

**Reading Municipal Light Board of Commissioners**  
**Regular Session**  
**230 Ash Street**  
**Reading, MA 01867**  
**February 23, 2017**

**Start Time of Regular Session: 7:33 p.m.**  
**End Time of Regular Session: 9:16 p.m.**

**Commissioners:**

**Thomas J. O'Rourke, Chairman-Absent**  
**David Talbot, Commissioner**  
**Dave Hennessy, Commissioner**

**Philip B. Pacino, Vice Chair**  
**John Stempeck, Commissioner-Secretary Pro Tem**

**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**  
**Joyce Mulvaney, Community Relations Manager**  
**Tracy Schultz, Executive Assistant**

**Citizens' Advisory Board:**

**George Hooper, Chair**

**Town of Reading Finance Committee**

**Peter Lydecker, Member**

**Call Meeting to Order**

Mr. Pacino called the meeting to order and explained that the meeting was not being broadcast live, but was being videotaped for distribution at community television stations in Reading, North Reading, Wilmington and Lynnfield.

**Opening Remarks**

Mr. Pacino read the RMLD Board of Commissioners' Code of Conduct and explained that due to Chairman O'Rourke's absence he would be Acting Chair for the evening. Mr. Stempeck will be Board Secretary. Mr. Pacino welcomed George Hooper, the representative from the Citizens' Advisory Board, and Peter Lydecker, from the Town of Reading Finance Committee.

**Vote to Accept Changes to Section 20 of Chapter 32B, as amended by recent legislation**

Mr. Pacino addressed the first item, changes to Section 20 of Chapter 32B as amended by the recent legislation. Mr. Pacino asked Ms. O'Brien to explain what this change is.

Ms. Schultz interjected, stating that additional language was added, which was mentioned during the Audit report a few months ago. The law now states 'A municipal light plant that establishes an OPEB fund shall pay the premiums and assume the liability for the municipal share of retiree healthcare benefits attributable to lighting plant employees and their dependents.' The Town Manager asked that the Board accept the new language.

Mr. Talbot stated that it sounded fine, but was confused about why the Board needed to accept it.

Mr. Stempeck expressed his reluctance to approve the amendment without seeing the change and asked if it needed to be done at that evening's meeting.

Ms. Schultz explained that it needs to be done before the April Town Meeting and offered to send the Board members a copy of the amended legislation, so it could be voted on during the March Board Meeting.

Mr. Pacino suggested taking no action tonight, and circulating the information before the next meeting.

**General Manager's Report-Ms. O'Brien**

Ms. O'Brien began by stating that it was a pleasure to meet the two new Citizens' Advisory Board members. Neil Cohen, an attorney from Reading, and Jason Small, an Electrical Distribution Engineer from North Reading are great additions. Ms. O'Brien said that she spent a few hours with each last week giving an overview of RMLD and welcomes them as assets to the team.

Ms. O'Brien stated that she is excited to attend the APPA 2017 Legislative Rally, starting February 27. Ms. O'Brien shared that she has never been before and will report back to the Board when she returns.

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

The Art Contest Award Ceremonies took place on Wednesday, February 15 and Thursday, February 16. The winning artwork will be hanging in the RMLD lobby until May. The ceremonies were quicker than the T-shirt awards, which was much better for the families. It was a great success; Ms. O'Brien hoped everyone enjoyed it and asked for feedback.

Mr. Pacino agreed that it went very well and was surprised by how articulate the children were when describing their artwork. Ms. O'Brien added that she liked the large screen PowerPoint which allowed everyone to see the detail of the artwork.

Ms. O'Brien reiterated that the IRD is having a Lunch 'N Learn workshop on March 22<sup>nd</sup> for Peak Demand Reduction customers. Twenty customers are signed up.

Presentations to the Board of Selectmen continue. The Reading meeting will take place on Tuesday, March 7. North Reading is in the process of being rescheduled, at the town's request. Ms. O'Brien asked if there were any questions.

Mr. Hennessy asked if the twenty customers attending RMLD's Lunch 'N Learn were the biggest peak customers. Ms. O'Brien answered that she would have to defer to Ms. Parenteau.

Mr. Talbot asked if there is a legislative agenda at APPA, and if there are certain issues that NEPPA will be endorsing.

Ms. O'Brien replied that Ms. Foti received the agenda today, she will forward the agenda to the Board.

Mr. Talbot stated that with Washington rolling back regulations on coal, he wants to know what we're getting behind.

Ms. Parenteau added that one of the things RMLD is dealing with on the ISO front, which dovetails into the Clean Energy Standards Act, is IMAPP (Integrated Market and Public Policy). New England states have RFPs for renewable energy and are trying to figure out a way to incorporate those mandates into the markets. The states are concerned because once they become a part of the ISO markets they lose local control and that goes to FERC jurisdiction. States are deciding whether they want to maintain or relinquish authority to FERC. This issue may arise during Ms. O'Brien's Washington D.C. trip.

Referencing Mr. Hennessy's question about the Lunch 'N Learn participants, Ms. Parenteau reported the twenty attendees come from a spectrum of usages. However, attendees tend towards the higher usage range. They will be taking lessons learned from customers who have achieved financial success by reducing their Peak Share.

### **Power Supply Report - December 2016 - Ms. Parenteau (Attachment 1)**

Ms. Parenteau then transitioned to Purchase Power for the month of December. Even though RMLD operates on a fiscal year budget, the presentation looked at the calendar year from January to December. The first three months of the winter period were considerably milder in 2016 than in 2015. However, December 2016 was much colder than in December 2015. Summer 2016 was slightly hotter so there was an increase in cooling degree days in June, July, and August. This correlates to electricity consumption.

Ms. Parenteau then moved on to purchase power costs, which includes all capacity, transmission, and energy charges, versus the system peak. Calendar Year 2016 purchase power expenses were around \$64.2 million. That was a slight decrease from 2015, which was \$64.5 million. The overall total purchase power cost is down by about \$332,000. Some of that was weather-related, but a lot of that was energy-related. Capacity and transmission continue to increase.

Monthly peak demands in 2015 were typically lower than in 2016 for most the calendar year, except for the peak day in August, 2016. RMLD hit a slightly higher peak in August 2016 than in 2015, and in 2015, peaked in July. Peaks tend to be stable, not huge swings. Ms. Parenteau stated her hope that the new Communications Manager will emphasize educational programs for both commercial and residential customers that show the value of that reduction. Ms. Parenteau then took this opportunity to introduce RMLD's new Communications Manager, Joyce Mulvaney.

Calendar year 2015's capacity costs were \$18.1 million; transmission was \$12.1 million; and energy was around \$34 million. In calendar year 2016, capacity increased by \$1.7 million, to \$19.8 million. Transmission costs increased by \$600,000, to \$12.7 million. Fuel went down \$34 million to \$32 million, offsetting some of the increase in capacity and transmission. kWh sales in 2016 670 million kwh sold. In 2015 691.5 kwh sold. This was a 3% decrease.

Ms. Parenteau then referred to a request that Commissioner O'Rourke had made at the January 31, 2017 Board Meeting. RMLD has accumulated over 18,000 customer e-mail addresses.



**Power Supply Report - December 2016 - Ms. Parenteau (Attachment 1)**

Summer campaign increased paperless billing to over 7,000 customers. Over 7,000 customers are enrolled in Auto Pay. Customers who sign up for Auto Pay have their payment taken out on the very last day eligible for the discount, which is a 15% reduction of the base portion of their electricity bill. Going to be working on campaigns to increase enrollment.

Mr. Hennessy asked if it was the same 7,000 customers enrolled in both paperless billing and Auto Pay. Ms. Parenteau answered not necessarily and explained that most people do sign up for both but it's up to the customer.

Ms. Parenteau added that customers need to be made aware that when they use their online banking sites to pay their RMLD bill there is a significant delay as to when RMLD receives that payment. There can be a two to five-day period before the payment posts, and the customer may miss the discount window. However, if the customer goes to the RMLD website and uses their checking information or credit card, RMLD will receive that payment that night and the customer won't miss the discount window. RMLD also offers a pay by text option. 800 customers have signed up; 481 are registered for bill-related texts. There have been 494 downloads of the mobile app since its inception. RMLD has 800 followers on Twitter; 200 of those followers signed up after the last storm. Ms. Mulvaney will be starting a Facebook page to increase RMLD's social media presence.

**Vote to Accept Changes to Section 20 of Chapter 32B, as amended by recent legislation**

Ms. O'Brien requested that the Board return to the OPEB. Section 20 of Chapter 32B the Other Post Employment Benefit liability trust fund has already been established; the board has previously voted on it. The law states that if a trust fund apart from the town has already been established, the Commissioners need to vote on the new language. It is one sentence that says it is RMLD's trust, RMLD is responsible for it. It is making it clear that the town won't be paying for it. Ms. O'Brien added that she wasn't here for original vote.

Mr. Stempeck stated that he remembers setting up OPEB.

Mr. Talbot asked if Ms. O'Brien was asking the Board to vote on the Motion. Ms. O'Brien replied that she was, if the Board was okay with what she had just explained in reiterating the autonomy of RMLD to pay its premiums and their dependents.

Mr. Stempeck made a motion, seconded by Mr. Hennessy, that the Board of Commissioners accept the provisions of Section 20, Chapter 32B, of the Massachusetts General Laws, as amended by Section 15 of Chapter 218 of the Acts of 2016, establishing an Other Post-Employment Benefits Liability Trust Fund, on the recommendation of the General Manager.

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

**Financial Report –December 2016 – Ms. Markiewicz (Attachment 2)**

Ms. Markiewicz announced that she has been meeting with a Great Plains consultant this week, who is helping build financial reports. Report formats are still being tweaked. A new Staff Accountant has been hired. RMLD participated in a Standard & Poor's Global Study and received an A+ rating, which says that RMLD has a stable outlook. This is good if RMLD needs to go to bond.

Because it's moratorium, receivables are up. Receivables will return to normal when moratorium ends in April. Currently, payables are at \$7 million. These are constantly revolving, but this is right in line with last year. Within liabilities, there will be a \$1.2 million town payment that will be showing up on the January financials. Mr. Stempeck asked about the accrued liability going from \$3 to \$10 million. Ms. Markiewicz explained that was due to the pension and added that will now have a separate line item in her new reports.

Ms. Markiewicz continued, explaining that the schedule of capital assets shows where capital projects are focusing. There is a \$1.6 million increase in structures and improvements; and infrastructure is up \$1 million. Capital projects are focusing on maintenance. Revenues, compared to last year, are a little bit higher due over collecting on fuel, timing of accounts receivables and collecting less due to moratorium. Operating expenses and revenues are in line with the budget.

Total use of Capital Fund is \$2.8 million. kWh sales are just under half a percent. Cash balances shows a stable outlook, considering how many payables we have and the monthly payroll. The detail of sales by class show a slight increase in residential and commercial is stable. There's a slight increase in streetlighting and municipal buildings. Energy conservation revenue is even; it's at net zero. We're at 49.74% of budget at 6 months of year; RMLD is doing as predicted.

Ms. O'Brien commented that Ms. Markiewicz and her group have been attempting to consolidate and capture the paper financials and bring back what is presented to the Board a profit and loss and a balance sheet.

Mr. Stempeck stated that he looks for major differences on large line items and that it seems like we're on track.

Ms. O'Brien explained trying to standardize financials to a limited number of pages. Over years have added more and more pages. RMLD will be transitioning to standard utility financials and adding FERC accounting.



**Financial Report –December 2016 – Ms. Markiewicz (Attachment 2)**

Mr. Stempeck stated that he likes to see projections on where you want to be at the end of the year, along with trends, sales, and costs to become reactive if needed. Ms. O'Brien added that this is year 3 and the Formal Cost of Service study will be rolled into the budget process.

