

**READING MUNICIPAL
LIGHT DEPARTMENT**

BOARD OF COMMISSIONERS

REGULAR SESSION

THURSDAY, JULY 19, 2018

APPROVAL OF BOARD MINUTES
MAY 8, 2018 AND MAY 9, 2018
ATTACHMENT 1

**READING MUNICIPAL LIGHT DEPARTMENT
BOARD OF COMMISSIONERS MEETING
230 Ash Street
Reading, MA 01867
May 8, 2018**

Start Time of Regular Session: 6:30 p.m.

End Time of Regular Session: 7:30 p.m.

Commissioners:

Dave Hennessy, Chair

Dave Talbot, Vice Chair-Secretary Pro Tem

Tom O'Rourke, Commissioner

John Stempeck, Commissioner

Philip B. Pacino, Commissioner

Staff:

Coleen O'Brien, General Manager

Hamid Jaffari, Director of Engineering and Operations

Jane Parenteau, Director of Integrated Resources

Wendy Markiewicz, Director of Business/Finance

Tracy Schultz, Executive Assistant

Citizens Advisory Board:

Jason Small, Vice Chair

Call Meeting to Order

Chair Hennessy called the meeting to order.

Chair Hennessy announced that the meeting is being videotaped at the RMLD office at 230 Ash Street, Reading, for distribution to the community television stations in Reading, North Reading, Lynnfield, and Wilmington. Chair Hennessy then read RMLD's Code of Conduct.

Public Comment

Chair Hennessy welcomed Mr. Small from the CAB, who had no comments, and asked Mr. Talbot to serve as Secretary. There was no public comment.

Chair Hennessy asked Mr. Small to report on the latest CAB meetings. Mr. Small stated that the CAB met to review the Operating and Capital Budgets. The CAB voted to recommend both to the Board. The rate increase was passed by a 3:2:0 vote.

Review of RMLD's Fiscal Year 2019 Operating Budget (Attachment 1)

Chair Hennessy stated that on April 30, 2018 the CAB voted to recommend that the Board approve the 2019 Operating Budget.

Ms. Markiewicz stated that fixed costs comprise 81.73 percent of the overall Operating Budget and increased by 1.25 percent from Fiscal Year 2018 to Fiscal Year 2019. Semi-variable costs comprise 18.27 percent of the overall Operating Budget and increased 7.98 percent from Fiscal Year 2018 to Fiscal Year 2019. The overall Operating Budget increase is projected to be 2.41 percent. As of February 28, 2018, the Fiscal Year 2018 budgeted expenses are projected to be 2.71 percent higher than anticipated due to unprecedented storm costs in March.

Ms. Markiewicz then reviewed the fixed costs versus the semi-variable costs. The fixed costs are power cost, depreciation expense, payment to the Town of Reading, payments to the four towns, and loss of disposal of properties. The semi-variable costs are 6.66 percent labor and 3.91 percent employee benefits and pension. Ms. Markiewicz then reviewed the costs that comprise the remaining 7.7 percent, all of which are one percent or lower.

Mr. O'Rourke verified that the Fiscal Year 2019 Budget is less than the Fiscal Year 2018 Projected Actual Expenses. Ms. Markiewicz affirmed, stating that power costs are coming down.

Review of RMLD's Fiscal Year 2019 Operating Budget (Attachment 1)

Mr. Pacino asked for a breakdown of the Fiscal Year 2019 Legal and Professional Outside Contract Fees. Ms. Markiewicz replied that she would send that information to the Board. Mr. Stempeck pointed out that more was spent on consulting and legal in Fiscal Year 2017: the expense is decreasing.

Mr. O'Rourke asked how the transition to a calendar year will be implemented. Ms. Markiewicz replied that another budget will be presented in September for Calendar Year 2019. The numbers will all be reexamined to ensure that they are in line with spending. Mr. Stempeck commented that budgets are never 100 percent accurate.

Mr. Stempeck asked about the budgeted net interest income. Ms. Markiewicz stated that it was previously under-budgeted. It is a tough number to pinpoint. However, Ms. Markiewicz stated that she examined the numbers closely and feels good about that number.

Ms. Markiewicz then discussed the budgeted net income compared to the budgeted rate of return from Fiscal Year 2018 to Fiscal Year 2023. RMLD has been targeting for eight percent. This will be going down to a six percent rate of return over the next six years.

Ms. Markiewicz then discussed the budgeted kWh sold compared to the budgeted rate of return. kWh sales are projected to decrease about one percent every year from Fiscal Year 2018 to Fiscal Year 2023. Ms. Markiewicz then discussed where the money comes from to fund capital projects. All the money that RMLD is making is going back into the system.

Mr. O'Rourke asked if the study on the payment to the Town is included in the Budget. Ms. Markiewicz answered no, when the budget was finalized it hadn't been determined that a study would need to be undertaken.

Mr. Talbot asked about the cost of tree trimming. Mr. Jaffari explained that it is necessary. Branches are hazards during storms. Mr. Talbot asked how many years do we need to trim trees? Ms. O'Brien explained that it's a five-year cycle. By the time the five years has passed it's time to start again. Trees are the number one cause of outages. Mr. Jaffari stated that trimming the trees has significantly improved RMLD's reliability.

Ms. O'Brien stated that every utility in the area has a similar tree trimming program.

Mr. Talbot asked about tree planting. Ms. O'Brien replied that she called Mary Ellen (a citizen who had previously spoken in front of the Board about trees during Public Comment). Mary Ellen had suggested becoming a certified utility under Tree Line U.S.A. through the Arbor Day Foundation. The program provides educational tools.

Mr. Talbot suggested promoting the planting of tree species that are less prone to storm damage.

Ms. O'Brien explained that tree trimming charges aren't just for the cutting. Cranes are involved and there are charges for getting rid of wood waste. Mr. Talbot replied that there is a free wood chip dump at the Reading Compost Center, and people are looking for wood chips, so collaborating with the Towns is something to consider the next time the contract comes up for bid.

Proposed Rate Adjustment – Ms. Parenteau (Attachment 2)

Ms. Parenteau explained that, as part of the Operating Budget, RMLD looked at Fiscal Year 18 to Fiscal Year 19. The projected base rate increase went from \$26.136 million to \$27.786 million. That increase can be accomplished in two ways: one is growth and additional revenue through kWh sales. The other is through a rate increase. Historically, sales over the last ten years have been flat to decreasing. The current year-to-date through April shows sales down two percent. Based on the budget, a one percent decrease in kWh sales has been projected. To meet the net income of \$4.05 million, a rate increase is necessary. When the cost of service study was done last year, the objectives were to eliminate subsidies between and within rate classes. A significant part of the rate increase in 2017 was due to increases in capacity costs.

Ms. Parenteau explained that the Board will be voting on a one-year increase, if they so choose. There are two scenarios. One is a uniform increase to all rate classes between 1.7 and 2.4 percent, depending on customer class. The other option, that reduces subsidization, has a slightly higher increase for residential and residential

Proposed Rate Adjustment – Ms. Parenteau (Attachment 2)

time-of-use customers, and a slightly lower increase for school, commercial, and industrial customers. All the increases are relatively small: all are under three percent.

The dollar impact in Scenario 1 for a residential customer who uses 500 kWh a month would be an increase of approximately \$1.97 on their bill. A residential customer who uses 750 kWh a month would see an increase of \$2.82. In Scenario 3 a residential customer who uses 500 kWh a month would see an increase of \$2.27; it's a 30-percent differential between the two scenarios.

Mr. Stempeck asked if National Grid and Eversource would be facing the same decreases in revenue. Ms. Parenteau replied that they would and explained that both change their rates every six months. Historically, their rates are 30 to 50 percent higher than RMLD's rates.

Mr. Pacino asked why the CAB had a problem with the rate proposal. Mr. Small replied that two of the members felt that a rate increase was unnecessary and that RMLD could get the money elsewhere.

Mr. Talbot asked if changing the time of the time-of-use rate was considered. Shortening the time span of the discounted rate could be one alternative to simply increasing the rate. Ms. Parenteau replied that different rate structures are being looked into, and possible options were discussed.

Mr. Pacino remarked on the passing of former Commissioner Robert 'Bob' Soli. Mr. Pacino stated he attended the service and it was remarked upon how important the Commission was to Mr. Soli. Mr. Stempeck stated that Mr. Soli took him under his wing when he was first elected to the Board. Mr. O'Rourke remarked that Mr. Soli was very solicitous for the ratepayer, especially the elderly.

Ms. O'Brien stated that RMLD must be OSHA compliant this February. Ms. O'Brien stated that RMLD is on track to do well with the OSHA audit.

Adjournment

Mr. Stempeck made a motion, seconded by Mr. O'Rourke, to adjourn.

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 DEPARTMENT
BOARD OF COMMISSIONERS MEETING
230 Ash Street
Reading, MA 01867
May 9, 2018**

Start Time of Regular Session: 6:30 p.m.

End Time of Regular Session: 8:00 p.m.

Commissioners:

Dave Hennessy, Chair

Dave Talbot, Vice Chair-Secretary Pro Tem

Tom O'Rourke, Commissioner

John Stempeck, Commissioner

Philip B. Pacino, Commissioner

Staff:

Coleen O'Brien, General Manager

Hamid Jaffari, Director of Engineering and Operations

Jane Parenteau, Director of Integrated Resources

Wendy Markiewicz, Director of Business/Finance

Tracy Schultz, Executive Assistant

Citizens Advisory Board:

Vivek Soni, Member

Call Meeting to Order

Chair Hennessy called the meeting to order.

