Order**

Chairman O'Rourke called the meeting to order and announced that the meeting is being live broadcast in the Town of Reading. Due to technical limitations, the meeting is also being videotaped for distribution at community television stations in North Reading, Wilmington, and Lynnfield.

**Opening Remarks**

Chairman O'Rourke read the RMLD Board of Commissioners Code of Conduct and wished the RMLD staff and the residents of the RMLD service territory a happy and joyous holiday season. Chairman O'Rourke added that no one from the Citizens' Advisory Board was available and that Mr. Pacino had a work commitment so he would not be in attendance. Mr. Hennessy agreed to serve as Board Secretary. Additionally, Chairman O'Rourke acknowledged the presence of Peter Lydecker from the Town of Reading Finance Committee.

**Report of the Committees**

**Policy Committee – Mr. Hennessy**

Mr. Hennessy reported that the Policy Committee met on November 10 and discussed adjustments to Policy No. 4 Smoking and Policy No. 9 Procurement. The latter raised the amount for bids requiring a board vote from \$25,000 to \$50,000.

**General Manager Committee – Chairman O'Rourke**

Chairman O'Rourke began by explaining that the Board of Commissioners is responsible for hiring, evaluating and determining the compensation of the General Manager, as well as establishing policies that guide RMLD operations in accordance with M.G.L. Chapter 164. The Board members are asked to individually assess how the General Manager performed between July 15 and June 30, based on seven criteria with the following weightings: Finance 20%, Energy Efficiency and Load Management 15%, System Reliability 20%, Leadership 20%, Board Relations 5%, Employee Safety and Relations 10%, and Community Relations 10%. Each Board Member is required to submit an evaluation, which is then reviewed by the subcommittee composed of Chairman O'Rourke, Mr. Stempeck, and Mr. Talbot. The subcommittee then makes a recommendation to the Board in regards to salary.

Chairman O'Rourke summarized the feedback, stating that there were no audit findings for the fiscal year, leadership and employee development were strong in the face of considerable organizational changes, and there was a focus on succession planning and ensuring that the right people are in the right positions. The significant recommendations of the reliability and organizational studies are being implemented, there has been a heavy emphasis on rebuilding and maintaining infrastructure, improving quality of service and productivity, and developing and implementing renewable energy plans. Ms. O'Brien's responsiveness to all constituents and RMLD's great strides in process improvements and automation were also highlighted. Based on Ms. O'Brien's self-assessment, she has saved the RMLD approximately \$1.7 million over the length of the review period. Chairman O'Rourke concluded that it has been an excellent year for Ms. O'Brien and invited the other commissioners to add their comments.

Mr. Stempeck lauded Ms. O'Brien's extremely high level of performance and expressed his hope that this will continue for many more years to come. Mr. Talbot added that there was a lot of fundamental infrastructure that needed a lot of attention. Ms. O'Brien has ensured that has happened, addressing engineering concerns with an impressive level of detail. Mr. Hennessy then noted that RMLD employees are empowered, effective, and engaged, which serves as a testament to Ms. O'Brien's leadership.

### **General Manager Committee – Chairman O'Rourke**

Chairman O'Rourke then explained that, averaging the scoring from the five Commissioners, Ms. O'Brien received a score of 98.7 out of a possible 100. Any score over 95 denotes extraordinary performance and merits any additional increase in salary that the Commissioners deem warranted. Benchmark data such as the MEAM survey is considered because the RMLD needs to offer competitive compensation. Furthermore, while the RMLD is the largest sized municipal utility with the largest revenue in the area, Ms. O'Brien is not the highest paid General Manager. Chairman O'Rourke stated that the subcommittee had agreed on a CPI increase of 2.6% and an additional 2.4% (sic) increase due to extraordinary performance, totaling 6%, to be retroactive to July 1, 2016. Additionally, all RMLD employees will be having their ICMA retirement matching increase from 3% to 4%, and Ms. O'Brien will receive the same. Chairman O'Rourke then invited Ms. O'Brien to ask questions or make comments.

Ms. O'Brien stated that she enjoys the review process as it allows her to make sure that she is in line with what the Commissioners are expecting. Ms. O'Brien then took the opportunity to thank her staff and stated that RMLD is undergoing major organizational changes, in which change is difficult for everyone. Ms. O'Brien concluded by saying that she feels that RMLD is back in a leadership position, with other utilities looking to RMLD for best practices.

Ms. Parenteau then pointed out that the math was incorrect and 2.6% and 2.4% do not total 6%. Chairman O'Rourke stated that the total is correct but he would now correct the sections. Chairman O'Rourke then summarized that the Board is recommending that Coleen O'Brien's salary be increased by 6%, which is comprised of two components. The first is 2%, plus 0.6% CPI, for a total of 2.6%, based on the scoring of the Commissioners. The second is an additional 3.4%. The increase will be retroactive to July 1. Additionally, ICMA will change from 3% to 4%.

Mr. Stempeck made a motion seconded by Mr. Hennessy that the Board approve that the General Manager's salary be increased by 6% and ICMA will be changed to 4%, retroactive to July 1.

**Motion carried 4:0:0.**

Ms. Foti then interjected, reminding the Board that a vote must be taken on the updates to Policy No. 4 and Policy No. 9, respectively.

Mr. Hennessy made a motion, seconded by Mr. Stempeck, that the Board approve Policy No. 4, Revision No. 6 and Policy No. 9, Revision 5.

**Motion carried 4:0:0.**

### **Approval of Board Minutes**

Mr. Stempeck made a motion, seconded by Mr. Hennessy, to approve the meeting minutes of May 26, 2016, as presented.

**Motion Carried 4:0:0.**

### **Report RMLD Board Member Attendance at RMLD Citizens' Advisory Board Meeting**

Ms. Schultz explained that Mr. Pacino was unable to attend the CAB meeting.

### **General Manager's Report – Ms. O'Brien**

Ms. O'Brien stated that she had recently met with the Town Manager/Administrator of each of the four towns served. RMLD had a 15-slide presentation and the discussion that followed primarily centered on NJUNS, LED streetlights, double poles, highlights of the Annual Report, service requirements, terms and conditions, and preliminary notice of a rate increase pending a formal cost of service study. Additionally, Reading and North Reading each have CAB vacancies that need to be filled. Two volunteers are currently being vetted and should be active in time for the January CAB meeting. Additionally, Ms. O'Brien met with Lynnfield Selectmen on Monday, December 13, and it went well, with the representatives responsive to the RMLD presentation.

Ms. O'Brien continued, announcing that RMLD is a recipient of funds from a Volkswagen class-action lawsuit. The money will be used to install a dual operator electric vehicle charging station for public use in the RMLD parking lot in the spring. Additionally, RMLD is researching grants for leasing programs since some RMLD vehicles are due for turnover.

Chairman O'Rourke remarked that the Board is appreciative of Ms. O'Brien meeting with local officials and constituents.

Ms. O'Brien stated that December 6 marked the Budget kick-off meeting, with a follow up meeting occurring on December 12. The 6-Year and Capital Budgets were discussed. Expenses are going to be unbundled due to maintenance and training. The financials will be consolidated. This year, the formal cost of service will be in draft form by January 15, with the final product completed and in the Citizens' Advisory Board's hands by March 21<sup>st</sup>. The CAB meeting will span two-nights. This year's budget will mark a shift towards FERC accounting for utilities.



### **General Manager's Report – Ms. O'Brien**

Chairman O'Rourke clarified that the two nights of meetings will culminate in a vote on the Capital Expense and the Operating Budgets at the end of the second meeting. Ms. O'Brien answered in the affirmative.

Ms. O'Brien stated that historical calendars are available. The Reading Festival of Trees was held on December 3 and 4. RMLD donated a tree to the event. The Good Neighbor Energy Fund Breakfast is being held on January 11 and RMLD will have a representative in attendance. The Art Contest Awards Ceremonies will take place on Thursday, January 12 and Thursday, January 19 at 7 p.m. The RMLD is saving money by migrating away from the T-shirt contest and instead holding a watercolor contest. Recycled frames will be used to mat the artwork, and RMLD will be giving away more prizes. Ms. Parenteau then explained that this year twelve schools participated, with three winners per school, for a total of thirty-six winners instead of last year's twelve. Due to the number of winners, the awards will be divided over two nights, with six schools attending each evening. The Commissioners are all invited and can split the nights up.

Chairman O'Rourke asked if the home lighting contest was being held this year.

Ms. Parenteau answered that the contest is suspended this year due to the Community Relations vacancy. Additionally, there is a sabbatical on trains under the RMLD lobby Christmas tree because the retiree who usually sets up the display is having health issues. Both will hopefully be reinstated next year.

Mr. Talbot interjected, asking if the RMLD had a rate incentive to reduce use during peak hours and expressing his desire to see a rate that charges commercial customers more during peak-time usage. Ms. Parenteau replied in the negative, explaining that the RMLD does not have any step rates. Mr. Talbot stated that pricing is a powerful tool when it comes to modifying behavior and then communicated his dismay that the Time of Use Rate only has a few hundred participants.

Ms. O'Brien then explained that for commercial customers to have a peak-time-contingent rate they would need to have a real-time meter. Ms. Parenteau then voiced her concerns about the implications of implementing such a rate.

Mr. Talbot suggested it could be done in baby steps for commercial customers, to which Mr. Stempeck countered that care would need to be exercised and each customer considered individually. Ms. O'Brien then stated that the RMLD has helped many commercial customers significantly reduce their usage to the point that there is not much left to conserve. However, capacity and transmission costs are continuing to go up in this area and commercial customers are under increasing pressure from corporate to further reduce their bill.

Chairman O'Rourke then stated that this would be better suited for discussion in the strategic meeting.

### **Power Supply Report – September and October 2016 – Ms. Parenteau (Attachment 1)**

Ms. Parenteau's presentation began with September capacity requirements and imbedded costs for the last 5-years. In 2012, RMLD paid \$10.11 per kilowatt a month, now the cost is \$13.9 per kilowatt a month. The capacity requirement is also increasing. It was just shy of 225 megawatts in 2015, now it's over 230 megawatts. The cost of transmission is also going up. There has been \$9 billion invested in New England transmission infrastructure and all constituents in New England are paying for that. We started by paying \$9.7 million, and it is now up to \$15.4 million. This cost is passed through, so RMLD tries to structure its programs to minimize this cost. As compared to September 2015, kWh sales went down in September, 2016. The cost per kWh was 4.5 cents in October, 2012 and 4.8 cents in October, 2016. The monthly fuel charge was level due to a cash reserve, the cost of natural gas stabilizing, and contracts that RMLD had secured. However, sales have decreased. In 2014 the cost of service was unbundled. The last three months of the fiscal year (March, April, and May) showed a decrease in sales. RMLD needs to ramp up the rate to recover that loss. Per the Board, RMLD is trying to eliminate volatility. Ms. Parenteau also referred to the New York Power Authority Credit. This is a credit that residential customers receive per kWh. It goes up and down and is based on the replacement cost of power.

### **Engineering and Operations Report – September and October 2016 – Mr. Jaffari (Attachment 2)**

Mr. Jaffari began by remarking that good progress is being made on Capital Improvement Projects, with spending year to date totaling \$260,503 as of October 31, 2016. Year to date routine construction totals \$619,818. Good progress is being made on routine maintenance. Approximately 23% of pad mount transformers have been replaced from a list of 3,600 aging transformers. About 15% of overhead transformers have been replaced. Mr. Stempeck asked if the new transformers are more efficient. Mr. Jaffari replied in the affirmative, per the Department of Energy mandating that transformer manufacturers make efficiency improvements. 194 poles have been replaced, and 112 out of 194 pole transfers have been completed. Overhead line visual inspections were conducted. 961 of 1,237 manholes have been inspected and the porcelain cutout replacement program is 91% completed. 376 tree trim spans have been completed so far this year, and no hot spots were found during substation scans.



### **Engineering and Operations Report – September and October 2016 – Mr. Jaffari (Attachment 2)**

Mr. Jaffari then reported on double pole ownership. Reading's pole ownership is split in half: 50 percent are owned by Verizon and 50 percent are owned by RMLD. North Reading's poles are owned by RMLD, while Lynnfield and Wilmington's poles are owned by Verizon. Mr. Jaffari then referred to the NJUNS report for double pole management. In Lynnfield, RMLD has 4 pending transfers. In North Reading, there are 15 pending transfers and 45 pull poles. In Reading, RMLD has 48 pending transfers and 45 pull poles. In Wilmington, there are 46 transfers, 1 attachment, 4 pull poles, and 1 guy install. Mr. Jaffari explained that NJUNS automatically notifies the next party of their responsibility in taking care of the pole. Mr. Jaffari took this opportunity to say that he appreciates the customers' patience as we go through upgrades.

Continuing, Mr. Jaffari stated that the RMLD reliability indices are under the national average but SAIDI and SAIFI are slightly above the regional average due to storms and motor vehicle accidents that caused damage to main lines. Mr. Jaffari then asked the residents of the service territory to exercise caution while driving this winter and to refrain from texting while driving. Unsafe driving can be fatal and can also cause damage to infrastructure. Mr. Jaffari then stated that the major reasons for outages were equipment, trees, and wildlife. Chairman O'Rourke inquired if the investment year to date cost was based on the July 1 fiscal year, to which Mr. Jaffari answered in the affirmative. Chairman O'Rourke then said that he was curious what the total amount would be if we continue spending at the current rate. Mr. Jaffari replied that \$9.5 million has been budgeted, and that he is anticipating close to \$8.5 million. It is going to take a long time to upgrade old equipment. The maintenance program has addressed critical issues and caught issues before equipment failure: we're getting there and reliability will only continue to improve.