**Engineering and Operations Report – December 2016 – Mr. Jaffari (Attachment 3)**

Mr. Jaffari announced that he was reporting on December. Capital Expenditure is right on target, with 50% spent halfway through the fiscal year. \$52,750 was spent in the month of December, bringing year-to-date \$368,534. \$126,809 was spent on Routine Construction in December, making the fiscal year-to-date total \$903,151. \$126,809.

Mr. Hennessy asked what the estimated date of completion is for the LED streetlight conversion project.

Mr. Jaffari explained that it is a 3-year program that is almost 60% done. It will be completed by the end of 2018, with a total cost of \$800,000. Mr. Hennessy clarified that the new lights will use a lot less electricity. Mr. Jaffari affirmed.

Good progress is being made on routine maintenance. As of December 2016, 25% of pad mount transformers have been replaced, and approximately 16% of overhead transformers have been replaced. Pole inspections have resulted in 213 poles being replaced and, of those, 116 transfers have been completed. Mr. Jaffari mentioned that there was a question at the last Board Meeting about the priority of the double poles, and which ones are given priority as they are being inspected. Mr. Jaffari stated that any poles that threaten public safety are the first to be taken care of. The quarterly inspection of feeders showed no problems. As of December 2016, 961 out of 1,237 manholes have been inspected. The porcelain cutout replacement program is 91% complete. There are 256 remaining. 87 spans of trees were trimmed in December, bringing the year-to-date total to 651. Infrared scans showed no substation hot spots.

Mr. Stempeck added that he had recently read in the paper that one of the major investor-owned utilities was implementing a major tree trim program after determining that branches coming down during storms cause outages. Mr. Stempeck then lauded RMLD for being proactive and ahead of the curve.

Mr. Jaffari said that two biggest challenges are animals that are determined to infiltrate equipment and pine trees with shallow roots.

Mr. Hooper asked how the Wildwood substation is holding up. Mr. Jaffari answered that the switchgear is old. Repairs to switchgear is being done in 3 phases: 1. Removed asbestos 2. Reinsulated from bus to transformer 3. In the first week of March the entire bus will be reinsulated. The breakers are okay, so the substation is expected to last a few more years now that maintenance is being performed and repairs are being made, while RMLD looks for suitable land for a new substation. Station 4 is all set; all the breakers are new and improvements have been made. Station 3 maintenance should be done by June.

Mr. Jaffari then discussed double poles. There are 16,000 poles in the service territory. Reading ownership is split 50/50 with Verizon. North Reading poles are RMLD owned. Lynnfield and Wilmington are both owned by Verizon. The NJUNS program shows 1 transfer in Lynnfield, 91 pull poles and 13 transfers in North Reading, 23 transfers and 27 pull poles in Reading, and 59 transfers, 1 attach, 4 pull poles, and 1 guy install in Wilmington. These are being held up by other utilities.

Mr. Jaffari then thanked RMLD customers for being patient and tolerating the ugly double poles. RMLD is making progress. Mr. Jaffari then stated that RMLD's system reliability for the number of storms is just above the regional average and well below the national average. Additionally, Outage caused by equipment is shrinking-maintenance program is paying off.

Ms. O'Brien added that she and Mr. Jaffari had met with fire chiefs from all four towns in the service territory aerial views of substations what type of equipment, fire hazards, what precautions they need to take, especially when dealing with solar equipment.

**RMLD Procurement Requests Requiring Board Approval (Attachment 4)**

**IFP 2017-34 Grounds and Landscape Services**

Mr. Jaffari explained that this is a Chapter 30B that was presented to 29 bidders. 5 bids were received and the lowest most responsible and responsive was from Greenscape Land Design, Inc. for \$110,952. This is a three-year contract and last time it went to bid at \$160,000. This time RMLD is receiving more services for \$50,000 less. The 3 top bidders 2 had some exceptions.

Mr. Stempeck made a motion, seconded by Mr. Hennessy, that proposal 2017-34 for Grounds and Landscape Services be awarded to Greenscape Land Design Inc. for \$110,952.00 pursuant to Chapter 30B on the recommendation of the General Manager.

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

Mr. Talbot clarified there were 5 bidders. Mr. Jaffari affirmed. 3 top bidders were responsive but more expensive.



### **General Discussion**

Mr. Pacino stated, and the Board agreed, that the next Board Meeting will be on Thursday, March 23.

A representative is needed for the March 1 CAB meeting. Mr. Pacino and Mr. Stempeck stated they are unable to attend. Mr. Hennessy volunteered.

Mr. Talbot returned to the time-based incentive commercial rate. Ms. Parenteau stated that she can talk to the Cost of Service consultant. It can be modeled once the budget information is entered. Mr. Talbot also added that Concord Municipal did an RFP for solar and found that it may be cheaper to self-build and asked if RMLD can do an analysis on a flat roof. Ms. Parenteau stated that she can get that information.

Mr. Talbot added that he received an e-mail from the Reading High School Drama Club, who inquired about replacing their incandescent flood lights with LEDs. Ms. Parenteau explained that Reading High School is a customer, we do offer rebate programs, and she can have an engineer reach out to them. Mr. Talbot then explained that it wasn't Reading High School, per se. The high school is not paying for the equipment; rather, the parents club and the student group that run the theatre program use donations to buy the equipment. Ms. Parenteau asked Mr. Talbot to send her a name to contact.

Mr. Pacino remarked that more and more downtown garages are installing electric car charging stations and that it would make sense to install them next to the railroad station.

Ms. O'Brien added that RMLD is waiting for the snow to melt to fix the parking lot pavement issues and install a charging station. RMLD is looking into home charging stations. Mr. Pacino remarked on parking garages using stations as a means to attract customers.

### **Executive Session**

At 8:48 p.m. Mr. Pacino made a motion, seconded by Mr. Talbot, 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.

**Mr. Pacino called for a poll of the vote:**

Mr. Talbot: Aye; Mr. Stempeck, Aye; Mr. Hennessy: Aye; and Mr. Pacino: Aye.

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

### **Adjournment**

At 9:16 p.m. Vice Chair Pacino made a motion seconded by Mr. Stempeck to adjourn the Regular Session.

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

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

John Stempeck, Secretary Pro Tem  
RMLD Board of Commissioners





# **Integrated resources**

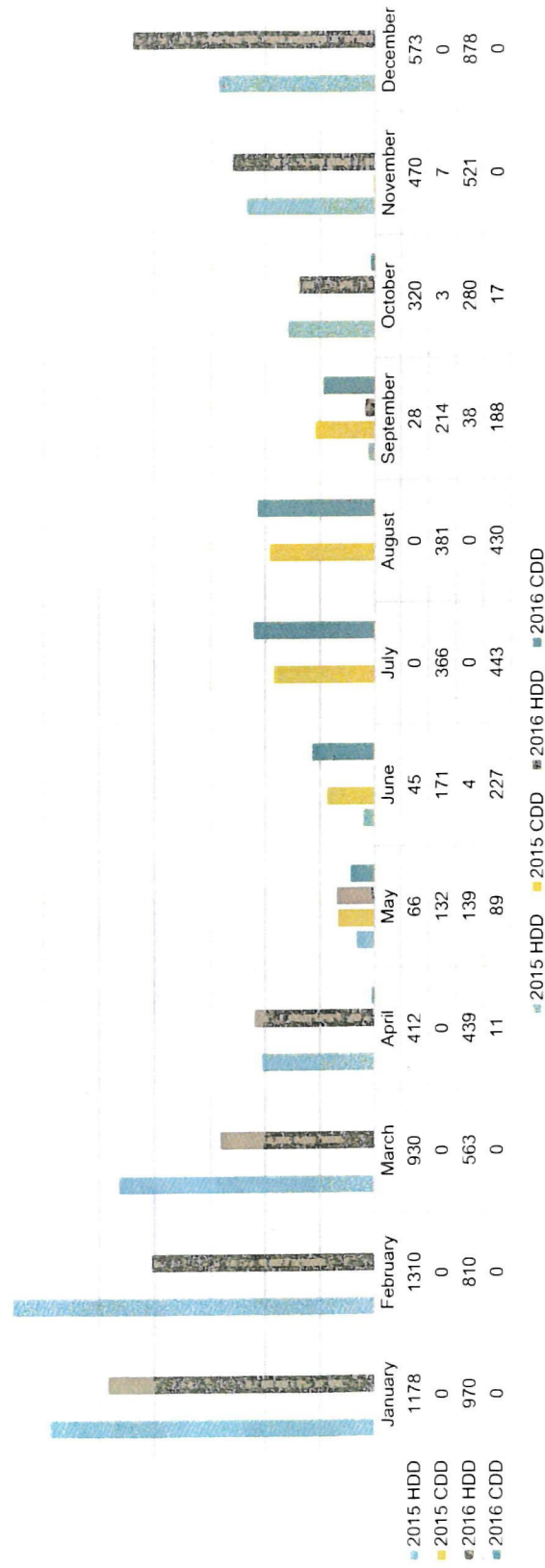
**February 23, 2017  
RMLD Board of Commissioners Meeting  
Reporting for December**