Chair Hennessy announced that the meeting is being videotaped at the RMLD office at 230 Ash Street, for distribution to the community television stations in Reading, North Reading, Lynnfield, and Wilmington. Chair Hennessy then read RMLD's Code of Conduct.

Public Comment

Chair Hennessy welcomed Mr. Soni, and asked Mr. Talbot to serve as Board Secretary. There was no public comment.

Review of RMLD's Fiscal Year 2019 Capital Budget (Attachment 1)

Mr. Jaffari began with a review of projects completed or scheduled to be completed by June 30, the end of Fiscal Year 2018. Mr. Jaffari then listed the projects that will be continued in Fiscal Year 2019. These include two-year pole line upgrades on Woburn Street in Wilmington, 115 kV transmission line upgrades on the lines that feed Station 4, 35 kV underground cable upgrades on the lines that feed Station 5, and pad-mount switchgear upgrades as part of the six-year plan. Grid modernization will have cost approximately \$8.5 million. Of that, \$381,000 was budgeted for Fiscal Year 2018 and \$676,000 is being budgeted for Fiscal Year 2019. \$267,000 was budgeted in Fiscal Year 2018 for land for the new Wilmington substation in the Ballardvale area. \$151,000 has been budgeted for Fiscal Year 2019 for engineering. Miscellaneous continuing projects in Fiscal Year 2019 include LED lighting at 230 Ash Street, a parking lot upgrade at 230 Ash Street, electric vehicle charging stations, and battery storage. Mr. Jaffari then discussed new projects for Fiscal Year 2019, including Ballardvale Street pole line upgrades and 4W5, 4W6, and 4W16 Wilmington getaway replacements. These will bring up the ratings of the station feeder cable, which will help reliability during switching. New projects also include a Massachusetts Department of Transportation project on Main and Hopkins in Reading, for which RMLD will be reimbursed by the state, and new equipment purchase, including electric phasing meters. Mr. Jaffari then reviewed the annually budgeted recurring projects.

Mr. Jaffari then summarized: Fiscal Year 2018 was budgeted for \$7,686,000. Spending is estimated to come to \$8,009,000, resulting in a \$323,000 variance. Fiscal Year 2019 estimated spending is \$7,570,000.

Mr. Pacino asked what redoing the parking lot will entail. Ms. O'Brien answered that the parking lot currently pools with water and ice. It needs to be resurfaced and there is wasted space. The amount of parking spaces will be doubled. The lot will extend to Station 1. The curb cuts will be reused and the public electric vehicle charger will be relocated to the upgraded parking lot.

Review of RMLD's Fiscal Year 2019 Capital Budget (Attachment 1)

Mr. Pacino asked for details about the Mass D.O.T. project. Mr. Jaffari replied that the state is widening the area. The poles are being relocated as part of the intersection upgrade.

Chair Hennessy announced the CAB voted to approve the Capital Budget: 3:0:2 on April 30, 2018.

Mr. Stempeck made a motion, seconded by Mr. Pacino, that the RMLD Board of Commissioners approve the Fiscal Year 2019 Capital Budget dated March 29, 2018, in the amount of \$7,570,489 as presented, on the recommendation of the General Manager.

Motion Carried: 5:0:0.

RMLD's Fiscal Year 2019 Operating Budget

Mr. Stempeck made a motion, seconded by Mr. Pacino, that the RMLD Board of Commissioners approve the Fiscal Year 2019 Operating Budget dated March 29, 2018, with a Net Income of \$4,053,233 as presented, on the recommendation of the General Manager.

Motion Carried: 5:0:0

Proposed Rate Adjustment

Chair Hennessy verified that the Commission is voting to implement Scenario 3. Ms. Parenteau affirmed.

Chair Pacino asked Mr. Soni about the two CAB members who voted against the rate adjustment and confirmed that they were opposed to any rate increase. Mr. Soni explained that the two members of the CAB were concerned about the rate increase and wondered if something else could be done.

Mr. Pacino stated he would abstain from the vote, citing his concern over the CAB objections, since the CAB represents the community of ratepayers. However, Mr. Pacino stated he does not want to vote against the motion: therefore, he abstains.

Mr. Stempeck stated that it is not unusual for the CAB to have reservations about rate changes.

Ms. O'Brien stated that there was no system planning or maintenance for two decades. These nominal increases, along with RMLD doing as much as possible in-house allow the upgrades to be done at minimal cost.

Mr. Stempeck made a motion, seconded by Mr. Pacino, that the RMLD Board of Commissioners approve the adoption of rates MDPU numbers 279, 280, 281, 282, 283, 284, 285, 286, 287, 288, 289, and 290, dated to be effective July 1, 2018, on the recommendation of the General Manager.

Motion Carried: 4:0:1.

General Manager's Report – Ms. O'Brien

Ms. O'Brien announced the overall winner of the high school art contest, whose art will appear on the cover of RMLD's annual report. The winner had received the Environmental Inspiration award during the awards ceremony: Megan Coram, from Reading Memorial High School. Ms. Coram's piece is titled 'Growing a Sustainable Future.' Ms. O'Brien then read Ms. Coram's description of her artwork:

"I chose to focus on the Community Solar Program for my art because I think it's an excellent project. I'm very impressed by the accessibility, efficiency, and sustainability of the program. In my artwork, I chose to draw the Community Solar Program as a tree to represent that it is good for the environment. The symbol of the tree also shows that the program and its members depend on each other, just like the roots and the leaves are both indispensable parts of the tree. The bright colors convey the hopefulness and promise of the program."

Mr. Pacino stated that he attended the awards ceremony the previous week and all the entries were very creative. Everybody who had a piece on display was a winner.

General Manager's Report – Ms. O'Brien

Ms. O'Brien asked the Board's permission to attend the annual NEPPA conference.

Mr. Pacino made a motion, seconded by Mr. Talbot, that the RMLD Board of Commissioners approve Ms. O'Brien's travel to, and attendance at, the NEPPA conference to take place from August 19 to August 22, in North Falmouth, MA.

Motion Carried: 5:0:0.

All the Commissioners confirmed that they would be attending the conference as well. Ms. O'Brien stated that the CAB is being invited to attend this year.

Engineering and Operations Report – March 2018 - Mr. Jaffari (Attachment 5)

Mr. Jaffari presented next, since he was already at the microphone due to his Capital Budget presentation. \$152,939 was spent on routine capital construction in the month of March, bringing the year-to-date total to \$1,131,537. The total capital spending in March, for all divisions, was \$659,288, bringing the year-to-date total to \$4,595,933. \$3,089,588 remains in the budgeted \$7,685,521. Good progress is being made on routine maintenance. Mr. Jaffari then reviewed the NJUNS report. Lynnfield has seven pending pole transfers. North Reading has 10 pending pole transfers and 35 pull poles. Reading has 26 pending pole transfers and 54 pull poles. Wilmington has 34 pending pole transfers and four pull poles. Reliability indices show that RMLD's outages are well below regional and national averages. Mr. Jaffari explained that the annual average of tree-caused outages from 2013-2017 was 57. Year-to date, there have been four outages caused by trees: the tree trimming program is effective.

Mr. Stempeck and Mr. O'Rourke remarked on the dramatic change.

Financial Report- March 2018 - Ms. Markiewicz - (Attachment 4)

Ms. Markiewicz stated that she would be reporting on the first nine months of Fiscal Year 2018. The unrestricted cash, totaling \$14.6 million at the end of March, covers less than two months of operating expenses. Accounts receivable remains 97 percent current (up to 90 days). Net plant increased by \$3.8 million as compared to March 31, 2017. Base revenue increased by one percent compared to the previous year with a decrease of kWh sales of 2.6 percent. Purchase power fuel expense exceeds purchased power fuel revenue by \$2.3 million. Purchase power, capacity, and transmission (PPCT) expenses exceed PPCT revenue by \$146,000. Operating and maintenance expenses remain under budget by one percent as of March 31, 2018. This may change due to invoices related to the March storms still being received.

Ms. Markiewicz then discussed cash and investments as of March 30, 2018. 67 percent of cash is restricted and cannot be touched. 33 percent (one-third) is being used as a checkbook to fund operating expenses-RMLD can cover less than two months of the operating fund with the current balance.

Ms. Markiewicz then compared base revenue to operating expenses (without power) using Actual Fiscal Year 2017 and projections for Fiscal Years 2018 through 2023. Operating and maintenance expenses only. Base revenue is projected to increase 20.37 percent and operating expenses are projected to increase 21.27 percent over the seven-year span. This results in a .90 percent difference between revenue and operating expenses. As revenue increases, spending increases. All money is being reinvested into RMLD's infrastructure and the operations of the business. Ms. Markiewicz concluded her presentation with a comparison of operating and maintenance expenses in the first nine months of Fiscal Year 2017 and Fiscal Year 2018 and the Fiscal Year 2018 Budget.

Integrated Resources Division - Ms. Parenteau (Attachment 3)

Ms. Parenteau began by announcing that RMLD will be at North Reading Town Day on Sunday, June 3 and Reading Friends and Family Day on Saturday, June 16. RMLD's new website is close to being complete, with a potential launch at the end of the month. The redesigned site will be mobile friendly. RMLD will be beginning its promotion of the Shred the Peak campaign in the upcoming months.

Integrated Resources Division - Ms. Parenteau (Attachment 3)

Ms. Parenteau then discussed Fiscal Year 2018 Quarter 3 kWh sales, January through March, from 2016 through 2018. January 2018 was colder than previous years, which resulted in higher sales. February 2018 was consistent and flat, and March 2018 sales were slightly below that of the previous two years. Overall, quarter sales were flat as compared to 2017 and higher than 2016. However, sales are down two percent overall. Quarters 1 and 2 were significantly lower. This is due to the impact from sales from July to December.

