

# **ENGINEERING & OPERATIONS REPORT**

Hamid Jaffari, Director of Engineering & Operations

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**RMLD Board of Commissioners Meeting**  
**June 18, 2020**

## 13.8kV Step-down Area Upgrade North Main Street/Lowell Street Area, Lynnfield

Verizon will replace ~55 poles

- 27 poles have been replaced as of 6/9/20

RMLD will:

- Upgrade 5 underground subdivisions
- Replace 10 pad-mounted transformers
- Replace 16 pole-mounted transformers
- Install 4,300 circuit feet of 3-phase 1/0 spacer cable
- Install 2,000 feet of single phase 1/0 primary
- Install 2,500 feet of secondary cable
- Replace approximately 40 service drops
- Replace 4 porcelain cutouts

Upon completion of this project RMLD will eliminate  
750 kVA of stepdown transformation  
(3 -250 kVA stepdown transformers)

### CONVERSION AREA INCLUDES

Main Street from Lowell Street to the Peabody Town Line

Lowell Street from Main Street to the Peabody Town Line

Friendship Lane

Pocahontas Way

Ostis Way

Smith Farm Trail

Mohawk Lane

Lil's Way

Durham Drive from Lowell Street to Lansdowne Street

Willowby Way

Daventry Court from Durham Drive to the end of the street

Lansdowne Street



## Pad-mount Switchgear Upgrades at Industrial Parks



- Program began in FY17 and is expected to run through CY23
- Program initiated to improve reliability by replacing old and/or failing live-front units with dead-front units
- 29 Units System Wide
- 9 Switchgear have been replaced (as of 6/9/20)
- CY20 Budget: \$527,678
- 3 units in stock for installation; plus 1 spare; 5 units are on order
- Locations Targeted for Installation in 2020:
  - Jonspin Road,W (complete)
  - Haven Street, R
  - Riverpark Drive, NR (2 units)
  - Augustus Court, R
  - Woburn Street, R
  - 80 Industrial Way,W (2 units)

# Maintenance Programs

- ❖ Tree Trimming – April: 19 spans YTD: 177 spans
- ❖ Inspection of Feeders –  
*All Feeder Inspections Have Been Completed for 2020 as of March 19, 2020*
- ❖ Pole Inspection/Replacement Program  
282 of 518 failed poles have been set 263 of 282 transfers completed
- ❖ Infrared Scans – Completed through May - No Hot Spots Found
- ❖ Manhole Inspection – on-going
- ❖ Porcelain Cutout Replacement – on-going



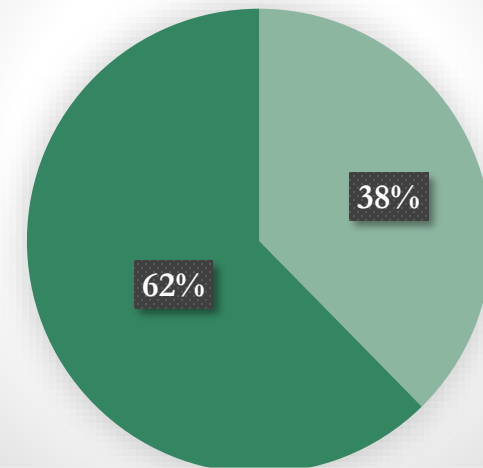
# Aged Transformer Replacement Program (Maintenance Program)

## Aged Transformers Replaced YTD

	Underground (Pad-mount)		Overhead (Pole-mount)	
	single-phase	three-phase	single-phase	three-phase
JANUARY	0	0	2	1
FEBRUARY	0	0	7	2
MARCH	2	0	10	0
APRIL	1	0	1	0
MAY	0	2	4	0
<b>TOTAL:</b>	<b>3</b>	<b>2</b>	<b>24</b>	<b>3</b>

## Transformers System Wide

As of June 4, 2020



- Transformers 25 Years or Older
- Transformers Less than 25 Years Old

**Aged Transformer Replacement  
30 Upton Drive  
Wilmington**



**Old transformer being removed . . .**



**New transformer being set into place...**



New 1000 kVA,  
277/480 volt, dead-  
front, pad-mount  
transformer.

Replaced a 750 kVA, 277/480 volt  
pad-mount transformer as part of  
the Aged Transformer Program.





