

**READING MUNICIPAL
LIGHT DEPARTMENT**

**BOARD
OF
COMMISSIONERS**

REGULAR SESSION

JULY 28, 2016

READING MUNICIPAL LIGHT DEPARTMENT
BOARD OF COMMISSIONERS MEETING

230 Ash Street
Reading, MA 01867
July 28, 2016
7:30 p.m.

1. Call Meeting to Order
2. Opening Remarks
3. Introductions
4. Public Comment
 - RMLD Citizens' Advisory Board
 - Liaisons to RMLD Board
 - Public Comment
5. Report RMLD Board Member Attendance at RMLD Citizens' Advisory Board Meeting

Note: Vice Chair Pacino attended the CAB meeting on July 13, 2016.
6. Report of the Committee ACTION ITEM
 - a. Policy Committee – Commissioner Hennessy
7. Approval of Board Minutes (Attachment 1) ACTION ITEM

January 28, 2016 and March 31, 2016
8. General Manager's Report – Ms. O'Brien
9. Power Supply Report – May 2016 – Ms. Parenteau (Attachment 2) ACTION ITEM
 - a. RMLD RFP for Wholesale Power Supply

Suggested Motion:
Move that the RMLD Board of Commissioners authorize the General Manager to execute one or more Power Supply Agreements in accordance with RMLD's Wholesale Power Supply Plan for power supply purchases for a period not to exceed 2017 through 2020 and in amounts not to exceed 13 megawatts in 2017, 16 megawatts in 2018, 20 megawatts in 2019, and 23 megawatts in 2020, as presented by the Director of Integrated Resources.
10. Engineering and Operations Report – May 2016 – Mr. Jaffari (Attachment 3)
11. Financial Report – May 2016 – Ms. Markiewicz (Attachment 4)
12. RMLD Procurement Requests Requiring Board Approval (Attachment 5)
 - a. RFP 2016-24 Distributed Generation

Suggested Motion:
Move that bid 2016-24 Distributed Generation be awarded to Milton CAT as the lowest responsive and responsible bidder on the recommendation of the General Manager for a total cost of \$2,008,538.00.
 - b. IFP 2017-02 1kV Padmounted Switchgear

Suggested Motion:
Move that bid 2017-02 for 15kV Padmounted Switchgear be awarded to Trayer Engineering Corp. as the lowest responsive and responsible bidder on the recommendation of the General Manager for a total cost of \$226,100.00.

12. RMLD Procurement Requests Requiring Board Approval

c. IFP 2017-03 S&C SCADA-Mate CX Switch

Suggested Motion:

Move that bid 2017-03 for S&C SCADA-Mate CX Switch be awarded to WESCO as the lowest responsive and responsible bidder on the recommendation of the General Manager for a total cost of \$114,720.00.

d. IFP 2017-04 S&C IntelliRupter Pulse Closer

Suggested Motion:

Move that bid 2017-04 for S&C IntelliRupter Pulse Closer be awarded to WESCO as the lowest responsive and responsible bidder on the recommendation of the General Manager for a total cost of \$73,940.00.

e. IFB 2017-05 Hourly Rates for Professional Manpower, Vehicles, Trade Tools, and Equipment for Underground Electrical Distribution Construction and Maintenance

Suggested Motion:

Move that bid 2017-05 for Hourly Rates for Professional Manpower, Vehicles, Trade Tools, and Equipment for Underground Electrical Distribution Construction and Maintenance be awarded to McDonald Electrical Corporation as the lowest responsive and eligible bidder on the recommendation of the General Manager.

f. IFP 2017-06 Cooper Power System or Compatible Meters and Equipment for AMI Mesh Network System Expansion and Mitigation

Suggested Motion:

Move that bid 2017-06 for Cooper Power System or Compatible Meters and Equipment for the AMI Mesh Network System Expansion and Migration be awarded to Eaton as the lowest responsive and responsible bidder on the recommendation of the General Manager for a total cost of \$119,531.76.

g. IFB 2017-08 Bus Insulation at Station 5

Suggested Motion:

Move that bid 2017-08 for Bus Insulation at Substation 5 be awarded to Powerline Contractors, Inc. as the lowest responsive and eligible bidder on the recommendation of the General Manager for a total cost of \$57,332.00.

13. General Discussion

BOARD MATERIAL AVAILABLE BUT NOT DISCUSSED

E-Mail responses to Account Payable/Payroll Questions

Rate Comparisons, June and July 2016

RMLD Board Meetings

Thursday, September 29, 2016

Thursday, October 27, 2016

Audit Committee Meeting

Thursday, September 29, 2016

RMLD Board Policy Committee Meeting

To be determined.

Fiber Optic Committee Meeting

To be determined.

CAB Meetings

Wednesday, September 14, 2016

14. Executive Session

ACTION ITEM

Suggested Motion:

Move that the Board go into Executive Session to approve the Executive Session Meeting minutes of March 31, 2016 discuss strategy with respect to collective bargaining and return to Regular Session for the sole purpose of adjournment.

15. Adjournment

ACTION ITEM

Suggested Motion:

Move to adjourn the Regular Session.

APPROVAL OF REGULAR SESSION
MEETING MINUTES
ATTACHMENT 1

Reading Municipal Light Board of Commissioners

Regular Session

230 Ash Street

Reading, MA 01867

January 28, 2016

Start Time of Regular Session: 7:35 p.m.

End Time of Regular Session: 10:00 p.m.

Commissioners:

Thomas O'Rourke, Chairman

Philip B. Pacino, Commissioner

Dave Hennessy, Commissioner - Secretary Pro Tem

David Talbot, Vice Chairman

John Stempeck, Commissioner

Staff:

Coleen O'Brien, General Manager

Bob Fournier, Accounting/Business Manager

Jane Parenteau, Director of Integrated Resources

Jeanne Foti, Executive Assistant

Paul McGonagle, Facilities Manager

Wendy Markiewicz, Senior Accountant

Citizens' Advisory Board:

Dennis Kelley, Member

Public:

There was no public comment.

Call Meeting to Order

Chairman O'Rourke called the meeting to order and stated that the meeting was being videotaped, it is not a live broadcast although we have a videographer, Alexander. Chairman O'Rourke welcomed him and thanked him for his service. Viewers can check at www.RCTV.org for more information and replay times. This meeting will also be played on YouTube tomorrow. The meeting is also being videotaped for distribution for community television stations in North Reading, Wilmington and Lynnfield.

Opening Remarks

Chairman O'Rourke read the RMLD Board of Commissioners Code of Conduct. Chairman O'Rourke acknowledged CAB representative, Mr. Dennis Kelley for joining the Board at the meeting this evening. Chairman O'Rourke asked RMLD Board Commissioner, Mr. Dave Hennessy, to act as Board Secretary for this evening's meeting.

Public Comment

There was no public comment.

RMLD Citizens' Advisory Board

There was no RMLD Citizens' Advisory Board comment.

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

Vice Chair Talbot attended the CAB meeting on January 13, 2016.

Mr. Talbot reported that the CAB meeting on January 13, 2016 was very brief because the majority of the meeting was Executive Session, therefore, he had nothing to report.

General Manager's Report – Ms. O'Brien

Home Electrical Safety Update

Ms. O'Brien discussed Home Electrical Safety as a general topic. The RMLD electrical system works in concert with the homeowner's electric system to bring safe and reliable power to the home. The line of demarcation for ownership on the RMLD system is the rudimentary system and service drops to individual homes that are single metered, not condos, but for demonstrative purposes referring to an individual home. Ms. O'Brien said that the ownership extends on the service to the house at the point of the connection at the weather head and the only other section that RMLD owns is the meter itself. The homeowner owns from the weather head down and including the meter box, which is called the SE cable or the service entrance cable. Anything internal to the home such as its panels and grounding system. Ms. O'Brien explained that she, Ms. Gottwald and Ms. Parenteau's group, are going to work and possibly have a RCTV presentation on this issue. It is very important for the customers to understand that their electrical system inside their home is no different from their HVAC or plumbing system, it needs periodic inspections by a qualified electrician to make sure their grounding system, connections and breakers are all in good shape for the safety of their home and their family. Ms. O'Brien stated that the RMLD in its Terms and Conditions of service discusses abnormal voltages. Ms. O'Brien noted that if a neutral connection is compromised on our system (there is a neutral at the pole and a neutral at the home), the homeowners grounding system is what helps to protect and balance the current or the voltage levels that the home and its appliances would see.

**General Manager's Report – Ms. O'Brien
Home Electrical Safety Update**

Ms. O'Brien commented that if the homeowner does not have a good grounding system and there is a voltage fluctuation then more than likely those appliances, especially voltage sensitive appliances such as anything digital or solid state, could see a higher voltage. If the grounding system is good, intact and meets the National Electrical Code then more than likely there would be just a flickering light which is most often the types of calls that we get; we don't generally get calls of damaged appliances because most homeowner's grounding systems are in good shape (they have been tested to meet code. Ms. O'Brien stated that it is important for the homeowners to understand that this is a system within their home that they need to have checked, not just if they are putting an addition on the home. It should be performed periodically to ensure the home's neutrals are tightened up, the grounding system and panel is appropriate and the ground fault interrupting receptacles are in good working order. Sometimes homes have breakers that keep tripping and they don't understand that the breaker probably needs to be replaced and to keep resetting it over and over could cause damage or even a fire. Learning some basic homeowner electricity one of the Integrated Resource employees will be working with a group for new homeowners where they talk about what it's like to own a new home. The RMLD will have a presentation about electrical safety for new homeowners and RMLD could put that on RCTV that everyone could benefit. Ms. O'Brien stated that she doesn't want to get into too much technology unless people want to talk about the theory of electricity and noted she just wants people to be safe. The electric system that is out there was not built in thinking forward that our society would have IPads, the solid state digital cooktops and digital refrigerators. For example, even ten years ago when the plasma televisions were coming out it was suggested to use surge protectors for those televisions. Now sometimes people put their television in a surge protector or maybe their computer, but they are not thinking about their refrigerator, stovetop and everything else that has a digital display. In addition, Ms. O'Brien noted things that have motors in them, like a refrigerator cannot be plugged into a surge protector. In those instances, RMLD may recommend a whole house arrester which goes in, it is a voltage arrester and it would protect against lightning and any type of abnormal voltages, which would be similar to a surge protector. If there is a surge, it would have to be discarded and get another one, but it does protect all those appliances which are now quite expensive compared to the older basic gas stove now has turned into this "Smart" cooktop that can be called up on an iPhone to have dinner ready when you get home, the smart technology is more sensitive. Ms. O'Brien provided the example of a computer that needs to have voltage conditioning; when a computer is put into a UPS that has a battery backup and it has a voltage conditioner in it, which takes whatever fluctuations in the voltage and it makes it smooth and perfect because that is the only thing that computer can take otherwise it won't work efficiently. Ms. O'Brien explained the digital need for perfect voltage is now in all appliances and the electric system wasn't built for that. RMLD cannot protect against those type of fluctuations and the homeowners really need to take a look at their electrical system.

Mr. Kelley asked Ms. O'Brien if that is something that can be added to the RMLD Newsletter as helpful hints for the house noting that he always reads through those helpful things and post to a refrigerator to remember. Ms. O'Brien stated that she will be discussing this with Ms. Parenteau, perhaps RMLD can offer some kind of a rebate with the whole house arrester, but certainly can put something in the Newsletter. Ms. O'Brien stated that this is such a big topic and she would like an electrician with her because RMLD represents the National Electric Safety Code that is the code for the whole electrical system and where it meets the National Electric Code, which is six hundred volts or below inside a home, is where the two Codes meet. It is two different Codes and RMLD works again, in concert, to make sure it is safe. Ms. O'Brien said that perhaps a RCTV presentation explaining that from both the RMLD perspective as it relates to its Terms and Conditions with input from a qualified electrician providing information, it may help the homeowner get a better understanding of what their responsibility internal to their home is. Sometimes people think its just electricity that does its thing and they don't have to worry about it when it should really be checked once in a while just like another other utility or appliance in the house. Ms. O'Brien agreed to put something in the RMLD Newsletter as well as a RCTV presentation.

Ms. Parenteau agreed noting that the other notifications would be having programs in the libraries for all the communities RMLD serves. Ms. Parenteau stated that during discussions with Ms. Gottwald she might add this as a compliment to the Efficiency Programs and Home Safety. We may work it up so our customers are able to come to the libraries and have an open forum in the evenings where people are home after work. Ms. Parenteau stated that between the YouTube and the libraries we will try to get a different avenue to hit all of our consumer base.

Mr. Talbot added that to have a more proactive relationship with the local media so that when things come to their attention they would not think twice about calling either Ms. Parenteau or Ms. Gottwald to find out exactly what something was about or when they get notified they can call RMLD. Mr. Talbot pointed out that it would avoid things appearing that should have had RMLD's input and that is a function of the relationship between RMLD and local media.

Ms. O'Brien stated that RMLD is a truly helpful Department which has a lot of resources, education and talent here to educate the public on the safety of electricity, perhaps we need to put out more education.

Mr. Stempeck stated that this is a great idea. Mr. Stempeck especially likes the tune up analogy with HVAC systems because most people check their HVAC systems annually or have their water systems cleaned in order to maintain these systems, but the electrical system is somewhat strange and foreign to most people they just expect it to be there. Mr. Stempeck noted for example, the phasing can be tested to make sure it is correct, has it been wired correctly, this whole grounding issue is very important. Although these are simple things in general, if not done correctly it could have long term damage. Mr. Stempeck shared his experience with water coming through his breakers and it was just slowly seeping in, but was a major problem.

General Manager's Report – Ms. O'Brien

Home Electrical Safety Update

Mr. Stempeck said that he never would have guessed there was a problem with the line coming in and affecting the house where water was actually able to get inside the wires. It was bizarre and strange, but it happened. One does not think about tuning up their electrical system.

Ms. O'Brien stated that the water that can get into the weather head can get into the meter box, which is owned by the homeowner and corrode. There are jaws that are inside of that where RMLD's meter goes into. If those jaws get corroded or they get bent the lights may flicker. The grounding strap on the water pipe can corrode from moisture because many resident's basements have a lot of humidity and they corrode. There are a lot of different pieces to look at and it is a good safety measure.

Prior to continuing with the next report Chairman O'Rourke wanted to mention that at the October 20, 2015 General Manager's Committee meeting they had discussed the General Manger's vehicle arrangements. They asked for additional information and need to benchmark data before closing any change or adjustments. Chairman O'Rourke stated that will be addressed at the February meeting.

LED's Save Energy Campaign

Ms. O'Brien said that the *LED's Save Energy Campaign* kicked off on January 15, 2016, will run through April 15, 2016 and all twenty four public schools in the service territory are participating. Ms. O'Brien said that the school families have been invited to save energy and support their schools by purchasing energy efficient lightbulbs and power strips from RMLD's online store. One school in each town whose school body has purchased the most will receive a \$2,000 rebate towards ENERGY STAR appliances or equipment.

RMLD Community Outreach

Ms. O'Brien reported on the RMLD Community Outreach a date in late February is being planned with North Reading's Flint Library. The RMLD will be discussing customer service programs and the homeowner's responsibility on their electrical equipment, versus the RMLD's responsibility. Wilmington Public Library wants RMLD to present this in the fall, as does Reading. The RMLD is still waiting to hear back from Lynnfield.

RMLD Mobile APP

Ms. O'Brien stated that RMLD's Dashboard on SharePoint is coming along. RMLD is preparing for RMLD's mobile app to go live. Ms. O'Brien explained this mobile app will give the customers a couple of basics such as how to report an outage, how to report a streetlight out, status update of area outages, not specific homes. The app works with Twitter the RMLD Control Room will have 149 spaces when they are not switching to give out some key facts. For example, the outage we had the other night we don't want to flood the Control Center with calls because they are trying to safely switch. When customers sign up for the app, which comes with Twitter account or customers can sign up with Twitter separately then the customers will be able to get these status updates. In addition, on RMLD's app will be a calendar, customers can pay their bill online as well as having access to the on online store. Ms. O'Brien stated that Mr. Uvanni, Ms. Parenteau and Ms. Lamson have all been working on this and are testing it on their respective iPhones. The app request has to go through Apple and Android for those companies to be able to vet it then they will allow RMLD to download it. Ms. O'Brien stated that a press release will go out informing everyone when it is available shortly that will segue into RMLD's outage management system. Ms. O'Brien added that she gives full credit to Selectmen Prisco in North Reading who suggested the app.

Ms. O'Brien reported that the new Cogsdale system has some software differences from our existing software and in an attempt to comply with those software issues the public was asked to get their bill in before 9:00 a.m. (that was put on some signs which has been taken down) in order for customers to receive their discount. Although all the signs have now been removed, the RMLD is working to change the software because if it's a discount day, it is twenty four hours and customers have the whole day to get their payment in. Ms. O'Brien explained the signage was for a one time occurrence and have been removed.

Mr. Talbot asked if RMLD has a Twitter account right now. Ms. O'Brien replied, yes we do, but it is not live. RMLD does have a Twitter account. Mr. Talbot added that the Twitter account does not have to be connected to an app, anybody who is on Twitter should be able to get the Tweets. Ms. O'Brien agreed. She said that is why customers can just sign up for Twitter or can sign up for the app which will sign them up for that Twitter account, anybody can follow RMLD on Twitter.

Mr. Talbot asked that during the outage, for example, when there was about 200 or 300 people on one Facebook page alone, Reading Parents Network, asking what was going on because there was nothing anywhere from RMLD and people were linking back to the Reading Police Department. Mr. Talbot stated that it seemed like there was nothing to say to this conversation about our outage, but suspected this will now change noting that people don't have a place to go right now on social media, but will. Mr. Talbot stated this will also be another way to communicate RMLD's other points. Ms. O'Brien agreed, noting that is why this is coming out and it being expedited. Ms. O'Brien stated that the Outage Management System is slow moving, this is an interim to get those communications out in order to inform the customers what is happening, at the same time RMLD needs to keep the calls from coming into the Control Center.

General Manager's Report – Ms. O'Brien

Mr. Talbot stated that it does not have to be the Control Center to send Tweets, it could be anyone at RMLD. Ms. O'Brien disagreed because it must be the 24/7 manned department sending Tweets explaining that when she sent Tweets.

Mr. Talbot commented that if the Control Center is too busy during an outage to think about tweeting then somebody should be in there alerting the community about what is going on even if the Control Center employees are busy because that is when everybody needs the information during an outage. Ms. O'Brien acknowledged that many people were calling during the outage and RMLD didn't know at that time what was causing the problem. The Engineers, Technicians and Linemen were trying to find out what the problem was. The problem was a very complicated substation problem that was very difficult to find. Ms. O'Brien explained it was a setting issue, it wouldn't have mattered because there would have been nothing to tweet. The Control Center is getting the feedback from the field personnel, it is only 149 characters and they are not going to compromise safety to send it out. The fact that we have a 24 hour dispatch is really a benefit compared to other communities. Ms. O'Brien confirmed that other communities use the Police and Fire for the electric, they won't be tweeting 24/7 from that type of setup.

Mr. Talbot pointed out that there is a couple of key times per year when everybody wants to know what is happening. There is going to be 362 days when nobody will look at the Reading Municipal Light Department's Twitter feed. Mr. Talbot continued, but for those key times of an outage or a major storm or peak day, suddenly those are the moments when RMLD really should be tweeting, it is really important. Mr. Talbot stated that during the outage he was wondering why he was getting his information from Wilmington Police Department. Mr. Talbot stated that he would not want the Control Center to stop what they are doing and tweet. People will say something on the Reading Parents Network or on their Facebook. That information will get amplified all over the place and misinformation will get out unless it is coming directly from the Department. Mr. Talbot stated that controlling these communications directly from RMLD is important and it also extends to the other issue that RMLD should be on top of it and explaining what is happening.

Chairman O'Rourke stated that feedback discussion is good with the message that Ms. O'Brien has established some tweeting. It is important to keep in mind that there is another aspect to this reality, Chairman O'Rourke does not think in the Town of Reading we will have 80% utilization of Twitter, what is the best way to communicate. Mr. Pacino stated that people called him at home to find out the status of the outage.

Mr. Talbot said that during those exceptional times the message rapidly gets amplified, not only for people who are looking at Twitter, but the same message which gets posted on a Facebook page suddenly it reaches tens of thousands of people immediately. Mr. Talbot explained at these critical moments RMLD needs to have accurate information coming out to ensure that is what is getting passed around social media, not someone else's view of what happened. Even if none of us are on Twitter you will get the tweet somehow indirectly through some other media and that is how it works.

Chairman O'Rourke commented that his point was maybe in the process of setting the Twitter account up there would be other ideas on how to reach people because it is a delicate balance. It is hard to go out and say nothing, the other side of it is sometimes all you really need to do is inform people there is a problem and RMLD is working on it.

Ms. O'Brien asked Ms. Parenteau if the app will be ready by next week. Ms. Parenteau noted she was told it could take anywhere from five days to three weeks for iPhone to approve the app, once RMLD submits the App, it is in their hands.

Ms. O'Brien reiterated RMLD is only using Twitter for outage related, power warning information and peak demand information. If there are other things for RMLD to report such as events, etc. that will come out of the app and customers must sign up for that. Twitter will not be used for anything else.

Chairman O'Rourke asked if Ms. O'Brien could provide more information on this app or discuss this further at the next Board meeting. Ms. O'Brien agreed.

Power Supply Report – November and December 2015 – Ms. Parenteau (Attachment 1)

Ms. Parenteau reported on the Power Supply in which the slides look at the November and December 2015 Purchase Power Summary. Ms. Parenteau noted the first slide looks at the purchases for kilowatt hours and the embedded cost of energy for the month of November for the period 2011 through 2015. The purchases from this past November were the smallest over the last four years, additionally the cost of the power in November 2015 is below what RMLD was paying back in 2011 and 2012. The average cost of energy is below what was paid in 2011 and 2012. It dipped in 2013 for a low, however it has been increasing slightly, but still below what occurred in 2011 and 2012. The next graph looks at capacity for the month of November, for the timeframes 2011 through 2015. Ms. Parenteau stated that capacity has been fairly flat. The bar graph depicts what the requirement is, based on the peak demand and the line graph represents the average cost of that capacity. It has been flat from 2013 and is on the incline. Ms. Parenteau stated that as mentioned to all the Selectmen in the recent visits in December, the capacity next year will be increasing significantly. Rates for the upcoming fiscal year are estimated to increase approximately seven to nine percent driven by capacity and transmission increases. The final graph for November looks at transmission costs, going back to 2011 the numbers were a little over \$600,000 for the month of November and now the amount is over \$866,000.

Power Supply Report – November and December 2015 – Ms. Parenteau (Attachment 1)

Transmission cost is socialized throughout New England and increased on an average rate of six to ten percent annually, based on RMLD's monthly peak demand. RMLD is structuring all of the rebate programs to minimize peak demand because that is the only way as a utility to lower the transmission costs. Ms. Parenteau explained the next three graphs are looking at the first half of the Fiscal Year (FY), July 2015 through December 2015. The first bar graph represents the FY 2015, the green graph represents FY 2016, looking at energy costs they are a slightly higher than they were in FY 2014 predominately because of the summer months. July and August this year were significantly warmer than prior years. Those costs were a little higher as well as in September, October, but November and December stay fairly flat. Ms. Parenteau stated that capacity fluctuates a little on a monthly basis July through December, but they are increasing for 2015. There were increases in this current year for July and August, due to the summer months. Ms. Parenteau reported that the final graph looks at transmission costs which fluctuate monthly based on the monthly peak demand. The highest peaks occur in July and August, there is a one month lag in transmission July is actually June's transmission that is why September and October are slightly higher. The winter monthly peaks are significantly lower than the summer months which results in lower cost that comes through in November and December.

Ms. O'Brien requested that Mr. McGonagle's reports be moved up because he needs to attend another meeting this evening.

Facilities Site Update – Mr. McGonagle

Mr. Paul McGonagle introduced himself as the new Facilities Manager who started at RMLD in September 2015. He explained that he will be speaking to some of the projects being worked on that are based on the recommendations made in studies performed for RMLD relative to facilities sites and substations. Mr. McGonagle stated that RMLD has stored many items at RMLD for years, for instance, Station One in the basement as well as on the first floor there were old pieces of equipment that were put there and never moved, as well as metal cabinets (scrap metal) that have now been removed. Facilities has now cleaned the different areas and he is looking at improvements.

Mr. McGonagle reported that one of his responsibilities is the Purchasing Department. He has been working on streamlining how RMLD can actually put out bids in accordance with the Massachusetts General Laws and has been able to accomplish this. Employees are getting more comfortable with the procurement process for surplus, equipment and materials.

Mr. McGonagle said that he will start to implement more structure in Facilities in the way they obtain requests for work that needs to be performed. Many times when the Facilities Techs are walking down the corridor, somebody asks them to perform a facilities related task then they go off to perform that request. This aspect of the Facilities workflow needs to be structured, those requests need to be prioritized as well as keeping track of such requests. Mr. McGonagle explained that one way to achieve this is an electronic work order system. When there is something that needs to be performed by the Facilities Department, employees need a platform in which they can electronically put in a work request. The request will be prioritized with that software and training being rolled out during the month of February. Mr. McGonagle stated that since he came on board the HVAC project for this building was underway which is now coming to its end. Mr. McGonagle added that all of the equipment is in operating capacity now, the last piece is the air balancing for the HVAC system. After that, RMLD will be ready to start preparing for the second stage which is working on the air handlers in addition to installing a rooftop unit on the garage building. Mr. McGonagle explained in the study performed by Booth & Associates it provided RMLD many recommendations to improve the substations. All RMLD departments are working on those recommendations including Engineering and Tech Services who are trying to chip away at that along with Facilities. Mr. McGonagle pointed out that the overall Site Facility Plan is also moving forward. He has met with Ms. O'Brien in which they have discussed the overall plan such as looking at the buildings to see how improvements can be made. Mr. McGonagle stated that this includes getting involved with the Town of Reading's Strategic Economic Plan which has a possibility of impacting this site.

Mr. McGonagle stated that we are being mindful on how we spend and invest by making improvements that are necessary. Mr. McGonagle said that this work has been performed as a team effort along with all the other Departments that have been very supportive.

Chairman O'Rourke said that he was wondering if there is a timetable as to when things will be shared, understanding this is all in the early stages, but is interested in what the timeline might look like. For example, one year from now or two years. Ms. O'Brien stated that RMLD is being very mindful with the upgrades, but the HVAC is necessary. We have some structural issues where the linemen are, but are hesitant to try and improve because the economic development for this area may change. This would mean developers being involved. Ms. O'Brien stated that she has attended the Economic Development meetings and there is no timetable.

Ms. O'Brien wanted to mention that Mr. McGonagle has been helping with records retention because even though the basement of Station One hasn't seen the light of day neither has the attic and most employee's cubicles. As far as records retention, Paul has done a great job in looking into the law and how we can get rid of things. The RMLD is logging everything and it gets boxed up. There will be a shredding company come in to shred 180 boxes. Ms. O'Brien commented that these are major movements, it is huge.

Mr. McGonagle pointed out that those boxes represent a few hundred square feet of space that will be freed up. In addition, there are meters that will be sold and recycled that will free up more space.

Facilities Site Update – Mr. McGonagle

Ms. O'Brien stated that Mr. McGonagle put together a training for all staff on how to set up the boxes. The boxes had to be so many cubic feet, everything box has to be logged down, whether it will be shred or if boxes must be stored for six years they will be stamped and what day it can be shred. It is very organized process and much needed.

Mr. McGonagle mentioned M.G.L. 220 CMR 75 that talks about how long the retention must be for specific documents.

Chairman O'Rourke commended RMLD for that process. Ms. O'Brien stated that she is very happy Mr. McGonagle is here.

MGL Chapter 30B Bids (Attachment 2)

IFB 2016-01 Janitorial Services

Mr. Pacino made a motion seconded by Mr. Stempeck that bid 2016-01 for the Janitorial Services be awarded to TNT Cleaning Services, Inc. for \$92,826 as the lowest responsive qualified bidder on the recommendation of the General Manager.

Motion carried 5:0:0.

Mr. Talbot asked, what is the extent of this contract and is the cleaning for just this building. Mr. McGonagle responded that it is a three year contract to clean this building, the garage and the substations. Mr. Talbot questioned, it is \$3,000 per month? Mr. McGonagle replied that it is approximately \$30,000 per year thus it is \$2,600 per month and RMLD buys most of the cleaning supplies.

