Town of Reading
Meeting Posting with Agenda

Board - Committee - Commission - Council:

Finance Committee

Date: 2022-03-15 Time: 7:00 PM

Building: Reading Town Hall Location: Select Board Meeting Room

Address: 16 Lowell Street Agenda:

Purpose: General Business

Meeting Called By: Jacquelyn LaVerde on behalf of Chair Ed Ross

Notices and agendas are to be posted 48 hours in advance of the meetings excluding Saturdays, Sundays and Legal Holidays. Please keep in mind the Town Clerk's hours of operation and make necessary arrangements to be sure your posting is made in an adequate amount of time. A listing of topics that the chair reasonably anticipates will be discussed at the meeting must be on the agenda.

All Meeting Postings must be submitted in typed format; handwritten notices will not be accepted.

Topics of Discussion:

This meeting will be held in-person in the Select Board Meeting Room at Town Hall, remotely via Zoom, and will be broadcast on RCTV a usual.

Join Zoom Meeting
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Find your local number: https://us06web.zoom.us/u/k7xgbmEdT

AGENDA:

- Liaison Reports
- RMLD Update
  - PILOT calculation update/projects
  - FERC accounting 101
- Vote on Annual Town Meeting Warrant Articles
- Approve Meeting Minutes
  - March 9, 2022
- Future Meeting Dates & Agendas

FINANCE COMMITTEE

MARCH 15, 2022

Town of Reading Below-the-Line Payment Evolution

History of PILOT Payments

ABOVE-THE-LINE, PAYMENTS IN LIEU OF TAXES (PILOT)

- **1991 to Present**
  - As determined by twenty-year agreement, PILOT payments will be calculated at 2% of net plant allocated by kWh sales per town for Reading, North Reading, Lynnfield and Wilmington
  - Legislative, non-voluntary, above-the-line

History of PILOT Payments

Calendar Year	Net Plant	2.00%	% kWh Sales	Annual Payment Calculation	Scheduled Payment Date	Amount
1991	$17,459,148	$349,183	18.27%	$ 63,796	June 30, 1991	$31,898
					December 31, 1991	$31,898
1992	$20,403,945	$408,079	18.43%	$ 75,209	June 30, 1992	$37,604
					December 31, 1992	$37,604
1993	$21,916,646	$438,333	18.87%	$ 82,713	June 30, 1993	$41,357
					December 31, 1993	$41,357
1994	$24,452,808	$489,056	19.15%	$ 93,654	June 30, 1994	$46,827
					December 31, 1994	$46,827
1995	$28,383,928	$567,679	19.02%	$ 107,972	June 30, 1995	$53,986
					December 31, 1995	$53,986
1996	$28,849,320	$576,986	18.88%	$ 108,935	June 30, 1996	$54,468
					December 31, 1996	$54,468
1997	$30,052,618	$601,052	18.53%	$ 111,375	June 30, 1997	$55,688
					December 31, 1997	$55,688
1998	$31,856,509	$637,130	18.37%	$ 117,041	June 30, 1998	$58,520
					December 31, 1998	$58,520
1999	$34,205,951	$684,119	18.39%	$ 125,820	June 30, 1999	$62,910
					December 31, 1999	$62,910
2000	$38,008,200	$760,164	18.61%	$ 141,434	June 30, 2000	$70,717
					December 31, 2000	$70,717
2001	$46,694,996	$933,900	17.94%	$ 167,563	June 30, 2001	$83,782
					December 31, 2001	$83,782
2002	$48,447,002	$968,940	17.47%	$ 169,233	June 30, 2002	$84,617
					December 31, 2002	$84,617
2003	$49,164,722	$983,294	17.62%	$ 173,234	June 30, 2003	$86,617
					December 31, 2003	$86,617
2004	$51,281,817	$1,025,636	17.76%	$ 182,129	June 30, 2004	$91,065
					December 31, 2004	$91,065
2005	$51,741,164	$1,034,823	18.41%	$ 190,517	June 30, 2005	$95,259
					December 31, 2005	$95,259
2006	$54,329,547	$1,086,591	20.46%	$ 222,351	June 30, 2006	$111,176
					December 31, 2006	$111,176
2007	$56,486,226	$1,129,725	19.93%	$ 225,134	June 30, 2007	$112,567
					December 31, 2007	$112,567
2008	$58,123,185	$1,162,464	19.69%	$ 228,899	June 30, 2008	$114,450
					December 31, 2008	$114,450
2009	$62,674,680	$1,253,494	20.15%	$ 252,611	June 30, 2009	$126,305
					December 31, 2009	$126,305
2010	$65,588,491	$1,311,770	20.52%	$ 269,194	June 30, 2010	$134,597
					December 31, 2010	$134,597
2011	$67,418,547	$1,348,371	20.47%	$ 276,024	June 30, 2011	$138,012
					December 31, 2011	$138,012
2012	$67,738,272	$1,354,765	20.60%	$ 279,140	June 30, 2012	$139,570
					December 31, 2012	$139,570
2013	$69,851,692	$1,397,034	20.55%	$ 287,132	June 30, 2013	$143,566
					December 31, 2013	$143,566
2014	$69,875,363	$1,397,507	20.56%	$ 287,368	June 30, 2014	$143,684
					December 31, 2014	$143,684
2015	$69,697,353	$1,393,947	20.68%	$ 288,256	June 30, 2015	$144,128
					December 31, 2015	$144,128
2016	$70,337,310	$1,406,746	20.75%	$ 291,901	June 30, 2016	$145,951
					December 31, 2016	$145,951
2017	$72,977,009	$1,459,540	20.46%	$ 298,673	June 30, 2017	$149,337
					December 31, 2017	$149,337
2018	$76,770,455	$1,535,409	20.48%	$ 314,475	June 30, 2018	$157,238
					December 31, 2018	$157,238
2019	$78,483,312	$1,569,666	20.93%	$ 328,559	June 30, 2019	$164,280
					December 31, 2019	$164,280
2020	$80,350,456	$1,607,009	20.63%	$ 331,591	June 30, 2020	$165,796
					December 31, 2020	$165,796
2021	$82,771,713	$1,655,434	20.67%	$ 342,152	June 30, 2021	$171,076
					December 31, 2021	$171,076