**Jane Parenteau  
Director of Integrated Resources**

# Heating and cooling degree days

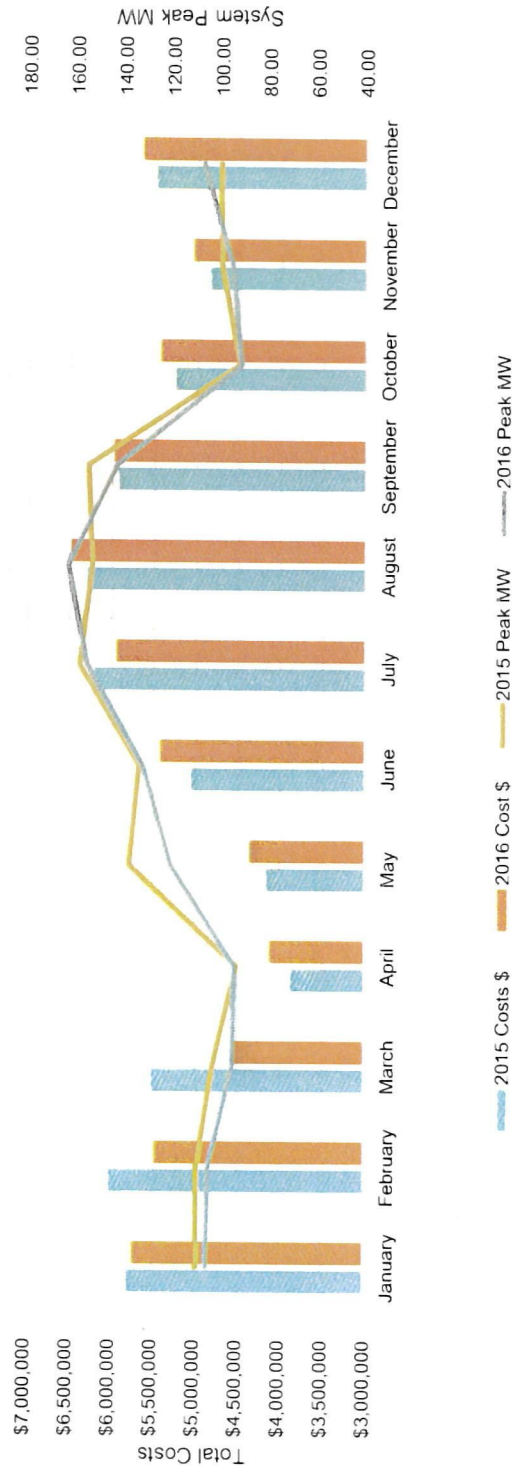
2015 vs. 2016





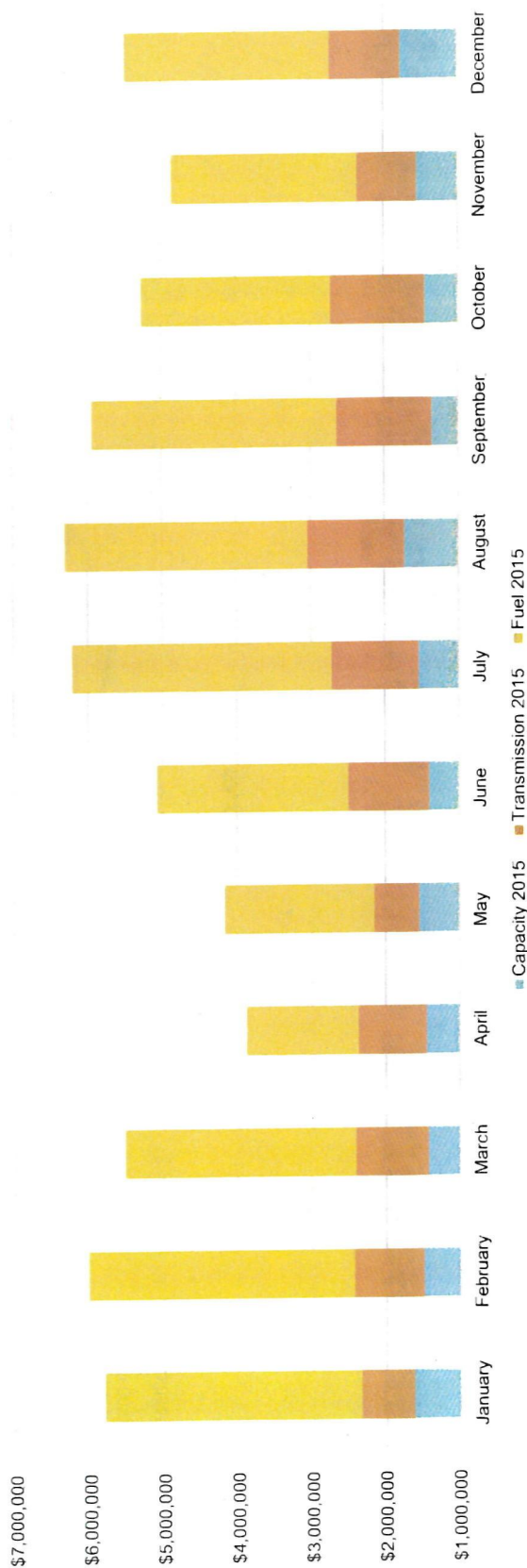
# Purchase power cost (capacity, transmission & other) vs. system peak

2015 vs. 2016



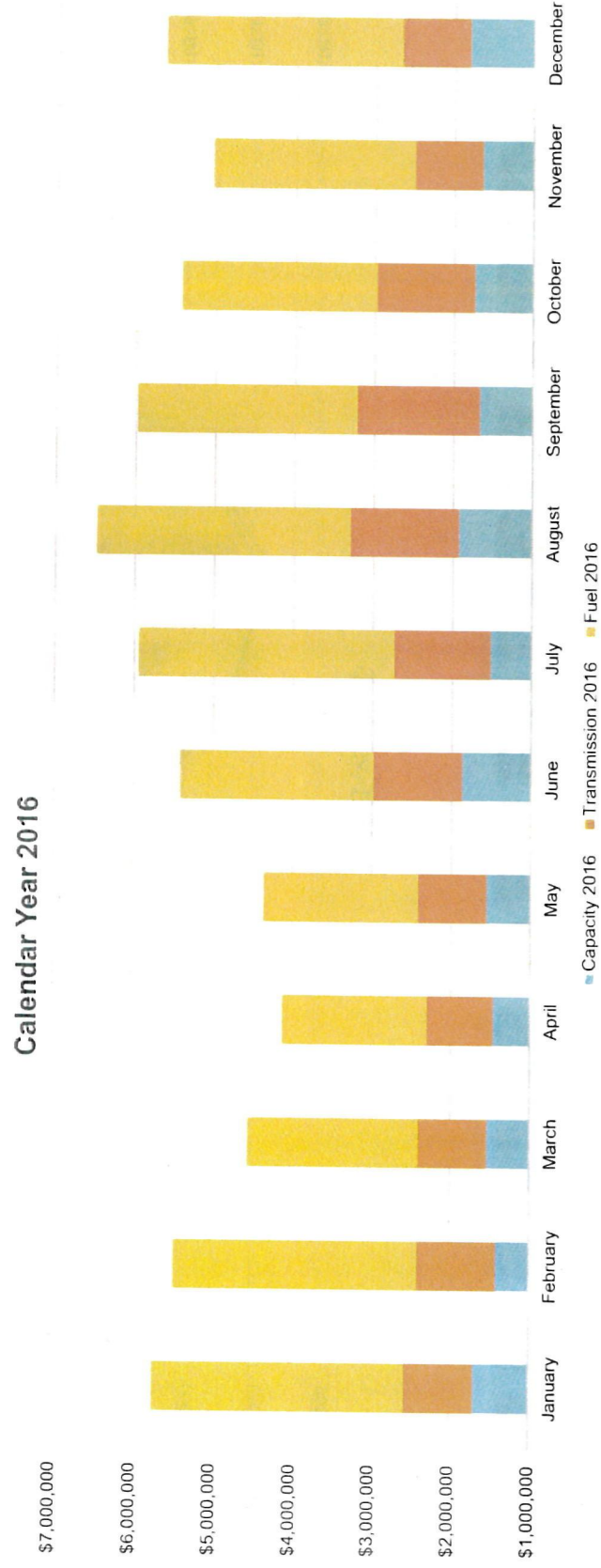
# Purchase power costs

Calendar Year 2015



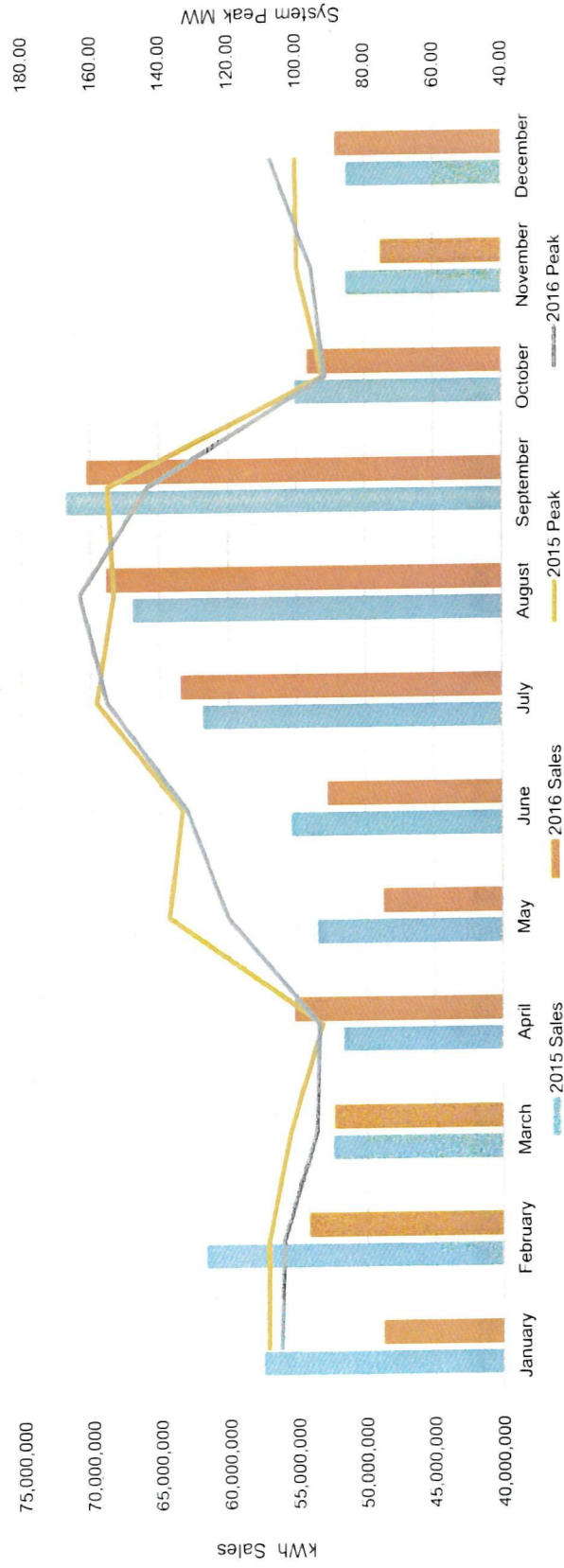


# Purchase power costs



# kWh sales vs. system peak

2015 vs. 2016







# Traffic update

- Email Address: over 18,000
- Paperless Billing: over 7000 enrolled
- Auto Pay: over 7000
- Pay by Text: 60% usage
  - 800 customers with 481 registered
- RMLD Mobile App: 494 downloaded since inception
- Twitter: over 800 followers and growing
- Gained approximately 200 in the last storm
- The Facebook page will be up and running with the start of the new communications manager



To: Coleen O'Brien

From:  Maureen McHugh, Jane Parenteau 

Date: February 13, 2017

Subject: Purchase Power Summary – December, 2016

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

## ENERGY

The RMLD's total metered load for the month was 58,436,483 kWh, which is an 3.56% increase from the December, 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	3,702,204	\$6.72	6.32%	\$24,885	0.83%
Seabrook	5,905,327	\$6.32	10.08%	\$37,321	1.25%
Stonybrook Intermediate	355,543	\$171.31	0.61%	\$60,907	2.04%
Shell Energy	10,437,000	\$63.58	17.81%	\$663,632	22.22%
NYP&A	2,526,578	\$4.92	4.31%	\$12,431	0.42%
ISO Interchange	8,607,486	\$66.83	14.69%	\$575,202	19.26%
NEMA Congestion	0	\$0.00	0.00%	\$18,190	0.61%
Coop Resales	17,973	\$102.69	0.03%	\$1,846	0.06%
BP Energy	8,893,800	\$46.90	15.18%	\$417,119	13.97%
Hydro Projects*	2,526,792	\$85.23	4.31%	\$215,365	7.21%
Braintree Watson Unit	307,004	\$54.89	0.52%	\$16,853	0.56%
Saddleback/Jericho Wind	2,976,917	\$86.22	5.08%	\$256,681	8.60%
One Burlington Solar	122,432	\$70.00	0.21%	\$8,570	0.29%
Exelon	12,210,600	\$55.46	20.84%	\$677,247	22.68%
Stonybrook Peaking	0	\$0.00	0.00%	\$0	0.00%
Monthly Total	58,589,656	\$50.97	100.00%	\$2,986,249	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 December, 2016.