IFB 2016-15 Fiberglass Trench Covers for Substation 4

Mr. Pacino made a motion seconded by Mr. Hennessy that bid 2016-15 for Fiberglass Trench Covers for Substation 4 be awarded to WESCO for a total cost of \$108,000 as the lowest qualified bidder on the recommendation of the General Manager.

Motion carried 5:0:0.

IFB 2016-17 Single Phase Pole Mounted Transformers

Mr. Pacino moved seconded by Mr. Stempeck that bid 2016-17 for Single Phase Pole Mounted Transformers be awarded to WESCO for a total cost of \$105,400 as the lowest qualified bidder on the recommendation of the General Manager.

Motion carried 5:0:0.

IFB 2016-18 Three Phase Pole Mounted Transformers

Mr. Pacino moved seconded by Mr. Hennessy that bid 2016-18 for Three Phase Pole Mounted Transformers be awarded to Power Sales for a total cost of \$9,102, WESCO for a total cost of \$37,770, Stuart C Irby for a total cost of \$20,066 as the lowest qualified bidders on the recommendation of the General Manager.

Motion carried 5:0:0.

Mr. Stempeck asked why this bid was split up between three different vendors. Ms. O'Brien explained that there are different types of Three Phase Pole Mounted Transformers.

IFB 2016-19 Single Phase Pad Mounted FR3 Transformers

Mr. Pacino made a motion seconded by Mr. Hennessy that bid 2016-19 for Single Phase Pad Mounted FR3 Transformers be awarded to WESCO for a total cost of \$119,910 as the lowest qualified bidder on the recommendation of the General Manager.

Motion carried 5:0:0.

IFB 2016-21 Three Phase Pad Mounted Transformers (Dead Front)

Mr. Pacino made a motion seconded by Mr. Stempeck that bid 2016-21 for Three Phase Pad Mounted Transformers be awarded to Stuart C. Irby for a total cost of \$133,931 as the lowest qualified bidder on the recommendation of the General Manager.

Motion carried 5:0:0.

IFB 2016-23 Category 4 Arc Rated FR Clothing Program

Mr. Pacino made a motion seconded by Mr. Hennessy that Bid 2016-23 for Category 4 Arc Rated FR Clothing Program be awarded to WESCO for a total cost of \$47,200.42 as the lowest qualified bidder on the recommendation of the General Manager.

Motion carried 5:0:0.

Financial Report – November and December 2015 – Ms. Markiewicz (Attachment 3)

Ms. Markiewicz introduced herself, presenting the financial statements for the first six months of fiscal year 2016. For the month of December, the Net Loss with a negative change in net assets was \$648,900, reducing the year to date Net Income to \$1.1 million. The year to date budgeted Net Income was \$1.8 million resulting in Net Income being under budget by about \$700,000 or 39.8%. Actual year to date Fuel Expenses exceeded Fuel Revenues by approximately \$750,000. Purchased Power capacity and transmission for PPCT expenses exceeded PCT revenues by about \$782,700. The year to date Base Revenues exceeded the budget amount by about \$214,000 or 1.79%, actual Base Revenues were \$12.2 million dollars compared to the budgeted amount of about \$12 million.

Financial Report – November and December 2015 – Ms. Markiewicz (Attachment 3)

The year to date Purchased Power Base Expense was over budget by approximately \$378,300 or 2.39% and the actual Purchased Power Base costs were \$16.2 million and budgeted power based costs were \$15.8 million.

Year to date Operating and Maintenance Expenses combined were under budget by approximately \$622,000 or about 8.4%. The actual Operating and Maintenance Expenses were \$6.7 million, budgeted expenses were at \$7.3 million. The Depreciation Expense and payment to the towns were on budget. For cash, the Operating Fund was at approximately \$11.3 million, Capital Fund balance \$6.4 million, Rate Stabilization Fund \$6.8 million, Deferred Fuel Fund \$4.4 million and the Energy Conservation Fund \$730,700. Year to date kilowatt hour sales were 358.8 million kilowatt hours which is 2 million kilowatt hours or one half of one percent ahead of last year's actual figures. Cumulatively, the five divisions were under budget by \$651,900 or 5.78%. Ms. Markiewicz explained that the graph compares the Base Revenues to Operating and Maintenance Expenses. This is an eighteen month comparison that goes back to rates. The Base Rates shows a trend of the summer month peaks which is when RMLD makes most of its money. Those peaks is what continues to cover Operating and Maintenance Expenses and typically all expenses would be more linear, but this is due to a timing issue when RMLD receives invoices. The overall picture shows the Base Revenue does cover the Operating and Maintenance Expenses which proves that the RMLD's past base rate increases have been accurately determined.

Mr. Talbot asked for an explanation on the summer peaks being most of RMLD's revenue. Ms. Markiewicz stated that during the summer months is when RMLD makes most of its revenue. Mr. Talbot stated that it's really the peak day when RMLD pays highest, it's both, correct, because everything is pegged to that one day. Ms. Parenteau explained that the peak day increased RMLD's graph it's not that day when RMLD is paying the most necessarily, but the results of those hot summer months is what drives the power.

Ms. O'Brien explained that a commercial customer's bill is calculated based on their highest fifteen minutes, that sets their bill for the month, this is similar to RMLD's highest hour (the peak) it sets the pricing for the whole year. Mr. Talbot asked if it is every one percent or every one megawatt that RMLD could lop off for the peak day what the current cost is. Ms. O'Brien stated it is \$60,000. Ms. Parenteau explained that it is going every one megawatt in 2016 will be worth \$240,000.

Mr. Talbot stated that peak day 2015 was 156 megawatts and RMLD was able to shave one megawatt out of that day, correct. RMLD's ability to cut the peak on the peak day of 2015 was one megawatt which saved \$60,000. Mr. Talbot asked if RMLD is able to shave one megawatt in 2016 it will save RMLD \$240,000, if RMLD is able to save four megawatts from 160 to 156 it will save RMLD \$1 million dollars. Ms. Parenteau answered that is correct. Ms. O'Brien said that is where Twitter will come in. Ms. O'Brien said that the RMLD did look into reverse 911. Mr. Talbot said that he has been working with Concord, they use e-mail and Twitter to get the peak reduction message out to its customers.

Mr. Pacino asked why the five divisions are so far under budget, is there any particular reason? Ms. Markiewicz answered, no there is not one particular reason there are a couple of reasons. When looking at each individual division and the Integrated Resource Division, in particular, the Commercial Rebate Program has a timing effect due to the processing of the rebates. There is lead time in the equipment due to the ordering, installation, inspection and review that is a large factor as to why we are under budget. The other reason is the tree trimming was budgeted for about \$438,000 in which \$260,000 has been spent, there haven't been many storms to drive that expense upward.

Ms. Markiewicz said that there have been some vacancies there are about five positions in the budget for this year that haven't been filled representing approximately \$120,000.

Engineering and Operations Report – November 2015 – (Attachment 4)

Ms. O'Brien requested that the page numbers be written on the Board books. The Board concurred.

Ms. O'Brien reported on the Engineering and Operations Report stating that this is a presentation for November. The Capital Improvement Projects it is standard as to what Mr. Jaffari has reviewed. RMLD is moving right along with the LED Streetlight conversion which is important. Ms. O'Brien stated that the Cooks Farm Project is almost complete. Under Routine Construction RMLD is getting to the double poles. Ms. O'Brien said that Mr. Jaffari already reviewed the routine maintenance. RMLD may be adding Connector Replacements on there as well and there are other aspects of maintenance to add to these programs. Ms. O'Brien mentioned that the seven key utility best practices, routine maintenance and there are other maintenance as well, but this is based on staffing and funding. RMLD is trying to move ahead with these seven before adding others. Based on Ms. O'Brien's conversation earlier, Connector Replacements will be another. Although RMLD is not right on the ocean there is not a lot of senility the cyclic is not as frequent, but RMLD will go through and check the connections. Ms. O'Brien added that Mr. Jaffari is working on that with Mr. DeFerrari, the General Line Foreman. Ms. O'Brien stated that the double pole map sometimes gets confusing she wanted to reiterate the ownership of each of the poles is 50/50 percent. This is not to be confused with custodial ownership which is who puts the pole in, who takes the pole out and in any of the custodial areas the transfers are still the same. The new software program, NJUNS that RMLD is utilizing, once the custodial puts the pole in, the transfer occurs then the transfers are done the custodial takes the pole out. Thus, RMLD is the custodian of all of North Reading and half of Reading. Verizon is the custodian for Wilmington, Lynnfield and the other half of Reading. Ms. O'Brien stated that she is trying to get staff to stop saying "ownership" when they mean "custodial" in order that it is clear especially now that we have this new program, NJUNS.

Engineering and Operations Report – November 2015 – (Attachment 4)

Chairman O'Rourke asked Ms. O'Brien that when she says 50% RMLD, does RMLD own half of them or does RMLD share ownership? Ms. O'Brien explained that each pole is owned 50/50, the custodial is by the map. Ms. O'Brien stated that she will start adding this in under NJUNS for each of the discussions, the Board will have it. Ms. O'Brien said that she will show the Board how to read it, going forward Mr. Jaffari will just include it.

Chairman O'Rourke asked what NJUNS means. Ms. O'Brien replied that NJUNS is a software, they call it "the next to go" software. Ms. O'Brien stated that she will provide the answer.

Ms. O'Brien continued with the report, for example in Reading there is a total of sixty five double poles, Comcast has seven that they have to transfer and Reading Fire Department has eight, RMLD has seventeen and Verizon has thirty three of which twenty nine are transfers and four are pull poles, which means at the end of the transfers Verizon pulls the pole butts because they are the custodian.

Chairman O'Rourke asked if a double pole is because the pole is at risk. Ms. O'Brien answered, yes. Ms. O'Brien explained that it could be because a motor vehicle hit or it could be due to the pole inspection program. Many of the double poles right now are due to the pole inspection program in which RMLD is in the process. RMLD is involved with this pole inspection program.

Chairman O'Rourke asked if it is the cost of trying to take out the old pole, put the new pole in and manage all the wires, while doing that is it a problem or is it a safety issue to try move the pole. Ms. O'Brien explained that the pole is in and then depending upon the soil condition if the soil is adequate, another hole will be dug right next to the pole which cannot be more than three feet away because then there needs a petition from the Town. Then it will be considered a new pole rather than a replacement pole, if the soil can handle it the pole will go right next to it, the custodian will install it then RMLD will make the transfer to the new pole. Then it goes into the computer and then it is "next ball in court." The old pole stays until all the transfers are made so the reason why it is on the map is because it is clear who is holding up the process.

Chairman O'Rourke stated that in some Towns the double poles seems to stay forever. Ms. O'Brien said that not anymore that is one of the reasons why RMLD purchased this software was because there was no tracking system for the double poles in the past. Double poles are a temporary condition, but everybody must transfer. There was no mechanism to determine whose turn it was to transfer. Now they are all in this database including the Fire Department. The transfer can be done when it gets completed the custodial goes back by then the top has been lopped off, it is a stub and the custodial removes it. If another pole cannot be set that is when there are some braces and a chunk of pole stuck to the pole because another pole could not be set maybe because of rot or other factors.

Mr. Stempeck asked what happens to the old poles. Ms. O'Brien responded that the poles get chopped up as hazardous waste, get into a roll off container out back then a vendor RMLD is contracted with will properly dispose of them.

Ms. O'Brien provided the meaning of NJUNS, which means National Joint and Utilities Notification System. Ms. O'Brien stated that RMLD is collecting all the data for the GIS, the more data that is collected the more this becomes accurate. Verizon is also performing an audit of their poles, therefore the database is becoming more accurate every day.

Ms. O'Brien continued pointing out that this is an excellent way to explain how one major storm impacts reliability. Not all reliability goes to the wayside due to one storm although it put RMLD right off the charts. This reflects the one storm in August that double back to back microburst from August 4, 2015, and that is the impact of that one storm.

Ms. O'Brien stated that is one of the reasons RMLD tracks this is because we know what is causing the outages and the money can be funded to prioritize maintenance and target those areas. The outage causes are mostly equipment like fuse melts, trees, twenty nine percent wildlife. RMLD is very active with the animal guards. The outage that happened recently in January was a relay setting at the substation, nothing actually failed it was a relay set limit that was changed because the RMLD does not have a GIS modeling system Booth created the setting to protect for one thing and didn't realize they were taking away protection on another side. RMLD is still lacking some protection, there are still some new curves that must be put in, but it will wait until Mr. Jaffari is back from vacation. He is really the only Engineer who works here that is a relay set expert.

Mr. Kelley made a comment about the LEDs noting he was sitting in his living room one night, he thought there was a car parked out in front of his house because he saw a bright light. Mr. Kelley stated that he also had comments from his neighbors how much brighter it was in the neighborhood. Ms. O'Brien reiterated that if anything needs to be adjusted or angled, it is a quick adjustment. Overall Ms. O'Brien stated that RMLD has been getting very good feedback on the new LED streetlights.

Chairman O'Rourke wanted to acknowledge the RMLD Electrical Safety Conservation T-Shirt Contest noting the attendance of commission members. It was great to see the participation, the students get their awards and show off their energy saving T-Shirts. Chairman O'Rourke stated it is a great tradition.

BOARD MATERIAL AVAILABLE BUT NOT DISCUSSED
E-Mail responses to Account Payable/Payroll Questions
Rate Comparisons, January 2016

RMLD Board Meetings

Thursday, February 25, 2016

Thursday, March 24, 2016

Policy Committee Meeting

Thursday, March 3, 2016 at 7:30 a.m.

CAB Meetings

Wednesday, February 10, 2016, Regular Meeting – Commissioner Stempeck will attend.

Wednesday, April 6, 2016, Operating Budget Review

Wednesday, April 13, 2016, Capital Budget Review

Chairman O'Rourke reminded the Board on his suggestion to vote on the budgets individually without slowing the process down. It is difficult to vote on one without the other. To vote on the expense budget in total then the capital expense budget. Chairman O'Rourke asked if the commission members are still comfortable with that process for budget presentations to vote on the entire budget on the second meeting. All Commissioners were in agreement with the process and decided to wait until the next Board meeting to schedule the budget meetings.

Mr. Pacino informed the Board that he and Mr. Talbot are running for reelection.

Executive Session

At 8:55 p.m. Mr. Pacino made a motion seconded by Mr. Stempeck that the Board go into Executive Session to discuss, Chapter 164 Section 47D exemption from public records and open meeting requirements to discuss confidential, competitively sensitive information, to discuss strategy with respect to collective bargaining and return to Regular Session for the sole purpose of adjournment.

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

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

Motion carried 5:0:0.

Adjournment

At 10:00 p.m., Mr. Pacino made a motion seconded by Mr. Talbot to adjourn the Regular Session.

Motion carried 5:0:0.

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

Reading Municipal Light Board of Commissioners

Regular Session

230 Ash Street

Reading, MA 01867

March 31, 2016

Start Time of Regular Session: 7:35 p.m.

End Time of Regular Session: 9:45 p.m.

Commissioners:

Thomas O'Rourke, Chairman

David Talbot, Commissioner

Dave Hennessy, Commissioner - Secretary Pro Tem

Philip B. Pacino, Vice Chairman

John Stempeck, Commissioner

Staff:

Coleen O'Brien, General Manager

Bob Fournier, Accounting/Business Manager

Jane Parenteau, Director of Integrated Resources

Jeanne Foti, Executive Assistant

Wendy Markiewicz, Senior Accountant

Citizens' Advisory Board:

Mark Chrisos, Member

Call Meeting to Order

Chairman O'Rourke called the meeting to order and stated that the meeting was being videotaped; it is live in Reading only.

Opening Remarks

Chairman O'Rourke read the RMLD Board of Commissioners Code of Conduct.

Introductions

Chairman O'Rourke acknowledged CAB representative, Mr. Mark Chrisos for joining the Board at the meeting this evening.

Chairman O'Rourke stated that Mr. Dave Talbot is running late and asked RMLD Board Commissioner, Mr. Dave Hennessy, to act as Board Secretary for this evening's meeting.

Public Comment

There was no public comment.

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

Commissioner Pacino attended the CAB meeting on February 24, 2016

Mr. Pacino reported that he attended the CAB meeting on February 24 in which there was various discussions. One topic addressed was the recent storms and related outage information that the RMLD provides through its APP and website. The home electric safety update was presented. Mr. Pacino said that Ms. O'Brien will be putting together a YouTube video to educate customers on home electric safety. There was discussion on a proposed distributive generator with some good feedback provided on by the CAB members relative to the payback calculation and impact on neighbors on the potential site. There was a status update on the Organizational and Reliability Study.

Mr. Talbot asked what was the substance of the questions were relative to the distributive generation. Mr. Pacino responded that the discussion addressed the fact that the distributed generation is only in the proposal state. The questions were where the unit would be situated and built, potential noise levels as well as speaking to neighbors that may be potentially affected. Also, there was discussion on the cost associated with the project along with the payback period.

Chairman O'Rourke attended the CAB meeting on March 23, 2016

Chairman O'Rourke reported that Ms. O'Brien presented the dashboards, the process for the CAB, Board and staff. There was discussion on the new way of contacting employees to come in for outage restoration during outages instead of the traditional phoning in. Ms. O'Brien explained that the RMLD will be using Skype for business this will alleviate the manual calling out. The Skype sends out an automatic call out message sent out by the Control Center employee explaining the needs during an outage for RMLD employees to come in. The RMLD employee can respond by phone which can be switched to text. Ms. O'Brien added that the goal is to minimize the amount of calls that come into the Control Room for safety purposes and being more efficient. Chairman O'Rourke mentioned that Skype for business can also be utilized for online meetings. Mr. Chrisos added that Ms. O'Brien did explain that by using such tools as the website, RMLD's APP and Skype frees up the Control Center operators to make the control room operations more efficient and quickly addressed during outages.

Chairman O'Rourke reported that the capital and operating budgets will be presented in separate meetings by both Boards. The operating budget will not be voted on until the capital budget is presented.

Chairman O'Rourke attended the CAB meeting on March 23, 2016

Ms. O'Brien added that as indicated from two years ago when going through the operating budget, Ms. Parenteau will be having a rate discussion. RMLD is trying to get the information to the towns for their budgets. There will be a rate discussion as well as RMLD's Terms and Conditions. The RMLD's Terms and Conditions are being revised and have had legal review, but must be filed with the Department of Public Utilities (DPU) with the rates. Ms. O'Brien stated that Chris Pollart, Rubin and Rudman will be in attendance at the meeting for the Terms and Conditions. The rates and Terms and Conditions will be filed with the DPU for an implementation date of July 1.

Report of the Chairman of the Board

General Manager Vehicle Allowance

Chairman O'Rourke reported at a General Manager Committee meeting in October, one of the items discussed the transitioning out of a company vehicle to a vehicle allowance, but more data needs to be reviewed and will vote this at the next Board meeting.

Reorganization of RMLD Board

Chairman

Mr. Talbot made a motion seconded by Mr. Pacino to nominate Mr. O'Rourke for Chairman of the RMLD Board of Commissioners.

Mr. Pacino made a motion seconded by Mr. Stempeck to close the nomination.

Motion carried 5:0:0.

Mr. Talbot made a motion seconded by Mr. Pacino to nominate Mr. O'Rourke for Chairman of the RMLD Board of Commissioners.

Motion carried 5:0:0.

Vice Chairman

Chairman O'Rourke canvassed the Board members if there was any strong interest for Vice Chairman. Mr. Talbot said that he is happy to pass the baton. Mr. Stempeck added that whoever is Vice Chairman would segue into the Chairman position. Mr. Talbot commented that Mr. Hennessy could be considered, Mr. Hennessy said that he needs more experience. Mr. Talbot said that he would like that Mr. Pacino to be considered for Vice Chairman.

Mr. Pacino made a motion seconded by Mr. Stempeck to nominate Mr. Talbot for Vice Chairman of the RMLD Board of Commissioners. No vote was taken.

Chairman O'Rourke made a motion seconded by Mr. Stempeck to nominate Mr. Pacino for Vice Chairman of the RMLD Board of Commissioners.

Mr. Pacino made a motion seconded by Mr. Stempeck to close the nomination.

Motion carried 5:0:0.

Mr. Talbot made a motion seconded by Mr. Pacino to nominate Mr. Pacino for Vice Chairman of the RMLD Board of Commissioners.

Motion carried 5:0:0.

Audit (Including Town of Reading Audit)

Philip Pacino, Chair and serve on the Town of Reading Audit Committee

John Stempeck

Policy Committee

Dave Hennessy, Chair

Philip Pacino

David Talbot

General Manager Committee

Thomas O'Rourke, Chair

John Stempeck

David Talbot

The Account Payable and Payroll rotation will be changed to have Dave Hennessy to be in a non back up role and Phil Pacino will take over the backup role.

Mr. Pacino made a motion seconded by Mr. Stempeck that all the appointments be approved as presented, Audit Committee, Policy Committee General Manager Committee, Account Payable Warrant and Payroll.

Motion carried 5:0:0.

Report of the Chairman of the Board

Peak Reduction

Chairman O'Rourke said that the RMLD has various programs to address reducing peak reduction and capacity which provides tremendous opportunity for significant savings to the RMLD. Chairman O'Rourke stated that he would like Ms. O'Brien and the staff to make a presentation at the next Board meeting. The presentation could address what the RMLD has in place for the short term as well as for the long term to address peak reduction. From the presentation there can be discussion on what might be some reasonable expectations/goals. Chairman O'Rourke said that what he would like to see measures for improvement of peak reduction.

Chairman O'Rourke stated that he would like to have a presentation to address this. To set a goal, one has to understand the magnitude of opportunity. Once staff has made its presentation then it would be reasonable to set a goal of "X%" better, put a timeframe not as a punitive measure, but to establish a reasonable goal. Chairman O'Rourke noted that at the last Board meeting significant savings were discussed by reducing the peak by some incremental improvements.

Mr. Stempeck stated that it is reasonable to have a goal, however, by using a reasonable approach. By looking at the number of different opportunities the commission members have an idea of how some of these goals can be realized. For example, Mr. Talbot mentioned a more aggressive campaign for the hot water heater program there is not enough motivation to put special meters in homes. Maybe a trial program could be considered. The cost versus the payback would be from a public relations and marketing perspective. There could be a list of four or ten alternatives in which the commission members could weigh in on and put their thoughts on. Trying to predict peak power is difficult because you do not know when it is going to happen. Mr. Stempeck said that Mr. Talbot could weigh in to what other utilities are doing. It will be good to have a list of what would be real in aiding in peak reduction that could be accomplished at the RMLD.

Chairman O'Rourke pointed out that the challenge is that much of this is beyond the direct control with cross functional goals. This depends on others to achieve the goal. Part of the role is everyone has the same end game they want to achieve. Engaging the commission members in the peak reduction because much of this involves public response may assist in reducing the peak. Peak capacity is difficult to chase on any given day to mitigate the peak, not knowing the exact day or time in advance. Mr. Talbot stated that he would like to hear from Ms. O'Brien.

Ms. O'Brien stated that the Department has been working on a variety of programs. Some of them are within RMLD's ability to achieve, some we count on the public as well as commercial customers. We set up incentive programs with our commercial customers to curtail. They may not want to curtail that day because of their production. This is why the RMLD has more than one program to work in parallel to get the most out of each. Ms. O'Brien stated that Ms. Parenteau will be putting a list of what programs RMLD has and expect to do with them. If you have any general topics she would like to hear them now so they can be evaluated. Ms. O'Brien said that she likes goals, however, cautioned with goals there also can be barriers that will be described.

Mr. Talbot said that if he understands correctly, if the RMLD cuts a megawatt off the peak it was \$60,000 of savings last year, but this year it will be \$200,000. Ms. Parenteau said that \$200,000 is for capacity and transmission that is assuming the one month capacity peak and twelve months of transmission. Mr. Talbot stated that if the RMLD can save one megawatt, it is \$200,000 versus \$60,000 and if the RMLD can save five megawatts it will be \$1 million. Mr. Talbot said that the peak shaving is a priority for the organization. Mr. Talbot said that in three months there will be a peak coming up and the long term items will not kick in by that time. Mr. Talbot stated that he would like to have a broad-based communications plan enacted that can be implemented on the peak days as defined by ISO. Mr. Talbot said that as he understands it, on the morning of a likely peak day, ISO informs you that the peak could be that day. It is a handful of days over the summer, three to five days? Ms. Parenteau stated that is correct. The RMLD also has a partnership with Tangent where they have algorithms and models in which they notify the RMLD of a window of opportunity for both the transmission peak and annual peak. Mr. Talbot stated that the net effect of this is that are four to five days annually that the RMLD knows this could be where if four megawatts are shaved then the RMLD would save \$800,000. Ms. Parenteau clarified that it is six to eight per month for July and August, this is all heat related. Additionally, the \$800K includes 12 months of transmission reduction of 4 Mws each month. Mr. Talbot said that Concord Municipal Light Plant has a program on the morning of the likely peak days they have roll out a massive communications campaign to their customers. They have a social media platform and have hundreds of people who are ready to respond to the utility and respond the message out to the population. This costs nothing and could be implemented quickly especially where RMLD has Twitter. Ms. O'Brien stated that this is what the RMLD has been gearing up for this year. The RMLD has been running the campaign for the e-mails, implemented Twitter and for the peak day, the RMLD can communicate with the police departments for their reverse 911 systems and school systems to send out the notices. Mr. Talbot said that there was not a push last summer. Ms. Parenteau stated that it happened on the commercial side not necessarily on the residential side. Mr. Talbot said that is great RMLD has Twitter for outages, but also incorporate it for the peak reduction. Ms. O'Brien added that the intent of Twitter was for outages, peak reduction as well as REMVEC notifications. Ms. O'Brien reported that REMVEC sends out power warnings, power cautions if the ISO New England grid is not stable with sufficient capacity they will call for load reduction or other appeals that may not be coincident with the peak.

Report of the Chairman of the Board

Peak Reduction

Mr. Talbot said that he has been on the water heater demand controls for the past three years. Ms. Parenteau pointed out that the RMLD is working on the water heater demand program. They are doing an audit of the communication between the RMLD and the water heaters. Mr. Talbot said that there needs to be new ways to reach out to customers about this such as a social media campaign.

Mr. Talbot said that on peak days, peak reduction should be a priority. Mr. Hennessy asked Mr. Talbot if there is anything that the RMLD can learn from Concord. Mr. Talbot replied that he will provide the information he has from Concord. Mr. Talbot said that some of the measure may not only be the peak reduction, but also how well we were in reaching RMLD customers. Mr. Hennessy pointed out the wording selected by Concord affected responses from customers.

Mr. Talbot pointed out that in December, there was a seventy degree day and there could be many other similar weather anomalies. Mr. Talbot said that due to the weather changes, RMLD could get a prolonged heat wave that would cost RMLD money, enhanced RMLD communications could react to this. SmartGrid and voltage reduction are additional great tools to reduce the peak. Chairman O'Rourke asked what can be measured that would improve the reduction of the peak.

Ms. O'Brien clarified that the Department is going to present a chart that demonstrates what Integrated Resources programs are in addition to the recent seven additional programs that have been added within the last two year's programs. Ms. O'Brien said that the hot water heater program is not as simple as putting in a water heater module. An electrician came in to the RMLD to perform training on the water heater program. Ms. O'Brien explained that Ms. Parenteau will have a chart that shows a component of RMLD's peak demand program, here is where we are, the communications systems, barriers for implementation and what we expect/goal, this is how it was achieved. The RMLD is an electric utility, not electricians and there are lines of demarcation on the program; RMLD and customer ownership and responsibilities, i.e., loss of hot water, etc.

Chairman O'Rourke said that he would like Ms. O'Brien and Ms. Parenteau to provide the Board with the information peak reduction programs via the informational presentation and at that point the Board can provide some input for more or less.