Ms. Parenteau then discussed Quarter 3 purchase power, capacity and transmission revenue. It has increased steadily. From 2016 to 2017 there was a \$446,000 increase that was primarily due to transmission increases. 2017 to 2018 the increase in Quarter 3 was about \$1.68 million. The main reason for that increase was the NEMA capacity zone increase.

Ms. Parenteau concluded with capacity, transmission, and fuel costs from January through March, from 2016 through 2018. There was a capacity revenue increase from 2016 to 2017 of \$291,000. From 2017 to 2018 there was a \$1.5 million capacity cost increase. Transmission costs rose by \$250,000 from 2016 to 2017, and then by \$353,000 from 2017 to 2018. Fuel costs decreased by \$372,000 from 2016 to 2017, then increased by \$1.4 million from 2017 to 2018 primarily due to a higher load in January. The cold spell had significant cost impacts.

Mr. Soni asked, when making the budget how do you prevent surprises and factor in what's happening in the market? Ms. Parenteau replied New England's fuel source is gas-based. During winter time, New England is at the end of the pipeline which makes it a constrained zone. As a result, the energy markets are more volatile from December to February. RMLD's strategy is to secure more contracts to cover load so as to not be subject to this price volatility. RMLD's power needs are 95 percent covered during the volatile winter months.

RMLD Procurement Request Requiring Board Approval - Ms. Parenteau (Attachment 6)

IFB-44 Electrician Services for the Removal of Load Control Modules (LCM) and Associated Parts

Ms. Parenteau explained that the RMLD had installed approximately 300 hot water heater load control modules that are now at the end of their useful life. They were installed by an electrician and now must be removed by an electrician. The bid request was sent to 20 companies, and six responded. Removal of load control module, installation of a splice box, part of electrical code if cannot see control panel disconnect switch needs to be installed. equipment returned to RMLD. RMLD will be contacting customers to schedule appointments. The electrician will be responsible for getting the electrical permit and the removal will take approximately one hour to complete.

Mr. Pacino verified that no one is currently providing this service. Ms. Parenteau affirmed. Mr. Talbot asked why the equipment can't be left where it is. Ms. Parenteau explained that the old equipment is a liability issue for RMLD.

Mr. Talbot asked if it would be possible to hand the customer an alternative at the time of removal, even a device that would be the customer's responsibility, or any other promotion. Ms. Parenteau answered that IRD is developing an RFP to look at other technologies and residential load control proposals that are not limited to water heaters. Ms. Parenteau explained that RMLD is restructuring its program; it is a challenge to have RMLD equipment in customer homes.

Mr. Talbot asked about giving customers an alternative at the time of the equipment removal, just as RMLD offers other devices and discounts to customers. Mr. Talbot noted that control of a few hundred water heaters with timers has the potential to produce perhaps a 1/2 megawatt load control, which is a lot considering we just spent millions on a gas generator for 2 megawatts of load control, so it's worth the effort while we are interacting with these customers. Ms. O'Brien explained that many customers have shut off the load control but are still receiving a discount on their bill. Installing equipment creates a liability.

Chair Hennessy asked how long it will take to complete all the removals. Ms. Parenteau replied that, assuming six removals are done per week, it will take about a year. It will depend on All Tech's manpower. Chair Hennessy remarked that there's time to implement Mr. Talbot's suggestion at a later date.

RMLD Procurement Request Requiring Board Approval - Ms. Parenteau (Attachment 6)

IFB-44 Electrician Services for the Removal of Load Control Modules (LCM) and Associated Parts

Mr. Talbot requested that the Board wait a month to vote on the bid to give time to consider alternatives. Ms. O'Brien replied that it's a liability issue.

Mr. Stempeck asked if there have been any issues with the equipment currently in customer homes. Ms. Parenteau answered in the affirmative.

Mr. Talbot stated he would like to offer customers an alternative at the time of removal. Ms. O'Brien stated that appliances are becoming smarter. RMLD would rather concentrate its efforts there. The RMLD is an overall smart appliance controller under its rebate program. i.e. Nest.

Mr. Stempeck stated that there's a liability and customers are receiving a rebate for equipment that is disconnected.

Ms. O'Brien explained that anything that is not in the bid cannot be added to the electrician's duties. Mr. Talbot stated he will be voting against the bid.

Mr. Stempeck asked if the cost of the equipment removal will be recouped by the removal of the customer rebate. Ms. Parenteau explained that it would; customers receive a credit per year of approximately \$220.

Mr. Pacino verified that RMLD has done its due diligence checking references. Ms. Parenteau replied in the affirmative.

Ms. O'Brien stated that she is not in favor of installing any equipment in homes.

Mr. Stempeck made a motion, seconded by Mr. O'Rourke, that **IFB-44 Electrician Services for the Removal of Load Control Modules (LCM) and Associated Parts** be awarded to **All Tech Electric** for **\$83,400.00** pursuant to M.G.L. Chapter 149/M.G.L. Chapter 30, Section 39M, as the lowest responsive and responsible bidder, on the recommendation of the General Manager.

Motion Carried: 4:1:0.

Chair Hennessy Board meetings on June 21 and July 19. NEPPA Conference in August. Board meeting September 21. Mr. Stempeck stated that he is unable to attend the May CAB meeting as scheduled. Mr. Pacino agreed to take the May meeting, Mr. Stempeck agreed to attend the June meeting, and Mr. O'Rourke stated that he would go to the July meeting.

Mr. O'Rourke expressed his wish for Mr. Talbot's concern about the water heater load control modules be addressed at a later meeting and stated that there is merit in examining options.

Ms. Markiewicz pointed out that there was supposed to be a vote on the change to a calendar year.

Mr. Pacino made a motion, seconded by Mr. Stempeck that the RMLD Board of Commissioners approve RMLD's change from a Fiscal Year to a Calendar Year, with the change becoming effective January 1, 2019, on the recommendation of the General Manager.

Motion Carried: 5:0:0.

Adjournment

Mr. Stempeck made a motion, seconded by Mr. O'Rourke, that the Board go into Executive Session to consider the purchase of real property and return to Regular Session for the sole purpose of adjournment.