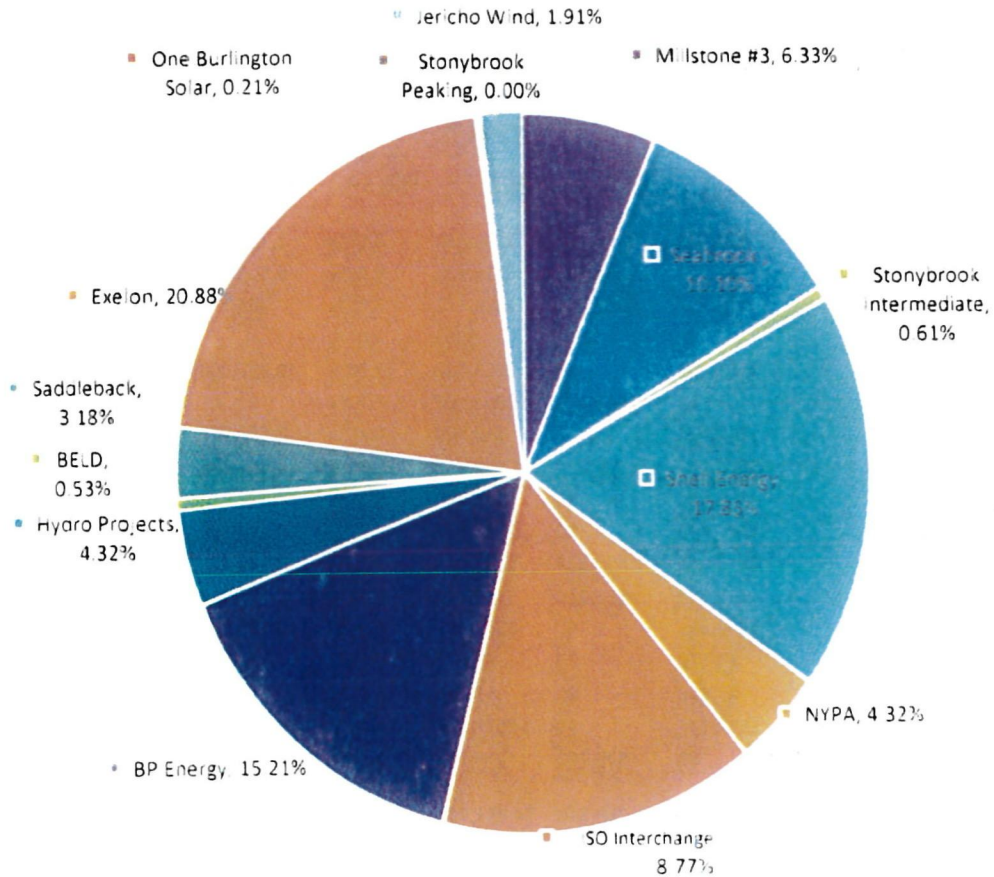
**Table 2**

Resource	Amount of Energy (kWh)	Cost of Energy (\$/Mwh)	% of Total Energy
ISO DA LMP *	13,995,321	\$59.18	23.89%
Settlement			
RT Net Energy **	(5,387,834)	\$47.00	-9.20%
Settlement			
ISO Interchange (subtotal)	8,607,486	\$66.80	14.69%

\* Independent System Operator Day-Ahead Locational Marginal Price

\*\* Real Time Net Energy

## DECEMBER 2016 ENERGY BY RESOURCE



## CAPACITY

The RMLD hit a demand of 107,565 kW, which occurred on December 19, at 6 pm. The RMLD's monthly UCAP requirement for December, 2016 was 232,355 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	33.53	\$165,967	9.20%
Seabrook	7,909	36.43	\$288,110	15.97%
Stonybrook Peaking	24,981	3.15	\$78,780	4.37%
Stonybrook CC	42,925	7.07	\$303,265	16.81%
NYPA	0	0.00	\$6,679	0.37%
Hydro Quebec	0	0	\$583	0.03%
Nextera	60,000	6.15	\$369,000	20.46%
Braintree Watson Unit	0	0.00	\$86,226	4.78%
ISO-NE Supply Auction	91,591	5.52	\$505,230	28.01%
Total	232,356	\$7.73	\$1,803,840	100.00%

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	\$24,885	\$165,967	\$190,852	3.99%	3,702,204	0.0516
Seabrook	\$37,321	\$288,110	\$325,431	6.81%	5,905,327	0.0551
Stonybrook Intermediate	\$60,907	\$303,265	\$364,173	7.62%	355,543	1.0243
Hydro Quebec	\$0	\$583	\$583	0.01%	-	0.0000
Shell Energy	\$663,632	\$0	\$663,632	13.88%	10,437,000	0.0636
NextEra	\$0	\$369,000	\$369,000	7.72%	-	0.0000
* NYPA	\$12,431	\$6,679	\$19,109	0.40%	2,526,578	0.0076
ISO Interchange	\$575,202	\$505,230	\$1,080,432	22.59%	8,607,486	0.1255
Nema Congestion	\$18,190	\$0	\$18,190	0.38%	-	0.0000
BP Energy	\$417,119	\$0	\$417,119	8.72%	8,893,800	0.0469
* Hydro Projects	\$215,365	-\$8,324	\$207,041	4.33%	2,526,792	0.0819
Braintree Watson Unit	\$16,853	\$86,226	\$103,078	2.16%	307,004	0.3358
* Saddleback/Jencho	\$256,681	\$0	\$256,681	5.37%	2,976,917	0.0862
* One Burlington Solar	\$8,570	\$0	\$8,570	0.18%	122,432	0.0700
Coop Resales	\$1,846	\$0	\$1,846	0.04%	17,973	0.1027
Exelon Energy	\$677,247	\$0	\$677,247	14.16%	12,210,600	0.0555
Stonybrook Peaking	\$0	\$78,780	\$78,780	1.65%	-	0.0000
Monthly Total	\$2,986,249	\$1,795,516	\$4,781,765	100.00%	58,589,656	0.0816
* Renewable Resources					13.91%	

## RENEWABLE ENERGY CERTIFICATES (RECs)

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

**Table 5**  
**RECs Summary**  
**Period - January 2016 - December 2016**

	<b>Banked RECs</b>	<b>Projected RECs</b>	<b>Total RECs</b>	<b>Est. Dollars</b>
Woronoco	0	9,599	9,599	\$177,582
Pepperell	0	6,217	6,217	\$115,015
Indian River	0	1,912	1,912	\$35,372
Turners Falls	0	1,135	1,135	\$20,998
Saddleback	0	10,539	10,539	\$194,972
Jericho	0	6,894	6,894	\$127,539
<b>Sub total</b>	<b>0</b>	<b>36,296</b>	<b>36,296</b>	<b>671,476</b>
RECs Sold	\$0		0	\$0
<b>Grand Total</b>	<b>0</b>	<b>36,296</b>	<b>36,296</b>	<b>\$671,476</b>

## TRANSMISSION

The RMLD's total transmission costs for the month of December, 2016 were \$863,599. This is a decrease of .27% from the November transmission cost of \$865,917. In December, 2015 the transmission costs were \$955,262.

**Table 6**

	<b>Current Month</b>	<b>Last Month</b>	<b>Last Year</b>
Peak Demand (kW)	107,565	95,704	100,307
Energy (kWh)	58,589,656	52,217,414	56,019,481
Energy (\$)	\$2,986,249	\$2,545,398	\$2,757,146
Capacity (\$)	\$1,795,516	\$1,630,243	\$1,578,215
Transmission(\$)	\$863,599	\$865,917	\$955,262
Total	\$5,645,364	\$5,041,558	\$5,290,623





TOWN OF READING, MASSACHUSETTS  
MUNICIPAL LIGHT DEPARTMENT  
BUSINESS-TYPE PROPRIETARY FUND  
STATEMENT OF NET ASSETS  
12/31/16

	PREVIOUS YEAR	CURRENT YEAR
<b>ASSETS</b>		
<b>CURRENT</b>		
UNRESTRICTED CASH	11,358,085.47	15,081,102.32
RESTRICTED CASH	21,442,729.78	22,649,697.18
RESTRICTED INVESTMENTS	1,284,061.45	1,345,663.06
RECEIVABLES, NET	7,501,623.12	9,566,223.57
PREPAID EXPENSES	2,750,539.26	1,129,845.45
OTHER DEFERRED DEBITS	1,547,815.00	6,338,218.00
INVENTORY	1,674,959.04	1,580,914.77
<b>TOTAL CURRENT ASSETS</b>	<u>47,559,813.12</u>	<u>57,691,664.35</u>
<b>NONCURRENT</b>		
INVESTMENT IN ASSOCIATED CO	26,993.75	26,993.75
CAPITAL ASSETS, NET	70,337,308.32	72,977,009.04
<b>TOTAL NONCURRENT ASSETS</b>	<u>70,364,302.07</u>	<u>73,004,002.79</u>
<b>TOTAL ASSETS</b>	<u>117,924,115.19</u>	<u>130,695,667.14</u>
<b>LIABILITIES</b>		
<b>CURRENT</b>		
ACCOUNTS PAYABLE	7,304,330.51	7,209,463.04
CUSTOMER DEPOSITS	903,279.18	1,024,765.67
CUSTOMER ADVANCES FOR CONSTRUCTION	938,349.15	1,028,449.93
ACCRUED LIABILITIES	3,174,618.47	10,153,695.95
<b>TOTAL CURRENT LIABILITIES</b>	<u>12,320,577.31</u>	<u>19,416,374.59</u>
<b>NONCURRENT</b>		
ACCRUED EMPLOYEE COMPENSATED ABSENCES	3,070,487.93	3,257,809.00
<b>TOTAL NONCURRENT LIABILITIES</b>	<u>3,070,487.93</u>	<u>3,257,809.00</u>
<b>TOTAL LIABILITIES</b>	<u>15,391,065.24</u>	<u>22,674,183.59</u>
<b>NET ASSETS</b>		
INVESTED IN CAPITAL ASSETS, NET OF RELATED DEBT	70,337,308.32	72,977,009.04
RESTRICTED FOR DEPRECIATION FUND	6,426,278.58	6,298,216.37
UNRESTRICTED	25,769,463.05	29,746,258.14
<b>TOTAL NET ASSETS</b>	<u>102,533,049.95</u>	<u>108,021,483.55</u>
<b>TOTAL LIABILITIES AND NET ASSETS</b>	<u>117,924,115.19</u>	<u>130,695,667.14</u>

TOWN OF READING, MASSACHUSETTS  
MUNICIPAL LIGHT DEPARTMENT  
NONCURRENT ASSET SCHEDULE  
12/31/16

SCHEDULE C

	PREVIOUS YEAR	CURRENT YEAR
SCHEDULE OF INVESTMENTS IN ASSOCIATED COMPANIES		
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	6,481,420.15	8,148,752.49
EQUIPMENT AND FURNISHINGS	11,899,631.47	11,891,047.99
INFRASTRUCTURE	<u>50,690,414.47</u>	<u>51,671,366.33</u>
TOTAL CAPITAL ASSETS, NET	<u>70,337,308.32</u>	<u>72,977,009.04</u>
TOTAL NONCURRENT ASSETS	<u>70,364,302.07</u>	<u>73,004,002.79</u>



TOWN OF READING, MASSACHUSETTS  
MUNICIPAL LIGHT DEPARTMENT  
BUSINESS-TYPE PROPRIETARY FUND  
STATEMENT OF REVENUES, EXPENSES AND CHANGES IN FUND NET ASSETS  
12/31/16

