

READING MUNICIPAL LIGHT DEPARTMENT

BOARD OF COMMISSIONERS

REGULAR SESSION

THURSDAY, JULY 20, 2017

APPROVAL OF BOARD MINUTES ATTACHMENT 1

Reading Municipal Light Board of Commissioners Regular Session 230 Ash Street Reading, MA 01867 September 29, 2016

Start Time of Regular Session: 7:30 p.m. End Time of Regular Session: 9:23 p.m.

Commissioners:

Thomas O'Rourke, Chairman Philip B. Pacino, Vice Chair

John Stempeck, Commissioner – Absent David Talbot, Commissioner, Secretary Pro Tem

Dave Hennessy, Commissioner

Staff:

Coleen O'Brien General Manager Jeanne Foti, Executive Assistant

Hamid Jaffari, Director of Engineering and Operations Jane Parenteau, Director of Integrated Resources

Tracy Schultz, Executive Assistant Wendy Markiewicz, Senior Accountant

Citizens' Advisory Board (CAB):

Dave Nelson, Vice Chair

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. 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.

Introductions

Commissioner Stempeck will not be in attendance at the meeting. Chairman O'Rourke acknowledged Dave Nelson, Citizens' Advisory Board, Vice Chair. Chairman O'Rourke stated that Mr. Talbot will be the Secretary.

Public Comment

There was no public comment.

RMLD Citizens' Advisory Board

RMLD Citizens' Advisory Board Vice Chair, Nelson was present.

Liaisons to RMLD Board

There were no liaisons present.

Report of the Committee

Policy Committee - Commissioner Hennessy

Mr. Hennessy reported that the Policy Committee met on September 22, 2016 discussed and voted on the following policies: Facility Use, Family and Medical Leave and Non-Union Management Compensation and Benefits.

RMLD Policy 13, Revision 4 Facility Use, RMLD Policy 20, Revision 3, Family and Medical Leave, RMLD Policy 21, Revision 9, Non-Union Management Compensation and Benefits

Mr. Pacino made a motion seconded by Mr. Talbot that RMLD Policy 13, Revision 4 Facility Use, RMLD Policy 20, Revision 3, Family and Medical Leave and RMLD Policy 21, Revision 9, Non-Union Management Compensation and Benefits be accepted as presented on the recommendation of the General Manager.

Motion carried 4:0:0.

Mr. Pacino asked if the policies will be on the website. Ms. Foti explained that the approved policies need to be signed, then they will be updated to RMLD's website.

Fiber Optic Committee – Commissioner Talbot

Mr. Talbot reported that the Fiber Optic Committee met on September 22, 2016. Raj Singh, from NDDI Plan will be performing a small-scale study to look at one slice of RMLD's service territory, to provide internet service, a gigabit to businesses, to help aid and attract business and achieve load growth, to determine what the cost would be.

Fiber Optic Committee – Commissioner Talbot

Chairman O'Rourke asked what is the next action step. Mr. Talbot responded that the RMLD would look at the data to determine what the opportunity would be. Chairman O'Rourke pointed out at the last meeting there was concern relative to the proposal detail, which has that been rectified. Mr. Talbot said that he believes it has been resolved. Mr. Talbot added that Wellesley Municipal Light Plant is considering providing high speed internet to its business district customers as well despite the presence of both Comcast and Verizon Fios in the market. Mr. Pacino said that the recommendations found in the proposal should go back to the full Board because the committee has set the parameters. Mr. Pacino stated that the Fiber Optic Committee as of this meeting is no longer needed.

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

There was no Board representation at the CAB meeting on August 14, 2016. Chairman O'Rourke asked CAB Vice Chair, Dave Nelson if he could provide an update in the absence of commission attendance at this meeting. Mr. Nelson reported that Ms. O'Brien attended the meeting and provided a very well presented update, it was a good meeting.

Approval of Board Minutes

May 26, 2016, June 30, 2016, July 28, 2016

Mr. Pacino made a motion seconded by Mr. Hennessy to approve the meeting minutes of May 26, 2016, June 30, 2016, July 28, 2016 minutes, as presented.

Motion carried 4:0:0.

General Manager's Report – Ms. O'Brien

Ms. O'Brien reported that RMLD hosted an electric vehicle showcase during National Drive Electric Week on Saturday September 17, 2016 from 10-2. Plug in vehicles from local dealers were available to test drive. Ms. Parenteau stated that this was a successful event with eight electric vehicles represented. Five RMLD customers brought in their electric vehicles. There were fifty attendees and twenty test drives occurred. Ms. Parenteau reported that National Drive Electric Week runs from September 10-17. RMLD was one of five test sites in Massachusetts to host this event.

Chairman O'Rourke asked if RMLD has any public charging stations in Reading. Ms. Parenteau responded, no. However, the RMLD does have an electric vehicle charging rebate offered to commercial and residential customers. In the capital budget, there are charging stations for each of the four towns over the next four years. Chairman O'Rourke asked about the locations for the charging stations. Ms. Parenteau said that most charging stations are located where people would be staying for a bit of time such as shopping malls and restaurants. Ms. Parenteau said that a survey was taken at the Electrical Vehicle Showcase relative to potential electric vehicle ownership and will provide this to the Board. Currently, there are three commercial locations that host charging stations. The charging station RMLD owns is at Analog Devices who is the host business and has a rate assessed. The other host businesses are at Teradyne and Osram. Currently, RMLD is working with another potential customer interested in a charging station.

Mr. Talbot asked what the charging rate is? Ms. Parenteau replied it is 20 cents per kilowatt hour, the purchased power costs need to be recouped.

Ms. O'Brien said that next week is National Public Power Week throughout the nation, it is a celebration of public owned utilities. The RMLD is having its Open House on Thursday, October 6 from 2-5 pm and this information can be found on RMLD's website at www.rmld.com. This has been successful over the past couple of years.

Ms. O'Brien reported that she will be scheduling meetings with the Town Managers/Administrators which historically she has set late fall and in the spring. Ms. O'Brien will be providing updates to the Town Managers/Administrators on what is going on, any preview of what is going on with the rates and in the spring, it will be the evaluation of the Cost of Service. This way rates can be segued into the towns' respective budgets as well as address any issues they have going on. This has been successful over the past three years. Ms. Foti is scheduling the meetings. Ms. O'Brien said that Mr. Talbot has asked to come to the Reading meeting to discuss solar. Ms. O'Brien asked the commission members if they had any topics they want brought forward to let her know. With Reading Town Meeting, there will be the Annual Report which will be online, paperless as started last year. The theme will be peak reduction targeting children, as recycling started in schools and take that same strategy for peak reduction, with the motto "Shred the Peak'.

Ms. O'Brien added that every year there may be a new motto, but RMLD is continuing the go green, go paperless, be efficient, is a way of saving money, if you are not on paperless billing customers should consider it. The more electronic RMLD is it translates into more efficiency. Ms. Parenteau pointed out that there was an internal campaign from June 1 to September 1 with a goal of 1,000 customers on paperless billing, but achieved 2,500, which made this very successful. There was a drawing with the winner receiving a mini IPad.

Mr. Pacino asked where is the RMLD in terms of the Twenty Year Agreement. Ms. Foti will check into this.

Chairman O'Rourke introduced Tracy Schultz, RMLD Executive Assistant and welcomed her to the RMLD and Board. Ms. Schultz thanked Chairman O'Rourke.

Power Supply Report – June and July 2016 – Ms. Parenteau (Attachment 1)

Ms. Parenteau presented the June and July report included in the Commissioner packet.

Residential kilowatt hour sales for fiscal years 2014, 2015 and 2016 are as of June 30, which represent preliminary numbers on the residential side there was a 2.8% decrease in sales compared to fiscal year 2015 which is flat compared to fiscal year 2014.

Industrial and commercial sales there is a 2.4% decrease from 2015 to 2016 kilowatt sales, municipal kilowatt hour sales there was 5.8% decrease. This went from 402 million kilowatt hours to 393 million kilowatt hours which is an approximate 9 million kilowatt hour drop as of June 30, preliminary numbers. Mr. Hennessy clarified if this represents the full fiscal year, Ms. Parenteau concurred. Ms. Parenteau stated that when you pull all the classes together this represents a 2.65% decrease in kilowatt hour sales. This is typical for what RMLD has been showing because over the last ten years' sales have gone downward.

Ms. Parenteau noted that the for the new fiscal year (2017), historical July peaks from 2012 to 2016 were looked at. There was a high of 168 in 2013, it has been flat and levelized; lower this year compared to last year. The peak for this July was about 155. Mr. Talbot asked what the temperatures were for those days. Ms. Parenteau stated that she will show how cooling degree days' tie into the weather. Ms. Parenteau explained that cooling degree days is how much customers will be using their air conditioning for load. In 2013 to 2014, there was a significant drop in cooling degrees and a significant reduction in the peak. In 2015, there was another drop-in peak. In 2016, there was an increase in cooling degree days, but it was a very hot month with the peak demand going down.

Overall kilowatt sales for the month of July where cooling degree days go up from 2015 to 2016 with kilowatt hour sales increasing as well.

Mr. Talbot asked what is the result of the communications efforts in reducing the peak. Ms. Parenteau responded that the data is being analyzed with recent shave the peak campaign.

RMLD's peak took place on Friday, August 12 at 4:00 pm which is coincident with the ISO New England's peak. The RMLD had a peak demand of 163 megawatts. It was 155 megawatts. Over the course of the summer there were eight alerts issued, six in July, with two in August. The data is being analyzed and will have preliminary information next week. There was a significant reduction of load on August 12 with the peak occurring anytime between 3-6 pm which is related to temperature and weather. On July 18, the RMLD peaked at 3 pm, then a rainstorm came in reducing the peak significantly, 3.8 megawatts based on that weather. Ms. Parenteau has looked at the alert days, peak hour and what the drop was after the peak. It was trending very low, .5-3 megawatt decrease, if you look at the peak hour and the hour following the peak. On August 12, at 4 pm to 5 pm there was an eight megawatt drop which is significant which did not occur on any of the other alert days. It is a positive sign that within an hour the peak dropped significantly even with the weather being ninety degrees.

Mr. Talbot asked if the RMLD saw a drop in the demand based on the push to decrease the load. Ms. Parenteau replied that the RMLD is analyzing that. RMLD customers were e-mailed and RMLD did tweets.

Chairman O'Rourke asked Ms. Parenteau to explain how this works. Ms. Parenteau said that for the RMLD on the wholesale power supply for capacity and transmission costs are directly tied to the hour that the ISO New England peaks. For a summer month that one hour denotes the amount of capacity the RMLD is required to cover for the following twelve months beginning June 1 to May 30. If the RMLD can reduce that amount with customer support, solar, distributed generation and all RMLD programs that is where RMLD's power supply cost as a pass through to its customers will result in maintaining lower rates for our customers. RMLD is required to carry a certain amount of capacity plus reserve based on that amount RMLD used for one hour. Mr. Talbot asked what is the cost for reducing one megawatt at the peak. Ms. Parenteau responded for this year each megawatt represents approximately \$200,000.

Chairman O'Rourke asked Ms. Parenteau to explain cooling degree days. Ms. Parenteau said that in the winter it is heating degree days and in the summer, it is cooling degree days. It is a calculation that looks at the average temperature for the day. It takes the high temperature and the low temperature and averages that out subtracting that from sixty-five degrees which is the standard. Weather impacts sales and demand on the system. In the summer by seeing how many cooling degree days you have in a month it demonstrates how warm the weather has been, in the winter there are heating degree days.

Power Supply Report – June and July 2016 – Ms. Parenteau (Attachment 1)

Ms. Parenteau stated that this was not in the packet, but wanted to inform RMLD's customers about Solar Choice. RMLD has negotiated a contract for a one megawatt solar array located at Ballardvale Street, Wilmington. This project has a community solar project classification which means the SRECs value is greater. The RMLD is creating a new rate called Solar Choice which is taking the place of Green Choice which is open to five hundred customers. This new rate is structured that for the first twelve months, customers on average will pay \$5 monthly. In month thirteen, the RMLD will look back and determine how much value that solar array was on during the peak hour. The customers on that array will receive the capacity benefit and allocated to those customers only. On months thirteen to the end of the term, it is estimated that customers may see a credit on their bill between \$3-\$4. Over the ten-year period, a customer will receive an estimate of \$300 savings. The breakeven is in the third year. Ms. Parenteau stated that customers can call RMLD or go on RMLD's website. Ms. Parenteau stated that the Solar Choice rate will be brought to the CAB then the Board at its next meeting.

Chairman O'Rourke said that it is a great program. Mr. Talbot added that he has signed up for the program. Mr. Talbot asked how many other communities are doing community solar. Ms. Parenteau replied that RMLD is one of the first and the only other municipal she is aware of is Holyoke.

Engineering and Operations Report – June and July 2016 – Mr. Jaffari (Attachment 2)

Mr. Jaffari presented the July report included in the Commissioner packet covering the monthly capital improvement projects, routine construction, routine maintenance, double poles, NJUNS and an update on the reliability reporting.

Mr. Jaffari reported that on the capital improvement and routine construction projects spending in July was \$132,977 bringing the year to date spending to \$324,827.

RMLD has initiated seven preventative maintenance programs to maintain its assets and improve the operating conditions. These programs are: **Transformer Replacement:** 19.95 of aged padmount transformers and 14.05 % of aged overhead transformers have been replaced, **Pole Inspection:** 180 poles replaced, 102 transfers of 180 have been completed, **Visual Inspection of Overhead Lines:** 24 circuits inspected to identify potential problems or failures, no problems found, **Manhole Inspection:** 614 manholes have been inspected since inception, **Porcelain Cutout Replacements:** 91% system wide have been replaced with 256 need replacement,

Tree Trimming: 66 spans year in July trimmed and **Substation Maintenance:** this is a monthly maintenance program for substations and industrial parks with no hot spots found.

Mr. Jaffari reported that there are approximately 16,000 poles in all four communities, 50% owned by RMLD and 50% by Verizon. The custodial (who maintains the poles) poles in Reading is split between RMLD and Verizon, North Reading is RMLD's custodial, and Lynnfield and Wilmington are Verizon's custodial areas. Refer to the NJUNs report for a more detailed break out of poles: transfers, set, removal and guy installation.

Ms. O'Brien explained that the NJUNs program it is ball and court so whoever's custodial area puts in the pole with each party that has attachment rights is notified. Ms. O'Brien stated that with the GIS data collection they are hoping to mesh the two, therefore not sure if all the poles have been collected with double poles over five years old. Ms. O'Brien has asked internally for any double poles over five years outside of the inspection program. She will bring the double pole information to the meetings with the respective Town Managers/Administrators to point out where fire department needs to transfer if it is ball and court. Also, she will write Verizon and Comcast a letter if it is ball and court, if there is no result get in touch with the Board of Selectmen. Electric is the first to transfer and RMLD must wait. Mr. Jaffari added that NUNS was populated by Verizon and Comcast. Ms. O'Brien will provide an update on the aging.

Chairman O'Rourke asked what is the approach and philosophy. Ms. O'Brien replied that when the second pole is put in place it is due to age, at the end of its useful life, or due to an inspection or a vehicle hit. Ms. O'Brien pointed out that some of the double poles are stuck on transfers.

Mr. Jaffari reported that the reliability indices for SAIDI, CAIDI and SAIFI reflect a five-year timeline. SAIDI is a little over the regional average, but under the national average, whereas CAIDI is under both the regional and national average. SAIFI was under both the regional average, but over the national average. Mr. Jaffari explained that the overages were caused due to the number of storms with back to back storms in January 2016, large limbs came down on main feeders. Frequency and the restoration time affects these factors. There have been more storms this year than RMLD has seen in the past.

The outage causes were 24% equipment, 36% trees and 28% wildlife.

Engineering and Operations Report – June and July 2016 – Mr. Jaffari (Attachment 2)

Chairman O'Rourke asked since the reliability study recommendations have been made with ongoing improvements where does RMLD stand. Mr. Jaffari replied that RMLD has initiated ten maintenance programs, but there is much more work to be completed.

Mr. Jaffari reported that there are issues at the substations due to the lack of maintenance for ten years, this is also the case in the distribution system as well. Station 4, there are upgrades of the breakers and relays, Station 3 the relays are being updated as well as the LTC transformer and Substation 5 is older with updates to keep it running. RMLD is looking at building a new substation in Wilmington which will add reliability and capacity.

Chairman O'Rourke suggested that prior to the budget to revisit the scope of the reliability recommendations and how much must be expended financially outside of the reliability recommendations to assist in budgeting for the next fiscal year's budget

RMLD Procurement Requests Requiring Board Approval (Attachment 3) IFP 2017-12 Battery Bank

Mr. Jaffari reported that the battery bank is for Station 4 that supplies power to the relays for protection scheme which are at the end of their useful life.

Mr. Pacino made a motion seconded by Mr. Hennessy that proposal 2017-12 for Battery Bank at Substation 4 be awarded to WESCO as the most advantageous and responsive proposer on the recommendation of the General Manager for a total cost of \$24,000.00.

Motion carried 4:0:0.

IFP 2017-14 Service Cable 1/0

Mr. Jaffari explained that this is part of the secondary service and upgrade. The neutrals, services and connectors need to be addressed this is an additional maintenance program the RMLD has had to implement.

Chairman O'Rourke asked how many bids were received. Mr. Jaffari reported that five bids were received with Graybar and WESCO tied with their pricing. Graybar and WESCO were given the opportunity to rebid. WESCO was selected because Graybar wanted to maintain its pricing on the rebid for three years which was not in the best interest of the RMLD due to fluctuations in pricing of service cable.

Mr. Pacino made a motion seconded by Mr. Hennessy that proposal 2017-14 for 1/0 Triplex Service Cable be awarded to WESCO as the most advantageous and responsive proposer on the recommendation of the General Manager. The term of the contract is for one (1) year with an option for additional second or third year at the sole discretion of the Reading Municipal Light Department for a total cost of \$507,600.00.

Motion carried 4:0:0.

IFB 2017-17 Sports Utility Vehicle with Trade-In

Mr. Jaffari reported that three bidders responded. Chairman O'Rourke asked if this vehicle is for the fleet. Mr. Jaffari responded, yes. Mr. Pacino asked if the older RMLD vehicle will be a trade in. Mr. Jaffari concurred.

Mr. Pacino made a motion seconded by Mr. Hennessy that bid 2017-17 for one Sport Utility Vehicle (SUV), with Trade-In, of 2005 Toyota Prius be awarded to Stoneham Motor Co. for \$22,606.00 as the lowest responsive and responsible bidder on the recommendation of the General Manager.

Motion carried 4:0:0.

IFP 2017-18 Sicame Connectors

Mr. Jaffari stated that Sicame connectors are part of the connection replacement at the end of the home and the pole

Mr. Pacino made a motion seconded by Mr. Hennessy that proposal 2017-18 for Sicame Insulation Piercing Connectors be awarded to WESCO as the most advantageous and responsive proposer on the recommendation of the General Manager. The term of the contract is for one (1) year with an option for additional second or third year at the sole discretion of the Reading Municipal Light Department for a total cost of \$306,000.00.

Motion carried 4:0:0.

Chairman O'Rourke and Mr. Talbot thanked Mr. Jaffari for his efforts for the system issues that have not been addressed in ten years. Mr. Jaffari added that the reliability report in tandem with the newly instituted maintenance programs enables the RMLD to achieve progress.

Financial Update – Ms. Markiewicz

Ms. Markiewicz explained that this evening the financial presentation of fiscal year 2016 was to take place, but due to the deferred pension liability calculation and the timing of the actuarial to review this, this had to be postponed until October 20. Ms. Markiewicz reported that the audit itself took place the week of August 8.

Ms. Markiewicz pointed out that Melanson Heath was impressed at how quickly the RMLD responded to their questions. There were no major findings, just incidental items and no management letter. Melanson Heath will make their report at the next Board meeting. After, fiscal year 2016 is presented, then the first quarter of fiscal year 2017 will be presented. Ms. O'Brien pointed out that the RMLD is now performing its actuarial with the Town of Reading. RMLD as well as the town are waiting on that data.

Chairman O'Rourke asked is there anything that the Board should be made aware of. Ms. Markiewicz replied no, the findings are consistent with what we have been reporting monthly.

General Discussion

Mr. Talbot reported that the NEPPA Conference was held last month. Mr. Talbot suggested that the Board may want to respond to the content provided by one of the speakers who denied climate science regarding the human role in causing emissions that are leading to global warming, and the severity of the likely consequences. Chairman O'Rourke asked Mr. Pacino if he had any input. Mr. Pacino said that Mr. Talbot summarized it. Mr. Talbot stated that on the positive side, he was facilitating a battery storage discussion that centered mostly on a project being performed by Sterling Municipal Light Department, this is a cutting-edge project which has not been built yet, it is something to watch. Like RMLD's gas generator, the RMLD can look at battery storage with the fast-improving economics for energy storage.

Mr. Hennessy asked if Sterling's storage is about peak shaving. Mr. Talbot responded, yes, and balancing solar production. Mr. Talbot said that Concord Municipal Light Plant noted that it is close to having a problem at times because they have a solar array that provides 100% of the load for a circuit on some sunny days when there is lower demand, they are looking at battery storage as well.

Chairman O'Rourke asked Ms. O'Brien explain NEPPA. Ms. O'Brien explained that Northeast Public Power Association is a collaborative effort of the municipal utilities in the New England states and parts of New York which share efforts in such areas as legislative and training. Chairman O'Rourke stated that Ms. O'Brien and her staff attending the NEPPA Conference is a positive experience. Mr. Pacino said that at the NEPPA Conference he enjoys the networking to see what others in the industry are doing. At the conference, Mr. Pacino spoke to Middleborough Gas and Electric Department on their gas generator to get their perspective.

Mr. Talbot asked how much training does the RMLD do with NEPPA. Ms. O'Brien responded that RMLD has a lineworker and technician apprentice program to certify employees. Ms. O'Brien said that RMLD augments with NEPPA. They run the theoretical portion for the linemen which comes out of Northwest Lineman's College, substation and metering as well as operations trainings. RMLD works with ECNE for engineering training. In addition, there is annual retraining with NEPPA such as pole top rescue, confined space entry, CPR, first aid. APPA Safety Manual is RMLD's adopted safety manual.