PILOT Payment Breakdown for CY2021

TOWN	CY2020 kWh Sales	kWh % Allocation	Annual PILOT Payment	Payment June 30,2021	Payment December 31, 2021
READING	134,588,701	20.66844%	$342,152	$171,076	$171,076
LYNNFIELD	43,401,301	6.66502%	$110,335	$55,168	$55,167
NORTH READING	119,043,551	18.28121%	$302,633	$151,317	$151,316
WILMINGTON	354,146,351	54.38533%	$900,313	$450,157	$450,156
TOTAL	**651,179,904**	**100.0000%**	**$1,655,434**	**$827,718**	**$827,716**

History of ROI Payments

BELOW-THE-LINE, RETURN ON INVESTMENT (ROI) PAYMENTS

- **1998**
  - The ROI benchmark payment was set at $1,560,414, to be adjusted in subsequent years by the Consumer Price Index (CPI) for the previous calendar year
    - Vote by Board of Commissioner (BOC) passed on June 8, 1998, on the recommendations of the Subcommittee for the Payment to the Town of Reading and the Citizens Advisory Board
- **1999 to 2018**
  - ROI payments, adjusted by previous year CPI percentage change
- **2019 to 2021**
  - ROI payments, to remain the same as calculated in fiscal year 2019
    - Vote by BOC passed on January 24, 2019, to make below-the-line payments for calendar years 2019 and 2020 at the rate calculated in fiscal year 2019
    - Vote by BOC passed on May 21, 2020, to extend motion on January 24, 2019, for calendar year 2021

History of Payments Based on CPI

The annual CPI was derived by Boston-Brockton-Nashua discontinued and changed to Boston-Cambridge-Newton, MA-NH