### **RMLD Procurement Requests Requiring Board Approval (Attachment 3)**

#### **IFP 2017-27 Single Phase Pad Mounted FR3 Transformers**

Mr. Jaffari explained that this equipment is for the underground maintenance program. These are environmentally friendly transformers that use vegetable oil. RMLD sent the bid out to 15 companies; 4 responded. The other responders didn't meet qualifications, didn't accept RMLD's conditions, and one sent out two prices for the same transformer.

Mr. Stempeck made a motion, seconded by Mr. Hennessy, that proposal 2017-27 for Single Phase Pad Mounted FR3 Transformers be awarded to WESCO for \$151,110, pursuant to Chapter 164 §56D on the recommendation of the General Manager.

**Motion carried 4:0:0.**

Mr. Jaffari then wished RMLD's customers Happy Holidays and Merry Christmas.

### **Financial Report – First Quarter Fiscal Year 2017 – Ms. Markiewicz (Attachment 4)**

Ms. Markiewicz stated that Accounting has been diligently working to revamp the financials and consolidate the reports into a more efficient format. Ms. Markiewicz apologized for the lack of slides and then directed the Board's attention to page one of the distributed copy. As of the end of the first quarter of fiscal year 2017 the RMLD is in a strong financial position. Cash balances are solid, which means that if accounts receivable or collections were to decrease, or payables increase, the RMLD could handle the swing. Receivables are 95% current. Page two shows an increase in net capital assets of about \$3 million, partly because of ongoing capital projects. Page three shows PPCT and fuel revenues exceed PPCT and fuel expenses by about \$1.1 million, which is a 3% revenue increase from last year. Base revenues are up about 12.7% and operating expenses are up around 12.9%. On the last page, operating and maintenance expenses are under budget by about \$500,000 due in part to labor contracts and retro pay, as well as vacancies and the timing of the payables.

Chairman O'Rourke asked if there is anything that we should be thinking about in respect to financials and added that it sounds like the RMLD is in a strong financial position.

Ms. Markiewicz responded that we are in a strong position.

Mr. Hennessy asked why the unrestricted cash has gone up \$5 million. Ms. Markiewicz said that most likely it could be due to the timing of receivables and what has been billed out.

Ms. O'Brien added that the operating fund is how we pay our bills and is constantly changing.

### **General Discussion**

#### **BOARD MATERIAL AVAILABLE BUT NOT DISCUSSED**

#### **RMLD Board Meetings**

Chairman O'Rourke announced that the Board will next convene on January 26 and February 23, and a date yet to be determined for the strategic meeting. Chairman O'Rourke then asked Ms. O'Brien to give a brief idea of what she envisioned being discussed in the strategic meeting.



### **General Discussion**

Ms. O'Brien stated that technology is changing very quickly and is impacting the utility industry in unexpected ways. Change used to be solely efficiency-based in terms of equipment like transformers. Now with the advent of solar, revenue erosion is a possibility. Therefore, RMLD needs a plan going forward, such as developing more community solar and getting in on electric vehicle charging stations.

Chairman O'Rourke suggested the meeting take place in late January or February.

Mr. Stempeck added that he likes morning meetings, to which Mr. Hennessy agreed.

### **RMLD Committee Meetings**

Will be set up in the coming weeks.

### **Executive Session**

At 9:00 p.m. Mr. Stempeck moved seconded by Mr. Hennessy that the Board go into Executive Session to consider the purchase of real property and discuss strategy with respect to collective bargaining, Chapter 164 Section 47D exemption for competitively sensitive or other proprietary information provided in the course of proceedings conducted pursuant to this chapter when such municipal lighting plant board determines that such disclosure will adversely affect its ability to conduct business in relation to other entities making, selling, or distributing electric power and energy pursuant to this chapter and return to Regular Session for the sole purpose of adjournment.

#### **Chairman O'Rourke called for a poll of the vote:**

Chairman O'Rourke, Aye; Mr. Talbot, Aye; Mr. Stempeck, Aye. Mr. Hennessy: Aye.

**Motion carried 4:0:0.**

### **Adjournment**

At 9:47 p.m. Mr. Talbot made a motion seconded by Mr. Stempeck to adjourn the Regular Session.

**Motion carried 3:0:0. Mr. Hennessy was not present for the vote.**

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

David Hennessy, Secretary Pro Tem  
RMLD Board of Commissioners







# INTEGRATED RESOURCES

DECEMBER 15, 2016

RMLD BOARD OF COMMISSIONERS MEETING

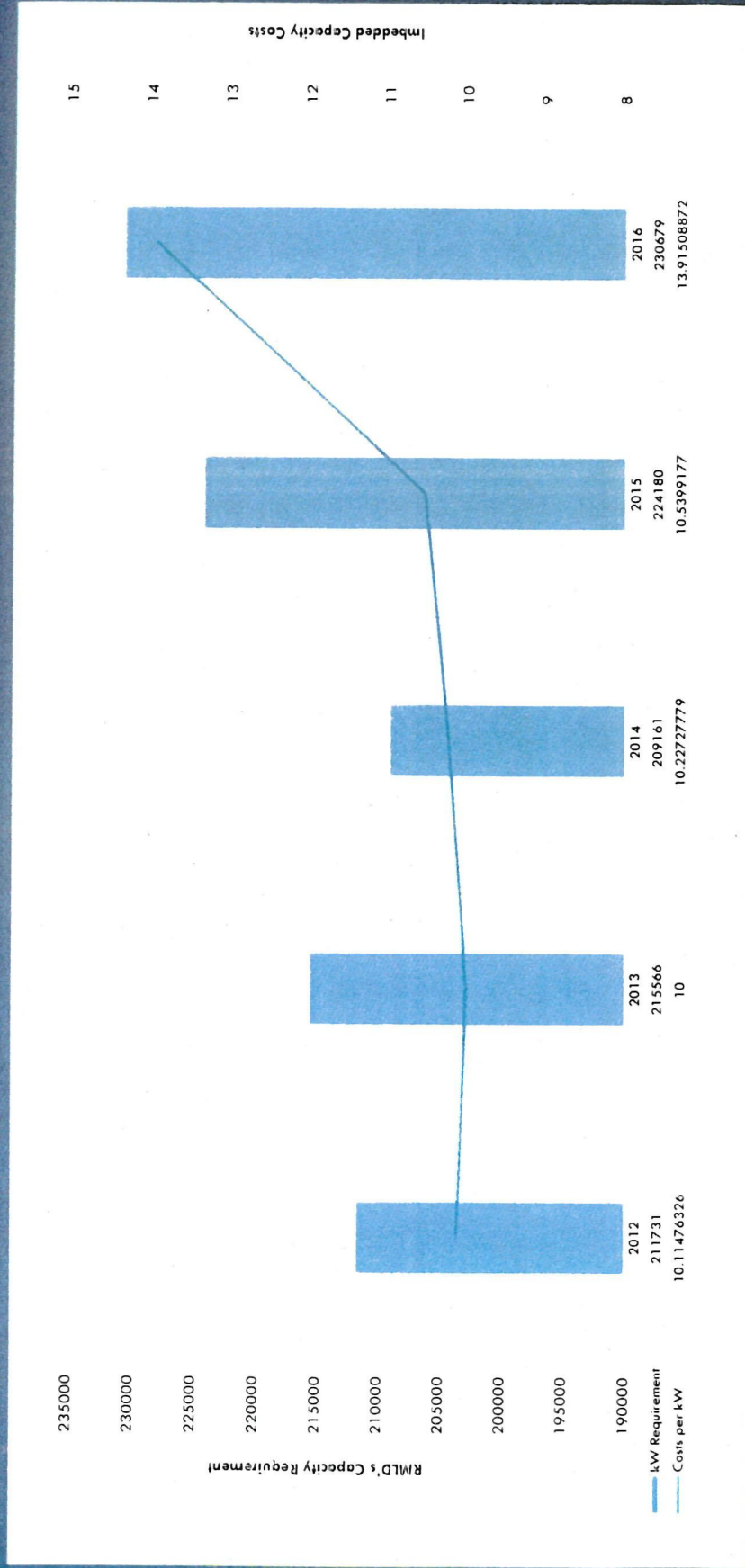
REPORTING FOR SEPTEMBER & OCTOBER 2016

Jane Parenteau  
Director of Integrated Resources



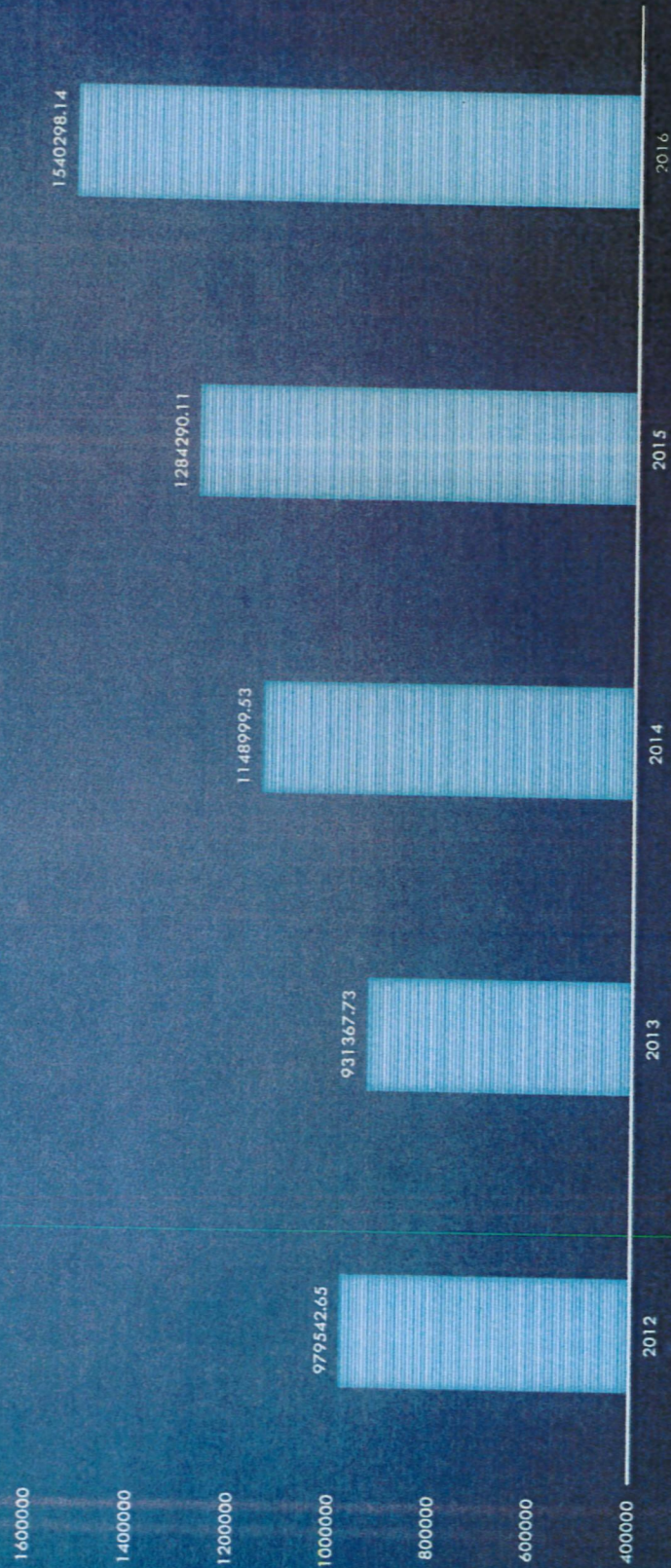
# CAPACITY REQUIREMENT AND IMBEDDED COSTS