Mr. Nelson stated that RMLD's audit had no management findings. The audit showed that RMLD is financially doing a great job with ratepayer's money, congratulations to the RMLD. Also, the maintenance implemented has resulted in equipment that is failing less and less. Based on his career experience in the utility industry, preventive maintenance goes a long way, this is another stand that demonstrates the RMLD is looking out for the ratepayer.

BOARD MATERIAL AVAILABLE BUT NOT DISCUSSED

E-Mail responses to Account Payable/Payroll Questions Rate Comparisons, August and September 2016

RMLD Board Meetings

Thursday, October 20, 2016, Commissioner Hennessy will not be available to attend this meeting. Thursday, December 15, 2016

RMLD Committee Meetings

Thursday, October 20, 2016 RMLD Audit Committee meets with Town of Reading Audit Committee RMLD Board Policy Committee Meeting in November – To be determined.

CAB Meetings

Wednesday, October 12, 2016 – Commissioner Hennessy will cover this meeting.

Executive Session

At 8:45 pm. p.m. Mr. Pacino made motion seconded by Mr. Hennessy that the Board go into Executive Session to approve the Executive Session Meeting minutes of May 12, 2016, May 26, 2016, June 30, 2016, July 28, 2016 and discuss strategy with respect to collective bargaining and return to Regular Session for the sole purpose of adjournment.

Mr. Talbot, Aye; Mr. Pacino, Aye; Chairman O'Rourke, Aye; and Mr. Hennessy, Aye. Motion carried 4:0:0.

Adjournment

At 9:23 p.m. Mr. Pacino made motion seconded by Mr. Hennessy to adjourn the Regular Session.

Motion carried 4:0:0.

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

Dave Talbot, Secretary Pro Tem RMLD Board of Commissioners

Reading Municipal Light Board of Commissioners <u>Regular Session</u>

230 Ash Street Reading, MA 01867 October 20, 2016

Start Time of Regular Session: 7:37 p.m. End Time of Regular Session: 9:40 p.m.

Commissioners:

Thomas J. O'Rourke, Chairman

Philip B. Pacino, Vice Chair

David Talbot, Commissioner – Remote Participant

John Stempeck, Commissioner, Secretary, Pro Tem

Dave Hennessy, Commissioner – Absent

Staff:

Coleen O'Brien, General Manager Jeanne Foti, Executive Assistant
Hamid Jaffari, Director of Engineering and Operations Jane Parenteau, Director of Integrated Resources
Tracy Schultz, Executive Assistant

<u>Citizens Advisory Board</u> <u>Guests:</u>

Dennis Kelley, Member Frank Biron, Melanson Heath & PC Zackary Fentross, Melanson Heath & PC

Call Meeting to Order

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

Opening Remarks

Chairman O'Rourke read the RMLD Board of Commissioners Code of Conduct and announced that Mr. Hennessy would not be in attendance that evening. Since Mr. Talbot would be participating in the meeting remotely, via conference call, all votes must be done by roll call per Massachusetts Open Meeting Law. Mr. Talbot confirmed via speakerphone that he was on the line and able to hear what was being discussed at the meeting.

Introductions

Chairman O'Rourke then acknowledged the presence of CAB representative Dennis Kelley and asked Mr. Stempeck to serve as Board Secretary, to which Mr. Stempeck agreed. Chairman O'Rourke suggested starting with the Audit presentation, and invited Frank Biron and Zachary Fentross, from Melanson Heath & PC, to take the floor.

Presentation of Fiscal Year 2016 Audit (Attachment 1) Melanson Heath & PC, Frank Biron Zackary Fentross

Frank Biron, President, Melanson Heath, introduced himself and Zachary Fentross, the supervisor who performed the RMLD audit. Mr. Biron explained that he would be going over highlights from the June 30, 2016 financial statements and directed the Commissioners' attention to the Independent Auditors' Report. Mr. Biron stated that his firm was hired to provide an opinion on RMLD's financial statements. RMLD was given a clean opinion, which is the best opinion that can be received from an independent outside audit; RMLD's financial statements were in accordance with generally accepted accounting principles. Mr. Biron then referenced the Statement of Net Position, which summarizes the assets, liabilities, and the equity of the Department as of June 30, 2016, RMLD's numbers, between 2015 and 2016, were consistent and strong. The Department is in a very strong financial position and is consistent with past years. The unrestricted cash balance of about \$13 million in 2016, was the same as the previous year. Receivables totaled \$8 million, which is not a large amount considering overall revenues are \$80 million. Approximately one month's worth of revenues is sitting in receivables; most of this \$8 million is unbilled. There are very few delinquent accounts, the Department has done a good job collecting receivables.

Mr. Biron continued, stating that the number that changed the most from the previous year was net pension liability, which doubled. This was due to the town's retirement investments performing worse than expected, a downturn that was beyond RMLD's control. In 2016, the net pension liability was \$8,833,549 compared to 2015 when it was about \$4.5 million-it almost doubled. This increase in liability was due to investment results of the town's retirement system not meeting anticipated targets. The earnings goal was 7 3/4 % earnings, while the actual earnings were only 3/4 %. RMLD's net pension liability represents the Department's proportionate share of the town's overall liability.

Presentation of Fiscal Year 2016 Audit (Attachment 1) Melanson Heath & PC, Frank Biron Zackary Fentross

Mr. Biron continued, pointing out that the RMLD has no bonds payable, which puts the Department in a strong financial position. Additionally, all the Department's capital assets, which are in excess of \$72 million, have been acquired through the rate process.

No liability is being reported for OPEB (Other Post-Employment Benefits) because the Department has been setting aside money into a trust fund equal to what the actuaries suggested. However, there is going to be a change in accounting standards in two years. In 2018, Government Accounting Standard Board (GASB) Statement 75 will replace GASB Statement 45, and will require that the entire actuarially calculated liability of OPEB (health employment benefits for retired employees) be reported, just as the net pension liability is currently reported. If there is no additional funding, the unfunded amount, that is not currently shown on RMLD's financial statements, but will in two years, will appear as a \$6 million liability.

Mr. Biron then referred to the Statement of Revenues, Expenses, and Changes in New Positon. The numbers were consistent with the previous year, with revenues up despite the number of kilowatt hours sold going down about 2 percent. This was due to rate increases in response to the cost to purchase power increasing. All other revenues and expenses were also consistent. The Department's net income (what revenues beat expenses by) was \$3,369,404. This was similar to the previous year. Since the state sets the income limit of municipal utilities to eight percent of the value of fixed (capital) assets, \$3 million is almost at the maximum of what the Department can earn. There was only \$300,000 left in possible earnings, giving the Department a strong bottom line.

Fiduciary funds are monies set aside for future pension costs and future OPEB costs. What RMLD put into the pension trust was close to what was paid out to the town's retirement system, about \$1.5 million. That leaves \$5.6 million set aside in the RMLD trust fund. The OPEB trust took in \$308,000 from operations, which is the amount that actuaries recommended be set aside. That plus investment results of \$14,000 equaled an increase of \$322,000, which means \$2.5 million set aside for OPEB costs. However, the unfunded \$6 million must be reported in two years.

Mr. Biron concluded that RMLD's numbers are strong. Cash balance receivables are in good shape and the Department has very little debt. The financial department did a good job closing its books in a timely manner-this is the first municipal audit that Melanson Heath completed this year. The accounting records are in good shape and the Department did a good job handling changes in the financial department.

Report of the Committee, Audit Committee-Vice Chair Pacino

Mr. Pacino reported that the Board of Commissioners' Audit Committee, which consists of himself and Mr. Stempeck, plus four members of the Audit Committee of the Town of Reading (himself, a representative from the Board of Selectmen, a representative from the Town's Finance Committee, and an at-large member), reached a quorum and recommended that the Commission accept the Audit as presented. The vote of the Board was 2:0; the vote of the Town Audit Committee was 4:0.

Mr. Pacino made a motion, seconded by Mr. Stempeck, that the Board of Commissioners accept the Audit Report from Melanson Heath, Fiscal Year ended June 30, 2016 as presented.

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

Mr. Pacino, Aye; Chairman O'Rourke, Aye; Mr. Stempeck, Aye; Mr. Talbot, Aye. **Motion carried 4:0:0.**

Public Comment

No public comment.

Report of the Chairman, Board Response to NEPPA

Chairman O'Rourke explained that there had been concern from one of the Commissioners regarding a climate change denialist who spoke at the NEPPA conference this year. A communication has been received back from NEPPA and Chairman O'Rourke will now send a response. Chairman O'Rourke asked Mr. Talbot if he had any comments to add. Mr. Talbot reiterated that he was dismayed that NEPPA had hosted a speaker who proliferated misinformation about a very important topic but is pleased that there will be a Board response to the letter from NEPPA. Chairman O'Rourke reiterated that he would be writing a closure response.

RMLD Citizens' Advisory Board Meeting

Chairman O'Rourke stated that the absent Mr. Hennessy attended the CAB meeting on October 12, 2016. Chairman O'Rourke then invited Mr. Kelley to provide updates from that meeting. Mr. Kelley stated that the CAB was wondering how many of the Commissioners had enrolled in the solar program.

Chairman O'Rourke stated that he had spoken with Mr. Hennessy, who had reported that there was discussion at the CAB meeting in regards to the Town of Reading not having a CAB representative. Chairman O'Rourke then inquired if any of the Board members knew the process and the next step for getting that position filled.

Mr. Pacino explained that the Town posts the vacancy. Mr. Pacino then made an appeal to the residents of Reading, asking that someone please volunteer. The idea of the CAB is to represent the ratepayers, help the Town of Reading, and give the Board of Commissioners input. Currently, the electric customers of Reading aren't represented.

Mr. Kelley voiced his concern that being short one person means that the CAB cannot get a quorum if one of the current members cannot attend a meeting. Chairman O'Rourke stated that Mr. Hennessy has a few possible recommendations and Ms. O'Brien said that she will soon be meeting with Reading's Town Manager and will reiterate the need for a Reading volunteer on the Citizens' Advisory Board. Mr. Pacino then emphasized that there is no special training required to be on the CAB-only general knowledge is needed to represent the ratepayers.

General Manager's Report (Attachment 2)

Ms. O'Brien reported that RMLD's Open House was held on Thursday, October 6 from 2 p.m. to 5 p.m., in conjunction with Public Power Week. The event was well attended and was a great success. Ms. O'Brien stated that she is always looking for feedback to make it better and that there were lots of educational tools available-kids liked the linemen and bucket truck rides but there was also information about solar and electric vehicles. Chairman O'Rourke remarked that he stopped by and that the event was very well-done: it was a great family day for kids and grandkids and there was a pole install. Ms. O'Brien added that the event was both educational and tactile.

Ms. O'Brien continued, announcing that the revised art contest for students is in full swing. In previous years, RMLD ran a t-shirt design contest. This year is now an art contest: third graders from each town in the service territory were given watercolor paper and pencils and educational materials. The theme is *Shred the Peak*. The contest schedule will be the same as the t-shirt design contest of past years-winners will be announced the second Thursday of January. This year a print will be made of the winning works of art and they will be displayed in recycled frames in the RMLD building. There will also be a reception. The number of winners and the prizes for the schools have been increased. The hope is to implement a second phase of the art contest with local high schools and different types of mediums for more art. The intention is to keep the whole school system educated and promote conservation.

Chairman O'Rourke asked if there would still be a calendar. Ms. O'Brien replied that the historic calendar is in the proofing process and will be coming out in November. Chairman O'Rourke asked if a calendar similar to the t-shirt calendar of past years would be produced. Ms. O'Brien answered yes, RMLD would be issuing a calendar with the winners' artwork on it, as had been previously done with the t-shirts.

Ms. O'Brien announced that the Town of Reading Holiday Tree Lighting will be held on November 27 from 2 p.m. to 4:30 p.m. in Reading Center. Additionally, the towns need to check their strands of holiday lights-RMLD will replace any that are no longer working.

Quarterly Update Organizational and Reliability Report

Mr. Jaffari reported that Organizational and Reliability studies were conducted in 2015 by Leidos and Booth and Associates, respectively. The results of the Organizational Study were 17 areas that Leidos felt needed attention. Recommendations were made. The Booth and Associates Reliability study identified 45 areas that demanded addressing. These 45 were combined with the results of a study performed on the substations by Booth and recommended by UPG, for a total of 71 recommendations. To date, 22 out of these 71 recommendations have been completed-7 of those 22 have been completed since the last report. RMLD is on target and on track, with many of the recommendations in progress and with repairs being made.

Chairman O'Rourke remarked that was a lot of progress. Mr. Jaffari concurred, stating that RMLD is getting a lot done.

Quarterly Update Organizational and Reliability Report

Mr. Jaffari then addressed the Organizational Study updates. The goal of the study was to compare RMLD's business model to best business practices, which identified 17 areas that needed attention, as presented by Mr. Jaffari, are:

- 1. <u>Establish Planning Culture</u>: New organization requires new strategic planning, which will be completed in 2017. The last strategic plan was completed in 2008. The Six Year Plan is being presented to the board annually and spending is being planned. The IRD group has a plan in progress. The system planning, which includes the GIS technology roadmap and 20-year planning study, is done.
- 2. <u>Develop an Effective Sustainable Workforce</u>: Workforce development requires Leidos support; job descriptions are currently being worked on. This goes hand in hand with Career Development Plans, which are given to Leidos, with the necessary adjustments to the descriptions being made. Succession planning is being implemented. However, there are still vacancies that need to be filled.
- 3. <u>Improve Organizational Effectiveness</u>: This is tied to the union negotiations that are underway: job descriptions and career development plans have been updated, and therefore must be presented to the union, which has slowed down the process. IRD has been completed, Engineering and Business Finances are in progress. External communications to customers, such as Tweeting and e-mailing, has been implemented, with more programs in progress. Communications to employees have also increased.
- 4. <u>Develop Leadership Capabilities</u>: Leadership training is ongoing and is tied to Career Development Plans. Staff meetings are occurring, with management communicating with employees on a weekly basis. The General Manager is meeting with communities to bring Town Managers/Administrators up to date with RMLD's activities.
- 5. <u>Establish Project Management Culture</u>: Project management policies and procedures are being developed. Employees will be undergoing project management training to ensure that time and resource management are on target.
- 6. <u>Ensure Competitively Priced Services</u>: Integrated Resources is educating customers on time of use, demand side management, solar programs, and energy resources. The IRD has been doing a phenomenal job, as evidenced by the new Solar Choice rate.
- 7. <u>Improve Financial Planning and Risk Management</u>: The review and updating of operations, negotiations, fuel, OPEB, and sick time buyback processes in progress. Accounting and financial business processes are being formalized.
- 8. <u>Strengthen Safety Culture</u>: Safety policies are being continuously reviewed and developed. There are two safety committees-operational and general. All employees have an opportunity to participate and make recommendations to make the work environment safer.
- 9. <u>Diversify Resources</u>: This involves crafting a roadmap for distributed generation. A 10 Year Plan has been developed for solar battery storage and gas generation. It is being reviewed and assessed based on financial realities. Additionally, the cost effectiveness of end-use measures is being evaluated annually.
- 10. Establish a Culture of Compliance: This requires Leidos support; Leidos is developing a plan.
- 11. Improve Customer Service: A service survey plan and customer communication plan for 2017 are being developed.
- 12. <u>Plan for Future Technologies</u>: A technology roadmap for the next 15 to 20 years has been completed. An IRD roadmap has also been developed.
- 13. <u>Focus on Asset Management</u>: Asset management plan involves integrating GIS and Cogsdale. Developing asset management tracking; cost benefit analysis will then be performed. A customer service manual has been developed and is on the website. The manual outlines customer and utility responsibilities.
- 14. <u>Leverage Geographic Information Systems</u>: A robust GPS-based inventory of assets and infrastructure is being conducted and will be completed in 2017. CDM and Davey's Resource Group (DRG) are collecting GIS data and developing a GIS model. This model will be converted to another model that engineering will use and will be updated, analyzed, reviewed, and adjusted as needed.
- 15. <u>Formalize and Enhance Work Management</u>: A plan is being developed to streamline the work order management system: MIS, CIS, and GIS will all work together. Leidos is assisting in developing short and long term IT plans to eliminate redundancies and ensure cost efficiency.

Quarterly Update Organizational and Reliability Report

Chairman O'Rourke asked if this required a new business system.

Mr. Jaffari responded yes, this will require new software. There may be some integration difficulties.

16. Plan for Resiliency: A disaster recovery plan and emergency operation procedures have both been completed.

Chairman O'Rourke asked if there was a recovery site if the building was not accessible. Mr. Jaffari explained that most data are backed up in the Cloud.

17. Enhance Facilities: The fleet study is completed.

Power Supply Report-August 2016-Ms. Parenteau (Attachment 3)

Ms. Parenteau began by stating that she would be reporting on the August power supply. There is a preliminary indication that the ISO peak occurred on August 12, 2016 at 4 p.m. Over the last three years, RMLD's load was an extremely small portion of ISO's peak compared to the total load: about 0.6 percent. In 2014 ISO peaked on July 23 at 5 p.m., in 2015 ISO's peak occurred on July 29 at 6 p.m. 2016 is the only recent year that our peak coincided with ISO. In previous years, RMLD peaked at different hours. The "Shave the Peak" campaign targets ISO's peak, not necessarily RMLD's peak. This year was relatively in line: every year our use during ISO's peak is about 0.64 %. Moving forward, RMLD's future target is a significant decrease in that percentage. This will serve as the benchmark for progress.

Ms. Parenteau then directed attention to real time pricing during the peak month of 2014, 2015, and 2016. The last two summers real time prices were relatively flat. This year the peak went up about five percent, resulting in volatile pricing. The price was about \$300 dollars a megawatt hour, as opposed to the current price, which is around \$20 a megawatt hour. How did that effect RMLD? RMLD's portfolio cost and average fuel cost were examined. Our sales totaled almost 69 million kWh, which is considerably higher than previous years' peak months. The average cost per kwh is down to a little over 4.3 cents. Due to portfolio management, our generators gave more to the system than what was used, and RMLD received payment for that. This is the advantage of having the portfolio. Savings is passed along to customers through the fuel charge, which the Commissioners all agreed was great.

Solar Choice Rate

Chairman O'Rourke remarked that the Solar Choice Rate was CAB approved on October 12, 2016.

Ms. Parenteau stated that the solar project has been in the works for about a year. Certain customers are unable to install solar panels, so RMLD wanted to do a community shared solar project in the service territory. A one megawatt-1,000 kilowatt project is now located on Ballardvale Street in Wilmington. 500 customers will receive the cost and the benefit of the solar project. The cost of the energy is fixed for a 20-year term. When customers sign up they are fixing a portion of their fuel charge for the next 10 years. Currently, in the first year the cost of solar is slightly higher than the cost of RMLD's fuel charge, resulting in a small \$5 per month premium for the first 12 months. A \$3 or \$4 credit is being forecast beginning in month 13. The solar achieves benefit during peak period, and that capacity and transmission benefit go directly to the Solar Choice customers. A \$300 net benefit is currently being forecast over the 10-year period. The \$60 cost of the first year will be made up after the third year, resulting in net positive. The rate has almost reached its enrollment goal, with a waiting list being established and another project then being planned.

Mr. Pacino made a motion, seconded by Mr. Stempeck, that the RMLD Board of Commissioners approve the Solar Choice Rate MDPU 269 to be effective on billings after December 1, 2016 on the recommendation of the General Manager.

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

Mr. Pacino, Aye; Chairman O'Rourke, Aye; Mr. Talbot, Aye; Mr. Stempeck, Aye. **Motion carried 4:0:0.**

Engineering and Operations Report-August 2016-Mr. Jaffari (Attachment 4)

Mr. Jaffari presented the Engineering and Operations Report for August, 2016. RMLD spent \$54,385 on Capital Improvement Projects, bringing the year to date total to \$94,196. Expenditures on Routine Construction for the month of August were \$191,849, bringing the year to date total to \$324,827. Routine Maintenance transformers replaced 21.24 percent of pad mount transformers and about 15 percent of overhead. The second round of pole inspections was completed, with 187 poles being replaced.

Engineering and Operations Report-August 2016-Mr. Jaffari (Attachment 4)

Chairman O'Rourke asked if that was just for 2016. Mr. Jaffari answered in the affirmative. 670 poles have been inspected, with approximately 30 percent failing the test. There have also been some condemned poles, which are immediately replaced. 110 of 187 pole transfers have been completed. To date, 614 manhole inspections have been completed. Porcelain cutout replacements are 91 percent complete, with 256 remaining. 110 tree spans were trimmed in August, bringing the year-to-date up to 176 spans. The August substation infrared scan showed no hot spots. As for double poles: there are about 16,000 poles in RMLD's system, with 50 percent owned by Verizon and 50 percent owned by RMLD. Reading's ownership is similarly split. North Reading's poles are owned by RMLD, while Lynnfield and Wilmington's poles are owned by Verizon. NJUNS shows what poles have issues and what actions need to be taken to complete pole transfers. Lynnfield had 5 pending transfers in August. North Reading had 16 pending transfers, 1 pending set, and 45 poles awaiting a pull. Reading had 55 pending transfers and 39 pending pull poles. Wilmington had 42 poles waiting for transfer, 4 pending pull poles and 1 guy install. Mr. Jaffari explained that the numbers go up and down. RMLD tries to keep up with the transfers; it is a dynamic process.

Mr. Jaffari then addressed August's reliability indices. SAIDI was slightly over the regional average but well under the national average. RMLD is still playing catch up with long overdue maintenance. 25 percent of YTD outages have been due to equipment, 34 percent from trees, and 29 percent wildlife.

Mr. Kelley, referencing outage causes, commented that equipment failure was responsible for a larger portion of outages between 2011 to 2016, as compared to just 2016. Mr. Kelley then asked if this reduction was due to the new maintenance programs. Mr. Jaffari answered yes, RMLD has approximately 1,800 aged transformers and the system has not been maintained for over 20 years. Some of the 40/45 year transformers have been replaced. There have been some hairy situations that RMLD has caught before problems arose. It is a good program and there is a lot to do in the next 10 years.