	MONTH LAST YEAR	MONTH CURRENT YEAR	LAST YEAR TO DATE	CURRENT YEAR TO DATE	YTD % CHANGE
<b>OPERATING REVENUES:</b>					
BASE REVENUE	1,759,727.09	1,970,195.55	12,234,940.46	13,522,803.32	10.53%
FUEL REVENUE	2,826,699.78	2,573,056.92	17,625,976.64	17,129,536.64	-2.82%
PURCHASED POWER CAPACITY	2,200,292.86	2,453,637.87	15,422,436.34	17,830,948.53	15.62%
FORFEITED DISCOUNTS	86,146.38	66,416.22	405,781.68	456,872.78	12.59%
ENERGY CONSERVATION REVENUE	60,272.82	51,151.08	351,624.05	350,942.52	-0.19%
NYPA CREDIT	(91,032.01)	(91,202.42)	(520,802.01)	(534,547.18)	2.64%
<b>TOTAL OPERATING REVENUES</b>	<b>6,832,106.72</b>	<b>7,023,255.22</b>	<b>45,519,957.16</b>	<b>48,756,556.61</b>	<b>7.11%</b>
<b>OPERATING EXPENSES:</b>					
PURCHASED POWER CAPACITY	1,773,743.78	1,802,095.92	9,392,215.66	10,272,863.98	9.38%
PURCHASED POWER TRANSMISSION	955,262.13	863,599.00	6,812,931.23	7,091,289.59	4.09%
PURCHASED POWER FUEL	2,757,146.26	2,986,248.94	17,855,289.73	17,175,745.04	-3.81%
OPERATING MAINTENANCE	1,090,311.58	1,094,909.95	5,276,536.93	5,583,693.84	5.84%
DEPRECIATION	287,885.24	289,477.82	1,496,627.46	1,806,309.44	20.69%
VOLUNTARY PAYMENTS TO TOWNS	328,732.65	341,775.67	1,972,395.90	2,050,654.02	3.97%
	106,973.00	113,372.00	696,973.00	703,372.00	0.92%
<b>TOTAL OPERATING EXPENSES</b>	<b>7,300,054.64</b>	<b>7,491,479.30</b>	<b>43,501,969.90</b>	<b>44,683,927.91</b>	<b>2.72%</b>
<b>OPERATING INCOME</b>	<b>(467,947.92)</b>	<b>(468,224.08)</b>	<b>2,017,987.26</b>	<b>4,072,628.70</b>	<b>101.82%</b>
<b>NONOPERATING REVENUES (EXPENSES)</b>					
CONTRIBUTIONS IN AID OF CONST	(458.39)	533.93	38,444.74	70,421.93	83.18%
RETURN ON INVESTMENT TO READING	(197,537.10)	(198,722.35)	(1,185,222.50)	(1,192,334.00)	0.60%
INTEREST INCOME	14,139.36	15,485.65	69,114.38	73,472.79	6.31%
INTEREST EXPENSE	(189.44)	(1,960.60)	(1,087.01)	(2,925.91)	169.17%
OTHER (MDSE AND AMORT)	3,039.25	(1,991.00)	148,729.85	185,732.80	24.88%
<b>TOTAL NONOPERATING REV (EXP)</b>	<b>(181,006.32)</b>	<b>(186,654.37)</b>	<b>(930,020.54)</b>	<b>(865,632.39)</b>	<b>-6.92%</b>
<b>CHANGE IN NET ASSETS</b>	<b>(648,954.24)</b>	<b>(654,878.45)</b>	<b>1,087,966.72</b>	<b>3,206,996.31</b>	<b>194.77%</b>
<b>NET ASSETS AT BEGINNING OF YEAR</b>			<b>101,445,083.23</b>	<b>104,814,487.24</b>	<b>3.32%</b>
<b>NET ASSETS AT END OF DECEMBER</b>			<b>102,533,049.95</b>	<b>108,021,483.55</b>	<b>5.35%</b>

TOWN OF READING, MASSACHUSETTS  
MUNICIPAL LIGHT DEPARTMENT  
BUSINESS-TYPE PROPRIETARY FUND  
STATEMENT OF REVENUES, EXPENSES AND CHANGES IN FUND NET ASSETS  
12/31/16

	2017 BUDGET	ACTUAL YEAR TO DATE	REMAINING BUDGET BALANCE	% CHANGE
OPERATING REVENUES:				
BASE REVENUE	25,500,000.00	13,522,803.32	11,977,196.68	46.97%
FUEL REVENUE	34,074,492.00	17,129,536.64	16,944,955.36	49.73%
PURCHASED POWER CAPACITY	34,322,278.00	17,830,948.53	16,491,329.47	48.05%
FORFEITED DISCOUNTS	688,500.00	456,872.78	231,627.22	33.64%
ENERGY CONSERVATION REVENUE	673,000.00	350,942.52	322,057.48	47.85%
NYPA CREDIT	(900,000.00)	(534,547.18)	(365,452.82)	40.61%
TOTAL OPERATING REVENUES	<u>94,358,270.00</u>	<u>48,756,556.61</u>	<u>45,601,713.39</u>	48.33%
OPERATING EXPENSES:				
PURCHASED POWER - CAPACITY	20,943,651.00	10,272,863.98	10,670,787.02	50.95%
PURCHASED POWER - TRANSMISSION	13,378,627.00	7,091,289.59	6,287,337.41	47.00%
PURCHASED POWER FUEL	33,174,492.00	17,175,745.04	15,998,746.96	48.23%
OPERATING MAINTENANCE	12,107,583.00	5,583,693.84	6,523,889.16	53.88%
DEPRECIATION	3,717,832.00	1,806,309.44	1,911,322.56	51.41%
VOLUNTARY PAYMENTS TO TOWNS	4,134,000.00	2,050,654.02	2,083,345.98	50.40%
	1,445,420.00	703,372.00	742,048.00	51.34%
TOTAL OPERATING EXPENSES	<u>88,901,405.00</u>	<u>44,683,927.91</u>	<u>44,217,477.09</u>	49.74%
OPERATING INCOME	5,456,865.00	4,072,628.70	1,384,236.30	25.37%
NONOPERATING REVENUES (EXPENSES)				
CONTRIBUTIONS IN AID OF CONST	500,000.00	70,421.93	429,578.07	85.92%
RETURN ON INVESTMENT TO READING	(2,534,668.00)	(1,192,334.00)	(1,342,334.00)	52.96%
INTEREST INCOME	125,000.00	73,472.79	51,527.21	41.22%
INTEREST EXPENSE	(2,100.00)	(2,925.91)	825.91	-39.33%
OTHER (MDSE AND AMORT)	390,000.00	185,732.80	204,267.20	52.38%
TOTAL NONOPERATING REV (EXP)	<u>(1,521,768.00)</u>	<u>(865,632.39)</u>	<u>(656,135.61)</u>	43.12%
CHANGE IN NET ASSETS	<u>3,935,097.00</u>	<u>3,206,996.31</u>	<u>728,100.69</u>	18.50%

TOWN OF READING, MASSACHUSETTS  
MUNICIPAL LIGHT DEPARTMENT  
RECONCILIATION OF CAPITAL FUNDS  
12/31/16

SOURCE OF CAPITAL FUNDS:

DEPRECIATION FUND BALANCE 7/1/16	4,494,952.86
CONSTRUCTION FUND BALANCE 7/1/16	1,500,000.00
INTEREST ON DEPRECIATION FUND FY 17	15,360.04
DEPRECIATION TRANSFER FY 17	2,050,654.02
LED GRANT PROGRAM	<u>62,500.00</u>
 TOTAL SOURCE OF CAPITAL FUNDS	 8,123,466.92

USE OF CAPITAL FUNDS:

LESS PAID ADDITIONS TO PLANT THRU DECEMBER	
 TOTAL USE OF CAPITAL FUNDS	 2,825,250.55
 GENERAL LEDGER CAPITAL FUNDS BALANCE 12/31/16	 <u><u>5,298,216.37</u></u>



TOWN OF READING, MASSACHUSETTS  
MUNICIPAL LIGHT DEPARTMENT  
SALES OF KILOWATT HOURS  
12/31/16

SALES OF ELECTRICITY:	MONTH LAST YEAR	MONTH CURRENT YEAR	LAST YEAR TO DATE	CURRENT YEAR TO DATE	YTD % CHANGE
RESIDENTIAL SALES	18,891,467	18,657,110	134,467,011	136,447,232	1.47%
COMM. AND INDUSTRIAL SALES	29,987,560	31,062,309	209,094,489	206,674,777	-1.16%
PRIVATE STREET LIGHTING	79,996	99,677	477,356	552,368	15.71%
TOTAL PRIVATE CONSUMERS	<u>48,959,023</u>	<u>49,819,096</u>	<u>344,038,856</u>	<u>343,674,377</u>	-0.11%
MUNICIPAL SALES:					
STREET LIGHTING	222,241	185,163	1,381,864	1,229,430	-11.03%
MUNICIPAL BUILDINGS	733,200	768,127	4,604,141	4,515,047	-1.94%
TOTAL MUNICIPAL CONSUMERS	<u>955,441</u>	<u>953,290</u>	<u>5,986,005</u>	<u>5,744,477</u>	-4.03%
SALES FOR RESALE	203,566	179,911	1,726,301	1,598,470	-7.40%
SCHOOL	1,233,814	1,197,145	7,085,798	6,709,791	-5.31%
TOTAL KILOWATT HOURS SOLD	<u>51,351,844</u>	<u>52,149,442</u>	<u>358,836,960</u>	<u>357,727,115</u>	-0.31%

TOWN OF READING, MASSACHUSETTS  
MUNICIPAL LIGHT DEPARTMENT  
SCHEDULE OF CASH AND INVESTMENTS  
12/31/16

SCHEDULE A

	PREVIOUS YEAR	CURRENT YEAR
UNRESTRICTED CASH		
CASH - OPERATING FUND	11,355,085.47	15,078,102.32
CASH - PETTY CASH	3,000.00	3,000.00
TOTAL UNRESTRICTED CASH	<u>11,358,085.47</u>	<u>15,081,102.32</u>
RESTRICTED CASH		
CASH - DEPRECIATION FUND	6,426,278.58	5,298,216.37
CASH - TOWN PAYMENT	0.00	1,900,333.98
CASH - DEFERRED FUEL RESERVE	4,430,170.05	4,536,119.09
CASH - RATE STABILIZATION FUND	6,796,669.46	6,848,427.56
CASH - UNCOLLECTIBLE ACCTS RESERVE	200,000.00	200,000.00
CASH - SICK LEAVE BENEFITS	1,805,599.83	1,940,334.17
CASH - HAZARD WASTE RESERVE	150,000.00	150,000.00
CASH - CUSTOMER DEPOSITS	903,279.18	1,024,765.67
CASH - ENERGY CONSERVATION	730,732.68	751,500.34
TOTAL RESTRICTED CASH	<u>21,442,729.78</u>	<u>22,649,697.18</u>
INVESTMENTS		
SICK LEAVE BUYBACK	<u>1,284,061.45</u>	<u>1,345,663.06</u>
TOTAL CASH BALANCE	<u>34,084,876.70</u>	<u>39,076,462.56</u>

TOWN OF READING, MASSACHUSETTS  
MUNICIPAL LIGHT DEPARTMENT  
SCHEDULE OF OPERATING REVENUE  
12/31/16

SCHEDULE D

SALES OF ELECTRICITY:	MONTH LAST YEAR	MONTH CURRENT YEAR	LAST YEAR TO DATE	CURRENT YEAR TO DATE	YTD % CHANGE
RESIDENTIAL SALES	1,981,917.70	1,957,712.34	13,246,809.25	13,943,003.82	5.26%
COMM AND INDUSTRIAL SALES	2,409,026.19	2,370,405.21	15,380,916.01	15,401,032.29	0.13%
PRIVATE STREET LIGHTING	10,569.04	11,784.26	60,437.65	67,825.87	12.22%
TOTAL PRIVATE CONSUMERS	<u>4,401,512.93</u>	<u>4,339,901.81</u>	<u>28,688,162.91</u>	<u>29,411,861.98</u>	2.52%
MUNICIPAL SALES:					
STREET LIGHTING	(4,604.98)	19,829.34	71,970.65	155,340.74	115.84%
MUNICIPAL BUILDINGS	65,864.54	67,951.40	380,857.53	386,097.04	1.38%
TOTAL MUNICIPAL CONSUMERS	<u>61,259.56</u>	<u>87,780.74</u>	<u>452,828.18</u>	<u>541,437.78</u>	19.57%
SALES FOR RESALE	19,010.76	16,618.91	149,317.64	144,198.01	-3.43%
SCHOOL	<u>104,643.62</u>	<u>98,951.01</u>	<u>570,608.37</u>	<u>554,842.19</u>	-2.76%
SUB-TOTAL	4,586,426.87	4,543,252.47	29,860,917.10	30,652,339.96	2.65%
FORFEITED DISCOUNTS	86,146.38	66,416.22	405,781.68	456,872.78	12.59%
PURCHASED POWER CAPACITY	2,200,292.86	2,453,637.87	15,422,436.34	17,830,948.53	15.62%
ENERGY CONSERVATION - RESIDENTIAL	18,899.14	18,665.67	134,529.71	136,524.24	1.48%
ENERGY CONSERVATION - COMMERCIAL	31,373.48	32,485.41	217,094.34	214,418.28	-1.23%
NYPA CREDIT	(91,032.01)	(91,202.42)	(520,802.01)	(534,547.18)	2.64%
TOTAL REVENUE	<u><u>6,832,106.72</u></u>	<u><u>7,023,255.22</u></u>	<u><u>45,519,957.16</u></u>	<u><u>48,756,556.61</u></u>	7.11%