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

POWER SUPPLY REPORT
MAY 2018
ATTACHMENT 2

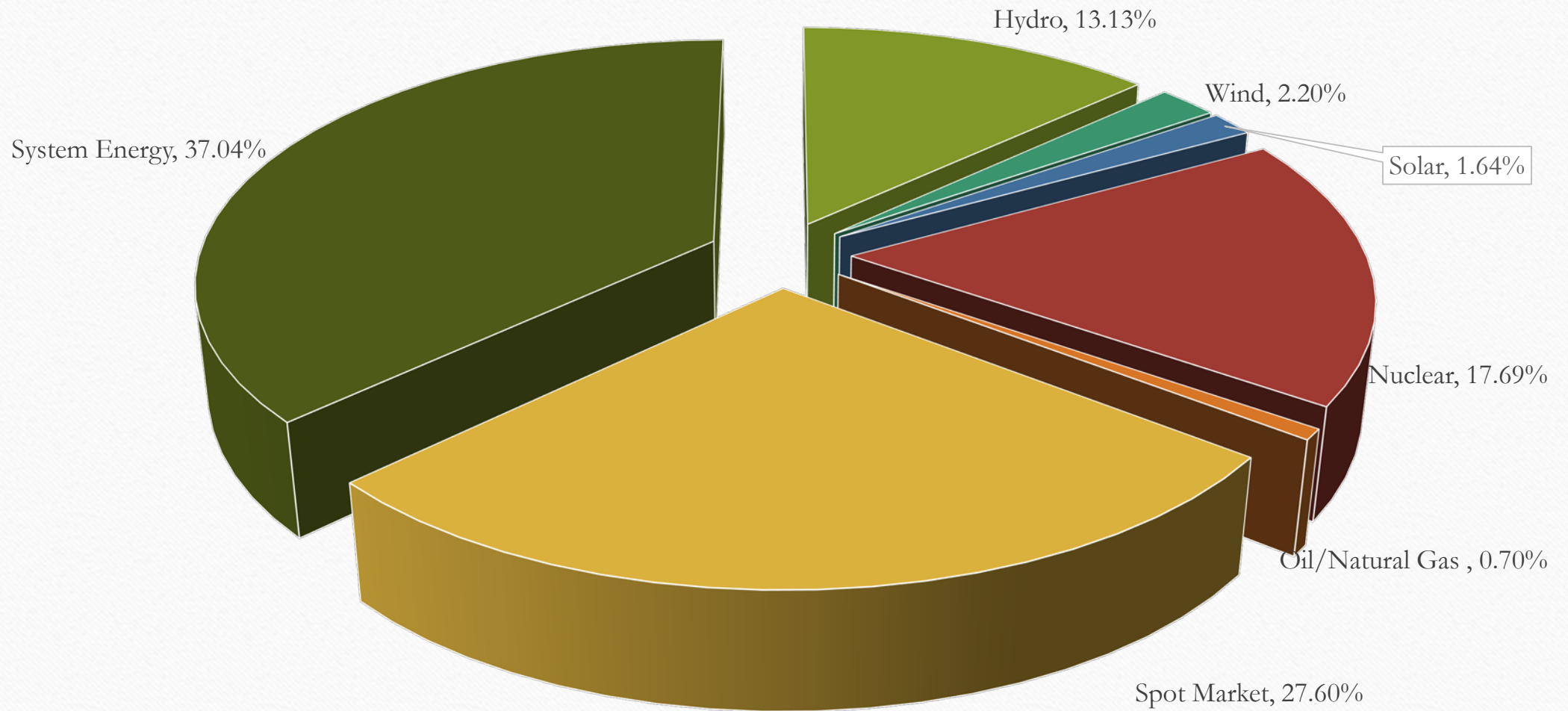
BOARD OF COMMISSIONERS
MEETING

July 19, 2018

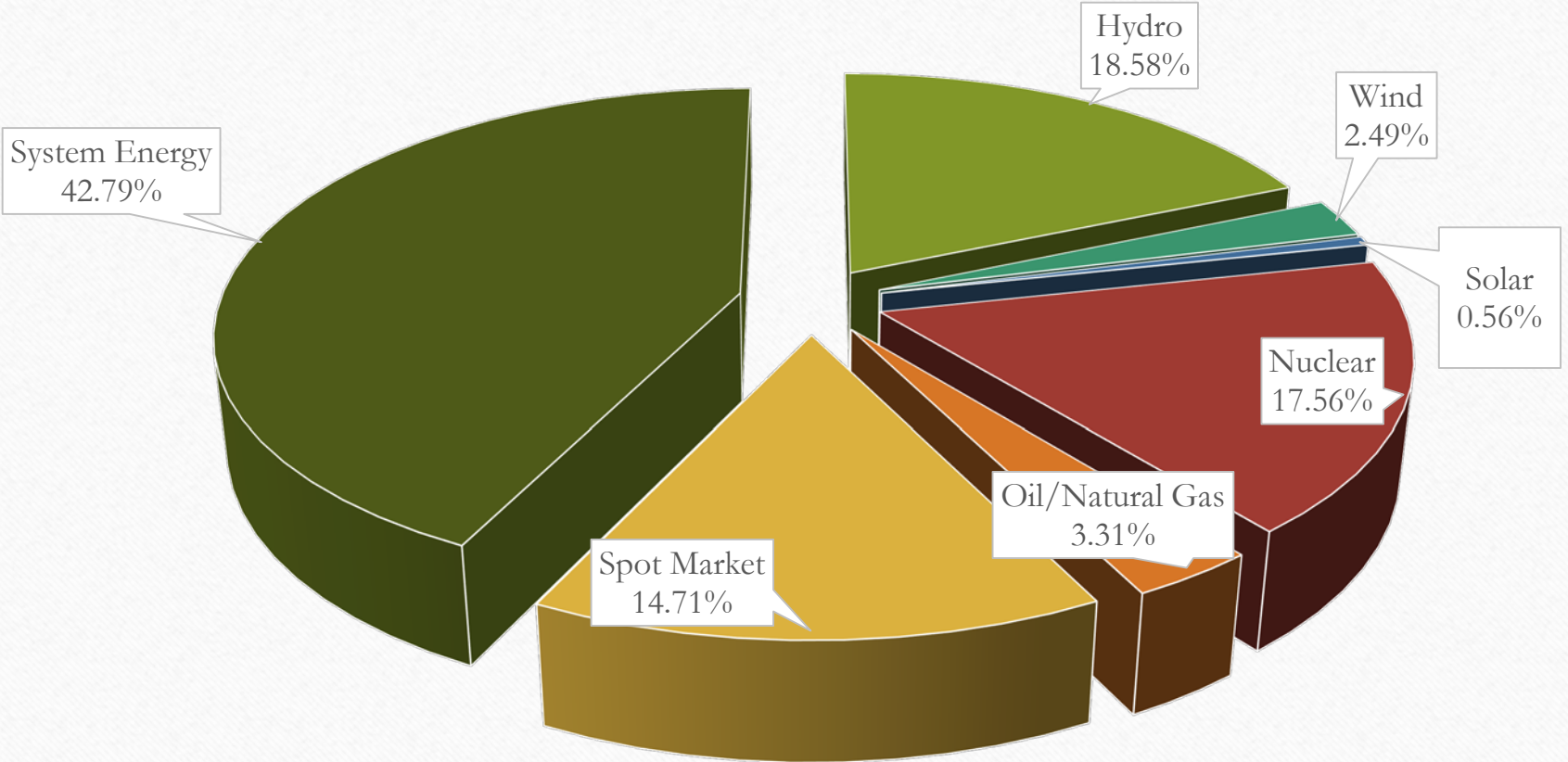
Jane Parenteau, Director of Integrated Resources

Reporting for May, 2018

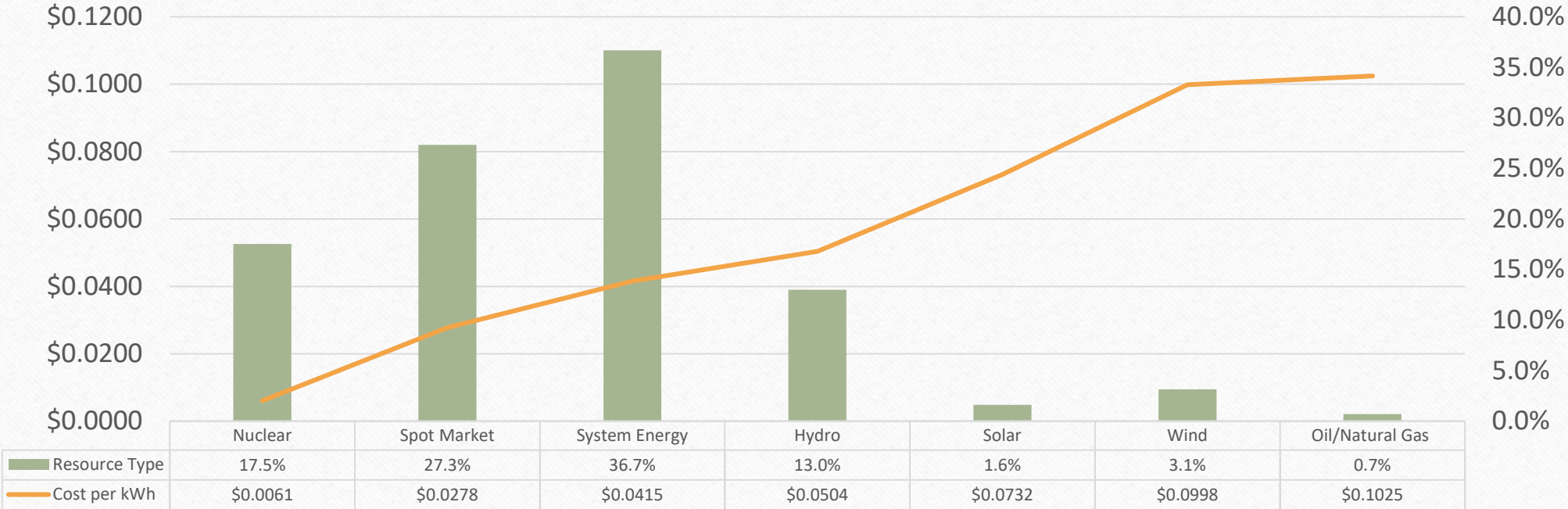
MAY 2018
ENERGY BREAKDOWN BY RESOURCE



MAY 2017
ENERGY BREAKDOWN BY RESOURCE



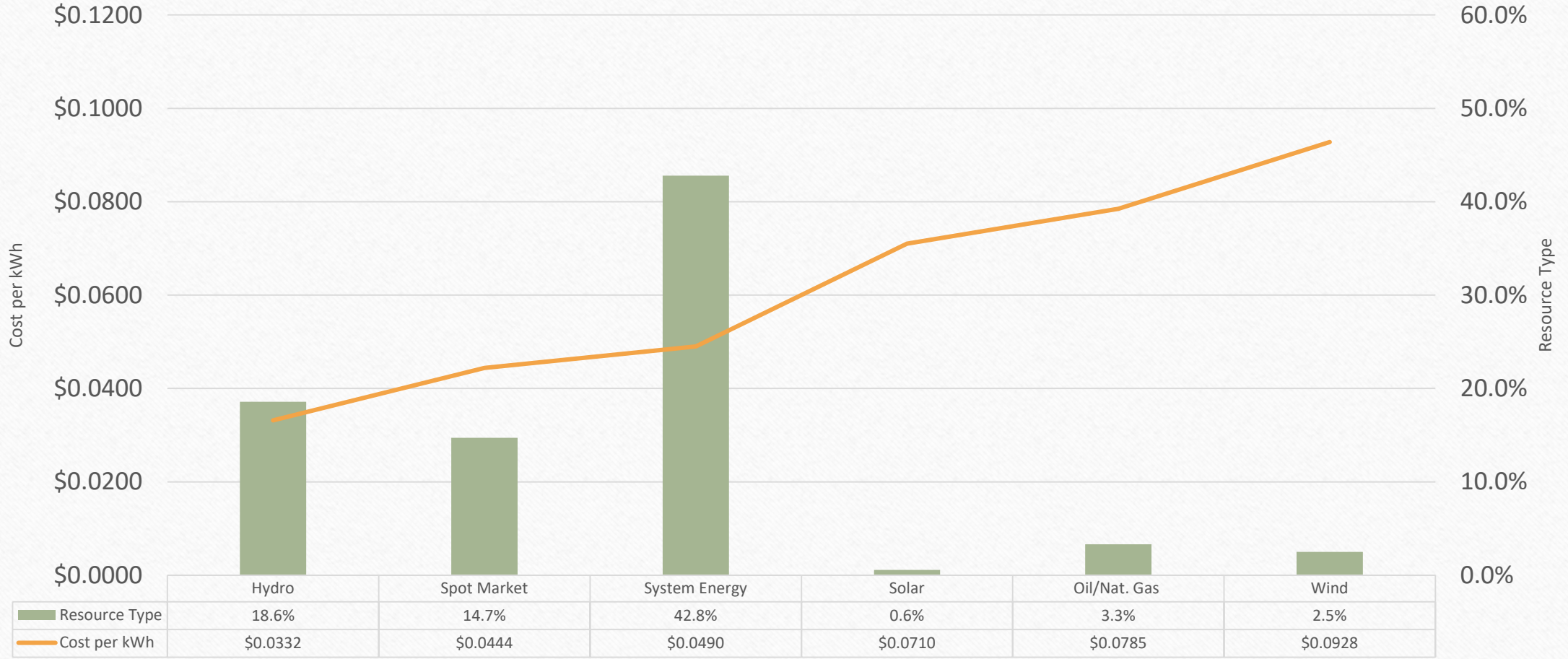
MAY 2018 Fuel Type and Cost per kWh



■ Resource Type
 — Cost per kWh

MAY 2017

Fuel Type and Cost per kWh



Resource Type
 Cost per kWh

To: Coleen O'Brien

From: Maureen McHugh, Jane Parenteau

By NS

Date: July 10, 2018

Subject: Purchase Power Summary – May, 2018

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

ENERGY

The RMLD's total metered load for the month was 53,944,958, which is a .94% increase from the May, 2017 figures.