RMLD Procurement Requests Requiring Board Approval (Attachment 5) IFP 2017-15 Capacitor Bank

Mr. Jaffari explained that RMLD needs to install more capacitors to stabilize voltage and to reduce system losses.

Mr. Stempeck remarked that it was surprising that only one bid was received. Mr. Jaffari replied that one other bid was received, but since it was sent via e-mail and not as a sealed proposal it was rejected.

Mr. Pacino made a motion seconded by Mr. Stempeck that proposal 2017-15 for Capacitor Bank be awarded to WESCO for \$54,480.00 pursuant to Chapter 164 § 56D on the recommendation of the General Manager.

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

Mr. Pacino, Aye; Chairman O'Rourke, Aye; Mr. Talbot, Aye; Mr. Stempeck, Aye. **Motion carried 4:0:0.**

IFP 2017-20 750 MCM Cable

Mr. Jaffari stated that three companies bid to supply getaway cables for substation. Booth and Associates recommended beefing up said cables.

Mr. Pacino announced that he would be abstaining from the vote, citing a potential conflict of interest.

Mr. Pacino made a motion seconded by Mr. Stempeck that proposal 2017-20 for 750 MCM Cable be awarded to Arthur Hurley Company, Inc. for \$104,513.10 pursuant to Chapter 164 § 56D on the recommendation of the General Manager.

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

Chairman O'Rourke, Aye; Mr. Talbot, Aye; Mr. Stempeck, Aye. Mr. Pacino: Abstained. **Motion carried 3:0:1.**

IFP 2017-22 Single Phase Step Voltage Regulator

Mr. Jaffari stated that this will enable better voltage management. The boosters will address some issues RMLD has been having with marginal voltage-regulators are needed to better manage and maintain voltage. This is a proactive installation.

RMLD Procurement Requests Requiring Board Approval (Attachment 5)

IFP 2017-22 Single Phase Step Voltage Regulator

Mr. Pacino made a motion seconded by Mr. Stempeck that proposal 2017-22 for Single Phase Step Voltage Regulator be awarded to Graybar Electric for \$146,090.00 pursuant to Chapter $164 \$ 56D on the recommendation of the General Manager.

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

Mr. Pacino, Aye; Chairman O'Rourke, Aye; Mr. Talbot, Aye; Mr. Stempeck, Aye. **Motion carried 4:0:0.**

IFP 2017-24 15kV Single Phase Submersible Transformers

Mr. Jaffari explained that these are temporary transformers that will be used when pad mount or underground equipment needs to be switched out. The repairs can sometimes take days and this will ensure that customers have electric service during the replacement. Mr. Stempeck remarked that it must be an interesting process. Mr. Jaffari agreed, saying that it was not unlike performing bypass surgery.

Mr. Pacino made a motion seconded by Mr. Stempeck that proposal 2017-24 for Single Phase Submersible Transformers be awarded to Central Moloney, Inc. for \$19,794.00 pursuant to Chapter 164 § 56D on the recommendation of the General Manager.

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

Mr. Pacino, Aye; Chairman O'Rourke, Aye; Mr. Talbot, Aye; Mr. Stempeck, Aye. **Motion carried 4:0:0.**

IFP 2017-25 Control Devices for Substation 3

Mr. Jaffari said that there have been deficiencies at station 3 because the wrong equipment was originally installed; it is obsolete. This new equipment will give more capability, better management of the substation load and increased SCADA control.

Chairman O'Rourke inquired if there was a reason the bid was awarded to two companies.

Mr. Jaffari answered that there are several items involved: some went to one bidder; some went to the other. Chapter 164 allows RMLD to pick and choose.

Mr. Pacino made a motion seconded by Mr. Stempeck that proposal 2017-25 for Control Devices for Substation 3 be awarded to WESCO for \$62,866.00 and Graybar Electric for \$64,401.28 for a total cost of \$127,267.28 pursuant to Chapter 164 § 56D on the recommendation of the General Manager.

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

Mr. Pacino, Aye; Chairman O'Rourke, Aye; Mr. Talbot, Aye; Mr. Stempeck, Aye. **Motion carried 4:0:0.**

IFB 2017-28 Material Handle with Trade-In

Mr. Jaffari explained that per Chapter 164 the award didn't have to go to the lowest bidder. 3 bidders replied; the lowest took too long to respond and was thus not eligible; the long second lowest was from a bidder who uses parts from different manufacturers and then assemble them together. This leads to the warranty becoming an issue as none of the manufacturers of said parts want to take ownership for any problems if something goes wrong. Therefore, the bid is being awarded to a company that makes and assembles its own parts so that there is one warranty and if any problems arise they will come and fix the issue onsite.

Mr. Pacino made a motion seconded by Mr. Stempeck that proposal 2017-28 for one Material Handler with Trade-In be awarded to James A. Kiley Company for \$221,715.00 pursuant to M.G.L. c. 164 § 56D on the recommendation of the General Manager.

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

Mr. Pacino, Aye; Chairman O'Rourke, Aye; Mr. Talbot, Aye; Mr. Stempeck, Aye. **Motion carried 4:0:0.**

General Discussion

There was none.

BOARD MATERIAL AVAILABLE BUT NOT DISCUSSED

E-Mail responses to Account Payable/Payroll Questions Rate Comparisons, October 2016

Subsequent Town Meeting

Monday, November 14, 2016

RMLD Board Meetings

No RMLD Board Meeting in November Thursday, December 15, 2016

RMLD Committee Meetings

Thursday, November 10, 2016 RMLD Board Policy Committee Meeting

CAB Meetings

Wednesday, November 16, 2016

Mr. Pacino volunteered to cover the upcoming CAB meeting.

General Manager Committee Meeting

Chairman O'Rourke asked to schedule online; Ms. Foti agreed, stating she would be in touch via e-mail. Mr. Pacino asked about town presentation and annual meeting and said that would be a good place to ask for a CAB volunteer.

Executive Session

At 8:45 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 September 29, 2016, to consider the purchase of real property and 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; Chairman O'Rourke, Aye; Mr. Talbot, Aye; Mr. Stempeck, Aye. **Motion carried 4:0:0.**

Adjournment

At 9:40 p.m. Mr. Pacino made a motion seconded by Mr. Stempeck that the RMLD Board of Commissioners move to adjourn the Regular Session. Mr. Talbot was not present for the vote.

Motion carried 3:0:0.

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

John Stempeck, Secretary Pro Tem RMLD Board of Commissioners

Reading Municipal Light Board of Commissioners Regular Session 230 Ash Street Reading, MA 01867 December 15, 2016

Start Time of Regular Session: 7:34 p.m. End Time of Regular Session: 9:47 p.m.

Commissioners:

Thomas J. O'Rourke, Chairman David Talbot, Commissioner Philip B. Pacino, Vice Chair – Absent John Stempeck, Commissioner

Dave Hennessy, Commissioner, Secretary, Pro Tem

Staff:

Coleen O'Brien, General Manager Wendy Markiewicz, Director of Business Finance

Hamid Jaffari, Director of Engineering and Operations Jeanne Foti, Executive Assistant Jane Parenteau, Director of Integrated Resources Tracy Schultz, Executive Assistant

Town of Reading Finance Committee:

Peter Lydecker, Member

Call Meeting to Order

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

Opening Remarks

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

Report of the Committees

Policy Committee - Mr. Hennessy

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

General Manager Committee - Chairman O'Rourke

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

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

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

General Manager Committee – Chairman O'Rourke

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

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

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

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

Motion carried 4:0:0.

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

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

Motion carried 4:0:0.

Approval of Board Minutes

Mr. Stempeck made a motion, seconded by Mr. Hennessy, to approve the meeting minutes of May 26, 2016, as presented. **Motion Carried 4:0:0.**

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

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

General Manager's Report – Ms. O'Brien

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

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

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

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

General Manager's Report - Ms. O'Brien

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

RMLD Procurement Requests Requiring Board Approval (Attachment 3) IFP 2017-27 Single Phase Pad Mounted FR3 Transformers

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

Mr. Stempeck made a motion, seconded by Mr. Hennessy, that proposal 2017-27 for Single Phase Pad Mounted FR3 Transformers be awarded to WESCO for \$151,110, pursuant to Chapter 164 §56D on the recommendation of the General Manager. **Motion carried 4:0:0.**

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

Financial Report - First Quarter Fiscal Year 2017 - Ms. Markiewicz (Attachment 4)

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

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

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

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

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

General Discussion

BOARD MATERIAL AVAILABLE BUT NOT DISCUSSED RMLD Board Meetings

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

General Discussion

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

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

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

RMLD Committee Meetings

Will be set up in the coming weeks.

Executive Session

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

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

Chairman O'Rourke, Aye; Mr. Talbot, Aye; Mr. Stempeck, Aye. Mr. Hennessy: Aye. **Motion carried 4:0:0.**

Adjournment

At 9:47 p.m. Mr. Talbot made a motion seconded by Mr. Stempeck to adjourn the Regular Session. **Motion carried 3:0:0.** Mr. Hennessy was not present for the vote.

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

David Hennessy, Secretary Pro Tem RMLD Board of Commissioners

Reading Municipal Light Board of Commissioners Regular Session 230 Ash Street Reading, MA 01867 January 31, 2017

Start Time of Regular Session: 7:37 p.m. End Time of Regular Session: 9:11 p.m.

Commissioners:

Thomas J. O'Rourke, Chairman David Talbot, Commissioner, Secretary, Pro Tem

Philip B. Pacino, Commissioner John Stempeck, Commissioner

Dave Hennessy, Commissioner

Staff:

Coleen O'Brien, General Manager Wendy Markiewicz, Director of Business Finance

Hamid Jaffari, Director of Engineering and Operations Tracy Schultz, Executive Assistant Jane Parenteau, Director of Integrated Resources Katie Mahan, Operational Assistant

Guest:

Attorney, Christopher Pollart

Call Meeting to Order

Chairman O'Rourke called the meeting to order, noted that it is the first Board meeting of the 2017 calendar year, and announced that, due to technical limitations, the meeting is only a live broadcast in the Town of Reading. However, the meeting is also being videotaped for distribution at community television stations in North Reading, Wilmington and Lynnfield.

Opening Remarks

Chairman O'Rourke read the RMLD Board of Commissioners' Code of Conduct and began by offering the Board's condolences on the passing of former Commission member, Frederick J. Nemergut. Mr. Pacino said that Mr. Nemergut was on the Board when he joined in 1986. Mr. Nemergut served on the Board from 1986 to 1987 and was a valuable member, from whom he learned a lot. Mr. Pacino stated that Mr. Nemergut was in the energy field where he worked with municipals. In those days, the Board was referred to as 'Dream Team' because each member had a distinct strength that they brought and they all meshed well together.

Chairman O'Rourke noted that Dennis Kelley had been expected to represent the Citizens' Advisory Board, but had not yet arrived. Chairman O'Rourke asked Mr. Talbot to serve as Board Secretary, to which Mr. Talbot agreed.

There was no public comment, and no Citizens' Advisory Board meeting in December. Mr. Stempeck commented that Neil Cohen had recently been appointed to the vacant Reading spot on the Citizens' Advisory Board.

Chairman O'Rourke announced that some members of the Board would be sending a final communication to NEPPA in regards to their having a climate change denier speak at their last conference. Mr. Talbot thanked the Board for taking a stance on such an important issue.

Report of the Committee

General Manager Committee - Chairman O'Rourke

Chairman O'Rourke began by stating that it is the responsibility of the Board to review the General Manager's contract. Ms. O'Brien joined RMLD in 2013 and her contract needed to be updated. Attorney Pollart's, modifications have been made that protect both the RMLD and Ms. O'Brien. Many of the changes were to wording and language and tightened up the document. However, there were a handful of substantive changes which Chairman O'Rourke invited Attorney Pollart to explain.

Attorney Pollart stated that the clarity and readability of the contract have been improved. Substantive changes that were made were the addition of a car allowance, which grants the General Manager the option to receive a car allowance or to have RMLD provide a car. The notice period required for termination due to convenience was changed to 60 days for the General Manager and the Board. It was previously 30 days for the Board and six months

Report of the Committee

General Manager Committee - Chairman O'Rourke

for the General Manager. ICMA contribution was increased from three to four percent, which is consistent with other employees, and instead of the RMLD providing life insurance, Ms. O'Brien will be annually reimbursed \$520 to maintain a policy worth two times her salary. Attorney Pollart then asked if there were any questions.

In the absence of any questions, Chairman O'Rourke briefly explained that the General Manager's Committee met earlier in the evening to look over the updated contract and then summarized the changes that were agreed upon to be presented to the Board for approval: 1. Non-substantive changes to language that improves readability and provide clarification; 2. Including the car allowance that was voted and approved last year, also providing for compensation of mileage outside of the service territory, with Board approval; 3. Changing the noticing period for the RMLD and the General Manager to 60 days in the event that either decides to terminate the contract prior to its expiration; 4. Increase the ICMA contribution to four percent to be consistent with other RMLD employees; and 5. Annually compensating the General Manger \$520 to obtain and maintain a life insurance policy two times her yearly salary, which she will be responsible for submitting for expense reimbursement and also paying applicable taxes on.

Mr. Pacino made a motion, seconded by Mr. Stempeck, that the Board of Commissioners accept the changes to the General Manager's contract, with the changes to incorporate the items that the Chairman just listed.

Motion carried 5:0:0.

Chairman O'Rourke concluded that the Board wants to ensure that the contract is current, enforceable, and fair, as well as being competitive so as to attract the best talent currently and in the future.

Mr. Pacino added that he was not at the last meeting, but he 100 percent agrees with the comments of the other Commissioners in regards to Ms. O'Brien's performance.

Policy Committee-Mr. Hennessy

Mr. Hennessy stated that the Policy Committee voted on updates to five different policies at the last meeting: Policy No. 1 Community Relations; Policy No. 3 Safety Committee; Policy No. 15 Sexual Harassment; Policy No. 16 Violence Prevention in the Workplace; and Policy No. 19 Board of Commissioners. Mr. Hennessy then invited Attorney Pollart to comment on the updates.

Attorney Pollart explained that he worked with the General Manager and the RMLD staff to draft changes to the policies. They have been updated to meet current legal standards and have been made easier to understand.

Mr. Pacino made a motion, seconded by Mr. Stempeck, that the Board of Commissioners approve Policies 1, 3, 15, 16, and 19, as revised, with changes that were made.

Motion carried 5:0:0.

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

Chairman O'Rourke reiterated that there was no CAB Meeting in December.

General Manager's Report – Ms. O'Brien

Ms. O'Brien began by addressing any security concerns raised by malware being discovered on a Burlington Electric Department laptop, and stated that the RMLD wants to assure its customers that the Department takes the threat of cyber-attack very seriously. Protections are in place to ensure that RMLD's system is not compromised, but emphasized that phishing happens constantly and is only able to be deterred by firewalls and how you put together security.

Mr. Talbot inquired as to what security is in place at RMLD, to which Ms. O'Brien replied that was a matter for Executive Session.

Ms. O'Brien then announced that APPA is holding its 2017 Legislative Rally: there are several upcoming legislative issues that are relevant to RMLD's interests, including the Clean Energy Standards Act. Municipals need to be heard and a balance needs to be maintained between municipals and investor-owned utilities. Therefore, Ms. O'Brien requested travel approval to go to Washington D.C. from February 26 to March 1 with area utility managers

General Manager's Report - Ms. O'Brien

to meet with legislators. Ms. O'Brien stated that she would provide a report to the Board at the Commission meeting following her trip, and asked the Commissioners to submit any questions to her that they have for the legislators.

Mr. Pacino made a motion, seconded by Mr. Hennessy, that the Board of Commissioners approve the General Manager for travel to the APPA 2017 Legislative Rally on February 26, 2017 through March 1, 2017 in Washington D.C. **Motion carried 5:0:0.**

The Art Contest Award Ceremonies will take place on Thursday, February 9 and Thursday, February 16 at 7:00 p.m. Ms. O'Brien lauded Ms. Mahan, stating that she has done an amazing job filling in as the Communications Manager while simultaneously performing her duties as Operational Assistant. So far, the art contest has been a success and many lessons have been learned for next year.

Chairman O'Rourke asked if RMLD would be producing a calendar similar to the ones distributed following the tee shirt contests.

Ms. Parenteau answered that it is being contemplated since RMLD will be keeping the artwork this year. Historically, the t-shirts were returned to the participating children and RMLD therefore had nothing to commemorate the contest. Chairman O'Rourke remarked that if it's feasible it would be nice to have a calendar.

Ms. O'Brien explained that due to the size of the artwork the existing frames at the RMLD will be posted on Municibid.

On March 22, RMLD's IRD will be holding a Lunch & Learn workshop for Peak Demand Reduction customers. All Commissioners are welcome to attend.

Ms. O'Brien concluded by stating that RMLD made a presentation to the Wilmington Board of Selectmen on Monday, January 23. It was a lengthy meeting with a lot of questions and a great dialogue. The Selectmen were very impressed with RMLD's new policies and procedures, maintenance, improved communications and peak shredding. They were very happy with the RMLD. North Reading and Reading are the last towns that needs to be met with and then meetings will start again in the spring.

Power Supply Report – November 2016 – Ms. Parenteau (Attachment 1)

Ms. Parenteau began by reporting that November of 2016 was consistent with historical Novembers. When comparing November, 2015 to November, 2016, from an overall energy cost perspective, it was flat. However, there was increased generation from nuclear plants in 2016 due to the Seabrook partial refueling outage that occurred in 2015. Because of RMLD's laddering and layering approach, there was more generation in 2016 than in 2015, so system energy costs decreased from an average of \$55 to \$50 dollars per megawatt hour. These savings were passed through to customers. Renewables were flat, making up 10.4% of energy purchased in 2015 and 10.5% in 2016. There was less hydro, but RMLD picked up some projects in wind. The overall flat cost \$52 to \$51. The spot market decreased in amount purchased, from 6,300 megawatt hours in 2015, to 2,139 megawatt hours in 2016. This was advantageous to RMLD because costs increased from \$45 in 2015 to \$66 in 2016. Buying less as the price increased was effective from a consumer's standpoint. Overall sales decreased by \$2.6 million in November. Overall, the average cost for the month from an energy perspective was 4.8 cents. This was flat and consistent.

Chairman O'Rourke then clarified that Ms. Parenteau was not presenting December's numbers, to which Ms. Parenteau replied that December's numbers were just finalized and will be presented at the next meeting.

Chairman O'Rourke asked if there were any questions.

Mr. Talbot then stated that Pilgrim will be closing in a few years and clarified that RMLD does not purchase power from that plant, to which Ms. Parenteau replied in the affirmative. RMLD's nuclear entitlements are with Seabrook and Millstone.

Power Supply Report – November 2016- Ms. Parenteau (Attachment 1)

Mr. Talbot then asked, despite RMLD not purchasing from Pilgrim, what the impact of Pilgrim closing will be. Ms. Parenteau explained that this should be offset by Footprint Power, which is the refurbishing of the Salem Harbor Plant

(from coal to natural gas), which will result in a 600-megawatt plant. From a capacity standpoint, only 100 megawatts were needed.

Mr. Talbot said that he was just wondering if anyone had done a calculation on keeping Pilgrim open another ten years, since it's licensed until 2032. It's now supposed to close in 2019. Ms. Parenteau said that it's owned by Entergy. The benefits of nuclear is significant since it's low cost our entitlements at Seabrook and Millstone will be paid off soon, and those have been relicensed, so our customers will benefit. Florida Power & Light owns Pilgrim and Dominion Energy owns Millstone. Because RMLD does not have dealings with Pilgrim, Ms. Parenteau stated that she does not have an answer to Mr. Talbot's question.

Mr. Stempeck inquired where Footprint's natural gas is coming from, since the area's supply is already constrained. Ms. Parenteau explained that a three-mile interconnection was made. However, New England's natural gas supply is constrained during the winter, and this will add to that constraint.

Chairman O'Rourke inquired as to the status of the solar program. Ms. Parenteau explained that the Solar Choice system is ready. RMLD is waiting on legal work between the bank and the developer. It's physically ready to interconnect but can't be activated until the paperwork is completed. March 1 is the anticipated online date.

Chairman O'Rourke asked if the customers who signed up would be getting notifications about the program status. Ms. Parenteau answered in the positive, stating that e-mails with updates have been sent. The developer and bank are supposed to meet tomorrow and RMLD is hoping for some good news.

Mr. Talbot requested a price out to buy solar panels roof for the garage of RMLD. Ms. O'Brien stated that the RMLD roof is leaking and that she has asked the head of Facilities to see if it's feasible to install solar on the RMLD roof.

Financial Report – Ms. Markiewicz (Attachment 2)

Ms. Markiewicz apologized for not having a presentation and asked the Commissioners to refer to the packet that she had distributed. Ms. Markiewicz explained that her department is revisiting processes and procedures and finding areas to improve efficiency. They have preliminary automated financials, but they are not where they want them to be. Cogsdale is coming in to demonstrate different variations of the financials.

Chairman O'Rourke inquired if the business system would be changing. Ms. Markiewicz replied that her department would be staying with Cogsdale and Great Plains, but they are trying to use all the modules that come with the software. She is not sure of the timeframe. Business Finance is doing the best that they can; the handout for the evening is not up to her standards and therefore is marked 'draft.' The November balance sheet shows \$38 million cash, which is comparable to last year. Receivables are doing well. RMLD is still in moratorium so receivables' balances are higher. Payables are a matter of timing and are changed by what's in the queue; it is a constant flow. Sales of kwh were down 16 percent from last year, hence the rate increase. Operating expenses are shown from month to month and year to year. Expenses are higher than last year due to additional maintenance and operating expenses are up because RMLD is starting to fill vacancies. RMLD is right on budget-we're at exactly 58 percent and we are 5/12 through the year so there are no areas that need to be highlighted.