TOWN OF READING, MASSACHUSETTS  
MUNICIPAL LIGHT DEPARTMENT  
SCHEDULE OF OPERATING EXPENSES  
12/31/16

SCHEDULE E

OPERATION EXPENSES:	MONTH LAST YEAR	MONTH CURRENT YEAR	LAST YEAR TO DATE	CURRENT YEAR TO DATE	YTD % CHANGE
PURCHASED POWER CAPACITY	1,773,743.78	1,802,095.92	9,392,215.65	10,272,863.98	9.38%
PURCHASED POWER TRANSMISSION	955,262.13	863,599.00	6,812,931.23	7,091,289.59	4.09%
<b>TOTAL PURCHASED POWER</b>	<b>2,729,005.91</b>	<b>2,665,694.92</b>	<b>16,205,146.88</b>	<b>17,364,153.57</b>	<b>7.15%</b>
OPERATION SUP AND ENGINEERING EXP	50,646.37	26,893.57	272,264.77	228,617.91	-16.03%
STATION SUP LABOR AND MISC	14,514.87	8,343.42	75,545.30	68,665.36	-9.11%
LINE MISC LABOR AND EXPENSE	75,056.73	56,029.79	381,563.83	310,706.06	-18.57%
STATION LABOR AND EXPENSE	38,871.07	40,903.29	201,987.73	250,883.35	24.21%
STREET LIGHTING EXPENSE	10,887.62	9,256.44	57,133.08	62,368.60	9.16%
METER EXPENSE	20,955.83	14,507.25	111,130.00	101,905.99	-8.30%
MISC DISTRIBUTION EXPENSE	39,758.80	49,957.46	219,477.30	213,764.07	-2.60%
METER READING LABOR & EXPENSE	1,983.88	1,857.31	14,519.74	13,035.48	-10.22%
ACCT & COLL LABOR & EXPENSE	173,003.27	152,509.46	841,209.15	861,985.96	2.47%
UNCOLLECTIBLE ACCOUNTS	10,000.00	12,500.00	60,000.00	75,000.00	25.00%
ENERGY AUDIT EXPENSE	42,857.32	33,480.54	275,006.58	242,801.94	-11.71%
ADMIN & GEN SALARIES	87,965.26	71,683.53	444,925.26	477,382.86	7.30%
OFFICE SUPPLIES & EXPENSE	46,308.92	44,708.66	157,940.86	151,102.83	-4.33%
OUTSIDE SERVICES	21,578.06	148,099.41	181,123.00	337,474.60	86.32%
PROPERTY INSURANCE	31,242.46	27,650.70	187,454.41	166,286.30	-11.29%
INJURIES AND DAMAGES	5,867.83	3,562.53	24,546.32	26,762.30	9.03%
EMPLOYEES PENSIONS & BENEFITS	337,363.61	273,781.81	1,399,760.93	1,520,499.13	8.63%
MISC GENERAL EXPENSE	17,069.02	15,951.02	78,700.61	73,419.16	-6.71%
RENT EXPENSE	14,157.49	15,030.63	85,750.73	84,171.52	-1.84%
ENERGY CONSERVATION	50,223.17	90,223.13	205,497.33	316,860.42	54.19%
<b>TOTAL OPERATION EXPENSES</b>	<b>1,090,311.58</b>	<b>1,094,909.95</b>	<b>5,275,536.93</b>	<b>5,583,693.84</b>	<b>5.84%</b>
MAINTENANCE EXPENSES:					
MAINT OF TRANSMISSION PLANT	227.10	8,347.10	1,362.50	9,482.50	595.96%
MAINT OF STRUCT AND EQUIPMT	30,838.27	23,661.36	176,250.76	237,090.12	34.52%
MAINT OF LINES - OH	170,208.97	134,041.87	843,652.77	899,160.99	6.58%
MAINT OF LINES - UG	14,519.35	23,953.09	64,195.11	153,725.35	139.47%
MAINT OF LINE TRANSFORMERS	0.00	464.50	79,916.66	18,387.89	-76.99%
MAINT OF ST LT & SIG SYSTEM	(20.72)	(394.34)	(324.85)	70,100.11	-21679.22%
MAINT OF GARAGE AND STOCKROOM	57,544.79	35,081.75	268,911.17	249,426.62	-7.25%
MAINT OF METERS	0.00	0.00	0.00	0.00	0.00%
MAINT OF GEN PLANT	14,567.48	64,322.49	62,663.34	168,935.86	169.59%
<b>TOTAL MAINTENANCE EXPENSES</b>	<b>287,885.24</b>	<b>289,477.82</b>	<b>1,496,627.46</b>	<b>1,806,309.44</b>	<b>20.69%</b>
DEPRECIATION EXPENSE	328,732.65	341,775.67	1,972,395.90	2,050,654.02	3.97%
PURCHASED POWER FUEL EXPENSE	2,757,146.26	2,986,248.94	17,855,289.73	17,175,745.04	-3.81%
VOLUNTARY PAYMENTS TO TOWNS	106,973.00	113,372.00	696,973.00	703,372.00	0.92%
<b>TOTAL OPERATING EXPENSES</b>	<b>7,300,054.64</b>	<b>7,491,479.30</b>	<b>43,501,969.90</b>	<b>44,683,927.91</b>	<b>2.72%</b>

TOWN OF READING, MASSACHUSETTS  
MUNICIPAL LIGHT DEPARTMENT  
BUDGETED OPERATING EXPENSE VARIANCE REPORT  
12/31/16

OPERATION EXPENSES:	2017 ANNUAL BUDGET	ACTUAL YEAR TO DATE	REMAINING BUDGET BALANCE	REMAINING BUDGET %
PURCHASED POWER CAPACITY	20,943,651.00	10,272,863.98	10,670,787.02	50.95%
PURCHASED POWER TRANSMISSION	13,378,627.00	7,091,289.59	6,287,337.41	47.00%
TOTAL PURCHASED POWER	<u>34,322,278.00</u>	<u>17,364,153.57</u>	<u>16,958,124.43</u>	49.41%
OPERATION SUP AND ENGINEERING EXP	655,195.00	228,617.91	426,577.09	65.11%
STATION SUP LABOR AND MISC	91,269.00	68,665.36	22,603.64	24.77%
LINE MISC LABOR AND EXPENSE	901,213.00	310,706.06	590,506.94	65.52%
STATION LABOR AND EXPENSE	472,879.00	250,883.35	221,995.65	46.95%
STREET LIGHTING EXPENSE	102,402.00	62,368.60	40,033.40	39.09%
METER EXPENSE	205,717.00	101,905.99	103,811.01	50.46%
MISC DISTRIBUTION EXPENSE	464,418.00	213,764.07	250,653.93	53.97%
METER READING LABOR & EXPENSE	32,640.00	13,035.48	19,604.52	60.06%
ACCT & COLL LABOR & EXPENSE	1,792,724.00	861,985.96	930,738.04	51.92%
UNCOLLECTIBLE ACCOUNTS	150,000.00	75,000.00	75,000.00	50.00%
ENERGY AUDIT EXPENSE	630,232.00	242,801.94	387,430.06	61.47%
ADMIN & GEN SALARIES	1,134,674.00	477,382.86	657,291.14	57.93%
OFFICE SUPPLIES & EXPENSE	349,000.00	151,102.83	197,897.17	56.70%
OUTSIDE SERVICES	418,100.00	337,474.60	80,625.40	19.28%
PROPERTY INSURANCE	424,500.00	166,286.30	258,213.70	60.83%
INJURIES AND DAMAGES	57,216.00	26,762.30	30,452.70	53.23%
EMPLOYEES PENSIONS & BENEFITS	2,922,673.00	1,520,499.13	1,402,173.87	47.98%
MISC GENERAL EXPENSE	219,156.00	73,419.16	145,736.84	66.50%
RENT EXPENSE	212,000.00	84,171.52	127,828.48	60.30%
ENERGY CONSERVATION	871,574.00	316,860.42	554,713.58	63.65%
TOTAL OPERATION EXPENSES	<u>12,107,581.00</u>	<u>5,583,693.84</u>	<u>6,523,887.16</u>	53.88%
MAINTENANCE EXPENSES:				
MAINT OF TRANSMISSION PLANT	3,000.00	9,482.50	(6,482.50)	-216.08%
MAINT OF STRUCT AND EQUIPMT	419,599.00	237,090.12	182,508.88	43.50%
MAINT OF LINES - OH	2,044,499.00	899,160.99	1,145,338.01	56.02%
MAINT OF LINES - UG	125,066.00	153,725.35	(28,659.35)	-22.92%
MAINT OF LINE TRANSFORMERS	300,000.00	18,387.89	281,612.11	93.87%
MAINT OF ST LT & SIG SYSTEM	10,287.00	70,100.11	(59,813.11)	-581.44%
MAINT OF GARAGE AND STOCKROOM	590,523.00	249,426.62	341,096.38	57.76%
MAINT OF METERS	44,658.00	0.00	44,658.00	100.00%
MAINT OF GEN PLANT	180,000.00	168,935.86	11,064.14	6.15%
TOTAL MAINTENANCE EXPENSES	<u>3,717,632.00</u>	<u>1,806,309.44</u>	<u>1,911,322.56</u>	51.41%
DEPRECIATION EXPENSE	4,134,000.00	2,050,654.02	2,083,345.98	50.40%
PURCHASED POWER FUEL EXPENSE	33,174,492.00	17,175,745.04	15,998,746.96	48.23%
VOLUNTARY PAYMENTS TO TOWNS	1,445,420.00	703,372.00	742,048.00	51.34%
TOTAL OPERATING EXPENSES	<u>88,901,403.00</u>	<u>44,683,927.91</u>	<u>44,217,475.09</u>	49.74%

