

**READING MUNICIPAL  
LIGHT DEPARTMENT**

**BOARD OF COMMISSIONERS**

**REGULAR SESSION**

**THURSDAY, JUNE 21, 2018**

APPROVAL OF BOARD MINUTES  
APRIL 5, 2018 AND APRIL 17, 2018  
ATTACHMENT 1

**READING MUNICIPAL LIGHT DEPARTMENT  
BOARD OF COMMISSIONERS MEETING  
230 Ash Street  
Reading, MA 01867  
April 5, 2018**

**Start Time of Regular Session: 7:30 p.m.**

**End Time of Regular Session: 8:01 p.m.**

**Commissioners:**

**Phillip B. Pacino, Chair-Secretary Pro Tem**

**Dave Talbot, Commissioner**

**Tom O'Rourke, 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**

**Public:**

**Dave Hennessy, Commissioner-Elect**

**John Stempeck, Commissioner-Elect**

**Call Meeting to Order**

Chair Pacino called the meeting to order, stated that the meeting is being filmed, and read the Board of Commissioners' Code of Conduct.

**Discussion of Return on Investment, Disposition Thereof, and Effect on Funding of the RMLD Capital Needs  
Adjournment**

Chair Pacino stated that there is only one agenda item and explained that the Board of Commissioners needs to make a public statement on what is being said to the Sub-Committee.

Chair Pacino explained that two members of the Board are currently Commissioners-Elect. They have been reelected but the final vote has not been certified yet, so they have not been sworn in. They will be allowed to participate in the meeting as citizens of the Town.

Chair Pacino asked Ms. O'Brien to provide the public with instructions on how to access the White Paper. Ms. O'Brien stated one has to start on the RMLD Homepage, click 'Meetings' on the left side, then click 'Board of Commissioners' and then select 'Quick Links' on the left-hand side.

Chair Pacino recommended that anyone following the Payment to the Town of Reading read the White Paper.

Chair Pacino stated that the Commission has sole control over the bottom line in terms of what to do with the Town. Chair Pacino explained that tonight he is looking for a public statement on what the Board wishes to do going forward.

Mr. O'Rourke suggesting providing background for those who may be unfamiliar with the situation.

Chair Pacino explained that the issue initially arose in April 2017 in Town Meeting as an Instructional Motion to the Selectmen. Chair Pacino stated he raised the idea of assembling the Sub-Committee, which was conceived in the 1980s, but had never met. Following the 2017 Motion, the Sub-Committee was formed, consisting of two members of the Citizens' Advisory Board, two members of the Board of Commissioners, and a member of the Board of Selectmen.

Chair Pacino stated that RMLD is allowed to earn eight percent. That eight percent goes to two places: capital funds and return on investment to Town. Chair Pacino stated that number is around \$2.7 million.

## **Discussion of Return on Investment, Disposition Thereof, and Effect on Funding of the RMLD Capital Needs**

### **Adjournment**

Ms. Markiewicz clarified: RMLD is allowed to earn eight percent of net plant and it is at RMLD's discretion to distribute that however the business deems fit. RMLD has always used that money to add to the capital infrastructure. However, RMLD is not required to spend the money on capital funds or the payment to the Town of Reading.

Chair Pacino stated that if RMLD doesn't spend on capital, the system can't be maintained properly. The Commission has concluded that the present formula is not sustainable: RMLD will be giving too much money to the Town, with not enough going back to the capital. Chair Pacino stated one of the options is to leave the present formula in place. However, there needs to be a study on how to resolve eventually not having enough to give to capital. That may mean freezing the payment to the Town if necessary.

Ms. Markiewicz clarified, for the past five years RMLD has spent more than the rate of return on capital infrastructure.

Chair Pacino stated that the Board should focus on the next two years, have a study done, and then adjust the payment formula in year three according to the study results. Chair Pacino stated that he continues to endorse what he presented: using the Consumer Price Index, with two and a half percent as the floor and a ceiling of five percent, only for the next two years.

Mr. O'Rourke stated that this process was started to find ways to increase the payment to the Town. However, a lot of issues were found along the way. RMLD realized it was making the largest payment to a Town in the Commonwealth. RMLD needs to continue to invest in capital infrastructure. RMLD has a lot of commitments it needs to honor and doesn't want to jeopardize reliability or raise rates. Mr. O'Rourke suggested a short statement to the Sub-Committee on why we aren't in position to make increased payments. RMLD can make the already-scheduled payments for the next two years while a study is undertaken.

Mr. Talbot stated if this was going to be the evening's topic of discussion then the agenda should have been clearer, so other involved parties would have attended. Mr. Talbot stated that we all learned a lot from the White Paper. One thing that stood out is that RMLD is making the largest payment to a municipality in the region. RMLD capital needs are great and it's hard to see why we would go up in the payment to the Town.

Mr. Stempeck said that before the current General Manager RMLD had not reinvested capital into the plant and was beginning to feel the full effects of that. We're playing catch up. Consultants laid out a 6-year plan. We're implementing it; these are things that are needed to ensure safety and reliability. The last thing that we want to do is go negative on the bottom line.

Vice Chair Hennessy agreed and asked for clarification on when the study would start.

Chair Pacino stated that's a reminder to bring up transitioning to a calendar year again and answered that the two years would start July 1, 2018. Chair Pacino stated two years is a reasonable time to let towns digest what's going on.

Mr. Stempeck stated that RMLD needs to be flexible, and there should be language in the statement that if unanticipated catastrophes and acts of nature occur RMLD will not be able to make payments.

Ms. O'Brien clarified, RMLD is allowed to make up to eight percent of net plant, but you would need to justify raising the rate to obtain that eight percent. A lot of other Town payments are decreasing because typically the payments are tied to sales. Some do net plant. Our net plant will be growing, but because sales are going down the only way to make the eight percent is to raise the rate. We're investing approximately \$8 million a year in capital infrastructure and trying to keep the rate of return eight or less to be fair to public, and we're paying the Town; a convergence is coming very quickly.

Mr. Talbot stated that we don't want to raise rates or hurt economic development just to add money to the Town budget. The override passed so there is a lot less pressure.

## **Discussion of Return on Investment, Disposition Thereof, and Effect on Funding of the RMLD Capital Needs**

### **Adjournment**

Chair Pacino stated that he visualizes this as a starting point. This is something to bring to the Sub-Committee and state this is what we think we can do. The floor for the increase, for the next two years only, will be two-and-a-half percent and the ceiling will be five percent. In the case of a major event, adjustments would have to be made. When the study is done the formula will be reexamined. The present formula is not sustainable in the long term.

Mr. O'Rourke clarified that FY 2018 would use the current formula. Chair Pacino answered that this would be effective July 1, 2018.

Ms. O'Brien stated that RMLD needs to talk about crafting the scope of the study and what questions need to be looked at.

Mr. Talbot asked how many municipalities guarantee a set payment versus how many are flat or declining? Ms. O'Brien answered that there are different methodologies

Mr. Talbot stated that, arguably, RMLD's status quo is very generous.

Chair Pacino stated that this should have been dealt with several years ago; it never occurred to the Board that it would become unsustainable. Mr. O'Rourke stated that he understands the two-year window but there should be a sense of urgency to the topic.

Chair Pacino replied that they must give the Town two years to adjust.

Mr. Stempeck stated that the study could be conducted much faster than a year and recommendations should be implemented as quickly as possible. This is happening to all utilities. There has been a decrease in power usage due to technology and efficiency enhancements. But we're a fixed cost organization. These payments that are continually going up? At some point they can't be maintained. Mr. Stempeck suggested not guaranteeing two years.

Chair Pacino stated that would be discussed at the Sub-Committee meeting.

The dates of the next meetings were clarified and having a Commission member go to the Board of Selectmen meeting on April 10<sup>th</sup> was discussed.

Mr. O'Rourke made a motion, seconded by Mr. Talbot, to adjourn the Regular Session.

**3:0:0.**

**Motion Carried.**

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

Philip B. Pacino, Secretary Pro Tem  
RMLD Board of Commissioners

READING MUNICIPAL LIGHT DEPARTMENT  
BOARD OF COMMISSIONERS MEETING  
230 Ash Street  
Reading, MA 01867  
April 17, 2018

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

End Time of Regular Session: 9:30 p.m.

**Commissioners:**

Dave Hennessy, Chair-Secretary Pro Tem  
Dave Talbot, Vice Chair  
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:**

Dennis Kelley, Secretary

**Call Meeting to Order**

Chair Pacino called the meeting to order.

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

**Public Comment**

Chair Pacino welcomed Mr. Kelley, who had no comments. There was no public comment.

**Reorganization of the RMLD Board of Commissioners**

Chair Pacino stated that it has been an interesting year. At times it has been stressful, but RMLD has come out on the other side. All the Commissioners commended Chair Pacino for the great job he did as Chair. Chair Pacino then opened the nominations.

Mr. Stempeck nominated David Hennessy for Chair of the Board of Commissioners. Mr. O'Rourke seconded. Mr. Stempeck made a motion, seconded by Mr. O'Rourke, that the nominations be closed.

**Motion Carried: 5:0:0.**

Chair Pacino then announced the Board would be voting for Mr. Hennessy as Chair.

**Vote Carried: 5:0:0.**

Chair Hennessy opened the floor for nominations for Vice Chair.

Mr. Stempeck nominated David Talbot for Vice Chair of the Board of Commissioners. Mr. O'Rourke seconded. Mr. Stempeck made a motion, seconded by Mr. O'Rourke, that the nominations be closed.

**Motion Carried: 5:0:0.**

Chair Hennessy then announced the board would be voting for Mr. Talbot as Vice Chair.

**Vote Carried: 5:0:0.**

It was decided that the Audit Committee will be comprised of Mr. Pacino and Mr. Stempeck. It was decided to dissolve the Policy Committee and have the policies presented to the full Board when ready for review. It was decided that the General Manager Review will occur during a full Board meeting. The review should be done in July, so individual assessments should be completed in June. There was concern regarding Ms. O'Brien's assessment due to the plan to change to a calendar year.

Ms. Markiewicz explained that RMLD can't be considered calendar year until the end of the year. The Commission determined that Ms. O'Brien could possibly have another review in early 2019, right after the year closes. Discussion ensued over the timing of all employee performance appraisals.

#### **Approval of Board Minutes (Attachment 1)**

Mr. Pacino made a motion, seconded by Mr. Stempeck, to approve the February 22, 2018, March 12, 2018, and March 15, 2018 minutes.

**Motion Carried.**

**5:0:0.**

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

Chair Hennessy stated that the CAB met on April 11<sup>th</sup> at the Lynnfield Town Hall. RMLD's Capital Budget was presented, but no vote was taken yet. Mr. Kelley stated that the CAB would be reviewing the Operational Budget the following evening.

#### **Report of the Former Chair -Mr. Pacino**

##### **Meeting of the Sub-Committee on the Payment to the Town of Reading**

Mr. Pacino stated that the Sub-Committee met on Wednesday, April 11<sup>th</sup>. The Sub-Committee discussed the proposal that had been made by RMLD of a two-and-a-half base or CPI and a five percent ceiling. It was decided that the study of the payment should come before any changes to the current Town Payment. The Committee voted to ask the Commission to instruct the Department to proceed with the study and to report back as soon as possible with the results.

Mr. O'Rourke asked if the Sub-Committee should be kept in place? Mr. Pacino answered yes. Mr. O'Rourke asked what about the upcoming Town Meeting? Mr. Pacino stated that the Selectmen will give an update.

Mr. Stempeck stated that the Committee decided they need to understand facts. Approximately 6-month time frame approximately \$100,000

Ms. O'Brien stated that the study will ask for assets by classification. It will work through what is appropriate to spend on capital due to the age of the infrastructure. It will examine reliability, staffing, and financials past and present. They'll speak with Integrated Resources about power supply projections. It's going to take some time because a lot of detail is necessary to be able to project forward.

Mr. Talbot asked is the purpose of the study to find out what the payment to the Town can be going forward, or is there a greater purpose? Mr. Stempeck answered that the payment is a significant portion of why the study is being done. Ms. O'Brien added that the study is going to examine financials so that we can determine what our future net income is projected to be.

Mr. Talbot stated that the study should develop a strategic plan on how to diversify. Best practices from other municipalities should be examined. Mr. Stempeck replied that should be phase two. The first phase is to see if RMLD is sustainable, then determine what if? We need to get numbers down first.

Mr. Talbot reiterated that he wants to know what other municipalities are doing. Mr. Stempeck asked if recommendations for increased revenue can be included in the study's scope. Ms. O'Brien replied that the study should make recommendations.

Mr. O'Rourke said that he considers this an affordability study on how the formula that determines the payment to the Town can be changed to be more reasonable.

Mr. Talbot asked what other municipalities are doing. Ms. O'Brien stated she had previously presented a slide that showed what other municipalities are paying. Mr. Talbot stated that RMLD knows it is paying more. Is a study necessary to tell us what we already know?

## **Report of the Former Chair -Mr. Pacino**

### **Meeting of the Sub-Committee on the Payment to the Town of Reading**

Mr. Kelley asked where the money for the study will come from? The budget process is already underway. Mr. Kelley asked if the CAB vote on the budget needs to be held off? The \$100,000 needs to come from someplace. The money currently hasn't been allocated.

Ms. O'Brien stated that \$100,000 is not a definite number. Mr. O'Rourke stated that it's not going to be spent without approval

Ms. O'Brien stated that she scheduled a meeting for this week to determine if it is possible to get the information RMLD is looking for. The spreadsheet that has been put together may be the best predictive indicator we're going to get that shows the convergence.