## SEPTEMBER, 2012-2016



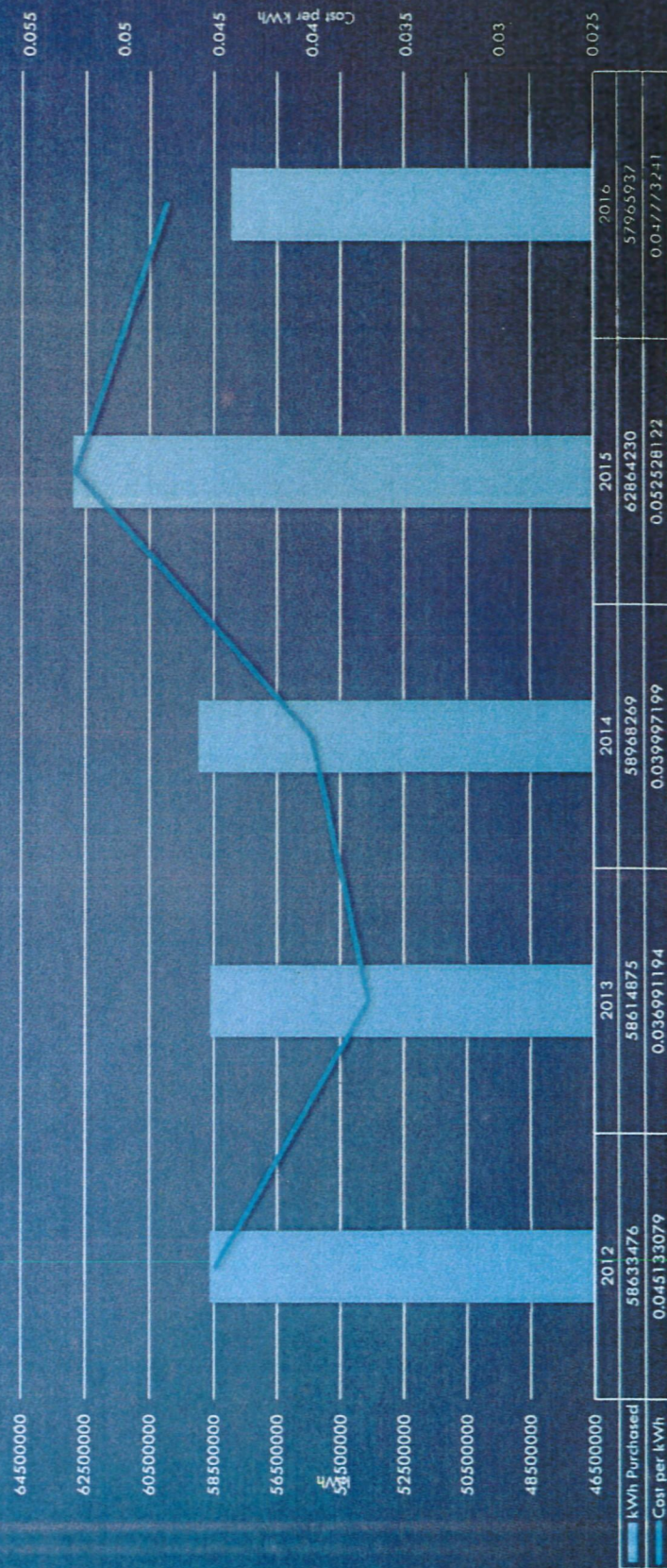


# HISTORICAL RMLD TRANSMISSION COSTS SEPTEMBER



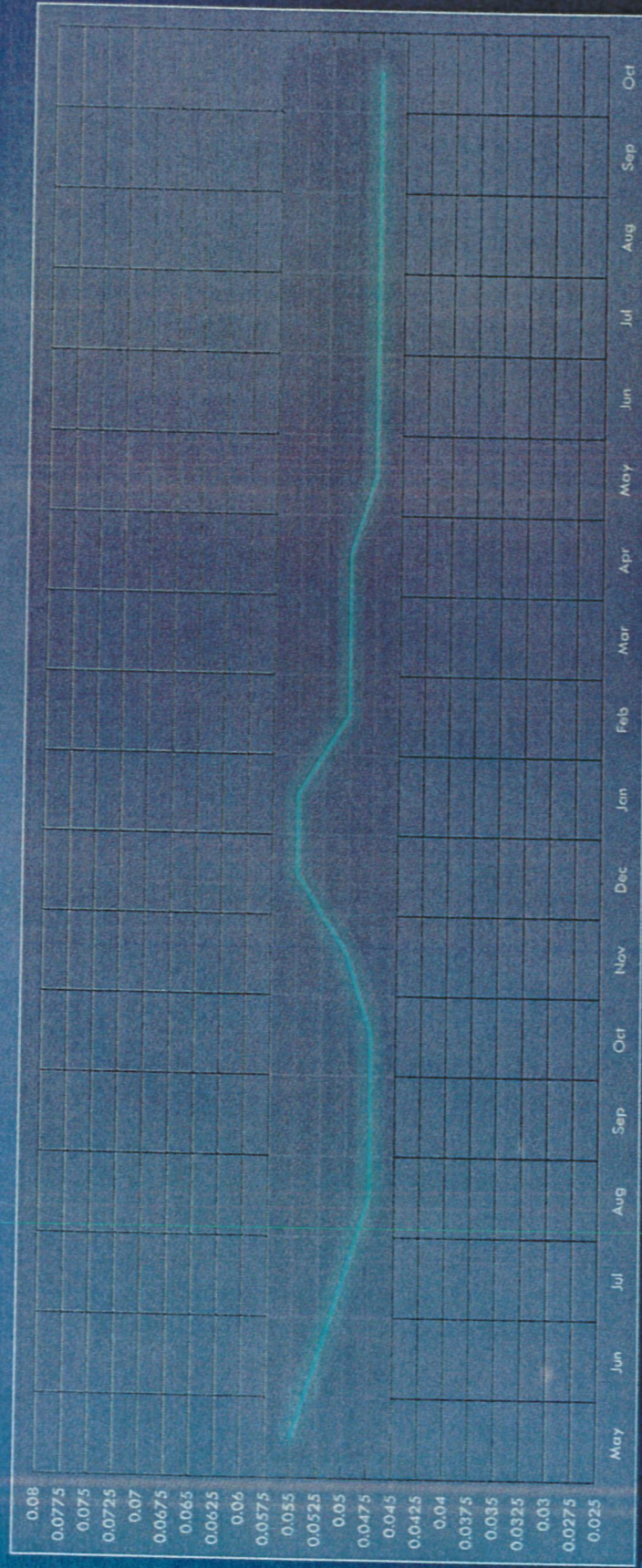


# PURCHASED KWH AND IMBEDDED COST PER KWH SEPTEMBER 5 YEAR PERIOD



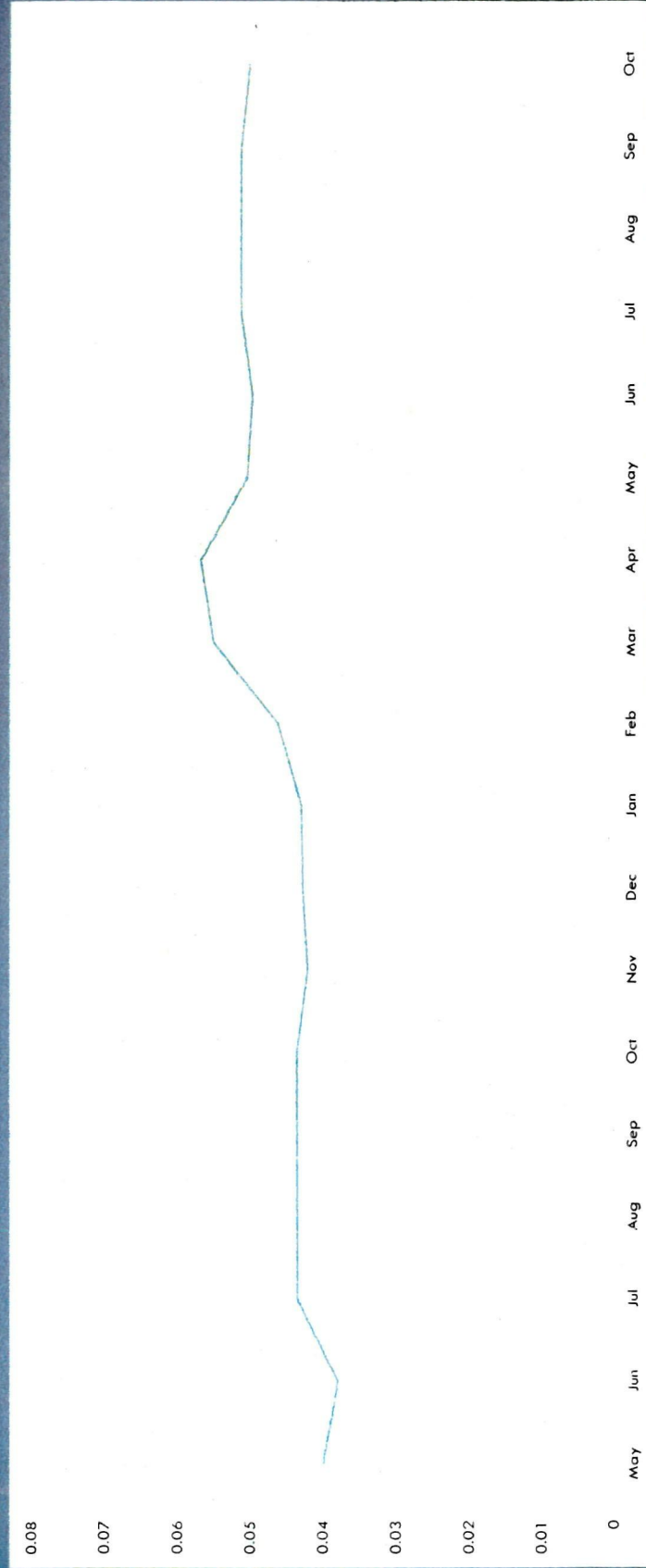


# MONTHLY FUEL CHARGE ADJUSTMENT TO RMLD CONSUMERS MAY 2015-OCTOBER 2016



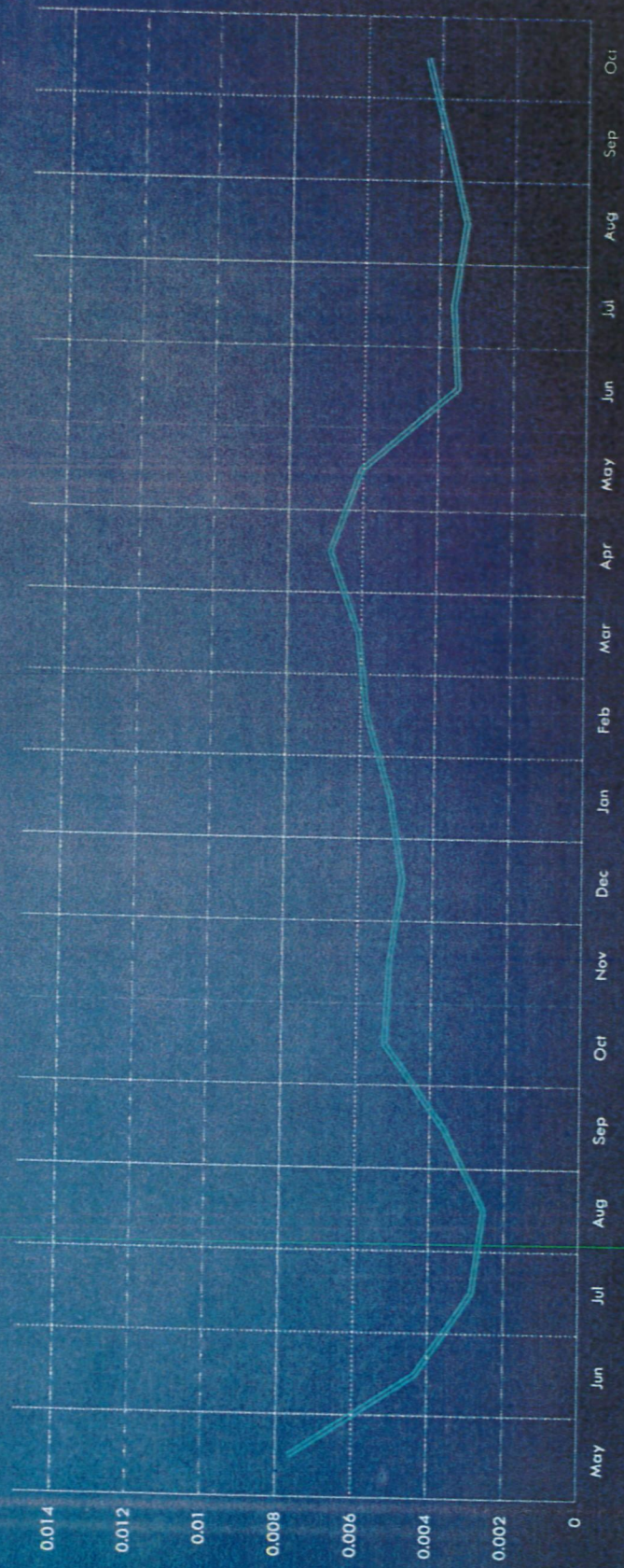


# MONTHLY PURCHASE POWER, CAPACITY & TRANSMISSION CHARGES (PPCT) MAY 2015- OCTOBER 2016






# MONTHLY NEW YORK POWER AUTHORITY CREDIT (NYPA) RESIDENTIAL CONSUMERS MAY 2015- OCTOBER







To: Coleen O'Brien

From: Maureen McHugh, Jane Parenteau 

Date: December 5, 2016

Subject: Purchase Power Summary – September, 2016

Energy Services Division (ESD) has completed the Purchase Power Summary for the month of September, 2016.

### ENERGY

The RMLD's total metered load for the month was 57,671,462 kWh, which is a 7.76% decrease from the September, 2015 figures.