Calendar Year	CPI	% Change	Payment for Town of Reading Fiscal Year	Annual Payment Calculation	Semi-Annual Payment	
					Scheduled Payment Date	Amount
1997	167.9					
1998	171.1	2.26%	FY99	$1,560,414	June 30, 1998	$780,207
					December 31, 1998	$780,207
1999	176.0	2.50%	FY00	$1,595,680	June 30, 1999	$797,840
					December 31, 1999	$797,840
2000	183.6	4.32%	FY01	$1,635,572	June 30, 2000	$817,786
					December 31, 2000	$817,786
2001	191.5	4.30%	FY02	$1,706,229	June 30, 2001	$853,115
					December 31, 2001	$853,115
2002	196.5	2.61%	FY03	$1,779,597	June 30, 2002	$889,798
					December 31, 2002	$889,798
2003	203.9	3.77%	FY04	$1,826,062	June 30, 2003	$913,031
					December 31, 2003	$913,031
2004	209.5	2.75%	FY05	$1,894,829	June 30, 2004	$947,415
					December 31, 2004	$947,415
2005	216.4	3.29%	FY06	$1,946,870	June 30, 2005	$973,435
					December 31, 2005	$973,435
2006	223.1	3.10%	FY07	$2,010,991	June 30, 2006	$1,005,496
					December 31, 2006	$1,005,496
2007	227.409	1.9%	FY08	$2,073,332	June 30, 2007	$1,036,666
					December 31, 2007	$1,036,666
2008	235.37	3.50%	FY09	$2,112,725	June 30, 2008	$1,056,363
					December 31, 2008	$1,056,363
2009	233.778	-0.68%	FY10	$2,186,670	June 30, 2009	$1,093,335
					December 31, 2009	$1,093,335
2010	237.446	1.57%	FY11	$2,171,880	June 30, 2010	$1,085,940
					December 31, 2010	$1,085,940
2011	243.881	2.70%	FY12	$2,205,957	June 30, 2011	$1,102,979
					December 31, 2011	$1,102,979
2012	247.733	1.58%	FY13	$2,265,427	June 30, 2012	$1,132,713
					December 31, 2012	$1,132,713
2013	251.139	1.38%	FY14	$2,301,221	June 30, 2013	$1,150,610
					December 31, 2013	$1,150,610
2014	255.185	1.61%	FY15	$2,332,863	June 30, 2014	$1,166,431
					December 31, 2014	$1,166,431
2015	256.716	0.60%	FY16	$2,370,445	June 30, 2015	$1,185,223
					December 31, 2015	$1,185,223
2016	260.496	1.47%	FY17	$2,384,668	June 30, 2016	$1,192,334
					December 31, 2016	$1,192,334
2017	267.033	2.51%	FY18	$2,419,770	June 30, 2017	$1,209,885
					December 31, 2017	$1,209,885

History of Payments Based on FY 19 Calculation

- Based on 2018 Convergence Study [1]
- Based on Memorandum: Obligation of RMLD to make payments to the Town of Reading March 7, 2018 [2]

Calendar Year	CPI	% Change	Payment for Town of Reading Fiscal Year	Annual Payment Calculation	Semi-Annual Payment	
					Scheduled Payment Date	Amount
2018	N/A	2.51%	FY19	$2,480,506	June 30, 2018	$1,240,253
					December 31, 2018	$1,240,253
2019	N/A	Payment Frozen	FY20	$2,480,506	June 30, 2019	$1,240,253
					December 31, 2019	$1,240,253
2020	N/A	Payment Frozen	FY21	$2,480,506	June 30, 2020	$1,240,253
					December 31, 2020	$1,240,253
2021	N/A	Payment Frozen	FY22	$2,480,506	June 30, 2021	$1,240,253
					December 31, 2021	$1,240,253

The RMLD Board of Commissioners voted on January 24, 2019, to make below-the-line payments for calendar years 2019 and 2020 at the rate calculated in fiscal year 2019.

The RMLD Board of Commissioners voted on May 21, 2020, to extend the current payments for calendar year 2021

New Calculation Formula

Beginning with the payment on June 30, 2022

Town of Reading Below-the-Line Payment will be calculated by:

Prior 3-year audited average of kWh sales per 3.875 mils

Voted by Board of Commissioners on May 21, 2020

New Town of Reading ROI Estimated Payment Schedule

Year	Source	RMLD kWh Sales	3-Year Average kWh Sales	Mils per kWh	Below-the-Line Town of Reading Payment Mils per kWh Sales
CY 19	**Audited Financials**	647,214,654*			$2,480,506
CY 20	**Audited Financials**	651,179,904*			$2,480,506
CY 21	**Unaudited Financials**	658,344,348*	652,246,302*		$2,480,506
CY 22	**Six Year Plan Projection**	663,883,547	657,802,600	3.875	$2,527,454*
CY 23	**Six Year Plan Projection**	669,226,164	663,818,020	3.875	$2,548,985
CY 24	**Six Year Plan Projection**	674,649,452	669,253,054	3.875	$2,572,295
CY 25	**Six Year Plan Projection**	680,061,792	674,645,803	3.875	$2,593,356
CY 26	**Six Year Plan Projection**	685,525,136	680,078,793	3.875	$2,614,252
CY 27	**Six Year Plan Projection**	691,040,020	685,542,316	3.875	$2,635,305