Mr. Stempeck made a motion, seconded by Mr. Talbot, that the General Manager investigate, to the best of her ability, whether it makes sense to have a study to engage a consultant to answer the kinds of questions that she thinks she should be in the scope of the study and provide us with feedback at our next meeting.

**Motion Passed: 5:0:0.**

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

### **Quarterly Updates: Reliability Report – Ms. O'Brien and Mr. Jaffari (Attachment 2)**

Mr. Jaffari announced that of the seventy-one items, most have been completed, some are in progress, and the rest are in planning. Since the last update, Station 3 work has been completed. The breakers are being maintained, the relays were replaced, and arc flash is in compliance. The outage management system is being installed by Survalent and will be completed by the end of the week. Staff will be trained on the system next week. RMLD is currently interviewing interactive voice response (IVR) vendors. Under distributive generation, RMLD received a \$1 million grant to install a battery storage unit at Station 3. That is being planned. The implementation of the GIS upgrade program is almost done. The engineering model was just sent to Milsoft.

## **Integrated Resources Division - Ms. Parenteau**

### **Power Supply Report – February 2018 (Attachment 3)**

Ms. Parenteau announced that RMLD will participate in Reading's Earth Day on Saturday, April 21<sup>st</sup> from 10 to 2 at the Parker Middle School. RMLD is continuing to hold its save Energy and Money series at the various libraries. RMLD will be at the Reading Library on Thursday, the 26<sup>th</sup>, at 6 o'clock. RMLD will be at the Flint Memorial Library in North Reading at 6 o'clock on May 7<sup>th</sup>.

Ms. Parenteau announced that she would be discussing February. Ms. Parenteau started with the spot market prices, which are the day-ahead and the real time prices, from 2014 through 2018. Both the day ahead and real time prices have dropped considerably. In 2014, the average day ahead price was \$156.24. In February 2018 it dropped to \$39.48. However, there was approximately a 30 percent increase from 2017 to 2018. The day ahead pricing went from \$30.33 in 2017 to \$39.48 in 2018. The real time went from \$29.02 in 2017 to \$36.88 in 2018.

Mr. Stempeck asked what caused such a sizable difference between 2014 and 2018? Ms. Parenteau answered that in 2014 there was a cold snap, and that was also the beginning of the natural gas constraint. In 2014, there were 1,179 heating degree days. This last February there were 809: It was the warmest February in five years. The cost in fuel was 6.15 cents per kWh in 2014 and 5.88 cents per kWh in 2018. Between 2017 and 2018 there was approximately a 16 percent increase in the embedded average fuel cost. In 2018 RMLD's average energy cost was \$2.9 million compared to \$2.5 million in 2017. There was approximately a \$439,000 increase. The addition of hydro and contract price increases were the main causes of the increase.

## **Financial Report- February 2018 - Ms. Markiewicz - (Attachment 4)**

Ms. Markiewicz announced that she would be reporting on the first eight months of the fiscal year, ending on February 28, 2018. Unrestricted cash of \$15.3 million covers about two months of operating expenses. Accounts receivable are 97 percent current, with up to 90 days considered current. Net plant increased by \$3.7 million as compared to February 28, 2017. Base revenue increased 1.1 percent year-to-year but there was a 1.7 percent decrease in kWh sales from 2017 to 2018. There was a 1.8 percent decrease in base revenue as compared to the



#### **Financial Report- February 2018 - Ms. Markiewicz - (Attachment 4)**

budget. Purchased power fuel expenses exceeded purchased power fuel revenue by \$2.2 million. Purchased power capacity and transmission (PPCT) expenses exceeded PPCT revenue by \$412,000. Operating and maintenance expenses are currently under-budget by about 4.7 percent.

Ms. Markiewicz then presented budgeted capital funds balances and budgeted capital spending from FY2018 through FY 2023. Each year has a beginning balance, the three percent depreciation, actual operating fund transfers, and bond proceeds and other proceeds. The goal is not to have capital improvement funds go below \$1 million. Ms. Markiewicz discussed the projected net income as compared to RMLD's projected budgeted rate of return. There's a downward trend, which takes into account the proposed rate increases. Ms. Markiewicz then discussed the downward trend in kWh sold, and how it lies with our rate of return.

#### **Engineering and Operations Report – February 2018 - Mr. Jaffari (Attachment 5)**

Mr. Jaffari announced that good progress is being made. Most projects will be ending in the last quarter of the fiscal year. Routine capital construction expenditures in February totaled \$172,803, bringing the year-to-date to \$978,598. Total capital spending was \$443,124 in February, bringing the year-to-date to \$3,936,645, leaving a remaining balance of \$3,748,876. Good progress is being made on routine maintenance. 193 poles have been replaced, and 178 transfers have been completed. RMLD is waiting on Verizon and Comcast.

Chair Hennessy asked what can be done to expediate the double pole process. Mr. Jaffari replied that customers can call the two companies. Verizon and Comcast are aware of their backlog. Mr. Jaffari stated that Lynnfield has six pending pole transfers. North Reading has ten transfers and 35 pole butts to be removed, Reading has 25 transfers and 52 pole butts and Wilmington has 32 transfers and 4 pole butts.

Mr. Jaffari reported that reliability is better than the national and regional averages. Causes of outages are well below five-year averages.

#### **RMLD Procurement Requests Requiring Board Approval - Mr. Jaffari (Attachment 6)**

##### **IFB 2018-36 Residential Energy Audits**

Ms. Parenteau explained that an invitation for bids was sent out to 17 companies. Three responded. The bid is lower than the current vendor by \$7,300 over the three-year period. Energy New England will be producing a digital report for all audits performed, which will go directly to the customer as well as the RMLD. RMLD will have access to all collected data and will be a much more efficient process than what is currently in place.

Mr. O'Rourke asked if the companies make their money exclusively on audits. Ms. Parenteau stated that the way it is currently set up, RMLD requests that the vendor doesn't make sales pitches.

Mr. Pacino made a motion, seconded by Mr. Stempeck, that proposal 2018-36 for Residential Energy Audits be awarded to: **Energy New England** for **\$176,400.00** pursuant to M.G.L. c. 30B, as the lowest responsive and responsible bidder, on the recommendation of the General Manager. This is a three-year contract.

**Motion Passed: 5:0:0.**

##### **IFP 2018-38 Pad Mounted Transformers**

Mr. Jaffari stated that these transformers are used in the subdivision upgrades and new construction.

Mr. Stempeck asked if the developer would be paying the \$10,000 difference. Mr. Jaffari replied in the affirmative.

Mr. Pacino made a motion, seconded by Mr. Stempeck, that proposal 2018-38 for Pad Mounted Transformers be awarded to: **WESCO Distribution, Inc.** for **\$33,540.00** and **Howard Industries, Inc. c/o Power Supply Sales Group** for **\$74,089.00**, for a total of **\$107,629.00**, pursuant to M.G.L. c. 164 Section 56D on the recommendation of the General Manager.

**Motion Passed: 5:0:0.**

##### **IFB 2018-40 Janitorial Services**

Mr. Jaffari explained that the two lowest bids were from vendors who RMLD had previously had to end contracts with early.

### **IFB 2018-40 Janitorial Services**

Mr. O'Rourke asked for clarification on the contract details.

Mr. Jaffari explained that this was to have the office cleaned every day. Ms. O'Brien stated that large areas were removed that just required sweeping because the vendors charged per square foot. That will be done in-house.

Mr. Kelley asked Mr. Jaffari if RMLD provides the cleaning supplies. Mr. Jaffari answered in the affirmative. Mr. Kelley stated that Wilmington schools uses the same service. There were some communication issues, but a translator app solved the problem.

Mr. Pacino made a motion, seconded by Mr. Stempeck, that bid 2018-40 for Janitorial Services be awarded to: **S.J. Services, Inc.**, for **\$101,424.00**, pursuant to M.G.L., c. 30B, as the lowest responsive and responsible bidder, on the recommendation of the General Manager. This is a three-year contract.

**Motion Passed: 5:0:0.**

### **General Discussion**

Meeting dates were discussed.

### **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.

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

# ELECTRIC VEHICLE PILOT PROGRAM ATTACHMENT 2



# RMLD PRESENTS: ELECTRIFY YOUR RIDE

ELECTRIC VEHICLE PILOT PROGRAM

RMLD BOARD OF COMMISSIONERS

JUNE 21, 2018

# ELECTRIC VEHICLE BASICS

- Savings of \$1,000s between cost of gasoline and price of electricity
- Reduces creation of greenhouse gas emissions in the transportation sector
- In New England, electricity production using natural gas and renewables creates a cleaner energy source for EVs

# GAS VERSUS ELECTRIC FUEL PRICE

- $25.2 \frac{\text{miles}}{\text{gallon}} \times 0.29 \frac{\text{kWh}}{\text{mile}} \times 0.16 \frac{\$}{\text{kWh}} = \$1.169 \text{ per eGallon}$
- Current average MA gas price is \$2.949 per gallon

	\$/kWh Rate	Price per eGallon
RMLD Residential TOU	0.13	\$0.95
RMLD Residential	0.16	\$1.17
Average IOU	0.23	\$1.68
Equivalent MA Gas Price	0.40	\$2.92

## SAVINGS USING ELECTRIC FUEL

- $100 \text{ miles} \times \frac{\text{gallon}}{25.2 \text{ miles}} \times \frac{\$2.949}{\text{gallon}} = \$11.70 =$   
*cost to drive 100 miles on gas*
- **\$1,404 annual spent on gasoline**
- $100 \text{ miles} \times \frac{0.29 \text{ kWh}}{\text{mile}} \times \frac{\$0.16}{\text{kWh}} = \$4.64 =$  *cost to drive 100 miles on electricity*
- **\$552 annual spent on electric fuel**
- **\$1,404 – \$552 = \$852 saved annually**

# TYPES OF ELECTRIC VEHICLES

Plug-in Electric Hybrid (PHEV)	Plug-in Electric Hybrid PLUS (PHEV+)	Battery Electric Vehicle (BEV)
<ul style="list-style-type: none"><li>• Has both battery and conventional gas engine; uses gas engine once battery is depleted</li><li>• Lower emissions than conventional gas-only vehicles</li><li>• Battery capacity less than 10 kWh</li></ul>	<ul style="list-style-type: none"><li>• Same characteristics as PHEV except battery capacity</li><li>• PLUS indicates a battery capacity GREATER than 10 kWh</li></ul>	<ul style="list-style-type: none"><li>• 100% electric</li><li>• Zero tail-pipe emissions</li></ul>



# CHARGING BASICS

- Many customers choose to charge at home using Level 1 or Level 2 charging facilities
- Level 2 charging style is also known as “Destination Charging”

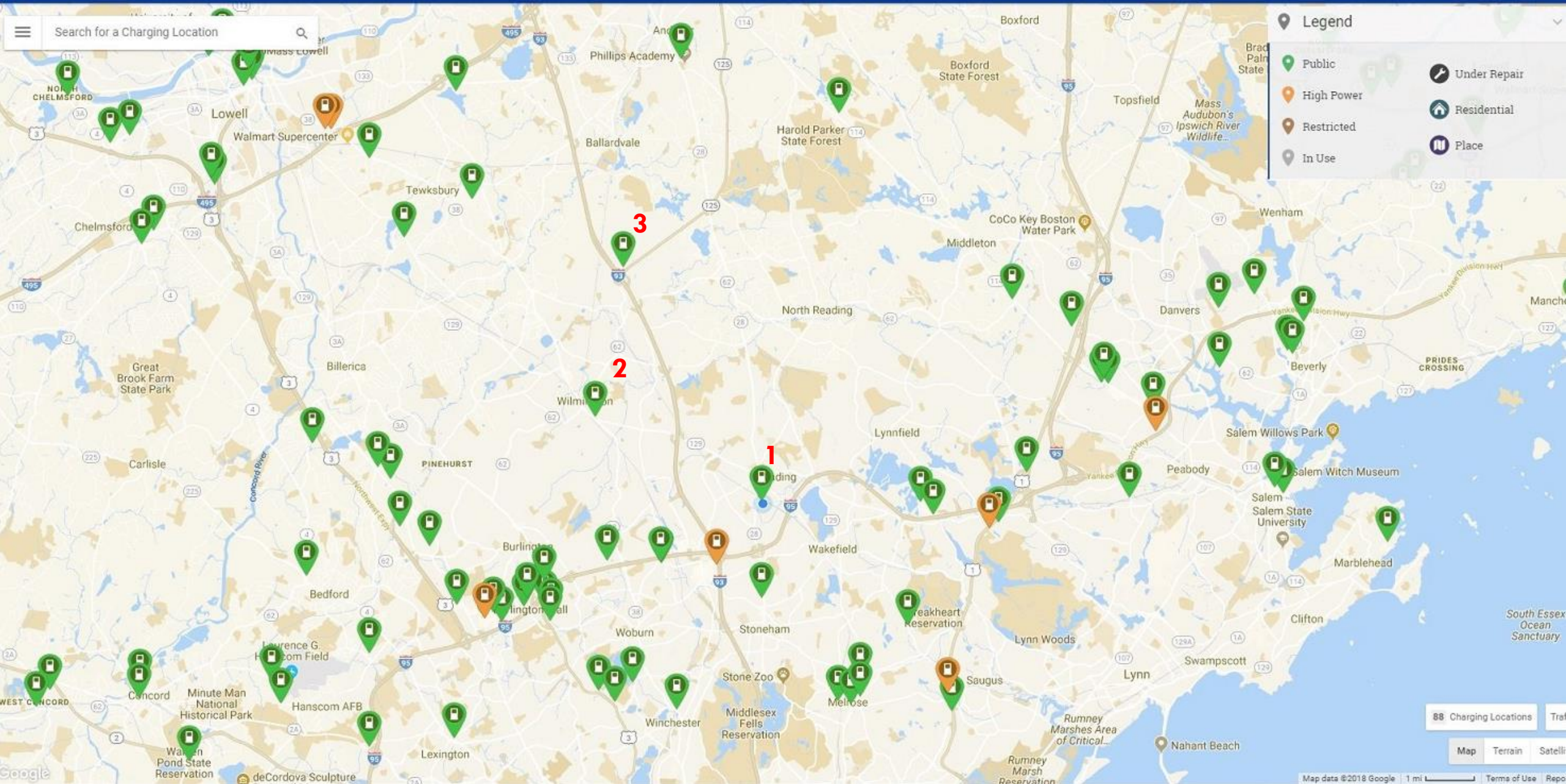
Types of Charging	AC Level 1	AC Level 2	DC Fast Charge
Description	Standard Household Outlet	Charging Station	Charging Station
Power Level	120 volts	240 volts	480 volts
Range to Charge Ratio	2-5 miles per 1hr charge	10-20 miles per 1hr charge	60-80 miles per 20 min charge