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

**Table 1**

Resource	Amount of Energy (kWh)	Cost of Energy (\$/Mwh)	% of Total Energy	Total \$ Costs	\$ as a %
Millstone #3	3,531,903	\$6.72	6.09%	\$23,740	0.86%
Seabrook	5,697,170	\$6.32	9.83%	\$36,006	1.30%
Stonybrook Intermediate	704,726	\$48.60	1.22%	\$34,253	1.24%
Shell Energy	9,716,400	\$63.53	16.76%	\$617,259	22.29%
NYPA	2,000,296	\$4.92	3.45%	\$9,841	0.36%
ISO Interchange	7,623,831	\$93.85	13.15%	\$715,512	25.84%
NEMA Congestion	0	\$0.00	0.00%	\$81,144	2.93%
Coop Resales	13,271	\$92.90	0.02%	\$1,233	0.04%
BP Energy	9,631,200	\$46.90	16.62%	\$451,703	16.31%
Hydro Projects*	160,091	\$74.38	0.28%	\$11,907	0.43%
Braintree Watson Unit	437,054	\$117.91	0.75%	\$51,535	1.86%
Saddleback/Jericho Wind	1,131,736	\$96.38	1.95%	\$109,073	3.94%
One Burlington Solar	281,136	\$70.00	0.49%	\$19,680	0.71%
Exelon	17,034,000	\$35.52	29.39%	\$604,998	21.85%
Stonybrook Peaking	3,123	\$428.22	0.01%	\$1,337	0.05%
Monthly Total	57,965,937	\$47.77	100.00%	\$2,769,221	100.00%

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



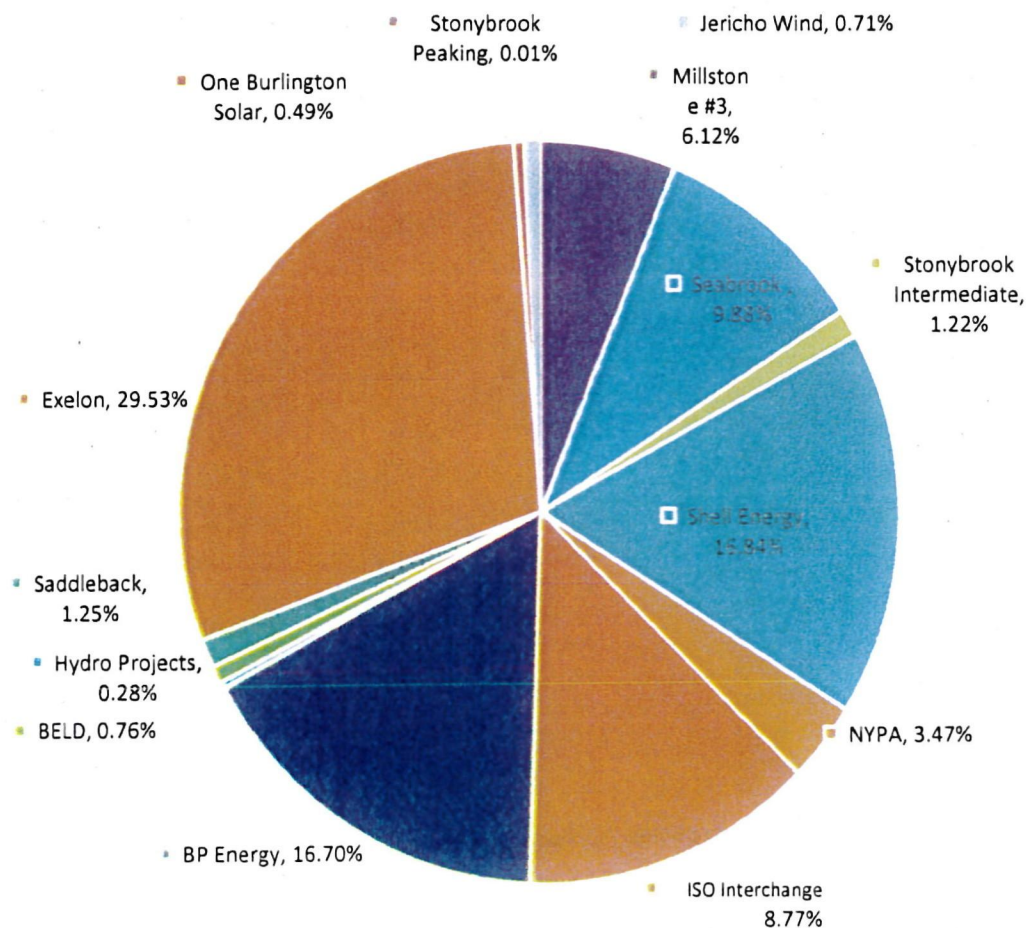
Table 2 breaks down the ISO interchange between the DA LMP Settlement and the RT Net Energy for the month of September, 2016.

Resource	Amount of Energy (kWh)	Cost of Energy (\$/Mwh)	% of Total Energy
ISO DA LMP * Settlement	11,080,131	\$74.55	19.11%
RT Net Energy ** Settlement	(3,456,300)	\$31.98	-5.96%
ISO Interchange (subtotal)	7,623,831	\$93.85	13.15%

\* Independent System Operator Day-Ahead Locational Marginal Price

\*\* Real Time Net Energy

### SEPTEMBER 2016 ENERGY BY RESOURCE





## CAPACITY

The RMLD hit a demand of 143,166 kW, which occurred on September 9, at 4 pm. The RMLD's monthly UCAP requirement for September, 2016 was 230,679 kW.

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

**Table 3**

Source	Amount (kW)	Cost (\$/kW-month)	Total Cost \$	% of Total Cost
Millstone #3	4,950	33.59	\$166,254	9.94%
Seabrook	7,909	36.38	\$287,705	17.21%
Stonybrook Peaking	24,981	-1.21	-\$30,321	-1.81%
Stonybrook CC	42,925	7.07	\$303,636	18.16%
NYP&A	0	0.00	\$16,834	1.01%
Hydro Quebec	0	0	-\$926	-0.06%
NextEra	60,000	6.15	\$369,000	22.07%
Braintree Watson Unit	0	0.00	\$83,115	4.97%
ISO-NE Supply Auction	89,914	5.30	\$476,618	28.51%
<b>Total</b>	<b>230,679</b>	<b>\$7.22</b>	<b>\$1,671,914</b>	<b>100.00%</b>

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

**Table 4**

Resource	Energy	Capacity	Total cost	% of Total Cost	Amt of Energy (kWh)	Cost of Power (\$/kWh)
Millstone #3	\$23,740	\$166,254	\$189,994	4.28%	3,531,903	0.0538
Seabrook	\$36,006	\$287,705	\$323,711	7.30%	5,697,170	0.0568
Stonybrook Intermediate	\$34,253	\$303,636	\$337,889	7.62%	704,726	0.4795
Hydro Quebec	\$0	-\$926	-\$926	-0.02%	-	0.0000
Shell Energy	\$617,259	\$0	\$617,259	13.92%	9,716,400	0.0635
NextEra	\$0	\$369,000	\$369,000	8.32%	-	0.0000
* NYP&A	\$9,841	\$16,834	\$26,675	0.60%	2,000,296	0.0133
ISO Interchange	\$715,512	\$511,548	\$1,227,060	27.66%	7,623,831	0.1610
Nema Congestion	\$81,144	-\$34,930	\$46,213	1.04%	-	0.0000
BP Energy	\$451,703	\$0	\$451,703	10.18%	9,631,200	0.0469
* Hydro Projects	\$11,907	-\$5,567	\$6,339	0.14%	160,091	0.0396
Braintree Watson Unit	\$51,535	\$83,115	\$134,650	3.04%	437,054	0.3081
* Saddleback/Jericho	\$109,073	\$0	\$109,073	2.46%	1,131,736	0.0964
* One Burlington Solar	\$19,680	\$0	\$19,680	0.44%	281,136	0.0700
Coop Resales	\$1,233	\$0	\$1,233	0.03%	13,271	0.0929
Exelon Energy	\$604,998	\$0	\$604,998	13.64%	17,034,000	0.0355
Stonybrook Peaking	\$1,337	-\$30,321	-\$28,984	-0.65%	3,123	-9.2808
<b>Monthly Total</b>	<b>\$2,769,221</b>	<b>\$1,666,347</b>	<b>\$4,435,567</b>	<b>100.00%</b>	<b>57,965,937</b>	<b>0.0765</b>

\* Renewable Resources

6.16%

## RENEWABLE ENERGY CERTIFICATES (RECs)

Table 5 shows the amount of banked and projected RECs for the Swift River Hydro Projects through September 2016, as well as their estimated market value.

**Table 5**  
**RECs Summary**

**Period - January 2016 - September 2016**

	<b>Banked RECs</b>	<b>Projected RECs</b>	<b>Total RECs</b>	<b>Est. Dollars</b>
Woronoco	0	7,621	7,621	\$190,525
Pepperell	0	3,816	3,816	\$95,400
Indian River	0	1,702	1,702	\$42,550
Turners Falls	0	1,135	1,135	\$28,375
Saddleback	0	5,873	5,873	\$146,825
Jericho	0	4,389	4,389	\$109,725
<b>Sub total</b>	<b>0</b>	<b>24,536</b>	<b>24,536</b>	<b>613,400</b>
RECs Sold	\$0		0	\$0
<b>Grand Total</b>	<b>0</b>	<b>24,536</b>	<b>24,536</b>	<b>\$613,400</b>

## TRANSMISSION


The RMLD's total transmission costs for the month of September, 2016 were \$1,540,298. This is an increase of 12.42% from the August transmission cost of \$1,370,117. In September, 2015 the transmission costs were \$1,284,290.

**Table 6**

	<b>Current Month</b>	<b>Last Month</b>	<b>Last Year</b>
Peak Demand (kW)	143,166	163,134	154,933
Energy (kWh)	57,965,937	74,092,068	62,864,230
Energy (\$)	\$2,769,221	\$3,194,092	\$3,302,140
Capacity (\$)	\$1,666,347	\$1,915,137	\$1,346,792
Transmission(\$)	\$1,540,298	\$1,370,117	\$1,284,290
Total	\$5,975,866	\$6,479,345	\$5,933,222



To: Coleen O'Brien

From: Maureen McHugh, Jane Parenteau 

Date: December 6, 2016

Subject: Purchase Power Summary – October, 2016

Energy Services Division (ESD) has completed the Purchase Power Summary for the month of October, 2016.

## ENERGY

The RMLD's total metered load for the month was 52,407,904 kWh, which is a 2.09% decrease from the October, 2015 figures.

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

**Table 1**

Resource	Amount of Energy (kWh)	Cost of Energy (\$/Mwh)	% of Total Energy	Total \$ Costs	\$ as a %
Millstone #3	3,665,166	\$6.72	6.97%	\$24,636	1.00%
Seabrook	5,895,894	\$6.32	11.21%	\$37,262	1.51%
Stonybrook Intermediate	0	\$0.00	0.00%	\$10,117	0.41%
Shell Energy	7,638,000	\$65.91	14.52%	\$503,447	20.44%
NYPA	2,246,209	\$4.92	4.27%	\$11,051	0.45%
ISO Interchange	3,594,284	\$68.44	6.83%	\$245,981	9.99%
NEMA Congestion	0	\$0.00	0.00%	\$247,548	10.05%
Coop Resales	15,710	\$126.43	0.03%	\$1,986	0.08%
BP Energy	9,729,600	\$46.90	18.50%	\$456,318	18.52%
Hydro Projects*	522,216	\$92.13	0.99%	\$48,110	1.95%
Braintree Watson Unit	382,459	\$118.65	0.73%	\$45,380	1.84%
Saddleback/Jericho Wind	2,161,967	\$99.87	4.11%	\$215,906	8.76%
One Burlington Solar	231,497	\$70.00	0.44%	\$16,205	0.66%
Exelon	16,498,200	\$36.20	31.37%	\$597,282	24.25%
Stonybrook Peaking	9,758	\$229.82	0.02%	\$2,243	0.09%
Monthly Total	52,590,960	\$46.84	100.00%	\$2,463,471	100.00%

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

Table 2 breaks down the ISO interchange between the DA LMP Settlement and the RT Net Energy for the month of October, 2016.

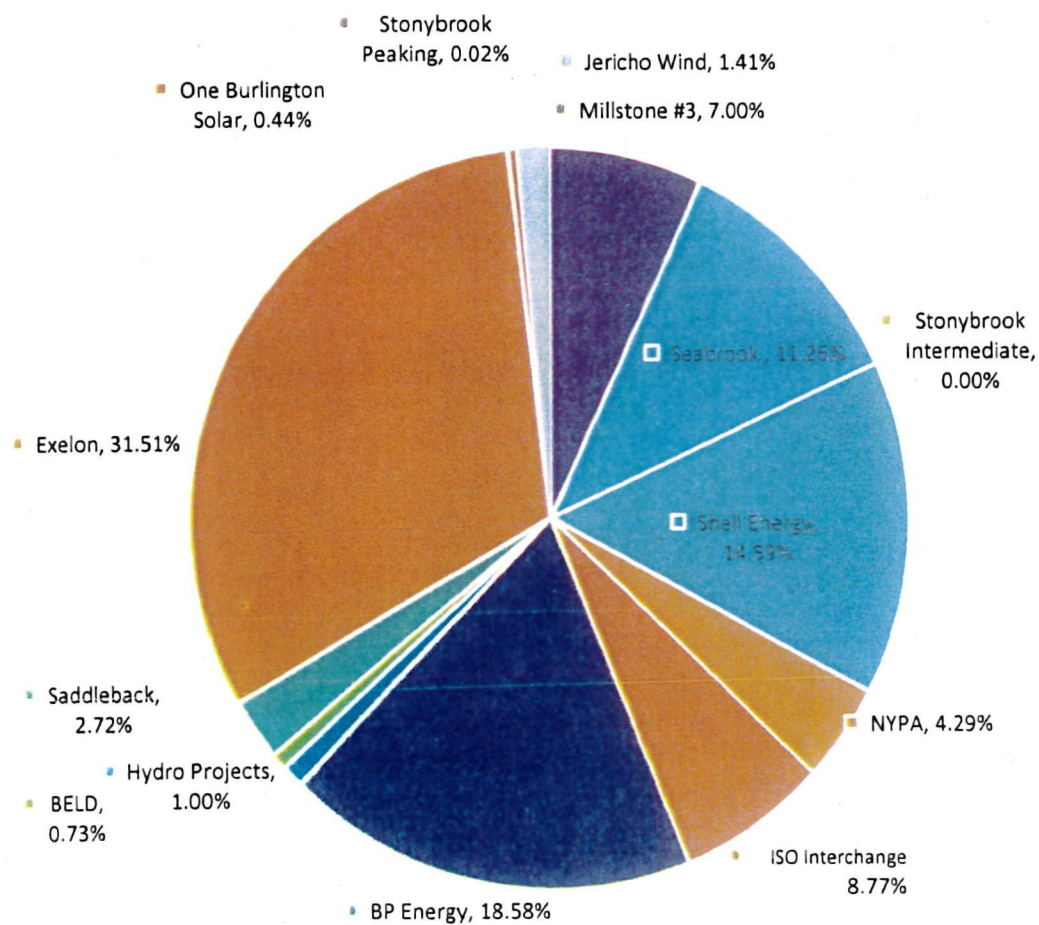
**Table 2**

Resource	Amount of Energy (kWh)	Cost of Energy (\$/Mwh)	% of Total Energy
ISO DA LMP *	7,727,644	\$46.78	14.69%
Settlement			
RT Net Energy **	(4,133,360)	\$27.96	-7.86%
Settlement			
ISO Interchange (subtotal)	3,594,284	\$68.40	6.83%

\* Independent System Operator Day-Ahead Locational Marginal Price

\*\* Real Time Net Energy

### OCTOBER 2016 ENERGY BY RESOURCE





## CAPACITY

The RMLD hit a demand of 91,673 kW, which occurred on October, at 7 pm. The RMLD's monthly UCAP requirement for October, 2016 was 232,349 kW.