Mr. Chrisos stated that what Ms. O'Brien has outlined relative to the whole communication program is great. Mr. Chrisos pointed out that there should be a specific communications plan specific to address notifications to all the customers in the town's specific to those days, forget about the water heater for a minute and commercial customers. Mr. Chrisos said that what he heard when you get a communications plan and say hypothetically, July 10 when the expected peak is going to happen, Twitter, e-mails whatever, a simple plan that can be communicated to everyone instantly. Ms. O'Brien said that last year, the RMLD ran a campaign to encourage the increase in e-mails from customers as a mode of communication. Constant Contact, the town's 911 system will be utilized. Ms. O'Brien said that the database is being built. If you were to check with Concord, they have a great communications program they have been working on e-mails and texts for a long time. Mr. Talbot said that it is not only a top down operation from Ms. O'Brien and Ms. Parenteau. Mr. Talbot pointed out that in Reading, there is a Parent's Network on Facebook page he could post it himself and this will spread the message incrementally causing leveraging. Mr. Talbot mentioned that the Climate Committee is another source to get this information out. Chairman O'Rourke said that once the RMLD Board has the peak reduction presentation then the CAB will see it to get their support. Ms. O'Brien agreed.

Report of RMLD Board Committee

Fiber Optic Committee Meeting – Vice Chair Talbot

Mr. Talbot reported that Raj Singh an unpaid consultant from RDDI spoke at the last Fiber Optic Committee meeting. The concept is to see if there is a market for internet access product down the road. The first step is to examine what the cost is to provide service to a business zone to see what it would cost the RMLD to undertake this endeavor and what the market opportunity might be. This economic development emphasis would be the rationale. Fiber is a tool for economic development as well as load growth to attract businesses. Mr. Talbot noted that Mr. Singh submitted a very low cost proposal for a section of Wilmington. It would give the RMLD a sense of where RMLD has its existing fiber and the cost of installing drops to the industrial area of Wilmington. Chairman O'Rourke noted that at the Fiber Optic Committee meeting there were ideas, suggestions and discussion on what possible location to put the fiber. The consensus of the Board was the best way to get their arms around this was to have a pilot. The cost for the study is \$9,000. Mr. Talbot pointed out that seven other Massachusetts municipalities are offering internet connection. Ms. O'Brien clarified that she is under the impression that this falls into economic development for electric RMLD growth. The Board agreed. Mr. Talbot said that this is for the benefit for the four communities RMLD serves. Mr. Pacino added that the main goal is for the electric growth. Mr. Pacino said that with added conservation efforts to mitigate rate increases the RMLD needs growth. Mr. Talbot said that the primary mission at the RMLD is to have a sustainable business which primarily consists of selling electricity, load growth translates into more electric sales by attracting businesses with fiber. Ms. O'Brien stated that part of the scope for Mr. Singh would be to look at the economic development and growth of RMLD's electric sales. Ms. O'Brien said that the RMLD does look at how it can add to its customer base. Chairman O'Rourke said that one of the questions that was raised and he is unsure if it was answered was that it comes to the cost profile what the dedicated cost versus allocated costs to RMLD for this type of program. What would be the additional staff that would be required for the purpose of fiber optics?

Report of RMLD Board Committee

Fiber Optic Committee Meeting – Vice Chair Talbot

Ms. O'Brien said that drops of RMLD's existing fiber loop is a good test, but if the next phase should arise, Mr. Pollart from Rubin & Rudman would have to come in to discuss the legalities of separating the two businesses. Mr. Talbot suggested discussing this on an informal basis, Jim Lavelle, Holyoke Gas & Electric Department and Ken Goulart from Taunton Municipal Lighting Plant who could provide overview from their practical experience.

Approval of Board Minutes

October 29, 2015 and December 10, 2015

Mr. Pacino made a motion seconded by Mr. Stempeck to approve the Regular Session meeting minutes of October 29, 2015 as presented.

Motion carried 5:0:0.

Mr. Pacino made a motion seconded by Mr. Stempeck to approve the Regular Session meeting minutes of December 10, 2015 as presented.

Motion carried 5:0:0.

Ms. O'Brien requested that the Financial Report and the IFB 2016-22 Mailing Services for Municipal Electric Bills be taken out of order.

Financial Report – January and February 2016 – Ms. Markiewicz (Attachment 1)

Ms. Markiewicz reported on the February 2016 Financial Report. Ms. Markiewicz stated that Net Income or positive change in Net Assets was \$369,181 thereby increasing the year to date Net Income to \$888,648. The graph shows the actual to budgeted fluctuation patterns by month due to timing and other variables. The year to date budgeted Net Income was \$2.3 million, resulting in Net Income being under budget by \$1.4 million or 61.54%. This graph reflects the year to date budgeted amounts to actual were pretty accurate until the last couple of months because MMWEC recently started increasing their work in capital requirements which increased the RMLD's capacity expense.

Year to date Base Revenues exceeded the budgeted amount by \$207,400 or 1.31%. Actual Base Revenues were approximately \$16 million compared to the budgeted amount of \$15.8 million showing Base Revenues to be very close to budget. Year to date Purchased Power Base expense was over budget by \$738,000 or 3.6%. Actual Purchased Power Base costs were \$20.4 million and budgeted Power Base costs were \$21.1million.

The Purchased Power Fuel expense was over budget by \$85,000. Actual Purchased Power Fuel was \$24 million and the budgeted cost was \$23.9 million.

The Operating and Maintenance expenses combined were under budget by \$801,000 or 8.2%. Actual Operating and Maintenance expenses were \$9 million while budgeted expenses were \$9.8 million. Energy Conservation was under budget by \$245,000 due to the timing of the process in the programs. Tree trimming expense is under budget by \$195,000 due to the lack of any major storms.

Hazardous Waste was under budget by \$136,000 there haven't been any major hazardous material expenses. Maintenance of Garage & Stockroom was under budget by \$85,000 because the lift equipment hasn't been removed.

Overall cash is a very healthy \$36.3 million. The pie chart shows the percentage and amount of each account. The Operating Fund was \$14.6 million, the Capital Fund \$5.5 million, Rate Stabilization Fund was \$6.8 million, Deferred Fuel Fund was \$3.6 million and Energy Conservation Fund was \$743,643. The year to date kilowatt hour sales were 461.9 million which is 14.4 million kilowatt hours or 3.1% behind last year's actual figures.

Ms. O'Brien commented that Ms. Markiewicz did a great job with the charts. The Board concurred.

IFB 2016-22 Mailing Services for Municipal Electric Bills – Mr. Fournier

Mr. Fournier reported that the RMLD went out to bid mid-January sending out fifteen bids with four responses. Before the bid was awarded, the RMLD tested to make sure the potential vendor could perform the billing function to RMLD's standards. Chairman O'Rourke asked how many customers are paying online. Mr. Fournier responded that approximately 6,000 customers are paperless of the 29,000 accounts. Mr. Fournier said that the RMLD does pay for the paperless customers for a minimal fee to Invoice Cloud. Mr. Fournier said that RMLD has provided some incentive for customers in the past to sign up for paperless billing such as an iPod or iPad.

Mr. Stempeck asked if the vendor has a minimum quantity and is it a fixed or variable cost. Mr. Fournier responded that it is a variable cost based on the amount processed. Chairman O'Rourke asked what is the bid pricing compared to the previous vendor.

Financial Report – January and February 2016 – Ms. Markiewicz (Attachment 1)

IFB 2016-22 Mailing Services for Municipal Electric Bills – Mr. Fournier

Mr. Fournier replied that the current proposed vendor came in significantly lower. Chairman O'Rourke asked if using a mail service is a recent occurrence at the RMLD. Mr. Fournier responded that the RMLD has utilized mailing services over the last three years.

Mr. Talbot asked what the savings would be. Mr. Fournier replied that the cost with this new vendor would be \$10,000 to \$12,000 annually.

Mr. Pacino made a motion seconded by Mr. Stempeck that IFB 2016-22 - Mailing Services for Municipal Electric Bills be awarded to Data Integrators for \$55,332 for a three (3) year total (\$18,444/year), as the lowest qualified, responsive and responsible bidder on the recommendation of the General Manager.

Motion carried 5:0:0.

General Manager's Report – Ms. O'Brien

Ms. O'Brien said that she wanted to clarify Mr. Fournier's statement in which there was a raffle for iPod for anyone signed up for a certain period of time for paperless billing, it will not be an iPod per person, but the customers who sign up will be on a lottery pool for one iPod. This incentive is being used to expand RMLD's electronic customer contact database.

Ms. O'Brien said that the Operating and Capital Budgets will be sent electronically with the exception of the capital summary sheet due to its physical layout. Ms. O'Brien said that Ms. Rybak did a great job on the Capital Budget.

Organizational and Reliability Study Update

Ms. O'Brien stated that Mr. Jaffari is not present at this meeting because he is teaching a class for ECNE to keep local power engineers up to date and safe.

Ms. O'Brien said that she has provided timelines for Leidos on the Organizational Study side and Booth & Associates on the Reliability Study. As requested by the CAB, once a quarter an update would be provided. Ms. O'Brien commented that such items listed such as changing corporate culture cannot be committed to quarter one due to the fact this is an ongoing process of training, team meetings, Career Development Plans, etc. Ms. O'Brien asked the Board if they have any questions. Chairman O'Rourke said that some of the items listed are journeys, then asked are there some items that are overdue. Ms. O'Brien responded that for the Organizational Study timeline it is more the recommendations made which the RMLD accepted. Ms. O'Brien said that everything is being addressed; the recommendations have been started and are being implemented in parallel.

Mr. Hennessy clarified that in the Organizational and Reliability study, "Provide management and leadership training" some of that is currently being done this quarter. Ms. O'Brien responded that training has and is being provided to management. Mr. Hennessy asked who participates in the management training. Is the General Manager's Direct Reports or engineering management. Ms. O'Brien explained that with Leidos recommendation, each employee has a Career Development Program. Ms. O'Brien provided an example of a Leader Lineman they will have the first level of supervisory training in a management class provided by Fred Pryor. Ms. O'Brien said that the goal has been met by implementing training in each employees' training schedule and budgeted for implementation. Mr. Hennessy clarified that it is customized for each employee. Ms. O'Brien concurred.

Ms. O'Brien said that as far as the Booth & Associates Study on the Reliability side, Mr. Jaffari is not present, but he has addressed the items that were accepted by the RMLD. RMLD came up with alternate solutions that were more efficient and cost effective to achieve those means and objectives. Ms. O'Brien said that Mr. Jaffari has completed many items and others are in progress. Ms. O'Brien said that at the CAB meeting there was a question relative to a safety issue relative to the grounding of all the fences at the substations which has been completed.

Chairman O'Rourke said that he likes the spreadsheet format because it holds everyone accountable.

Ms. O'Brien said that the RMLD is almost completed with the Career Development process. Many of the job descriptions have been updated, wages evaluated, etc. The triangulation of market value, job description and Career Development has been sent back to Leidos for review. Ms. O'Brien explained that Leidos is in the second phase of this process. They are assisting the RMLD to verify what RMLD has completed, working as an independent review which has been a big undertaking. Ms. O'Brien said that Leidos has just sent a spreadsheet back to RMLD outlining their comments on job descriptions, etc.

Chairman O'Rourke asked relative to Leidos, is it a fix fee based. Ms. O'Brien explained that the Leidos scope was in phases. Ms. O'Brien pointed out that Booth's work is completed. Ms. O'Brien said that the last phase Leidos will support the process/co-manage the strategic plan. There is buy in for the strategic plan when it is written by the company.

RMLD Surplus

Ms. O'Brien reported that under the Reading Municipal Light Department's (RMLD's) Policy #2, Surplus Material, the RMLD has available to offer the following at a fair market value price of \$2,000.00, Spacesaver High-Density Mobile storage system,

RMLD Surplus

Manufacture: Systematics, Inc. A Systec Partner, Authorized Sales and Service 800-229-8393, Size: Four Units 86”h x 40”w x 24”d, One unit 88”h x 40”w x 16”d. A photo of the system was sent out with the surplus offer. If the towns want to view the system they can contact Paula O’Leary. This item is being offered on a first come, first served basis to all four RMLD service communities. Ms. O’Brien said that this unit is a file rack that you would see in a doctor’s office with hanging file folders. That area of the building is being reorganized for a more efficient use of that space. Ms. O’Brien reported that this is in conjunction with the fact that the RMLD had a records retention program to eliminate paper that was permissible under Records Retention law. A company came out to onsite shredding for the RMLD as part of this effort. Ms. O’Brien pointed out that once the files are pulled out the tracks cannot be reused, it is also on Municibid and if there is no interest it will become scrap.

Change in RMLD Board Meeting Schedule

Ms. O’Brien reported that the change in the RMLD Board meeting schedule has been discussed with the CAB as well. Technically, the RMLD receives information from MMWEC on power supply on the twentieth of the month. Currently, we have been jumping through hoops to get the data, but she and the team feel the data has not been scrubbed in a manner for quality control. Ms. O’Brien said that the CAB could meet on the first week of the month then the Board could meet thereafter, the second week of the month. This way the Board is getting information that is scrubbed and staff has had a meeting to go over the numbers. Ms. O’Brien said that we are trying to present to the CAB then to the Board, similar to the budget process. Ms. O’Brien pointed out that the CAB has requested the Financial Report be part of their meeting.

Chairman O’Rourke asked what the delta to pushing this out is. Ms. O’Brien replied two weeks. Mr. Hennessy added instead of the last week of the month, it will be the second week of the following month. Chairman O’Rourke said that he is in favor of this for the efficiency, the only downside is that it minimizes response time to react to things in a timely manner, he does not see that as critical. Chairman O’Rourke pointed out that if you are looking at January Financials in the second week of March, it is a longer rear view look if there was a poor month, for revenue enhancement and cost reduction it would be a delayed response from the Board. Mr. Pacino stated that if there is anything that came up the General Manager would react before a Board meeting and get in touch with the Chair. Ms. O’Brien noted that the problem is the timing of when RMLD receives the power supply numbers.

Mr. Stempeck asked what is taking MMWEC so long with its billings. Ms. Parenteau explained that the MMWEC billings can sometimes come out on the fourteenth or the fifteenth whereas there are times it does not come out until the twenty third. Ms. Parenteau stated that it is a manual process, what the holdup is, they have entitlements with Seabrook and Millstone and depend on Florida Power and Light as well as Dominion to get additional information. Mr. Stempeck asked about the process. Ms. Parenteau commented that MMWEC posts a memorandum invoice on their website which RMLD is able to access when we work on purchase power. With the ISO, RMLD receives its monthly bill the middle of the month as well, it is a reconciliation issue. Ms. O’Brien explained that the transactions in power supply, the matrix of the end users versus all the generators must be reconciled.

RMLD’s Office 365: SharePoint and Dashboard

Ms. O’Brien presented dashboards that were illustrative in nature. Ms. O’Brien said that the RMLD has been building dashboards. The places RMLD is currently getting its information is from Cogsdale, RMLD’s billing system and Great Plains RMLD’s financial system. The second system RMLD is working on is the GIS system and is making headway with that, performing a pilot circuit. Next is building the SharePoint to be paperless internally, policies and procedures. With the dashboard you can retrieve data from any one of the buckets. You bring that data in for the data you need. The CAB and RMLD Board will have their own dashboards as well as the division managers. Outages will also be on the dashboards. Ms. O’Brien said that Eastern Utilities came in and presented their dashboard to the RMLD in the past. Ms. O’Brien said that she would like Eastern Utilities to come in or video conference a presentation on their dashboard again. RMLD will start to build out its website once the dashboards have been completed which will have more of a professional look and be more streamlined.

Mr. Stempeck asked if RMLD has a software developer onsite. Ms. O’Brien said that Mark Uvanni has set up all the SharePoint and the current dashboards.

Ms. O’Brien asked the Board to think of what they may want to see. Chairman O’Rourke thought this is great and the commission members will provide input after the presentation.

Chairman O’Rourke asked if there is currently a RMLD Board dashboard. Ms. O’Brien replied that it is currently being developed. Chairman O’Rourke said that the RMLD has done a great job of the elimination of paper for the Board, but is hoping that SharePoint will augment this.

Ms. O’Brien said that there have been insurance issues lately, nothing concerning, but enough for her to have a better understanding of the PURMA insurance for utilities better. There is a one overnight training in which she needs approval, Paula O’Leary will be attending as well. When the RMLD has a pole hit subrogation is done internally and the recovery rate is not optimal. The RMLD may have PURMA help them with that and she needs to understand the process and how other utilities are handling similar issues.

General Manager's Report – Ms. O'Brien

RMLD's Office 365: SharePoint and Dashboard

Mr. Pacino made a motion seconded by Mr. Stempeck to authorize the General Manager's to attend the PURMA program being held in Vermont.

Motion carried 5:0:0.

Ms. O'Brien reported on the Earth Day, Alternative Energy/Home & Car, sponsored by the Reading Climate Advisory Committee will be held on Saturday, April 23, 10 a.m. to 2 p.m. at the RMLD, 230 Ash Street, Reading. Home Presenters: Solar options, heat pumps, geothermal, and biomass sources of alternative energy will be represented. Also, energy audits, RMLD rebate offers and LED bulbs display. Auto Presenters: Plug-in hybrids and all electric vehicles from local dealers to include (possibly others): Chevy Volt, hybrid, 53 mile range, battery only, BMW i3, all electric, 80 – 100 mile range, Tesla, all electric, 270 mile range. If you have any questions regarding Earth Day, please send an email to readingmassccp@hotmail.com.

Power Supply Report – January and February 2016 – Ms. Parenteau (Attachment 2)

Ms. Parenteau reported that for the January report, RMLD looked at heating degree days because weather is a big driver for electric usage. Heating degrees indicates when home heating is typically used. It takes the day's average temperature the high and low and divides it by two, it takes that number and subtracts it from 65 to show the number of heating days. In January 2012-2014 it has been trending up, but has been a steady decrease since that timeframe. The graph shows the heating degree days and RMLD's peak demand.

The next graph looks at kilowatt sales versus heating degree days for the timeframe January 2012-2016. Ms. Parenteau pointed out that January is typically a cold month, this past January was considerably mild. The average heating days were slightly above 1125 compared to a peak of over 1375. Mr. Chrisos commented that this January is one of the top five mildest winters on record since the year 1888. Ms. Parenteau said that this winter was extremely mild and has a large impact on sales.

The last graph looks at peak demand for calendar year 2015 and how RMLD's peak varies by season. The RMLD is definitely a summer peaking system which occurs in July or August which is weather related. It compares the peak for the winter and summer, the peak drops down during the months of October to November timeframe.

Ms. Parenteau reported that this slide is for RMLD's renewable portfolio fiscal years 2014-2015 versus February. One thing to look at was RMLD's power supply portfolio and how its renewable projects increased over last fiscal year up until February 2016. Hydro for fiscal years 2014-2015, 8.6%, the month of February 2016, 11.1% of hydro. With wind the RMLD barely had anything for fiscal years 2012-2015, this February there are two projects, Jericho Wind which came online in December as well as Saddleback that has been online for approximately one year. That brought the wind percentage to 4.2%. In fiscal year, 2012-2015 there was no solar in RMLD's portfolio, now we have .2%.

The graph shows the renewable resources by type in a pie graph view. What is interesting to point out is the amount of system power RMLD takes is about the same, but if you look at February of this year particularly with the oil and natural gas, the RMLD went from 4% in the fiscal year to less than .5% which is weather related. There was not a lot of oil and gas that needed to run in the prior timeframes.

The last graph looks at RMLD's imbedded costs there has been a decline which is weather related. The past two winter periods were extremely cold in February, there was natural gas constraints within this region where the ISO had to go out and procure oil and liquefied natural gas as back up. This year ISO followed its previous strategy, but it was not necessary to implement that and had a direct correlation to pricing. The pricing was typically a little over 6.5 cents for imbedded power supply, but came down to 5.5 cents that is passed through to our consumers. Mr. Stempeck commented that in terms with the renewables the RMLD is making very good progress for the goals it has for renewables. Ms. Parenteau replied that is correct. We look at the embedded costs as one of the directives Ms. O'Brien has given when we evaluate potential renewable projects, but keep them cost effective projects within the portfolio.

Ms. O'Brien said that the charts were well done. Ms. Parenteau thanked Ms. Lamson and Ms. McHugh for their efforts.

Engineering and Operations Report January and February 2016 – Mr. Jaffari (Attachment 3)

Deferred in the absence of Mr. Jaffari and there were no questions by the Board.

RMLD Procurement Requests Requiring Board Approval (Attachment 4)

IFB 2016-16 Electric Forklift with Battery Charger and Trade-In

Mr. Pacino asked if there is trade in with this bid. Ms. O'Brien responded that the RMLD is getting \$3,000 for a 1995 Clark electric forklift which has served its useful life and over the past seven years the RMLD has spent \$14,000 in repairs that the RMLD is trading in. The current forklift has issues such as tilt control inconsistent, sudden jerking motion, unit lost ability to move sharply, challenging lag time and most problematic is that the unit has been used hard and used outside daily creating more wear and tear.

RMLD Procurement Requests Requiring Board Approval (Attachment 4)

IFB 2016-16 Electric Forklift with Battery Charger and Trade-In

Mr. Pacino made a motion seconded by Mr. Stempeck that IFB 2016-16 for one Electric Forklift with Battery Charger with Trade-In be awarded to Lift Truck Parts & Service for \$30,477.02 as the lowest qualified and responsive bidder on the recommendation of the General Manager.

Motion carried 5:0:0.

IFB 2016-25 Substation Control Devices

Mr. Pacino made a motion seconded by Mr. Stempeck that IFB 2016-25 for Substation Control Devices be awarded to WESCO for a total cost of \$44,544.00 as the lowest qualified bidder on the recommendation of the General Manager.

Motion carried 5:0:0.

General Discussion

There was none.

BOARD MATERIAL AVAILABLE BUT NOT DISCUSSED

E-Mail responses to Account Payable/Payroll Questions

Rate Comparisons, February and March 2016

RMLD Board Meetings

Thursday, May 12, 2016, 6:30 pm Operational Budget, Terms and Conditions, Rate Discussion and Board Meeting

Thursday, May 19, 2016, 6:30 pm Capital Budget and Board Meeting

No April meeting.

RMLD Board Policy Committee Meeting

To be determined.

CAB Meetings

Wednesday, April 6, 2016, Operating Budget Review

Wednesday, April 13, 2016, Capital Budget Review – To be covered by Commissioner Hennessy

Wednesday, May 4, 2016, Regular Meeting

Executive Session

At 9:30 p.m. Mr. Pacino made a motion seconded by Mr. Stempeck that the Board go into Executive Session to approve the Executive Session meeting minutes of October 29, 2015 and December 10, 2015 discuss strategy with respect to collective bargaining and return to Regular Session for the sole purpose of adjournment.

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

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

Motion carried 5:0:0.

Adjournment

At 9:45 p.m., Mr. Pacino made a motion seconded by Mr. Talbot to adjourn the Regular Session.

Motion carried 5:0:0.

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

POWER SUPPLY REPORT
ATTACHMENT 2

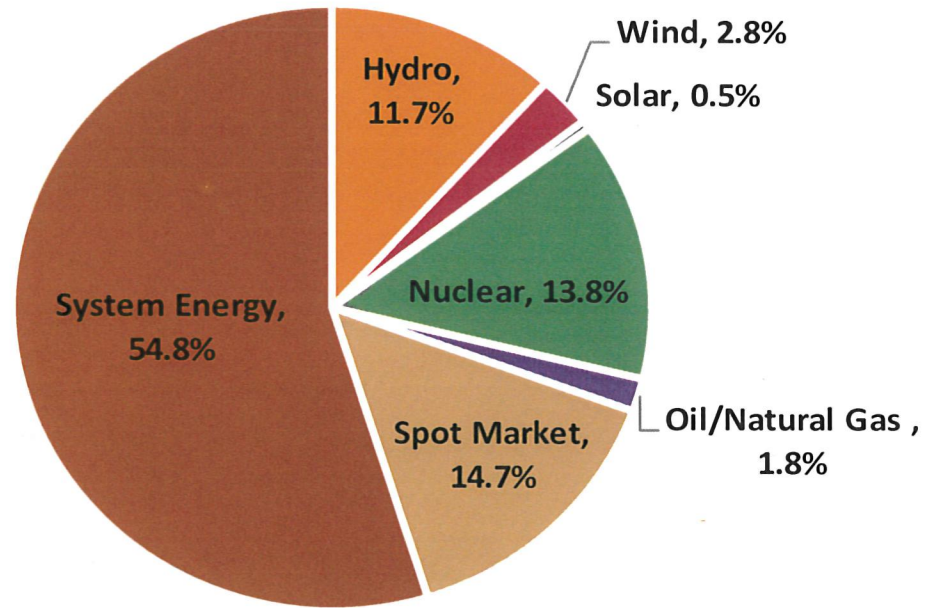


INTEGRATED RESOURCES

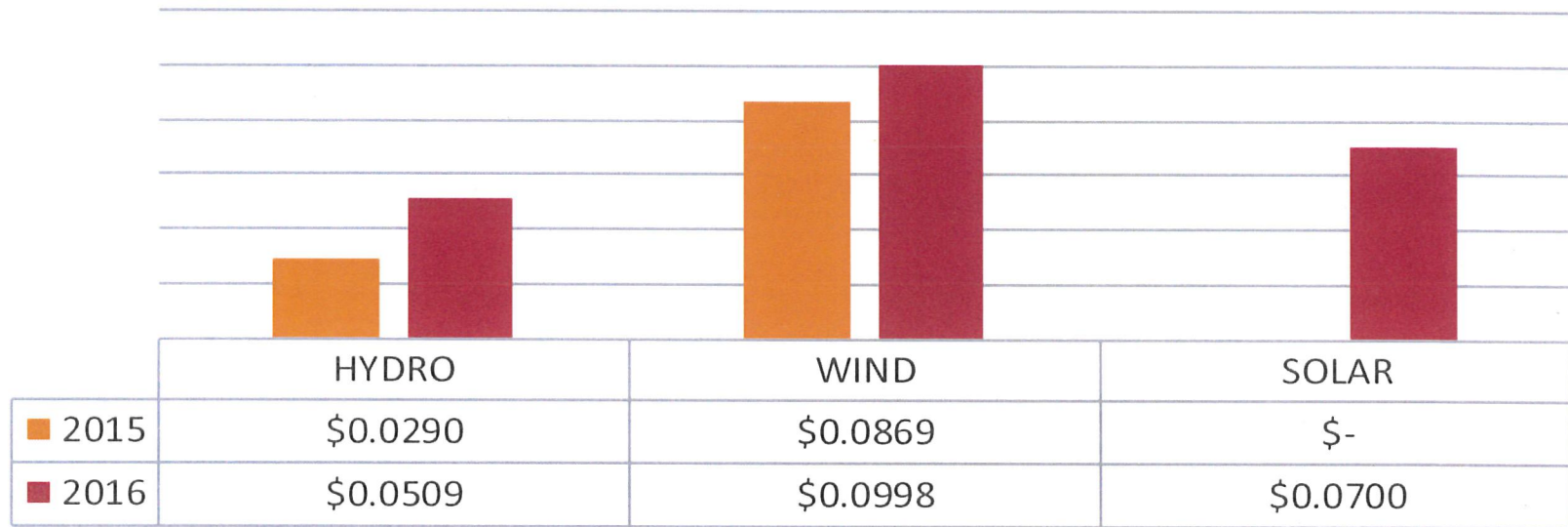
July 28, 2016
RMLD Board of Commissioners Meeting
Reporting for May, 2016

Jane Parenteau
Director of Integrated
Resources

MAY 2016



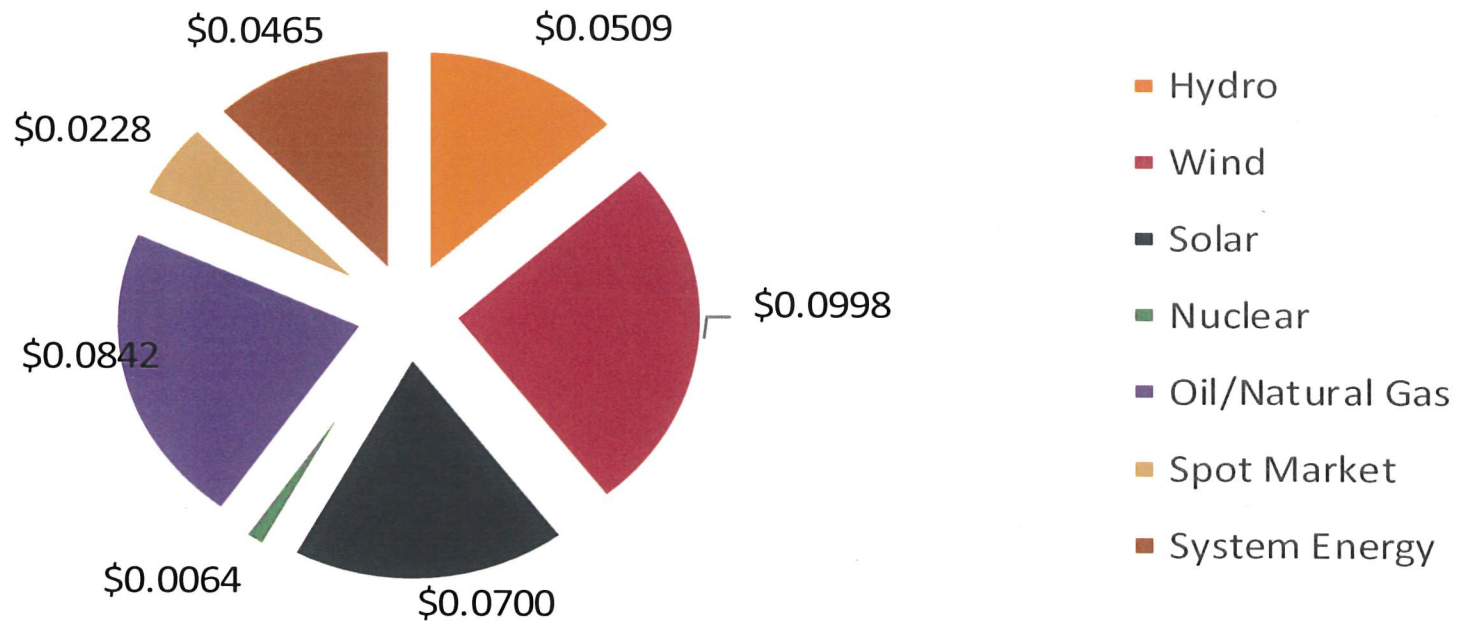
May 2015 vs. May 2016




Renewable costs per kWh

2015 2016

May 2016
Imbedded Fuel Cost (\$/kWh) per Resource



To: Coleen O'Brien

From:  Maureen McHugh, Jane Parenteau

Date: July 13, 2016

Subject: Purchase Power Summary – May, 2016

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

ENERGY

The RMLD's total metered load for the month was 54,323,179 kWh, which is a 7.79% decrease from the May, 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	1,632,287	\$6.71	2.99%	\$10,953	0.56%
Seabrook	5,911,394	\$6.32	10.83%	\$37,360	1.92%
Stonybrook Intermediate	294,840	\$120.85	0.54%	\$35,632	1.83%
Shell Energy	9,086,400	\$63.50	16.64%	\$576,979	29.67%
NYPA	2,861,732	\$4.92	5.24%	\$14,080	0.72%
ISO Interchange	8,007,420	\$22.80	14.67%	\$182,548	9.39%
NEMA Congestion	0	\$0.00	0.00%	-\$254,777	-13.10%
Coop Resales	17,884	\$126.70	0.03%	\$2,266	0.12%
BP Energy	8,036,400	\$46.90	14.72%	\$376,907	19.38%
Hydro Projects*	3,520,132	\$88.26	6.45%	\$310,685	15.97%
Braintree Watson Unit	605,872	\$51.99	1.11%	\$31,502	1.62%
Saddleback/Jericho Wind	1,502,261	\$99.79	2.75%	\$149,912	7.71%
One Burlington Solar	262,325	\$70.00	0.48%	\$18,363	0.94%
Exelon	12,805,200	\$34.28	23.45%	\$438,925	22.57%
Stonybrook Peaking	57,768	\$235.22	0.11%	\$13,588	0.70%
Monthly Total	54,601,915	\$35.62	100.00%	\$1,944,922	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 May, 2016.