# CHARGING ON THE ROAD

- Public charging stations are becoming more popular and can be found at:
  - Hotels
  - Shopping Centers
  - Public parking lots
  - Parking Garages
- Charging stations can be located while traveling using services such as:
  - PlugShare
  - Alternative Fuels Data Center (US Dept. of Energy)
  - ChargePoint
  - EVgo



# PLUGSHARE MAP OF RMLD TERRITORY



# REBATES AND INCENTIVES

- Federal Tax Credit of \$2,500 to \$7,500 depending on capacity of battery
- MOR-EV State rebate of \$1,000 to \$2,500 depending on type of vehicle
- Mass Energy Alliance *Drive Green* Program has secured discounts at partnered dealerships throughout the state
- RMLD's pilot incentive program of \$1,000 for PHEV+s and \$1,500 BEVs



## BENEFITS TO RMLD

- Average Level 2 charger uses between 200-300 kWh per month
- Annual revenue between \$300-\$600
- Contributes to RMLD's "Be Efficient. Get Greener. Go Paperless" campaign
- Updated residential EV charger rebate program encourages installation of networked chargers

# RMLD PLUG-IN ELECTRIC VEHICLE REBATE PROGRAMS

Residential Customers

Plug-in Electric Vehicle Pilot Rebate Program: June 1, 2018 – October 31, 2018

Electric Vehicle Type	New	Used
Plug-in Hybrid Electric Vehicle PLUS (PHEV+)*	\$1,000	--
Battery Electric Vehicle (BEV)	\$1,500	\$1,500

\*PHEV+ is a plug-in hybrid electric vehicle with an on-board battery capacity greater than 10 kWh.

## Updated Residential EV Charging Station Rebate:

100% of equipment costs up to \$500 for the home installation of a level 2 networked (or "smart") charging station

# MARKETING

- Educational article series Electrify Your Ride published in newspapers, the Patch, and on Twitter
- Info on billing envelopes and emails
- Ride and Drive Event: July 15th

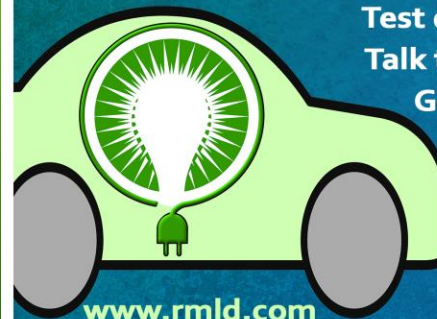
## Plug-in Electric Vehicle RIDE AND DRIVE EVENT

**Sunday, July 15, 2018**  
**10:00 am - 2:00 pm**

**SWAIN GREEN**  
**Middlesex Ave., Wilmington**  
**(across from the Town Common)**

To take place with the Wilmington Farmers Market

View an assortment of Plug-in Electric Vehicles  
Test drive a variety of EV makes and models  
Talk to dealers, vendors and current owners  
Get info on available incentive programs  
Learn about rebates offered by RMLD  
Enjoy snacks and enter our raffle!



[www.rmld.com](http://www.rmld.com)

RMLD



POWER SUPPLY REPORT  
APRIL 2018  
ATTACHMENT 3



*BOARD OF COMMISSIONERS MEETING*  
*June 21, 2018*

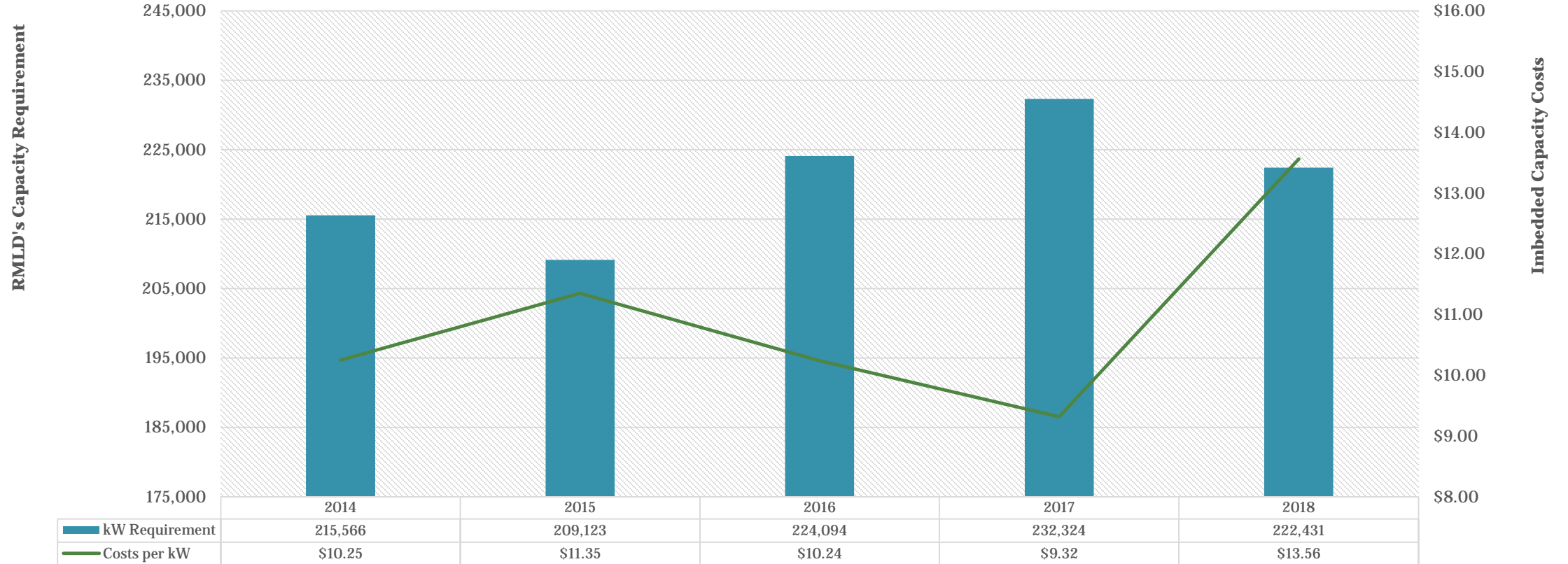
*Jane Parenteau, Director of Integrated Resources*

*REPORTING FOR APRIL, 2018*

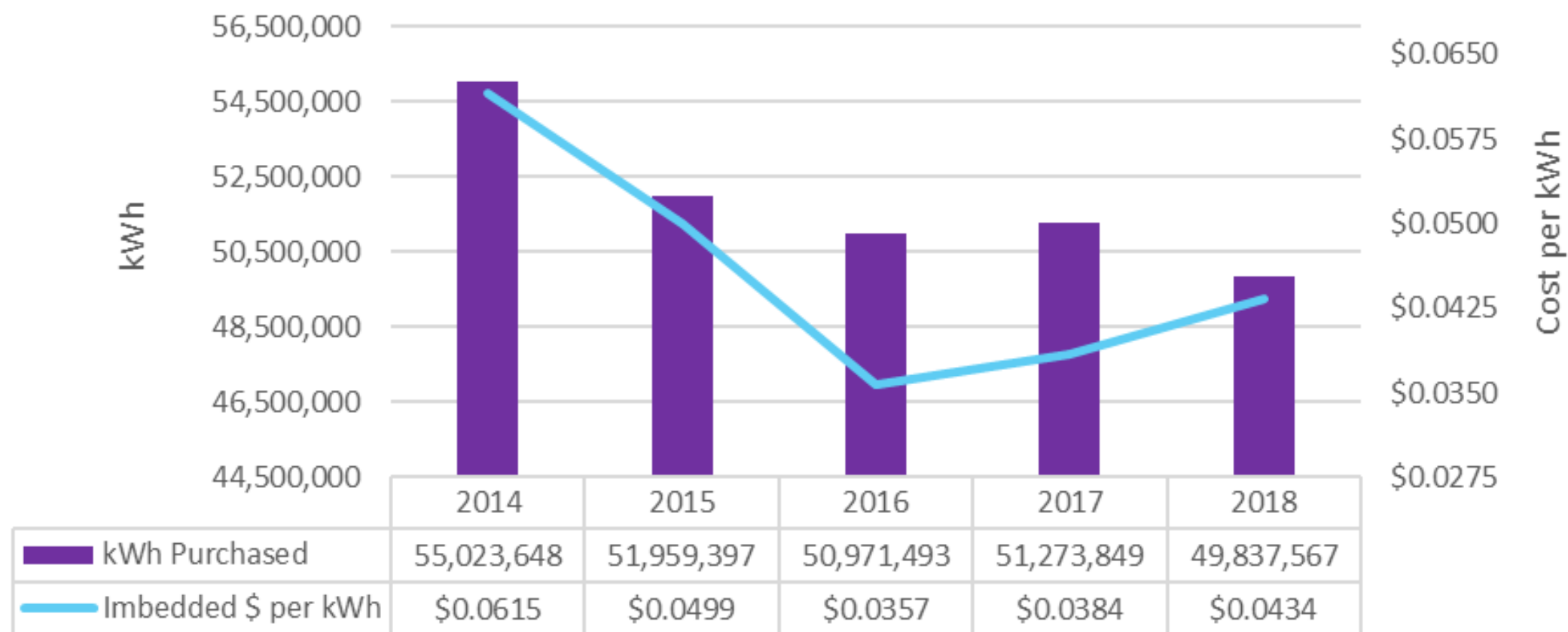
# Capacity Requirement and Imbedded Costs