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

Table 1

Resource	Amount of Energy (kWh)	Cost of Energy (\$/Mwh)	% of Total Energy	Total \$ Costs	\$ as a %
Millstone #3	3,692,413	\$6.38	6.73%	\$23,551	1.28%
Seabrook	5,913,578	\$5.92	10.78%	\$35,008	1.90%
Stonybrook Intermediate	110,594	\$86.45	0.20%	\$9,560	0.52%
Shell Energy	8,680,800	\$57.14	15.83%	\$496,017	26.88%
NYPA	2,067,934	\$5.32	3.77%	\$10,997	0.60%
Nextera	2,084,000	\$33.45	3.80%	\$69,704	3.78%
ISO Interchange	14,988,456	\$27.77	27.33%	\$416,245	22.56%
Nema Congestion	-	\$0.00	0.00%	-\$103,233	-5.59%
Coop Resales	16,376	\$146.89	0.03%	\$2,405	0.13%
EDF	2,928,000	\$27.28	5.34%	\$79,872	4.33%
Hydro Projects*	5,064,276	\$68.85	9.23%	\$348,651	18.90%
Braintree Watson Unit	218,724	\$87.94	0.40%	\$19,234	1.04%
Saddleback/Jericho Wind	1,724,468	\$99.81	3.14%	\$172,128	9.33%
Community Solar	889,004	\$73.16	1.62%	\$65,043	3.53%
Exelon	6,419,200	\$29.55	11.70%	\$189,660	10.28%
Stonybrook Peaking	52,538	\$196.66	0.10%	\$10,332	0.56%
Monthly Total	54,850,361	\$33.64	100.00%	\$1,845,175	100.00%

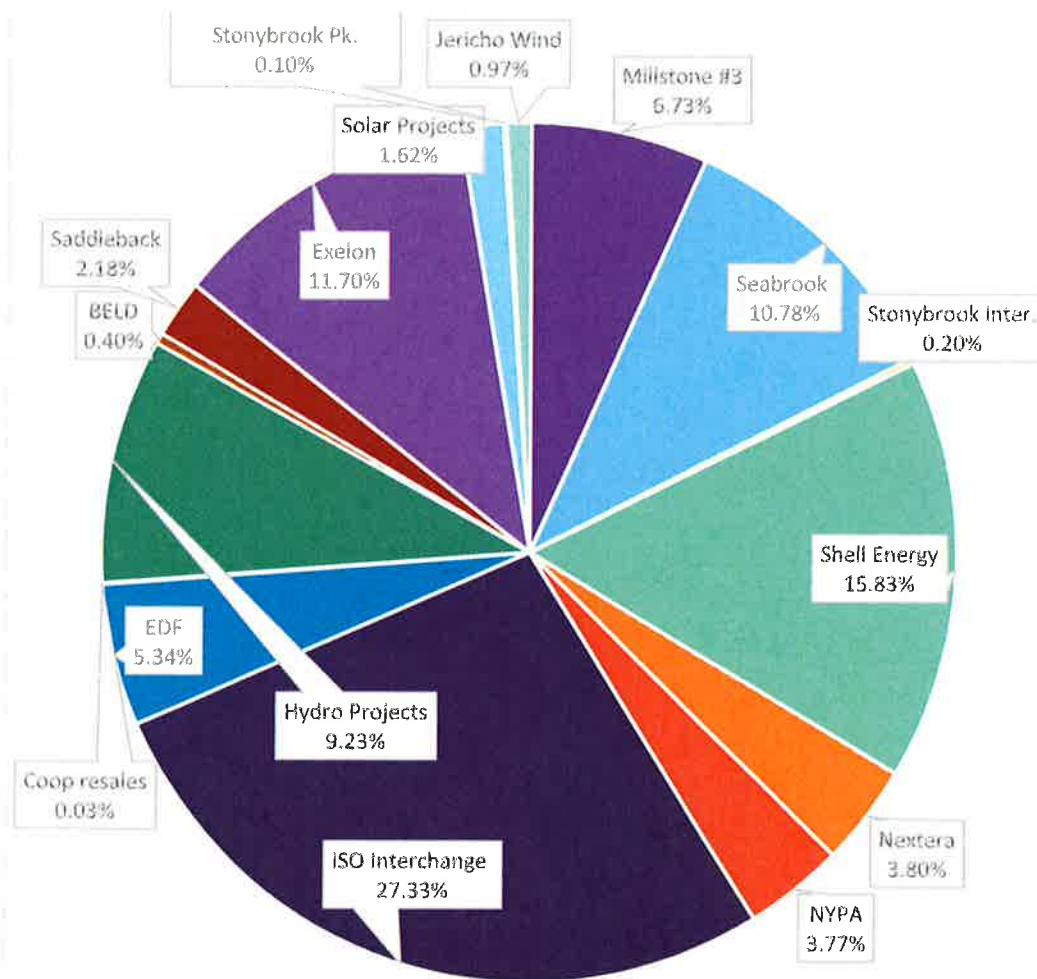
*Pepperell, Woronoco, Indian River, Turner Falls, Collins, Pioneer, Hosiery Mills, Aspinook Hydro

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

Table 2			
Resource	Amount of Energy (kWh)	Cost of Energy (\$/Mwh)	% of Total Energy
ISO DA LMP * Settlement	23,866,382	\$26.40	43.51%
RT Net Energy ** Settlement	(8,877,926)	\$41.51	-16.19%
ISO Interchange (subtotal)	14,988,456	\$36.01	27.33%

* Independent System Operator Day-Ahead Locational Marginal Price

MAY 2018 ENERGY BY RESOURCE



CAPACITY

The RMLD hit a demand of 107,880 kW, which occurred on May 31, at 6 pm. The RMLD's monthly UCAP requirement for May, 2018 was 222,431 kW.

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

Table 3

Source	Amount (kW)	Cost (\$/kW-month)	Total Cost \$	% of Total Cost
Millstone #3	4,950	24.75	\$122,531	5.74%
Seabrook	7,909	18.94	\$149,761	7.01%
Stonybrook Peaking	24,980	1.98	\$49,572	2.32%
Stonybrook CC	42,925	3.30	\$141,770	6.64%
NYPA	0	0.00	\$16,899	0.79%
Hydro Quebec	0	0	\$22,547	1.06%
Saddleback	0	0	-\$22,839	-1.07%
Braintree Watson Unit	0	0.00	\$41,070	1.92%
ISO-NE Supply Auction	141,667	11.40	\$1,614,393	75.59%
Total	222,431	\$9.60	\$2,135,703	100.00%

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

Table 4

Resource	Energy	Capacity	Total cost	% of Total Cost	Amt of Energy (kWh)	Cost of Power (\$/kWh)
Millstone #3	\$23,551	\$122,531	\$146,082	3.67%	3,692,413	0.0396
Seabrook	\$35,008	\$149,761	\$184,770	4.64%	5,913,578	0.0312
Stonybrook Intermediate	\$9,560	\$141,770	\$151,330	3.80%	110,594	1.3683
Hydro Quebec	\$0	\$22,547	\$22,547	0.57%	-	0.0000
Shell Energy	\$496,017	\$0	\$496,017	12.46%	8,680,800	0.0571
NextEra/EDF	\$69,704	\$0	\$69,704	1.75%	2,084,000	0.0334
* NYPA	\$10,997	\$16,899	\$27,896	0.70%	2,067,934	0.0135
ISO Interchange	\$416,245	\$1,614,393	\$2,030,638	51.01%	14,988,456	0.1355
Nema Congestion	-\$103,233	\$0	-\$103,233	-2.59%	-	0.0000
EDF	\$79,872	\$0	\$79,872	2.01%	2,928,000	0.0273
* Hydro Projects	\$348,651	\$0	\$348,651	8.76%	5,064,276	0.0688
Braintree Watson Unit	\$19,234	\$41,070	\$60,304	1.51%	218,724	0.2757
* Saddleback/Jericho	\$172,128	-\$22,839	\$149,288	3.75%	1,724,468	0.0866
* Burlington & Community Solar	\$65,043	\$0	\$65,043	1.63%	889,004	0.0732
Coop Resales	\$2,405	\$0	\$2,405	0.06%	16,376	0.1469
Exelon Energy	\$189,660	\$0	\$189,660	4.76%	6,419,200	0.0295
Stonybrook Peaking	\$10,332	\$49,572	\$59,904	1.50%	52,538	1.1402
Monthly Total	\$1,845,175	\$2,135,703	\$3,980,878	100.00%	54,850,361	0.0726

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

RENEWABLE ENERGY CERTIFICATES (RECs)

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

REC Classification	RECs Projected	RECs Sold	BID \$	Revenue Potential	Revenue Received
CT 1	8,631	1,726	12.50	\$107,888	\$21,575
MA 1	2,294	459	12.60	\$28,904	\$5,783
MA/CT/RI/NH 1	14,942	2,988	12.70	\$189,763	\$37,948
MA/RI/NH 1	8,121	1,624	12.70	\$103,137	\$20,625
MA 2	4,701	940	26.00	\$122,226	\$24,440
Totals	38,689	7,737		\$551,918	\$110,371

TRANSMISSION

The RMLD's total transmission costs for the month of May, 2018 were \$924,280. This is an increase of 1.44% from the April transmission cost of \$911,175. In May, 2017 the transmission costs were \$819,781.