**READING MUNICIPAL LIGHT DEPARTMENT**

**FOR PERIOD ENDING DECEMBER, 2016**

PROJ	DESCRIPTION	TOWN	ACTUAL COST DECEMBER	YTD ADDITIONS	ANNUAL BUDGET	REMAINING BALANCE
<b><u>CONSTRUCTION:</u></b>						
106	Underground Facilities Upgrades (URD's, Manholes, etc.)	ALL	11,168	262,981	149,965	(113,016)
107	13.8kV Upgrade (Step-down areas, etc.)	ALL		4,909	105,748	100,839
	<b>SUB-TOTAL</b>		<b>11,168</b>	<b>267,890</b>	<b>255,713</b>	<b>(12,177)</b>
<b><u>STATION UPGRADES:</u></b>						
108	Station 4 (GAW) Relay Replacement Project	R	87,079	101,845	48,904	(52,941)
109	Station 4 35kV Potential Transformer Replacement	R		57	-	(57)
110	4W9 Getaway Replacement-Station 4	R		-	234,747	234,747
111	Substation Equipment Upgrade (all)	ALL		-	74,590	74,590
113	Station 4 (GAW) Battery Bank Upgrade	R	24,000	24,000	17,037	(6,963)
120	Station 4 - Relay/SCADA Integration for Bus A&B	R		24,261	70,308	46,047
130	Station 3 - Remote Terminal Unit (RTU) Replacement	NR		-	39,330	39,330
133	Station 3 - Relay Upgrades and SCADA Integration	NR	20,793	95,298	252,225	156,927
139	Station 5 - LTC Control Replacement	W		-	41,543	41,543
140	Substation Grounding Equipment Upgrade	ALL		-	20,671	20,671
	<b>SUB-TOTAL</b>		<b>131,872</b>	<b>245,461</b>	<b>799,355</b>	<b>553,894</b>
<b><u>NEW CUSTOMER SERVICES:</u></b>						
	New Service Installations (Commercial / Industrial)	ALL	10,363	62,814	139,570	76,756
	<b>SUB-TOTAL</b>		<b>10,363</b>	<b>62,814</b>	<b>139,570</b>	<b>76,756</b>
<b><u>ROUTINE CONSTRUCTION:</u></b>						
		ALL	<b>126,809</b>	<b>881,493</b>	<b>1,012,962</b>	<b>131,469</b>
<b><u>SPECIAL PROJECTS / CAPITAL PURCHASES:</u></b>						
100	Distributed Gas Generation (Pilot FY16-17)	ALL		43,175	2,720,409	2,677,234
102	Padmount Switchgear Upgrade at Industrial Parks	W		-	194,518	194,518
103	Grid Modernization and Optimization	ALL	2,097	124,339	284,000	159,661
105	New Wilmington Sub-Station	W		-	250,000	250,000
112	AMI Mesh Network Expansion	ALL	4,845	105,045	220,021	114,976
115	Fault Indicators	ALL		1,340	25,000	23,660
116	Transformers and Capacitors	ALL		9,102	668,000	658,898
117	Meter Purchases	ALL		16,140	80,000	63,860
125	GIS	ALL		-	360,000	360,000
126	Communication Equipment (Fiber Optic)	ALL	2,491	7,064	69,173	62,109
131	LED Street Light Implementation	ALL	52,750	368,534	804,070	435,536
134	Substation Test Equipment	ALL		14,270	30,000	15,730
135	Analog Devices Cap Bank Upgrade	W		-	54,188	54,188
136	Voltage Data Recorders	ALL		-	25,000	25,000
	<b>SUB-TOTAL</b>		<b>62,183</b>	<b>689,008</b>	<b>5,784,379</b>	<b>5,095,371</b>
<b><u>OTHER CAPITAL PROJECTS:</u></b>						
96	Control Center Modifications	ALL		-	100,000	100,000
97	HVAC Roof Units - Garage	R	3,111	44,484	-	(44,484)
98	Carpet Upgrade	R		8,430	71,653	63,223
99	Electric Vehicle Supply Equipment	ALL	1,303	1,303	10,000	8,697
104	RMLD Lighting (LED) Upgrade			-	25,000	25,000
118	Rolling Stock Replacement	ALL		30,477	310,000	279,523
119	Security Upgrades All Sites	ALL	27,840	34,684	5,000	(29,684)
121	HVAC System Upgrade - 230 Asn Street	R	52,214	467,785	500,000	32,215
127	Hardware Upgrades	ALL	18,727	57,078	112,065	54,987
128	Software and Licensing	ALL		12,687	230,519	217,833
129	Master Facilities Site Plan	R		-	50,000	50,000
	<b>SUB-TOTAL</b>		<b>103,195</b>	<b>656,927</b>	<b>1,414,237</b>	<b>757,310</b>
<b>TOTAL CAPITAL BUDGET</b>			<b>\$ 445,590</b>	<b>\$ 2,825,251</b>	<b>\$ 9,406,216</b>	<b>\$ 6,602,623</b>
<b>ROUTINE CONST ADJ FOR WO MISPOSTING</b>			<b>21,658</b>			
(July-November)						





# Engineering & Operations Report

RMLD Board of Commissioners Meeting

February 23, 2017

December 2016 Reporting Period

Hamid Jaffari, Director of Engineering & Operations



# Capital Improvement Projects

Construction Projects:		% Complete Status	Dec	YTD
106	Underground Facilities Upgrades (URDs, Manholes, etc.) - All Towns <ul style="list-style-type: none"> <li>Lucaya Estates, Wilmington</li> <li>Crestwood Road, North Reading</li> </ul>	On-going	\$11,168	\$262,982
108	Relay Replacement – Station 4 (GAW)	100%	\$87,079	\$101,846
113	Station 4: Battery Bank Upgrade	10%	\$24,000	\$24,000
133	Station 3: Relay Upgrades and SCADA Integration	10%	\$20,793	\$95,298
	Service Installations – Residential and Commercial: This item includes new or upgraded overhead and underground services.	On-going	\$10,363	\$62,814
103	Grid Modernization and Optimization	On-going	\$2,097	\$124,339
112	AMI Mesh Network Expansion	On-going	\$4,845	\$105,045
131	LED Street Light Conversion	58%	\$52,750	\$368,534



## Routine Construction

	DEC	YTD
Pole Setting/Transfers	\$31,263	\$158,698
Overhead/Underground	\$19,492	\$254,884
Projects Assigned as Required <ul style="list-style-type: none"> <li>• High Street, Reading (Service upgrade)</li> <li>• Solar Project – 326 Ballardvale Street, Wilmington</li> <li>• Pumping Stations, Reading</li> <li>• AT&amp;T Appl, Wilmington</li> </ul>	\$10,167	\$114,213
Pole Damage/Knockdowns <ul style="list-style-type: none"> <li>• Work was done to repair or replace seven (7) damaged poles.</li> </ul>	\$13,109	\$61,096
Station Group	\$32,329	\$108,230
Hazmat/Oil Spills	-	\$5,296
Porcelain Cutout Replacement Program	-	-
Lighting (Street Light Connections)	\$1,906	\$15,444
Storm Trouble	\$2,554	\$13,297
Underground Subdivisions (new construction)	-	\$45,828
Animal Guard Installation	-	\$795
Miscellaneous Capital Costs	\$15,991	\$125,371
<b>TOTAL:</b>	<b>\$126,809</b>	<b>\$903,151</b>

# Routine Maintenance

- **Transformer Replacement (through December 2016)**  
Pad mount 25.13%      Overhead 15.88%
- **Pole Inspection (as of 2/15/17)**  
213 poles have been replaced      116 of 213 transfers have been completed
- **Quarterly Inspection of Feeders (as of 2/15/17)**  
*Inspected circuits (Jan-Mar): 3W5, 3W6, 3W7, 3W8, 3W13, 4W5, 4W6, 4W7, 4W23, 4W24, 5W9, 4P9, 4P2*
- **Manhole Inspection (through December 2016)**  
961 of 1,237 manholes have been inspected.
- **Porcelain Cutout Replacements (through December 2016)**  
91% complete      256 remaining to be replaced
- **Tree Trimming**  
December: 87 spans trimmed      YTD: 651 spans trimmed
- **Substation Maintenance**  
Infrared Scanning – December complete - no hot spots found



# Double Poles

- Ownership: 16,000 (approximately)

50% RMLD

50% Verizon

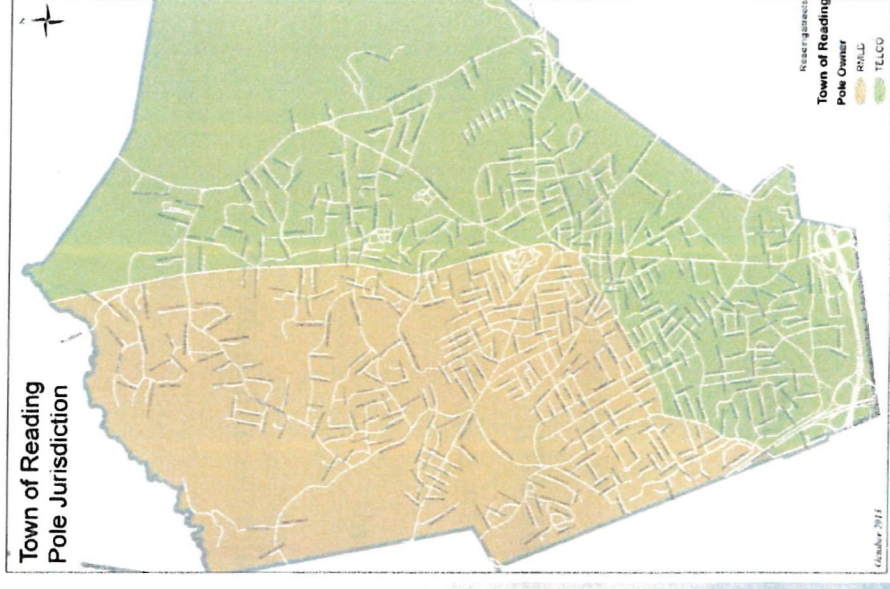
- Custodial:

Reading – split (see map) →

North Reading – RMLD

Lynnfield – Verizon

Wilmington – Verizon





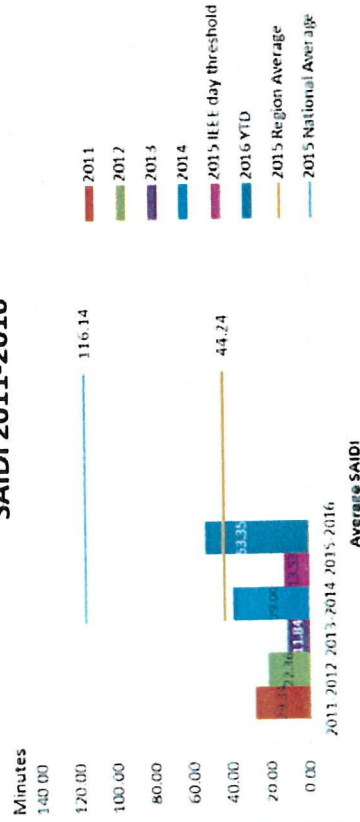
# NJUNS

"Next to Go" as of February 16, 2017

LYNNFIELD			NORTH READING			READING			WILMINGTON		
NTG Member and JobType	Count of Ticket Number		NTG Member and JobType	Count of Ticket		NTG Member and JobType	Count of Ticket Number		NTG Member and JobType	Count of Ticket Number	
- LFDFD	3		- CMCTNR	4		- CMCTNR	9		- CMCTNR	3	
- Lynnfield Fire Department			- Comcast			- Comcast			- Comcast		
TRANSFER			TRANSFER	4		TRANSFER	9		TRANSFER	3	
- RMLD	1		- NGMA	1		- LTFMA	1		- NP3PMA	7	
- Reading Municipal Light Department			- National Grid			- Lighttower Fiber Networks			- Non-participating 3rd Party		
TRANSFER			TRANSFER	1		TRANSFER	1		- Attacher - Massachusetts		
- VZNEA	14		- NRDFD	44		- NP3PMA	11		TRANSFER	7	
- Verizon			- North Reading Fire Department			- Non-participating 3rd Party Attacher -			- RMLD	65	
TRANSFER	8		TRANSFER			- Massachusetts			- Reading Municipal Light Department		
PULL POLE	6			44		TRANSFER	11		TRANSFER	59	
(blank)						- RMDGFD	8		ATTACH	1	
Grand Total	18					Reading Fire Department			PULL POLE	4	
						TRANSFER	8		INSTL GUY	1	
			- RMLD	104					- VZNEA	71	
			- Reading Municipal Light Department			- RMLD	50		- Verizon		
			TRANSFER	13		- Reading Municipal Light Department			TRANSFER	56	
			PULL POLE	91		TRANSFER	23		PULL POLE	15	
						PULL POLE	27				
			- VZNEA	46		- VZNEA	1		- WILMFB	3	
			- Verizon			- Verizon			- Town of Wilmington		
			TRANSFER	39		TRANSFER	1		TRANSFER	3	
			PULL POLE	7		- VZNEA	111				
			(blank)			- Verizon			- WILMFB	72	
			Grand Total	199		TRANSFER	107		- Wilmington Fire Department		
						PULL POLE	4		TRANSFER	72	
						(blank)					
						Grand Total	191		- (blank)		
									Grand Total	221	