*** Payment derived by the average of three previous years of kWh's sold, per audited financial statements, calculated at 3.875 mils per kWh sold**

- Below-the-line payments are voluntary, pending non-catastrophic events
- KWH sales are projected based on the estimated six-year plan in the CY22 Budget [3], pending weather, catastrophic events, and electrification contributions

References

[1]
https://www.rmld.com/sites/g/files/vyhlif1126/f/uploads/convergence_of_kwhr_sales_and_pilot_may_2018_final.pdf

[2]

https://www.rmld.com/sites/g/files/vyhlif1126/f/uploads/memorandum_-_obligation_of_rmld_to_make_payments_to_town_of_reading_03.07.18.pdf

[3]

https://www.rmld.com/sites/g/files/vyhlif1126/f/uploads/cy2022_rmld_budget_rev._1.pdf

RMLD

Business and Finance presents FERC Accounting

March 15, 2022

RMLD FINANCIAL REPORTING COMPLIANCE

- GAAP – Generally Accepted Accounting Principles
  - Foundation for approved accounting methods and standards
- GASB – Governmental Accounting Standards Board
  - Accounting reporting standards for state and local governments
- FERC – Federal Energy Regulatory Commission
  - A uniform system of accounts for public utilities

FERC
Chart of Accounts

Assets and Other Debits

- 100-199

Liabilities and Other Credits

- 200-299

Plant Accounts

- 300-399

Other Income and Expenses Accounts

- 400-432, 434-435

Retained Earnings Accounts

- 433, 436-439

Sales of Electricity Accounts

- 440-460

Production, Transmission and Distribution Expenses

- 500-599

Customer Accounts, Customer Service, Sales, and General and Administrative Expenses

- 900-949

Common FERC Plant Accounts

Distribution Plant

- 360 Substation Land
- 361/362 Station - Structures, Improvements and Equipment
- 363 Battery Storage
- 364 Poles, Towers and Fixtures
- 365 Overhead Conductors and Devices
- 366/367 Underground Conduit, Conductors and Devices
- 368 Transformers
- 370 Meters

General Plant

- 389 Office Land
- 390 Structures and Improvements
- 391 Office Furniture and Equipment
- 391 Computer Hardware (382) Software (383)
- 392 Transportation Equipment
- 394 Tools, Shop and Garage Equipment
- 395 Laboratory Equipment
- 396 Power Operated Equipment
- 397 Communication Equipment

Capital Project Example

105		**NEW WILMINGTON SUBSTATION**	
	360	Purchase Land in Wilmington	Land purchase.
	361/362/ 366/367	Wilmington Substation Construction & Commissioning	Conceptual design, permitting, procurement of materials, construction, commissioning, and all required materials and labor to bring the proposed Wilmington substation online.
124	364/365	MA-125 Pole Line Installation for New Wilmington Substation	This project covers an ~3,000 foot proposed pole line that will span MA-125 from Ballardvale Street to Andover Street, which will be used for riser pole getaways from the proposed Wilmington substation, and will interconnect the new substation to RMLD's existing overhead distribution system.
TBD	365	Distribution Improvements Associated with New Wilmington Substation	The proposed Wilmington substation's main objective will be to transfer the existing Station 5 circuits to the new Wilmington Substation. The new station will be designed for growth of load on Station 5 circuits, and will provide capacity relief to Stations 3 and 4. This line item will account for distribution modifications to provide load relief to Stations 3 and 4.
103		**GRID MODERNIZATION & OPTIMIZATION**	**Fifteen-year plan to implement Technology Road Map for grid efficiency, reduction of losses, etc.**
	365	*Scada- Mate Switches*	Installation of 4 switches/year plus IntelliTeam licenses
	365	*IntelliRupter®*	Installation of 2 switches/year plus IntelliTeam licenses
	365	*ABB Reclosers*	Installation of new/replacement of older reclosers on the system.
	383	*Cap Bank Automation*	Adding feeder cap banks and making them SCADA controlled
	383	*Software Integration*	Integration of AMI/Scada-Mate switches/OMS
	397	*Communication to Field Devices*	Implement study recommendations.
	383	*Meter Data Management (MDM)*	This project will be a carry-over; it was included in the IT Software budget for 2021
		OUTAGE MANAGEMENT SYSTEM (OMS)	Outage Management System and supplemental modules to automate outage response and customer/public communication during outage events.
	383	OMS Module: Integrated Voice Response (IVR)	Installation of Integrated Voice Response (IVR) in progress - scheduled for completion in CY21.
	383	OMS Module: Crew Management	From the OMS, field crews can receive job notifications, view work orders, display the network model and outage map in real-time, report their progress, and close job tickets. On hold for further evaluation.
	383	OMS Module: Power Factor Correction/VVR	Installation of new SCADA module that computes and presents phase voltages, currents, and losses on the entire distribution network. License for Volt/VAR optimization which coordinates the control of reactive power and voltage. Includes installation and training for both applications - scheduled for completion in CY21.
112	361/370	AMI Mesh Network Expansion & Meter Replacement	The RMLD has hired an AMI consultant to assist evaluation and preparing the specifications for MDM and replacing and upgrading AMI systems.
117	370	Meters and Primary Meters (for stock)	Purchase primary meters and meters (with disconnect option as available) for new construction, upgrades and failures.