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

**Table 3**

Source	Amount (kW)	Cost (\$/kW-month)	Total Cost \$	% of Total Cost
Millstone #3	4,950	33.46	\$165,607	9.49%
Seabrook	7,909	36.45	\$288,320	16.51%
Stonybrook Peaking	24,981	1.06	\$26,387	1.51%
Stonybrook CC	42,925	7.00	\$300,337	17.20%
NYPA	0	0.00	\$6,554	0.38%
Hydro Quebec	0	0	-\$15,089	-0.86%
Nextera	60,000	6.15	\$369,000	21.13%
Braintree Watson Unit	0	0.00	\$83,166	4.76%
ISO-NE Supply Auction	91,584	5.70	\$521,664	29.88%
<b>Total</b>	<b>232,349</b>	<b>\$7.51</b>	<b>\$1,745,945</b>	<b>100.00%</b>

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

**Table 4**

Resource	Energy	Capacity	Total cost	% of Total Cost	Amt of Energy (kWh)	Cost of Power (\$/kWh)
Millstone #3	\$24,636	\$165,607	\$190,243	4.52%	3,665,166	0.0519
Seabrook	\$37,262	\$288,320	\$325,582	7.73%	5,895,894	0.0552
Stonybrook Intermediate	\$10,117	\$300,337	\$310,454	7.38%	-	0.0000
Hydro Quebec	\$0	-\$15,089	-\$15,089	-0.36%	-	0.0000
Shell Energy	\$503,447	\$0	\$503,447	11.96%	7,638,000	0.0659
NextEra	\$0	\$369,000	\$369,000	8.77%	-	0.0000
* NYPA	\$11,051	\$6,554	\$17,605	0.42%	2,246,209	0.0078
ISO Interchange	\$245,981	\$521,664	\$767,645	18.24%	3,594,284	0.2136
Nema Congestion	\$247,548	\$0	\$247,548	5.88%	-	0.0000
BP Energy	\$456,318	\$0	\$456,318	10.84%	9,729,600	0.0469
* Hydro Projects	\$48,110	\$0	\$48,110	1.14%	522,216	0.0921
Braintree Watson Unit	\$45,380	\$83,166	\$128,546	3.05%	382,459	0.3361
* Saddleback/Jericho	\$215,906	\$0	\$215,906	5.13%	2,161,967	0.0999
* One Burlington Solar	\$16,205	\$0	\$16,205	0.38%	231,497	0.0700
Coop Resales	\$1,986	\$0	\$1,986	0.05%	15,710	0.1264
Exelon Energy	\$597,282	\$0	\$597,282	14.19%	16,498,200	0.0362
Stonybrook Peaking	\$2,243	\$26,387	\$28,629	0.68%	9,758	2.9339
<b>Monthly Total</b>	<b>\$2,463,471</b>	<b>\$1,745,945</b>	<b>\$4,209,416</b>	<b>100.00%</b>	<b>52,590,960</b>	<b>0.0800</b>

\* Renewable Resources

9.82%

## RENEWABLE ENERGY CERTIFICATES (RECs)

Table 5 shows the amount of banked and projected RECs for the Swift River Hydro Projects through October 2016, as well as their estimated market value.


<b>Table 5</b>				
<b>RECs Summary</b>				
<b>Period - January 2016 - October 2016</b>				
	<b>Banked RECs</b>	<b>Projected RECs</b>	<b>Total RECs</b>	<b>Est. Dollars</b>
Woronoco	0	7,659	7,659	\$191,469
Pepperell	0	3,981	3,981	\$99,525
Indian River	0	1,702	1,702	\$42,550
Turners Falls	0	1,135	1,135	\$28,375
Saddleback	0	7,299	7,299	\$182,475
Jericho	0	5,125	5,125	\$128,125
<b>Sub total</b>	<b>0</b>	<b>26,901</b>	<b>26,901</b>	<b>672,519</b>
RECs Sold	\$0		0	\$0
<b>Grand Total</b>	<b>0</b>	<b>26,901</b>	<b>26,901</b>	<b>\$672,519</b>

## TRANSMISSION

The RMLD's total transmission costs for the month of October, 2016 were \$1,236,067. This is a decrease of 19.75% from the September transmission cost of \$1,540,298. In October, 2015 the transmission costs were \$1,276,977.

<b>Table 6</b>			
	<b>Current Month</b>	<b>Last Month</b>	<b>Last Year</b>
Peak Demand (kW)	91,673	143,166	92,325
Energy (kWh)	52,590,960	57,965,937	53,541,382
Energy (\$)	\$2,463,471	\$2,769,221	\$2,543,917
Capacity (\$)	\$1,745,945	\$1,666,347	\$1,442,001
Transmission(\$)	\$1,236,067	\$1,540,298	\$1,276,977
Total	\$5,445,482	\$5,975,866	\$5,262,895





# Engineering & Operations Report

RMLD Board of Commissioners Meeting

December 15, 2016

September/October 2016 Reporting Period

Hamid Jaffari, Director of Engineering & Operations

# Capital Improvement Projects

Construction Projects:		% Complete Status	Sept	Oct	YTD
100	Distributed Gas Generation Pilot	20%		\$1,833	\$42,101
106	Underground Facilities Upgrades (URDs, Manholes, etc.) - All Towns				
	• Lucaya Estates, Wilmington				
	• Clorinda Road, Wilmington				
	• Earles Row, Wilmington	On-going	\$47,571	\$33,605	\$187,986
	• Crestwood Drive, North Reading				
	• Bishop Way, North Reading				
107	13.8kV Upgrade (Stepdown Areas, etc.)	On-going	\$502	\$231	\$4,581
108	Relay Replacement – Station 4 (GAW)	98%	\$7,455	\$2,218	\$13,475
120	Station 4: Relay/SCADA Integration for Bus A&B	10%		\$10,184	\$16,064
133	Station 3: Relay Upgrades and SCADA Integration	5%		\$55,616	\$55,616
	Service Installations – Residential and Commercial: This item includes new or upgraded overhead and underground services.	On-going	\$8,870	\$10,578	\$38,424
103	Grid Modernization and Optimization	On-going	\$6,628	\$453	\$7,166
112	AMI Mesh Network Expansion	30%	\$2,192		\$100,200
116	Transformers and Capacitors Purchase	n/a	\$9,102		\$9,102
117	Meter Purchases	n/a	\$5,640	\$10,500	\$16,140
125	GIS	10%		\$4,323	\$4,323
131	LED Street Light Conversion	54%	\$97,915	\$68,392	\$260,503



# Routine Construction

	SEPT	OCT	YTD
Pole Setting/Transfers	\$41,849	\$26,349	\$103,500
Overhead/Underground	\$26,469	\$26,627	\$205,651
Projects Assigned as Required			
• McDonald Road Conversion, Wilmington			
• Lopez Road, Wilmington			
• Solar Project - Ballardvale Street, Wilmington			
• AT&T, Wilmington			
• Wilmington Recreation Facility	\$36,183	\$20,278	\$73,911
Pole Damage/Knockdowns - Some Reimbursable	\$16,028	\$3,927	\$33,874
• Work was done to repair or replace ten poles.			
Station Group	\$9,197	\$52,317	\$62,157
Hazmat/Oil Spills			
• Clarinda Road, Wilmington	\$4,468	\$0	\$5,296
Porcelain Cutout Replacement Program	\$0	\$0	\$0
Lighting (Street Light Connections)	\$4,176	\$1,225	\$9,905
Storm Trouble	\$3,616	\$0	\$10,743
Underground Subdivisions (new construction)			
• Johnson Woods - Phase 2, Reading	\$1,783	\$19,011	\$33,346
• North Wilmington Estates, Wilmington	\$0	\$0	\$595
Animal Guard Installation	\$1,487	\$0	\$80,840
Miscellaneous Capital Costs	\$145,257	\$149,734	\$619,818
<b>TOTAL:</b>			

# Routine Maintenance

## ► Transformer Replacement (through October 2016)

Pad mount    22.80%    Overhead    15.34%

## ► Pole Inspection (as of 11/30/2016)

194 poles have been replaced    112 of 194 transfers have been completed

## ► Visual Inspection of OH Lines (as of 10/13/2016)

Inspected circuits 5W8, 5W9, 5W5, 4W10, 5W4, 4W28, 4W5, 4W6, 3W8, 3W18, 4W13, 4W12, 3W15, 4W24, 4W28, 5W4, 3W6, 3W7, 3W14, 3W5, 4W7, 4W9, 4W4, 4W23, 5W6

## ► Manhole Inspection (through October 2016)

961 of 1,237 manholes have been inspected.

## ► Porcelain Cutout Replacements (through October 2016)

91% complete    256 remaining to be replaced

## ► Tree Trimming

September: 83 spans trimmed    October: 123 spans trimmed

YTD: 376 spans trimmed

## ► Substation Maintenance

Infrared Scanning – September and October complete – no hot spots found

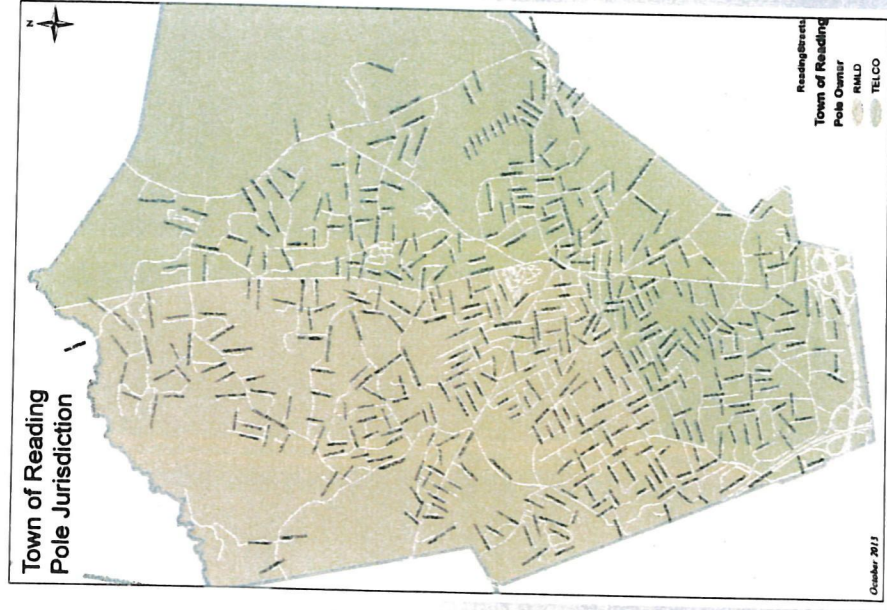


# Double Poles

- Ownership: 16,000 (approximately)
  - 50% RMLD
  - 50% Verizon

- Custodial:

Reading – split (see map) →  
North Reading – RMLD  
Lynnfield – Verizon  
Wilmington – Verizon



# NJUNS

First Town of December 12, 2016

## WILMINGTON

NTG Member and Job Type	Count of Ticket Number
CMCTNR	2
Comcast	
TRANSFER	2
NP3PMA	10
Non-participating 3rd Party	
Attacher - Massachusetts	
TRANSFER	10
RMLD	52
Reading Municipal Light Department	
TRANSFER	46
ATTACH	1
PULL POLE	4
INSTL GUY	1
VZNEDR	75
Verizon	
TRANSFER	56
PULL POLE	19
WMGNFD	72
Wilmington Fire Department	
TRANSFER	72
(blank)	
Grand Total	211

## READING

NTG Member and Job Type	Count of Ticket Numbers
CMCTNR	20
Comcast	
TRANSFER	20
NP3PMA	11
Non-participating 3rd Party	
Attacher - Massachusetts	
TRANSFER	11
RDNGFD	2
Reading Fire Department	
TRANSFER	2
RMLD	93
Reading Municipal Light	
TRANSFER	48
PULL POLE	45
VZNESA	95
Verizon	
TRANSFER	93
PULL POLE	2
(blank)	
Grand Total	221

## NORTH READING

NTG Member and Job Type	Count of Ticket Numbers
CMCTNR	8
Comcast	
TRANSFER	8
NGMA	1
National Grid	
TRANSFER	1
NRDGED	44
North Reading Fire Department	
TRANSFER	44
RMLD	60
Reading Municipal Light Department	
TRANSFER	15
PULL POLE	45
VZNEDR	108
Verizon	
TRANSFER	98
PULL POLE	10
(blank)	
Grand Total	221