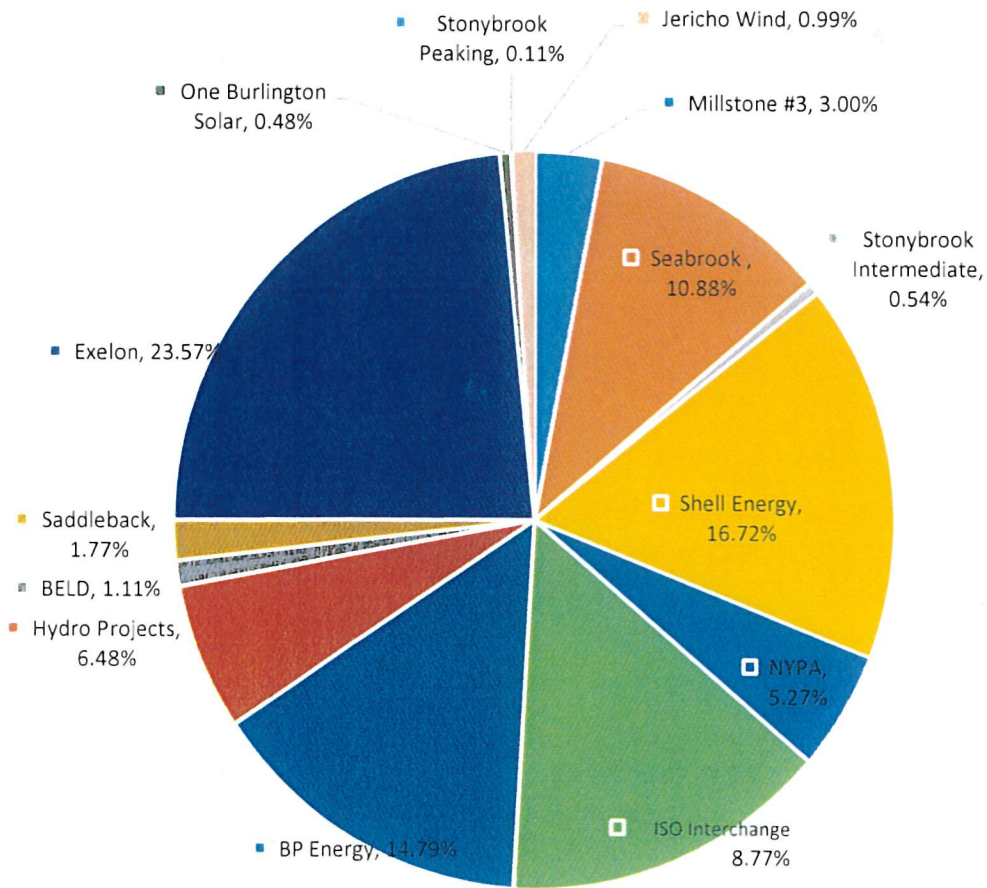
Table 2

Resource	Amount of Energy (kWh)	Cost of Energy (\$/Mwh)	% of Total Energy
ISO DA LMP *	7,010,719	\$28.33	12.84%
RT Net Energy ** Settlement	996,701	\$14.23	1.83%
ISO Interchange (subtotal)	8,007,420	\$22.80	14.67%

* Independent System Operator Day-Ahead Locational Marginal Price

** Real Time Net Energy

MAY 2016 ENERGY BY RESOURCE



CAPACITY

The RMLD hit a demand of 120,445 kW, which occurred on May 31, at 6 pm. The RMLD's monthly UCAP requirement for May, 2016 was 224,094 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	30.84	\$152,663	9.86%
Seabrook	7,910	38.53	\$304,789	19.68%
Stonybrook Peaking	24,981	1.93	\$48,181	3.11%
Stonybrook CC	42,925	7.08	\$303,870	19.62%
NYPA	4,019	4.19	\$16,834	1.09%
Hydro Quebec	0	0	\$16,855	1.09%
Nextera	60,000	5.90	\$354,000	22.85%
Braintree Watson Unit	10,520	12.02	\$126,431	8.16%
ISO-NE Supply Auction	66,787	3.38	\$225,462	14.55%
Hydro Projects	2,002	0.00	\$0	0.00%
Total	224,094	\$6.91	\$1,549,085	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	\$10,953	\$152,663	\$163,615	4.68%	1,632,287	0.1002
Seabrook	\$37,360	\$304,789	\$342,149	9.79%	5,911,394	0.0579
Stonybrook Intermediate	\$35,632	\$303,870	\$339,503	9.72%	294,840	1.1515
Hydro Quebec	\$0	\$16,855	\$16,855	0.48%	-	0.0000
Snell Energy	\$576,979	\$0	\$576,979	16.51%	9,086,400	0.0635
NextEra	\$0	\$354,000	\$354,000	10.13%	-	0.0000
* NYPA	\$14,080	\$16,834	\$30,914	0.88%	2,861,732	0.0108
ISO Interchange	\$182,548	\$225,462	\$408,010	11.68%	8,007,420	0.0510
Nema Congestion	-\$254,777	\$0	-\$254,777	-7.29%	-	0.0000
BP Energy	\$376,907	\$0	\$376,907	10.79%	8,036,400	0.0469
* Hydro Projects	\$310,685	\$0	\$310,685	8.89%	3,520,132	0.0883
Braintree Watson Unit	\$31,502	\$126,431	\$157,933	4.52%	605,872	0.2607
* Saddleback/Jericho	\$149,912	\$0	\$149,912	4.29%	1,502,261	0.0998
* One Burlington Solar	\$18,363	\$0	\$18,363	0.53%	262,325	0.0700
Coop Resales	\$2,266	\$0	\$2,266	0.06%	17,884	0.1267
Exelon Energy	\$438,925	\$0	\$438,925	12.56%	12,805,200	0.0343
Stonybrook Peaking	\$13,588	\$48,181	\$61,769	1.77%	57,768	1.0693
Monthly Total	\$1,944,922	\$1,549,085	\$3,494,007	100.00%	54,601,915	0.0640
* Renewable Resources					14.92%	

RENEWABLE ENERGY CERTIFICATES (RECs)

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

Table 5
RECs Summary
Period - January 2016 - May 2016

	Banked RECs	Projected RECs	Total RECs	Est. Dollars
Woronoco	1,076	5,030	6,106	\$152,650
Pepperell	714	3,004	3,718	\$92,950
Indian River	690	1,474	2,164	\$54,100
Turners Falls	1,377	1,251	2,628	\$0
Saddleback	4,348	6,694	11,042	\$276,050
Jericho	0	3,817	3,817	\$95,425
Sub total	8,205	21,270	29,475	671,175
RECs Sold	\$0		0	\$0
Grand Total	8,205	21,270	29,475	\$671,175

*RMLD sold 18,640 RECs for a total of \$695,538.25 in calendar year 2015.

TRANSMISSION

The RMLD's total transmission costs for the month of May, 2016 were \$865,693. This is a decrease of 3.73% from the April transmission cost of \$834,561. In May, 2015 the transmission costs were \$613,139.

Table 6

	Current Month	Last Month	Last Year
Peak Demand (kW)	120,445	93,804	138,424
Energy (kWh)	54,601,915	50,971,493	58,248,608
Energy (\$)	\$1,944,922	\$2,149,376	\$2,012,239
Capacity (\$)	\$1,549,085	\$1,457,057	\$1,547,092
Transmission(\$)	\$865,693	\$834,561	\$613,139
Total	\$4,359,700	\$4,440,995	\$4,172,470

ENERGY EFFICIENCY

Table 7 shows the comprehensive results from the Energy Conservation program. The amount of savings is broken down by both demand and energy for the Commercial and Residential sectors.

Table 7				Total \$		Total		Total \$			
Commercial	Year	Capacity Saved (kW)	Energy Saved (kwh)	Capacity	\$/kW	Energy	\$/kWh	Rebate	Rebate/kWh	Rebate/kWh	Cost Benefit
Total to date	FY07-15	25,966	102,495,709	\$ 2,557,553		5,550,957		\$ 1,732,385	\$ 1.59	\$ 5,334.73	\$ 6,376,125
Current	FY16	223	903,888	\$ 30,673	\$ 11.45	54,233	\$ 0.06	\$ 186,611	\$ 0.22	\$ 738.75	\$ (129,898)
Residential											
Total to date	FY07-15	4,513	3,642,362	\$ 787,845		329,349		\$ 718,531	\$ 0.20	\$ 159.22	\$ 398,663
Current	FY16	127	53,235	\$ 17,516	\$ 11.45	3,194	\$ 0.06	\$ 71,535	\$ 2.46	\$ 1,025.96	\$ (110,084)
Total											
Total to date	FY07-15	30,479	106,138,071	\$ 3,020,981		5,740,107		\$ 2,846,612	\$ 0.03	\$ 93.40	\$ 5,914,476
Current	FY16	351	957,123	\$ 48,189	\$ 11.45	57,427	\$ 0.06	\$ 258,146	\$ 0.39	\$ 1,056.95	\$ (265,079)

Table 8 shows the breakdown for residential appliance rebates by type and year.

Table 8																								
Year	Washing Machine		Refrigerator		Dishwasher		Dehumidifier		Central A/C		Window A/C		Thermostat		Audits		Renewable		Air Source Heat Pump		HP Water Heater		Fan	
	QTY	Dollars	QTY	Dollars	QTY	Dollars	QTY	Dollars	QTY	Dollars	QTY	Dollars	QTY	Dollars	QTY	Dollars	QTY	Dollars	QTY	Dollars	QTY	Dollars	QTY	Dollars
2007																								
2008	86	\$ 4,300	47	\$ 2,350	55	\$ 2,750	7	\$ 175	17	\$ 1,700	10	\$ 250	23	\$ 230	107	\$ 14,940								
2009	406	\$ 20,300	259	\$ 12,950	235	\$ 11,750	40	\$ 1,000	41	\$ 4,100	50	\$ 1,250	114	\$ 1,140	107	\$ 14,940								
2010	519	\$ 25,950	371	\$ 18,550	382	\$ 19,100	37	\$ 925	64	\$ 6,400	49	\$ 1,225	127	\$ 1,270	64	\$ 8,960	6	\$ 20,700						
2011	425	\$ 21,250	383	\$ 19,150	313	\$ 15,650	47	\$ 1,175	57	\$ 5,700	65	\$ 1,625	118	\$ 1,180	180	\$ 26,960	4	\$ 18,000						
2012	339	\$ 16,950	354	\$ 17,700	289	\$ 14,450	38	\$ 950	44	\$ 4,400	56	\$ 1,400	105	\$ 1,050	219	\$ 32,731	3	\$ 14,000			9	\$ 2,250	3	\$ 30
2013	285	\$ 14,250	336	\$ 16,800	311	\$ 15,550	29	\$ 725	24	\$ 2,400	54	\$ 1,350	57	\$ 570	375	\$ 75,000	3	\$ 15,000	19	\$ 1,900	4	\$ 1,000	5	\$ 50
2014	322	\$ 16,100	333	\$ 16,650	298	\$ 14,900	27	\$ 675	38	\$ 3,800	76	\$ 1,900	83	\$ 1,245	363	\$ 72,600	4	\$ 17,250	20	\$ 2,000	11	\$ 2,750	7	\$ 70
2015	257	\$ 12,850	256	\$ 12,800	261	\$ 13,050	26	\$ 650	27	\$ 2,700	36	\$ 900	41	\$ 615	314	\$ 62,800	7	\$ 19,000	24	\$ 2,400	12	\$ 3,000	3	\$ 30
2016	130	\$ 6,500	120	\$ 6,000	180	\$ 9,000	22	\$ 550	22	\$ 2,200	15	\$ 375	37	\$ 555	247	\$ 43,225	0	\$ -	16	\$ 1,600	0	\$ -	3	\$ 30
Total	2769	\$ 138,450	2459	\$ 122,950	2324	\$ 116,200	273	\$ 6,825	334	\$ 33,400	411	\$ 10,275	705	\$ 7,855	1976	\$ 352,156	27	\$ 103,950	79	\$ 7,900	36	\$ 9,000	21	\$ 210

READING MUNICIPAL LIGHT DEPARTMENT

To: Coleen O'Brien

Date: July 6, 2016

From: Jane Parenteau

William Seldon

Subject: 2016 Request For Proposals (RFP) Wholesale Power Supply

Reading Municipal Light Department (RMLD) will be going out with an RPP for Power Supply for the period January 2017 – December 2020.

The attached table shows the monthly maximum amounts of energy, in kW, the RMLD is planning to purchase for 2017 through 2020. This table reflects a laddering and layering approach that the RMLD is utilizing. Using this approach, RMLD purchases 25% of the projected energy requirement on a monthly basis for the next four years.

The first two lines show the year and month in the planning period.

Lines labeled (1) reflect the On Peak Energy Entitlements (kW) and Off Peak Energy Entitlements (kW) that were purchased from Exelon, and BP Energy and Shell in the 2012, 2013 and 2014 RFPs.

Lines labeled (2) show the maximum amount of monthly kW that the RMLD is planning to purchase in the 2016 RFP. These amounts are the hourly amount of energy which translate into kWhs by summing the On Peak periods (Hours 08 – Hours 23) and Off Peak periods (Hours 01-07, 24, including all day Saturday and Sunday).

Lines labeled (3) indicate the Future On Peak and Off Peak Purchase which will be included in subsequent RFPs.

Lines labeled (4) show the Total Requirement On Peak and Off Peak which sums the amount of power supply either purchased, proposed to be purchased before the end of 2016, and possible future procurements. It should also be noted that the Total Requirement assumes an average 25% annual open position in the ISO-NE Spot Market.

The total amount of energy for the 48 month period from January 2017 through December 2020 represents approximately 270,300 Mwhts and, based on today's

indicative pricing would result in contracts having a value of approximately \$11.2 million which is equivalent to approximately \$41.42/Mwh.

The Integrated Resources Division (IRD) will continue monitoring the forward energy prices as well as the NYMEX Natural Gas futures. The NYMEX Natural Gas futures for the balance of calendar year 2016 and beyond are projected to be in the low to mid \$3.00 range through 2020. Per the IRD strategy, the RMLD will continue to monitor the markets and procure RMLD's energy needs through the RFP process for the period 2016 - 2020 as reflected in the attached table.

RMLD intends to request indicative pricing for Fixed, Heat Rate (HR) Index and basis products from the following suppliers, Nextera, PSEG, Merrill Lynch, Morgan Stanley, J P Morgan, Dominion, Shell, PPL, Macquarie, Exelon, Hydro Quebec US, BP, Dynergy and Boston Energy Trading. These entities have recently been contacted by other municipalities for pricing or have produced indicative pricing in the past. After receiving the indicative quotes from the suppliers, IRD will analyze the pricing and short list those entities which best fit RMLD's requirements. RMLD will negotiate contracts with the short listed entities. A contract matrix will be developed which will include the various provisions in each supplier's contract as well as overall pricing. Along with the General Manager, IRD will analyze final pricing and select one or more suppliers.

The Board of Commissioners and CAB will be updated on the results of the RFP.

RMLD Proposed Power Contract Timeline
 (Amounts below represent kW proposed to be purchased hourly)

Year Month	100%												75%											
	2017 Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	2018 Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec
(1) On Peak Entitlements (kW)	41,800	39,500	33,600	35,200	30,800	51,400	73,500	73,500	46,400	43,200	45,500	41,800	28,200	26,600	22,700	23,700	20,600	34,600	49,500	49,500	31,200	29,100	30,600	28,200
(1) Off Peak Entitlements (kW)	24,500	27,800	25,700	25,700	30,000	30,200	34,900	34,900	31,400	27,500	29,600	24,300	16,500	18,700	17,400	17,300	20,000	20,300	23,500	23,500	21,200	18,500	19,900	24,300
(2) RFP On-Peak Purchases (kW)	2,500	4,800	5,300	0	3,200	0	12,900	12,900	7,000	5,300	0	2,500	5,400	7,000	6,800	3,000	5,200	4,400	16,000	16,000	9,300	7,700	3,900	5,400
(2) RFP Off-Peak Purchases (kW)	9,400	4,300	7,100	0	0	3,000	5,400	5,400	5,700	9,800	3,600	2,900	9,200	5,700	7,500	2,200	2,800	4,900	7,100	7,100	6,900	9,800	5,300	0
(3) Future On-Peak Purchases (kW)	0	0	0	0	0	0	0	0	0	0	0	0	11,200	11,200	9,900	8,900	8,600	13,000	21,900	21,900	13,500	12,300	11,500	11,200
(3) Future Off-Peak Purchases (kW)	0	0	0	0	0	0	0	0	0	0	0	0	8,600	8,100	8,300	6,500	7,600	8,400	10,200	10,200	9,400	9,400	8,400	6,900
(4) Total Requirement On Peak (kW)	44,300	44,300	38,900	35,200	34,000	51,400	86,400	86,400	53,400	48,500	45,500	44,300	44,800	44,800	39,400	35,600	34,400	52,000	87,400	87,400	54,000	49,100	46,000	44,800
(4) Total Requirement Off Peak (kW)	33,900	32,100	32,800	25,700	30,000	33,200	40,300	40,300	37,100	37,300	33,200	27,200	34,300	32,500	33,200	26,000	30,400	33,600	40,800	40,800	37,500	37,700	33,600	27,500
Year Month	50%												25%											
	2019 Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	2020 Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec
(1) On Peak Entitlements (kW)	14,200	13,400	11,400	11,900	10,400	17,400	24,900	24,900	15,800	14,700	15,400	14,200	0	0	0	0	0	0	0	0	0	0	0	0
(1) Off Peak Entitlements (kW)	8,300	9,400	8,700	8,700	10,800	10,200	11,800	11,800	10,700	9,300	10,000	8,300	0	0	0	0	0	0	0	0	0	0	0	0
(2) RFP On-Peak Purchases (kW)	8,400	9,200	8,500	6,100	7,000	8,800	19,200	19,200	11,400	10,100	7,800	8,400	11,400	11,400	10,000	9,100	8,800	13,200	22,300	22,300	13,700	12,500	11,700	11,400
(2) RFP Off-Peak Purchases (kW)	9,000	7,000	8,100	4,400	4,500	6,800	8,800	8,800	8,200	9,700	7,000	5,600	8,800	8,300	8,500	6,600	7,700	8,600	10,400	10,400	9,600	9,600	8,600	7,000
(3) Future On-Peak Purchases (kW)	22,700	22,700	19,900	18,000	17,400	26,300	44,200	44,200	27,300	24,800	23,300	22,700	34,300	34,300	30,200	27,300	26,400	39,800	66,800	66,800	41,300	37,600	35,300	34,300
(3) Future Off-Peak Purchases (kW)	17,400	16,400	16,800	13,200	15,400	17,000	20,600	20,600	19,000	19,100	17,000	13,900	26,300	24,800	25,400	20,000	23,300	25,700	31,200	31,200	28,700	28,900	25,700	21,100
(4) Total Requirement On Peak (kW)	45,300	45,300	39,800	36,000	34,800	52,500	88,300	88,300	54,500	49,600	46,500	45,300	45,700	45,700	40,200	36,400	35,200	53,000	89,100	89,100	55,000	50,100	47,000	45,700
(4) Total Requirement Off Peak (kW)	34,700	32,800	33,600	26,300	30,700	34,000	41,200	41,200	37,900	38,100	34,000	27,800	35,100	33,100	33,900	26,600	31,000	34,300	41,600	41,600	38,300	38,500	34,300	28,100

- (1) RFP Purchases in 2013, 2014 & 2015 (BP Energy, Shell & Exelon)
- (2) RFP Purchases in 2016
- (3) Amount of kW that RMLD will purchase in subsequent RFP process.
- (4) Total Requirement of energy which represents on average 20% open position in ISO-NE Spot Market

On-Peak: Mon - Fri Hours Ending 08-23
 Off-Peak: Mon - Fri Hours Ending 24-07, Sat/Sun

ENGINEERING AND OPERATIONS
REPORT
ATTACHMENT 3



Engineering & Operations Report

RMLD Board of Commissioners Meeting

July 28, 2016

May 2016 Reporting Period

Hamid Jaffari, Director of Engineering & Operations

Capital Improvement Projects

Construction Projects:		% Complete Status	May	YTD
102	Pole Line Upgrade - Lowell Street, Wilmington	100%	\$38,492	\$162,671
104	Upgrading Old Lynnfield Center URDs (Cook's Farm)	100%	\$27,806	\$268,045
107	Stepdown Area Upgrades – All Towns <ul style="list-style-type: none"> • Main Street, Reading • Vale Road, Reading 	On-going	\$3,076	\$42,658
108	Relay Replacement – Station 4 (GAW)	5%	\$45,163	\$69,838
	Service Installations – Residential: This item includes new or upgraded overhead and underground services.	On-going	\$9,675	\$123,335
100	Distributed Generation	20%	\$3,000	\$27,021
103	Distribution Protection and Automation	On-going	\$433	\$111,066
116	Transformers & Capacitors	n/a	\$36,555	\$612,901
125	GIS	7%	\$8,645	\$13,835
131	LED Street Light Conversion	39%	\$79,094	\$523,991

Routine Construction

	May	YTD
Pole Setting/Transfers	\$23,129	\$303,850
Overhead/Underground	\$19,494	\$319,436
Projects Assigned as Required <ul style="list-style-type: none"> • Artis Senior Living Center, Reading • AT&T Appl W15-1 (Salem/Woburn), Wilmington • 45 Industrial Way, Wilmington 	\$12,080	\$185,523
Pole Damage/Knockdowns - Some Reimbursable <ul style="list-style-type: none"> • Work was done to repair or replace two poles 	\$4,642	\$35,184
Station Group	\$368	\$3,506
Hazmat/Oil Spills	-	\$5,727
Porcelain Cutout Replacement Program	-	\$4,910
Lighting (Street Light Connections)	\$1,991	\$33,048
Storm Trouble	\$1,007	\$45,759
Underground Subdivisions (new construction) <ul style="list-style-type: none"> • Murray Hill Subdivision, Wilmington 	\$7,197	\$50,818
Animal Guard Installation	-	\$2,987
Miscellaneous Capital Costs	\$45,398	\$413,536
TOTAL:	<u>\$115,307</u>	<u>\$1,404,284</u>

Routine Maintenance

► Transformer Replacement (through May 2016)

Pad mount 17.36% Overhead 13.31%

► Pole Inspection (as of 7/14/16)

172 poles have been replaced 96 of 172 transfers have been completed

► Visual Inspection of OH Lines (as of 5/31/16)

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

► Manhole Inspection (through May 2016)

397 manholes have been inspected.