	Current Month	Last Month	Last Year
Peak Demand (kW)	107,880	86,933	134,013
Energy (kWh)	54,850,361	49,837,567	52,605,875
Energy (\$)	\$1,845,175	\$2,163,394	\$1,595,729
Capacity (\$)	\$2,135,703	\$2,101,216	\$1,477,837
Transmission(\$)	\$924,280	\$911,175	\$819,781
Total	\$4,905,158	\$5,175,786	\$3,893,347

FINANCIAL REPORT
MAY 2018
ATTACHMENT 3

ENGINEERING & OPERATIONS REPORT
MAY 2018
ATTACHMENT 4



Engineering & Operations Report

RMLD Board of Commissioners Meeting
July 19, 2018

May 2018 Reporting Period

Hamid Jaffari, Director of Engineering & Operations

Engineering & Operations

Capital Improvement Projects

Project #	DESCRIPTION	% COMPLETE	MAY	YTD ACTUAL	BUDGETED	REMAINING BALANCE
100	Distributed Gas Generation Pilot (Demand Management)	100%		584,960	-	(584,960)
102	Pad-mount Switchgear Upgrade at Industrial Parks	25%	80,809	408,548	196,285	(212,263)
103	Grid Modernization and Optimization	On-going	121,083	421,398	227,183	(194,215)
105	New Wilmington Substation	6%	1,742	48,922	650,000	601,078
106	Underground Facilities Upgrades (URDs, Manholes, etc.)	On-going	3,969	128,766	344,725	215,959
107	13.8kV Upgrade (Step-down Areas, etc.)	On-going	10,098	81,564	70,851	(10,713)
108	115 kV Transmission Line Upgrade	50%		144,546	95,098	(49,448)
109	35 kV Underground Cable Upgrade Station 4, 5 and RR ROW	33%	7,942	68,503	206,817	138,314
110	4W9 Getaway Replacement - Station 4	100%		131,611	-	(131,611)
111	Substation Equipment Upgrade	On-going		-	50,218	50,218
112	AMI Mesh Network Expansion	On-going		65	120,311	120,246
116	Transformers & Capacitors	On-going	103,115	444,828	560,500	115,672
117	Meter Purchases	On-going		15,963	60,000	44,037
125	GIS	100%	6,287	147,867	218,726	70,859
126	Communication Equipment (Fiber Optic)	On-going	49,000	49,000	214,629	165,630
130	Remote Terminal Unit (RTU) Replacement - Station 3	100%		27,164	-	(27,164)
131	LED Street Lights Upgrade - All Towns	100%	66,219	698,752	1,169,332	470,580
133	Station 3: Relay Upgrades and SCADA Integration	100%		27,518	76,103	48,585
137	Pole Line Upgrade - Woburn Street (West to Concord), W	50%	26,758	81,399	200,284	118,885
138	Station 3 Reactors	100%	153,920	316,215	561,347	245,132
175	Pole Replacement Program	On-going	5,547	80,900	209,000	128,100
458	Secondary and Main Replacement Program	On-going	2,678	79,834	222,285	142,451
various	New Service Installations (Residential/Commercial/Industrial)	On-going	13,799	130,895	155,936	24,041

Engineering & Operations

Routine Capital Construction

Description	MAY	YTD
Pole Setting/Transfers	17,511	212,577
Overhead/Underground	31,473	318,443
Projects Assigned as Required	-	161,901
Pole Damage/Knockdowns- Some Reimbursable <ul style="list-style-type: none"> Work was done to repair or replace four (4) poles. 	7,860	96,292
Station Group	326	13,213
Hazmat/Oil Spills	-	7,546
Porcelain Cutout Replacement Program	-	-
Lighting (Street Light Connections)	-	22,578
Storm Trouble	-	143,389
Underground Subdivisions (new construction) <ul style="list-style-type: none"> Nichols Street Extension, North Reading 	13,743	108,858
Animal Guard Installation	-	415
Miscellaneous Capital Costs <ul style="list-style-type: none"> 42 Central Street, North Reading 	15,613	206,376
TOTAL	\$86,526	\$1,291,588

Facilities, IRD and IT Capital Projects/Purchases

	MAY	ACTUAL YTD	FY18 BUDGET	REMAINING BALANCE
Facilities	\$50,338	\$217,459	\$657,000	\$439,541
Integrated Resources Division (IRD)	\$3,249	\$51,279	\$35,000	(\$16,279)
Information Technology (IT)	\$24,907	\$146,340	\$340,000	\$193,660

TOTAL CAPITAL SPENDING YTD (All Divisions)

MAY	YTD	FY18 BUDGET	REMAINING BALANCE
\$817,986	\$5,825,883	\$7,685,521	\$1,859,638

Routine Maintenance

► Transformer Replacement (through May 2018)

Pad mount 29.02%

Overhead 20.81%

► Pole Inspection (as of 7/9/2018)

199 poles have been replaced

183 of 199 transfers have been completed

► Quarterly Inspection of Feeders (as of 7/11/18)

Inspected Circuits (Apr-Jun): 3W5, 3W6, 3W13, 3W15, 4W5, 4W7, 4W10, 4W16, 4W18, 4W30

► Manhole Inspection (through May 2018)

961 of 1,237 manholes have been inspected.

► Porcelain Cutout Replacement (through May 2018)

91% complete

242 remaining to be replaced



Routine Maintenance (continued)

► Tree Trimming

May: 56 spans

YTD: 973 spans through May

► Substation Maintenance

Infrared Scanning – May complete – hot spot at Station 3 repaired

► Underground Subdivisions Upgrade

Recent Completed: Crestwood Estates (NR), Aspen Road (NR), Long Hill Lane (NR)

In Progress: Shasta Drive (NR), Westover Drive (LF), Greenbriar Drive (NR),
Great Neck Drive (W), Gandalf Estates (W), Deerfield Place (NR),
Cherokee Lane (W), Nichols Street (NR)

Double Poles

➤ Ownership: 16,000 (approximately)

50% RMLD

50% Verizon

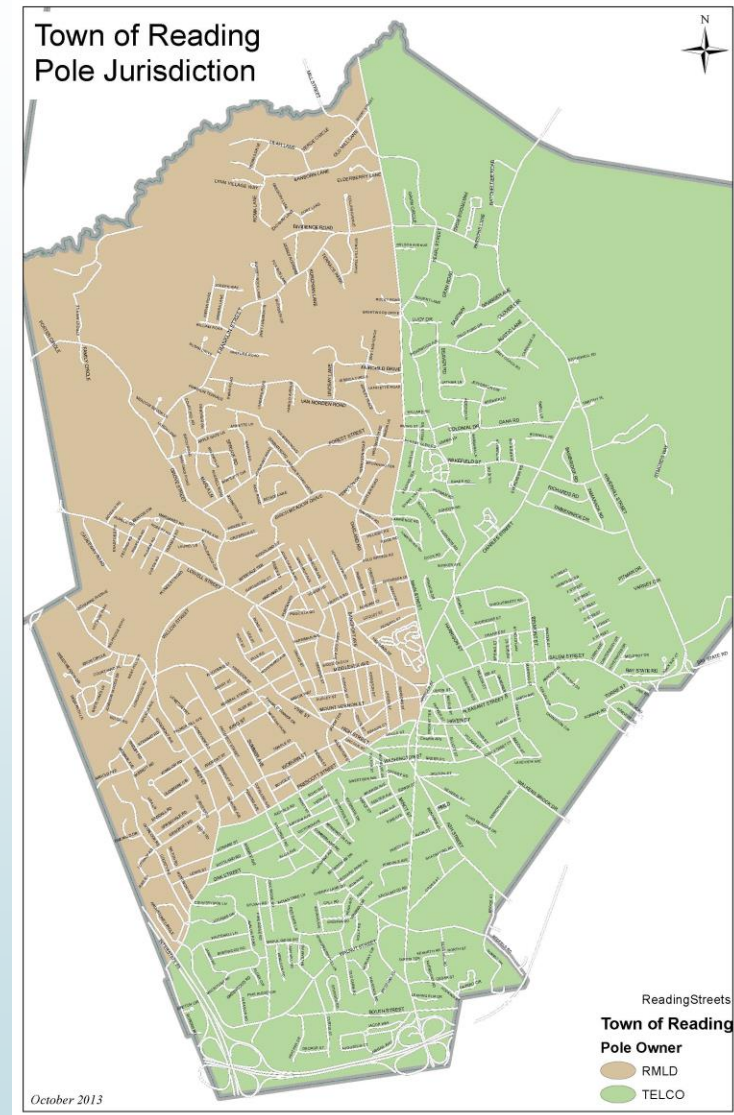
➤ Custodial:

Reading – split (see map) →

North Reading – RMLD

Lynnfield – Verizon

Wilmington - Verizon



NJUNS

“Next to Go” as of July 12., 2018

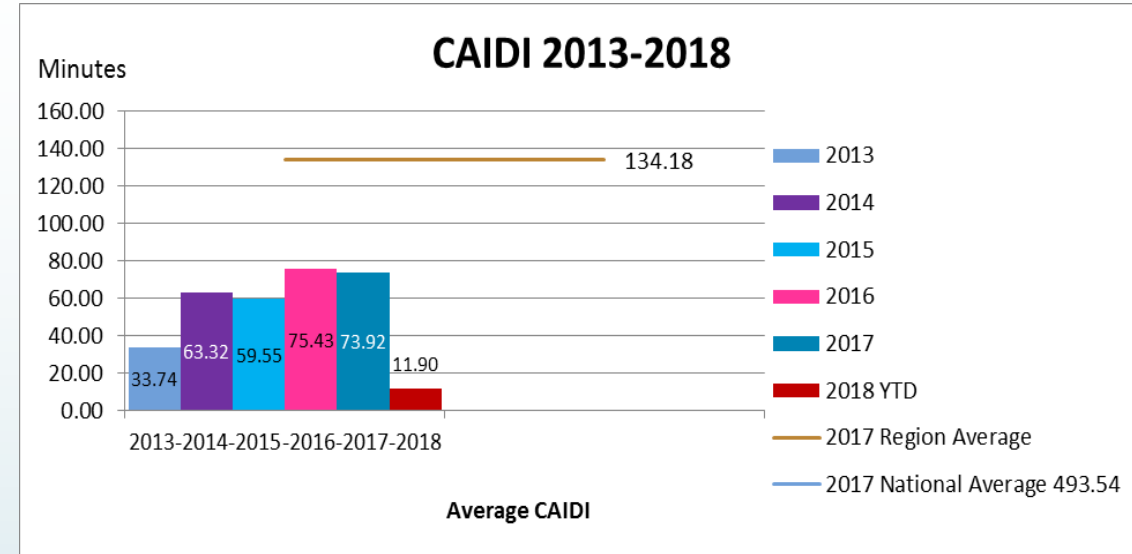
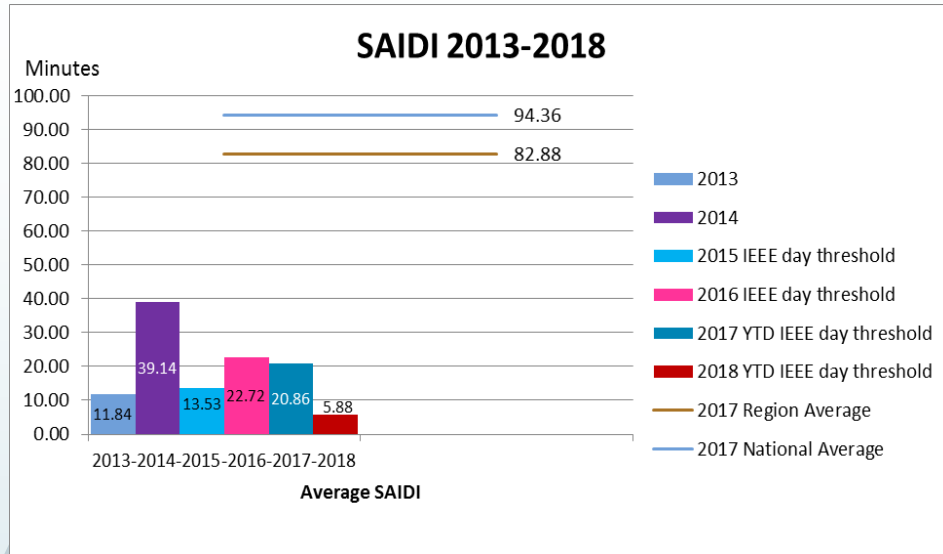
LYNNFIELD	
NTG Member and JobType	Count of Ticket Number
LFLDFD	6
Lynnfield Fire Department TRANSFER	6
RMLD	21
Reading Municipal Light Department TRANSFER	20
PULL POLE	1
(blank)	
Grand Total	27

NORTH READING	
NTG Member and JobType	Count of Ticket Number
CMCTNR	10
Comcast Massachusetts TRANSFER	10
NRDGF	25
North Reading Fire Department TRANSFER	25
RMLD	59
Reading Municipal Light Department TRANSFER	10
PULL POLE	49
VZNEDR	8
Verizon Massachusetts TRANSFER	8
(blank)	
Grand Total	102

READING	
NTG Member and JobType	Count of Ticket Number
CMCTNR	3
Comcast Massachusetts TRANSFER	3
NP3PMA	4
Non-participating 3rd Party Attacher - Massachusetts TRANSFER	4
NPFAMA	1
Non-participating Fire Alarms - Massachusetts TRANSFER	1
RDNGFD	6
Reading Fire Department TRANSFER	6
RMLD	82
Reading Municipal Light Department TRANSFER	27
PULL POLE	55
(blank)	
Grand Total	96

WILMINGTON	
NTG Member and JobType	Count of Ticket Number
CMCTNR	81
Comcast Massachusetts TRANSFER	81
NP3PMA	8
Non-participating 3rd Party Attacher - TRANSFER	8
RMLD	40
Reading Municipal Light Department TRANSFER	36
PULL POLE	4
VZBMA	1
Verizon Massachusetts Business TRANSFER	1
VZNEDR	14
Verizon Massachusetts TRANSFER	10
PULL POLE	4
Grand Total	144

RMLD Reliability Indices

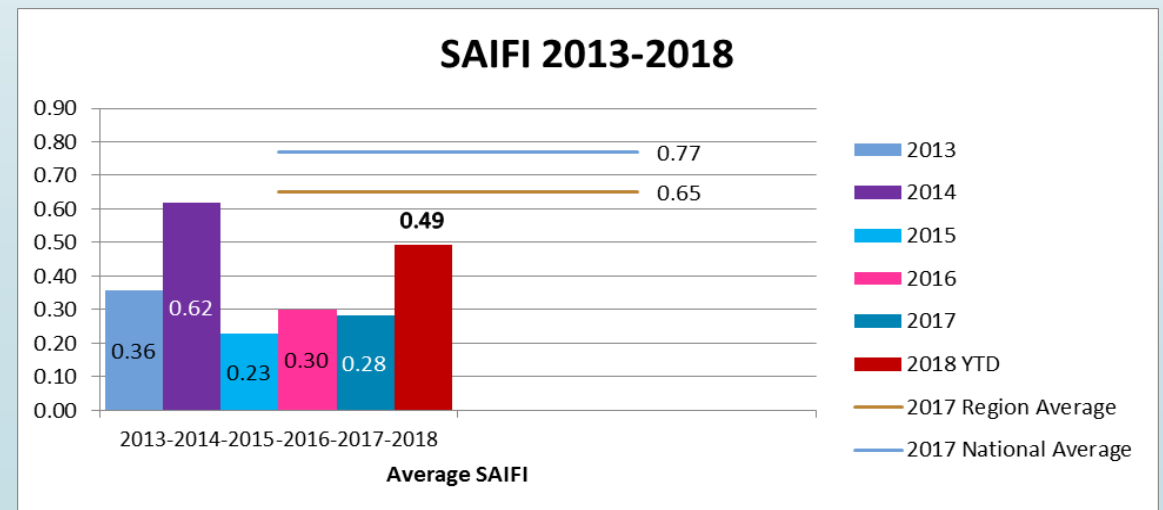


$$SAIDI \text{ (Minutes)} = \frac{\text{Total Duration of Customer Interruptions}}{\text{Total Number of Customers Served}}$$

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

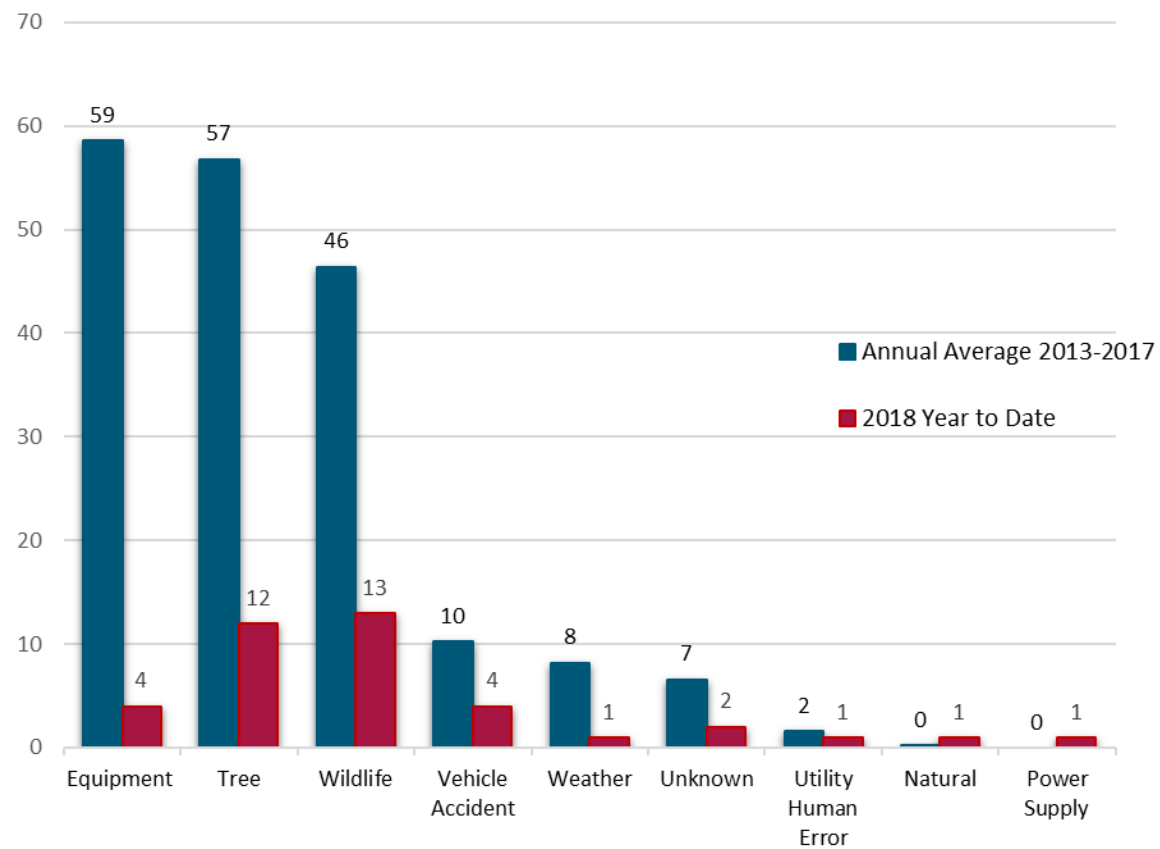
Note: The major event (ME) threshold allows a utility to remove outages that exceed the IEEE 2.5 beta threshold for events. These events could be severe weather, which can lead to unusually long outages in comparison to your distribution system's typical outage.