Chairman O'Rourke said that it's probably hard to predict, but do we see revenue staying down 16 percent or will it be offset, and then asked if there's anything that RMLD should be doing. Ms. O'Brien answered that we are hoping for a cold winter and there is still time left to try and recover. RMLD is monitoring and doing a formal cost of service study.

Chairman O'Rourke stated that he wasn't sure, and then asked what could be done if revenue continues to decline. Would system upgrades be slowed down or the business model changed? Ms. O'Brien said that the business model has already been changed to target closer to what RMLD is allowed to make. This was done in anticipation of flat sales. Short and long-term plans for capital and maintenance are considered critical and are staying in priority range.

Financial Report – Ms. Markiewicz (Attachment 2)

There are currently no steps to curtail anything in priority range. If it's the end of March and there has still been no winter weather, then some decisions may need to be made.

Ms. Markiewicz apologized for any confusion and stated that the actual base revenue hasn't decreased due to the rate increase.

Chairman O'Rourke reiterated the need for a strategic meeting.

Ms. O'Brien added that RMLD's rate of return was at four; this has been readjusted to give a little more margin. RMLD is still able to make its commitments, such as in lieu of tax payments. RMLD is still on target since the budget is based on flat. Ms. Parenteau's group has all kinds of programs that are all targeted to augment revenue.

Mr. Stempeck asked what the 'other' category is comprised of under assets.

Ms. Markiewicz replied that is the deferred pension liability calculation.

Mr. Stempeck then asked about the increase to accrued liability.

Ms. Markiewicz replied that she believed that was due to the pension but that she would check and follow up.

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

Mr. Jaffari announced that he would be reporting on November, 2016. Capital Improvement Projects, year to date spending totaled \$315,784 as of November 30, 2016. Year to date routine construction \$754,684. Only construction-related-all projects total \$2.4 million. Routine maintenance transformer replacement making progress changed 24% of pad mount transformers about 16% of overhead transformers have been replaced. Pole inspections 204 poles have been replaced to date and 117 out of 204 pole transfers have been completed. Crews are always looking at feeders for signs of trouble. 961 of 1,237 manholes have been inspected and the porcelain cutout replacement program is 91% completed. 188 tree trim spans in November 564 so far fiscal year no hot spots were found during substation scans.

Mr. Jaffari stated that there are 1,600 poles in the service territory. Reading's pole ownership is split in half: 50 percent are owned by Verizon and 50 percent are owned by RMLD. North Reading's poles are owned by RMLD, while Lynnfield and Wilmington's poles are owned by Verizon. Mr. Jaffari then moved on to the NJUNS report for double pole management. In Lynnfield, RMLD has 4 pending transfers. 15 transfers and 58 pull poles in North Reading. In Reading, RMLD has 48 pending transfers and 47 pull poles, and 58 transfers, 1 attachment, 4 pull poles, and 1 guy install in Wilmington.

Continuing, Mr. Jaffari stated that the RMLD reliability indices are under the national average but SAIDI and SAIFI are slightly above the regional average. Equipment failures are decreasing due to maintenance. Fallen trees, including pine trees with shallow roots, contribute to SAIDI and SAIFI. Wildlife outages have increased despite wildlife guards. Animals make it their mission to destroy equipment

Chairman O'Rourke asked if customers should call in with any safety concerns about poles. Mr. Jaffari answered in the affirmative and explained that RMLD goes by NJUNS and pole inspections are part of scheduled maintenance programs. Every week a crew (sometimes two) is dedicated to poles. Critical locations are put on priority lists. Additionally, RMLD is undertaking lots of construction to improve reliability; Mr. Jaffari asked customers to be patient.

Mr. Stempeck asked if there's anything that can be done for poles that are hit by cars multiple times.

Mr. Hennessy suggested jersey barriers.

Mr. Jaffari referred to Pole 118 on Main Street in Lynnfield. The pole has previously been hit and was moved, and then got hit again. RMLD is approaching the town to see if barriers can be placed; there is a curve and a guardrail.

RMLD Procurement Requests Requiring Board Approval (Attachment 4) IFP 2017-31 Fiberglass Poles and Spare Handhole Covers

Mr. Jaffari explained that this is for 40 fiberglass poles and 20 handhole covers the last time this went out to bid the poles were \$519, now they are \$660. This increase meant that a formal bid needed to be submitted. RMLD received three bids: Wesco, Arby, and Graybar. Graybar was disqualified because they didn't submit tax compliance

certification. Arby was the lowest priced. The fiberglass poles are for areas where composite poles can't be used, or where there are guy issues.

Mr. Pacino made a motion, seconded by Mr. Stempeck, that proposal 2017-31 for Fiberglass Poles and Spare Handhole Covers be awarded to Irby for \$26,740.40 pursuant to Chapter 164 § 56D on the recommendation of the General Manager

Motion carried 5:0:0.

General Discussion

BOARD MATERIAL AVAILABLE BUT NOT DISCUSSED

RMLD Board Meetings

Art Awards attendance. Mr. Hennessy stated that he and Mr. Stempeck would be attending the Awards on February 9. Chairman O'Rourke and Mr. Pacino will be attending both nights. Mr. Talbot agreed to attend on February 16.

Chairman O'Rourke announced that the Board will next convene on Thursday, February 23, Mr. Stempeck may have to participate remotely. The March meeting will be held on the Thursday, March 30. Budget meetings will be held in May. The next CAB meeting is yet to be determined. Ms. Schultz will email when the date is set. A date has yet to be determined for the strategic meeting, which Ms. Schultz will coordinate with Chairman O'Rourke.

Mr. Pacino stated that, while recently in Florida, he saw a solar canopy over a parking lot. He stated that until you got up to it, you couldn't see the solar panels. It is something for businesses with large parking lots to consider. Mr. Pacino also mentioned that he saw an electric vehicle station in a parking lot in Billerica; and is noticing them in major parking lots.

Chairman O'Rourke asked when RMLD is going to be getting one. Ms. O'Brien answered that the RMLD parking lot needs to be redone, but RMLD is hoping for a spring install.

Ms. O'Brien then stated that RMLD will be meeting with local fire departments to provide updates on what equipment RMLD has, as well as discussing fires in substations and fire suppression with solar equipment-even if you disconnect it, it's still a generator.

Chairman O'Rourke asked if Ms. O'Brien could provide the Commissioners with data regarding customers who have converted to paper and RMLD's social media and mobile app activity. Chairman O'Rourke also asked for dates for a strategy meeting, which Ms. Schultz will coordinate on. Chairman O'Rourke asked Ms. O'Brien how long she thought the meeting should last. Ms. O'Brien responded that a half day should be sufficient.

General Discussion

Mr. Hennessy inquired as to how unusual it was, five months into the year, to see a sixteen percent decrease. Ms. Parenteau answered that RMLD's sales are weather dependent and said that she was just looking at January and the numbers are up. Once we're into March we'll have a much better idea-revenue is more dependent on usage in summer.

Ms. Parenteau then announced that Integrated Resources was recently notified by the DOER that RMLD was selected for a flow battery study, with an award of \$150,000. RMLD is still waiting on another application, for a larger award-RMLD submitted multiple locations for electric car vehicle charging.

Executive Session

At 8:48 p.m. Mr. Pacino made a motion, seconded by Mr. Hennessy, that the Board go into Executive Session to discuss the deployment of security personnel or devices, to consider the purchase of real property and discuss strategy with respect to collective bargaining, Chapter 164 Section 47D exemption for competitively sensitive or other proprietary information provided in the course of proceedings conducted pursuant to this chapter when such municipal lighting plant board determines that such disclosure will adversely affect its ability to conduct business in relation to other entities making, selling, or distributing electric power and energy pursuant to this chapter and return to Regular Session for the sole purpose of adjournment.

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

Mr. Pacino: Aye; Mr. Talbot: Aye; Chairman O'Rourke, Aye; Mr. Stempeck, Aye; and Mr. Hennessy: Aye. **Motion carried 5:0:0.**

Adjournment

At 9:11 p.m. Mr. Pacino made a motion seconded by Mr. Stempeck 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 Talbot, Secretary Pro Tem RMLD Board of Commissioners

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

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

Commissioners:

Thomas J. O'Rourke, Chairman-Absent Philip B. Pacino, Vice Chair

David Talbot, Commissioner John Stempeck, Commissioner-Secretary Pro Tem

Dave Hennessy, Commissioner

Staff:

Coleen O'Brien, General Manager Wendy Markiewicz, Director of Business Finance Hamid Jaffari, Director of Engineering and Operations Joyce Mulvaney, Community Relations Manager

Jane Parenteau, Director of Integrated Resources Tracy Schultz, Executive Assistant

<u>Citizens' Advisory Board:</u> <u>Town of Reading Finance Committee</u>

George Hooper, Chair Peter Lydecker, Member

Call Meeting to Order

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

Opening Remarks

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

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

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

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

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

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

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

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

General Manager's Report-Ms. O'Brien

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

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

General Manager's Report-Ms. O'Brien

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Mr. Stempeck stated that he remembers setting up OPEB.

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

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

Motion carried 4:0:0.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

RMLD Procurement Requests Requiring Board Approval (Attachment 4) IFP 2017-34 Grounds and Landscape Services

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

Mr. Stempeck made a motion, seconded by Mr. Hennessy, that proposal 2017-34 for Grounds and Landscape Services be awarded to Greenscape Land Design Inc. for \$110,952.00 pursuant to Chapter 30B on the recommendation of the General Manager. **Motion carried 4:0:0.**

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

General Discussion

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

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

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

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

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

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

Executive Session

At 8:48 p.m. Mr. Pacino made a motion, seconded by Mr. Talbot, that the Board go into Executive Session to consider the purchase of real property and discuss strategy with respect to collective bargaining, Chapter 164 Section 47D exemption for competitively sensitive or other proprietary information provided in the course of proceedings conducted pursuant to this chapter when such municipal lighting plant board determines that such disclosure will adversely affect its ability to conduct business in relation to other entities making, selling, or distributing electric power and energy pursuant to this chapter and return to Regular Session for the sole purpose of adjournment.

Mr. Pacino called for a poll of the vote:

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

Motion carried 4:0:0.

Adjournment

At 9:16 p.m. Vice Chair Pacino made a motion seconded by Mr. Stempeck to adjourn the Regular Session. **Motion carried 4:0:0.**

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

John Stempeck, Secretary Pro Tem RMLD Board of Commissioners

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

Start Time of Regular Session: 7:33 p.m. End Time of Regular Session: 9:53 p.m.

Commissioners:

Thomas J. O'Rourke, Chairman Philip B. Pacino, Vice Chair Dave Hennessy, Commissioner, Secretary Pro Tem David Talbot, Commissioner

John Stempeck, Commissioner-Absent

Staff:

Coleen O'Brien, General Manager Tracy Schultz, Executive Assistant Jane Parenteau, Director of Integrated Resources Wendy Markiewicz, Director of Business Finance

Guest: Public:

Mayhew Seavey, PLM Engineering William Brown, Resident

<u>Citizens' Advisory Board (CAB):</u> Dennis Kelley, Secretary

Call Meeting to Order

Chairman O'Rourke called the meeting to order and announced that the meeting is being videotaped for distribution at community television stations in Reading, North Reading, Wilmington and Lynnfield.

Opening Remarks

Chairman O'Rourke read the RMLD Board of Commissioners' Code of Conduct and acknowledged the attendance of Dennis Kelley from the Citizens' Advisory Board, Peter Lydecker from the Town of Reading's Finance Committee, and Mayhew Seavey from PLM Engineering. Chairman O'Rourke explained that Mr. Stempeck was absent due to a work commitment, and that Mr. Jaffari was unavailable to attend that evening as well. Chairman O'Rourke asked Mr. Hennessy to be Board Secretary, he agreed. Chairman O'Rourke then gave Reading resident William Brown the floor for public comment.

Mr. Brown distributed a list of town and RMLD-owned properties that he had put together. Mr. Brown explained that he wanted to initiate discussion in regards to moving the RMLD from its current site and using its present location to generate some income for the Town of Reading. The current land is 6.6 acres and is worth just under \$12 million. A move would not only benefit the Town of Reading, but would also positively impact RMLD's operations. Mr. Brown suggested that being down at the lowest end of the service territory must make it increasingly difficult for crews to dispatch from Ash Street and go to West Street to pick up equipment and then head out to outages.

Mr. Brown stated that he also wanted to express his opinion that the Town of Reading has a parking lot by the train depot that goes from High Street all the way up to High and Vine: It would be a great place to erect canopytype solar panels.

Chairman O'Rourke asked Ms. O'Brien if she wished to comment.

Ms. O'Brien said that RMLD has been working with the town and the Metropolitan Area Planning Council regarding economic development and RMLD is waiting to hear if anything comes from these conversations. The Planning Council's mockup showed the RMLD still on its current property, but with the surrounding area developed.

Opening Remarks

Mr. Brown reiterated his belief that the RMLD's current location is operationally inefficient since it must be difficult for crews to get to outages. There is an available lot just north of West Street in Reading that would put RMLD closer to the center of its business.

Mr. Talbot thanked Mr. Brown for coming in, and stated that he agrees with making optimal use of town real estate, but he's not sure how to move forward-relocating the RMLD would involve the Selectmen and Town Meetings.

Mr. Brown replied that he thinks that it is up to the Board, and then it goes through a Town Meeting.

Mr. Talbot reiterated that no one on the Board would be opposed to optimizing the use of town land. Putting solar on town property, he fully agrees with the idea, but it must happen on different levels since RMLD doesn't own or control town land or town roofs, to which Mr. Brown stated he will then approach a Selectman.

Mr. Pacino remarked that he had recently seen solar panels on parking canopies in Florida and they were far from being an eyesore, and it is something that the high school should consider.

Mr. Talbot added that there are many private and public sites with flat roofs that would benefit from installing solar. RMLD is actively researching the costs of offering or contracting solar installation.

Citizens' Advisory Board

Chairman O'Rourke asked Mr. Kelley to report on the last CAB meeting. Mr. Kelley explained that they were short three members. Therefore, the meeting was quick and was more like an introduction for the new members, Neil Cohen from Reading and Jason Small from North Reading. The CAB still needs one more member from Lynnfield, but at least now they can get a quorum. Mr. Hennessy asked if Mr. Cohen had been on the Town Finance Committee at one time. Mr. Brown replied that Mr. Cohen has been on multiple committees and he believes that the Finance Committee was one of them. Mr. Hennessey was at the meeting and had nothing to add to Mr. Kelley's report.

Report of the Chairman RMLD Board Strategic Meeting

Chairman O'Rourke stated that the most difficult part of holding a strategic meeting is finding a date and time.

Ms. Schultz replied that she had scheduled a tentative date of Tuesday, May 16.

Chairman O'Rourke mentioned that off-sites can go for a full or a half day, to which Mr. Pacino asked for clarification as to what was meant by 'off-site'. Chairman O'Rourke responded that the Board could probably meet at RMLD. It's up to how much Ms. O'Brien thinks she can work without distraction in the office.

Ms. O'Brien stated that she thought it should take a couple hours.

Chairman O'Rourke asked, with some planning, are people available for a morning meeting, which was met with a consensus. Chairman O'Rourke stated that he would have Ms. Schultz send out some dates and asked for any blackout dates.

Mr. Pacino mentioned the upcoming Town Meetings and added that the Board can meet in the mornings of the day of, just not during.

Chairman O'Rourke then said he would be talking to Ms. O'Brien about getting an agenda together.

Ms. O'Brien stated that she thinks Mr. Seavey's presentation will help to generate some topics for discussion.

Chairman O'Rourke invited Mr. Talbot to explain his ideas on RMLD's rates.

Mr. Talbot stated that he wants RMLD to determine if is there a way to throw a time-based rate into the mix.

Ms. O'Brien asked Ms. Parenteau to start off by discussing the rates that RMLD has already had and the interruptible rates that have been implemented in the past.

Mr. Talbot said that more investment in the grid would make it more intelligent, provide the ability to collect data, and perform demand reduction. Ms. O'Brien said that, in a few weeks, when the Capital Budget is presented, one of the line items that continues to be included is grid optimization. It is a 15-year plan, and the next things that are happening will be discussed, including the AMI mesh overlay.

Ms. Parenteau began by stating that rates can be cyclic due to what's happening in the industry. When Seabrook was delayed coming online there was a capacity deficiency throughout New England. To combat that, RMLD enacted seasonal rates at that time. There was a different rate in the summer than in the winter, with different demand components during those periods. There were also non-firm and interruptible rates. A handful of customers opted into the rate and during peak periods of time were required to shed load or be penalized financially. In the early 2000's, capacity moved away from seasonal rates, and RMLD now has a flat rate structure. However, RMLD still has a Time of Use rate where the demand charge only occurs between the hours of noon and 7 p.m. for both commercial and residential customers.

Mr. Talbot clarified that participation in those rates is optional. Ms. Parenteau affirmed and continued, saying that the Peak Demand Reduction program cannot be opened to all customers due to metering constraints, because such customers need to have smart meters. There are currently 20 customers enrolled. The first year the program was in place, a megawatt of demand was shed. However, last year 250 kilowatts were shed, which was significantly less. Yesterday, the Lunch 'N Learn was held for RMLD's customers. It was interesting to get feedback from customers. Many of the rebate programs are based on peak demand. They are not mandatory. Ms. Parenteau surmised that, based on his previous comments, Mr. Talbot was looking for a more rate-based approach to demand reduction, rather than customers simply opting in.

Mr. Talbot confirmed this and asked what percentage of customers opt in to Time of Use. Ms. Parenteau replied there are less than 300 customers. Mr. Talbot then asked what percentage of commercial customers opt in. Ms. Parenteau explained that it is set up for commercial customers who have three shift levels and is geared towards how customers operate their businesses. It is very specific to what customers can and cannot do.

Mr. Talbot explained that his high concept is to nudge it up for everybody in the late afternoon when we have big peak costs. Mr. Talbot stated that he has always wondered why we can't just raise the cost of electricity across the board during the peak usage time. This could benefit commercial customers if they adjust their operations a little bit.

Chairman O'Rourke wondered how much benchmarking data is available, what other communities are doing, and how much marketing of the benefits plays into results.

Mr. Seavey answered that, from an economist's point of view there are two ways to get customers to do what you want them to do: one is the passive approach of setting the price and letting the customer decide; the other is to actively enable and facilitate the customer doing something to modify their behavior. Right now, RMLD is doing both of those things, and is probably doing them more and better than any other municipal utility.

The key is that the cost of electricity varies all the time, and there are quite a few pieces to that. The price of the energy itself fluctuates - it goes up during the day, (the spot market, price which is the benchmark) and down at night. But it's a small difference between day and night, only a few cents a kWh.

Mr. Seavey noted that we are looking at costs that are demand-related: transmission and capacity. That price, looked at on a time-basis, are zero in the case of capacity, except for one hour of the year and we don't necessarily know when that hour is going to be.

Mr. Talbot stated that except it will always be between 3 p.m. and 7 p.m. Mr. Seavey commented that it is usually between 3 p.m. and 7 p.m., but that is not guaranteed. Mr. Talbot asked when has the annual peak not been between 3 p.m. and 7 p.m. Ms. Parenteau responded that, during the winter time, transmission peaks always occur Monday through Friday. Last year, RMLD had a transmission peak on Sunday, February 14. This had never occurred throughout the history of the utility.

Ms. Parenteau noted that Mr. Seavey was correct when he said it is usually between 3 p.m. to 7 p.m. However, that is not to say if new technology comes into place that may shift the peak. Ms. Parenteau said that Mr. Talbot is correct in that the peak occurs between 3 p.m. to 7 p.m., if you look historically.

Mr. Seavey stated that if you were to design a perfect rate that would charge everyone exactly for what they were using each hour, including those twelve hours each month (and the one in the summer), you would end up with a rate that would enormously disadvantage some customers and enormously advantage others. At the end of the day, there is very little that most customers can do to change the amount of energy that they are using during the monthly peaks and annual peak. Mr. Talbot said that everyone can turn their thermostats off in the summer. Mr. Seavey added that they need to know exactly when to do it. Mr. Talbot said that between 3 p.m. to 7 p.m. when the price is higher.

Mr. Talbot commented that RMLD commercial rates are the same 365 days a year, 24 hours a day, seven days a week, except for those few customers that take the optional Time of Use rate. Instead of knocking everything up one cent 24 hours, what if you increased it to two cents from 3 p.m. to 7 p.m., and .75 cents for the rest of the twenty hours. They are better off 20 hours and a little worse off for 4 hours, if they do a tiny bit they can probably come out ahead. Mr. Seavey commented that what Mr. Talbot is describing is a classic Time of Use rate. Mr. Talbot added but a mandatory one. Mr. Seavey stated that in the private utility world, customers who use more than 100kW have been on mandatory Time of Use for years, it is how the regulated utility works. Voluntary or optional Time of Use rates are bad economic policy. Mr. Talbot concurred, but he wants the Time of Use implemented across the board. Mr. Seavey said that in response to Mr. Talbot's approach a couple of cents may not be enough of a signal to change behavior. Mr. Talbot wants to know if there is any data that states if "X" were to happen then "Y" would happen. Mr. Seavey said that he is sure that research has been done to show the threshold for behavior change. Mr. Talbot asked where is the research, evidence, and data that shows what, if anything, they could be doing.

Ms. O'Brien asked if Mr. Talbot was referring to creature habits. Ms. O'Brien clarified that what she is hearing is if the investor owned utilities have a mandatory Time of Use rate can Mr. Seavey run that through the model based on what we have for our model to show the price differential. Mr. Seavey said that he can do this, but he has another approach that may accomplish even more than that. Presently, the price signal that really matters is the demand charge for large customers, not the energy charge. That is something the customer can control and that can have a big impact. The demand charge presently charged to large customers is much lower than the actual cost. Those two price components, capacity and transmission, are being recovered through a flat cent per kilowatt hour charge through the purchase, capacity, transmission and fuel charge. The purchase, capacity and transmission charge should be a demand charge rather than a cent per kilowatt hour charge. It would be around twelve dollars per kilowatt; this is a rate he has worked up for other municipals. If RMLD was to do this, it would send a very strong price signal to control demand. It is not as closely targeted as Mr. Talbot would like, in that it is not targeted specifically to that peak hour, but you can target it within a four-hour range. The demand charge is based on one hundred percent of the demand within the four-hour period or eighty percent of the highest demand, outside of the period. They can have a much higher demand outside of the four-hour critical peak period. The downside, as with anything you do to change the rates across the board, is that initially there are winners and losers. Many of the losers may not be able to control their business practices in a way that prevents them by being harmed by it.