► Porcelain Cutout Replacements (through May 2016)

91% complete 257 remaining to be replaced

► Tree Trimming

May: 180 spans trimmed YTD: 2,461 spans trimmed

► Substation Maintenance

Infrared Scanning – May complete - no hot spots found

Double Poles

➤ Ownership: 16,000 (approximately)

50% RMLD

50% Verizon

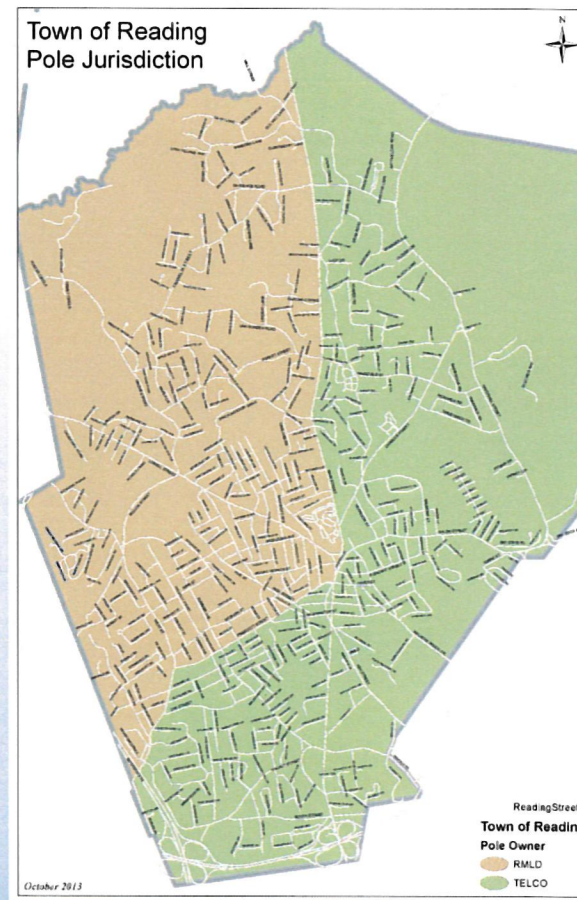
➤ Custodial:

Reading – split (see map)

North Reading – RMLD

Lynnfield – Verizon

Wilmington - Verizon



NJUNS

"Next to Go" as of July 22, 2016

LYNNFIELD

NTG Member and Job Type	Count of Ticket Number
LFLDFD	3
Lynnfield Fire Department TRANSFER	3
RMLD	4
Reading Municipal Light Department TRANSFER	4
VZNESA	14
Verizon	
TRANSFER	6
PULL POLE	6
DROPWORK	2
(blank)	
Grand Total	21

NORTH READING

NTG Member and Job Type	Count of Ticket Number
CMCTNR	7
Comcast	
TRANSFER	7
NGMA	1
National Grid	
TRANSFER	1
NRDGF	41
North Reading Fire Department	
TRANSFER	41
RMLD	61
Reading Municipal Light Department	
TRANSFER	16
SET POLE	1
PULL POLE	44
VZNEDR	93
Verizon	
PULL POLE	10
DROPWORK	83
(blank)	
Grand Total	203

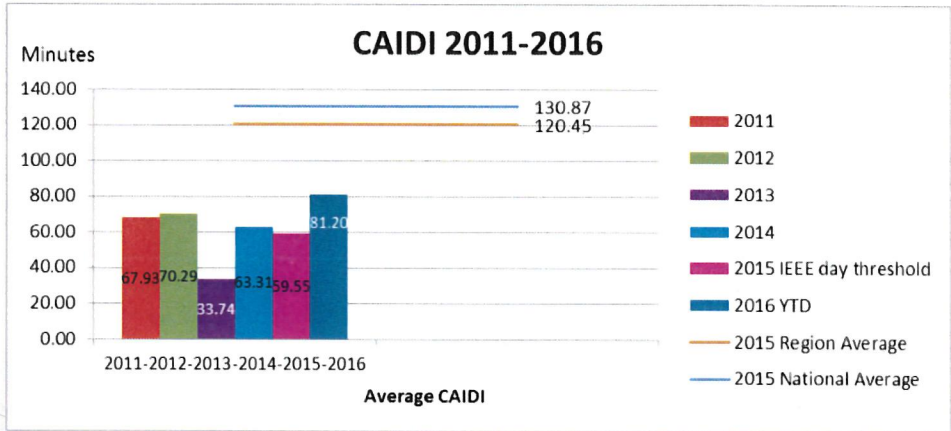
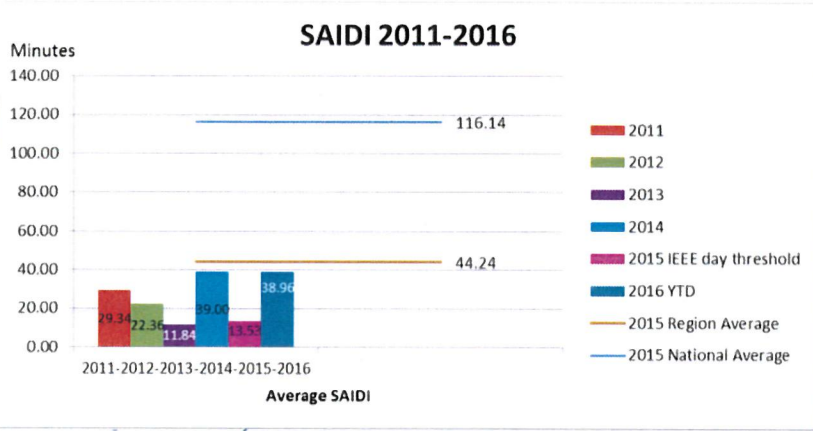
READING

NTG Member and Job Type	Count of Ticket Number
NP3PMA	10
Non-participating 3rd Party	
Attacher - Massachusetts	
TRANSFER	10
RDNGFD	4
Reading Fire Department	
TRANSFER	4
RMLD	61
Reading Municipal Light Department	
TRANSFER	47
PULL POLE	14
VZNESA	189
Verizon	
TRANSFER	26
PULL POLE	31
DROPWORK	132
(blank)	
Grand Total	264

WILMINGTON

NTG Member and Job Type	Count of Ticket Number
NGMA	2
National Grid	
TRANSFER	2
NP3PMA	10
Non-participating 3rd Party	
Attacher - Massachusetts	
TRANSFER	10
RMLD	49
Reading Municipal Light Department	
TRANSFER	44
PULL POLE	4
INSTL GUY	1
VZBMA	1
Verizon Business	
TRANSFER	1
VZNEDR	82
Verizon	
TRANSFER	7
PULL POLE	19
DROPWORK	56
WMGNFD	99
Wilmington Fire Department	
TRANSFER	99
(blank)	
Grand Total	243

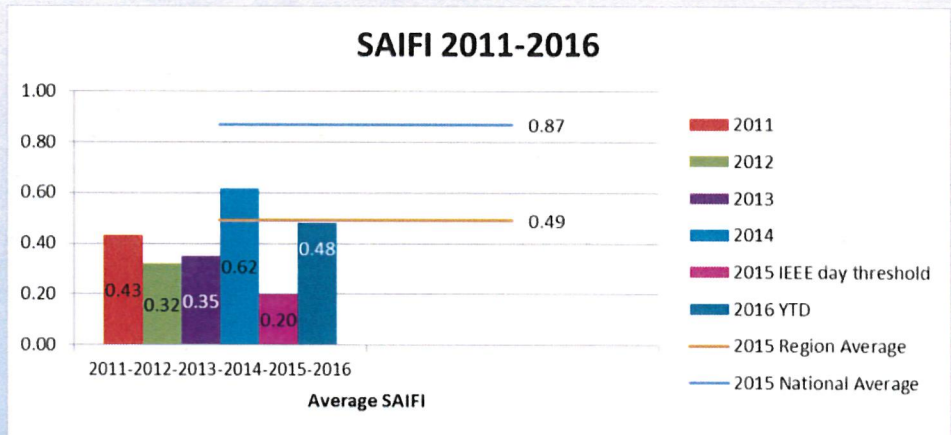
Reliability exceeds regional and local indices . . .



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

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

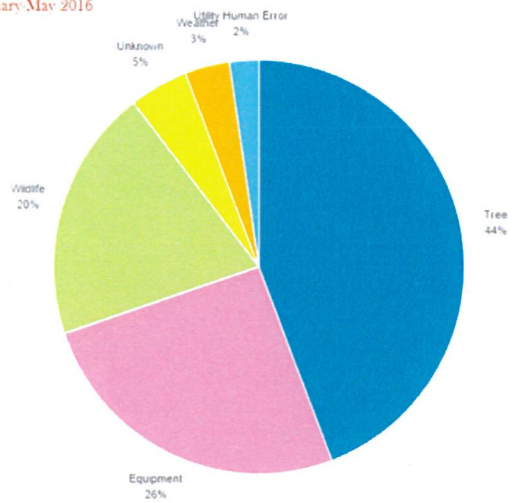
$$SAIFI = \frac{\text{Total Number of Customer Interruptions}}{\text{Total Number of Customers Served}}$$



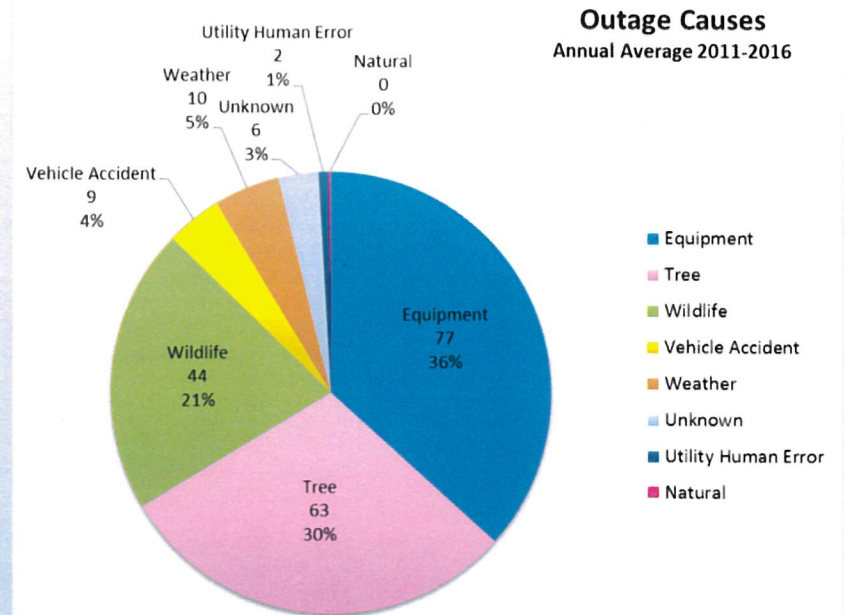
Outages Causes

Outages Causes Calendar YTD (from eReliability website)

January-May 2016



Outage Cause	Count
Tree	38
Equipment	22
Wildlife	17
Unknown	4
Weather	3
Utility Human Error	2
Total	86



Questions ?



READING MUNICIPAL LIGHT DEPARTMENT
FY 15 CAPITAL BUDGET VARIANCE REPORT
FOR PERIOD ENDING MAY 31, 2016

PROJ	DESCRIPTION	TOWN	ACTUAL COST MAY	YTD ADDITIONS	ANNUAL BUDGET	REMAINING BALANCE
CONSTRUCTION:						
101	5W9 Reconductoring - Ballardvale Area	W			100,000	100,000
102	Pole Line Upgrade - Lowell Street, W	W	38,492	162,671	113,000	(49,671)
104	Upgrade Old Lynnfield Center URDs (Cook's Farm)	LC	27,806	268,045	42,000	(226,045)
105	4W5-4W6 Tie	R		107,111	-	(107,111)
106	URD Upgrades	ALL		4,885	340,000	335,115
107	Step-down Area Upgrades	ALL	3,076	42,657	352,000	309,343
110	Pole Line Upgrade - Woburn Street, W	W			91,000	91,000
212	Force Account West Street	R		139,932	150,000	10,068
	SUB-TOTAL		69,374	725,301	1,188,000	462,699
STATION UPGRADES:						
96	Station 4 (GAW) Back-up Generator	R		49,290	107,000	57,710
108	Station 4 (GAW) Relay Replacement Project	R	45,163	69,838	73,000	3,162
109	Station 4 (GAW) Transformer Replacement	R			41,000	41,000
111	Station Equipment Upgrade (all)	ALL		110,233	254,000	143,767
112	Station 4 (GAW) Switchgear/Breaker Replacement	R		583,409	508,000	(75,409)
113	Station 4 (GAW) Battery Bank Upgrade	R			57,000	57,000
130	Station 3 - Remote Terminal Unit (RTU) Replacement	NR			94,000	94,000
	SUB-TOTAL		45,163	812,770	1,134,000	321,230
NEW CUSTOMER SERVICES:						
	New Service Installations (Commercial / Industrial)	ALL			34,000	34,000
	New Service Installations (Residential)	ALL	9,675	123,334	164,000	40,666
	SUB-TOTAL		9,675	123,334	198,000	74,666
ROUTINE CONSTRUCTION:						
114	Routine Construction	ALL	115,308	1,404,285	1,000,000	(404,285)
SPECIAL PROJECTS / CAPITAL PURCHASES:						
100	Distributed Generation	ALL	3,000	27,020	2,164,000	2,136,980
103	Distribution Protection and Automation	ALL	433	111,067	70,000	(41,067)
114	Fiber Optic Test Equipment	ALL		9,013	15,000	5,987
115	Fault Indicators	ALL			50,000	50,000
116	Transformers and Capacitors	ALL	36,555	612,901	668,000	55,099
117	Meter Purchases (including "500 Club")	ALL		150,177	219,000	68,823
122	Engineering Analysis Software and Data Conversion	ALL		73,250	73,000	(250)
125	GIS	ALL	8,645	13,835	420,000	406,165
126	Communication Equipment (Fiber Optic)	ALL		17,202	98,000	80,798
131	LED Street Light Implementation	ALL	79,094	523,992	1,200,000	676,008
134	Substation Test Equipment	ALL		51,540	100,000	48,460
	SUB-TOTAL		127,727	1,589,997	5,077,000	3,487,003
OTHER CAPITAL PROJECTS:						
95	230 Ash St Building	R			80,000	80,000
97	HVAC Roof Units - Garage	R			50,000	50,000
98	IRD hardware	ALL			10,000	10,000
99	Electric Vehicle Supply Equipment	ALL			50,000	50,000
118	Rolling Stock Replacement	ALL		407,887	448,000	40,113
119	Security Upgrades All Sites	ALL		10,515	50,000	39,486
120	Great Plains / Cogsdale Upgrade	ALL		29,090	127,000	97,910
121	HVAC System Upgrade - 230 Ash Street	R		571,906	600,000	28,094
123	Oil Containment Facility Construction	ALL		47,835	59,000	11,165
127	Hardware Upgrades	ALL	4,440	75,873	152,000	76,127
128	Software and Licensing	ALL		81,968	172,000	90,033
129	Master Facilities Site Plan	R			150,000	150,000
136	Voltage Data Recorders	ALL			50,000	50,000
	SUB-TOTAL		4,440	1,225,073	1,998,000	772,927
TOTAL CAPITAL BUDGET			\$ 371,687	\$ 5,880,760	\$ 10,595,000	\$ 4,714,240

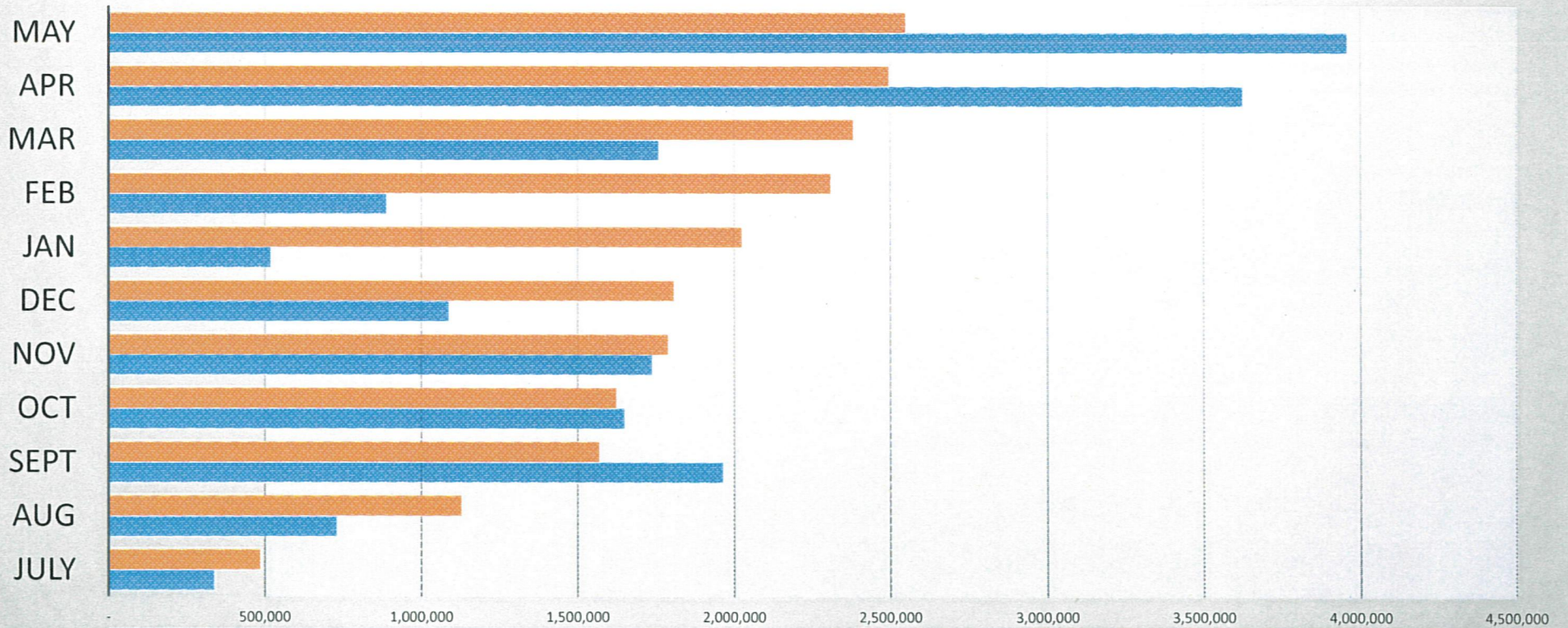
FINANCIAL REPORT
ATTACHMENT 4

FINANCIAL REPORT

MAY 31, 2016

Wendy Markiewicz – Assistant Director Business Finance

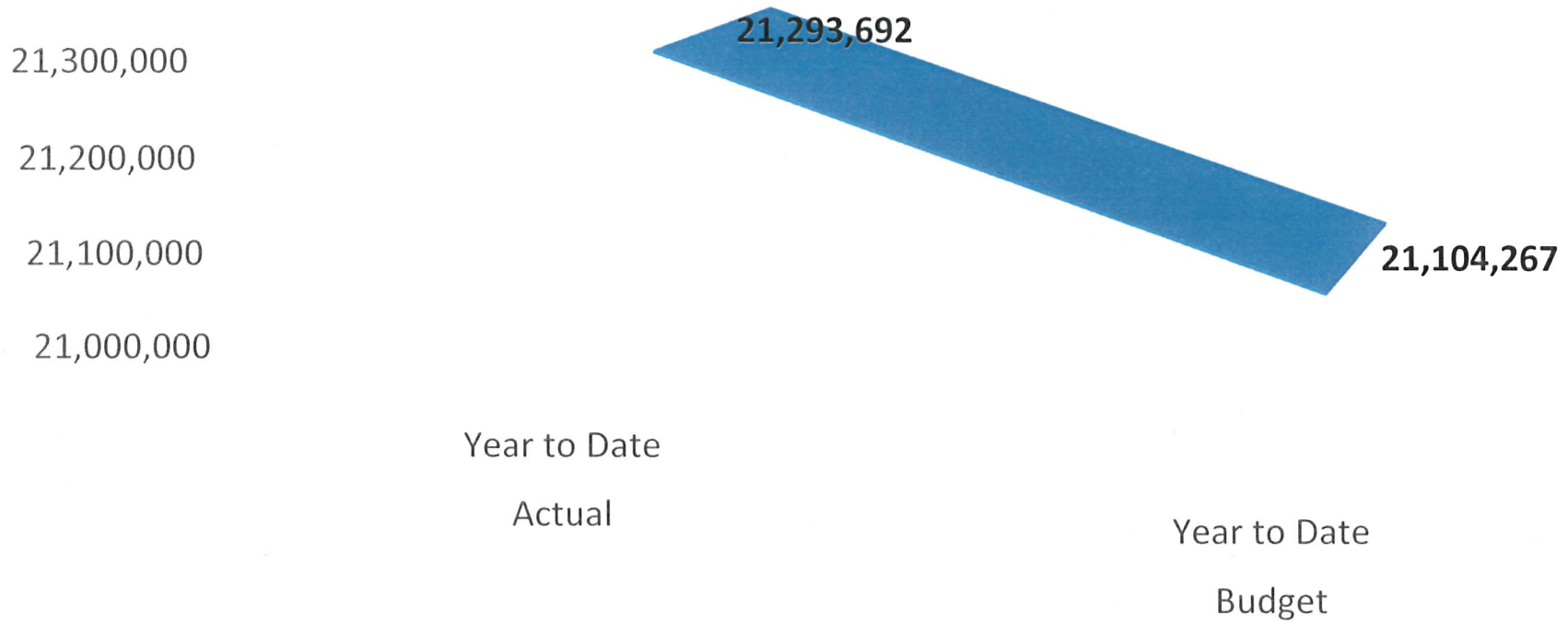
Change in Net Assets FY 16



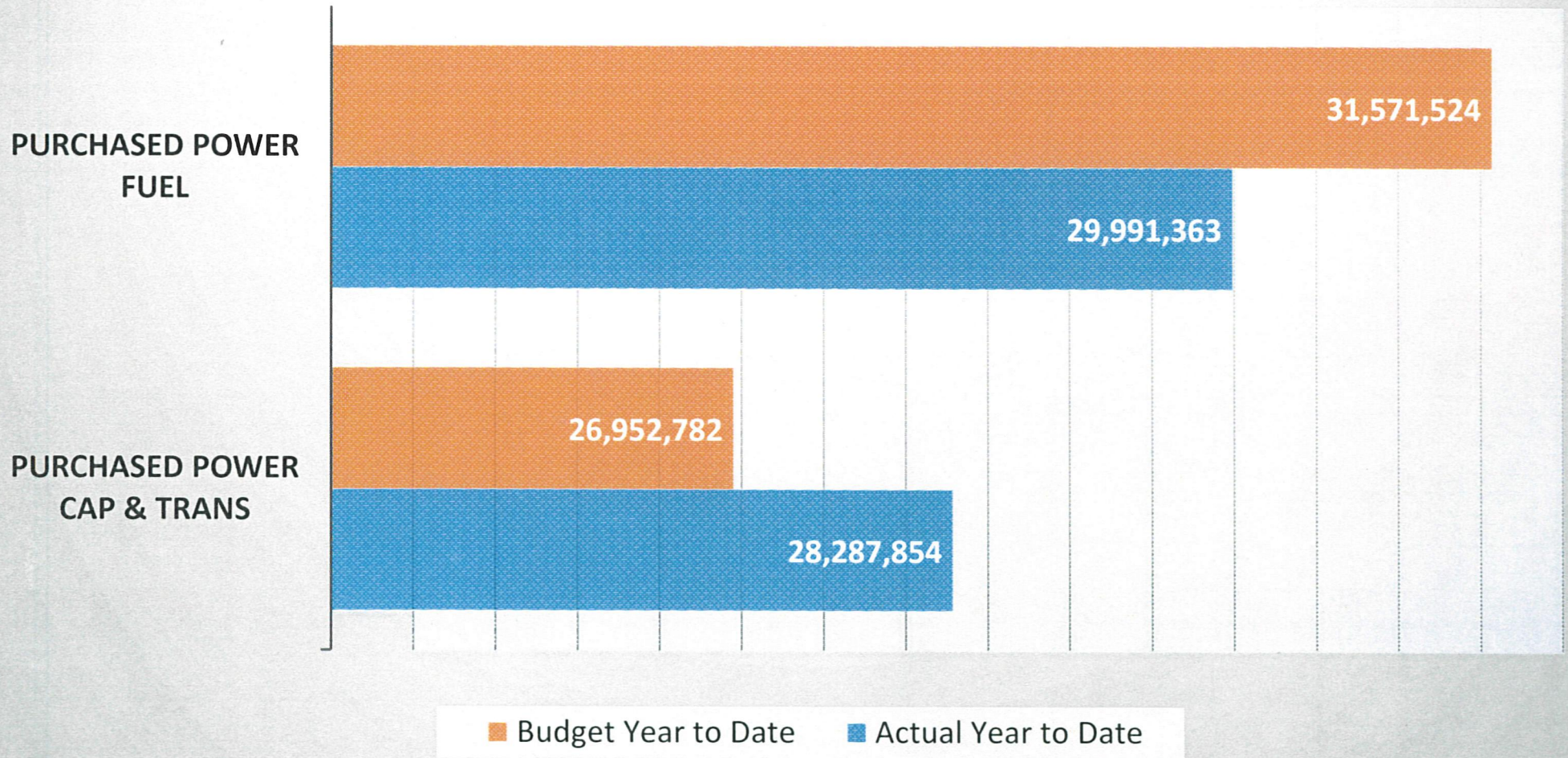
	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May
■ Budget YTD	486,580	1,129,662	1,570,360	1,624,710	1,789,036	1,807,087	2,025,150	2,310,515	2,382,739	2,497,316	2,551,258
■ Actual YTD	339,133	730,276	1,963,790	1,649,947	1,736,921	1,087,967	519,467	888,648	1,758,781	3,626,091	3,958,807

■ Budget YTD ■ Actual YTD

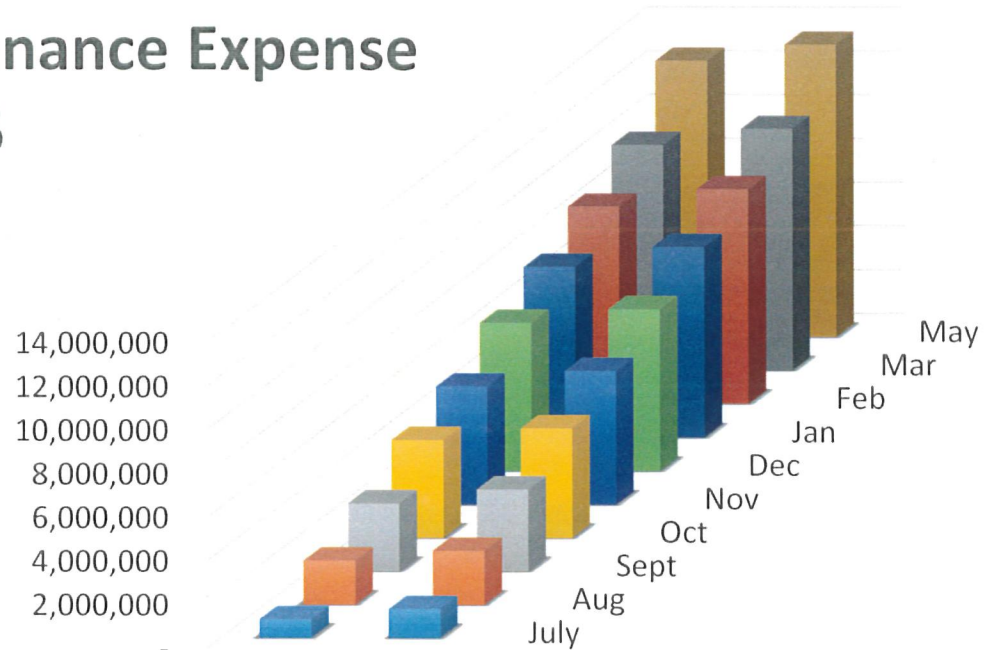
Base Revenue FY 16



Purchased Power Expenses FY 16



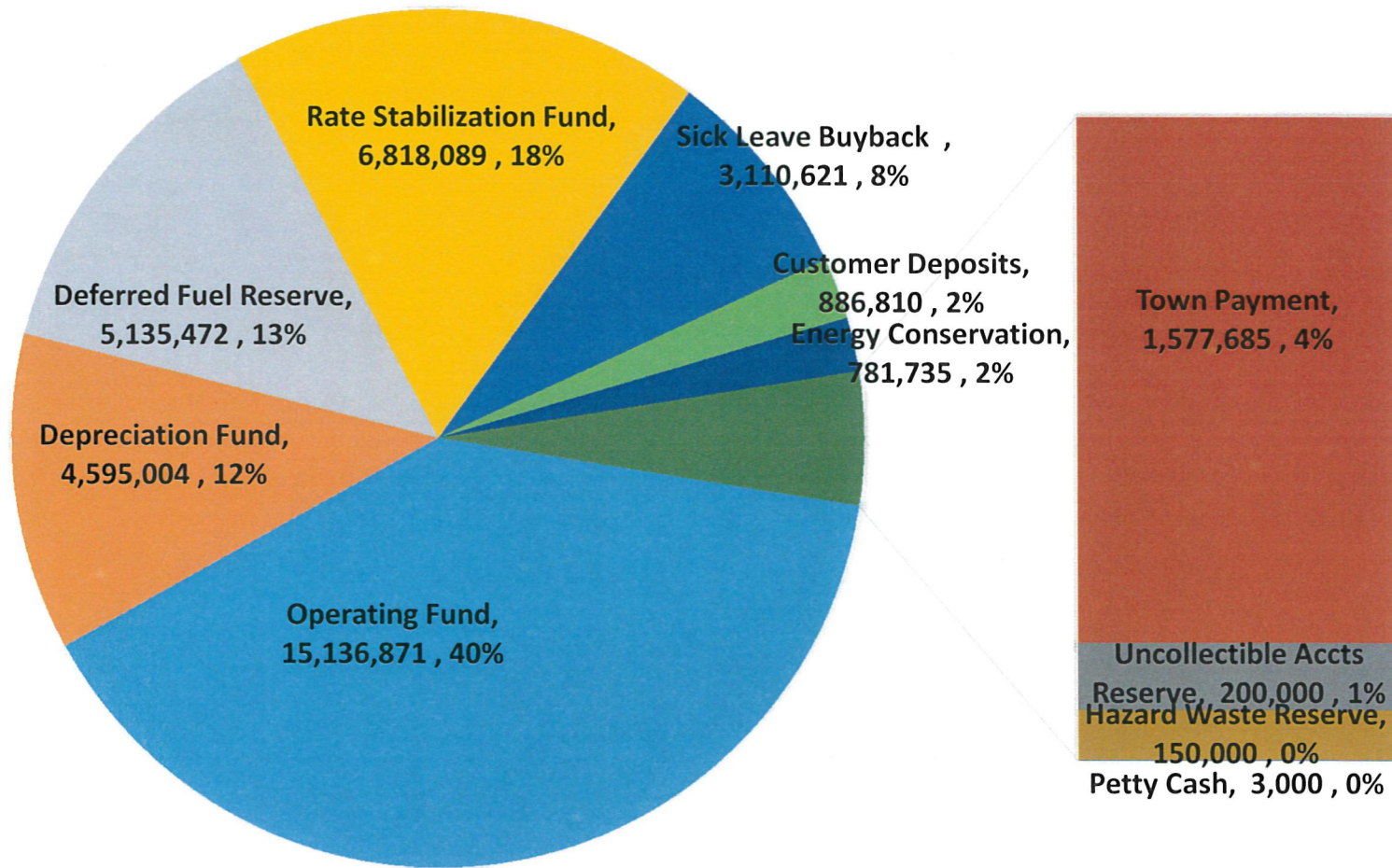
Operating & Maintenance Expense FY 16



	Year to Date Actual	Year to Date Budget
July	868,683	1,343,108
Aug	2,025,238	2,482,941
Sept	3,121,147	3,761,748
Oct	4,485,500	5,017,937
Nov	5,393,968	6,109,754
Dec	6,772,164	7,394,213
Jan	7,785,760	8,691,548
Feb	9,000,772	9,802,098
Mar	10,288,340	11,030,340
May	12,603,018	13,342,283