## April

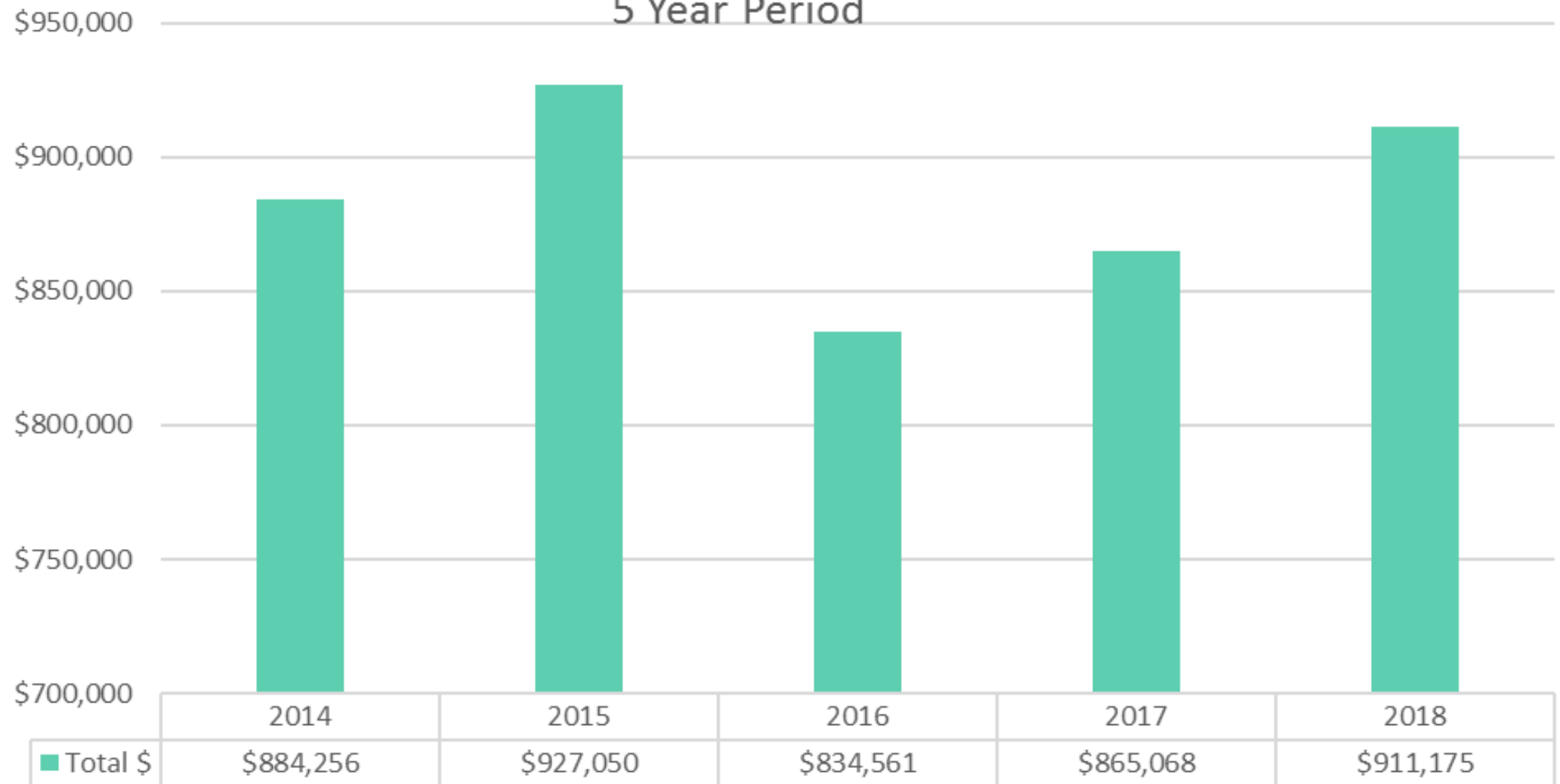
### 2014 - 2018



# Purchased kWh and Imbedded Cost per kWh April 5 year period



Tranmission Costs  
April  
5 Year Period



To: Coleen O'Brien

From:  Maureen McHugh, Jane Parenteau 

Date: June 8, 2018

Subject: Purchase Power Summary – April, 2018

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

### **ENERGY**

The RMLD's total metered load for the month was 49,409,400, which is a 1.89% decrease from the April, 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	3,578,097	\$6.38	7.18%	\$22,822	1.05%
Seabrook	5,720,886	\$5.92	11.48%	\$33,868	1.57%
Stonybrook Intermediate	202,804	\$82.72	0.41%	\$16,777	0.78%
Shell Energy	7,416,000	\$57.14	14.88%	\$423,717	19.59%
NYPA	1,974,142	\$5.34	3.96%	\$10,535	0.49%
Nextera	0	\$0.00	0.00%	\$0	0.00%
ISO Interchange	12,475,268	\$61.64	25.03%	\$768,920	35.54%
Nema Congestion	-	\$0.00	0.00%	-\$59,324	-2.74%
Coop Resales	16,259	\$145.45	0.03%	\$2,365	0.11%
EDF	1,852,800	\$31.59	3.72%	\$58,528	2.71%
Hydro Projects*	6,370,215	\$67.90	12.78%	\$432,518	19.99%
Braintree Watson Unit	309,341	-\$216.14	0.62%	-\$66,862	-3.09%
Saddleback/Jericho Wind	2,044,600	\$100.40	4.10%	\$205,283	9.49%
Community Solar	663,337	\$73.19	1.33%	\$48,552	2.24%
Exelon	7,200,000	\$36.53	14.45%	\$263,002	12.16%
Stonybrook Peaking	13,818	\$194.95	0.03%	\$2,694	0.12%
Monthly Total	49,837,567	\$43.41	100.00%	\$2,163,394	100.00%

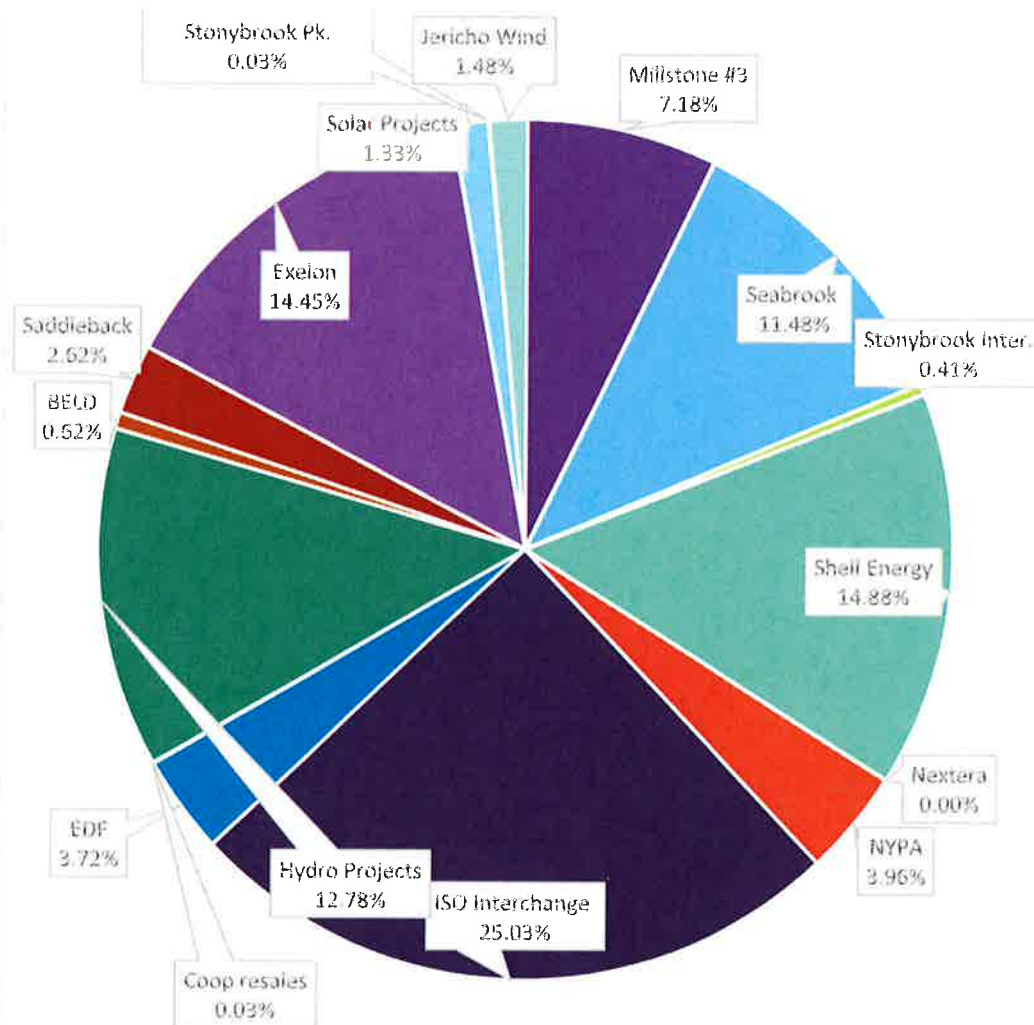
*\*Pepperell, Woronoco, Indian River, Turner Falls, Collins, Pioneer, Hosiery Mills, Aspinook Hydro*

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

Resource	Amount of Energy (kWh)	Cost of Energy (\$/Mwh)	% of Total Energy
ISO DA LMP * Settlement	23,044,177	\$52.48	46.24%
RT Net Energy ** Settlement	(10,568,909)	\$41.11	-21.21%
ISO Interchange (subtotal)	12,475,268	\$61.64	25.03%

\* Independent System Operator Day-Ahead Locational Marginal Price

### APRIL 2018 ENERGY BY RESOURCE



## CAPACITY

The RMLD hit a demand of 86,933 kW, which occurred on April 15, at 9 pm. The RMLD's monthly UCAP requirement for April, 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	24.80	\$122,766	5.84%
Seabrook	7,909	18.90	\$149,509	7.12%
Stonybrook Peaking	24,980	1.95	\$48,591	2.31%
Stonybrook CC	42,925	3.34	\$143,494	6.83%
NYPA	0	0.00	-\$17,969	-0.86%
Hydro Quebec	0	0	-\$34,012	-1.62%
Saddleback	0	0	-\$23,254	-1.11%
Braintree Watson Unit	0	0.00	\$41,546	1.98%
ISO-NE Supply Auction	141,667	11.79	\$1,670,544	79.50%
<b>Total</b>	<b>222,431</b>	<b>\$9.45</b>	<b>\$2,101,216</b>	<b>100.00%</b>

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

**Table 4**

Resource	Energy	Capacity	Total cost	% of Total Cost	Amt of Energy (kWh)	Cost of Power (\$/kWh)
Millstone #3	\$22,822	\$122,766	\$145,588	3.41%	3,578,097	0.0407
Seabrook	\$33,868	\$149,509	\$183,377	4.30%	5,720,886	0.0321
Stonybrook Intermediate	\$16,777	\$143,494	\$160,271	3.76%	202,804	0.7903
Hydro Quebec	\$0	-\$34,012	-\$34,012	-0.80%	-	0.0000
Shell Energy	\$423,717	\$0	\$423,717	9.94%	7,416,000	0.0571
NextEra/EDF	\$0	\$0	\$0	0.00%	-	0.0000
* NYPA	\$10,535	-\$17,969	-\$7,434	-0.17%	1,974,142	-0.0038
ISO Interchange	\$768,920	\$1,670,544	\$2,439,464	57.20%	12,475,268	0.1955
Nema Congestion	-\$59,324	\$0	-\$59,324	-1.39%	-	0.0000
EDF	\$58,528	\$0	\$58,528	1.37%	1,852,800	0.0316
* Hydro Projects	\$432,518	\$0	\$432,518	10.14%	6,370,215	0.0679
Braintree Watson Unit	-\$66,862	\$41,546	-\$25,315	-0.59%	309,341	-0.0818
* Saddleback/Jericho	\$205,283	-\$23,254	\$182,029	4.27%	2,044,600	0.0890
* Burlington & Community Solar	\$48,552	\$0	\$48,552	1.14%	663,337	0.0732
Coop Resales	\$2,365	\$0	\$2,365	0.06%	16,259	0.1455
Exelon Energy	\$263,002	\$0	\$263,002	6.17%	7,200,000	0.0365
Stonybrook Peaking	\$2,694	\$48,591	\$51,285	1.20%	13,818	3.7115
<b>Monthly Total</b>	<b>\$2,163,394</b>	<b>\$2,101,216</b>	<b>\$4,264,610</b>	<b>100.00%</b>	<b>49,837,567</b>	<b>0.0856</b>

\*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 April, as well as their estimated market value.

<b>Table 5</b> <b>RECs Summary</b> <b>Period - January 2018 - April 2018</b>				
	<b>Banked RECs</b>	<b>Projected RECs</b>	<b>Total RECs</b>	<b>Est. Dollars</b>
<b>Woronoco</b>	1,491	2,479	3,970	\$27,416
<b>Pepperell</b>	461	1,190	1,651	\$11,402
<b>Indian River</b>	841	1,193	2,034	\$14,047
<b>Turners Falls</b>	631	749	1,380	\$9,530
<b>Saddleback</b>	4,108	7,554	11,662	\$80,538
<b>Jericho</b>	2496	5,703	8,199	\$56,623
<b>Sub total</b>	<b>10,028</b>	<b>18,868</b>	<b>28,896</b>	<b>199,557</b>
<b>RECs Sold</b>			0	\$0
<b>Grand Total</b>	<b>10,028</b>	<b>18,868</b>	<b>28,896</b>	<b>\$199,557</b>

## **TRANSMISSION**

The RMLD's total transmission costs for the month of April, 2018 were \$911,175. This is a decrease of 1.73% from the March transmission cost of \$927,237. In April, 2017 the transmission costs were \$865,068.

<b>Table 6</b>			
	<b>Current Month</b>	<b>Last Month</b>	<b>Last Year</b>
<b>Peak Demand (kW)</b>	86,933	90,379	90,372
<b>Energy (kWh)</b>	49,837,567	54,926,092	51,273,849
<b>Energy (\$)</b>	\$2,163,394	\$2,668,846	\$2,246,093
<b>Capacity (\$)</b>	\$2,101,216	\$1,869,640	\$1,480,081
<b>Transmission(\$)</b>	\$911,175	\$927,237	\$865,068
<b>Total</b>	<b>\$5,175,786</b>	<b>\$5,465,722</b>	<b>\$4,591,243</b>