# Primary Metering Inspection and Testing (Maintenance Program)

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- 85 Installations System Wide
- Inspections to Consist of:
  - Equipment and Meter Accuracy
  - Billing and Discount Accuracy
  - Equipment Condition Assessment
- RMLD Pilot Inspection Program
  - 10 Installations Completed - *no issues found*
- Contractor to Inspect Remaining Installations
  - Anixter hired to do the inspections
  - Inspections to begin in mid-July
  - Anticipated completion in mid-August





**2020 CAPITAL SPENDING  
By Division  
YTD through April**

	<b>YTD SPENDING/ ADDS</b>	<b>BUDGET</b>	<b>REMAINING BALANCE</b>
Engineering and Operations	\$1,656,620	\$9,645,381	\$7,988,761
Facilities	346,020	1,260,000	913,980
Integrated Resources Division	2,038	199,101	197,063
Information Technology	<u>42,582</u>	<u>409,000</u>	<u>366,418</u>
<b>YTD TOTAL</b>	<b>\$2,047,259</b>	<b>\$11,513,482</b>	<b>\$9,466,223</b>

# DOUBLE POLES

## Per NJUNS

(as of 6/10/2020)

### LYNNFIELD

"Next to Go"	# of Tickets
<b>RMLD</b>	<b>43</b>
Transfer	43
Pull Pole	
<b>VZNESEA - Verizon</b>	<b>4</b>
Transfer	4
Pull Pole	
<b>CMCTNR - Comcast</b>	<b>2</b>
Transfer	2
<b>LFLDFD - Lynnfield Fire Dept.</b>	<b>1</b>
Transfer	1
<b>GRAND TOTAL</b>	<b>50</b>

### NORTH READING

"Next to Go"	# of Tickets
<b>VZNEDR - Verizon</b>	<b>3</b>
Transfer	3
<b>RMLD</b>	<b>4</b>
Transfer	
Pull Pole	1
Dispute	3
<b>CMCTNR - Comcast</b>	<b>0</b>
Transfer	
<b>NRDGFDF - North Reading Fire Dept.</b>	<b>2</b>
Transfer	2
<b>LTFMA - Lighttower Fiber</b>	<b>0</b>
Transfer	
<b>GRAND TOTAL</b>	<b>9</b>

### READING

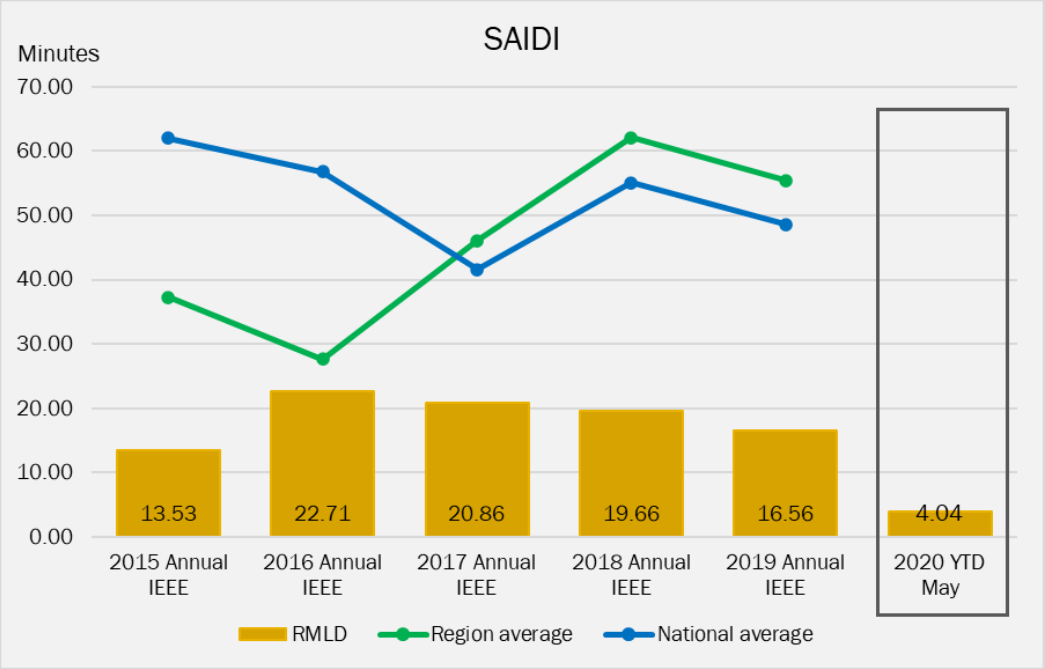
"Next to Go"	# of Tickets
<b>VZNESEA - Verizon</b>	<b>0</b>
Transfer	
Pull Pole	
<b>RMLD</b>	<b>37</b>
Transfer	23
Pull Pole	10
Dispute	4
<b>CMCTNR - Comcast</b>	<b>5</b>
Transfer	5
<b>RDNGDFD - Reading Fire Dept.</b>	<b>13</b>
Transfer	13
<b>LTFMA - Lighttower Fiber</b>	<b>0</b>
Transfer	
<b>NP3PMA - Non-Participating 3rd Party Attachee</b>	<b>4</b>
Transfer	4
<b>GRAND TOTAL</b>	<b>59</b>