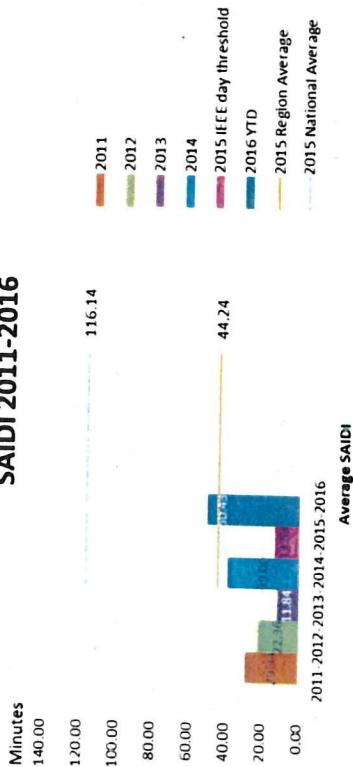
## LYNNFIELD

NTG Member and Job Type	Count of Ticket Numbers
LFLDFD	2
Lynnfield Fire Department	
TRANSFER	2
RMLD	4
Reading Municipal Light Department	
TRANSFER	4
VZNESA	14
Verizon	
TRANSFER	8
PULL POLE	6
(blank)	
Grand Total	20



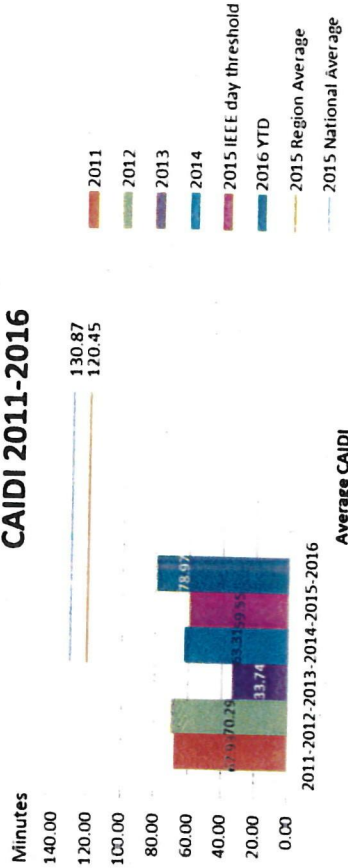
# RMLD Reliability Indices

SAIDI 2011-2016



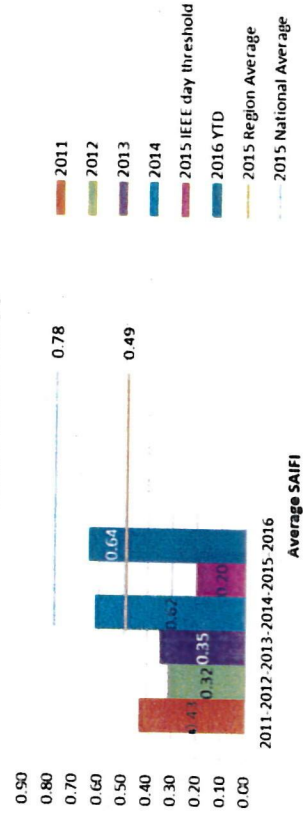
$$SAIDI (Minutes) = \frac{\text{Total Duration of Customer Interruptions}}{\text{Total Number of Customers Served}}$$

CAIDI 2011-2016



$$CAIDI (Minutes) = \frac{\text{Total Duration of Customer Interruptions}}{\text{Total Number of Customers Interrupted}}$$

SAIFI 2011-2016

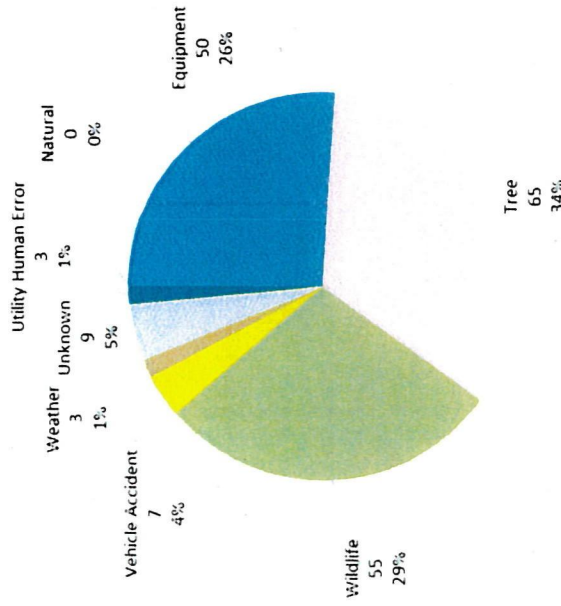


$$SAIFI = \frac{\text{Total Number of Customer Interruptions}}{\text{Total Number of Customers Served}}$$

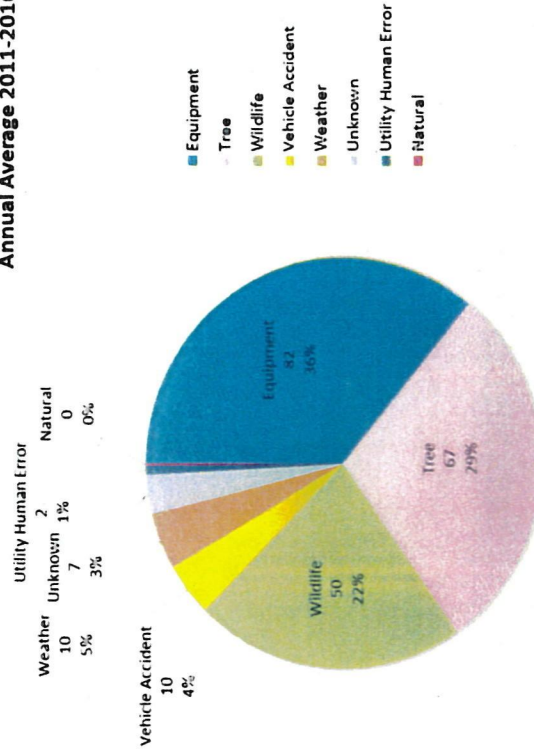
# Outages Causes

Outages Causes YTD (from eReliability website)

2016 YTD  
January - October



Annual Average 2011-2016





# Questions ?









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

Tel: (781) 944-1340  
Fax: (781) 942-2409  
Web: www.rmlld.com

December 1, 2016

Town of Reading Municipal Light Board

Subject: IFP 2017-27 Single Phase Pad Mounted FR3 Transformers

Pursuant to M.G.L c. 164 § 56D, on November 16, 2016, a bid invitation was placed as a legal notice in the Middlesex East section of the Daily Times Chronicle and on the ECNE (Energy Council of the Northeast) website requesting sealed proposals for Single Phase Pad Mounted FR3 Transformers.

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

EDI	Graybar Electric	Hasgo Power
IF Gray	Irby	Jordan Transformer
Power Sales Group	Power Tech-UPSC	Robinson Sales
Shamrock Power Sales Inc.	Transformer Exchange	Ward Transformer Sales
Weidmann Electrical Technology	WESCO	Yale Electric Supply

Sealed proposals were received from four companies: Graybar Electric, Power Sales Group, Irby and WESCO.

The sealed proposals were publicly opened and read aloud at 11:00 a.m., November 30, 2016, 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 2017-27 for: Single Phase Pad Mounted FR3 Transformers be awarded to: **WESCO** for **\$151,110** pursuant to Chapter 164 § 56D on the recommendation of the General Manager.

The FY17 Capital Budget amount for these items is \$100,000.

Peter Price

Hamid Jaffari

Coleen O'Brien

**Single Phase Pad Mounted FR3 Transformers**  
**Bid 2017-27**

Bidder	Manufacturer	Delivery Date	Unit Cost	Qty	Total Net Cost	Meet Specification requirement	Specification Data Sheets	Firm Price	All forms filled out	Certified Check or Bid Bond	Exceptions to stated bid requirements	Authorized signature
WESCO												
Item 1 (25 kVa)	ERMCO	9-11 weeks ARO	\$1,916.00	10	\$19,160.00	yes	yes	yes	yes	yes	yes	yes
Item 2 (37 1/2 kVa)	ERMCO	9-11 weeks ARO	\$2,100.00	35	\$73,500.00							
Item 3 (50 kVa)	ERMCO	9-11 weeks ARO	\$2,338.00	25	\$58,450.00							
					<u>\$151,110.00</u>							

Exemptions as stated: ERMCO does not supply door stops (pg PS)

Engineering Note: This is acceptable.

**Power Sales Group C/O Howard**

Item 1 (25 kVa)	Howard	6-8 weeks ARO	\$2,639.00	10	\$26,390.00	yes	yes	no	yes	yes	no	yes
Item 2 (37 1/2 kVa)	Howard	6-8 weeks ARO	\$2,893.00	35	\$101,255.00							
Item 3 (50 kVa)	Howard	6-8 weeks ARO	\$3,120.00	25	\$78,000.00							
					<u>\$205,645.00</u>							

**Non responsive bidders:**

Irby

Disqualification based on more than one bid for the same work from an individual, firm, partnership or corporation.

Rejected based on the following:

1. They did not quote a firm price. If there is a need to schedule the shipment later than the quoted lead-time, the price will be adjusted per the CPI in effect at the time of shipment.
2. It is a conditional bid in that "orders are accepted subject to the manufacturer's (Eaton's) Terms and Conditions.



TOWN OF READING, MASSACHUSETTS  
MUNICIPAL LIGHT DEPARTMENT  
BUSINESS-TYPE PROPRIETARY FUND  
STATEMENT OF NET ASSETS  
9/30/16

		PREVIOUS YEAR	CURRENT YEAR
<b>ASSETS</b>			
<b>CURRENT</b>			
UNRESTRICTED CASH	(SCH A P.9)	10,504,383.61	15,779,554.95
RESTRICTED CASH	(SCH A P.9)	22,784,514.36	22,779,550.64
RESTRICTED INVESTMENTS	(SCH A P.9)	1,284,061.45	1,345,663.06
RECEIVABLES, NET	(SCH B P.10)	9,750,201.71	9,535,148.75
PREPAID EXPENSES	(SCH B P.10)	1,110,312.97	1,221,849.93
DEFERRED OUTFLOWS OF RESOURCES	(SCH B P.10)	1,547,815.00	6,338,218.00
INVENTORY		1,629,353.82	1,559,509.06
<b>TOTAL CURRENT ASSETS</b>		<u>48,610,642.92</u>	<u>58,559,494.39</u>
<b>NONCURRENT</b>			
INVESTMENT IN ASSOCIATED CO	(SCH C P.2)	26,993.75	26,993.75
CAPITAL ASSETS, NET	(SCH C P.2)	69,912,215.61	72,380,004.50
<b>TOTAL NONCURRENT ASSETS</b>		<u>69,939,209.36</u>	<u>72,406,998.25</u>
<b>TOTAL ASSETS</b>		<u>118,549,852.28</u>	<u>130,966,492.64</u>
<b>LIABILITIES</b>			
<b>CURRENT</b>			
ACCOUNTS PAYABLE		7,109,548.67	6,757,526.59
CUSTOMER DEPOSITS		863,919.67	920,196.89
CUSTOMER ADVANCES FOR CONSTRUCTION		904,188.35	1,013,604.84
ACCRUED LIABILITIES		3,192,834.75	9,430,938.63
<b>TOTAL CURRENT LIABILITIES</b>		<u>12,070,491.44</u>	<u>18,122,266.95</u>
<b>NONCURRENT</b>			
ACCRUED EMPLOYEE COMPENSATED ABSENCES		3,070,487.93	3,257,809.00
DEFERRED INFLOWS OF RESOURCES		0.00	883,172.00
<b>TOTAL NONCURRENT LIABILITIES</b>		<u>3,070,487.93</u>	<u>4,140,981.00</u>
<b>TOTAL LIABILITIES</b>		<u>15,140,979.37</u>	<u>22,263,247.95</u>
<b>NET ASSETS</b>			
INVESTED IN CAPITAL ASSETS, NET OF RELATED DEBT		69,912,215.61	72,380,004.50
RESTRICTED FOR DEPRECIATION FUND (P.9)		6,426,869.32	5,527,527.31
UNRESTRICTED		27,069,787.98	30,795,712.88
<b>TOTAL NET ASSETS</b>	(P.3)	<u>103,408,872.91</u>	<u>108,703,244.69</u>
<b>TOTAL LIABILITIES AND NET ASSETS</b>		<u>118,549,852.28</u>	<u>130,966,492.64</u>

TOWN OF READING, MASSACHUSETTS  
MUNICIPAL LIGHT DEPARTMENT  
NONCURRENT ASSET SCHEDULE  
9/30/16

SCHEDULE C

SCHEDULE OF INVESTMENTS IN ASSOCIATED COMPANIES

	PREVIOUS YEAR	CURRENT YEAR
NEW ENGLAND HYDRO ELECTRIC	2,975.74	2,975.74
NEW ENGLAND HYDRO TRANSMISSION	24,018.01	24,018.01
TOTAL INVESTMENTS IN ASSOCIATED COMPANIES	<u>26,993.75</u>	<u>26,993.75</u>

SCHEDULE OF CAPITAL ASSETS

LAND	1,265,842.23	1,265,842.23
STRUCTURES AND IMPROVEMENTS	6,035,452.03	7,541,231.87
EQUIPMENT AND FURNISHINGS	11,679,481.40	12,423,259.61
INFRASTRUCTURE	<u>50,931,439.95</u>	<u>51,149,670.79</u>
TOTAL CAPITAL ASSETS, NET	<u>69,912,215.61</u>	<u>72,380,004.50</u>