FINANCIAL REPORT  
APRIL 2018  
ATTACHMENT 4

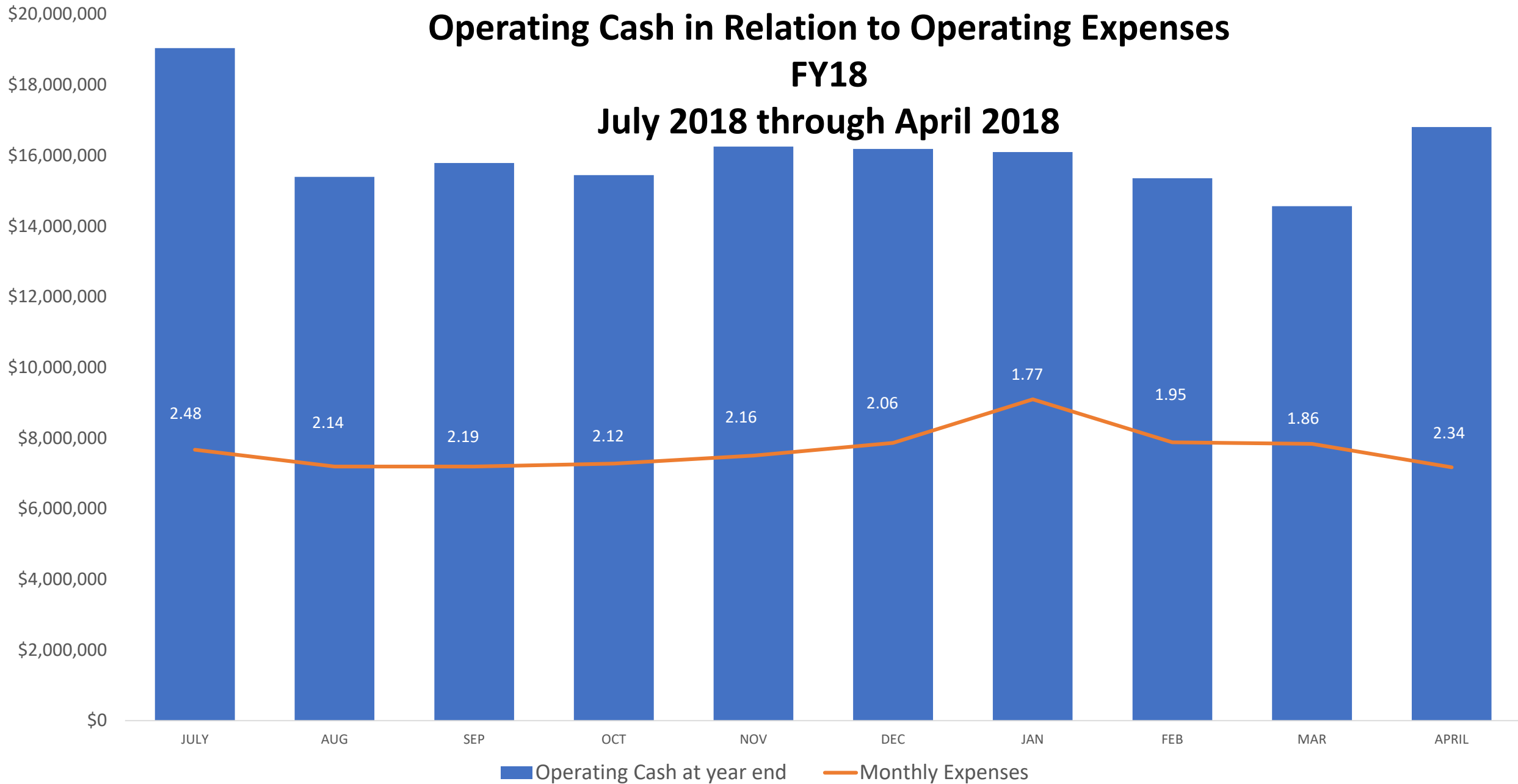
# **FINANCIAL REPORT**

## **APRIL 2018**

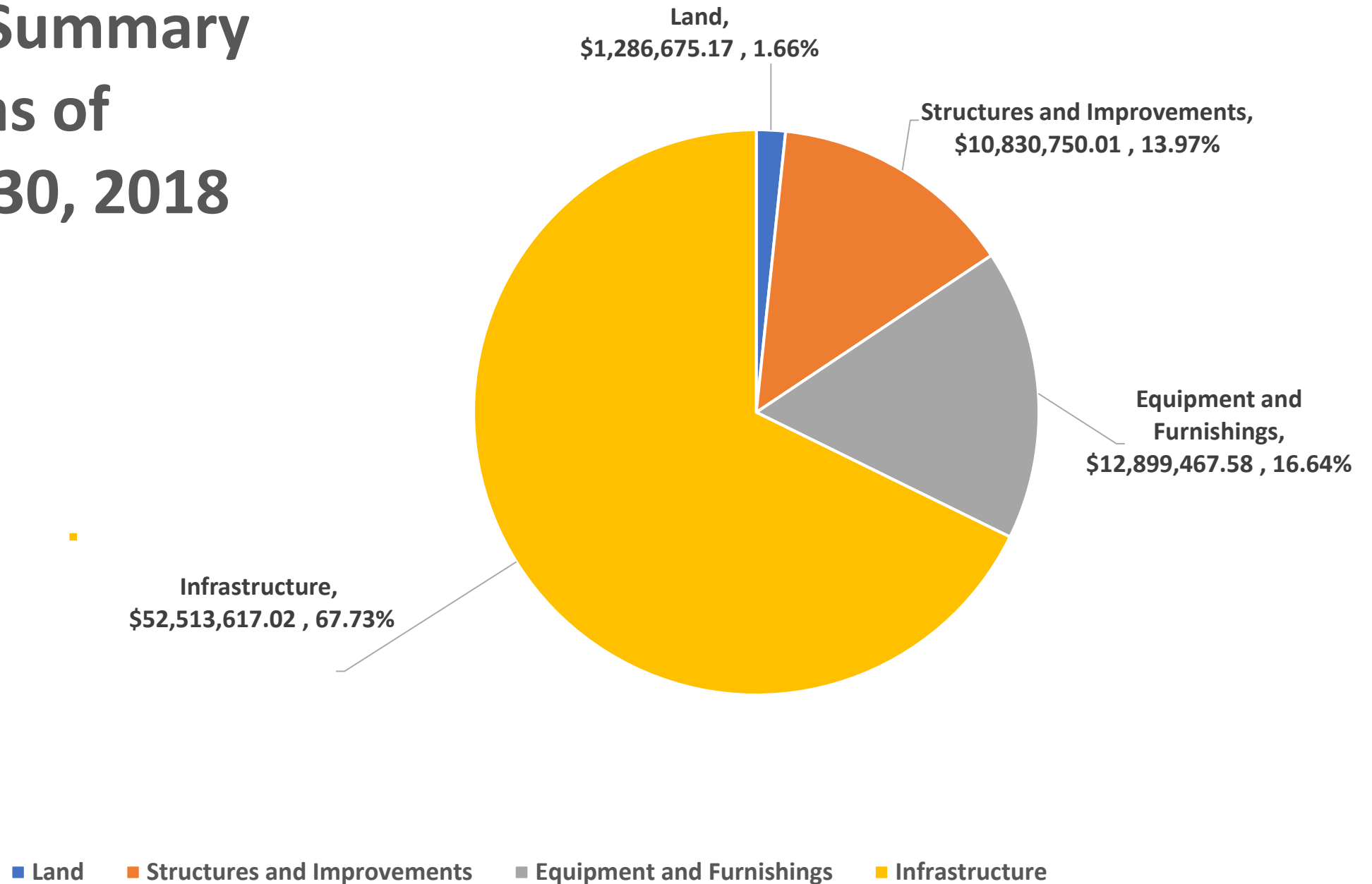
**Presented June 21, 2018**

# Operating Cash in Relation to Operating Expenses FY18

July 2018 through April 2018

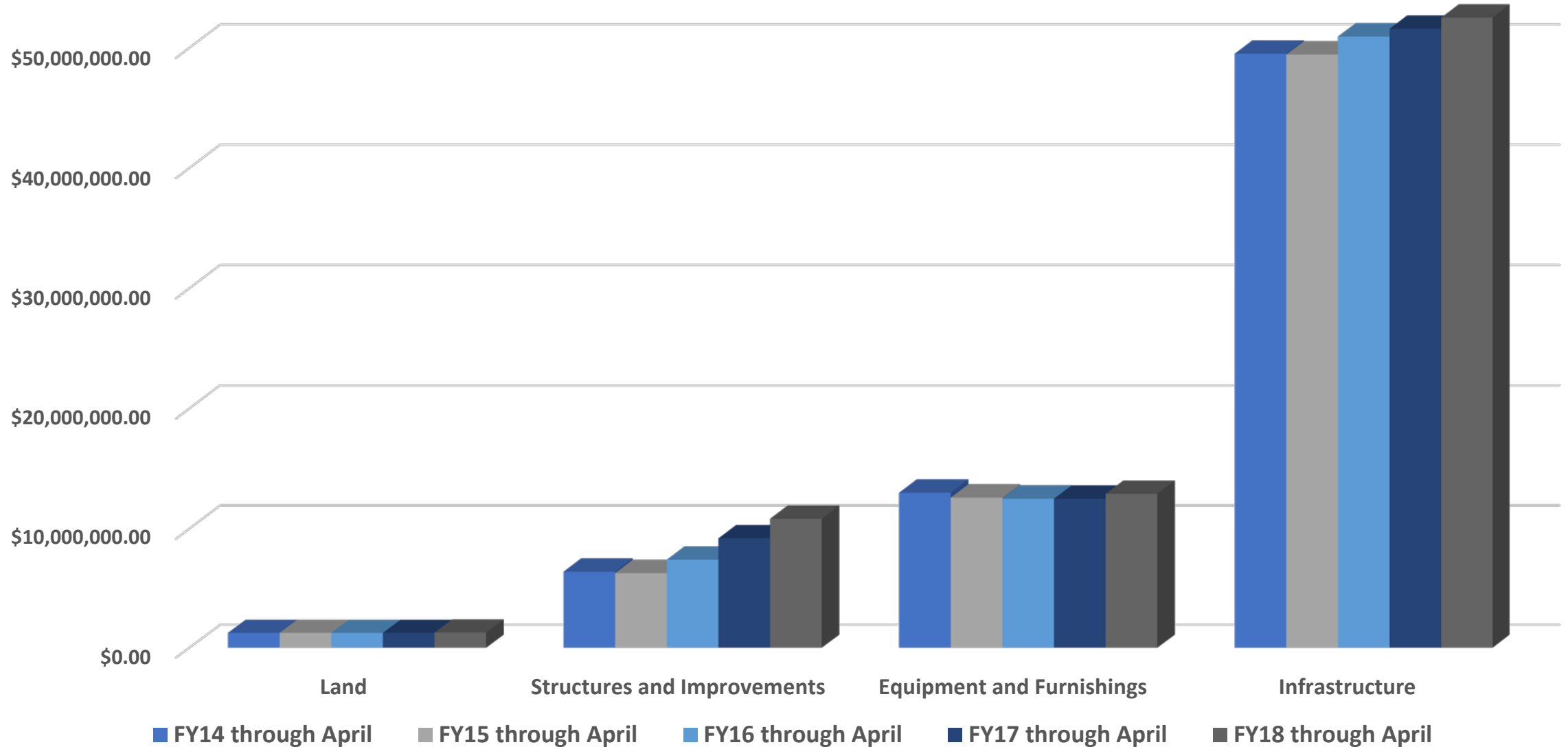


# Plant Summary as of April 30, 2018

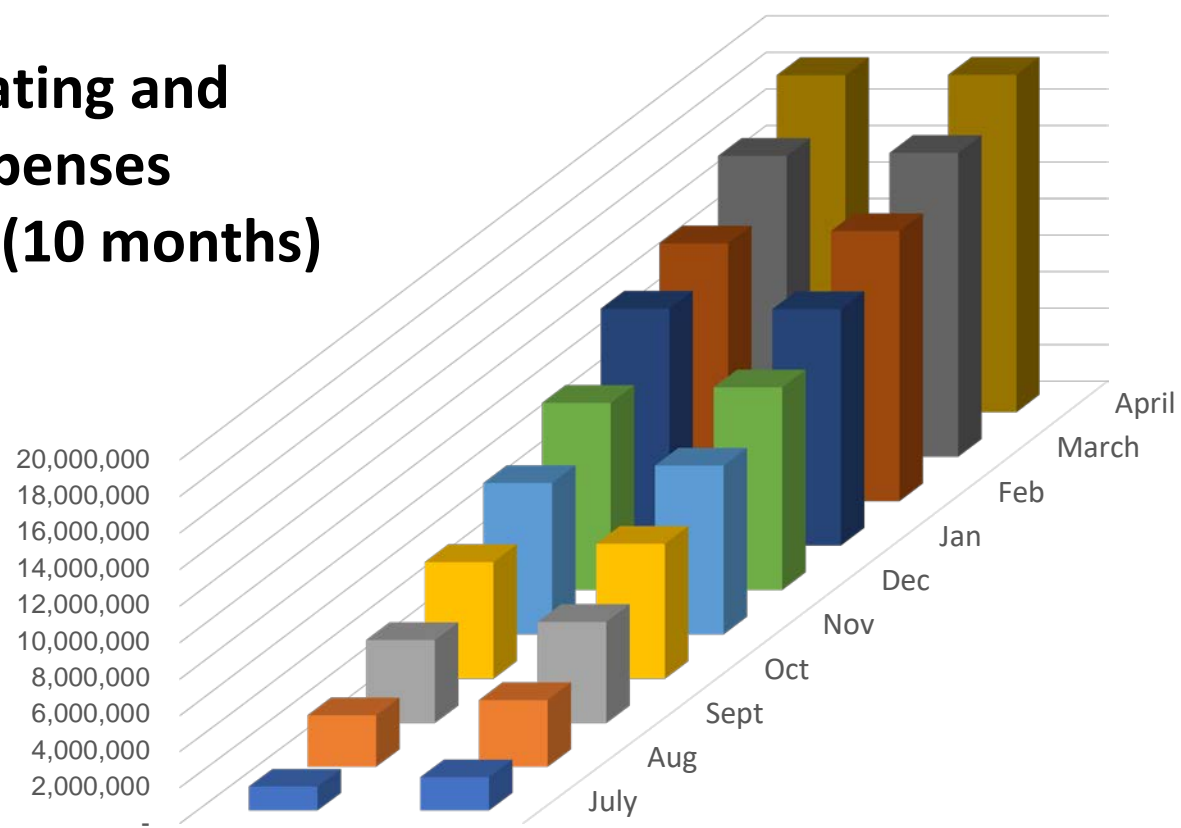


# Plant Comparison

## July-April FY14 through FY18



# Year to Date Operating and Maintenance Expenses July 2017 – April 2018 (10 months)



	Year to Date Actual	Year to Date Budget
July	\$1,327,675	\$1,847,088
Aug	\$2,859,053	\$3,694,177
Sept	\$4,548,252	\$5,541,265
Oct	\$6,385,102	\$7,388,354
Nov	\$8,282,985	\$9,235,442
Dec	\$10,239,188	\$11,082,530
Jan	\$12,962,188	\$12,929,618
Feb	\$14,103,851	\$14,776,706
March	\$16,458,083	\$16,623,794
April	\$18,447,913	\$18,470,880