Chairman O'Rourke asked if there is anywhere Mr. Seavey has seen this implemented where it had a positive impact. Mr. Seavey responded that he has not because he has not been able to persuade a municipal utility client to go to that great of an extent. There was one voted last week, however, that will not go into effect until

July of this year. The Town of Mansfield put a \$12.60 capacity and transmission demand on their two largest classes of customers. Mr. Talbot clarified that this was intended to attack the peak. Mr. Seavey concurred. Mr. Talbot asked if we can look at that model for RMLD. Mr. Seavey replied that he can send a copy of the rate schedule which was voted at a public meeting on Monday.

Ms. O'Brien asked Mr. Talbot if he wanted a copy of the rate or the analysis that was looked at before the rate was voted on. Mr. Talbot said that he would like to see if there is anything that RMLD can do to attack the high level. RMLD's peak costs have gone through the roof and he would like creative ways to have RMLD's rates attack the peak. Every megawatt saves the RMLD \$250,000.Mr. Seavey pointed out that it is important to take a step back and he hears often that the peak needs to be controlled, because it is costing us a lot of money. In a sense, it is costing the ratepayers a lot of money. It doesn't make sense to charge the ratepayers more to control something than what the value of controlling it is. If you are charging them \$12 a kilowatt, if they choose to control their demand, that is fine, if they choose not to they are going to pay for it. The key is that they are economically indifferent and so are the other customers. You want to be sure that no one is subsidizing anybody else because they either are or are not controlling their usage during those critical periods.

Mr. Talbot stated that this is abstract discussion, he would like numbers and options that they can look at, and analysis that would say: you can do this and this could be the potential downside. Mr. Talbot said that it is the Board's main job to set rates, it is important to look at and understand actual numbers. Chairman O'Rourke clarified with Mr. Seavey that it is a zero-sum game, there are winners and losers, but at the end there are no net savings. Mr. Seavey clarified that if you set prices correctly, if you send the right price signal to people, whether or not they act on the price signals, they are indifferent and so is everyone else. If you have a large customer that is adding a megawatt to your peak as long as they are paying the cost for that megawatt they are causing, and no one else in the system is, you're fine. What we do not want is a system where everyone else pays because some customers are causing a large peak. Mr. Talbot commented that is what happens right now. Mr. Seavey commented to a certain extent it is and we can do an analysis that shows how costs get shifted under the present rate and how would a different rate design reduce the amount of cost shifting that takes place. Mr. Talbot said to reduce unfairness and possibly reduce the peak would be the goal. Mr. Seavey said maybe reduce the peak if customers make the rational decision to control their demand. Mr. Talbot asked if there is data, are there options with scenarios that would show what would happen if RMLD implemented some of these things. Mr. Seavey stated that the information can be provided. Mr. Talbot clarified that we do not have the information this evening. Mr. Seavey replied, no. Mr. Seavey said that what he is talking about is RMLD analysis, of different rate designs, of what the impact of that might be. Chairman O'Rourke asked if that is the logical next step. Mr. Seavey commented that is correct. Mr. Seavey added that you can go down the road of making Time of Use rates more widespread and applying them to more customers. One problem that RMLD has is there will be implementation costs - metering and billing costs. Mr. Seavey commented that he thinks that analysis will show that it is not as effective to simply add two cents to a non-peak energy charge as it would be to implement a twelve-dollar demand charge. Mr. Talbot said that a twelve-dollar demand charge sounds good to him.

Chairman O'Rourke asked if there was any other Board input and asked Dennis Kelley. Mr. Hennessy asked what are the implementation costs to put in Time of Use meters for all customers. Ms. O'Brien responded four million. Mr. Talbot asked how about the commercial customers. Mr. Seavey added that when you look at residential you run into diminishing returns. Mr. Talbot asked how many industrial meters are there. Ms. Parenteau responded 3,000 commercial customers, she would have to provide data on how many are 100kW or greater. Ms. O'Brien added that they will have to check the parameters on how to program the new smart meters.

Ms. O'Brien stated that Mr. Seavey will be performing the Cost of Service Study, since it is the third year. Ms. O'Brien said that we are all on the same page in that we would like to implement a new rate, but what she is hearing from Mr. Seavey is that we have to be careful of the winners and losers. At the same time, we are talking about economic growth and keeping our customers here. We are trying to balance a lot of different things at the same time. Ms. O'Brien noted that when Mr. Seavey runs all the figures than we will be able to balance all the pros and

cons of making a change. Ms. O'Brien said that she would be interested in seeing all the analysis from Mansfield and what their demographics are, what percentage makes up their residential and commercial, and who their winners and losers will be. Just because there is a different rate does not mean that a company has an automated demand management system. Not all commercial customers have the ability to react to demand response automatically. Mr. Seavey said that electric municipal utilities are in a more advantageous position than private utilities because there is a closer connection with customers. Rather than throw this rate at them you can work with them to provide some tools to manage the change. You do not want to jump into this type of change without being prepared to deal with the consequences.

Chairman O'Rourke asked if some of the analysis would include the assessment of the segments of customer's base and how they would be impacted by a rate change. Mr. Seavey explained that he will go through and provide a listing of all the customers above a certain size and how each one individual customer would be impacted by the change. Chairman O'Rourke stated that a similar process was done in the past couple of years. Ms. O'Brien said that the RMLD was looking at low income rates and how it shifted. Chairman O'Rourke commented the savings some of our customer might experience from shutting down pumps and other equipment, could be offset with the problem of having downtime and the restarting of the pumps, is that an issue. Mr. Seavey responded that it can be and that is an area to take a hands-off approach because that can present potential issues of liability. Mr. Seavey added this is where you would assume that the consumer is rational and understands the cost savings of not consuming. Mr. Seavey said that when he worked at Taunton Municipal Light Plant, the largest customer had a two-megawatt load and made crystal glass and they tried to get them interested in an interruptible rate. They replied that a bandwidth of five minutes would cause a half million dollars of unusable glass. You hope that customers are capable of making those decisions themselves.

Mr. Kelley added that you need to look at the type of buildings such as manufacturing versus a high school. If you think that you can shut off the air conditioning between 5 p.m.-7 p.m. in a school, there are special needs programs and children that are susceptible to temperature change. It is not always as easy using the example of chillers, it is not that you do not want to do it, but the factor is how the building is used. In manufacturing, there are a lot of factors to consider to shut down four to five hours. Mr. Seavey added that you must trust that the customer knows their business.

Ms. O'Brien asked Ms. Parenteau to explain how the RMLD Tangent incentive-sharing program has helped curtail the load during the peak. Ms. Parenteau explained that in the first year, the RMLD had twelve to fourteen customers that participated, and they shed a megawatt of reduction. RMLD shared fifty percent of that savings with the customer. It was very successful. The second year, it was a very hot summer, and the RMLD called peak periods six to eight times. The peak occurred on August 12 at 3 p.m. RMLD is speaking with those customers to determine where the problem was, because it went from a megawatt of success in year one, to dropping to 250 kW in year two. This was in spite of the price advantage increasing significantly, because as of June 1, the capacity costs are going up \$15 per kW which Ms. O'Brien has been addressing over the past two to three years. Ms. Parenteau explained that the cost is going from \$7 to \$15 per kW, it would have been considerable savings to the customer. At the Lunch 'N Learn RMLD had customers that are enthusiastic and eager to do this, but have a myriad of things they are responsible for. When they receive the e-mail, depending on the day and what is required of them from upper management, they may or may not be able to participate. It is lessons learned. Sometimes it is not feasible for them to partake, it is not a high priority. Chairman O'Rourke asked that since we repeatedly inform customers it may be a peak day and then it isn't, is that similar to crying wolf. Ms. Parenteau responded that it is the nature of the peak period. Chairman O'Rourke pointed out that we can educate our customers that it may not be a single day and there could possibly be four or five times during the summer that the RMLD will ask for customers' diligence in relation to peak reduction.

General Manager's Report - Ms. O'Brien

Ms. O'Brien began by thanking the Board for authorizing her travel to the APPA legislative rally in Washington DC; it was an enlightening trip. Ms. O'Brien had the opportunity to meet with congressmen and senators and stated that there were three main topics that were addressed. The discussions centered around: Concerns over keeping municipal bonds from being taxed, forward capacity, and legislation in Massachusetts going to 100 percent

General Manager's Report - Ms. O'Brien

renewables. The latter could significantly impact non-carbon emitting plants. DEP works with FERC and NERC and the municipals want to make sure that policymakers understand what is happening. The ISO that runs the system in this area is down in Washington giving presentations weekly, and a lot of rules and changes are made without thinking about municipals and the impact on their rate payers. Going forward, capacity is going to be significant, and policy makers need to consider that municipals are vertically integrated, have long-term power supply contracts, and are not like investor-owned utilities.

The Congressman or their staff person would listen and take notes, and Ms. O'Brien explained she will be following up with a letter. Going forward, letters will be helpful since municipals are the small guy, and things get changed without thinking about them. From that perspective, it was a successful trip.

Chairman O'Rourke remarked to be one group of stakeholders among so many others lobbying for their causes makes it all the more important to be visible.

Ms. O'Brien agreed that it was a revolving door of constituents expressing their concerns. She will be writing a follow up letter with Ms. Parenteau's help, and will make sure that the Board receives a copy.

Ms. O'Brien announced that the Art Contest Calendars are being designed and ordered, and will be distributed soon.

Joyce Mulvaney, the new Communications Manager, will be meeting with the Reading Elder Services Walking Club at RMLD on Friday, March 31, to discuss available rebate programs, Shred the Peak, and to answer billing questions.

RMLD will be attending the Town of Reading Earth Day event at Parker Middle School on April 22. RMLD will have a LED light display and giveaways for the children.

Ms. O'Brien stated that she will be finishing up her presentations to the towns and meeting with the North Reading Board of Selectmen on April 18, and then will start the process again towards the end of the year. RMLD has let the towns know, so they can segue way it into their budgets, that RMLD is tentatively looking at a three to five percent rate increase. The capacity auction has closed, and we were expecting it to be a bit lower, and not sure yet what that will mean. Mr. Seavey is performing the Cost of Service Study and running numbers, there is a lot of data coming in. Within a few weeks, we should have a better idea. Chairman O'Rourke asked when the increase would be occurring. Ms. O'Brien replied that the increase goes into effect on July 1. For the last three years, RMLD has been telling the towns that the capacity and transmission increases are coming; it is outside of our control.

Chairman O'Rourke said that RMLD's rates are certainly competitive but wondered about utilizing marketing to explain why the rate increase is happening.

Ms. O'Brien announced that RMLD is going to be asking ENE to take part in their rate comparison. It's something that needs to be paid for, but it provides proprietary information. We are just waiting until after the data from the capacity auction has been analyzed by other municipals so that we can get a snapshot of what everyone is putting out on July 1.

Ms. O'Brien stated that RMLD looks at the rates every month, every quarter, and every year. Before Ms. O'Brien began at RMLD, the rates hadn't been adjusted in a long time. Ms. O'Brien said that she thinks that they have gotten all the towns and Selectmen used to the fact that we're doing our due diligence, looking at it constantly, and have the science and data to back it up. 80 percent of the power supply is a pass-through, and Ms. Markiewicz can attest that the rest are fixed costs.

Ms. O'Brien said that RMLD is having problems with the phone system and customers can use a new number 781-942-6598.

General Manager's Report - Ms. O'Brien

Mr. Talbot sought clarification that the 1340 number is a number that RMLD has had for decades and it's now no longer going to work? Ms. Parenteau replied that it has been problematic.

Ms. Markiewicz explained that the problem is on the vendor level; we're being told that it is a dead line. Ms. Markiewicz stated that she will have Mark Uvanni, the IT Manager, contact Mr. Talbot to explain the situation.

Ms. O'Brien said that we are still trying to resolve the matter. Please call the new number for now.

Power Supply Report – January 2017 – Ms. Parenteau (Attachment 1)

Ms. Parenteau began her presentation by identifying the purchase power allocation of power supply costs for the month of January 2017. This was comprised of 54 percent fuel, around 27 percent capacity, and a little less than 19 percent transmission. This marked a slight decrease in capacity, which is usually around 30 percent. In terms of January costs, because of the price of natural gas and the Department's laddering and layering approach, our energy costs have been going down over the last three years. Transmission has been going up. Capacity has been level even though the capacity market is increasing, because the debt service on some of our supply contracts are nearly paid off.

Ms. Parenteau stated that she received an e-mail from Mr. Stempeck regarding transmission costs. In 2015, the RMLD paid a little over \$721,000 in transmission. In 2016 that went up to \$873,000.

This past year, RMLD paid over \$1 million in transmission charges. Transmission is socialized throughout New England. RMLD and other area municipals have been litigating with FERC since 2011, since transmission owners receive a return on an equity payment of around 11.5 percent. Through our litigation with FERC we've decreased that to 10.57 percent. It is still being appealed because we think that amount is unjust and unreasonable. Transmission costs are based on two factors: the rate for the RNS, which represents about 90 percent of our transmission cost, and the monthly peak.

Ms. Parenteau then reported on RMLD's capacity requirement versus the vetted cost of capacity. The kilowatt requirement for capacity is based on the summer peak. In 2015, that value was a little over 209 megawatts, in 2016 it went up to 224 megawatts, and in 2017 it was 232 megawatts. That requirement is going up slightly and it's based on New England's overall peak. We have to get our capacity requirement plus a reserve margin, right now that reserve margin is about 49 percent and then we're required to cover that capacity through that whole year. The cost of that capacity has been pretty flat. In 2015 and 2016, it was a little under \$7.40. The decrease in 2017 was a result of the market price increasing, an elimination of our working capital on our MMWEC and Stonybrook projects, and our Millstone and Seabrook debt service being reduced, subject to being paid off in 2018. Ms. Parenteau then addressed the imbedded fuel and capacity costs. The capacity costs dropped in 2017. Fuel costs have gone from a little under five and a half cents to five cents, and that's a complete pass through to RMLD's customers. In his e-mail, Mr. Stempeck also commented on how RMLD's rates are competitive, and the rates are significantly lower than those offered by investor-owned utilities, and wondered if we should publicize that to our commercial customers. Ms. Parenteau stated that historically, RMLD had a separate newsletter that was geared towards commercial customers, which focused on programs, rebates, Shred the Peak directly to those individuals. Now that Joyce Mulvaney is the new Communications Manager, we are looking to start up that publication again. Additionally, when the three Integrated Resources engineers visit with high use commercial customers they make a point to emphasize RMLD's low rates.

Financial Report - January 2017 - Ms. Markiewicz (Attachment 2)

Ms. Markiewicz announced, that she will be presenting automated financials to the Board. It still needs some tweaking. Ms. Markiewicz then discussed Accounts Receivable trends over the last three years. There are dips and peaks that correspond with moratorium, the end of moratorium, and our credit and collections. There was some inconsistency after the first seven months of 2016 as procedures and processes were being reviewed. However, we came back strong in the beginning of FY 2017.

Chairman O'Rourke asked what the key takeaway of this is. Ms. Markiewicz replied that, for the most part, RMLD has anywhere between 85 and 90 percent current receivables.

Financial Report – January 2017 – Ms. Markiewicz (Attachment 2)

Ms. Markiewicz then addressed the capital funds. The year to date as of January 31, for the total use of capital funds was \$3.6 million and a source of \$8.4 million, which leaves a total of \$4.8 million. RMLD is right on target with the capital budget.

For the month of January, RMLD's net income (positive change in net assets) was about \$630,000, thereby increasing the year-to-date net income to about \$3.8 million. Base revenues have exceeded FY 2016 by about \$1.5 million, or 11 percent. Whereas year to date operating expenses exceeded FY 2016 by \$1.3 million or 12 percent. Actual base revenues were approximately \$15.6 million and actual operating costs were about \$12.2 million.

Chairman O'Rourke then asked for clarification that our operating revenues are nine percent more than last year. Ms. Markiewicz answered yes, but that is just looking at base revenue, because that's where we make our money. It doesn't include purchase power, capacity, and transmission though, because there is a pass through there.

Chairman O'Rourke clarified that we're up 11 percent from last year. Ms. Markiewicz replied yes, but we're also up 12 percent in expenses.

Chairman O'Rourke asked where we are in regards to the budget. Ms. Markiewicz stated there is 38 percent left in the budget so we're about 2 percent down from 41.6 percent, which is where we should be.

Chairman O'Rourke asked if that is evenly spread; is the same amount budgeted each month after dividing by twelve? Ms. Markiewicz explained that what was discussed as a team was that, because forecasting revenue month-to-month is difficult and we don't necessarily know what month some operating projects are going to be in, the total budget is examined. We are currently 7/12 through the budget. We would compare the 7/12 of the budget to the actual year-to-date.

Chairman O'Rourke asked if a quarterly view would give a better picture. Ms. Markiewicz answered that it would depend on when projects are scheduled; sometimes, depending on the weather, project completion dates change. We're two percent down on revenue, but overall budget because 41.6 percent is the target number and overall that's where we are at.

Ms. Markiewicz continued, stating that the year-to-date Purchase Power Capacity and Transmission (PPCT) revenue exceeded PPCT expenses by \$839,000. Fuel revenue was below fuel expense (disregard chart-shows opposite because the NYPA credit was not taken into account) by \$463,000. Net effect of that-Ms. Parenteau's group is on target with balancing that out. Operating and maintenance expenses: comparison year to year and comparison to budget as well. Combined, under budget by about \$250,000 or two percent. Actual operating and maintenance expenses were \$12.2 million; budgeted expenses were \$12.5 million. RMLD is on target with 41.6 percent of the budget remaining. There is a DPU report due on March 31. It is not fully prepared yet and Ms. Foti or Ms. Schultz will need to coordinate with the Commissioners to have them come in to sign the document before March 31.

Engineering and Operations Report - January 2017 - Ms. O'Brien (Attachment 3)

Ms. O'Brien began with the Capital Improvement Projects-Mr. Jaffari is on target and is making progress. The LED streetlight conversion is 63.5 percent completed. This is something that the towns were interested in and have conveyed progress status to them. Mr. Jaffari is doing a great job moving everything ahead. We recently had some storms, but RMLD had minimal damage and minimal outages. Some towns didn't fare as well. Routine maintenance is moving ahead, a lot of work is getting completed. We're finishing up failure analysis on all the equipment that was not maintained. We are getting to the point where we can start to spread out the maintenance better and start to get onto a cyclic plan. GIS is really going to help; it is going to provide new mapping that will tell exactly how old equipment is. It is scheduled to be implemented this September. In terms of double poles, we have a lot of pole butts we need to take out-we don't do during winter because poles break off. Will start back up in the spring when the ground has thawed. The pole inspection program is surfacing a lot

Engineering and Operations Report - January 2017 - Ms. O'Brien (Attachment 3)

of poles that were deemed failed. That's why pole numbers have gone up. Verizon isn't moving them as quickly as we would like, we will try to meet with them next week.

Ms. O'Brien stated that she has been working with CAB Chair, George Hooper on Wilmington double poles. Wilmington Fiber and Wilmington Fire are both now listed on the NJUNS report. Ms. O'Brien has provided Mr. Hooper some numbers regarding the cost of removal; not necessarily to have RMLD do it, but what they can do to move things along. The Town of Wilmington's Fire Department line has now gone wireless, there's a lot of wire that's up there. The RMLD can't really remove that for them. We have to work out something with the town.

Ms. O'Brien then addressed reliability indices. Year to date, RMLD is way below regional and national averages. Outage causes were typical, fuses and wildlife. We're seeing some improvements with the new tree trimming program.

Mr. Kelley asked if the phrase 'substation maintenance' was referring to the Wilmington substation, noting that the parking lot of that location has been packed with trucks for the last few weeks. Ms. O'Brien explained that Substation 4 feeds Substation 5. In this year's Capital Project, we're going to be redoing the lines between them. We have worked on catching up with a lot of lost maintenance on Substation 5 because we need that to stay working and reliable until we find land and build another substation in Wilmington. We want Station 5 to be solid for at least five years. The worst case-scenario is that we can't find land-in that case we would have to go back to Station 5 to build another substation right up against the existing one. This is not the optimal choice.

Ms. O'Brien stated that she met with the bonding agency that the town uses in order that they could explain exactly what needs to be done and the bonding process. It was a very educational meeting that Ms. Markiewicz had set up.

Mr. Kelley reiterated that there were lots of trucks in the parking lot, it is amazing so many people fit in there. Ms. O'Brien replied that RMLD has redone almost every component of the station.

RMLD Procurement Requests Requiring Board Approval – Ms. O'Brien (Attachment 4) IFP 2017-35 Distributed Generation Worksite

Ms. O'Brien stated that there is only one bid to approve. 51 companies were sent the bid. Seven replies were received.

Mr. Pacino made a motion, seconded by Mr. Hennessy, that proposal 2017-35 for Distributed Generation Worksite be awarded to Tim Zanelli Excavating for \$214,969.00 pursuant to M.G.L. c. 30 § 39M on the recommendation of the General Manager.

Motion Carried 4:0:0.

General Discussion

Chairman O'Rourke stated he has one item for general discussion. With the budget meetings coming up in May, if there is anything of importance that Ms. O'Brien wants Board input on prior to the actual budget presentations, just let them know.

Ms. O'Brien then expressed her concern that Mr. Seavey will be coming back to do a presentation on the Cost of Service and some rate designs. Mr. Seavey presents the Cost of Service with the budget, with the rate changes effective July 1. The rates have to be filed earlier. Logistically, we could move forward with that and if we're going to have a new rate structure, we're probably not going to be able to get that in for July 1. We can have Mr. Seavey come back make his presentation, then discussion and make the decision afterwards. Ms. O'Brien asked Ms. Parenteau for her input.