TOTAL NONCURRENT ASSETS

<u>69,939,209.36</u>	<u>72,406,998.25</u>
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TOWN OF READING, MASSACHUSETTS  
MUNICIPAL LIGHT DEPARTMENT  
BUSINESS-TYPE PROPRIETARY FUND  
STATEMENT OF REVENUES, EXPENSES AND CHANGES IN FUND NET ASSETS  
9/30/16

	MONTH LAST YEAR	MONTH CURRENT YEAR	LAST YEAR TO DATE	CURRENT YEAR TO DATE	YTD % CHANGE
OPERATING REVENUES: (SCH D P.11)					
BASE REVENUE	2,307,286.56	2,601,766.65	6,774,150.99	7,632,882.99	12.68%
FUEL REVENUE	3,385,022.47	3,313,075.69	9,640,963.29	9,568,447.25	-0.75%
PURCHASED POWER CAPACITY	3,131,926.41	3,565,602.15	8,696,014.94	10,282,673.57	18.25%
FORFEITED DISCOUNTS	71,838.93	75,132.46	195,863.12	245,526.20	25.36%
ENERGY CONSERVATION REVENUE	70,453.61	68,948.15	196,791.89	198,850.26	1.05%
NYPA CREDIT	(100,901.03)	(107,461.09)	(236,799.08)	(293,806.06)	24.07%
TOTAL OPERATING REVENUES	8,865,626.95	9,517,064.01	25,266,985.15	27,634,574.21	9.37%
OPERATING EXPENSES: (SCH E P.12)					
PURCHASED POWER CAPACITY	1,351,093.27	1,669,620.61	4,616,045.21	5,101,686.56	10.52%
PURCHASED POWER TRANSMISSION	1,284,290.11	1,540,298.14	3,774,337.74	4,125,707.12	9.31%
PURCHASED POWER FUEL	3,302,139.93	2,769,220.69	10,064,678.82	9,180,626.66	-8.78%
OPERATING MAINTENANCE	853,864.63	907,452.86	2,492,658.16	2,604,178.29	4.47%
DEPRECIATION	242,044.04	402,858.51	628,488.90	921,247.91	46.58%
VOLUNTARY PAYMENTS TO TOWNS	328,732.65	341,775.67	986,197.95	1,025,327.01	3.97%
	118,000.00	118,000.00	354,000.00	354,000.00	0.00%
TOTAL OPERATING EXPENSES	7,480,164.63	7,749,226.48	22,916,406.78	23,312,773.55	1.73%
OPERATING INCOME	1,385,462.32	1,767,837.53	2,350,578.37	4,321,800.66	83.86%
NONOPERATING REVENUES (EXPENSES)					
CONTRIBUTIONS IN AID OF CONST	33,493.54	8,631.42	34,474.88	1,062.10	0.00%
RETURN ON INVESTMENT TO READING	(197,537.08)	(198,722.33)	(592,611.24)	(596,166.99)	0.60%
INTEREST INCOME	11,074.27	11,669.62	34,303.10	35,937.86	4.77%
INTEREST EXPENSE	(179.97)	(200.31)	(536.57)	(586.44)	9.29%
OTHER (MDSE AND AMORT)	1,201.00	(1,966.47)	137,581.14	126,710.26	-7.90%
TOTAL NONOPERATING REV (EXP)	(151,948.24)	(180,588.07)	(386,788.69)	(433,043.21)	11.96%
CHANGE IN NET ASSETS	1,233,514.08	1,587,249.46	1,963,789.68	3,888,757.45	98.02%
NET ASSETS AT BEGINNING OF YEAR			101,445,083.23	104,814,487.24	3.32%
NET ASSETS AT END OF SEPTEMBER			103,408,872.91	108,703,244.69	5.12%

TOWN OF READING, MASSACHUSETTS  
MUNICIPAL LIGHT DEPARTMENT  
RECONCILIATION OF CAPITAL FUNDS  
9/30/16

SOURCE OF CAPITAL FUNDS:

DEPRECIATION FUND BALANCE 9/1/16	\$ 5,183,345.71
CONSTRUCTION FUND BALANCE 9/1/16	773,145.10
INTEREST ON DEPRECIATION FUND TO DATE	7,247.44
DEPRECIATION TRANSFER TO DATE	<u>1,025,327.01</u>
 TOTAL SOURCE OF CAPITAL FUNDS	 6,989,065.26

USE OF CAPITAL FUNDS:

LESS PAID ADDITIONS TO PLANT THRU SEPTEMBER

TOTAL USE OF CAPITAL FUNDS	1,202,918.99
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GENERAL LEDGER CAPITAL FUNDS BALANCE 9/30/16	<u><u>\$ 5,786,146.27</u></u>
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TOWN OF READING, MASSACHUSETTS  
MUNICIPAL LIGHT DEPARTMENT  
SCHEDULE OF CASH AND INVESTMENTS  
9/30/16

SCHEDULE A

	PREVIOUS YEAR	CURRENT YEAR
UNRESTRICTED CASH		
CASH - OPERATING FUND	10,501,383.61	15,776,554.95
CASH - PETTY CASH	3,000.00	3,000.00
TOTAL UNRESTRICTED CASH	<u>10,504,383.61</u>	<u>15,779,554.95</u>
RESTRICTED CASH		
CASH - DEPRECIATION FUND	6,426,869.32	5,527,527.31
CASH - CONSTRUCTION FUND	417,982.97	258,618.96
CASH - TOWN PAYMENT	946,611.00	950,166.99
CASH - DEFERRED FUEL RESERVE	4,519,770.54	5,210,889.20
CASH - RATE STABILIZATION FUND	6,784,114.10	6,835,216.32
CASH - UNCOLLECTIBLE ACCTS RESERVE	200,000.00	200,000.00
CASH - SICK LEAVE BENEFITS	1,791,428.02	1,926,058.60
CASH - HAZARD WASTE RESERVE	150,000.00	150,000.00
CASH - CUSTOMER DEPOSITS	863,919.67	920,196.89
CASH - ENERGY CONSERVATION	683,818.74	800,876.37
TOTAL RESTRICTED CASH	<u>22,784,514.36</u>	<u>22,779,550.64</u>
INVESTMENTS		
SICK LEAVE BUYBACK	<u>1,284,061.45</u>	<u>1,345,663.06</u>
TOTAL CASH BALANCE	<u>34,572,959.42</u>	<u>39,904,768.65</u>

TOWN OF READING, MASSACHUSETTS  
MUNICIPAL LIGHT DEPARTMENT  
SCHEDULE OF ACCOUNTS RECEIVABLE  
9/30/16

SCHEDULE B

SCHEDULE OF ACCOUNTS RECEIVABLE	PREVIOUS YEAR	CURRENT YEAR
RESIDENTIAL AND COMMERCIAL	4,731,364.33	3,563,300.23
ACCOUNTS RECEIVABLE - OTHER	251,462.03	649,031.80
ACCOUNTS RECEIVABLE - LIENS	6,837.76	8,173.91
ACCOUNTS RECEIVABLE - EMPLOYEE ADVANCES	543.53	543.53
SALES DISCOUNT LIABILITY	(184,488.64)	(136,915.65)
RESERVE FOR UNCOLLECTIBLE ACCOUNTS	(221,867.25)	(235,094.78)
TOTAL ACCOUNTS RECEIVABLE BILLED	<u>4,583,851.76</u>	<u>3,849,039.04</u>
UNBILLED ACCOUNTS RECEIVABLE	5,166,349.95	5,686,109.71
TOTAL ACCOUNTS RECEIVABLE, NET	<u><u>9,750,201.71</u></u>	<u><u>9,535,148.75</u></u>

SCHEDULE OF PREPAYMENTS

PREPAID INSURANCE	921,423.64	990,229.68
PREPAYMENT PURCHASED POWER	(396,811.75)	(380,870.38)
PREPAYMENT PASNY	307,572.50	307,572.50
PREPAYMENT WATSON	263,258.52	289,909.20
PURCHASED POWER WORKING CAPITAL	14,870.06	15,008.93
TOTAL PREPAYMENT	<u><u>1,110,312.97</u></u>	<u><u>1,221,849.93</u></u>

OTHER DEFERRED DEBITS	<u><u>1,547,815.00</u></u>	<u><u>6,338,218.00</u></u>
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ACCOUNTS RECEIVABLE AGING SEPTEMBER 2016:

RESIDENTIAL AND COMMERCIAL	3,563,300.23
LESS: SALES DISCOUNT LIABILITY	(136,915.65)
GENERAL LEDGER BALANCE	<u><u>3,426,384.58</u></u>

CURRENT	2,839,476.81	82.87%
30 DAYS	430,379.78	12.56%
60 DAYS	103,125.17	3.01%
90 DAYS	11,949.54	0.35%
OVER 90 DAYS	41,453.28	1.21%
TOTAL	<u><u>3,426,384.58</u></u>	<u><u>100.00%</u></u>



TOWN OF READING, MASSACHUSETTS  
MUNICIPAL LIGHT DEPARTMENT  
SCHEDULE OF OPERATING REVENUE  
9/30/16

SCHEDULE D

	MONTH LAST YEAR	MONTH CURRENT YEAR	LAST YEAR TO DATE	CURRENT YEAR TO DATE	YTD % CHANGE
<b>SALES OF ELECTRICITY:</b>					
RESIDENTIAL SALES	2,653,308.66	2,840,767.74	7,598,826.11	8,324,388.16	9.55%
COMM AND INDUSTRIAL SALES	2,871,325.15	2,844,592.06	8,209,110.72	8,221,873.89	0.16%
PRIVATE STREET LIGHTING	9,883.06	11,229.79	29,878.66	33,742.89	12.93%
<b>TOTAL PRIVATE CONSUMERS</b>	<u>5,534,516.87</u>	<u>5,696,589.59</u>	<u>15,837,815.49</u>	<u>16,580,004.94</u>	4.69%
<b>MUNICIPAL SALES:</b>					
STREET LIGHTING	(34,958.40)	27,102.28	21,205.57	81,306.84	283.42%
MUNICIPAL BUILDINGS	65,898.85	65,461.84	192,471.79	193,149.55	0.35%
<b>TOTAL MUNICIPAL CONSUMERS</b>	<u>30,940.45</u>	<u>92,564.12</u>	<u>213,677.36</u>	<u>274,456.39</u>	28.44%
<b>SALES FOR RESALE</b>	33,471.30	32,036.95	93,038.60	90,026.85	-3.24%
<b>SCHOOL</b>	<u>93,380.41</u>	<u>93,651.68</u>	<u>270,582.83</u>	<u>256,842.06</u>	-5.08%
<b>SUB-TOTAL</b>	5,692,309.03	5,914,842.34	16,415,114.28	17,201,330.24	4.79%
<b>FORFEITED DISCOUNTS</b>	71,838.93	75,132.46	195,863.12	245,526.20	25.36%
<b>PURCHASED POWER CAPACITY</b>	3,131,926.41	3,565,602.15	8,696,014.94	10,282,673.57	18.25%
ENERGY CONSERVATION - RESIDENTIAL	27,658.06	28,218.95	78,450.63	82,620.78	5.32%
ENERGY CONSERVATION - COMMERCIAL	42,795.55	40,729.20	118,341.26	116,229.48	-1.78%
NYPA CREDIT	(100,901.03)	(107,461.09)	(236,799.08)	(293,806.06)	24.07%
<b>TOTAL REVENUE</b>	<u>8,865,626.95</u>	<u>9,517,064.01</u>	<u>25,266,985.15</u>	<u>27,634,574.21</u>	9.37%