Town of Reading, Massachusetts  
Municipal Light Department  
Statement of Net Assets  
April 30, 2018

	<b><u>2018</u></b>	<b><u>2017</u></b>
<b>ASSETS</b>		
Current:		
Unrestricted Cash	\$ 16,809,424.80	\$ 16,732,601.94
Restricted Cash	29,398,890.06	23,163,230.55
Restricted Investments	1,329,906.48	1,345,663.06
Receivables, Net	9,940,793.55	9,280,239.74
Prepaid Expenses	1,308,267.72	1,211,554.34
Inventory	1,506,763.76	1,747,116.76
Total Current Assets	<u>60,294,046.37</u>	<u>53,480,406.39</u>
Noncurrent:		
Investment in Associated Companies	212,427.92	144,418.75
Capital Assets, Net	<u>77,530,509.78</u>	<u>74,553,612.61</u>
Total Noncurrent Assets	<u>77,742,937.70</u>	<u>74,698,031.36</u>
Deferred Outflows - Pension Plan	<u>4,135,078.00</u>	<u>6,338,218.00</u>
<b>TOTAL ASSETS</b>	<b><u>142,172,062.07</u></b>	<b><u>134,516,655.75</u></b>
<b>LIABILITIES</b>		
Current		
Accounts Payable	10,475,233.14	8,308,638.70
Accrued Liabilities	570,638.88	521,307.43
Customer Deposits	1,166,545.16	1,059,852.38
Customer Advances for Construction	<u>1,553,636.97</u>	<u>1,113,504.74</u>
Total Current Liabilities	<u>13,766,054.15</u>	<u>11,003,303.25</u>
Non-current		
Accrued Employee Compensated Absences	3,150,134.05	3,257,809.00
Net OPEB Obligation	138,068.00	0.00
Net Pension Liability	<u>13,076,538.00</u>	<u>8,833,549.00</u>
Total Non-current Liabilities	<u>16,364,740.05</u>	<u>12,091,358.00</u>
Deferred Inflows - Pension Plan	<u>714,888.00</u>	<u>883,172.00</u>
<b>TOTAL LIABILITIES</b>	<b><u>30,845,682.20</u></b>	<b><u>23,977,833.25</u></b>
<b>NET POSITION</b>		
Invested in Capital Assets, Net of Related Debt	77,530,509.78	74,553,612.61
Restricted for Depreciation Fund	4,784,537.48	3,735,499.09
Restricted for Pension Trust	5,683,014.26	0.00
Unrestricted	<u>23,328,318.35</u>	<u>32,249,710.80</u>
<b>TOTAL NET POSITION</b>	<b><u>111,326,379.87</u></b>	<b><u>110,538,822.50</u></b>
Total Liabilities and Net Assets	<b><u>\$ 142,172,062.07</u></b>	<b><u>\$ 134,516,655.75</u></b>

Town of Reading, Massachusetts  
Municipal Light Department  
Schedule of Cash and Investments  
April 30, 2018

	<b><u>2018</u></b>	<b><u>2017</u></b>
Unrestricted Cash		
Cash - Operating Fund	\$ 16,805,924.80	\$ 16,729,601.94
Cash - Petty Cash	3,500.00	3,000.00
Total Unrestricted Cash	<u>16,809,424.80</u>	<u>16,732,601.94</u>
Restricted Cash		
Cash - Depreciation Fund	4,784,537.48	3,735,499.09
Cash - Town Payment	3,284,991.70	3,167,223.30
Cash - Deferred Fuel Reserve	4,100,833.65	5,351,992.27
Cash - Rate Stabilization Fund	6,965,780.99	6,868,426.03
Cash - Pension Trust	5,683,014.26	0.00
Cash - Uncollectible Accounts Receivable	200,000.00	200,000.00
Cash - Sick Leave Benefits	1,872,372.29	1,959,101.17
Cash - Hazard Waste Reserve	750,000.00	150,000.00
Cash - Customer Deposits	1,166,545.16	1,059,852.38
Cash - Energy Conservation	590,814.53	671,136.31
Total Restricted Cash	<u>29,398,890.06</u>	<u>23,163,230.55</u>
Investments		
Sick Leave Buyback	1,329,906.48	1,345,663.06
Total	<u><u>\$ 47,538,221.34</u></u>	<u><u>\$ 41,241,495.55</u></u>



Town of Reading, Massachusetts  
Municipal Light Department  
Capital Funds  
April 30, 2018

SOURCE OF CAPITAL FUNDS:

DEPRECIATION FUND BALANCE 7/1/17	\$ 2,406,969.15
CONSTRUCTION FUND BALANCE 7/1/17	2,500,000.00
ADDITIONAL FUNDS ADDED TO CONSTRUCTION FUND BALANCE 12/31/17	1,200,000.00
INTEREST ON DEPRECIATION FUND FY 18	54,085.27
DEPRECIATION TRANSFER FY 18	3,588,324.20
WEST STREET - MASS DOT FINAL PAYMENT	<u>43,056.31</u>
TOTAL SOURCE OF CAPITAL FUNDS	9,792,434.93

USE OF CAPITAL FUNDS:

ADDITIONS TO PLANT THRU FEBRUARY 2018	
TOTAL USE OF CAPITAL FUNDS	5,007,897.45
GENERAL LEDGER CAPITAL FUNDS BALANCE 2/28/18	<u><u>\$ 4,784,537.48</u></u>

Town of Reading, Massachusetts  
Municipal Light Department  
Statement of Revenues, Expenses and Changes in Fund Net Assets  
April 30, 2018

	Month Current Year	Month Last Year	Year to Date Current Year	Year to Date Last Year	Percent Change
<b>Operating Revenue</b>					
Base Revenue	\$ 2,022,572.18	\$ 1,967,986.05	\$ 21,902,089.11	\$ 21,660,073.62	1.1%
Fuel Revenue	2,872,585.91	2,515,317.41	25,581,390.98	28,651,294.69	(10.7%)
Purchased Power Capacity & Transmission	3,260,120.58	2,261,243.85	33,140,474.66	28,205,973.31	17.5%
Forfeited Discounts	60,330.55	55,818.63	703,053.30	715,829.74	(1.8%)
Energy Conservation Revenue	49,698.94	49,722.90	550,738.77	563,582.67	(2.3%)
NYPA Credit	(142,206.61)	(102,989.58)	(1,027,593.85)	(983,161.27)	4.5%
Total Operating Revenue	8,123,101.55	6,747,099.26	80,850,152.97	78,813,592.76	2.6%
<b>Expenses</b>					
<b>Power Expenses:</b>					
555 Purchased Power Fuel Expense	2,165,605.35	2,246,093.01	26,325,029.81	27,419,007.02	(4.0%)
555 Purchased Power Capacity	2,105,017.57	1,023,055.51	21,334,937.76	15,857,435.71	34.5%
565 Purchased Power Transmission	911,175.30	865,068.44	11,707,368.75	10,941,737.92	7.0%
Total Purchased Power	5,181,798.22	4,134,216.96	59,367,336.32	54,218,180.65	9.5%
<b>Operations and Maintenance Expenses:</b>					
580 Supervision and Engineering	43,264.23	47,094.08	495,400.42	352,304.47	40.6%
581 Station Supervision	11,198.51	13,656.73	131,176.26	120,248.51	9.1%
581 Line General	62,668.64	79,627.04	570,562.71	571,338.36	(0.1%)
582 Control Room	43,115.13	31,147.90	355,228.36	374,291.65	(5.1%)
585 Street Lighting	25,736.99	6,186.80	114,185.08	160,452.49	(28.8%)
586 Meter General	8,729.73	24,100.76	190,970.96	181,613.68	5.2%
588 Materials Management	37,187.36	46,506.08	462,093.94	382,437.05	20.8%
590 Maintenance of Structures and Equipment	41,988.06	97,936.64	423,733.42	460,387.06	(8.0%)
593 Maintenance of Lines - Overhead	230,909.44	108,938.51	1,574,672.73	1,590,375.33	(1.0%)
594 Maintenance of Lines - Underground	1,523.02	6,529.20	56,316.75	205,478.51	(72.6%)
595 Maintenance of Line Transformers	23,757.31		119,444.18	28,387.28	320.8%
Total Operations and Maintenance Expenses	530,078.42	461,723.74	4,493,784.81	4,427,314.39	1.5%
<b>General &amp; Administration Expenses:</b>					
902 Meter Reading	941.51	801.61	30,247.76	18,002.99	68.0%
903 Customer Collections	127,181.82	148,769.25	1,392,095.67	1,340,409.46	3.9%
904 Uncollectible Accounts	12,500.00	12,500.00	125,000.00	125,000.00	0.0%
916 Energy Audit	47,014.95	53,750.22	394,860.52	431,259.87	(8.4%)
916 Energy Conservation	25,243.49	37,628.69	562,857.55	609,864.60	(7.7%)
920 Administrative and General Salaries	78,273.14	95,720.78	897,419.42	802,384.64	11.8%
921 Office Supplies and Expense	35,447.74	29,687.05	277,742.81	261,717.54	6.1%
923 Outside Services	39,211.61	124,433.80	684,579.18	570,145.98	20.1%
924 Property Insurance	28,372.95	6,774.29	281,971.58	279,292.79	1.0%
925 Injuries and Damages	5,409.27	6,946.13	53,544.26	53,635.12	(0.2%)
926 Employee Pensions and Benefits	431,887.27	365,392.66	3,397,752.40	3,072,950.46	10.6%
930 Miscellaneous General Expense	27,016.97	5,530.16	107,416.99	115,426.17	(6.9%)
931 Rent Expense	18,380.27	16,132.92	165,329.94	148,753.03	11.1%
933 Vehicle Expense	20,217.59	(32,121.87)	230,424.78	-	(100.0%)
933 Vehicle Expense - Capital	(20,754.00)	-	(263,295.45)	-	100.0%
935 Maintenance of General Plant	50,164.91	15,570.71	335,049.86	234,371.09	43.0%
935 Maintenance of Building & Garage	47,557.74	53,617.50	455,631.15	454,230.65	0.3%
Total General & Administration Expenses	974,067.23	941,133.90	9,128,628.42	8,517,444.39	7.2%

Town of Reading, Massachusetts  
Municipal Light Department  
Statement of Revenues, Expenses and Changes in Fund Net Assets  
April 30, 2018

	Month Current Year	Month Last Year	Year to Date Current Year	Year to Date Last Year	Percent Change
Other Operating Expenses:					
403 Depreciation	358,832.42	341,775.67	3,588,324.20	3,417,756.70	5.0%
408 Voluntary Payments to Towns	126,851.67	118,000.00	1,237,175.68	1,175,372.00	5.3%
Total Other Expenses	485,684.09	459,775.67	4,825,499.88	4,593,128.70	5.1%
Operating Income	951,473.59	750,248.99	3,034,903.54	7,057,524.63	(57.0%)
Non Operating Revenue (Expenses):					
419 Interest Income	21,041.00	13,749.26	201,058.45	129,075.17	55.8%
419 Other	1,880.28	40,251.28	749,445.51	528,615.02	41.8%
426 Return on Investment to Reading	(201,647.50)	(198,722.33)	(2,016,475.00)	(1,987,223.32)	1.5%
431 Interest Expense	(437.65)	(179.63)	(10,612.07)	(3,656.24)	190.2%
Total Non Operating Revenue (Expenses)	(179,163.87)	(144,901.42)	(1,076,583.11)	(1,333,189.37)	(19.2%)
Change in Net Assets	772,309.72	605,347.57	1,958,320.43	5,724,335.26	(65.8%)
Net Assets at Beginning of Year	109,368,059.44	104,814,487.24	109,368,059.44	104,814,487.24	4.3%
Ending Net Assets	<u>\$ 110,140,369.16</u>	<u>\$ 105,419,834.81</u>	<u>\$ 111,326,379.87</u>	<u>\$ 110,538,822.50</u>	<u>0.7%</u>

Town of Reading, Massachusetts  
Municipal Light Department  
Statement of Budgeted Revenues, Expenses and Changes in Fund Net Assets  
April 30, 2018