### WILMINGTON

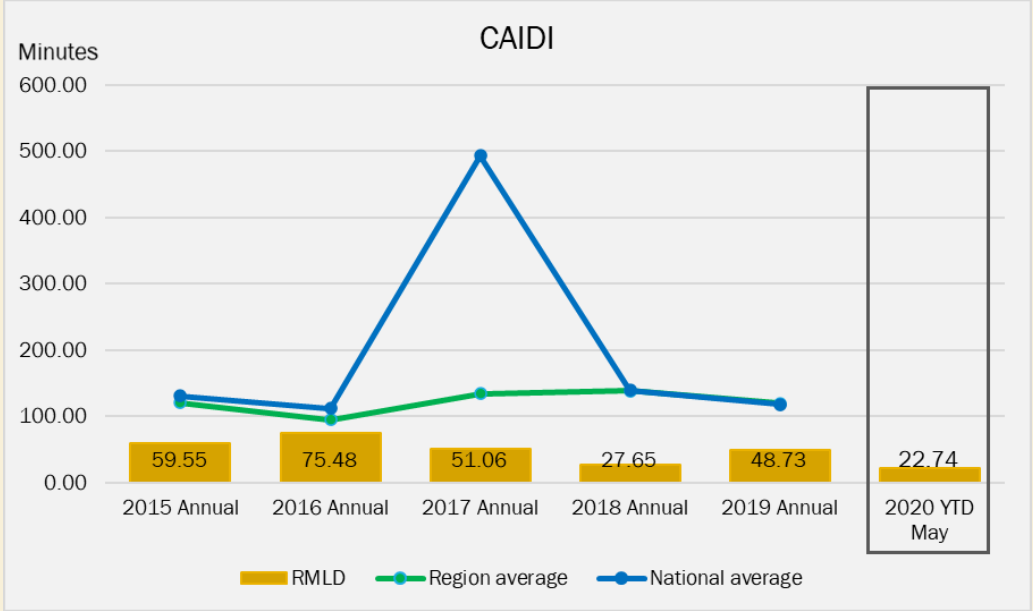
"Next to Go"	# of Tickets
<b>VZNEDR - Verizon</b>	<b>9</b>
Transfer	8
Pull Pole	
Dispute	1
<b>RMLD</b>	<b>64</b>
Transfer	64
Pull Pole	
<b>CMCTNR - Comcast</b>	<b>18</b>
Transfer	18
<b>WMGNFD - Wilmington Fire Dept.</b>	<b>36</b>
Transfer	36
<b>WLMFIG - Wilmington Fiber</b>	<b>1</b>
Transfer	1
<b>NP3PMA - Non-Participating 3rd Party Attachee</b>	<b>7</b>
Transfer	7
<b>LTFMA - Lighttower Fiber</b>	<b>0</b>
Transfer	0
<b>VZBMA - Verizon Business</b>	<b>0</b>
Transfer	
<b>GRAND TOTAL</b>	<b>135</b>



# RMLD Reliability Indices



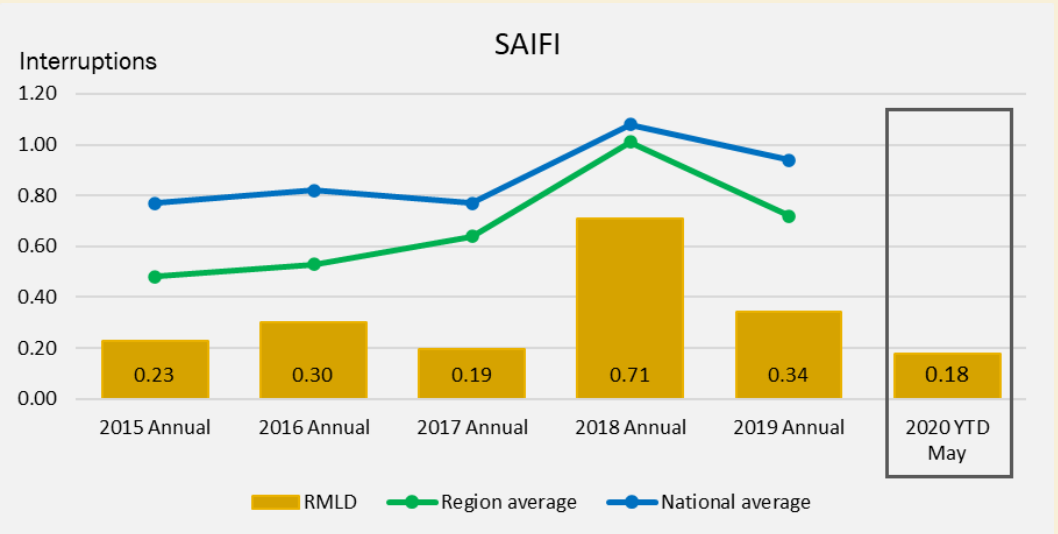
$$SAIDI \text{ (Minutes)} = \frac{\text{Total Duration of Customer Interruptions}}{\text{Total Number of Customers Served}}$$