CASH

\$38,395,287



FINANCIAL REPORT

MAY 31, 2016

ISSUE DATE: JULY 6, 2016

TOWN OF READING, MASSACHUSETTS
MUNICIPAL LIGHT DEPARTMENT
BUSINESS-TYPE PROPRIETARY FUND
STATEMENT OF NET ASSETS
5/31/16

	PREVIOUS YEAR	CURRENT YEAR
ASSETS		
CURRENT		
UNRESTRICTED CASH (SCH A P.9)	9,405,133.55	15,139,870.95
RESTRICTED CASH (SCH A P.9)	22,942,848.80	21,971,355.14
RESTRICTED INVESTMENTS (SCH A P.9)	1,292,906.26	1,284,061.45
RECEIVABLES, NET (SCH B P.10)	9,189,137.52	8,305,484.21
PREPAID EXPENSES (SCH B P.10)	1,818,316.27	910,000.97
OTHER DEFERRED DEBITS (SCH B P.10)	0.00	1,547,815.00
INVENTORY	1,662,933.40	1,584,320.51
TOTAL CURRENT ASSETS	46,311,275.80	50,742,908.23
NONCURRENT		
INVESTMENT IN ASSOCIATED CO (SCH C P.2)	26,993.75	26,993.75
CAPITAL ASSETS, NET (SCH C P.2)	69,715,489.17	72,181,095.95
TOTAL NONCURRENT ASSETS	69,742,482.92	72,208,089.70
TOTAL ASSETS	116,053,758.72	122,950,997.93
 LIABILITIES		
CURRENT		
ACCOUNTS PAYABLE	6,166,183.69	9,462,683.96
CUSTOMER DEPOSITS	849,517.02	886,810.03
CUSTOMER ADVANCES FOR CONSTRUCTION	768,882.48	1,068,525.55
ACCRUED LIABILITIES	35,333.18	3,058,599.85
TOTAL CURRENT LIABILITIES	7,819,916.37	14,476,619.39
NONCURRENT		
ACCRUED EMPLOYEE COMPENSATED ABSENCES	2,918,870.73	3,070,487.93
TOTAL NONCURRENT LIABILITIES	2,918,870.73	3,070,487.93
TOTAL LIABILITIES	10,738,787.10	17,547,107.32
 NET ASSETS		
INVESTED IN CAPITAL ASSETS, NET OF RELATED DEBT	69,715,489.17	72,181,095.95
RESTRICTED FOR DEPRECIATION FUND (P.9)	5,691,478.73	4,595,004.37
UNRESTRICTED	29,908,003.72	28,627,790.29
TOTAL NET ASSETS (P.3)	105,314,971.62	105,403,890.61
TOTAL LIABILITIES AND NET ASSETS	116,053,758.72	122,950,997.93

TOWN OF READING, MASSACHUSETTS
MUNICIPAL LIGHT DEPARTMENT
NONCURRENT ASSET SCHEDULE
5/31/16

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	26,993.75	26,993.75
SCHEDULE OF CAPITAL ASSETS		
LAND	1,265,842.23	1,265,842.23
STRUCTURES AND IMPROVEMENTS	6,367,468.38	7,469,228.73
EQUIPMENT AND FURNISHINGS	12,565,774.17	12,524,228.54
INFRASTRUCTURE	49,516,404.39	50,921,796.45
TOTAL CAPITAL ASSETS, NET	69,715,489.17	72,181,095.95
TOTAL NONCURRENT ASSETS	69,742,482.92	72,208,089.70

TOWN OF READING, MASSACHUSETTS
MUNICIPAL LIGHT DEPARTMENT
BUSINESS-TYPE PROPRIETARY FUND
STATEMENT OF REVENUES, EXPENSES AND CHANGES IN FUND NET ASSETS
5/31/16

	MONTH LAST YEAR	MONTH CURRENT YEAR	LAST YEAR TO DATE	CURRENT YEAR TO DATE	YTD % CHANGE
OPERATING REVENUES: (SCH D P.11)					
BASE REVENUE	1,582,056.77	1,591,263.85	19,718,591.36	21,293,692.09	7.99%
FUEL REVENUE	2,954,806.93	2,356,620.39	31,687,066.76	31,030,678.91	-2.07%
PURCHASED POWER CAPACITY	2,140,988.70	2,489,960.26	26,857,018.39	28,701,975.75	6.87%
FORFEITED DISCOUNTS	36,859.32	55,348.68	747,552.25	729,265.53	-2.45%
ENERGY CONSERVATION REVENUE	52,448.28	48,874.22	620,627.19	612,529.56	-1.30%
NYPA CREDIT	(129,361.54)	(94,374.91)	(957,893.04)	(1,084,128.48)	13.18%
TOTAL OPERATING REVENUES	6,637,798.46	6,447,692.49	78,672,962.91	81,284,013.36	3.32%
OPERATING EXPENSES: (SCH E P.12)					
PURCHASED POWER CAPACITY	1,535,658.77	1,547,456.65	15,808,238.16	17,040,100.53	7.79%
PURCHASED POWER TRANSMISSION	608,787.17	865,692.96	10,696,274.17	11,247,753.86	5.16%
PURCHASED POWER FUEL	2,012,238.83	1,944,922.16	29,488,315.64	29,991,363.21	1.71%
OPERATING MAINTENANCE	901,438.44	925,100.45	10,015,111.34	9,809,579.68	-2.05%
DEPRECIATION	263,533.73	219,035.16	2,994,945.13	2,793,438.60	-6.73%
VOLUNTARY PAYMENTS TO TOWNS	321,788.79	328,732.65	3,539,676.69	3,616,059.15	2.16%
	118,000.00	118,000.00	1,288,754.00	1,286,973.00	-0.14%
TOTAL OPERATING EXPENSES	5,761,445.73	5,948,940.03	73,831,315.13	75,785,268.03	2.65%
OPERATING INCOME	876,352.73	498,752.46	4,841,647.78	5,498,745.33	13.57%
NONOPERATING REVENUES (EXPENSES)					
CONTRIBUTIONS IN AID OF CONST	48,362.84	3,136.54	173,464.84	139,877.79	-19.36%
RETURN ON INVESTMENT TO READING	(194,405.26)	(197,537.08)	(2,138,457.80)	(2,172,907.90)	1.61%
INTEREST INCOME	14,575.72	13,612.50	117,923.16	127,144.18	7.82%
INTEREST EXPENSE	(251.55)	(181.33)	(4,048.05)	(2,973.15)	-26.55%
OTHER (MDSE AND AMORT)	73,489.51	14,932.98	451,107.53	368,921.13	-18.22%
TOTAL NONOPERATING REV (EXP)	(58,228.74)	(166,036.39)	(1,400,010.32)	(1,539,937.95)	9.99%
CHANGE IN NET ASSETS	818,123.99	332,716.07	3,441,637.46	3,958,807.38	15.03%
NET ASSETS AT BEGINNING OF YEAR			101,873,334.16	101,445,083.23	-0.42%
NET ASSETS AT END OF MAY			<u>105,314,971.62</u>	<u>105,403,890.61</u>	0.08%

TOWN OF READING, MASSACHUSETTS
MUNICIPAL LIGHT DEPARTMENT
BUSINESS-TYPE PROPRIETARY FUND
STATEMENT OF REVENUES, EXPENSES AND CHANGES IN FUND NET ASSETS
5/31/16

	ACTUAL YEAR TO DATE	BUDGET YEAR TO DATE	VARIANCE*	% CHANGE
OPERATING REVENUES: (SCH F P.11B)				
BASE REVENUE	21,293,692.09	21,104,267.00	189,425.09	0.90%
FUEL REVENUE	31,030,678.91	32,396,524.00	(1,365,845.09)	-4.22%
PURCHASED POWER CAPACITY	28,701,975.75	26,952,782.00	1,749,193.75	6.49%
FORFEITED DISCOUNTS	729,265.53	633,130.00	96,135.53	15.18%
ENERGY CONSERVATION REVENUE	612,529.56	612,299.00	230.56	0.04%
NYPA CREDIT	(1,084,128.48)	(825,000.00)	(259,128.48)	31.41%
TOTAL OPERATING REVENUES	81,284,013.36	80,874,002.00	410,011.36	0.51%
OPERATING EXPENSES: (SCH G P.12A)				
PURCHASED POWER - CAPACITY	17,040,100.53	15,605,550.00	1,434,550.53	9.19%
PURCHASED POWER - TRANSMISSION	11,247,753.86	11,347,232.00	(99,478.14)	-0.88%
PURCHASED POWER FUEL	29,991,363.21	31,571,524.00	(1,580,160.79)	-5.01%
OPERATING MAINTENANCE	9,809,579.68	9,950,509.00	(140,929.32)	-1.42%
DEPRECIATION	2,793,438.60	3,391,774.00	(598,335.40)	-17.64%
VOLUNTARY PAYMENTS TO TOWNS	3,616,059.15	3,651,230.00	(35,170.85)	-0.96%
	1,286,973.00	1,298,000.00	(11,027.00)	-0.85%
TOTAL OPERATING EXPENSES	75,785,268.03	76,815,819.00	(1,030,550.97)	-1.34%
OPERATING INCOME	5,498,745.33	4,058,183.00	1,440,562.33	35.50%
NONOPERATING REVENUES (EXPENSES)				
CONTRIBUTIONS IN AID OF CONST	139,877.79	200,000.00	(60,122.21)	-30.06%
RETURN ON INVESTMENT TO READING	(2,172,907.90)	(2,172,500.00)	(407.90)	0.02%
INTEREST INCOME	127,144.18	137,500.00	(10,355.82)	-7.53%
INTEREST EXPENSE	(2,973.15)	(1,925.00)	(1,048.15)	54.45%
OTHER (MDSE AND AMORT)	368,921.13	330,000.00	38,921.13	11.79%
TOTAL NONOPERATING REV (EXP)	(1,539,937.95)	(1,506,925.00)	(33,012.95)	2.19%
CHANGE IN NET ASSETS	3,958,807.38	2,551,258.00	1,407,549.38	55.17%
NET ASSETS AT BEGINNING OF YEAR	101,445,083.23	101,445,083.23	0.00	0.00%
NET ASSETS AT END OF MAY	105,403,890.61	103,996,341.23	1,407,549.38	1.35%

* () = ACTUAL UNDER BUDGET

TOWN OF READING, MASSACHUSETTS
MUNICIPAL LIGHT DEPARTMENT
RECONCILIATION OF CAPITAL FUNDS
5/31/16

SOURCE OF CAPITAL FUNDS:

DEPRECIATION FUND BALANCE 7/1/15	5,434,307.79
CONSTRUCTION FUND BALANCE 7/1/15	1,400,000.00
INTEREST ON DEPRECIATION FUND FY 16	25,396.00
DEPRECIATION TRANSFER FY 16	<u>3,616,059.15</u>
TOTAL SOURCE OF CAPITAL FUNDS	10,475,762.94

USE OF CAPITAL FUNDS:

LESS PAID ADDITIONS TO PLANT THRU MAY	
TOTAL USE OF CAPITAL FUNDS	5,880,758.57
GENERAL LEDGER CAPITAL FUNDS BALANCE 5/31/16	<u><u>4,595,004.37</u></u>

TOWN OF READING, MASSACHUSETTS
MUNICIPAL LIGHT DEPARTMENT
SALES OF KILOWATT HOURS
5/31/16

SALES OF ELECTRICITY:	MONTH LAST YEAR	MONTH CURRENT YEAR	LAST YEAR TO DATE	CURRENT YEAR TO DATE	YTD % CHANGE
RESIDENTIAL SALES	16,868,689	15,607,554	234,873,905	229,173,421	-2.43%
COMM. AND INDUSTRIAL SALES	34,104,361	30,723,078	369,478,608	361,092,206	-2.27%
PRIVATE STREET LIGHTING	79,486	91,753	871,497	918,877	5.44%
TOTAL PRIVATE CONSUMERS	<u>51,052,536</u>	<u>46,422,385</u>	<u>605,224,010</u>	<u>591,184,504</u>	-2.32%
 MUNICIPAL SALES:					
STREET LIGHTING	236,421	214,472	2,652,709	2,483,160	-6.39%
MUNICIPAL BUILDINGS	779,330	729,669	9,006,113	8,529,442	-5.29%
TOTAL MUNICIPAL CONSUMERS	<u>1,015,751</u>	<u>944,141</u>	<u>11,658,822</u>	<u>11,012,602</u>	-5.54%
SALES FOR RESALE	219,381	186,274	3,040,794	2,824,482	-7.11%
SCHOOL	1,290,230	1,171,246	14,274,796	13,420,569	-5.98%
TOTAL KILOWATT HOURS SOLD	<u>53,577,898</u>	<u>48,724,046</u>	<u>634,198,422</u>	<u>618,442,157</u>	-2.48%

TOWN OF READING, MASSACHUSETTS
MUNICIPAL LIGHT DEPARTMENT
KILOWATT HOURS SOLD BY TOWN
5/31/16

MONTH	TOTAL	READING	LYNNFIELD	NO. READING	WILMINGTON
RESIDENTIAL	15,607,554	4,882,156	2,089,091	3,524,442	5,111,865
COMM & IND	30,723,078	3,923,659	229,277	4,481,930	22,088,212
PVT ST LIGHTS	91,753	18,455	2,792	27,331	43,175
PUB ST LIGHTS	214,472	71,845	28,145	38,469	76,013
MUNI BLDGS	729,669	185,925	166,706	118,761	258,277
SALES/RESALE	186,274	186,274	0	0	0
SCHOOL	1,171,246	388,108	286,260	222,840	274,038
TOTAL	48,724,046	9,656,422	2,802,271	8,413,773	27,851,580

YEAR TO DATE

RESIDENTIAL	229,173,421	72,735,462	32,279,289	52,798,226	71,360,444
COMM & IND	361,092,206	44,653,452	2,850,685	55,913,933	257,674,136
PVT ST LIGHTS	918,877	165,627	22,424	281,445	449,381
PUB ST LIGHTS	2,483,160	836,783	326,284	440,729	879,364
MUNI BLDGS	8,529,442	2,114,408	1,837,311	1,427,056	3,150,667
SALES/RESALE	2,824,482	2,824,482	0	0	0
SCHOOL	13,420,569	4,588,904	2,963,147	2,718,580	3,149,938
TOTAL	618,442,157	127,919,118	40,279,140	113,579,969	336,663,930

LAST YEAR TO DATE

RESIDENTIAL	234,873,905	73,758,578	33,073,136	54,032,356	74,009,835
COMM & IND	369,478,608	45,991,518	2,883,684	56,814,433	263,788,973
PVT ST LIGHTS	871,497	147,282	16,629	272,941	434,645
PUB ST LIGHTS	2,652,709	891,187	358,881	465,009	937,632
MUNI BLDGS	9,006,113	2,461,956	1,835,874	1,544,143	3,164,140
SALES/RESALE	3,040,794	3,040,794	0	0	0
SCHOOL	14,274,796	4,806,827	2,979,677	2,523,780	3,964,512
TOTAL	634,198,422	131,098,142	41,147,881	115,652,662	346,299,737

KILOWATT HOURS SOLD TO TOTAL

MONTH	TOTAL	READING	LYNNFIELD	NO. READING	WILMINGTON
RESIDENTIAL	32.03%	10.02%	4.29%	7.23%	10.49%
COMM & IND	63.06%	8.05%	0.47%	9.20%	45.34%
PVT ST LIGHTS	0.19%	0.04%	0.01%	0.06%	0.08%
PUB ST LIGHTS	0.44%	0.15%	0.06%	0.08%	0.15%
MUNI BLDGS	1.50%	0.38%	0.34%	0.24%	0.54%
SALES/RESALE	0.38%	0.38%	0.00%	0.00%	0.00%
SCHOOL	2.40%	0.80%	0.59%	0.46%	0.55%
TOTAL	100.00%	19.82%	5.76%	17.27%	57.15%

YEAR TO DATE

RESIDENTIAL	37.06%	11.76%	5.22%	8.54%	11.54%
COMM & IND	58.39%	7.22%	0.46%	9.04%	41.67%
PVT ST LIGHTS	0.15%	0.03%	0.00%	0.05%	0.07%
PUB ST LIGHTS	0.40%	0.14%	0.05%	0.07%	0.14%
MUNI BLDGS	1.38%	0.34%	0.30%	0.23%	0.51%
SALES/RESALE	0.46%	0.46%	0.00%	0.00%	0.00%
SCHOOL	2.16%	0.74%	0.48%	0.44%	0.50%
TOTAL	100.00%	20.69%	6.51%	18.37%	54.43%

LAST YEAR TO DATE

RESIDENTIAL	37.03%	11.63%	5.21%	8.52%	11.67%
COMM & IND	58.26%	7.25%	0.45%	8.96%	41.60%
PVT ST LIGHTS	0.14%	0.02%	0.00%	0.04%	0.08%
PUB ST LIGHTS	0.42%	0.14%	0.06%	0.07%	0.15%
MUNI BLDGS	1.42%	0.39%	0.29%	0.24%	0.50%
SALES/RESALE	0.48%	0.48%	0.00%	0.00%	0.00%
SCHOOL	2.25%	0.76%	0.47%	0.40%	0.62%
TOTAL	100.00%	20.67%	6.48%	18.23%	54.62%

TOWN OF READING, MASSACHUSETTS
MUNICIPAL LIGHT DEPARTMENT
FORMULA INCOME
5/31/16

TOTAL OPERATING REVENUES	(P.3)	81,284,013.36
ADD:		
POLE RENTAL		0.00
INTEREST INCOME ON CUSTOMER DEPOSITS		4,962.77
LESS:		
OPERATING EXPENSES	(P.3)	(75,785,268.03)
CUSTOMER DEPOSIT INTEREST EXPENSE		(2,973.15)
FORMULA INCOME (LOSS)		<u>5,500,734.95</u>

TOWN OF READING, MASSACHUSETTS
MUNICIPAL LIGHT DEPARTMENT
GENERAL STATISTICS
5/31/16

	MONTH OF MAY 2015	MONTH OF MAY 2016	% CHANGE		YEAR MAY 2015	THRU MAY 2016
			2015	2016		
SALE OF KWH (P.5)	53,577,898	48,724,046	0.21%	-2.48%	634,198,422	618,442,157
KWH PURCHASED	58,248,608	54,601,915	-1.88%	-0.12%	645,675,652	644,901,438
AVE BASE COST PER KWH	0.026364	0.028341	-38.20%	7.92%	0.024483	0.026423
AVE BASE SALE PER KWH	0.029528	0.032659	-53.64%	10.74%	0.031092	0.034431
AVE COST PER KWH	0.060910	0.063961	-17.60%	3.95%	0.070154	0.072928
AVE SALE PER KWH	0.084678	0.081025	-29.78%	4.38%	0.081056	0.084607
FUEL CHARGE REVENUE (P.3)	2,954,806.93	2,356,620.39	3.71%	-2.07%	31,687,066.76	31,030,678.91
LOAD FACTOR	57.64%	62.10%				
PEAK LOAD	138,424	120,445				

TOWN OF READING, MASSACHUSETTS
MUNICIPAL LIGHT DEPARTMENT
SCHEDULE OF CASH AND INVESTMENTS
5/31/16

SCHEDULE A

	PREVIOUS YEAR	CURRENT YEAR
UNRESTRICTED CASH		
CASH - OPERATING FUND	9,402,133.55	15,136,870.95
CASH - PETTY CASH	3,000.00	3,000.00
TOTAL UNRESTRICTED CASH	9,405,133.55	15,139,870.95
RESTRICTED CASH		
CASH - DEPRECIATION FUND	5,691,478.73	4,595,004.37
CASH - TOWN PAYMENT	1,562,026.25	1,577,685.00
CASH - DEFERRED FUEL RESERVE	5,373,553.04	5,135,472.37
CASH - RATE STABILIZATION FUND	6,766,601.84	6,818,088.78
CASH - UNCOLLECTIBLE ACCTS RESERVE	200,000.00	200,000.00
CASH - SICK LEAVE BENEFITS	1,724,781.24	1,826,559.88
CASH - HAZARD WASTE RESERVE	150,000.00	150,000.00
CASH - CUSTOMER DEPOSITS	849,517.02	886,810.03
CASH - ENERGY CONSERVATION	624,890.68	781,734.71
TOTAL RESTRICTED CASH	22,942,848.80	21,971,355.14
INVESTMENTS		
SICK LEAVE BUYBACK	1,292,906.26	1,284,061.45
TOTAL CASH BALANCE	33,640,888.61	38,395,287.54

TOWN OF READING, MASSACHUSETTS
MUNICIPAL LIGHT DEPARTMENT
SCHEDULE OF ACCOUNTS RECEIVABLE
5/31/16

SCHEDULE B

SCHEDULE OF ACCOUNTS RECEIVABLE	PREVIOUS YEAR	CURRENT YEAR
RESIDENTIAL AND COMMERCIAL	3,940,975.95	2,564,869.93
ACCOUNTS RECEIVABLE - OTHER	146,438.46	954,196.47
ACCOUNTS RECEIVABLE - LIENS	28,019.51	19,398.28
ACCOUNTS RECEIVABLE - EMPLOYEE ADVANCES	892.14	543.53
SALES DISCOUNT LIABILITY	(247,742.34)	(140,647.87)
RESERVE FOR UNCOLLECTIBLE ACCOUNTS	(301,715.48)	(259,226.08)
TOTAL ACCOUNTS RECEIVABLE BILLED	<u>3,566,868.24</u>	<u>3,139,134.26</u>
UNBILLED ACCOUNTS RECEIVABLE	5,622,269.28	5,166,349.95
TOTAL ACCOUNTS RECEIVABLE, NET	<u><u>9,189,137.52</u></u>	<u><u>8,305,484.21</u></u>

SCHEDULE OF PREPAYMENTS

PREPAID INSURANCE	551,033.67	607,953.98
PREPAYMENT PURCHASED POWER	576,560.20	(365,680.89)
PREPAYMENT PASNY	307,572.50	307,572.50
PREPAYMENT WATSON	370,449.79	345,285.32
PURCHASED POWER WORKING CAPITAL	12,700.11	14,870.06
TOTAL PREPAYMENT	<u><u>1,818,316.27</u></u>	<u><u>910,000.97</u></u>

OTHER DEFERRED DEBITS	<u><u>0.00</u></u>	<u><u>1,547,815.00</u></u>
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ACCOUNTS RECEIVABLE AGING MAY 2016:

RESIDENTIAL AND COMMERCIAL	2,564,869.93
LESS: SALES DISCOUNT LIABILITY	(140,647.87)
GENERAL LEDGER BALANCE	<u><u>2,424,222.06</u></u>

CURRENT	1,945,316.46	80.24%
30 DAYS	325,087.34	13.41%
60 DAYS	94,530.21	3.90%
90 DAYS	20,749.34	0.86%
OVER 90 DAYS	38,538.71	1.59%
TOTAL	<u><u>2,424,222.06</u></u>	<u><u>100.00%</u></u>

TOWN OF READING, MASSACHUSETTS
MUNICIPAL LIGHT DEPARTMENT
SCHEDULE OF OPERATING REVENUE
5/31/16

SCHEDULE D

SALES OF ELECTRICITY:	MONTH LAST YEAR	MONTH CURRENT YEAR	LAST YEAR TO DATE	CURRENT YEAR TO DATE	YTD % CHANGE
RESIDENTIAL SALES	1,701,387.75	1,533,538.39	22,365,007.77	22,772,659.31	1.82%
COMM AND INDUSTRIAL SALES	2,625,351.65	2,212,271.17	26,668,770.57	27,209,368.69	2.03%
PRIVATE STREET LIGHTING	9,948.97	10,640.50	104,258.05	113,808.23	9.16%
TOTAL PRIVATE CONSUMERS	<u>4,336,688.37</u>	<u>3,756,450.06</u>	<u>49,138,036.39</u>	<u>50,095,836.23</u>	1.95%
 MUNICIPAL SALES:					
STREET LIGHTING	10,171.79	24,722.86	213,333.33	201,988.97	-5.32%
MUNICIPAL BUILDINGS	65,779.19	60,166.45	711,819.24	704,184.18	-1.07%
TOTAL MUNICIPAL CONSUMERS	<u>75,950.98</u>	<u>84,889.31</u>	<u>925,152.57</u>	<u>906,173.15</u>	-2.05%
 SALES FOR RESALE	 19,721.40	 16,003.99	 259,342.84	 247,048.56	 -4.74%
 SCHOOL	 104,502.95	 90,540.88	 1,083,126.32	 1,075,313.06	 -0.72%
 SUB-TOTAL	 <u>4,536,863.70</u>	 <u>3,947,884.24</u>	 <u>51,405,658.12</u>	 <u>52,324,371.00</u>	 1.79%
 FORFEITED DISCOUNTS	 36,859.32	 55,348.68	 747,552.25	 729,265.53	 -2.45%
 PURCHASED POWER CAPACITY	 2,140,988.70	 2,489,960.26	 26,857,018.39	 28,701,975.75	 6.87%
 ENERGY CONSERVATION - RESIDENTIAL	 16,878.76	 15,612.76	 235,029.93	 229,306.99	 -2.43%
ENERGY CONSERVATION - COMMERCIAL	35,569.52	33,261.46	385,597.26	383,222.57	-0.62%
 NYPA CREDIT	 (129,361.54)	 (94,374.91)	 (957,893.04)	 (1,084,128.48)	 13.18%
 TOTAL REVENUE	 <u>6,637,798.46</u>	 <u>6,447,692.49</u>	 <u>78,672,962.91</u>	 <u>81,284,013.36</u>	 3.32%

TOWN OF READING, MASSACHUSETTS
MUNICIPAL LIGHT DEPARTMENT
SCHEDULE OF OPERATING REVENUE BY TOWN
5/31/16

MONTH	TOTAL	READING	LYNNFIELD	NO. READING	WILMINGTON
RESIDENTIAL	1,533,538.39	485,091.45	203,716.59	345,435.66	499,294.69
INDUS/MUNI BLDG	2,272,437.62	330,189.54	34,091.49	354,884.80	1,553,271.79
PUB. ST. LIGHTS	24,722.86	8,261.40	3,236.38	4,453.92	8,771.16
PRV. ST. LIGHTS	10,640.50	1,871.76	264.16	3,364.62	5,139.96
CO-OP RESALE	16,003.99	16,003.99	0.00	0.00	0.00
SCHOOL	90,540.88	30,680.93	20,852.18	18,015.70	20,992.07
TOTAL	3,947,884.24	872,099.07	262,160.80	726,154.70	2,087,469.67