Ms. Parenteau replied that she thinks the plan was to get some input from the Board and the CAB in terms of if there were any rate structures they want to be included or changed, and target for a July 1 implementation. Because of the budget, if we know the dollar amount that we need to recover, we have the flexibility of approving that in May or June. If the CAB and the Board are willing to work with RMLD in terms of changing the rate structure, we would still try to aim for July 1.

General Discussion

Ms. O'Brien stated that we are talking about significant changes, and we need to keep that in mind. We would need to meet, decide, and roll it into the budget for July 1. We're talking about demand changes on rates; that doesn't give a lot of time to talk to customers.

Chairman O'Rourke asked if the April Board meeting was sufficient time to have a presentation, to which Ms. Parenteau answered, yes.

Chairman O'Rourke said there are two possible outcomes after hearing the presentation. The reaction could be this is great, it makes sense, and then a consensus is quickly reached. Or, it's not ready to be implemented, we want to do it right. If more discussion and analysis is needed, could it be implemented later?

Ms. Parenteau explained rates need a three-month window, so new rates couldn't be filed until October. If we're going to change how we bill the PPCT that is different than the base rate revenue that we collect for operational expenses. Depending on what the impact of the rate studies are, it could occur.

Chairman O'Rourke stated that the most important thing is to get it on the agenda, hear it, and decide.

RMLD Board Meetings

The next Board Meeting will be Thursday, April 20. Mr. Pacino remarked that the first order of business will be reorganization of Board. Wednesday, May 10 and Thursday, May 11 will be the budget meetings. Operating and Capital will be approved together.

RMLD Board Meetings

There are CAB meetings on April 5 at the new Wilmington High School and April 12 at the RMLD. Ms. Schultz will send out an e-mail.

Mr. Pacino commented that he had heard on NPR that the marijuana growing industry in Colorado has increased electrical usage.

Executive Session

At 9:19 p.m. Mr. Pacino made a motion, seconded by Mr. Hennessy, that the Board go into Executive Session to discuss the deployment of security personnel or devices, to consider the purchase of real property and discuss strategy with respect to collective bargaining, Chapter 164 Section 47D exemption for competitively sensitive or other proprietary information provided in the course of proceedings conducted pursuant to this chapter when such municipal lighting plant board determines that such disclosure will adversely affect its ability to conduct business in relation to other entities making, selling, or distributing electric power and energy pursuant to this chapter and return to Regular Session for the sole purpose of adjournment.

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

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

Motion Approved.

4:0:0.

Adjournment

At 9:53 p.m. Mr. Pacino made a motion seconded by Mr. Talbot to adjourn the Regular Session.

Motion Approved.

4:0:0.

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 April 20, 2017

Start Time of Regular Session: 7:32 p.m. End Time of Regular Session: 9:53 p.m.

Commissioners:

Thomas J. O'Rourke, Chairman

Dave Hennessy, Vice Chair, Secretary Pro Tem

Philip B. Pacino, Chairman

John Stempeck, Commissioner

David Talbot, Commissioner, Absent

Staff:

Coleen O'Brien, General Manager Tracy Schultz, Executive Assistant
Jane Parenteau, Director of Integrated Resources Joyce Mulvaney, Communications Manager
Hamid Jaffari, Director of E & O

Citizens' Advisory Board (CAB):

Neil Cohen, Member

Guest:

Mayhew Seavey, PLM Engineering

Call Meeting to Order

Chairman O'Rourke called the meeting to order and announced that the meeting is being videotaped for distribution at community television stations in Reading, North Reading, Wilmington and Lynnfield.

Opening Remarks

Chairman O'Rourke read the RMLD Board of Commissioners' Code of Conduct and explained that Ms. Markiewicz would not be in attendance; therefore, there is no financial report. Chairman O'Rourke welcomed Reading's new CAB representative, Neil Cohen, and Mayhew Seavey from PLM Engineering. Mr. Hennessy agreed to serve as Board Secretary. There was no public comment. Mr. Stempeck stated that he attended the CAB meeting on April 5th and commented that it was an outstanding meeting: The presentation of the Capital Budget was met with excellent questions and the RMLD team is to be commended for a job well done. The subsequent tour of Wilmington's new high school revealed a beautiful building with much forethought put into materials.

Report of the Chairman

Reorganization of the RMLD Board

Chairman O'Rourke announced the annual reorganization of the RMLD Board of Commissioners and asked for nominations for Chairman and Vice Chair. Mr. Stempeck nominated Chairman Pacino for Chairman and Mr. Hennessy for Vice Chair. Chairman Pacino seconded the nomination.

Chairman O'Rourke moved that the Board accept the nomination of Chairman Pacino for Chairman and Mr. Hennessy for Vice Chair.

Motion Approved.

Motion carried 4:0:0.

Chairman O'Rourke was Chairman up to this point in the meeting.

Chairman Pacino thanked the Board and stated that it is his thirty first year serving. The first time he served as Chair was in1998. Chairman Pacino stated that he has no set agenda; only the best interest of the ratepayers. He has been through two votes Town of Wilmington to pull out of the system and the Twenty-Year Agreement

Report of the Chairman

Reorganization of the RMLD Board

that arose from that, the construction of the RMLD building, and four General Managers. Chairman Pacino clarified that his purpose as Chairman will be to guide, not to dictate. He concluded by stating he fully supports Ms. O'Brien and the direction that she is taking the RMLD.

Electric Rate Design Scenarios - Mr. Seavey

Ms. O'Brien pointed out an error in the Board Book and explained that the agenda and attachment cover page of the presentation should read 'Electric Rate Design Scenarios.'

Mr. Seavey explained that his analysis began by updating the Cost of Service Study that was performed three years ago. That edited document then served as a basis for designing rates that will accomplish various goals. One such objective being to send price signals to customers to control the peak. The Cost of Service Study is intended to provide an analysis of how the rates are currently performing, and to then provide options for restructuring.

The FY 2016 Cost of Service was updated to reflect the FY 2018 operating budget. To reach the targeted rate of return, customer distribution revenues were increased by 4 percent and streetlight rates were adjusted to reflect the formula rate that is allowed by statute.

The results show rates of return by class ranging from -2.7 percent for basic residential customers to as high as 28 percent for industrial customers. The overall rate of return is close to the target of 8 percent. It comes in at 7.9 percent. Class rates of return varied from minus 10 to plus 28. These are comparable to what was found in FY 2014, and are well within the range of the rates of other municipal utilities.

Mr. Seavey continued, explaining that subsidies are always an issue that arise during rate design, where the question arises: Is everyone paying their fair share to run the utility? Retail electric rates cannot reflect the actual cost of providing service. The cost of energy varies hourly. Additionally, capacity and transmission make up an increasing portion of cost structure. These costs are incurred in very specific ways. The cost of capacity, which is doubling, is determined by the New England load during a single peak hour. Even if a customer is offline at that time, they still pay the cost of that capacity. Similarly, transmission costs are incurred based on one peak hour a month. This is determined by the transmission grid's peak, not RMLD's. The actual distribution costs vary depending on where the customer is located on the electric system, but the rate structure is socialized.

Vice Chairman Hennessy asked what is the actual variability in distribution cost. Mr. Seavey replied that the average distribution cost is about 4 cents a kwh. The cost for a customer located right next to a substation is probably less than a cent, whereas the actual cost for a customer further away could be 7 or 8 cents a kwh.

Mr. Seavey then stated that there are political considerations that are always present in rate design. Residential customers are viewed as a favored class in both private and municipal utilities. In municipals, they elect the Commissioners, and when private utilities file their rates the Attorney General is representing the residential customers. Additionally, Associated Industries of Massachusetts represent industrial customers so the small commercial customers end up picking

up the balance. Large customers are viewed as employers in the town and as being subject to competitive pressure, and having choices that small commercial customers do not.

There are two types of subsidies to address in RMLD's rate design: Cross-class and intra-class. Cross-class is where one rate class is subsidized by another rate class. Residential rates don't even cover their own expenses; there is a negative rate of return. All RMLD's net income is produced by commercial and industrial customers. Additionally, there's a subsidization of renewable generation and net metering customers, who are not paying a significant cost of the distribution services that they are using. Within each class are Intra-class subsidies, because the demand charge that large customers pay doesn't reflect the actual cost of demand. If a customer has a high load factor and is purchasing a lot more kwh than what they impose on the system and they are paying capacity charges through a cents-per-kwh charge, they're paying more than their share. If customers are not paying the actual cost, then they don't have a proper incentive to control their demand.

There are three scenarios that all produce the targeted eight percent rate of return. The total revenue remains consistent, but is shifted across customer classes.

Scenario 1 is an across-the-board 4 percent increase. The customer and distribution charges will increase, which make up one quarter of the bill impact. The bill impact is between 1 and 1.5 percent. The rates of return shift very little. Revenues increase \$1 million. Average bill will increase 1 percent. The rates of return remain uneven. Residential rates still lose \$1.3 million and commercial and industrial earn \$7 million.

It is worth noting that all rates, regardless of which scenario was being looked at, are 10 to 40 percent lower than comparable rates from National Grid.

Scenario 2 has every class of customer producing a uniform 8 percent rate of return. The impact is dramatic. There would be a 13 percent increase for residential customers, a 20 percent increase for residential time-of-use customers, an 11 percent decrease for commercial customers and a 4 percent decrease for industrial customers. Customers generally do not notice changes of less than ten percent. Large customers will notice smaller changes because they have access to their accounts and usage.

Scenario 3 brings residential rates up to break even (up to a 0 percent rate of return), and the commercial and industrial rates produce the net income to meet the overall 8 percent rate of return. This results in a 4 percent increase for residential customers, and a 12 percent increase for time-of-use. The commercial rates would go down about 3 percent and the industrial rates would remain relatively flat, with only a 0.5 percent increase. It's not an enormous impact.

These are the parameters that RMLD has to work with for overall rate class design. The present rate charges demand only to commercial, industrial, and school classes of customers. The demand charges vary between \$7.5 and \$9 dollars a kw. In FY 2018, forward capacity and transmission costs alone total \$16. The present demand rates will only recover half of the cost of capacity and transmission. The rest is recovered through a cents-per-kwh charge. High load customers are paying more than their share of transmission costs. Mr. Seavey gauged the level of subsidy that each of the 80 industrial customers are paying. This was based on the allocated cost of capacity and transmission versus how much the 80 customers were paying through the present rates. There are customers whose capacity and transmission charges are almost entirely being paid by someone else. Then there are customers paying 60 percent more than their share of capacity and transmission costs. This is a direct function of the load factor of the customer-the number of hours that they use each kw of demand. If you take the customer's monthly kwh and divide it by kw's of demand, the unit you get is hours. The higher that number is, the more the customer will be paying to subsidize others. The dollar amount that is subsidized varies tremendously.

Mr. Stempeck asked, with the forward capacity and transmission costs due to increase dramatically, will that effect National Grid as well? Mr. Seavey answered in the affirmative, and explained that all utilities within NEMA's load zone will be similarly affected.

Mr. Stempeck asked we have such granular data in terms of who is subsidizing who, can another scenario be to work with each company so there is no subsidizing? Mr. Seavey replied that a good approach is to adjust the rate and then work with individual customers either directly or through an energy services company to look at their consumption patterns and their processes. The price signal must be correct first.

Mr. Stempeck stated that with all the data and algorithms available, there must be a straightforward way to adjust on a rational basis. Mr. Seavey responded that it is tricky; customers vary widely in their ability to control things like that. Some of it is behavior and some of it is technology. If the customer has a process that is inflexible, there's not much that they can do other than looking at storage technologies or onsite generation.

Mr. O'Rourke clarified that Mr. Stempeck was not suggesting changing the relationship between residential and commercial. Mr. Stempeck replied that he was just focusing on commercial. Would imagine that all supermarkets are being treated the same. But if one becomes significantly differentiated, then that becomes an issue. Mr. O'Rourke remarked that a supermarket is a good example, since they are inflexible due to refrigeration.

Mr. Seavey explained that refrigeration has a flywheel effect. When the input is reduced, the temperature rises quite slowly. If you can target a narrow window you could very easily control that. It's the same thing with air conditioning. If you know that there's going to be a peak later in the day you can do extra chilling in advance of that, and then reduce or completely turn off. There are options with technology if you have the information in advance.

Mr. O'Rourke then commented on how it's impossible for manufacturers when they could be losing millions in production time. Mr. Seavey replied that's why businesses need a good accountant to calculate whether there is a cost benefit.

Mr. Seavey continued, saying that the approach they're working on is to create a separate purchase power capacity transmission charge for customers who are billed a demand charge. Currently, every customer pays the same cents per kwh rate. We could take some of the revenue being recovered from commercial and industrial customers, turn that into a demand charge, and recover the rest through a kwh charge. This would reflect the price of capacity and transmission without shifting any revenue between classes of customers. It would keep the amount of revenue that you're recovering from commercial and industrial customers the same, but would shift some of those energy charges into demand charges. This will have an enormous impact on the amount of subsidization that takes place within the larger customer class.

The impact to the largest 80 customers would be some significant increases. Most of the customers would experience an impact of plus or minus 5 percent. There are some customers who will get a strong price signal. The amount of dollars involved is relatively small for most of the customers, but there are a few with sizable increases. There are also some with moderate decreases. About 2/3 of the industrial customers would see an increase. Only 5 will experience an increase greater than 10 percent. None of the decreases would be more than 5 percent.

Mr. Seavey then addressed the amount of subsidization of renewable generation net metering customers. RMLD's present rate allows the customer to avoid paying distribution for all kwh that are produced by the solar generator and consumed behind the mirror. That means that RMLD is losing an average of 30 percent of distribution revenues from each net metering customer. It amounts to an average of \$3.16 per installed kW of solar capacity. Across all of RMLD's solar customers, the total amount of the subsidy is about \$1,800. The average is \$22 a month per customer. That being said, RMLD is better off than many utilities. RMLD is not crediting the full distribution for kwh that are delivered to the utility and is not doing strictly fill net metering. The fuel charge is below the value of the capacity and transmission that is delivered to the system.

Vice Chairman Hennessy asked what the typical loss is, if ours is 30 percent. Mr. Seavey replied that the average in terms of dollars per kw is \$6 kw. RMLD's is half of that.

Mr. Seavey continued, stating that oversizing a solar array doesn't harm RMLD that much. The more that the customer exports to RMLD's system, the less RMLD loses from the customer in terms of dollars per kw. If only 20 to 30 percent of the electricity is being used behind the meter and 70 or 80 percent of it is being exported, losing about a \$1 a kwh.

Mr. Seavey then presented three of the most commonly used options to reduce this subsidy.

The option that Mr. Seavey sees most often is to add a distribution recovery surcharge for a certain amount of dollars per kw of installed solar capacity every month. It becomes an additional monthly customer charge based on the size of the customer's solar array. This is easy to implement but it's not ideal. Picking a number to charge per kW still leads to subsidies between solar customers. RMLD recovers all its distribution revenue, but instead of non-net metering customers subsidizing net metering customers, some net metering customers subsidize other net metering customers.

Another option is to install a demand meter in place of a standard kwh meter for every residential solar customer. The peak demand for solar customers is at night. The demand meter would pick up that peak and bill the

customer an appropriate distribution charge, based on their demand. This was not previously an option due to equipment costs. However, demand meters are no longer as expensive. It is feasible but would mean billing system modifications.

The best way is to completely separate the solar generation from the consumption is to have two separate meters. The meter on the house records all the kwh use within the house, while a revenue meter on the solar array has a tariff rate for solar electricity. This is based on avoided capacity transmission value and the avoided energy value. There is no subsidization at all if you do it that way. Mr. Seavey stated that he knows of a few municipals who do this for customers over 100 kw, and it could be done for smaller customers. However, it's a more complicated meter installation. The more effective a solution is, the more complicated and concluded his presentation.

Mr. O'Rourke inquired as to what the next step is. The Board has received good information. Is there now supposed to be a digestion period to think about the presentation and then come back and clarify?

Mr. Seavey answered that RMLD is looking for feedback on how important is it to address the different levels of subsidization and how important it is to be sending the correct price signal for capacity and transmission in order to try and control the peak.

Mr. Stempeck clarified that the three scenarios were picked, from an unlimited range of options, because they seemed the most reasonable. Mr. Seavey affirmed this, and stated that he had disregarded scenarios that were extreme and so moderate as to be almost meaningless.

Mr. Stempeck asked if this is something to address at the strategy meeting. Ms. O'Brien replied that she would think so as we're trying to resolve rate increases and structures to roll into the budgets for a July 1 implementation.

Ms. Parenteau added that the rates must be filed shortly before July 1; there is some time.

Mr. Seavey explained that the presented rates were carefully devised so as not to impact the budget-the revenues are the same.

Chairman Pacino asked what the Department is looking for the Board to do-are the Commissioners supposed to choose one of the scenarios?

Ms. O'Brien stated that she appreciates this type of presentation because it shows exactly how the rates work, including the numbers needed to recover the rate of return. It starts a conversation on subsidization, time of use, and solar. It highlights any type of revenue erosion from solar that is currently occurring, and raises questions as to what the future will bring. In California, circuits aren't connected to anything; they're on standby Going forward, the rates need to be designed to be fair to all customers. We need to make sure we're strategically thinking: what is it now and what is it going to be in the future? Do we need to make a change now or do we want to wait? There is a subsidy with solar. Is it at a level now where it's still okay? If we allow that number to continue to grow, the next thing you know you're trying to recover from that and the increase to the customer is much greater. Ms. O'Brien stated that she would be strategizing with Ms. Parenteau to make recommendations as to what they think. The state of the electric industry has been standard for the last thirty years. There's never been the threat of competition. However, going forward, solar will have an impact. The cost of the peak, load factor, and customers not paying their share all need to be addressed. It's always easier to stay consistent with the past, but there are changes that we want to make sure we're addressing. This can be discussed further in a strategy meeting and still try to get any rate changes in for July 1.

Mr. Stempeck appreciates the fact that other area utilities are significantly more expensive than RMLD and are facing the exact same issues in terms of rates. It comes down to a question of who subsidizes who or not, or if everyone just pays their fair share. Solar is great and he supports its proliferation. However, there are concerns that need to be addressed. We still need to provide power to customers in the morning and at night.

Ms. O'Brien agreed with Mr. Stempeck's support of solar. However, parallels can be drawn to the owners of electric cars who receive a tax break. When everyone has an electric car, at what point do we reinstate that tax? There should be a benefit for helping to clean the planet, but there are also fixed costs that need to be paid. Redistribution of that responsibility needs to be done strategically so we're not hurting our customers. Ms. O'Brien mentioned even making some minor adjustments in that direction so that we're covered in the event of rapid solar technology development. Money will still need to be paid to keep up the poles and wires.

Mr. Stempeck added that it pays to be strategic about this and consider the different options. The future is tied to how many people convert to solar and whether what is happening in California could happen here. With all the possible rates netting the same return, it really becomes a question of balance.

Mr. O'Rourke stated that the strategy session should provide governing thoughts on what the Board wants to do and what the Board does not want to do. There are different impacts on different customers; disadvantaging RMLD's largest customer should be avoided. Options need to be analyzed in terms of their relative merits. We need to make sure whatever we select outlines and protects as part of our strategy.

Mr. Stempeck reported on an article he read a week earlier about Google trying to divorce itself from PG&E because they've put in so many solar arrays that they no longer need the power from PG&E. They want to disconnect from the utility. PG&E is going to be charging them a transmission charge. This is reflective of how technology is changing in both our industry and our world. Ten years ago, this would have been unthinkable.

Ms. O'Brien said that whether people are connected to us or not, RMLD will not compromise the safety of its system, the workers, or the public. The cost of maintaining the system remains. Charge for providing standby power in the future-those costs will still be there.

Mr. Seavey explained that it ultimately becomes a policy question. A subsidy exists over time-when you try to take it away, it becomes an entitlement. When rates aren't looked at for a long time and don't adjust according to market conditions it creates a situation you can't fix without disadvantaging one group over another.

General Manager's Report - Ms. O'Brien

Ms. O'Brien announced that the Art Contest calendars are available and have been delivered to the schools. Ms. O'Brien thanked Ms. Mulvaney and Ms. Parenteau's group. Ms. Parenteau added that the calendars were designed in house, resulting in a significant savings to RMLD.

The North Reading Town Day will be June 11 and the Reading Friends and Family Day will be June 17; RMLD will be attending both events. The Shred the Peak educational program will launch early to mid-May. The website redesign, historic calendar design, and Public Power Week event planning have all kicked off.

Ms. O'Brien's last Town presentation, to the North Reading Board of Selectmen, has been rescheduled to May 8.

Mr. O'Rourke asked about Earth Day. Ms. Mulvaney explained that the Reading Climate Advisory Committee will be holding an event at Parker Middle School. RMLD will attend.

Power Supply Report – February 2017 – Ms. Parenteau (Attachment 1)

Ms. Parenteau reported the power supply report will be for February 2017. Comparing heating degree days with kWh sales showed that the winters were much colder in 2013, 2014, and 2015. Heating degree days dropped significantly in 2016 and 2017. The tricky part of kwh sales is that the monthly report is sometimes reflective of both January and February based on billing cycles. In 2016 and 2017 where there is a decrease in sales, and then a slight increase, that could be related to January sales that are incorporated into the February bill. It was a bit non-conforming but Ms. Parenteau explained that she wanted to capture the significance of heating degree days and the drop in 2016 and 2017.

Ms. Parenteau then spoke on comparing imbedded fuel costs and heating degree days. Because of gas constraints in New England in February of 2013, 2014, and 2015, there were significant cost increases, especially

Power Supply Report – February 2017 – Ms. Parenteau (Attachment 1)

the spot market (day ahead and real-time). That has dropped significantly in 2016 and 2017. The day ahead markets and the real-time markets were averaging over \$100 a month. In February of 2016 and 2017, because of the mild conditions and lack of gas constraints, cost dropped to \$30 in those periods. This is reflected in fuel charges.

Mr. Stempeck clarified that the cost drop was due to temperature differentials. Ms. Parenteau answered that the mild weather was a contributing factor, as was the gas supply and RMLD's laddering and layering portfolio. These brought the price down.