TOWN OF READING, MASSACHUSETTS  
MUNICIPAL LIGHT DEPARTMENT  
SCHEDULE OF OPERATING EXPENSES  
9/30/16

SCHEDULE E

OPERATION EXPENSES:	MONTH LAST YEAR	MONTH CURRENT YEAR	LAST YEAR TO DATE	CURRENT YEAR TO DATE	YTD % CHANGE
PURCHASED POWER CAPACITY	1,351,093.27	1,669,620.61	4,616,045.21	5,101,686.56	10.52%
PURCHASED POWER TRANSMISSION	1,284,290.11	1,540,298.14	3,774,337.74	4,125,707.12	9.31%
<b>TOTAL PURCHASED POWER</b>	<b>2,635,383.38</b>	<b>3,209,918.75</b>	<b>8,390,382.95</b>	<b>9,227,393.68</b>	<b>0.20</b>
OPERATION SUP AND ENGINEERING EXP	41,915.63	43,877.05	127,996.78	124,505.11	-2.73%
STATION SUP LABOR AND MISC	10,388.37	12,232.12	32,889.40	33,740.11	2.59%
LINE MISC LABOR AND EXPENSE	52,590.00	50,886.45	169,461.65	142,734.23	-15.77%
STATION LABOR AND EXPENSE	26,835.11	48,724.92	93,901.52	124,459.16	32.54%
STREET LIGHTING EXPENSE	11,757.77	17,022.66	25,300.13	32,132.77	27.01%
METER EXPENSE	17,301.55	20,033.40	51,269.41	47,044.52	-8.24%
MISC DISTRIBUTION EXPENSE	35,907.59	40,557.98	107,067.41	92,930.65	-13.20%
METER READING LABOR & EXPENSE	1,443.79	3,127.63	9,249.31	8,302.35	-10.24%
ACCT & COLL LABOR & EXPENSE	113,322.93	135,800.55	393,393.73	453,439.10	15.26%
UNCOLLECTIBLE ACCOUNTS	10,000.00	12,500.00	30,000.00	37,500.00	25.00%
ENERGY AUDIT EXPENSE	37,807.60	44,306.43	134,404.73	108,009.16	-19.64%
ADMIN & GEN SALARIES	54,399.88	93,546.12	190,095.49	245,575.68	29.19%
OFFICE SUPPLIES & EXPENSE	34,076.89	32,512.23	69,913.34	68,116.12	-2.57%
OUTSIDE SERVICES	53,975.15	28,220.16	86,789.48	58,231.80	-32.90%
PROPERTY INSURANCE	31,242.39	27,632.72	93,727.17	83,370.16	-11.05%
INJURIES AND DAMAGES	5,278.12	4,348.57	12,069.40	13,057.59	8.19%
EMPLOYEES PENSIONS & BENEFITS	227,733.83	234,433.43	691,802.99	751,039.29	8.56%
MISC GENERAL EXPENSE	13,097.37	10,229.07	31,841.23	23,296.61	-26.84%
RENT EXPENSE	13,855.09	13,904.67	43,905.88	41,301.75	-5.93%
ENERGY CONSERVATION	60,935.57	33,556.70	97,579.11	115,392.13	18.25%
<b>TOTAL OPERATION EXPENSES</b>	<b>853,864.63</b>	<b>907,452.86</b>	<b>2,492,658.16</b>	<b>2,604,178.29</b>	<b>4.47%</b>
MAINTENANCE EXPENSES:					
MAINT OF TRANSMISSION PLANT	227.08	227.08	681.24	681.24	0.00%
MAINT OF STRUCT AND EQUIPMT	29,658.62	44,387.63	79,293.08	124,285.78	56.74%
MAINT OF LINES - OH	76,309.51	195,109.50	322,003.59	333,765.41	3.65%
MAINT OF LINES - UG	35,646.33	54,129.43	39,394.04	104,900.84	166.29%
MAINT OF LINE TRANSFORMERS	38,239.81	5,654.65	46,450.90	9,608.90	0.00%
MAINT OF ST LT & SIG SYSTEM	(46.13)	41,304.46	(165.87)	149,421.09	-90183.25%
MAINT OF GARAGE AND STOCKROOM	53,087.61	45,016.95	114,839.08	128,908.40	12.25%
MAINT OF METERS	0.00	0.00	0.00	0.00	0.00%
MAINT OF GEN PLANT	8,921.21	17,028.81	25,992.84	69,676.25	168.06%
<b>TOTAL MAINTENANCE EXPENSES</b>	<b>242,044.04</b>	<b>402,858.51</b>	<b>628,488.90</b>	<b>921,247.91</b>	<b>46.58%</b>
DEPRECIATION EXPENSE	328,732.65	341,775.67	986,197.95	1,025,327.01	3.97%
PURCHASED POWER FUEL EXPENSE	3,302,139.93	2,769,220.69	10,064,678.82	9,180,626.66	-8.78%
VOLUNTARY PAYMENTS TO TOWNS	118,000.00	118,000.00	354,000.00	354,000.00	0.00%
<b>TOTAL OPERATING EXPENSES</b>	<b>7,480,164.63</b>	<b>7,749,226.48</b>	<b>22,916,406.78</b>	<b>23,312,773.55</b>	<b>1.73%</b>



TOWN OF READING, MASSACHUSETTS  
MUNICIPAL LIGHT DEPARTMENT  
BUDGETED OPERATING EXPENSE VARIANCE REPORT  
9/30/16

SCHEDULE G

	ACTUAL YEAR TO DATE	BUDGET YEAR TO DATE	VARIANCE *	% CHANGE
OPERATION EXPENSES:				
PURCHASED POWER CAPACITY	5,101,686.56	4,676,885.00	424,801.56	9.08%
PURCHASED POWER TRANSMISSION	4,125,707.12	3,684,553.00	441,154.12	11.97%
TOTAL PURCHASED POWER	<u>9,227,393.68</u>	<u>8,361,438.00</u>	<u>865,955.68</u>	10.36%
OPERATION SUP AND ENGINEERING EXP	124,505.11	161,891.00	(37,385.89)	-23.09%
STATION SUP LABOR AND MISC	33,740.11	22,580.99	11,159.13	49.42%
LINE MISC LABOR AND EXPENSE	142,734.23	226,727.98	(83,993.75)	-37.05%
STATION LABOR AND EXPENSE	124,459.16	116,245.58	8,213.58	7.07%
STREET LIGHTING EXPENSE	32,132.77	25,341.08	6,791.69	26.80%
METER EXPENSE	47,044.52	45,304.91	1,739.61	3.84%
MISC DISTRIBUTION EXPENSE	92,930.65	114,915.99	(21,985.34)	-19.13%
METER READING LABOR & EXPENSE	8,302.35	8,074.68	227.67	2.82%
ACCT & COLL LABOR & EXPENSE	453,439.10	431,963.89	21,475.21	4.97%
UNCOLLECTIBLE ACCOUNTS	37,500.00	37,500.00	0.00	0.00%
ENERGY AUDIT EXPENSE	108,009.16	155,730.86	(47,721.70)	-30.64%
ADMIN & GEN SALARIES	245,575.68	281,500.03	(35,924.35)	-12.76%
OFFICE SUPPLIES & EXPENSE	68,116.12	87,300.00	(19,183.88)	-21.97%
OUTSIDE SERVICES	58,231.80	144,125.00	(85,893.20)	-59.60%
PROPERTY INSURANCE	83,370.16	106,050.00	(22,679.84)	-21.39%
INJURIES AND DAMAGES	13,057.59	14,748.00	(1,690.41)	-11.46%
EMPLOYEES PENSIONS & BENEFITS	751,039.29	785,867.00	(34,827.71)	-4.43%
MISC GENERAL EXPENSE	23,296.61	72,051.73	(48,755.12)	-67.67%
RENT EXPENSE	41,301.75	53,001.00	(11,699.25)	-22.07%
ENERGY CONSERVATION	115,392.13	217,381.60	(101,989.47)	-46.92%
TOTAL OPERATION EXPENSES	<u>2,604,178.29</u>	<u>3,108,301.30</u>	<u>(504,123.01)</u>	-16.22%
MAINTENANCE EXPENSES:				
MAINT OF TRANSMISSION PLANT	681.24	750.00	(68.76)	-9.17%
MAINT OF STRUCT AND EQUIPMENT	124,285.78	101,396.47	22,889.31	22.57%
MAINT OF LINES - OH	333,765.41	507,967.94	(174,202.53)	-34.29%
MAINT OF LINES - UG	104,900.84	55,859.87	49,040.97	87.79%
MAINT OF LINE TRANSFORMERS	9,608.90	75,000.00	(65,391.10)	-87.19%
MAINT OF ST LT & SIG SYSTEM	149,421.09	2,539.32	146,881.77	5784.31%
MAINT OF GARAGE AND STOCKROOM	128,908.40	136,564.82	(7,656.42)	-5.61%
MAINT OF METERS	0.00	16,172.07	(16,172.07)	-100.00%
MAINT OF GEN PLANT	69,676.25	45,000.00	24,676.25	54.84%
TOTAL MAINTENANCE EXPENSES	<u>921,247.91</u>	<u>941,250.48</u>	<u>(20,002.57)</u>	-2.13%
DEPRECIATION EXPENSE	1,025,327.01	995,790.00	29,537.01	2.97%
PURCHASED POWER FUEL EXPENSE	9,180,626.66	9,413,918.00	(233,291.34)	-2.48%
VOLUNTARY PAYMENTS TO TOWNS	354,000.00	361,350.00	(7,350.00)	-2.03%
TOTAL OPERATING EXPENSES	<u>23,312,773.55</u>	<u>23,182,047.78</u>	<u>130,725.77</u>	0.56%

\* ( ) = ACTUAL UNDER BUDGET





## Tracy Schultz

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**From:** Tracy Schultz  
**Sent:** Monday, December 12, 2016 10:36 AM  
**To:** RMLD Board Members Group  
**Cc:** Jeanne Foti  
**Subject:** Account Payable and Payroll Questions

Good morning,

There were no Account Payable Warrant questions for the following dates:  
October 14, October 21, October 28, November 11, November 18, December 2.

Commissioner Talbot had a question on the AP on November 4, which will be addressed in Executive Session.  
There was no AP on Friday, November 25 due to the holiday.

There were no Payroll questions for the following dates:  
October 17, October 31, November 14, November 28

This message will be printed for the Board Packet for the RMLD Board Meeting on Thursday, December 15, 2016.

## Tracy Schultz

Executive Assistant  
Reading Municipal Light Department  
230 Ash Street  
Reading, MA 01867  
Tel: (781) 942-6489  
Ext: 489





TOWN OF READING MUNICIPAL LIGHT DEPARTMENT  
RATE COMPARISONS READING & SURROUNDING TOWNS

November-16

	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.							
TOTAL BILL	\$114.74	\$198.00	\$140.02	\$1,021.83	\$201.37	\$4,749.50	\$764,772.16
PER KWH CHARGE	\$0.15298	\$0.13200	\$0.14002	\$0.13998	\$0.18645	\$0.13570	\$0.11117
NATIONAL GRID							
TOTAL BILL	\$146.32	\$311.18	\$182.69	\$1,452.70	\$223.44	\$5,595.27	\$1,513,955.46
PER KWH CHARGE	\$0.19509	\$0.20745	\$0.18269	\$0.19900	\$0.20689	\$0.15986	\$0.22006
% DIFFERENCE	27.52%	57.16%	30.48%	42.17%	10.96%	17.81%	97.96%
EVERSOURCE(NSTAR)							
TOTAL BILL	\$148.80	\$263.35	\$196.25	\$1,084.62	\$175.05	\$6,077.76	\$1,027,836.65
PER KWH CHARGE	\$0.19839	\$0.17557	\$0.19625	\$0.14858	\$0.16208	\$0.17365	\$0.14940
% DIFFERENCE	29.68%	33.01%	40.16%	6.15%	-13.07%	27.97%	34.40%
PEABODY MUNICIPAL LIGHT PLANT							
TOTAL BILL	\$92.81	\$179.22	\$121.61	\$988.74	\$156.46	\$4,883.88	\$672,615.67
PER KWH CHARGE	\$0.12374	\$0.11948	\$0.12161	\$0.13544	\$0.14487	\$0.13954	\$0.09777
% DIFFERENCE	-19.11%	-9.48%	-13.15%	-3.24%	-22.30%	2.83%	-12.05%
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	-13.95%	1.85%	-5.19%	-6.10%	-16.35%	0.28%	5.54%
WAKEFIELD MUNICIPAL LIGHT DEPT.							
TOTAL BILL	\$122.99	\$228.42	\$154.38	\$1,166.29	\$186.28	\$5,473.08	\$921,561.30
PER KWH CHARGE	\$0.16398	\$0.15228	\$0.15438	\$0.15977	\$0.17249	\$0.15637	\$0.13396
% DIFFERENCE	7.19%	15.37%	10.26%	14.14%	-7.49%	15.23%	20.50%

TOWN OF READING MUNICIPAL LIGHT DEPARTMENT  
RATE COMPARISONS READING & SURROUNDING TOWNS

December-16

	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.							
TOTAL BILL	\$112.40	\$193.32	\$136.90	\$1,004.74	\$198.84	\$4,667.60	\$748,963.67
PER KWH CHARGE	\$0.14986	\$0.12888	\$0.13690	\$0.13764	\$0.18411	\$0.13336	\$0.10887
NATIONAL GRID							
TOTAL BILL	\$146.32	\$311.18	\$182.69	\$3,030.16	\$456.82	\$5,595.27	\$1,513,955.46
PER KWH CHARGE	\$0.19509	\$0.20745	\$0.18269	\$0.41509	\$0.42298	\$0.15986	\$0.22006
% DIFFERENCE	30.18%	60.97%	33.45%	201.59%	129.74%	19.87%	102.14%
EVERSOURCE(NSTAR)							
TOTAL BILL	\$148.80	\$263.35	\$196.25	\$1,084.62	\$175.05	\$6,077.76	\$1,027,836.65
PER KWH CHARGE	\$0.19839	\$0.17557	\$0.19625	\$0.14858	\$0.16208	\$0.17365	\$0.14940
% DIFFERENCE	32.38%	36.23%	43.35%	7.95%	-11.97%	30.21%	37.23%
PEABODY MUNICIPAL LIGHT PLANT							
TOTAL BILL	\$92.81	\$179.22	\$121.61	\$988.74	\$156.46	\$4,883.88	\$672,615.67
PER KWH CHARGE	\$0.12374	\$0.11948	\$0.12161	\$0.13544	\$0.14487	\$0.13954	\$0.09777
% DIFFERENCE	-17.43%	-7.29%	-11.17%	-1.59%	-21.32%	4.63%	-10.19%
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	-12.15%	4.32%	-3.03%	-4.50%	-15.29%	2.04%	7.77%
WAKEFIELD MUNICIPAL LIGHT DEPT.							
TOTAL BILL	\$122.99	\$228.42	\$154.38	\$1,166.29	\$186.28	\$5,473.08	\$921,561.30
PER KWH CHARGE	\$0.16398	\$0.15228	\$0.15438	\$0.15977	\$0.17249	\$0.15637	\$0.13396
% DIFFERENCE	9.42%	18.16%	12.77%	16.08%	-6.31%	17.26%	23.04%