THIS YEAR TO DATE

RESIDENTIAL	22,772,659.31	7,276,944.28	3,181,714.23	5,232,643.52	7,081,357.28
INDUS/MUNI BLDG	27,913,552.87	3,873,487.85	407,046.33	4,459,570.39	19,173,448.30
PUB. ST. LIGHTS	201,988.97	68,178.06	26,167.62	36,310.33	71,332.96
PRV. ST. LIGHTS	113,808.23	19,191.78	2,498.94	36,745.25	55,372.26
CO-OP RESALE	247,048.56	247,048.56	0.00	0.00	0.00
SCHOOL	1,075,313.06	370,204.47	228,278.26	230,526.99	246,303.34
TOTAL	52,324,371.00	11,855,055.00	3,845,705.36	9,995,796.49	26,627,814.15

LAST YEAR TO DATE

RESIDENTIAL	22,365,007.77	7,058,690.70	3,130,113.83	5,134,231.79	7,041,971.45
INDUS/MUNI BLDG	27,380,589.81	3,877,243.07	387,730.56	4,422,686.28	18,692,929.90
PUB. ST. LIGHTS	213,333.33	71,700.09	28,895.11	37,370.40	75,367.73
PRV. ST. LIGHTS	104,258.05	17,270.96	2,022.53	33,861.54	51,103.02
CO-OP RESALE	259,342.84	259,342.84	0.00	0.00	0.00
SCHOOL	1,083,126.32	368,266.37	222,687.49	195,338.12	296,834.34
TOTAL	51,405,658.12	11,652,514.03	3,771,449.52	9,823,488.13	26,158,206.44

PERCENTAGE OF OPERATING INCOME TO TOTAL

MONTH	TOTAL	READING	LYNNFIELD	NO. READING	WILMINGTON
RESIDENTIAL	38.84%	12.29%	5.16%	8.75%	12.64%
INDUS/MUNI BLDG	57.56%	8.36%	0.86%	8.99%	39.35%
PUB. ST. LIGHTS	0.63%	0.21%	0.08%	0.11%	0.23%
PRV. ST. LIGHTS	0.27%	0.05%	0.01%	0.09%	0.12%
CO-OP RESALE	0.41%	0.41%	0.00%	0.00%	0.00%
SCHOOL	2.29%	0.78%	0.53%	0.46%	0.52%
TOTAL	100.00%	22.10%	6.64%	18.40%	52.86%

THIS YEAR TO DATE

RESIDENTIAL	43.52%	13.91%	6.08%	10.00%	13.53%
INDUS/MUNI BLDG	53.34%	7.40%	0.78%	8.52%	36.64%
PUB. ST. LIGHTS	0.39%	0.13%	0.05%	0.07%	0.14%
PRV. ST. LIGHTS	0.22%	0.04%	0.00%	0.07%	0.11%
CO-OP RESALE	0.47%	0.47%	0.00%	0.00%	0.00%
SCHOOL	2.06%	0.71%	0.44%	0.44%	0.47%
TOTAL	100.00%	22.66%	7.35%	19.10%	50.89%

LAST YEAR TO DATE

RESIDENTIAL	43.51%	13.73%	6.09%	9.99%	13.70%
INDUS/MUNI BLDG	53.26%	7.54%	0.75%	8.60%	36.37%
PUB. ST. LIGHTS	0.42%	0.14%	0.06%	0.07%	0.15%
PRV. ST. LIGHTS	0.20%	0.03%	0.00%	0.07%	0.10%
CO-OP RESALE	0.50%	0.50%	0.00%	0.00%	0.00%
SCHOOL	2.11%	0.72%	0.43%	0.38%	0.58%
TOTAL	100.00%	22.66%	7.33%	19.11%	50.90%

TOWN OF READING, MASSACHUSETTS
MUNICIPAL LIGHT DEPARTMENT
BUDGETED REVENUE VARIANCE REPORT
5/31/16

SCHEDULE F

SALES OF ELECTRICITY:	ACTUAL YEAR TO DATE	BUDGET YEAR TO DATE	VARIANCE *	% CHANGE
RESIDENTIAL	11,353,821.94	11,259,115.00	94,706.94	0.84%
COMM AND INDUSTRIAL SALES PRIVATE STREET LIGHTING MUNICIPAL BUILDINGS	9,329,194.31	8,985,456.00	343,738.31	3.83%
PUBLIC STREET LIGHTING	98,804.58	347,350.00	(248,545.42)	-71.55%
SALES FOR RESALE	107,239.45	121,441.00	(14,201.55)	-11.69%
SCHOOL	<u>404,631.81</u>	<u>390,905.00</u>	<u>13,726.81</u>	3.51%
TOTAL BASE SALES	21,293,692.09	21,104,267.00	189,425.09	0.90%
TOTAL FUEL SALES	<u>31,030,678.91</u>	<u>32,396,524.00</u>	<u>(1,365,845.09)</u>	-4.22%
TOTAL OPERATING REVENUE	52,324,371.00	53,500,791.00	(1,176,420.00)	-2.20%
FORFEITED DISCOUNTS	729,265.53	633,130.00	96,135.53	15.18%
PURCHASED POWER CAPACITY	28,701,975.75	26,952,782.00	1,749,193.75	6.49%
ENERGY CONSERVATION - RESIDENTIAL	229,306.99	230,316.00	(1,009.01)	-0.44%
ENERGY CONSERVATION - COMMERCIAL	383,222.57	381,983.00	1,239.57	0.32%
NYPA CREDIT	(1,084,128.48)	(825,000.00)	(259,128.48)	31.41%
TOTAL OPERATING REVENUES	<u><u>81,284,013.36</u></u>	<u><u>80,874,002.00</u></u>	<u><u>410,011.36</u></u>	0.51%

* () = ACTUAL UNDER BUDGET

TOWN OF READING, MASSACHUSETTS
MUNICIPAL LIGHT DEPARTMENT
SCHEDULE OF OPERATING EXPENSES
5/31/16

SCHEDULE E

OPERATION EXPENSES:	MONTH LAST YEAR	MONTH CURRENT YEAR	LAST YEAR TO DATE	CURRENT YEAR TO DATE	YTD % CHANGE
PURCHASED POWER CAPACITY	1,535,658.77	1,547,456.65	15,808,238.16	17,040,100.53	7.79%
PURCHASED POWER TRANSMISSION	608,787.17	865,692.96	10,696,274.17	11,247,753.86	5.16%
TOTAL PURCHASED POWER	<u>2,144,445.94</u>	<u>2,413,149.61</u>	<u>26,504,512.33</u>	<u>28,287,854.39</u>	6.73%
OPERATION SUP AND ENGINEERING EXP	45,484.41	7,156.47	490,024.00	431,854.30	-11.87%
STATION SUP LABOR AND MISC	17,203.31	12,984.63	154,341.41	142,003.88	-7.99%
LINE MISC LABOR AND EXPENSE	80,819.29	43,388.75	759,069.12	703,963.17	-7.26%
STATION LABOR AND EXPENSE	29,166.43	29,551.70	465,573.74	365,190.83	-21.56%
STREET LIGHTING EXPENSE	8,615.85	13,033.79	85,570.73	107,924.07	26.12%
METER EXPENSE	19,938.57	16,056.10	187,820.16	203,877.07	8.55%
MISC DISTRIBUTION EXPENSE	39,945.24	32,447.68	416,899.13	407,998.71	-2.13%
METER READING LABOR & EXPENSE	2,147.75	932.84	15,187.14	18,878.10	24.30%
ACCT & COLL LABOR & EXPENSE	169,479.11	173,665.10	1,654,712.78	1,542,677.21	-6.77%
UNCOLLECTIBLE ACCOUNTS	10,000.00	10,000.00	110,000.00	110,000.00	0.00%
ENERGY AUDIT EXPENSE	46,677.35	33,516.10	389,883.58	447,759.47	14.84%
ADMIN & GEN SALARIES	60,947.26	69,141.47	737,595.41	815,389.71	10.55%
OFFICE SUPPLIES & EXPENSE	26,890.63	31,326.34	294,375.27	320,402.01	8.84%
OUTSIDE SERVICES	43,729.37	74,922.59	460,194.40	401,198.50	-12.82%
PROPERTY INSURANCE	31,242.39	27,632.72	335,222.48	328,579.59	-1.98%
INJURIES AND DAMAGES	3,843.98	22,358.83	41,127.82	62,415.39	51.76%
EMPLOYEES PENSIONS & BENEFITS	236,029.10	228,803.97	2,688,368.01	2,558,181.51	-4.84%
MISC GENERAL EXPENSE	8,856.59	12,218.56	128,375.15	123,071.12	-4.13%
RENT EXPENSE	2,151.76	32,294.08	147,773.50	177,814.23	20.33%
ENERGY CONSERVATION	18,270.05	53,668.73	452,997.51	540,400.81	19.29%
TOTAL OPERATION EXPENSES	<u>901,438.44</u>	<u>925,100.45</u>	<u>10,015,111.34</u>	<u>9,809,579.68</u>	-2.05%
MAINTENANCE EXPENSES:					
MAINT OF TRANSMISSION PLANT	227.08	227.08	2,497.90	2,497.90	0.00%
MAINT OF STRUCT AND EQUIPMT	40,852.31	31,384.83	466,864.01	376,503.02	-19.35%
MAINT OF LINES - OH	167,006.33	121,799.69	1,603,545.80	1,529,010.87	-4.65%
MAINT OF LINES - UG	(346.25)	4,610.56	134,323.14	105,429.13	-21.51%
MAINT OF LINE TRANSFORMERS	0.00	1,293.15	62,622.70	94,417.03	50.77%
MAINT OF ST LT & SIG SYSTEM	(35.13)	(88.03)	(229.01)	(637.47)	178.36%
MAINT OF GARAGE AND STOCKROOM	40,780.04	38,866.69	534,467.93	508,138.99	-4.93%
MAINT OF METERS	0.00	(33.34)	0.00	0.00	0.00%
MAINT OF GEN PLANT	15,049.35	20,974.53	190,852.66	178,079.13	-6.69%
TOTAL MAINTENANCE EXPENSES	<u>263,533.73</u>	<u>219,035.16</u>	<u>2,994,945.13</u>	<u>2,793,438.60</u>	-6.73%
DEPRECIATION EXPENSE	321,788.79	328,732.65	3,539,676.69	3,616,059.15	2.16%
PURCHASED POWER FUEL EXPENSE	2,012,238.83	1,944,922.16	29,488,315.64	29,991,363.21	1.71%
VOLUNTARY PAYMENTS TO TOWNS	118,000.00	118,000.00	1,288,754.00	1,286,973.00	-0.14%
TOTAL OPERATING EXPENSES	<u>5,761,445.73</u>	<u>5,948,940.03</u>	<u>73,831,315.13</u>	<u>75,785,268.03</u>	2.65%

TOWN OF READING, MASSACHUSETTS
MUNICIPAL LIGHT DEPARTMENT
BUDGETED OPERATING EXPENSE VARIANCE REPORT
5/31/16

SCHEDULE G

OPERATION EXPENSES:	ACTUAL YEAR TO DATE	BUDGET YEAR TO DATE	VARIANCE *	%
				CHANGE
PURCHASED POWER CAPACITY	17,040,100.53	15,605,550.00	1,434,550.53	9.19%
PURCHASED POWER TRANSMISSION	11,247,753.86	11,347,232.00	(99,478.14)	-0.88%
TOTAL PURCHASED POWER	<u>28,287,854.39</u>	<u>26,952,782.00</u>	<u>1,335,072.39</u>	4.95%
OPERATION SUP AND ENGINEERING EXP	431,854.30	573,052.00	(141,197.70)	-24.64%
STATION SUP LABOR AND MISC	142,003.88	76,220.00	65,783.88	86.31%
LINE MISC LABOR AND EXPENSE	703,963.17	616,477.00	87,486.17	14.19%
STATION LABOR AND EXPENSE	365,190.83	407,708.00	(42,517.17)	-10.43%
STREET LIGHTING EXPENSE	107,924.07	85,006.00	22,918.07	26.96%
METER EXPENSE	203,877.07	210,425.00	(6,547.93)	-3.11%
MISC DISTRIBUTION EXPENSE	407,998.71	415,849.00	(7,850.29)	-1.89%
METER READING LABOR & EXPENSE	18,878.10	29,658.00	(10,779.90)	-36.35%
ACCT & COLL LABOR & EXPENSE	1,542,677.21	1,540,326.00	2,351.21	0.15%
UNCOLLECTIBLE ACCOUNTS	110,000.00	110,000.00	0.00	0.00%
ENERGY AUDIT EXPENSE	447,759.47	438,433.00	9,326.47	2.13%
ADMIN & GEN SALARIES	815,389.71	758,277.00	57,112.71	7.53%
OFFICE SUPPLIES & EXPENSE	320,402.01	276,100.00	44,302.01	16.05%
OUTSIDE SERVICES	401,198.50	354,060.00	47,138.50	13.31%
PROPERTY INSURANCE	328,579.59	427,350.00	(98,770.41)	-23.11%
INJURIES AND DAMAGES	62,415.39	47,031.00	15,384.39	32.71%
EMPLOYEES PENSIONS & BENEFITS	2,558,181.51	2,420,788.00	137,393.51	5.68%
MISC GENERAL EXPENSE	123,071.12	223,390.00	(100,318.88)	-44.91%
RENT EXPENSE	177,814.23	194,337.00	(16,522.77)	-8.50%
ENERGY CONSERVATION	540,400.81	746,022.00	(205,621.19)	-27.56%
TOTAL OPERATION EXPENSES	<u>9,809,579.68</u>	<u>9,950,509.00</u>	<u>(140,929.32)</u>	-1.42%
MAINTENANCE EXPENSES:				
MAINT OF TRANSMISSION PLANT	2,497.90	2,750.00	(252.10)	-9.17%
MAINT OF STRUCT AND EQUIPMENT	376,503.02	347,242.00	29,261.02	8.43%
MAINT OF LINES - OH	1,529,010.87	1,793,804.00	(264,793.13)	-14.76%
MAINT OF LINES - UG	105,429.13	121,188.00	(15,758.87)	-13.00%
MAINT OF LINE TRANSFORMERS	94,417.03	300,000.00	(205,582.97)	-68.53%
MAINT OF ST LT & SIG SYSTEM	(637.47)	9,160.00	(9,797.47)	-106.96%
MAINT OF GARAGE AND STOCKROOM	508,138.99	612,518.00	(104,379.01)	-17.04%
MAINT OF METERS	0.00	41,762.00	(41,762.00)	-100.00%
MAINT OF GEN PLANT	178,079.13	163,350.00	14,729.13	9.02%
TOTAL MAINTENANCE EXPENSES	<u>2,793,438.60</u>	<u>3,391,774.00</u>	<u>(598,335.40)</u>	-17.64%
DEPRECIATION EXPENSE	3,616,059.15	3,651,230.00	(35,170.85)	-0.96%
PURCHASED POWER FUEL EXPENSE	29,991,363.21	31,571,524.00	(1,580,160.79)	-5.01%
VOLUNTARY PAYMENTS TO TOWNS	1,286,973.00	1,298,000.00	(11,027.00)	-0.85%
TOTAL OPERATING EXPENSES	<u>75,785,268.03</u>	<u>76,815,819.00</u>	<u>(1,030,550.97)</u>	-1.34%

* () = ACTUAL UNDER BUDGET

TOWN OF READING, MASSACHUSETTS
MUNICIPAL LIGHT DEPARTMENT
BUDGETED OPERATING EXPENSE VARIANCE REPORT
5/31/16

OPERATION EXPENSES:	RESPONSIBLE SENIOR MANAGER	2016 ANNUAL BUDGET	ACTUAL YEAR TO DATE	REMAINING BUDGET BALANCE	REMAINING BUDGET %
PURCHASED POWER CAPACITY	JP	17,095,785.00	17,040,100.53	55,684.47	0.33%
PURCHASED POWER TRANSMISSION	JP	12,600,639.00	11,247,753.86	1,352,885.14	10.74%
TOTAL PURCHASED POWER		<u>29,696,424.00</u>	<u>28,287,854.39</u>	<u>1,408,569.61</u>	4.74%
OPERATION SUP AND ENGINEERING EXP	HJ	629,691.00	431,854.30	197,836.70	31.42%
STATION SUP LABOR AND MISC	HJ	84,858.00	142,003.88	(57,145.88)	-67.34%
LINE MISC LABOR AND EXPENSE	HJ	666,641.00	703,963.17	(37,322.17)	-5.60%
STATION LABOR AND EXPENSE	HJ	448,347.00	365,190.83	83,156.17	18.55%
STREET LIGHTING EXPENSE	HJ	93,347.00	107,924.07	(14,577.07)	-15.62%
METER EXPENSE	HJ	233,648.00	203,877.07	29,770.93	12.74%
MISC DISTRIBUTION EXPENSE	HJ	457,068.00	407,998.71	49,069.29	10.74%
METER READING LABOR & EXPENSE	HJ	32,578.00	18,878.10	13,699.90	42.05%
ACCT & COLL LABOR & EXPENSE	RF	1,693,219.00	1,542,677.21	150,541.79	8.89%
UNCOLLECTIBLE ACCOUNTS	JP	120,000.00	110,000.00	10,000.00	8.33%
ENERGY AUDIT EXPENSE	JP	482,273.00	447,759.47	34,513.53	7.16%
ADMIN & GEN SALARIES	CO	838,461.00	815,389.71	23,071.29	2.75%
OFFICE SUPPLIES & EXPENSE	CO	301,000.00	320,402.01	(19,402.01)	-6.45%
OUTSIDE SERVICES	CO	377,332.00	401,198.50	(23,866.50)	-6.33%
PROPERTY INSURANCE	HJ	466,200.00	328,579.59	137,620.41	29.52%
INJURIES AND DAMAGES	HJ	51,254.00	62,415.39	(11,161.39)	-21.78%
EMPLOYEES PENSIONS & BENEFITS	HJ	2,633,591.00	2,558,181.51	75,409.49	2.86%
MISC GENERAL EXPENSE	CO	231,022.00	123,071.12	107,950.88	46.73%
RENT EXPENSE	HJ	212,000.00	177,814.23	34,185.77	16.13%
ENERGY CONSERVATION	JP	816,602.00	540,400.81	276,201.19	33.82%
TOTAL OPERATION EXPENSES		<u>10,869,132.00</u>	<u>9,809,579.68</u>	<u>1,059,552.32</u>	9.75%
MAINTENANCE EXPENSES:					
MAINT OF TRANSMISSION PLANT	HJ	3,000.00	2,497.90	502.10	16.74%
MAINT OF STRUCT AND EQUIPMT	HJ	484,026.00	376,503.02	107,522.98	22.21%
MAINT OF LINES - OH	HJ	1,675,794.00	1,529,010.87	146,783.13	8.76%
MAINT OF LINES - UG	HJ	130,694.00	105,429.13	25,264.87	19.33%
MAINT OF LINE TRANSFORMERS	HJ	156,000.00	94,417.03	61,582.97	39.48%
MAINT OF ST LT & SIG SYSTEM	HJ	9,745.00	(637.47)	10,382.47	106.54%
MAINT OF GARAGE AND STOCKROOM	HJ	660,131.00	508,138.99	151,992.01	23.02%
MAINT OF METERS	HJ	43,875.00	0.00	43,875.00	100.00%
MAINT OF GEN PLANT	RF	178,200.00	178,079.13	120.87	0.07%
TOTAL MAINTENANCE EXPENSES		<u>3,341,465.00</u>	<u>2,793,438.60</u>	<u>548,026.40</u>	16.40%
DEPRECIATION EXPENSE	RF	3,983,145.00	3,616,059.15	367,085.85	9.22%
PURCHASED POWER FUEL EXPENSE	JP	34,326,329.00	29,991,363.21	4,334,965.79	12.63%
VOLUNTARY PAYMENTS TO TOWNS	RF	1,416,000.00	1,286,973.00	129,027.00	9.11%
TOTAL OPERATING EXPENSES		<u>83,632,495.00</u>	<u>75,785,268.03</u>	<u>7,847,226.97</u>	9.38%

TOWN OF READING, MASSACHUSETTS
MUNICIPAL LIGHT DEPARTMENT
PROFESSIONAL SERVICES
05/31/2016

PROFESSIONAL SERVICES BY PROJECT

ITEM	DEPARTMENT	ACTUAL	BUDGET	VARIANCE
1 RMLD AND PENSION TRUST AUDIT FEES	ACCOUNTING	28,895.25	35,000.00	(6,104.75)
2 LEGAL-FERC/ISO/POWER/OTHER	INTEGRATED RESOURCES	147,002.10	126,775.00	20,227.10
3 NERC COMPLIANCE AND AUDIT	E & O	29,521.35	14,125.00	15,396.35
4 LEGAL- SOLAR/FIBER	ENGINEERING	32,768.00	9,163.00	23,605.00
5 LEGAL-GENERAL	GM	101,905.17	68,750.00	33,155.17
6 LEGAL SERVICES	HR	37,600.25	66,334.00	(28,733.75)
7 SURVEY RIGHT OF WAY/ ENVIRONMENTAL	BLDG. MAINT.	0.00	9,163.00	(9,163.00)
8 INSURANCE CONSULTANT/OTHER	GEN. BENEFIT	23,506.38	24,750.00	(1,243.62)
TOTAL		<u>401,198.50</u>	<u>354,060.00</u>	<u>47,138.50</u>

PROFESSIONAL SERVICES BY VENDOR

	ACTUAL
MELANSON HEATH	28,500.00
DUNCAN AND ALLEN	95,677.74
CHOATE HALL & STEWART	589.60
COTTE MANAGEMENT CONSULTING LLC	633.75
UTILITY SERVICE INC.	15,860.00
RUBIN AND RUDMAN	160,989.31
SMERCZYNSKI & CONN, PC	28,696.25
PLM ELECTRIC POWER ENGINEERING	32,768.00
FERRITER SCOBBO & RODOPHELE, PC	20,871.35
FLEET COUNSELOR SERVICES INC.	16,612.50
TOTAL	<u>401,198.50</u>

RMLD
 DEFERRED FUEL CASH RESERVE ANALYSIS
 05/31/16

DATE	GROSS CHARGES	REVENUES	NYPA CREDIT	MONTHLY DEFERRED	TOTAL DEFERRED
Jun-15					5,180,285.15
Jul-15	3,492,949.80	3,083,024.15	(65,798.90)	(475,724.55)	4,704,560.60
Aug-15	3,269,589.09	3,172,916.67	(70,099.15)	(166,771.57)	4,537,789.03
Sep-15	3,302,139.93	3,385,022.47	(100,901.03)	(18,018.49)	4,519,770.54
Oct-15	2,543,916.53	2,607,127.52	(105,545.52)	(42,334.53)	4,477,436.01
Nov-15	2,489,548.12	2,551,186.05	(87,425.40)	(25,787.47)	4,451,648.54
Dec-15	2,757,146.26	2,826,699.78	(91,032.01)	(21,478.49)	4,430,170.05
Jan-16	3,163,761.69	2,656,333.87	(108,747.38)	(616,175.20)	3,813,994.85
Feb-16	3,056,024.39	2,978,402.24	(115,171.18)	(192,793.33)	3,621,201.52
Mar-16	2,149,376.47	2,668,095.44	(115,732.84)	402,986.13	4,024,187.65
Apr-16	1,821,988.77	2,745,250.33	(129,300.16)	793,961.40	4,818,149.05
May-16	1,944,922.16	2,356,620.39	(94,374.91)	317,323.32	5,135,472.37

RMLD
 BUDGET / ACTUAL COMPARISON SUMMARY SCHEDULE
 5/31/16

DIVISION	ACTUAL	BUDGET	VARIANCE	VAR %
BUSINESS DIVISION	9,279,547	9,263,562	15,985	0.17%
INTEGRATED RESOURCES	1,135,162	1,311,232	(176,070)	-13.43%
ENGINEERING AND OPERATIONS	4,355,542	4,843,252	(487,710)	-10.07%
FACILITY	4,227,566	4,294,581	(67,015)	-1.56%
GENERAL MANAGER	<u>684,115</u>	<u>753,312</u>	<u>(69,197)</u>	-9.19%
SUB-TOTAL	19,681,932	20,465,938	(784,006)	-3.83%
PURCHASED POWER BASE	28,287,854	26,952,782	1,335,072	4.95%
PURCHASED POWER FUEL	29,991,363	31,571,524	(1,580,161)	-5.01%
TOTAL	<u><u>77,961,150</u></u>	<u><u>78,990,244</u></u>	<u><u>(1,029,095)</u></u>	-1.30%

RMLD PROCUREMENT REQUESTS
REQUIRING APPROVAL
ATTACHMENT 5



Reading Municipal Light Department
 RELIABLE POWER FOR GENERATIONS

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

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

July 19, 2016

Town of Reading Municipal Light Board

Subject: Distributed Generation

On May 25, 2016, a request for proposals was placed as a legal notice in the Middlesex East section of the Daily Times Chronicle and on June 1, 2016, to it was sent to ECNE, requesting proposals for Distributed Generation for the Reading Municipal Light Department.

An invitation to bid was emailed to the following:

AZ Corporation	AB Energy USA, LLC	Gas/Power Energy Systems
Authorized Services of NE	Bond Brothers	Cummins Energy Solutions Business
Cummins Northeast	Energy Acuity	Energy Choice/Seva 2 MW
Epsilon Associates	Kraft Power Corporation	Milton CAT
Power Secure, Inc.	Siemens Industry, Inc.	SME Safety Power Inc.
SourceOne	Tangent Energy	TN Ward Company

Bids were received from AB Energy USA, Milton CAT, TN Ward Company, AZ Corporation and G. Green Construction Company.

The bids were publicly opened and read aloud at 11:00 a.m. June 22, 2016, in the Town of Reading Municipal Light Department's Board Room, 230 Ash Street, Reading, Massachusetts.

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

MOVE that bid 2016-24 Distributed Generation be awarded to Milton CAT as the lowest responsive and responsible bidder on the recommendation of the General Manager.

<u>Item (desc.)</u>	<u>Qty</u>	<u>Unit Cost</u>	<u>Total Net Cost</u>
Unit 2 2.5 MW Distributed Generator	1	\$1,974,278.00	\$1,974,278.00
Optional 7 year warranty			\$34,260.00
		Total	\$2,008,538.00

RMLD



Reading Municipal Light Department
RELIABLE POWER FOR GENERATIONS

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

The FY17 Capital Budget allocation for the purchase of these units under the Distributed Generator project was estimated at \$2,720,409.