FERC Operations and Maintenance Expenses

Power Supply and Transmission

- 555 Purchased Power Energy and Capacity
- 565 Purchased Power Transmission

Operation – Labor and Expenses for Operations

- 580 Operation Supervision and Engineering (Line Foreman/Engineers)
- 581 Load Dispatching – Control Room Operators
- 582 Station Expenses – Station Technicians
- 583 Overhead Line Expenses – Patrolling, Line Ops Training, Line Ops General
- 586 Meter Expenses – Meter Technicians
- 588 Miscellaneous Distribution Expense – Materials Management, Personal Protective Equipment

Maintenance – Labor and Expenses for Maintenance

- 593 Maintenance of Overhead Lines – Line Ops, Police Detail, Tree Trimming
- 594 Maintenance of Underground Lines – Line Ops
- 595 Maintenance of Line Transformers – Hazardous Waste
- 598 Maintenance of Miscellaneous Distribution Plant – Operations Leave Time

FERC General & Administration Expenses

Customer Accounts Expenses

- 903 Customer Collections
  - Customer Service, Billing, and Credit & Collections
  - Customer Related Processing Fees
  - Envelopes, Invoices, Letterhead, Mailing and Postage Services
- 904 Uncollectible Accounts – Bad Debt

Sales Expense

- 916 Miscellaneous Sales Expense
  - IRD Labor and Expenses
  - Energy and Electrification Efforts

Administrative and General Expenses

- 920 Administrative and General Salaries
  - Accounting
  - Business and Finance
  - Community Relations
  - Engineering and Operations Director and Support Staff
  - General Manager
  - Human Resources
  - Information Technology

FERC General & Administration Expenses

Administrative and General Expenses Cont'd

- 921 Office Supplies and Expenses
- 923 Outside Services
  - Consultants, Legal and Training
- 924 Property Insurance
  - Auto, Crime, Employment, Liability, Property
- 925 Injuries and Damages – Insurance and Claims
- 926 Employee Pensions and Benefits
  - Dental, Fringe Benefits, Health, ICMA, Life, OPEB, Pension, Sick Buyback, Unemployment, Workers' Comp
- 930 Miscellaneous General Expenses
- 931 Rent
- 933 Transportation Expense
- 935 Maintenance of General Plant (was 932)
  - Building Maintenance
    - Cleaning, Heating/Cooling, Landscaping, Repairs & Maintenance, Safety, Security, Utilities
  - Technology Maintenance
    - Miscellaneous Desktop Supplies, Security, Software Maintenance and Support

FERC 930 Miscellaneous General Expenses

- Community Relations Efforts
  - Chamber/Rotary Memberships
  - Historical Calendars
  - Press Releases
  - Promotional Items
  - Public Power Expenses
  - School Education Programs
  - Seasonal Décor
- Copier Leasing
- Dues and Subscriptions
  - MEAM, APPA, NEPPA
- Employee Assistance Program
- Employee Recognition
- Printing, Training Materials and Manuals
- Recruiting Expenses – advertising, testing, background search
- Storm Preparation and Management Expenses
- Telephone Services
- Town of Reading Services

THANK YOU!