	Actual Year to Date	Budget Full Year	Remaining Budget	Remaining Budget %
<b>Operating Revenue</b>				
Base Revenue	\$21,902,089.11	\$ 26,337,621.00	\$ 4,435,531.89	16.8%
Fuel Revenue	25,581,390.98	32,491,810.00	6,910,419.02	21.3%
Purchased Power Capacity	33,140,474.66	38,088,978.00	4,948,503.34	13.0%
Forfeited Discounts	703,053.30	800,000.00	96,946.70	12.1%
Energy Conservation Revenue	550,738.77	675,000.00	124,261.23	18.4%
NYPA Credit	(1,027,593.85)	(1,200,000.00)	(172,406.15)	14.4%
Total Operating Revenue	80,850,152.97	97,193,409.00	16,343,256.03	16.8%
<b>Expenses</b>				
<b>Power Expenses:</b>				
555 Purchased Power Fuel Expense	26,325,029.81	31,291,810.00	4,966,780.19	15.9%
555 Purchased Power Capacity	21,334,937.76	24,476,161.00	3,141,223.24	12.8%
565 Purchased Power Transmission	11,707,368.75	13,612,817.00	1,905,448.25	14.0%
Total Purchased Power	59,367,336.32	69,380,788.00	10,013,451.68	14.4%
<b>Operations and Maintenance Expenses:</b>				
580 Supervision and Engineering	495,400.42	764,615.00	269,214.58	35.2%
581 Station Supervisor	131,176.26	130,662.00	(514.26)	(0.4%)
581 Line General	570,562.71	596,007.00	25,444.29	4.3%
582 Control Room	355,228.36	466,783.00	111,554.64	23.9%
585 Street Lighting	114,185.08	156,893.00	42,707.92	27.2%
586 Meter General	190,970.96	212,909.00	21,938.04	10.3%
588 Materials Management	462,093.94	458,328.00	(3,765.94)	(0.8%)
590 Maintenance of Structures and Equipment	423,733.42	494,936.00	71,202.58	14.4%
593 Maintenance of Lines - Overhead	1,574,672.73	1,980,611.00	405,938.27	20.5%
594 Maintenance of Lines - Underground	56,316.75	197,002.00	140,685.25	71.4%
595 Maintenance of Line Transformers	119,444.18	300,000.00	180,555.82	60.2%
Total Operations and Maintenance Expenses	4,493,784.81	5,758,746.00	1,264,961.19	22.0%
<b>General &amp; Administration Expenses:</b>				
902 Meter Reading	30,247.76	37,461.00	7,213.24	19.3%
903 Customer Collection	1,392,095.67	1,869,393.00	477,297.33	25.5%
904 Uncollectible Accounts	125,000.00	150,000.00	25,000.00	16.7%
916 Energy Audit	394,860.52	509,232.00	114,371.48	22.5%
916 Energy Conservation	562,857.55	952,565.00	389,707.45	40.9%
920 Administrative and General Salaries	897,419.42	1,017,151.00	119,731.58	11.8%
921 Office Supplies and Expense	277,742.81	350,000.00	72,257.19	20.6%
923 Outside Services	684,579.18	759,191.00	74,611.82	9.8%
924 Property Insurance	281,971.58	427,200.00	145,228.42	34.0%
925 Injuries and Damages	53,544.26	52,613.00	(931.26)	(1.8%)
926 Employee Pensions and Benefits	3,397,752.40	3,000,437.00	(397,315.40)	(13.2%)
930 Miscellaneous General Expense	107,416.99	179,215.00	71,798.01	40.1%
931 Rent Expense	165,329.94	212,000.00	46,670.06	22.0%
933 Vehicle Expense	230,424.78	381,116.00	150,691.22	39.5%
933 Vehicle Expense - Capital	(263,295.45)	(301,596.00)	(38,300.55)	12.7%
935 Maintenance of General Plant	335,049.86	281,880.00	(53,169.86)	(18.9%)
935 Maintenance of Building & Garage	455,631.15	666,457.00	210,825.85	31.6%
Total General & Administration Expenses	9,128,628.42	10,544,315.00	1,415,686.58	13.4%

Town of Reading, Massachusetts  
Municipal Light Department  
Statement of Budgeted Revenues, Expenses and Changes in Fund Net Assets  
April 30, 2018

	Actual Year to Date	Budget Full Year	Remaining Budget	Remaining Budget %
Other Operating Expenses:				
403 Depreciation	3,588,324.20	4,362,000.00	773,675.80	17.7%
408 Voluntary Payments to Towns	1,237,175.68	1,500,000.00	262,824.32	17.5%
Total Other Expenses	4,825,499.88	5,862,000.00	1,036,500.12	17.7%
Operating Income	3,034,903.54	5,647,560.00	2,612,656.46	46.3%
Non Operating Revenue (Expenses):				
419 Interest Income	201,058.45	150,000.00	(51,058.45)	(34.0%)
419 Other Income	749,445.51	890,000.00	140,554.49	15.8%
426 Return on Investment to Reading/Loss on Disposal	(2,016,475.00)	(2,570,438.00)	(553,963.00)	21.6%
431 Interest Expense	(10,612.07)	(2,500.00)	8,112.07	(324.5%)
Total Non Operating Revenue (Expenses)	(1,076,583.11)	(1,532,938.00)	(456,354.89)	29.8%
Net Income	\$ 1,958,320.43	\$ 4,114,622.00	\$ 2,156,301.57	52.4%

ENGINEERING & OPERATIONS REPORT  
APRIL 2018  
ATTACHMENT 5



# Engineering & Operations Report

RMLD Board of Commissioners Meeting  
June 21, 2018

April 2018 Reporting Period

Hamid Jaffari, Director of Engineering & Operations

# Engineering & Operations

## Capital Improvement Projects

Project #	DESCRIPTION	% COMPLETE	APR	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%	54,789	327,739	196,285	(131,454)
103	Grid Modernization and Optimization	On-going	26,756	300,314	227,183	(73,131)
105	New Wilmington Substation	6%	4,313	47,180	650,000	602,820
106	Underground Facilities Upgrades (URDs, Manholes, etc.)	On-going		124,797	344,725	219,928
107	13.8kV Upgrade (Step-down Areas, etc.)	On-going	1,774	71,466	70,851	(615)
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%	60,300	60,561	206,817	146,256
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	68,204	341,713	560,500	218,787
117	Meter Purchases	On-going		15,963	60,000	44,037
125	GIS	100%	1,551	141,580	218,726	77,146
126	Communication Equipment (Fiber Optic)	On-going		-	214,629	214,629
130	Remote Terminal Unit (RTU) Replacement - Station 3	100%		27,164	-	(27,164)
131	LED Street Lights Upgrade - All Towns	100%	33,150	632,533	1,169,332	536,799
133	Station 3: Relay Upgrades and SCADA Integration	100%	1,030	27,518	76,103	48,585
137	Pole Line Upgrade - Woburn Street (West to Concord), W	50%	46,061	54,640	200,284	145,644
138	Station 3 Reactors	100%		162,295	561,347	399,052
175	Pole Replacement Program	On-going	13,806	75,352	209,000	133,648
458	Secondary and Main Replacement Program	On-going	54	77,156	222,285	145,129
various	New Service Installations (Residential/Commercial/Industrial)	On-going	12,966	117,096	155,936	38,840



# Engineering & Operations

## Routine Capital Construction

Description	APR	YTD
Pole Setting/Transfers	1,911	195,066
Overhead/Underground	23,893	286,970
Projects Assigned as Required <ul style="list-style-type: none"> <li>Voltage Regulators</li> </ul>	1,472	161,901
Pole Damage/Knockdowns - Some Reimbursable <ul style="list-style-type: none"> <li>Work was done to repair or replace one (1) pole.</li> </ul>	1,146	88,433
Station Group	166	12,886
Hazmat/Oil Spills	-	7,546
Porcelain Cutout Replacement Program	-	-
Lighting (Street Light Connections)	-	22,578
Storm Trouble	2,707	143,389
Underground Subdivisions (new construction) <ul style="list-style-type: none"> <li>Barton Estates, Reading</li> <li>Nichols Street Extension, North Reading</li> </ul>	21,256	95,115
Animal Guard Installation	-	415
Miscellaneous Capital Costs <ul style="list-style-type: none"> <li>CVS - 12-20 Main Street, North Reading</li> </ul>	20,974	190,764
<b>TOTAL</b>	<b>\$73,525</b>	<b>\$1,205,063</b>

## Facilities, IRD and IT Capital Projects/Purchases

	APR	ACTUAL YTD	FY18 BUDGET	REMAINING BALANCE
Facilities	\$5,563	\$167,120	\$657,000	\$489,880
Integrated Resources Division (IRD)	-	\$48,030	\$35,000	(\$13,030)
Information Technology (IT)	\$8,123	\$121,433	\$340,000	\$218,567

## TOTAL CAPITAL SPENDING YTD (All Divisions)

APR	YTD	FY18 BUDGET	REMAINING BALANCE
\$411,963	\$5,007,896	\$7,685,521	\$2,677,625



# Routine Maintenance

## ➡ Transformer Replacement (through April 2018)

Pad mount 29.02%

Overhead 20.34%

## ➡ Pole Inspection (as of 6/8/2018)

198 poles have been replaced

182 of 198 transfers have been completed

## ➡ Quarterly Inspection of Feeders (as of 6/15/2018)

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

## ➡ Manhole Inspection (through April 2018)

961 of 1,237 manholes have been inspected.

## ➡ Porcelain Cutout Replacement (through April 2018)

91% complete

242 remaining to be replaced



# Routine Maintenance

## (continued)

### ► Tree Trimming

Apr: 18 spans

YTD: 843 spans through April

### ► Substation Maintenance

Infrared Scanning – through April complete – no hot spots found

### ► 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

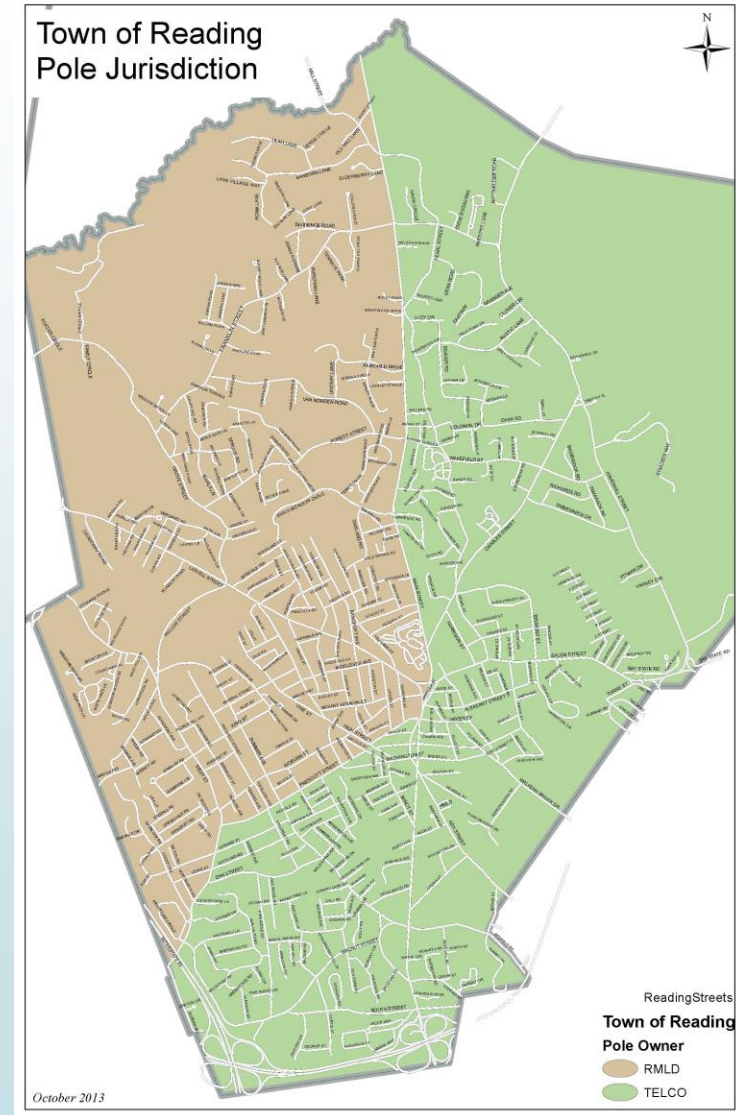
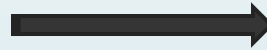
➤ Custodial:

Reading – split (see map)

North Reading – RMLD

Lynnfield – Verizon

Wilmington - Verizon



# NJUNS

"Next to Go" as of June 14, 2018

## LYNNFIELD

NTG Member and JobType	Count of Ticket Number
<b>CMCTNR</b>	<b>2</b>
Comcast Massachusetts TRANSFER	2
<b>LFLDFD</b>	<b>6</b>
Lynnfield Fire Department TRANSFER	6
<b>RMLD</b>	<b>21</b>
Reading Municipal Light Department TRANSFER	20
PULL POLE	1
<b>(blank)</b>	
<b>Grand Total</b>	<b>29</b>