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



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

Causes of Outages as of May 2018



Questions ?



RMLD PROCUREMENT REQUESTS
REQUIRING BOARD APPROVAL
ATTACHMENT 6



July 12, 2018

Town of Reading Municipal Light Board

Subject: IFP 2018-42 S&C Scada-Mate CX Switches –Five-Year Blanket Contract

Pursuant to M.G.L. c. 164 § 56D, on June 11, 2018, a bid invitation was placed as a legal notice in the Middlesex East section of the Daily Times Chronicle requesting sealed proposals for S&C Scada-Mate CX Switches for a Five-Year Blanket Contract.

An invitation for proposal was sent to the following companies:

E.L. Flowers & Associates

Sargent Electric Company

One sealed proposal was received from E.L. Flowers & Associates.

The sealed proposal was publicly opened and read aloud at 11:00 a.m., June 25, 2018, in the Town of Reading Municipal Light Department's Audio Visual Spurr Room, 230 Ash Street, Reading, Massachusetts.

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

Move that IFP 2018-42 for S&C Scada-Mate CX Switches be awarded to **E.L. Flowers & Associates**, on the recommendation of the General Manager, and pursuant to Chapter 164 § 56D, at a unit price of \$26,990.00 per switch in the first year. Switches purchased in years 2-5 are subject to a price escalation of not more than 2.5% per year. Software licenses are \$2,500 per switch with no escalation.

S&C Scada-Mate Switches and licenses will be purchased as budgeted in the Grid Modernization & Optimization Project each year.



Hamid Jaffari

Coleen O'Brien

PRICE ANALYSIS - IFP 2018-42 -Scada Mate CX Switches-Five-Year Blanket Contract

PROPOSER	S&C SCADA MATE CX SWITCHES			S&C GOLD INTELLITEAM SG SOFTWARE LICENSES			5-YEAR* TOTAL
	Unit Price	Estimated Quantity	Total	Unit Price	Estimated Quantity	Total	
E.L.Flowers & Associates	26,990.00	38	1,025,620.00	2,500.00	38	95,000.00	Switches and Licenses - No escalation included 1,120,620.00
Exception: Manufacturer Terms and Conditions of Sale							
*Purchasing Notes: 1. No guaranteed purchase of any switches or minimum purchases. 2. Per year quantity is contingent on appropriation of funding and RMLD need. 3. Escalation Clause included: No more than 2.5% each year							



July 12, 2018

Town of Reading Municipal Light Board

Subject: IFP 2018-43 S&C IntelliRupter PulseClosers –Five-Year Blanket Contract

Pursuant to M.G.L. c. 164 § 56D, on June 11, 2018, a bid invitation was placed as a legal notice in the Middlesex East section of the Daily Times Chronicle requesting sealed proposals for S&C IntelliRupter PulseClosers for a Five-Year Blanket Contract.

An invitation for proposal was sent to the following companies:

E.L Flowers & Associates

Sargent Electric Company

One sealed proposal was received from E.L. Flowers & Associates.

The sealed proposal was publicly opened and read aloud at 11:00 a.m., June 25, 2018, in the Town of Reading Municipal Light Department's Audio Visual Spurr Room, 230 Ash Street, Reading, Massachusetts.

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

Move that IFP 2018-43 for S&C IntelliRupter PulseClosers be awarded to **E.L. Flowers & Associates**, on the recommendation of the General Manager, and pursuant to Chapter 164 § 56D, at a unit price of \$34,560.00 per PulseCloser in the first year. PulseClosers purchased in years 2-5 are subject to a price escalation of not more than 2.5% per year. Software licenses are \$2,500 per PulseCloser with no escalation.

S&C IntelliRupter PulseClosers and licenses will be purchased as budgeted in the Grid Modernization & Optimization Project each year.

Hamid Jaffari

Coleen O'Brien

PRICE ANALYSIS - IFB 2018-43 -S&C IntelliRupter PulseClosers-Five-Year Blanket Contract

PROPOSER	S&C IntelliRupter PulseClosers			S&C GOLD INTELLITEAM SG SOFTWARE LICENSES			5-YEAR* TOTAL
	Unit Price	Estimated Quantity	Total	Unit Price	Estimated Quantity	Total	PulseClosers and Licenses - No escalation included
E.L.Flowers & Associates	34,560.00	15	518,400.00	2,500.00	15	37,500.00	555,900.00
Exception: Manufacturer Terms and Conditions of Sale							
*Purchasing Notes: 1. No guaranteed purchase of any PulseClosers or minimum purchases.							
2. Per year quantity is contingent on appropriation of funding and RMLD need.							
3. Escalation Clause: No more than 2.5% each year.							

BOARD MATERIAL AVAILABLE
BUT NOT DISCUSSED

From: [Tracy Schultz](#)
To: [RMLD Board Members Group](#); [Dave Hennessy \(Davidhennessy@gmail.com\)](mailto:Dave.Hennessy@gmail.com)
Subject: AP and Payroll Questions for 7-19-18 Board Book
Date: Thursday, July 12, 2018 1:50:00 PM

Good afternoon,

AP:

On June 22nd there was a Commissioner question regarding NEPPA hotel reimbursement. RMLD is reimbursing for hotel deposits.

On June 29th there were no Commissioner questions.

On July 6th there was a question regarding what appeared to be a credit on an invoice. It was for an estimated down payment for RMLD work on a construction job. The actual costs were lower than what was quoted, so a refund was owed.

Payroll:

On June 25th there was a Commissioner question regarding an employee fringe benefit. This was the amount paid to employees who opted out of company-provided health insurance.

On June 25th there was a question regarding engineering overtime. The breakdown was explained.

On July 9th the Commissioner had a question about lineman overtime.

This e-mail will be included in 7-19-18 Board Book.

Tracy Schultz
Executive Assistant
Reading Municipal Light Department
230 Ash Street. Reading. MA. 0186
Tel: 781.942.6489

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

July-18

	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	\$128.72	\$221.25	\$147.06	\$1,096.48	\$211.39	\$5,070.80	\$878,197.46
PER KWH CHARGE	\$0.17163	\$0.14750	\$0.14706	\$0.15020	\$0.19573	\$0.14488	\$0.12765
NATIONAL GRID							
TOTAL BILL	\$159.63	\$355.22	\$199.02	\$1,559.43	\$239.23	\$5,993.92	\$1,084,218.99
PER KWH CHARGE	\$0.21284	\$0.23681	\$0.19902	\$0.21362	\$0.22151	\$0.17125	\$0.15760
% DIFFERENCE	24.02%	60.55%	35.33%	42.22%	13.17%	18.20%	23.46%
EVERSOURCE(NSTAR)							
TOTAL BILL	\$174.63	\$266.71	\$230.50	\$1,550.62	\$278.83	\$7,121.97	\$1,204,317.49
PER KWH CHARGE	\$0.23283	\$0.17781	\$0.23050	\$0.21241	\$0.25818	\$0.20348	\$0.17506
% DIFFERENCE	35.66%	20.55%	56.73%	41.42%	31.90%	40.45%	37.14%
PEABODY MUNICIPAL LIGHT PLANT							
TOTAL BILL	\$85.12	\$164.48	\$111.57	\$927.06	\$147.33	\$4,588.13	\$614,483.05
PER KWH CHARGE	\$0.11349	\$0.10965	\$0.11157	\$0.12699	\$0.13642	\$0.13109	\$0.08932
% DIFFERENCE	-33.87%	-25.66%	-24.13%	-15.45%	-30.31%	-9.52%	-30.03%
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	-23.29%	-8.85%	-9.74%	-12.49%	-20.32%	-6.07%	-8.09%
WAKEFIELD MUNICIPAL LIGHT DEPT.							
TOTAL BILL	\$132.36	\$247.17	\$166.88	\$1,257.54	\$199.78	\$5,910.58	\$1,007,556.30
PER KWH CHARGE	\$0.17648	\$0.16478	\$0.16688	\$0.17227	\$0.18499	\$0.16887	\$0.14646
% DIFFERENCE	2.83%	11.72%	13.47%	14.69%	-5.49%	16.56%	14.73%