Ms. O'Brien asked Ms. Parenteau if she had any information into Mr. Talbot's inquiry about solar panels held down on roofs by cinder blocks.

Ms. Parenteau answered that there are access issues at our solar projects at 1 Burlington Ave. and 326 Ballardvale. IRD reached out to one of our customers, Teradyne in North Reading, and they have access to their panels and we can walk on the roof and take a look. They can provide a structured tour of the facilities. It is comparable to RMLD's arrays. Preliminary dates for the tour are May 16 and May 17. Ms. Schultz stated that she would resend e-mail that Ms. Foti had distributed about the tour.

Mr. O'Rourke explained that Mr. Talbot had been looking for information on the feasibility of RMLD having its own solar business.

Ms. Parenteau thought Mr. Talbot had asked for a hypothetically, without considering the structure's integrity, the cost of placing solar on RMLD's garage roof. Ms. Parenteau stated that she had reached out to developers, and that it would cost roughly \$200,000 to do 250 kw.

Mr. O'Rourke added that he believed the end game was a cost benefit analysis, if we purchased those solar panels then what kind of cost benefit would there be for RMLD. Ms. Parenteau stated that she would run those numbers.

Chairman Pacino added that it was his understanding that RMLD is looking for other locations for solar panels.

Ms. O'Brien agreed with Ms. Parenteau regarding what Mr. Talbot originally asked. However, the question has shifted. Mr. Talbot wants to know what we are doing to solicit roofs to put solar panels up that are just held down by cinder blocks. Mr. Talbot is viewing it as a very low-cost method of throwing solar panels up and he wants that scenario evaluated.

Ms. Parenteau commented that RMLD needs to consider that if we own the solar panels, we would have to pay the owner of the building a lease payment. What do we do with the tax incentive credits that are here, since we can't take advantage of those. It is an analysis that can be done.

Ms. O'Brien added that the property owner would be responsible for a tax payment once the panels are placed on the roof as well.

Engineering and Operations Report - February 2017 - Mr. Jaffari (Attachment 2)

Mr. Jaffari began his report on the progress made in February 2017. Year-to-date, construction total \$485,426. As part of a pilot program, RMLD is installing a generator in which construction has started.

A concrete pad has been poured at Station 4 and it's going as scheduled. The generator will be delivered on June 1. Then there is wiring and testing to do to get ready for July 1. It is on target.

Routine construction for the month of February totaled \$109,591, bringing the year-to-date to \$1,171,604. Other capital projects have brought year-to-date spending to \$4 million. There is \$5 million more to spend. Approximately \$2.5 to \$2.6 million will be spent on the generator.

Engineering and Operations Report - February 2017 - Mr. Jaffari (Attachment 2)

Ms. O'Brien asked Ms. Mulvaney to work with Mr. Jaffari to set up a ribbon cutting ceremony in mid-June and to invite the Commissioners. Ms. O'Brien said that she had just visited the site with Mr. Jaffari and Mr. Zanelli is doing a great job.

Mr. Jaffari then moved on to the seven programs that comprise routine maintenance. Crews have upgraded almost 26 percent of the pad mount transformers and almost 17 percent of the overhead transformers have been upgraded as part of the transformer replacement program. As of April 10, 224 poles have been replaced and 126 of those 224 transfers have been completed.

Feeder patrols showed no problems. 961 out of 1,237 manholes have been inspected. Through February 2017, RMLD has completed 91 percent of its porcelain cutout replacements, with 253 remaining. 75 spans were trimmed in February, totaling 831 spans trimmed year-to-date. Infrared scanning showed no hot spots at the substations.

The NJUNS double pole report shows 3 transfers pending in Lynnfield, 23 transfers pending in Reading and 27 pole butts that need to be removed. North Reading has 13 pending transfers and 106 poles butts that need to be removed, and Wilmington has 26 transfers, 4 pole butts, and 1 guy install pending. RMLD is making good progress on double poles and making transfers but unfortunately, we must wait for Verizon and Comcast to do their transfers.

Mr. Jaffari then discussed reliability indices, stating he is pleased to announce the use of a new reliability tracking from APPA. Most utilities use this program. The 2016 totals just came out and RMLD was well below the national and regional average for SAIDI, SAIFI, and CAIDI. The programs we have in place are paying off, but there is still a long way to go. Maintenance hasn't been done on the system for 20 to 30 years and we're trying to catch up.

Mr. Stempeck asked if the 2017 numbers were year-to-date. Mr. Jaffari answered yes, adding that there are areas of concern. Maintenance needs to be increased, but we are doing the best that we can do.

Major outage causes from 2012 to 2017 were 35 percent equipment, 30 percent trees, and 21 percent wildlife. Outages in February 2017 were caused by equipment, trees, and wildlife. A squirrel recently caused an outage in Lynnfield. It's mating season and wildlife finds a way into the equipment.

Mr. Stempeck commented that the reliability program is working very well, which is testimony to the effectiveness of the maintenance programs.

Vice Chairman Hennessy clarified that SAIFI and CAIDI are year-to-date; we're not expecting those numbers to go up due to seasonal factors. Mr. Jaffari answered yes, they are year-to-date. SAIDI and SAIFI increase as we experience outages. SAIFI relates to the frequency of outages experienced. That number is usually higher than the other two. That number is nothing right now, due to the mild winter, and that will hopefully remain the same.

RMLD Procurement Requests Requiring Board Approval (Attachment 3)

IFP 2017-33 Hourly Rates for Overhead Line Construction and Maintenance Work as needed, Storm Management Line Construction and Restoration

Mr. Jaffari explained that this bid is for a contractor that will provide its staff to help with construction upgrades and help during system emergencies in order to restore service faster. The bid was sent to 30 companies and 2 responded. Powerline and Matrix. The lowest responsive bidder was Powerline. Matrix bid \$796,704, which is a \$50,000 price difference.

Mr. Stempeck made a motion, seconded by Vice Chairman Hennessy, that proposal 2017-33 for Hourly Rates for Overhead Line Construction and Maintenance Work as needed, Storm Management Line Construction and Restoration be awarded to Powerline Contractors, Inc., as the for a total cost of \$746,760 pursuant to M.G.L. c. 30 § 39M on the recommendation of the General Manager.

Motion Carried 4:0:0.

General Discussion

There was none.

RMLD Board Meetings:

Tuesday, May 2, 2017 Strategic Meeting Wednesday, May 10, 2017 Operating Budget Review Thursday, May 11, 2017 Capital Budget Review

Chairman Pacino asked whether a 6PM start time for the Strategic Meeting and the Budget Meetings was agreeable to the Board. The Commissioners confirmed this was amenable.

CAB Meeting

Wednesday, May 3, 2017

Chairman Pacino volunteered to attend the CAB meeting.

Mr. O'Rourke asked when Board committees would be elected. Ms. Schultz explained that historically it has been done at a subsequent meeting, but she has assigned AP Warrants and Payroll. Chairman Pacino and Vice Chairman Hennessy are the only ones who can sign AP due to the other Commissioners having signed for the last three years. Per Board rules, they must take a year off. Vice Chairman Hennessy volunteered to sign AP for the month of May.

Executive Session

At 9:07 p.m. Chairman Pacino made a motion, seconded by Mr. Stempeck, that the Board go into Executive Session to discuss the deployment of security personnel or devices, to consider the purchase of real property and discuss strategy with respect to collective bargaining, Chapter 164 Section 47D exemption for competitively sensitive or other proprietary information provided in the course of proceedings conducted pursuant to this chapter when such municipal lighting plant board determines that such disclosure will adversely affect its ability to conduct business in relation to other entities making, selling, or distributing electric power and energy pursuant to this chapter and return to Regular Session for the sole purpose of adjournment.

Chairman Pacino called for a poll of the vote:

Mr. O'Rourke: Aye; Chairman Pacino: Aye; Mr. Stempeck, Aye; and Vice Chairman Hennessy: Aye. **Motion carried 4:0:0.**

Adjournment

At 9:53 p.m. Mr. O'Rourke made a motion seconded by Mr. Stempeck to adjourn the Regular Session. **Motion carried 4:0:0.**

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

David Hennessy, Secretary Pro Tem RMI D Board of Commissioners

POWER SUPPLY REPORT MAY 2017 ATTACHMENT 2

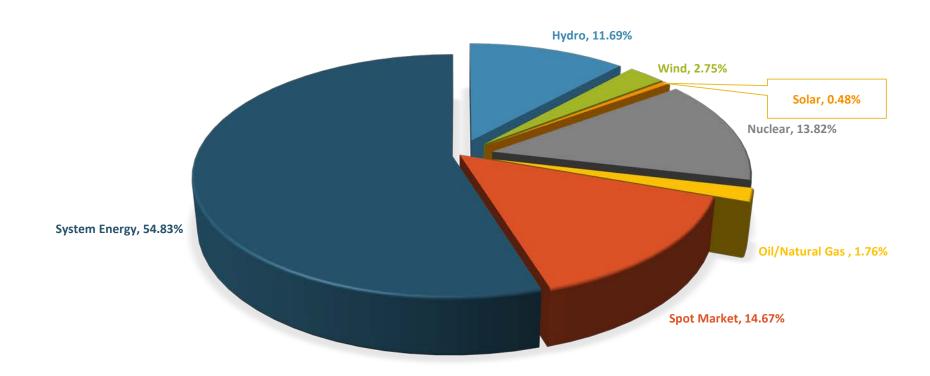
Integrated Resources

JULY 20, 2017

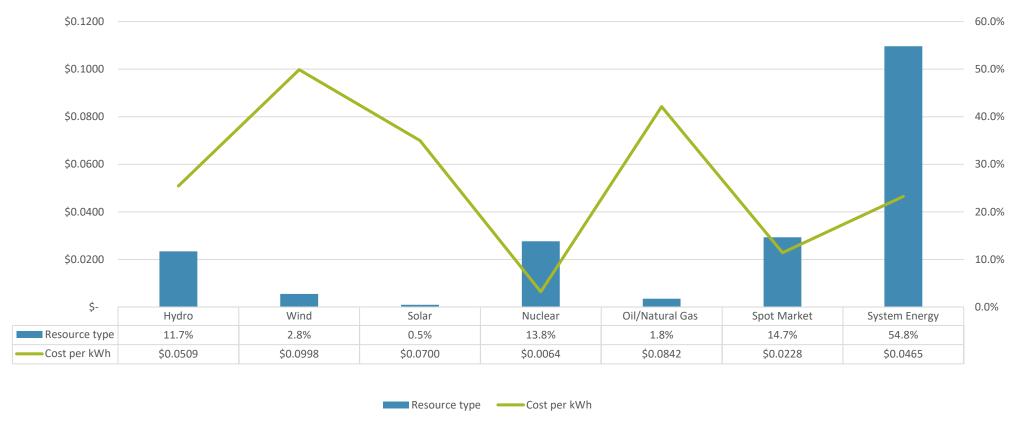
RMLD BOARD OF COMMISSIONERS MEETING
REPORTING FOR MAY

Jane Parenteau
Director of Integrated Resources

May 2016

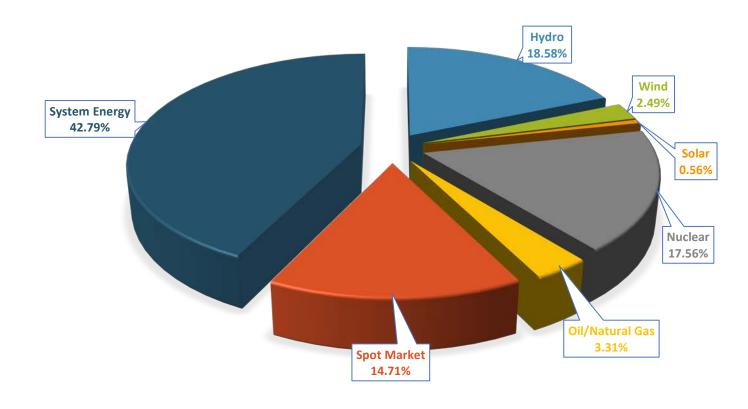


May 2016 Fuel Type and Cost per kWh

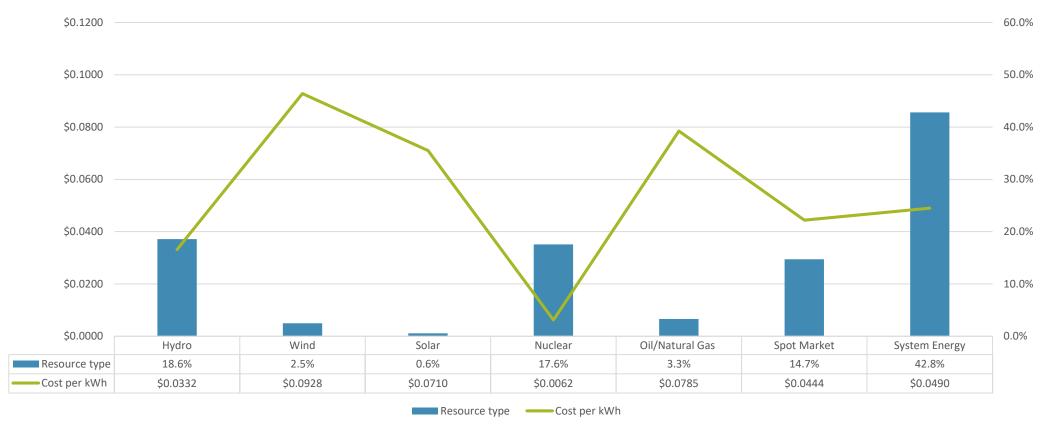


Average cost per kWh: \$0.0356

May 2017



May 2017 Fuel Type and Cost per kWh



Average cost per kWh: \$0.0303

To:

Coleen O'Brien

From:

Maureen McHugh, Jane Parenteau

Date:

July 11, 2017

Subject:

Purchase Power Summary - May, 2017

Energy Services Division (ESD) has completed the Purchase Power Summary for the month of May, 2017.

ENERGY

The RMLD's total metered load for the month was 53,440,469 kWh, which is a 1.65% decrease from the May, 2016 figures.

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

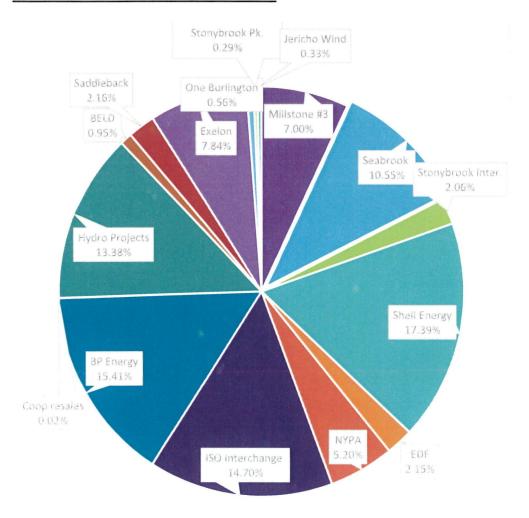
		Table 1			
	Amount of	Cost of	% of Total	Total \$	\$ as a
Resource	Energy	Energy	Energy	Costs	%
	(kWh)	(\$/Mwh)			
Millstone #3	3,682,922	\$6.72	7.00%	\$24,755	1.55%
Seabrook	5,552,164	\$5.93	10.55%	\$32,915	2.06%
Stonybrook Intermediate	1,086,227	\$59.39	2.06%	\$64,513	4.04%
Shell Energy	9,147,200	\$59.04	17.39%	\$540,016	33.84%
NYPA	2,737,029	\$4.92	5.20%	\$13,466	0.84%
EDF	1,128,400	\$30.51	2.15%	\$34,423	2.16%
ISO Interchange	7,735,068	\$44.39	14.70%	\$343,343	21.52%
NEMA Congestion	0	\$0.00	0.00%	-\$826,985	-51.82%
Coop Resales	10,189	\$129.98	0.02%	\$1,324	0.08%
BP Energy	8,108,800	\$46.78	15.41%	\$379,330	23.77%
Hydro Projects*	7,036,636	\$88.78	13.38%	\$624,727	39.15%
Braintree Watson Unit	500,015	\$70.52	0.95%	\$35,260	2.21%
Saddleback/Jericho Wind	1,309,140	\$92.79	2.49%	\$121,479	7.61%
One Burlington Solar	294,248	\$72.81	0.56%	\$21,425	1.34%
Exelon	4,122,800	\$36.11	7.84%	\$148,869	9.33%
Stonybrook Peaking	155,037	\$237.81	0.29%	\$36,869	2.31%
Monthly Total	52,605,875	\$30.33	100.00%	\$1,595,729	100.00%

Table 2 breaks down the ISO interchange between the DA LMP Settlement and the RT Net Energy for the month of May, 2017.

	Table 2			
Resource	Amount of Energy (kWh)	Cost of Energy (\$/Mwh)	% of Total Energy	
ISO DA LMP * Settlement	17,645,943	\$33.32	33.54%	
RT Net Energy ** Settlement	(9,910,875)	\$24.41	-18.84%	
ISO Interchange (subtotal)	7,735,068	\$44.39	14.70%	

^{*} Independent System Operator Day-Ahead Locational Marginal Price

MAY 2017 ENERGY BY RESOURCE



CAPACITY

The RMLD hit a demand of 134,013 kW, which occurred on May 18, at 3 pm. The RMLD's monthly UCAP requirement for May, 2017 was 232,324 kWs.

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

		Table 3		
Source	Amount (kWs)	Cost (\$/kW-month)	Total Cost \$	% of Total Cost
Millstone #3	4,950	28.09	\$139,051	9.35%
Seabrook	7,909	22.69	\$179,481	12.07%
Stonybrook Peaking	24,981	1.91	\$47,685	3.21%
Stonybrook CC	42,925	3.17	\$136,135	9.15%
NYPA	0	0.00	\$9,108	0.61%
Hydro Quebec	0	0	-\$2,898	-0.19%
Nextera	60,000	6.15	\$369,000	24.81%
Braintree Watson Unit	0	0.00	\$78,806	5.30%
ISO-NE Supply Auction	91,559	5.80	\$530,822	35.69%
Total	232,324	\$6.36	\$1,487,190	100.00%

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

			Table 4	% of	Amt of Energy	Cost of Power
Resource	Energy	Capacity	Total cost	Total Cost	(kWh)	(\$/kWh)
Millstone #3	\$24,755	\$139,051	\$163,806	5.31%	3,682,922	0.0445
Seabrook	\$32,915	\$179,481	\$212,396	6.89%	5,552,164	0.0383
Stonybrook Intermediate	\$64,513	\$136,135	\$200,649	6.51%	1,086,227	0.1847
Hydro Quebec	\$0	-\$2,898	-\$2,898	-0.09%		0.0000
Shell Energy	\$540,016	\$0	\$540,016	17.52%	9,147,200	0.0590
NextEra/EDF	\$34,423	\$369,000	\$403,423	13.09%	1,128,400	0.3575
* NYPA	\$13,466	\$9,108	\$22,574	0.73%	2,737,029	0.0082
ISO Interchange	\$343,343	\$530,822	\$874,165	28.36%	7,735,068	0.1130
Nema Congestion	-\$826,985	\$0	-\$826,985	-26.82%	-	0.0000
BP Energy	\$379,330	\$0	\$379,330	12.30%	8,108,800	0.0468
* Hydro Projects	\$624,727	\$0	\$624,727	20.26%	7,036,636	0.0888
Braintree Watson Unit	\$35,260	\$78,806	\$114,066	3.70%	500,015	0.2281
* Saddleback/Jericho	\$121,479	\$0	\$121,479	3.94%	1,309,140	0.0928
* One Burlington Solar	\$21,425	\$0	\$21,425	0.69%	294,248	0.0728
Coop Resales	\$1,324	\$0	\$1,324	0.04%	10,189	0.1300
Exelon Energy	\$148,869	\$0	\$148,869	4.83%	4,122,800	0.0361
Stonybrook Peaking	\$36,869	\$47,685	\$84,553	2.74%	155,037	0.5454
Monthly Total	\$1,595,729	\$1,487,190	\$3,082,919	100.00%	52,605,875	0.0586

^{*} Renewable Resources

RENEWABLE ENERGY CERTIFICATES (RECs)

Table 5 shows the amount of banked and projected RECs for the Swift River Hydro Projects through May 2017, as well as their estimated market value.

		Tabl	e 5	
		RECs St	ummary	
	P	eriod - January	2017 - May 2017	
	Banked	Projected	Total	Est.
	RECs	RECs	RECs	Dollars
Woronoco	0	5,155	5,155	\$82,480
Pepperell	0	2,614	2,614	\$41,824
Indian River	0	1,473	1,473	\$23,568
Turners Falls	0	1,259	1,259	\$20,144
Saddle back	0	7,129	7,129	\$114,064
Jericho	0	3,254	3,254	\$52,064
Sub total	0	20,884	20,884	334,144
RECs Sold	\$0		0	\$0
Grand Total	0	20,884	20,884	\$334,144

TRANSMISSION

The RMLD's total transmission costs for the month of May, 2017 were \$819,781. This is a decrease of 5.24% from the April transmission cost of \$865,068. In May, 2016 the transmission costs were \$865,693.