## NORTH READING

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

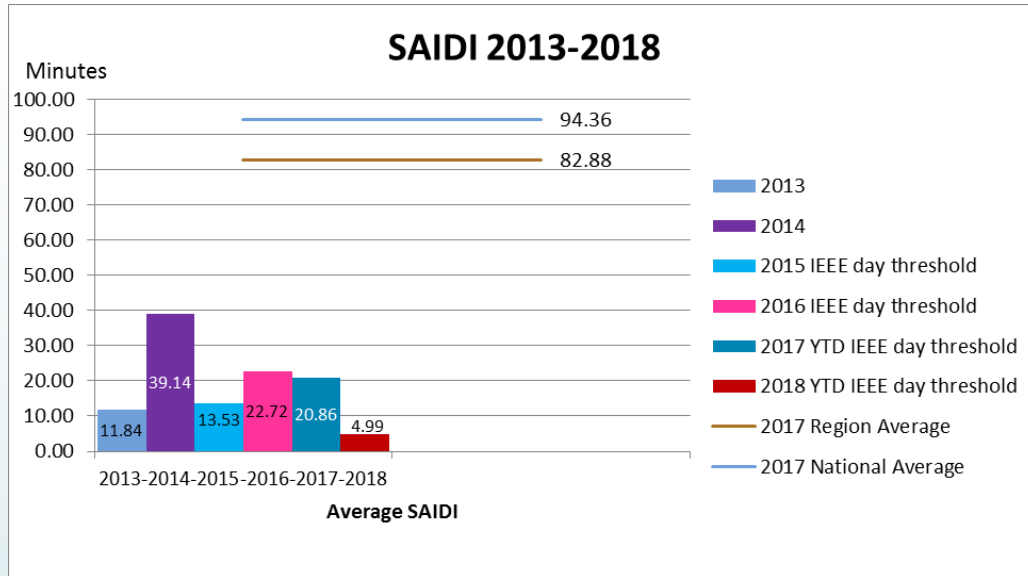
## READING

NTG Member and JobType	Count of Ticket Number
<b>CMCTNR</b>	<b>3</b>
Comcast Massachusetts TRANSFER	3
<b>NP3PMA</b>	<b>4</b>
Non-participating 3rd Party Attacher - Massachusetts TRANSFER	4
<b>RDNGFD</b>	<b>5</b>
Reading Fire Department TRANSFER	5
<b>RMLD</b>	<b>81</b>
Reading Municipal Light Department TRANSFER	27
PULL POLE	54
<b>(blank)</b>	
<b>Grand Total</b>	<b>93</b>

## WILMINGTON

NTG Member and JobType	Count of Ticket Number
<b>CMCTNR</b>	<b>70</b>
Comcast Massachusetts TRANSFER	70
<b>NP3PMA</b>	<b>5</b>
Non-participating 3rd Party Attacher - Massachusetts TRANSFER	5
<b>RMLD</b>	<b>39</b>
Reading Municipal Light Department TRANSFER	35
PULL POLE	4
<b>VZBMA</b>	<b>1</b>
Verizon Massachusetts Business TRANSFER	1
<b>VZNEDR</b>	<b>16</b>
Verizon Massachusetts TRANSFER	14
PULL POLE	2
<b>WLMFIB</b>	<b>12</b>
Town of Wilmington TRANSFER	12
<b>(blank)</b>	
<b>Grand Total</b>	<b>143</b>

# RMLD Reliability Indices

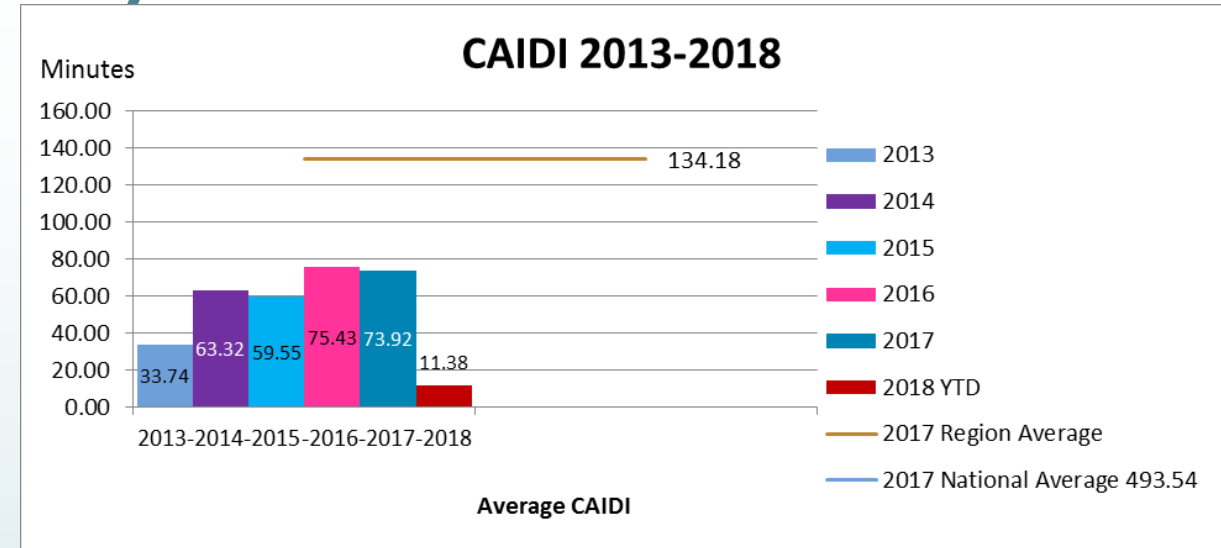


$$SAIDI \text{ (Minutes)} = \frac{\text{Total Duration of Customer Interruptions}}{\text{Total Number of Customers Served}}$$

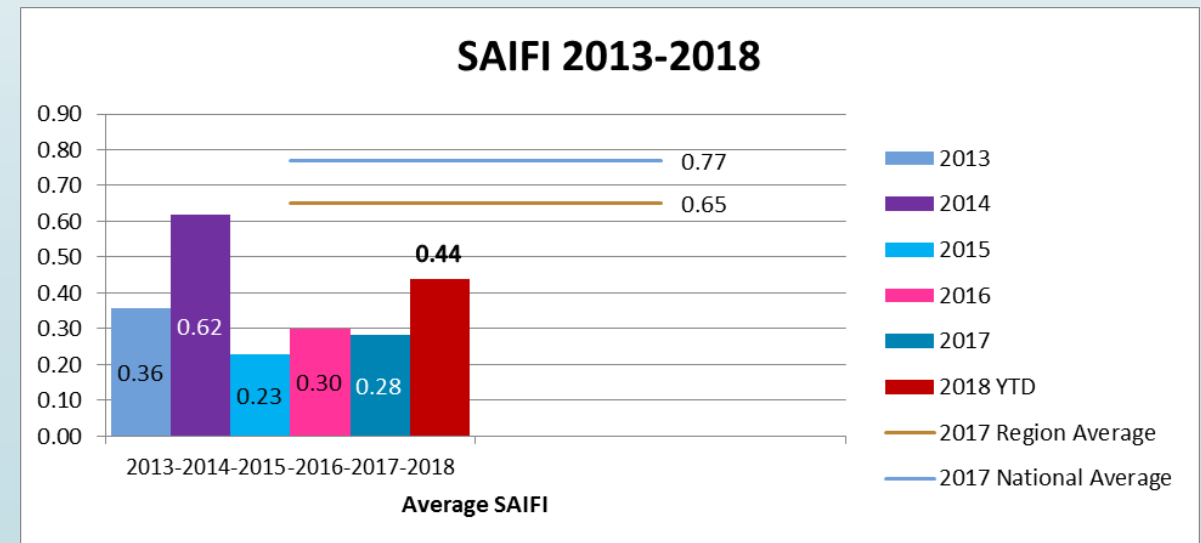
**Note:** The major event (ME) threshold allows a utility to remove outages that exceed the IEEE 2.5 beta threshold for events. These events could be severe weather, which can lead to unusually long outages in comparison to your distribution system's typical outage.

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

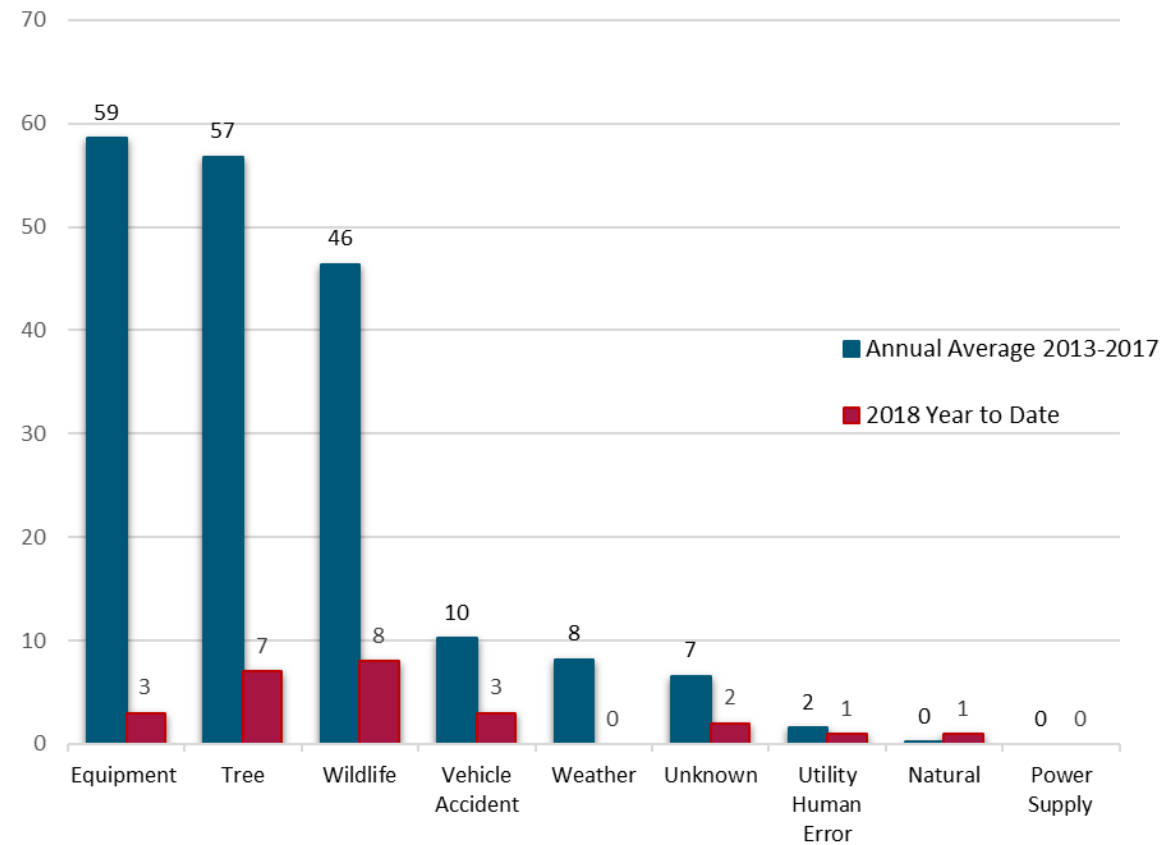
**Note:** Regional and national averages have been updated for 2017.



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



## Causes of Outages as of April 2018





# Questions ?



BOARD MATERIAL AVAILABLE  
BUT NOT DISCUSSED

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

June-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	\$134.78	\$238.42	\$165.87	\$1,185.85	\$222.74	\$5,551.70	\$849,534.90
PER KWH CHARGE	\$0.17971	\$0.15895	\$0.16587	\$0.16244	\$0.20624	\$0.15862	\$0.12349
NATIONAL GRID							
TOTAL BILL	\$129.61	\$355.22	\$169.74	\$1,325.09	\$217.34	\$5,993.92	\$1,086,634.00
PER KWH CHARGE	\$0.17281	\$0.23681	\$0.16974	\$0.18152	\$0.20124	\$0.17125	\$0.15795
% DIFFERENCE	-3.84%	48.99%	2.33%	11.74%	-2.42%	7.97%	27.91%
EVERSOURCE(NSTAR)							
TOTAL BILL	\$185.81	\$289.07	\$245.41	\$1,451.50	\$263.82	\$7,573.12	\$1,105,148.27
PER KWH CHARGE	\$0.24774	\$0.19272	\$0.24541	\$0.19884	\$0.24428	\$0.21637	\$0.16064
% DIFFERENCE	37.86%	21.25%	47.95%	22.40%	18.44%	36.41%	30.09%
PEABODY MUNICIPAL LIGHT PLANT							
TOTAL BILL	\$85.07	\$154.13	\$104.71	\$906.76	\$144.33	\$4,490.83	\$595,357.76
PER KWH CHARGE	\$0.11342	\$0.10275	\$0.10471	\$0.12421	\$0.13364	\$0.12831	\$0.08654
% DIFFERENCE	-36.89%	-35.35%	-36.87%	-23.53%	-35.20%	-19.11%	-29.92%
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	-26.74%	-15.42%	-19.97%	-19.09%	-24.38%	-14.21%	-4.99%
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	-1.80%	3.67%	0.61%	6.05%	-10.30%	6.46%	18.60%

**From:** [Tracy Schultz](#)  
**To:** [RMLD Board Members Group](#); "[David Hennessy](#)"  
**Subject:** RE: AP Warrants and Payroll  
**Date:** Monday, June 18, 2018 8:24:00 AM

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\*Please disregard 5.12.18 Payroll.  
There were no questions on the 6.11.18 Payroll.

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**From:** Tracy Schultz  
**Sent:** Monday, June 18, 2018 8:12 AM  
**To:** RMLD Board Members Group <RMLDBoardMembersGroup@RMLD.com>; 'David Hennessy' <davidhennessy@gmail.com>  
**Subject:** AP Warrants and Payroll

Good morning,

5.4.18 AP There was a Commissioner question about who in Accounting identified an instance of overbilling.

5.11.18 AP There was a Commissioner question about what services a vendor performed.

5.14.18 Payroll There was a Commissioner question about tuition reimbursement and employee titles.

5.18.18, 5.25.18, 6.1.18, 6.8.18 AP.

5.29.18 and 5.12.18 Payroll.

There were no Commissioner questions.

This e-mail will be included in the 6-21-18 Board Book.

Tracy Schultz  
Executive Assistant  
**Reading Municipal Light Department**  
230 Ash Street. Reading. MA. 01867  
Tel: 781.942.6489