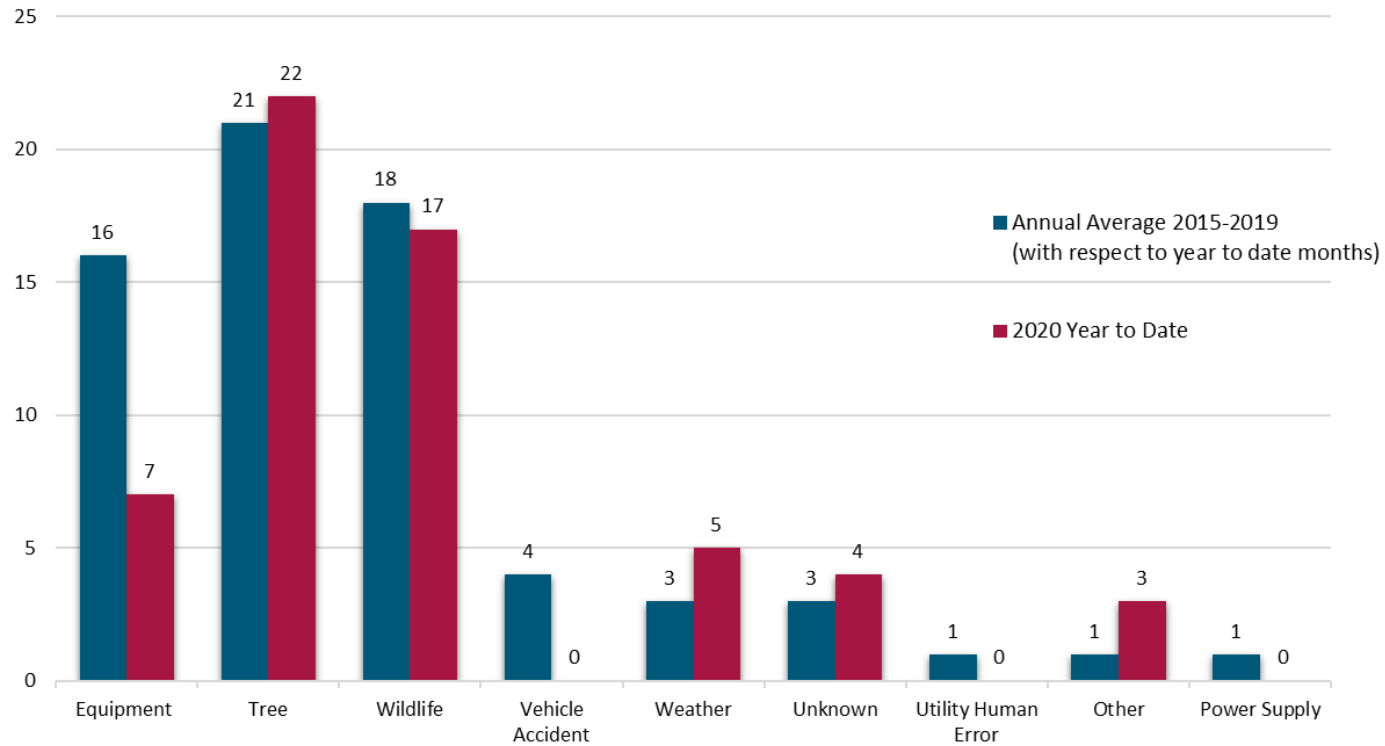
$$CAIDI \text{ (Minutes)} = \frac{\text{Total Duration of Customer Interruptions}}{\text{Total Number of Customer Interruptions}}$$

**Note:** APPA eReliability Tracker using IEEE beta threshold method for outages.

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



### Causes of Outages as of May 2020



**Other:** (1) corroded connect; (2-3) fire

**Unknown:** (1) burnt fuse; (2) two blown cutouts; (3) blown cutout; (4) inside problem



# FACILITIES PROJECTS

230 Ash Street

**PARKING LOT**  
Complete





**ROOF**  
**Complete**



**DECK**  
**In-progress**





Thank  
you