Coleen O'Brien

Hamid Jaffari

Nick D'Alleva

RMLD Distributed Generation Bid Analysis

	<u>2000 kW Generator</u>					<u>2500 kW Generator</u>				
	<u>Min Output</u>	<u>Max Output</u>	<u>Bid Amount</u>	<u>3 years Warranty</u>	<u>5 years Warranty</u>	<u>Min Output</u>	<u>Max Output</u>	<u>Bid Amount</u>	<u>3 years Warranty</u>	<u>5 years Warranty</u>
Milton/CAT	2000	2000	\$1,780,626.00	\$6,030.00	\$16,430.00	2500	2500	\$1,974,278.00	\$6,030.00	\$20,530.00
TN Ward Company	2300	2300	\$2,163,000.00	\$44,000.00	\$117,000.00	2500	2500	\$2,399,000.00	NA	NA
AZ Corp	2000	2000	\$2,145,000.00	\$48,560.00	\$132,252.00	NA	NA	NA	NA	NA
Green Construction Co	2000	2000	\$1,986,758.00	NA	NA	NA	NA	NA	NA	NA
AB Energy USA	2000	2395	\$2,193,900.00	\$51,590.00	\$128,980.00	2500	2649	\$2,268,800.00	\$57,000.00	\$140,000.00

	<u>2000 kW Generator</u>					<u>2500 kW Generator</u>				
	<u>Bid Amount</u>	<u>5 years Warranty</u>	<u>Total Cost</u>	<u>\$/Max-kW Output</u>	<u>Exeptions</u>	<u>Bid Amount</u>	<u>5 years Warranty</u>	<u>Total Cost</u>	<u>\$/Max-kW Output</u>	<u>Exeptions</u>
Milton/CAT	\$1,780,626.00	\$16,430.00	\$1,797,056.00	<i>\$898.53</i>	NO	\$1,974,278.00	\$20,530.00	\$1,994,808.00	<i>\$797.92</i>	NO
TN Ward Company	\$2,163,000.00	\$117,000.00	\$2,280,000.00	<i>\$991.30</i>	Yes	\$2,399,000.00	\$0.00	\$2,399,000.00	<i>\$959.60</i>	Yes
AZ Corp	\$2,145,000.00	\$132,252.00	\$2,277,252.00	<i>\$1,138.63</i>	Yes	\$0.00	\$0.00	\$0.00	<i>\$0.00</i>	Yes
Green Construction Co	\$1,986,758.00	\$0.00	\$1,986,758.00	<i>\$993.38</i>	Yes	\$0.00	\$0.00	\$0.00	<i>\$0.00</i>	Yes
AB Energy USA	\$2,193,900.00	\$128,980.00	\$2,322,880.00	<i>\$969.89</i>	Yes	\$2,268,800.00	\$140,000.00	\$2,408,800.00	<i>\$909.32</i>	Yes

Bid Award Recommendation

	<u>2000 kW Generator</u>					<u>2500 kW Generator</u>				
	<u>Bid Amount</u>	<u>7-years Warranty</u>	<u>Total Cost</u>	<u>\$/Max-kW Output</u>	<u>Exeptions</u>	<u>Bid Amount</u>	<u>7- years Warranty</u>	<u>Total Cost</u>	<u>\$/Max-kW Output</u>	<u>Exeptions</u>
Milton/CAT	\$1,780,626.00	\$27,410.00	\$1,808,036.00	<i>\$904.02</i>	NO	\$1,974,278.00	\$34,260.00	\$2,008,538.00	<i>\$803.42</i>	NO



230 Ash Street
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Web: www.rml.d.com

July 20, 2016

Town of Reading Municipal Light Board

Subject: 15kV Padmounted Switchgear

On June 29, 2016, a bid invitation was placed as a legal notice in the Middlesex East section of the Daily Times Chronicle and it was sent to ECNE requesting proposals for 15kV Padmounted Switchgear for the Reading Municipal Light Department.

An invitation to bid was emailed to the following:

- | | | |
|------------------------------------|-------------------|---------------------------------------|
| ABM Electrical Power Services, LLC | Irby Utilities | BCS Switchgear, Inc. |
| Circuit Breaker Sales Co., Inc. | Graybar Electric | Diversified Electric Services, Inc. |
| Eaton Cooper Power Systems | Power Sales Group | Electric Control Equipment |
| ElectriComm | MEC Power Group | Innovative Switchgear Solutions, Inc. |
| Omicron Electronics Corp. USA | WESCO | National Switchgear |
| Robinson Sales Inc. aka RSI | Power Tech- UPSC | |

Bids were received from Trayer Engineering Corp., Power Sales Group, Graybar Electric and WESCO.

The bids were publicly opened and read aloud at 11:00 a.m. July 13, 2016, in the Town of Reading Municipal Light Department's Board Room, 230 Ash Street, Reading, Massachusetts.

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

Move that bid 2017-02 for 15kV Padmounted Switchgear be awarded to Trayer Engineering Corp. as the lowest responsive and responsible bidder on the recommendation of the General Manager.

Item (description)	Unit Cost	Qty	Total Cost
2- 2 switched ways, 200 VFI Rating	\$54,260.00	2	\$108,520.00
1- 2 switched ways, 1-200 & 1-600 VFI Rating	\$60,916.00	1	\$60,916.00
1- 2 switched ways, 600 VFI Rating	\$56,664.00	1	\$56,664.00
Total for all 4 switches			<u>\$226,100.00</u>

RMLD



Reading Municipal Light Department
RELIABLE POWER FOR GENERATIONS

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

The FY17 Capital Budget allocation for the purchase of these units under the Padmount Switchgear Upgrade at Industrial Parks project was estimated at \$187,500.

A handwritten signature in black ink, appearing to read "CO'Brien".

Coleen O'Brien

A handwritten signature in blue ink, appearing to read "Hamid Jaffari".

Hamid Jaffari

A handwritten signature in black ink, appearing to read "B. Price".

Brian Smith (for Peter Price)

**Padmount Switchgear
Bid 2017-02**

Bidder	Manufacturer	Delivery Date	Unit Cost	Qty	Total Net Cost	Meet Specification requirement	Firm Price	All forms filled out	Certified Check or Bid Bond	Exceptions to stated bid requirements	Authorized signature
Trayer Engineering Corp.											
2- 2 switched ways, 200 VFI Rating	Trayer Engineering Corp.	28 weeks	\$54,260.00	2	\$108,520.00	yes	yes	yes	yes	no	yes
1- 2 switched ways, 1-200 & 1-600 VFI Rating			\$60,916.00	1	\$60,916.00						
1- 2 switched ways, 600 VFI Rating			\$56,664.00	1	\$56,664.00						
Total for all 4 switches					\$226,100.00						
G&W Electric Company c/o Power Sales Group											
2- 2 switched ways, 200 VFI Rating	G&W Electric Company	15 weeks	\$58,672.00	2	\$117,344.00	yes	yes	yes	yes	yes	yes
1- 2 switched ways, 1-200 & 1-600 VFI Rating			\$58,672.00	1	\$58,672.00						
1- 2 switched ways, 600 VFI Rating			\$58,672.00	1	\$58,672.00						
Total for all 4 switches					\$234,688.00						
WESCO											
2- 2 switched ways, 200 VFI Rating	S&C Electric	16-18 weeks	\$71,673.00	2	\$143,346.00	yes	yes	yes	yes	no	yes
1- 2 switched ways, 1-200 & 1-600 VFI Rating			\$71,925.00	1	\$71,925.00						
1- 2 switched ways, 600 VFI Rating			\$71,925.00	1	\$71,925.00						
Total for all 4 switches					\$287,196.00						

Graybar Electric - NON-RESPONSIVE

Note: Graybar quoted S&C General Terms & Conditions only.

IRBY - Disqualified at opening

Note: Statutory forms not included.

RMLD



Reading Municipal Light Department
RELIABLE POWER FOR GENERATIONS

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July 21, 2016

Town of Reading Municipal Light Board

Subject: S&C SCADA-Mate CX Switch

On June 22, 2016, a bid invitation was placed as a legal notice in the Middlesex East section of the Daily Times Chronicle and it was sent to ECNE requesting proposals for S&C SCADA-Mate CX Switch for the Reading Municipal Light Department.

An invitation to bid was emailed to the following:

- | | | |
|------------------------|------------------------|-------------------------------|
| Power Sales Group | WESCO | Shamrock Power |
| JF Gray & Associates | MetroWest | Power Tech dba UPSC |
| Hasgo Power Sales | Robinson Sales | EL Flowers & Associates |
| HD Industrial Services | Genergy Corp. | Omicron Electronics Corp. USA |
| Siemens | Eaton Cooper | Elster |
| Graybar | Irby | ITRON |
| MEC Power Group | Mueller Systems | Parijat Controlware, Inc. |
| Shay Enterprise | Silver Spring Networks | |

Bids were received from Irby, Graybar and WESCO.

The bids were publicly opened and read aloud at 11:00 a.m. July 13, 2016, in the Town of Reading Municipal Light Department's Board Room, 230 Ash Street, Reading, Massachusetts.

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

MOVE that bid 2017-03 for S&C SCADA-Mate CX Switch be awarded to WESCO as the lowest responsive and responsible bidder on the recommendation of the General Manager.

<u>Item (desc.)</u>	<u>Qty</u>	<u>Unit Cost</u>	<u>Total Cost</u>
Item 1 - S&C SCADA-Mate Switch	4	\$28,680.25	\$114,720.00

RMLD



Reading Municipal Light Department
RELIABLE POWER FOR GENERATIONS

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


The FY17 Capital Budget allocation for the purchase of these units under the Grid Modernization and Optimization project was estimated at \$140,000.



Coleen O'Brien



Hamid Jaffari



Brian Smith (for Peter Price)

**S&C SCADA-Mate CX Switch
Bid 2017-03**

Bidder	<u>Delivery Date</u>	<u>Manufacturer</u>	<u>Unit Cost</u>	<u>Qty</u>	<u>Total Net Cost</u>	<u>Meet Specification requirement</u>	<u>Firm Price</u>	<u>All forms filled out</u>	<u>Certified Check or Bid Bond</u>	<u>Exceptions to stated bid requirements</u>	<u>Authorized signature</u>
WESCO Item 1 - S&C SCADA-Mate CX Switch	14-16 weeks		\$ 28,680.00	4	\$114,720.00	yes	yes	yes	yes	no	yes

Irby - *NON-RESPONSIVE*

Note: Unauthorized signature.

Graybar - *NON-RESPONSIVE*

Note: Graybar quoted S&C General Terms & Conditions only.

RMLD



Reading Municipal Light Department
RELIABLE POWER FOR GENERATIONS

230 Ash Street
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July 18, 2016

Town of Reading Municipal Light Board

Subject: S&C IntelliRupter Pulse Closer

On June 22, 2016, a bid invitation was placed as a legal notice in the Middlesex East section of the Daily Times Chronicle and it was sent to ECNE requesting proposals for S&C IntelliRupter Pulse Closer for the Reading Municipal Light Department.

An invitation to bid was emailed to the following:

Power Sales Group	WESCO	Graybar Electric Company
Shamrock Power Sales	JF Gray	MetroWest
Power Tech dba UPSC	Hasgo Power	Robinson Sales
Stuart C. Irby	HD Industrial Services	EL Flowers & Associates
Genergy	MVA Power, Inc.	Siemens Industry, Inc.
Eaton Cooper	Omicron Electronics Corp, USA	Elster
Mueller Systems	Silver Spring Networks	MEC Power Group

Bids were received from WESCO, Irby and Graybar Electric Company.

The bids were publicly opened and read aloud at 11:00 a.m. July 13, 2016, in the Town of Reading Municipal Light Department's Board Room, 230 Ash Street, Reading, Massachusetts.

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

MOVE that bid 2017-04 for S&C IntelliRupter Pulse Closer be awarded to WESCO as the lowest responsive and responsible bidder on the recommendation of the General Manager.

<u>Item (desc.)</u>	<u>Manufacturer</u>	<u>Unit Cost</u>	<u>Qty</u>	<u>Total Cost</u>
1 - S&C IntelliRupter Pulse Closers	S&C Electric Co	\$36,970.00	2	\$73,940.00

RMLD



Reading Municipal Light Department
RELIABLE POWER FOR GENERATIONS

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

The FY17 Capital Budget allocation for the purchase of these units under the Grid Modernization and Optimization project was estimated at \$90,000.

A handwritten signature in black ink, appearing to read "COLEEN O'BRIEN".

Coleen O'Brien

A handwritten signature in blue ink, appearing to read "Hamid Jaffari".

Hamid Jaffari

A handwritten signature in blue ink, appearing to read "B. Smith".

Brian Smith (for Peter Price)

**S&C IntelliRupter Pulse Closers
Bid 2017-04**

Bidder	<u>Delivery Date</u>	<u>Manufacturer</u>	<u>Unit Cost</u>	<u>Qty</u>	<u>Total Net Cost</u>	<u>Meet Specification requirement</u>	<u>Firm Price</u>	<u>All forms filled out</u>	<u>Certified Check or Bid Bond</u>	<u>Exceptions to stated bid requirements</u>	<u>Authorized signature</u>
WESCO Item 1 - S&C IntelliRupter Pulse Closers	16-18 weeks	S&C Electric Co	\$ 36,970.00	2	\$73,940.00	yes	yes	yes	yes	no	yes

Irby - *NON-RESPONSIVE*

Note: Unauthorized signature.

Graybar - *NON-RESPONSIVE*

Note: Graybar quoted S&C General Terms & Conditions only.

230 Ash Street
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Reading, MA 01867-0250

Tel: (781) 944-1340
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July 22, 2016

Town of Reading Municipal Light Board

Subject: Hourly Rates for Professional Manpower, Vehicles, Trade Tools, and Equipment for Underground Electrical Distribution Construction and Maintenance

On June 29, 2016, a bid invitation was placed as a legal notice in the Middlesex East section of the Daily Times Chronicle requesting proposals for Hourly Rates for Professional Manpower, Vehicles, Trade Tools, and Equipment for Underground Electrical Distribution Construction and Maintenance for the Reading Municipal Light Department.

An invitation to bid was emailed to the following:

ABM Electrical Power Services, LLC	Mass Bay Electrical Corp.
Albanese Brothers, Inc.	Maverick Construction
Construction Journal	McDonald Electrical Corporation
Dagle Electrical Construction Corp.	McDonough Electric Construction
ElecComm Elecnor Hawkeye LLC	MEC Power Group
Elecnor Hawkeye LLC	Northeast Line Construction Corp.
Evermore Light and Power	OSP LLC
Fischbach & Moore Electric Group, LLC	Power Line Contractors
GEOD Consulting	Project Dog, Inc.
Grattan Line Construction Corp.	Spencer Contracting
Hamilton Electric Co., Inc.	Thirault LLC
Hi Volt Line Construction & Maintenance	Utility Service & Assistance, Inc.
K.B. Aruda Construction, Inc.	PowerLine Contractors, Inc.

Three bids were received from Elecnor Hawkeye LLC, Fischbach & Moore Electric Group, LLC, and McDonald Electrical Corporation.

The bids were publicly opened and read aloud at 11:00 a.m., July 14, 2016, in the Town of Reading Municipal Light Department's Board Room, 230 Ash Street, Reading, Massachusetts.

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

Move that bid 2017-05 for Hourly Rates for Professional Manpower, Vehicles, Trade Tools, and Equipment for Underground Electrical Distribution Construction and Maintenance be awarded to **McDonald Electrical Corporation** as the lowest responsible and eligible 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

This project will be paid from various operating and capital accounts as the work dictates.

Coleen O'Brien

Hamid Jaffari

Stephen DeFerrari

**Hourly Rates for Professional Manpower, Vehicles, Trade Tools, and Equipment for Underground Electrical Distribution Construction and Maintenance
IFB 2017-05**

Bidder:	McDonald Electrical Corporaton			Fischbach & Moore Electric Group, LLC			Elecnor Hawkeye, LLC		
	YEAR 1 <i>Sept 1, 2016 - Aug 31, 2017</i>	YEAR 2 <i>Sept 1, 2017 - Aug 31, 2018</i>	YEAR 3 <i>Sept 1, 2018 - Aug 31, 2019</i>	YEAR 1 <i>Sept 1, 2016 - Aug 31, 2017</i>	YEAR 2 <i>Sept 1, 2017 - Aug 31, 2018</i>	YEAR 3 <i>Sept 1, 2018 - Aug 31, 2019</i>	YEAR 1 <i>Sept 1, 2016 - Aug 31, 2017</i>	YEAR 2 <i>Sept 1, 2017 - Aug 31, 2018</i>	YEAR 3 <i>Sept 1, 2018 - Aug 31, 2019</i>
Crew Rate - Regular Hourly									
Working Foreman/Electrician/Cable Splicer	79.75	81.65	82.61	88.72	90.92	93.12	122.30	125.25	128.84
Journeyman Electrician/Cable Splicer	74.87	75.81	76.73	81.84	84.04	86.24	112.68	115.44	118.73
Splicing Van	15.00	16.00	17.00	1.00	1.00	1.00	25.00	25.00	25.00
Crew Rate Per Hour:	<u>\$169.62</u>	<u>\$173.46</u>	<u>\$176.34</u>	<u>\$171.56</u>	<u>\$175.96</u>	<u>\$180.36</u>	<u>\$259.98</u>	<u>\$265.69</u>	<u>\$272.57</u>
Crew Rate - Overtime Hourly									
Working Foreman/Electrician/Cable Splicer	111.93	114.77	116.21	126.23	129.53	132.06	153.31	156.85	161.38
Journeyman Electrician/Cable Splicer	104.63	106.05	107.48	115.92	119.22	121.75	139.87	143.14	147.26
Splicing Van	15.00	16.00	17.00	1.00	1.00	1.00	25.00	25.00	25.00
Crew Rate Per Hour:	<u>\$231.56</u>	<u>\$236.82</u>	<u>\$240.69</u>	<u>\$243.15</u>	<u>\$249.75</u>	<u>\$254.81</u>	<u>\$318.18</u>	<u>\$324.99</u>	<u>\$333.64</u>
Annual Cost - Regular Time (estimate)									
# of Hours Per Year (estimate)	710	710	710	710	710	710	710	710	710
Total Estimate Per Year (hours x rate):	\$120,430	\$123,157	\$125,201	\$121,808	\$124,932	\$128,056	\$184,586	\$188,640	\$193,525
Annual Cost - Over-time (estimate)									
# of Hours Per Year (estimate)	125	125	125	125	125	125	125	125	125
Total Estimate Per Year (hours x rate):	\$28,945	\$29,603	\$30,086	\$30,394	\$31,219	\$31,851	\$39,773	\$40,624	\$41,705
Total (Regular and Over Time) Combined									
Annual Total:	\$149,375	\$152,759	\$155,288	\$152,201	\$156,150	\$159,907	\$224,358	\$229,264	\$235,230
Three-Year Total:	\$457,422			\$468,259			\$688,852		



230 Ash Street
P.O. Box 150
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Web: www.rml.com

July 19, 2016

Town of Reading Municipal Light Board

Subject: Cooper Power System or Compatible Meters and Equipment for the AMI Mesh Network System Expansion and Migration

On June 22, 2016, a bid invitation was placed as a legal notice in the Middlesex East section of the Daily Times Chronicle and it was sent to ECNE requesting proposals for Cooper Power System or Compatible Meters and Equipment for the AMI Mesh Network System Expansion and Migration for the Reading Municipal Light Department.

An invitation to bid was emailed to the following:

AVCOM	ECI Sales	ITRON
Power Sales Group	WESCO	Graybar Electric Company
Shamrock Power Sales	JF Gray	MetroWest
Power Tech dba UPSC	Hasgo Power	Robinson Sales
Stuart C. Irby	HD Industrial Services	EL Flowers & Associates
Genergy	MVA Power, Inc.	Siemens Industry, Inc.
Eaton Cooper	Omicron Electronics Corp, USA	Elster
Mueller Systems	Silver Spring Networks	MEC Power Group

A bid was received from Eaton.

The bids were publicly opened and read aloud at 11:00 a.m. July 13, 2016, in the Town of Reading Municipal Light Department's Board Room, 230 Ash Street, Reading, Massachusetts.

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

MOVE that bid 2017-06 for Cooper Power System or Compatible Meters and Equipment for the AMI Mesh Network System Expansion and Migration be awarded to Eaton as the lowest responsive and responsible bidder on the recommendation of the General Manager.

<u>Item (desc.)</u>	<u>Unit Cost</u>	<u>Qty</u>	<u>Total Net Cost</u>
1 Retrofit of 2S and 12S Meters	\$96.90	500	\$48,450.00
2 Mesh Network Relays	\$255.00	30	\$7,650.00
3 6S Meters	\$642.60	52	\$33,415.20
4 5S Meters	\$642.60	32	\$20,563.20
5 16S Meters, Class 200	\$586.50	12	\$7,038.00
6 16S Meters, Class 320	\$603.84	4	\$2,415.36
			\$119,531.76



The FY17 Capital Budget allocation for the purchase of these units under the AMI Mesh Network Expansion project was estimated at \$148,000.

A handwritten signature in cursive script, appearing to read "COLEEN".

Coleen O'Brien

A handwritten signature in cursive script, appearing to read "Hamid Jaffari".

Hamid Jaffari

A handwritten signature in cursive script, appearing to read "Nick D'Alleva".

Nick D'Alleva

Meters & Equipment for the AMI Mesh Network
 Bid 2017-06

Bidder	<u>Manufacturer</u>	<u>Delivery Date</u>	<u>Unit Cost</u>	<u>Qty</u>	<u>Total Net Cost</u>	<u>Meet Specification requirement</u>	<u>Specification Data Sheets</u>	<u>Firm Price</u>	<u>All forms filled out</u>	<u>Certified Check or Bid Bond</u>	<u>Exceptions to stated bid requirements</u>	<u>Authorized signature</u>
Eaton						yes	yes	yes	yes	yes	yes	yes
Item 1 Retrofit of 2S and 12S	Eaton	2-8 weeks ARO	\$96.90	500	\$48,450.00							
Item 2 Mesh Network Relays	Eaton	2-10 weeks ARO	\$255.00	30	\$7,650.00							
Item 3 6S Meters	Elster	2-10 weeks ARO	\$642.60	52	\$33,415.20	<u>Exceptions:</u>	Are based on T&C already In place between RMLD and Cooper Power Systems.					
Item 4 5S Meters	Elster	2-10 weeks ARO	\$642.60	32	\$20,563.20							
Item 5 16S Meters, Class 200	Elster	2-10 weeks ARO	\$586.50	12	\$7,038.00	<u>Note:</u>	Although Eaton checked exceptions, this is actually a clarification and is acceptable.					
Item 6 16S Meters, Class 320	Elster	2-10 weeks ARO	\$603.84	4	\$2,415.36							
					<u>\$119,531.76</u>							



Reading Municipal Light Department
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July 19, 2016

Town of Reading Municipal Light Board

Subject: Bus Insulation at Substation 5

On June 29, 2016, a bid invitation was placed as a legal notice in the Middlesex East section of the Daily Times Chronicle, the Commonwealth of MA Central Register and it was sent to ECNE requesting proposals for Repair of 15kV McGraw Edison Switchgear at Substation 5 for the Reading Municipal Light Department.

An invitation to bid was emailed to the following:

American Electrical Testing Co., Inc.	AtlanBay	Circuit Breaker Sales North East
Construction Journal	Dec Corp.	Eaton & Eastman Electric
No-Outage Electrical Testing	OnTarget Services	PowerLine Contractors, Inc.
PowerTech Associates	Schneider Electric	Shermco Industries
Three Phase Line Construction, Inc.	CMDG-USA	Western Electrical Services, Inc.
USNE, Inc. Northeast Operations	Project Dog, Inc.	Hawkeye Elecnor Group
MEC Power Group		

Bids were received from McDonald Electric Corp and Powerline Contractors, Inc.

The bid was publicly opened and read aloud at 11:00 a.m. July 14, 2016, in the Town of Reading Municipal Light Department's Board Room, 230 Ash Street, Reading, Massachusetts.

The bid was reviewed, analyzed and evaluated by staff and recommended to the General Manager.

Move that bid 2017-08 for Bus Insulation at Substation 5 be awarded to Powerline Contractors, Inc. as the lowest responsible and eligible bidder on the recommendation of the General Manager.

<u>Item (desc.)</u>	<u>Total Cost</u>
a. straight time	\$25,754.00
b. overtime	\$31,578.00
	<hr/>
	\$57,332.00

RMLD



Reading Municipal Light Department
RELIABLE POWER FOR GENERATIONS

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

The FY17 Operating Budget will be charged for the re-insulation of the bus work.

A handwritten signature in cursive script, appearing to read "Coleen O'Brien".

Coleen O'Brien

A handwritten signature in cursive script, appearing to read "Hamid Jaffari".

Hamid Jaffari

A handwritten signature in cursive script, appearing to read "Nick D'Alleva".

Nick D'Alleva

**Bus Insulation at Substation 5
IFB 2017-08**

Bidder	<u>Total Price</u>	<u>Meet Specification requirement</u>	<u>Firm Price</u>	<u>All forms filled out</u>	<u>Certified Check or Bid Bond</u>	<u>Exceptions to stated bid requirements</u>	<u>Authorized signature</u>
Powerline Contractors, Inc.							
a. Straight time	\$25,754.00	yes	yes	yes	yes	no	yes
b. Overtime	\$31,578.00						
	<u>\$57,332.00</u>						
McDonald Electric Corp.							
a. Straight time	\$53,430.00	yes	yes	yes	yes	no	yes
b. Overtime	\$66,000.00						
	<u>\$119,430.00</u>						

BOARD MATERIAL AVAILABLE
BUT NOT DISCUSSED

Jeanne Foti

From: Jeanne Foti
Sent: Thursday, July 21, 2016 11:49 AM
To: RMLD Board Members Group
Subject: Account Payable and Payroll Questions

Good morning.

In an effort to save paper, the following timeframes had no Account Payable and Payroll questions.

Account Payable Warrant – No Questions

June 24, July 1, July 8 and July 15 .

Payroll – No Questions

June 27 and July 11.

This e-mail will be printed for the Board Packet for the RMLD Board meeting on July 28, 2016.

Jeanne Foti
Reading Municipal Light Department
Executive Assistant
230 Ash Street
Reading, MA 01867

781-942-6434 Phone
781-942-2409 Fax

Please consider the environment before printing this e-mail.

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

June-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	\$109.40	\$190.18	\$134.08	\$968.89	\$187.29	\$4,546.48	\$738,287.26
PER KWH CHARGE	\$0.14586	\$0.12679	\$0.13408	\$0.13272	\$0.17342	\$0.12990	\$0.10732
NATIONAL GRID							
TOTAL BILL	\$132.87	\$266.91	\$177.15	\$1,240.45	\$178.15	\$5,006.92	\$1,369,293.51
PER KWH CHARGE	\$0.17716	\$0.17794	\$0.17715	\$0.16993	\$0.16495	\$0.14305	\$0.19904
% DIFFERENCE	21.45%	40.34%	32.12%	28.03%	-4.88%	10.13%	85.47%
EVERSOURCE(NSTAR)							
TOTAL BILL	\$160.77	\$308.69	\$212.21	\$1,450.70	\$233.72	\$6,735.05	\$1,089,647.12
PER KWH CHARGE	\$0.21435	\$0.20579	\$0.21221	\$0.19873	\$0.21641	\$0.19243	\$0.15839
% DIFFERENCE	46.95%	62.31%	58.27%	49.73%	24.79%	48.14%	47.59%
PEABODY MUNICIPAL LIGHT PLANT							
TOTAL BILL	\$92.34	\$178.32	\$121.00	\$979.47	\$155.08	\$4,839.43	\$663,878.58
PER KWH CHARGE	\$0.12313	\$0.11888	\$0.12100	\$0.13417	\$0.14360	\$0.13827	\$0.09650
% DIFFERENCE	-15.59%	-6.24%	-9.75%	1.09%	-17.20%	6.44%	-10.08%
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	-9.75%	6.04%	-0.99%	-0.97%	-10.07%	4.76%	9.33%
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	12.42%	20.11%	15.14%	20.37%	-0.54%	20.38%	24.82%

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

July-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	\$114.26	\$197.04	\$139.38	\$1,013.50	\$200.14	\$4,709.60	\$757,070.59
PER KWH CHARGE	\$0.15234	\$0.13136	\$0.13938	\$0.13884	\$0.18531	\$0.13456	\$0.11005
NATIONAL GRID							
TOTAL BILL	\$132.87	\$266.91	\$177.15	\$1,240.45	\$178.15	\$4,919.42	\$1,369,293.51
PER KWH CHARGE	\$0.17716	\$0.17794	\$0.17715	\$0.16993	\$0.16495	\$0.14055	\$0.19904
% DIFFERENCE	16.29%	35.46%	27.10%	22.39%	-10.99%	4.46%	80.87%
EVERSOURCE(NSTAR)							
TOTAL BILL	\$141.00	\$269.15	\$185.85	\$1,490.50	\$206.30	\$7,655.11	\$1,136,772.38
PER KWH CHARGE	\$0.18799	\$0.17943	\$0.18585	\$0.20418	\$0.19102	\$0.21872	\$0.16524
% DIFFERENCE	23.40%	36.60%	33.34%	47.06%	3.08%	62.54%	50.15%
PEABODY MUNICIPAL LIGHT PLANT							
TOTAL BILL	\$91.88	\$177.36	\$120.37	\$979.25	\$155.05	\$4,838.38	\$663,672.19
PER KWH CHARGE	\$0.12250	\$0.11824	\$0.12037	\$0.13414	\$0.14357	\$0.13824	\$0.09647
% DIFFERENCE	-19.59%	-9.99%	-13.64%	-3.38%	-22.53%	2.73%	-12.34%
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	-13.58%	2.35%	-4.76%	-5.33%	-15.84%	1.13%	6.62%
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	7.64%	15.93%	10.76%	15.07%	-6.92%	16.21%	21.73%