RMLD Strategic Study
A Financial Convergence of the Operating Income with the Town of Reading PILOT Due to the Loss of kWh Sales

Coleen O'Brien, GM
May 2018

Substantial Changes at the RMLD since 2013

The RMLD has been actively transitioning from reactive to proactive in all facets of its operations, including Human Resources, Power Supply - wholesale and retail, System Operations, Purchasing, Risk Management, Safety, Asset Management, Finance, Utility Technology and Customer Service. Significant improvements have been made in all aspects of planning; system design and capital outlay, system maintenance, financial, power supply, risk management, talent management, and succession.

The RMLD's process of defining its strategy, or direction, and making decisions on allocating its resources to pursue its strategy, as well as defining the control mechanisms for guiding the implementation of the strategy, is called the DRAFT RMLD Master Strategic Plan (MSP). A utility shapes its operations based on its complexities; including system size, design, staff organization, number and types of customers, (residential to large industrial), and utility trends, historical data, and projected impacts. This provides the types and levels of planning required. Establishing immediate, short and long range plans, including emergency operations and catastrophic contingency plans, and financial plans, are key to maintaining the strategic course. The RMLD's success is measured by its Mission Statement which in short, commits to a safe and reliable system, competitive pricing through rates, and excellent customer service.

Master Strategic Plan example: catastrophic loss of substantial kWh.

A catastrophic (unplanned and sudden) kWh sales loss due to a customer(s) is a scenario for which the RMLD must be prepared. This type of loss can result in a significant amount of cost and can only be mitigated if risk strategies have already been vetted and implemented by each of the facets and that the overall strategy for impact is integrated into the MSP.

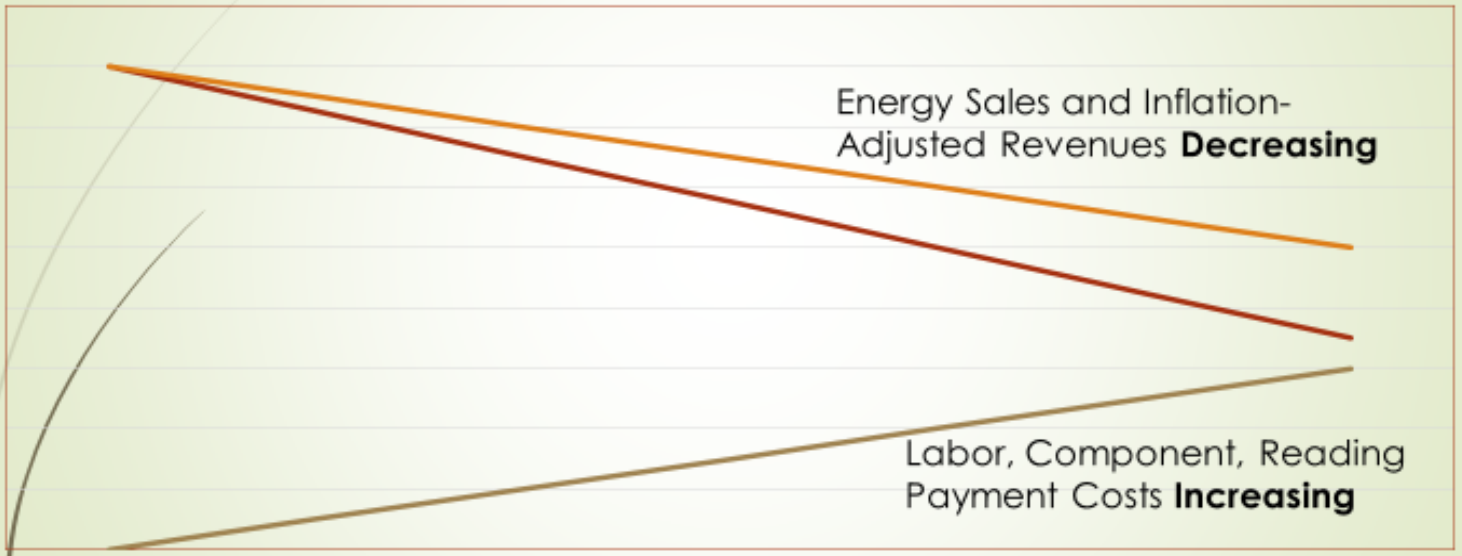
Each facet's strategic plan regarding the loss of major kWh sales may use different risk mitigation tools to determine the best case solutions. Integrated Resources may determine the level of kWh sales that represents the magnitude of a catastrophic loss and simulate programs such as load-following power purchases, or that optimal open market exposure is appropriate so that power supply commitments do not have to be paid for customers leaving the service territory. Another possible mitigation solution may be a Terms and Condition provision that holds the departing customer responsible for a portion of the power purchase on their behalf, based on their notification process to the RMLD for ramping down load. Facet strategic plans are evaluated on a continuous basis. Customer usage trends through exception reports help to spot fluctuations in customer demands. Engineering/Operations would have a strategy for the system impact if such loss occurs and a plan for redistribution of the feeders for proper balancing.