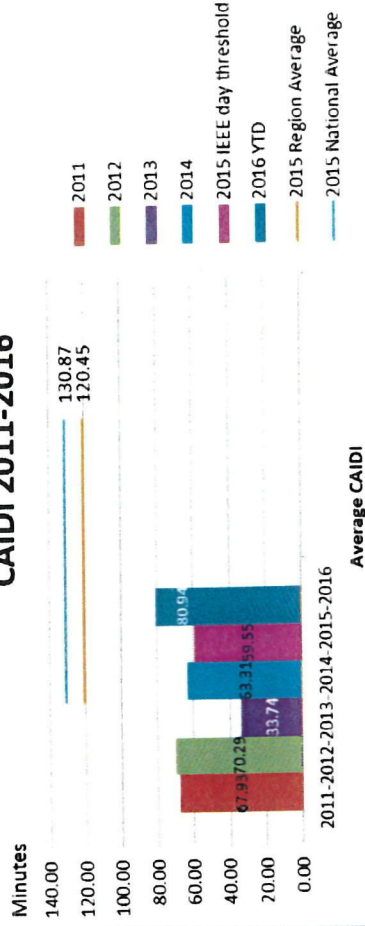
# RMLD Reliability Indices

SAIDI 2011-2016



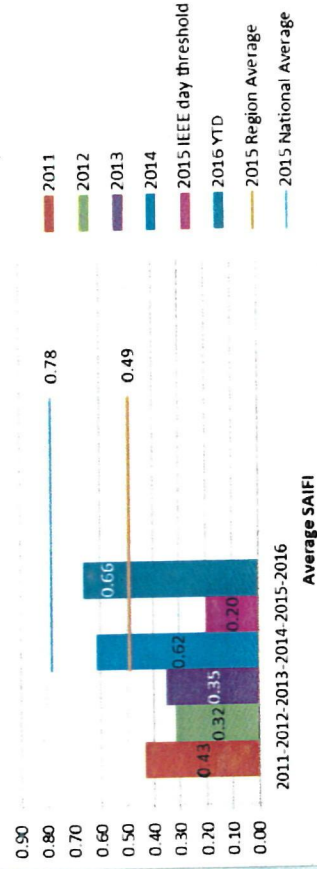
$$SAIDI \text{ (Minutes)} = \frac{\text{Total Duration of Customer Interruptions}}{\text{Total Number of Customers Served}}$$

CAIDI 2011-2016



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

SAIFI 2011-2016



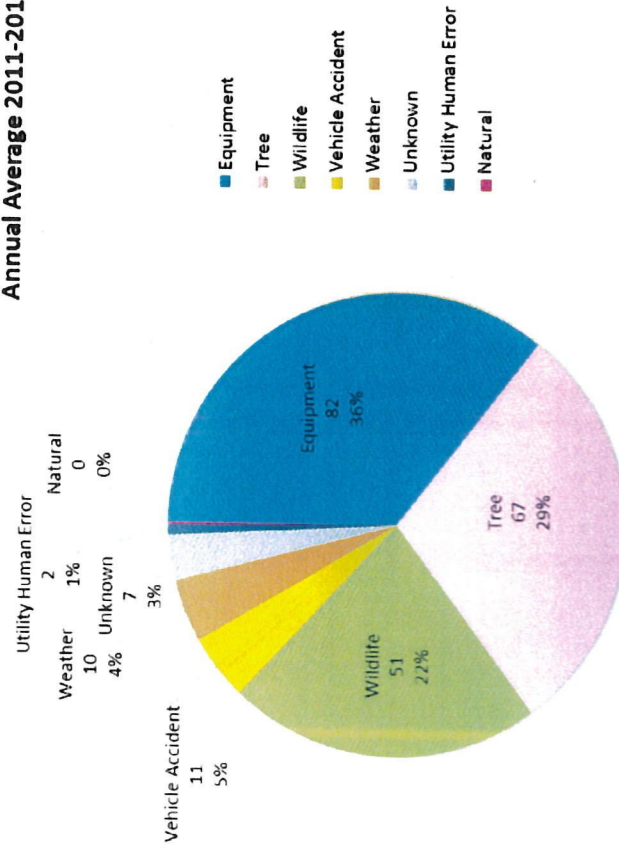
$$SAIFI = \frac{\text{Total Number of Customer Interruptions}}{\text{Total Number of Customers Served}}$$



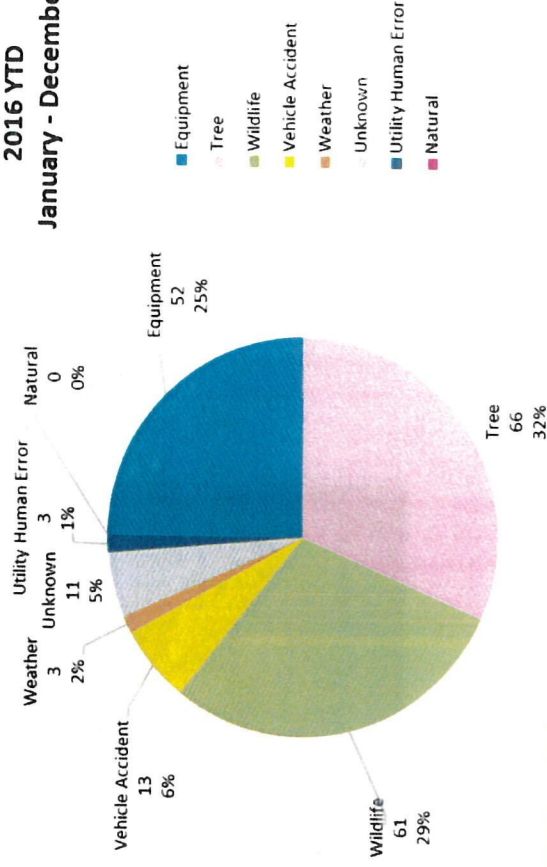
# Outages Causes

Outages Causes YTD (from eReliability website)

Annual Average 2011-2016



2016 YTD  
January - December



# Questions ?



QUESTIONS ?





February 13, 2017

Town of Reading Municipal Light Board

Subject: IFB 2017-34 Grounds and Landscape Services

Pursuant to M.G.L. c. 30B, on January 16, 2017 IFB 2017-34 was advertised in the Goods and Services Bulletin and on January 18, 2017 an invitation for bid was placed as a legal notice in the Middlesex East Section of the Daily Chronicle, on COMMBUYS, on the RMLD website and posted on the RMLD lobby bulletin board requesting sealed bids for Grounds and Landscape Services.

An invitation for bid was sent to the following thirty companies:

BHD Company	Burns Landscaping Construction, LLC	Ciro Carbone and Sons Landscaping, Inc.
ConstructConnect	Earthworks Landscaping Co., Inc.	EZ Landscaping Inc.
Ferrari Landscaping	Gerrior Masonry & Landscape	Greenscape Land Design, Inc.
Ground Masters Corporation	GroundMasters Landscape Corporation	GTA Landscaping
Hummer's Lawn Care	JR's Landscaping & Sons	K.M. Earle Landscaping
Leahy Landscaping Inc.	Linnehan Landscaping and Fuel	Mac's Landscaping
Mayer Tree Service, Inc.	MFB, Inc.	NECC Corp.
NETCO Construction Project Managers	ONVIA	Pathfinder Tree Service, LLC
ProScape Landscape LLC	Sawyer Landscaping	Schulte Grounds Management, Inc.
Shady Tree Landscaping, Inc.	Strong Landscaping Inc.	Tompkins Landscape

Sealed bids were received from five companies: Ferrari Landscaping, Earthworks Landscaping Co., Inc., Greenscape Land Design, Inc., GroundMasters Landscape Corporation, and Tim Zanelli Excavating, LLC.

The sealed bids were publicly opened and read aloud at 11:00 a.m. on February 8, 2017 in the Town of Reading Municipal Light Department's Audio Visual Spurr Room, 230 Ash Street, Reading, Massachusetts.

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

Move that bid 2017-34 for: Grounds and Landscape Services be awarded to: **Greenscape Land Design, Inc.** for **\$110,952.00** as the lowest responsive and responsible bidder on the recommendation of the General Manager.

RMLD



Reading Municipal Light Department  
RELIABLE POWER FOR GENERATIONS

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

The FY2017 Operating Budget amount for this item is \$45,000.00.

*Paul McDonaghe*

Department Manager

*Jim Dwyer*

Department Director

*C. J. O'Brien*

General Manager

**Grounds and Landscaping Services**

**Bid 2017-34**

<u>Bidder</u>	<u>Year 1 - 2017 Services</u>	<u>Year 2 - 2018 Services</u>	<u>Year 3 - 2019 Services</u>	<u>Three-Year Total Price</u>	<u>Responsive Bidder</u>	<u>Exceptions</u>
Earthworks Landscaping Co., Inc.	\$64,234.00	\$65,182.00	\$66,167.00	\$195,583.00	Yes	No
Greenscape Land Design, Inc.	<b>\$36,984.00</b>	<b>\$36,984.00</b>	<b>\$36,984.00</b>	<b>\$110,952.00</b>	<b>Yes</b>	<b>No</b>
GroundMasters Landscape Corporation	\$55,157.63	\$55,508.63	\$55,913.63	\$166,579.89	Yes	No

**Notes:**

Ferrari Landscaping and Tim Zanelli Excavating, LLC were rejected due to not submitting a Comprehensive Application Plan and Schedule with bid.





**From:** [Tracy Schultz](#)  
**To:** [RMLD Board Members Group](#)  
**Cc:** [Jeanne Foti](#)  
**Subject:** Account Payable and Payroll Questions  
**Date:** Thursday, February 16, 2017 4:38:00 PM

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Good afternoon,

There were no Account Payable Warrant questions for the following dates:  
January 20, January 27, February 3, and February 10.

There were no Payroll questions for the following date:  
February 6.

This message will be printed for the Board Packet for the RMLD Board Meeting on Thursday  
February 16, 2017.

**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

February-17

	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 35,000 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	\$116.11	\$200.74	\$141.85	\$1,048.25	\$205.28	\$4,876.20	\$755,449.20
PER KWH CHARGE	\$0.15481	\$0.13383	\$0.14185	\$0.14360	\$0.19007	\$0.13932	\$0.10981
NATIONAL GRID							
TOTAL BILL	\$146.32	\$311.18	\$182.69	\$2,027.57	\$308.49	\$5,877.72	\$1,568,918.65
PER KWH CHARGE	\$0.19509	\$0.20745	\$0.18269	\$0.27775	\$0.28564	\$0.16793	\$0.22805
% DIFFERENCE	26.02%	55.01%	28.79%	93.42%	50.28%	20.54%	107.68%
EVERSOURCE(NSTAR)							
TOTAL BILL	\$143.50	\$253.51	\$189.19	\$1,233.41	\$204.73	\$6,692.17	\$882,679.70
PER KWH CHARGE	\$0.19133	\$0.16901	\$0.18919	\$0.16896	\$0.18956	\$0.19120	\$0.12830
% DIFFERENCE	23.59%	26.29%	33.37%	17.66%	-0.27%	37.24%	16.84%
PEABODY MUNICIPAL LIGHT PLANT							
TOTAL BILL	\$89.37	\$177.53	\$120.42	\$988.74	\$156.46	\$4,883.88	\$672,615.67
PER KWH CHARGE	\$0.11916	\$0.11835	\$0.12042	\$0.13544	\$0.14487	\$0.13954	\$0.09777
% DIFFERENCE	-23.03%	-11.56%	-15.11%	-5.68%	-23.78%	0.16%	-10.96%
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	-14.96%	0.46%	-6.42%	-8.47%	-17.95%	-2.32%	6.85%
WAKEFIELD MUNICIPAL LIGHT DEPT.							
TOTAL BILL	\$119.24	\$220.92	\$149.38	\$1,129.79	\$180.88	\$5,298.08	\$887,163.30
PER KWH CHARGE	\$0.15898	\$0.14728	\$0.14938	\$0.15477	\$0.16749	\$0.15137	\$0.12896
% DIFFERENCE	2.69%	10.05%	5.31%	7.78%	-11.88%	8.65%	17.44%