Table 6

	Current Month	Last Month	Last Year
Peak Demand (kW)	134,013	90,372	120,445
Energy (kWh)	52,605,875	51,273,849	54,601,915
Energy (\$)	\$1,595,729	\$2,246,093	\$1,944,922
Capacity (\$)	\$1,477,837	\$1,480,081	\$1,549,085
Transmission(\$)	\$819,781	\$865,068	\$865,693
Total	\$3,893,347	\$4,591,243	\$4,359,700

ENGINEERING & OPERATIONS REPORT MAY 2017 ATTACHMENT 3

READING MUNICIPAL LIGHT DEPARTMENT CAPITAL VARIANCE REPORT FOR PERIOD ENDING MAY 2017

PROJ	DESCRIPTION	TOWN	ACTUAL COST	YTD ADDITIONS	ANNUAL BUDGET	REMAINING BALANCE
	CONSTRUCTION:					
106	Underground Facilities Upgrades (URD's, Manholes, etc)	ALL	-	298,621	149,965	(148,656)
107	13.8kV Upgrade (Step-down areas, etc.)	ALL	610	10,423	105,748	95,325
	OUR TOTAL	_				
	SUB-TOTAL	_	610	309,044	255,713	(53,331)
	STATION UPGRADES:					
108	Station 4 (GAW) Relay Replacement Project	R	-	113,209	48,904	(64,305)
109	Station 4 35kV Potential Transformer Replacement	R	-	57	-	(57)
110	4W9 Getaway Replacement-Station 4	R	443	104,956	234,747	129,791
111	Substation Equipment Upgrade (all)	ALL	-	-	74,590	74,590
113	Station 4 (GAW) Battery Bank Upgrade	R		24,000	17,037	(6,963)
120	Station 4 - Relay/SCADA Integration for Bus A&B	R	-	51,225	70,308	19,083
130	Station 3 - Remote Terminal Unit (RTU) Replacement	NR	-	24,850	39,330	14,480
133	Station 3 - Relay Upgrades and SCADA Integration	NR	69,209	325,140	252,225	(72,915)
139	Station 5 - LTC Control Replacement	W	-	6,324	41,543	35,219
140	Substation Grounding Equipment Upgrade	ALL _		-	20,671	20,671
	SUB-TOTAL	-	69,651	649,761	799,355	149,594
	NEW CUSTOMER SERVICES: 141-146 New Service Installations (Commercial / Industrial)	ALL	7,312	101,275	139.570	38,295
	SUB-TOTAL	ALL _	7,312	101,275	139,570	38,295
			,,,,,	,	100,070	00,200
	ROUTINE CONSTRUCTION:	ALL -	118,263	1,724,876	1,012,962	(711,914)
		_				
	SPECIAL PROJECTS / CAPITAL PURCHASES:					
100	Distributed Gas Generation (Pilot FY16-17)	ALL	181,064	969,537	2,720,409	1,750,872
102	Padmount Switchgear Upgrade at Industrial Parks	W	101,001	2,286	194,518	192,232
103	Grid Modernization and Opitmization	ALL	65,686	324,551	284,000	(40,551)
105	New Wilmington Sub-Station	W	8,453	8,453	250,000	241,547
112	AMI Mesh Network Expansion	ALL	0,433	125,394	220,000	94,627
115	Fault Indicators	ALL		1,340	25,000	23,660
116	Transformers and Capacitors	ALL	54,845	234,851	668,000	433,149
117	Meter Purchases	ALL	2,448	35,784	80,000	44,216
125	GIS	ALL	51,066	342,649	360,000	17,351
126	Communication Equipment (Fiber Optic)	ALL	- 1,1	7,474	69,173	61,699
131	LED Street Light Implementation	ALL	34,066	588,355	804,070	215,715
134	Substation Test Equipment	ALL		26,125	30,000	3,875
135	Analog Devices Cap Bank Upgrade	W		548	54,188	53,640
136	Voltage Data Recorders	ALL	-		25,000	25,000
	SUB-TOTAL	_	397,627	2,667,346	5,784,379	3,117,033
	OTHER CAPITAL PROJECTS:					
96	Control Center Modifications	ALL		-	100,000	100,000
97	HVAC Roof Units - Garage	R		44,484	-	(44,484)
98	Carpet Upgrade	R	8,365	19,315	71,653	52,338
99	Electric Vehicle Supply Equipment	ALL			10,000	10,000
104	RMLD Lighting (LED) Upgrade			-	25,000	25,000
118	Rolling Stock Replacement	ALL		53,083	310,000	256,917
119	Security Upgrades All Sites	ALL		34,684	5,000	(29,684)
121	HVAC System Upgrade - 230 Ash Street	R	3,068	607,804	500,000	(107,804)
127	Hardware Upgrades	ALL	5,356	90,322	112,065	21,743
128	Software and Licensing	ALL		77,216	230,519	153,304
129	Master Facilities Site Plan	R _			50,000	50,000
	SUB-TOTAL	_	16,789	926,908	1,414,237	487,329
		_				
	TOTAL CAPITAL BUDGET		\$ 610,251.92	\$ 6,379,209	\$ 9,406,216	\$ 3,027,007

Engineering & Operations Report

RMLD Board of Commissioners Meeting July 20, 2017

May 2017 Reporting Period

Hamid Jaffari, Director of Engineering & Operations

Capital Improvement Projects

		Construction Projects:	% Complete Status	May	YTD
	100	Distributed Gas Generator Pilot	30%	\$181,064	\$969,537
	105	New Wilmington Substation	5%	\$8,453	\$8,453
	107	13.8kV Upgrade (Step-down Areas, etc.)	On-going	\$610	\$10,423
	110	4W9 Getaway Replacement - Station 4	30%	\$443	\$104,956
	133	Station 3: Relay Upgrades and SCADA Integration	98%	\$69,209	\$325,140
ı		Service Installations – Residential and Commercial: This item includes new or upgraded overhead and underground services.	On-going	\$7,312	\$101,275
ľ	103	Grid Modernization and Optimization	On-going	\$65,686	\$324,551
	125	GIS	85%	\$51,066	
	131	LED Street Light Conversion	67%	\$34,066	\$588,355

Routine Construction

	May	YTD
Pole Setting/Transfers	\$23,858	\$356,365
Overhead/Underground	\$14,236	\$353,782
Projects Assigned as Required • Lightower – 600 Research Drive, Wilmington • Solar Project 326 Ballardvale Street, Wilmington	\$9,388	\$363,498
Pole Damage/Knockdowns • Work was done to repair or replace eight (8) damaged poles	\$12,112	\$106,516
Station Group	\$37,350	\$222,025
Hazmat/Oil Spills	-	\$7,037
Porcelain Cutout Replacement Program	-	-
Lighting (Street Light Connections)	\$4,620	\$30,883
Storm Trouble	-	\$45,812
Underground Subdivisions (new construction)Dogwood Lane, North Reading	\$2,226	\$49,157
Animal Guard Installation	-	\$1,162
Miscellaneous Capital Costs	\$14,473	\$188,642
TOTAL:	<u>\$118,263</u>	<u>\$1,724,877</u>

Routine Maintenance

■ Transformer Replacement (through May 2017)

Pad mount 26.17% Overhead 17.16%

Pole Inspection (as of 7/11/17)

236 poles have been replaced 137 of 236 transfers have been completed

Quarterly Inspection of Feeders (as of 7/11/17)

Inspected Circuits (Jan-Mar): 3W5, 3W6, 3W7, 3W8, 3W13, 3W14, 3W15, 3W18, 4W4, 4W5, 4W6, 4W7, 4W9, 4W23, 4W24, 5W4, 5W5, 5W8, 5W9, 4P9, 4P2

Inspected Circuits (Apr-Jun): 4W10, 4W12, 4W13

Manhole Inspection (through May 2017)

961 of 1,237 manholes have been inspected.

Porcelain Cutout Replacements (through May 2017)

91% complete 249 remaining to be replaced

■ Tree Trimming

May: No spans trimmed YTD: 1,122 spans trimmed

Substation Maintenance

Infrared Scanning - May complete - no hot spots found

Double Poles

Ownership: 16,000 (approximately)

50% RMLD

50% Verizon

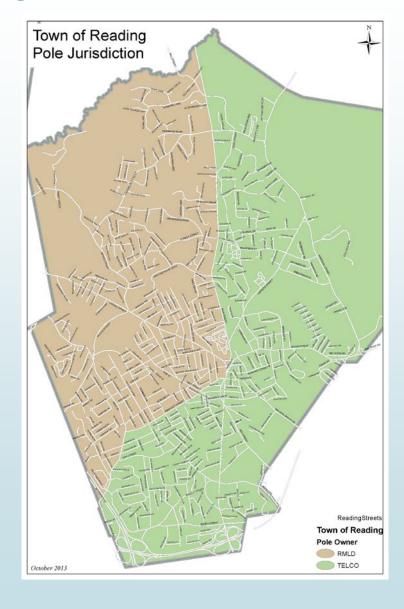
Custodial:

Reading – split (see map)

North Reading – RMLD

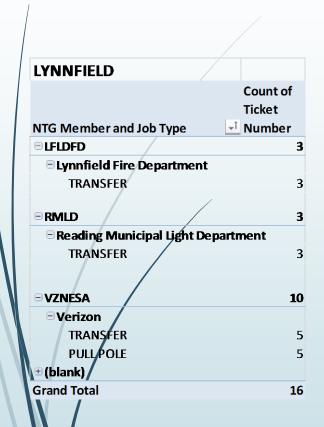
Lynnfield - Verizon

Wilmington - Verizon



NJUNS

"Next to Go" as of July 11, 2017

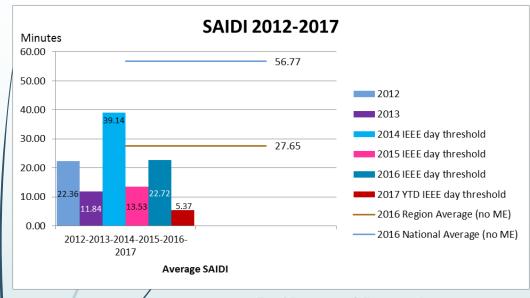


READING	
	Count of
	Ticket
NTG Member and Job Type	<u>→</u> 1 Number
■ CMCTNR	6
□ Comcast	_
TRANSFER	6
□ NP3PMA	8
Non-participating 3rd Part	t y
■ Attacher - Massachusetts	
TRANSFER	8
⊟RDNGFD	7
☐ Reading Fire Department	•
TRANSFER	7
THE WITCH EN	•
⊟RMLD	102
□ Reading Municipal Light C	Department
TRANSFER	35
PULL POLE	67
□VZNESA	72
∃Verizon	
TRANSFER	63
PULL POLE	9
± (blank)	
Grand Total	195

NORTH READING	
	Count of
	Ticket
NTG Member and Job Type	Number
□CMCTNR	3
■ Comcast	
TRANSFER	3
□NGMA	1
■ National Grid	
TRANSFER	1
□ NP3PMA	1
Non-participating 3rd Party	
☐ Attacher - Massachusetts	
TRANSFER	1
□NRDGFD	44
☐ North Reading Fire Department	
TRANSFER	44
□RMLD	81
☐ Reading Municipal Light Departm	ent
TRANSFER	13
PULL POLE	68
□ VZNED R	22
⊡Verizon	
TRANSFER	14
PULL POLE	8
⊕ (blank)	
Grand Total	152

WILMINGTON	
	Count of
	Ticket
NTG Member and Job Type	 ✓ Number
NP3PMA	7
Non-participating 3rd Party Attach	er-
■ Massachusetts	
TRANSFER	7
∃ NPFAMA	4
Non-participating Fire Alarms -	
Massachusetts	4
∃ RMLD	33
Reading Municipal Light Departme	
TRANSFER PULL POLE	29
POLLPOLE	4
VZBMA	1
□ Verizon Business	
TRANSFER	1
VZNEDR	77
□Verizon	
TRANSFER	65
PULL POLE	12
WLMFIB	3
□Town of Wilmington	
TRANSFER	3
WMGNFD	85
□ Wilmington Fire Department	
TRANSFER	85
± (blank)	
Grand Total	210

RMLD Reliability Indices

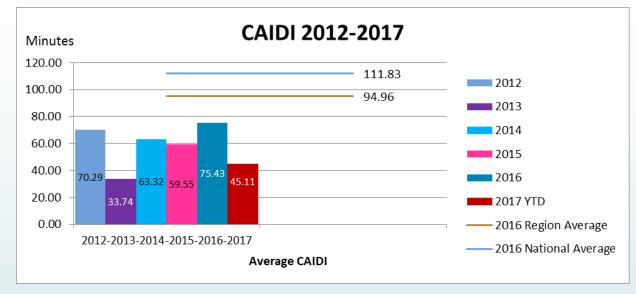


$$SAIDI$$
 (Minutes) = $\frac{Total\ Duration\ of\ Customer\ Interruptions}{Total\ Number\ of\ Customers\ Served}$

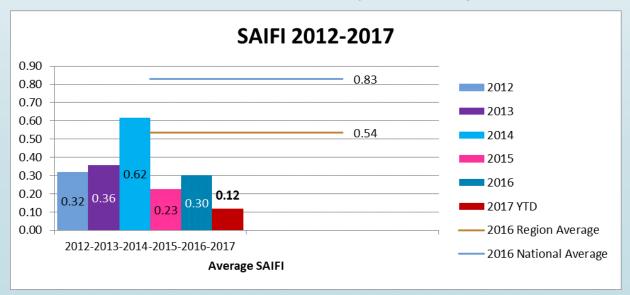
Note: The major event (ME) threshold allows a utility to remove outages that exceed the IEEE 2.5 beta threshold for events. These events could be severe weather, which can lead to unusually long outages in comparison to your distribution system's typical outage.

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

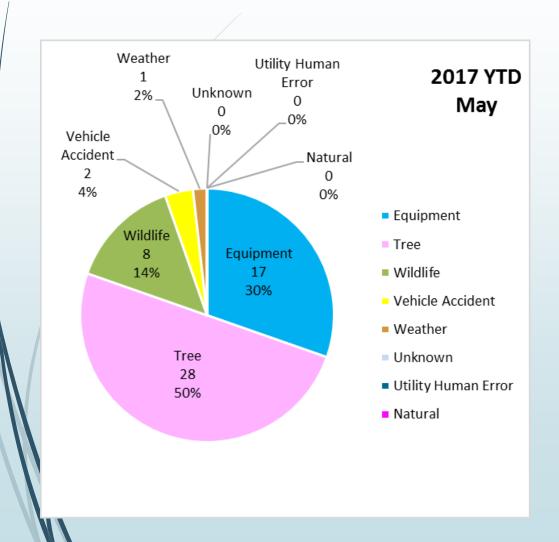
Note: Regional and national averages have been updated for 2016.

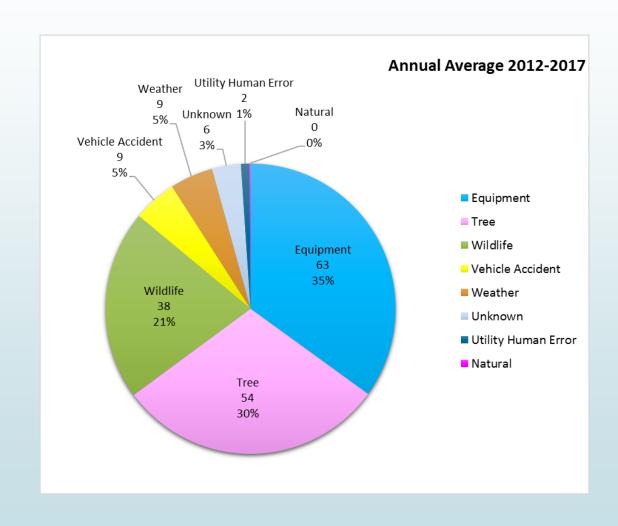


 $CAIDI(Minutes) = \frac{Total\ Duration\ of\ Customer\ Interruptions}{Total\ Number\ of\ Customers\ Interruptions}$



Outages Causes





Questions?



RMLD PROCUREMENT REQUEST REQUIRING BOARD APPROVAL ATTACHMENT 4



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

Tel: (781) 944-1340 Web: www.rmld.com

July 13, 2017

Town of Reading Municipal Light Board

Subject: RFP 2018-02 Category 2 Flame Resistant (FR) Clothing and an Allowance Based Managed

Clothing Program

Pursuant to M.G.L. c. 30B, on June 28, 2017, a Request for Proposal (RFP) was placed as a legal notice in the Middlesex East Section of the Daily Times Chronicle and on COMMBUYS. The RFP requested sealed Technical and Price Proposals be submitted for Category 2 Flame Resistant (FR) Clothing and an Allowance Based Managed Clothing Program.

The RFP was sent to the following 16 companies:

Action Apparel, Inc.

Airgas Safety

Bulwark Protective Apparel

Cintas Corporation

Grainger

Graybar

Hudson Workwear

MAG&Son

Onvia

Prime Vendor, Inc.

Shamrock Power Sales for Benchmark FR

Slate Rock Safety

The Strong Group

Tyndale Company, Inc.

Unifirst

Wesco

Non-submittal responses were received from Graybar, Slate Rock Safety, and Wesco.

Sealed Proposals were received from four companies: Action Apparel, Inc., Airgas Safety, Hudson Workwear, and Tyndale Company, Inc. The sealed proposals were not opened publicly. Of the four proposals received, two (Airgas Safety and Hudson Workwear), were deemed non-responsive and therefore, rejected.

The Technical and Price Proposals were reviewed, analyzed, and evaluated by a staff committee and recommended to the General Manager.

MOVE that bid 2018-02 for Category 2 Flame Resistant (FR) Clothing and an Allowance Based Managed Clothing Program be awared to: Tyndale Company, Inc. as the responsive and responsible proposer offering the most advantageous proposal and who will provide RMLD with a more comprehensive program.

Note: This is a three year contract.

FR2 Clothing allowances are a negotiated union contract item that is paid from various operating budget accounts.

Matt Brown, Acting General Line Foreman

Hamid Jaffari. Director of Engineering and Operations

In Jadhn For COBrien
Coleen O'Brien, General Manager

pmo

Category 2 Flame Resistant (FR) Clothing Based Managed Clothing Program RFP 2018-02 Three Year Contract TECHNICAL PROPOSAL ANALYSIS

Submitted Sealed Proposals	Met Minimum Requirements	Lowest Price	Authorized Signature	
Action Apparel, Inc.	Yes	Yes	Yes	
Aigas Safety*	No			
Hudson Workwear**	No			
Tyndale Company, Inc.	Yes	No	Yes	

^{*}Proposal was rejected, because Airgas does not offer any managed program services.

Non-submittal proposals (Chose not to submit a proposal): Graybar, Slate Rock Safety, and Wesco.

<u>PRICING</u>: RMLD requested unit pricing on a variety of select garment. Overall Tyndale Company came in slightly higher in their unit pricing; however, they submitted a detailed, organized, and comprehensive allowance based managed services program that best met RMLD's needs.

Based on the requirement for FR clothing negotiated in the union contracts, the estimated annual amount for this three (3) year contract is as follows:

Year 1	Year 2	Year 3	Estimated 3-Year Total	
25,458.50	23,760.00	23,760.00	72,978.50	

^{**}Proposal was rejected, because statutory forms, Tax Compliance and Non Collusion, were not submitted.

BOARD MATERIAL AVAILABLE BUT NOT DISCUSSED

From: <u>Tracy Schultz</u>

To: RMLD Board Members Group: "David Hennessy"
Subject: AP and Payroll for Board Book 7-20-17
Date: Wednesday, July 12, 2017 8:17:00 AM

There were no Commissioner questions on the 6-10-17, 6-16-17, 6-23-17, 6-30-17, and 7-7-17 AP.

Mr. O'Rourke had an ICMA question on the 6-12-17 Payroll. It was an adjustment due to the new Union contract changing the limits that the company matches. There were no questions on the 6-26-17 Payroll.

Mr. O'Rourke had a Worker's Comp adjustment question on the 7-10-17 Payroll. The W.C. was actually zeroed out and the employee did not receive W.C. benefits for that pay period.

This message will be included in the 7-20-17 Board Book.

Tracy Schultz
Executive Assistant
Reading Municipal Light Department
230 Ash Street. Reading. MA. 01867

Tel: 781.942.6489

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

July-17

	RESIDENTIAL 750 kWh's	RESIDENTIAL-TOU 1500 kWh's 75/25 Split	RES. HOT WATER 1000 kWh's	COMMERCIAL 7,300 kWh's 25.000 kW Demand	SMALL COMMERCIAL 1,080 kWh's 10.000 kW Demand	SCHOOL RATE 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	\$120.38	\$209.62	\$146.67	\$1,040.87	\$201.29	\$4,856.60	\$787,119.59
PER KWH CHARGE	\$0.16051	\$0.13975	\$0.14667	\$0.14258	\$0.18638	\$0.13876	\$0.11441
NATIONAL GRID							
TOTAL BILL	\$151.90	\$358.79	\$188.23	\$1,454.38	\$223.69	\$5,412.22	\$975,136.26
PER KWH CHARGE	\$0.20253	\$0.23919	\$0.18823	\$0.19923	\$0.20712	\$0.15463	\$0.14174
% DIFFERENCE	26.18%	71.16%	28.33%	39.73%	11.13%	11.44%	23.89%
EVERSOURCE(NSTAR)			_				
TOTAL BILL	\$146.81	\$260.13	\$193.60	\$1,433.47	\$238.48	\$6,948.02	\$1,185,688.95
PER KWH CHARGE	\$0.19574	\$0.17342	\$0.19360	\$0.19637	\$0.22081	\$0.19851	\$0.17235
% DIFFERENCE	21.95%	24.10%	32.00%	37.72%	18.48%	43.06%	50.64%
70 DITT ENCHOL	21.5570	24.1070	32.0070	37.7270	10.4070	40.0070	30.0470
PEABODY MUNICIPAL LIGHT PLANT							
TOTAL BILL	\$85.03	\$166.25	\$112.95	\$928.52	\$147.55	\$4,595.13	\$615,858.97
PER KWH CHARGE	\$0.11338	\$0.11083	\$0.11295	\$0.12719	\$0.13662	\$0.13129	\$0.08952
% DIFFERENCE	-29.36%	-20.69%	-22.99%	-10.79%	-26.70%	-5.38%	-21.76%
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	-17.98%	-3.80%	-9.49%	-7.82%	-16.32%	-1.93%	2.55%
WAKEFIELD MUNICIPAL LIGHT DEPT.							
TOTAL BILL	\$115.49	\$213.42	\$144.38	\$1,093.29	\$175.48	\$5,123.08	\$852,765.30
PER KWH CHARGE	\$0.15398	\$0.14228	\$0.14438	\$0.14977	\$0.16249	\$0.14637	\$0.12396
% DIFFERENCE	-4.07%	1.81%	-1.56%	5.04%	-12.82%	5.49%	8.34%