Finance, having already strategized for the magnitude of a loss, has developed financial planning methods. Other catastrophic events, such as the loss of a main substation, would be put through the same evaluation process within each of the facets to determine the MSP. In that type of event, mobile transformer and switchgear units would be brought in while a new substation is designed and built; temporary transformation could run $20,000 a week for a year. In either case, sudden significant costs require a solid financial plan. Without a specific contingency fund, the money for sudden unexpected catastrophic losses would come from the operating fund, the rate stabilization fund, the depreciation fund and potentially the fuel fund, although that fluctuates on a regular basis and may be less relied upon.

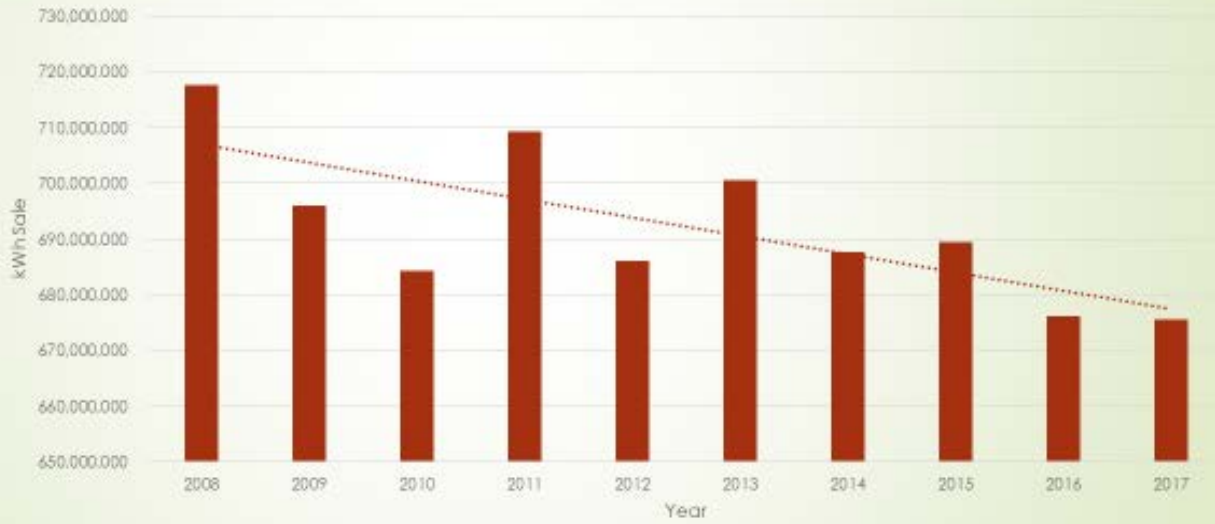
Preliminary MSP shows immediate concern of financial convergence.

While the senior managers were working to develop their strategic plans, the preliminary results were showing some immediate concern about how to address a financial convergence between the operating income, the capital outlay, and the Town of Reading payment. With significant long-term capital work required (Leidos Reliability Study results) and a significant portion of the operating income already being used for an escalating Town Payment (44% of the current operating income), how was the operating income going to be stretched with flat sales? Would rates be increased to subsidize the operating income regardless of flat sales, in order to have enough cash flow to cover the Town of Reading payment, capital projects, and potentially further fund OPEB and Pension unfunded liabilities? With flat sales, the RMLD would have some time to implement risk mitigation plans, investigate further economic development pockets, and other revenue streams. Unfortunately, as FY2018 began, sales came in lower than expected, beyond flat to a 1 percent drop, and now at a 1.8 percent drop by March of 2018. Electric vehicle charging station rebates, heat pump rebates, and other revenue sources were not showing enough impact compared to the kWh losses from the overall implementation of energy conservation measures by commercial customers.

RMLD Financial Trend – Revenue/Sales Decreasing, Costs Increasing



FY 2008-2017 kWh Sales



The RMLD is a not-for-profit quasi enterprise. Massachusetts General Law chapter 164, Section 58 outlines how a municipal electric utility determines its allowable earnings, which projects its operating income for the year. The DPU 85-121 allows the RMLD to make a Rate of Return of up to eight percent of net plant as operating income. Allowed is an interesting word. In exactly what situation would you want your electric utility to be allowed to make the maximum operating income? When is it appropriate to raise rates? What is the policy for establishing each year's Rate of Return (ROR)? The utility has first and foremost a legal obligation to cover its costs of production in providing safe, reliable, and low-cost power to its customers.

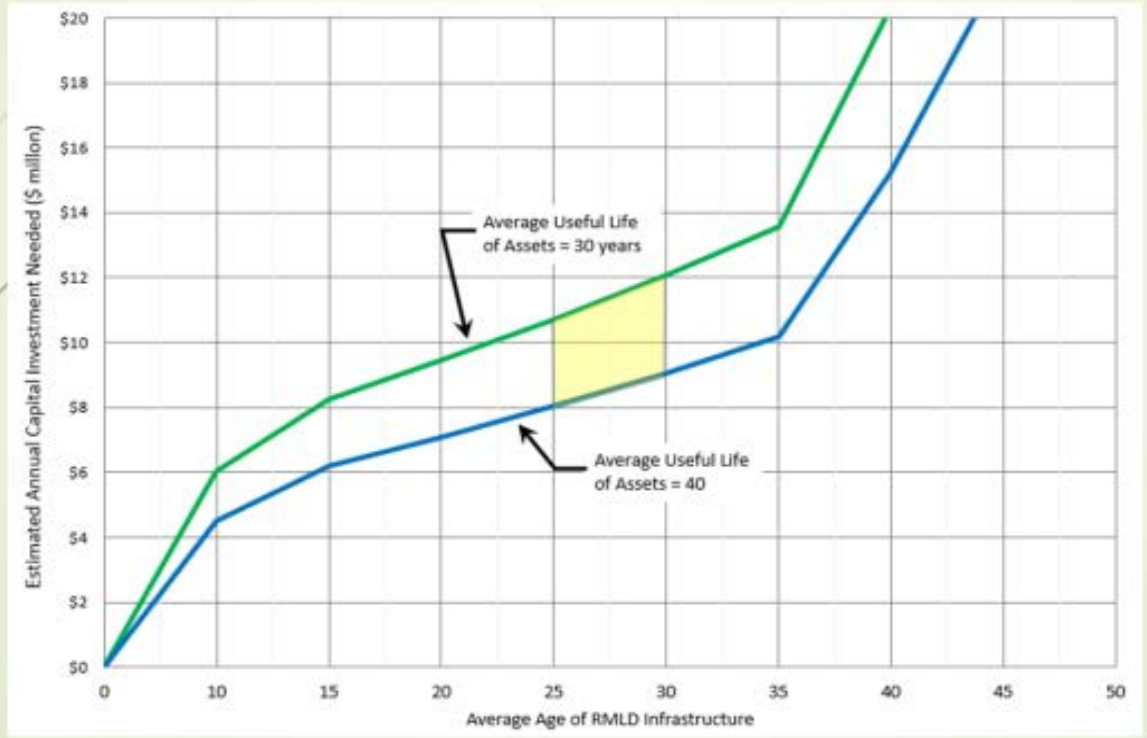
The desired ROR is determined from a balanced approach; less than 8 percent, supports commitments, keeps the RMLD competitively priced, is fair to the customers with respect to rates, produces capital support to ensure the system stays safe, reliable, and remains compliant with industry codes, laws, & regulations. In fact, regardless of the decline in kWh sales, the distribution system must operationally remain safe and reliable even if it eventually became purely back-up system such as in a number of California districts. Labor and equipment costs to keep electric systems reliable and safe have been steadily escalating throughout the industry.

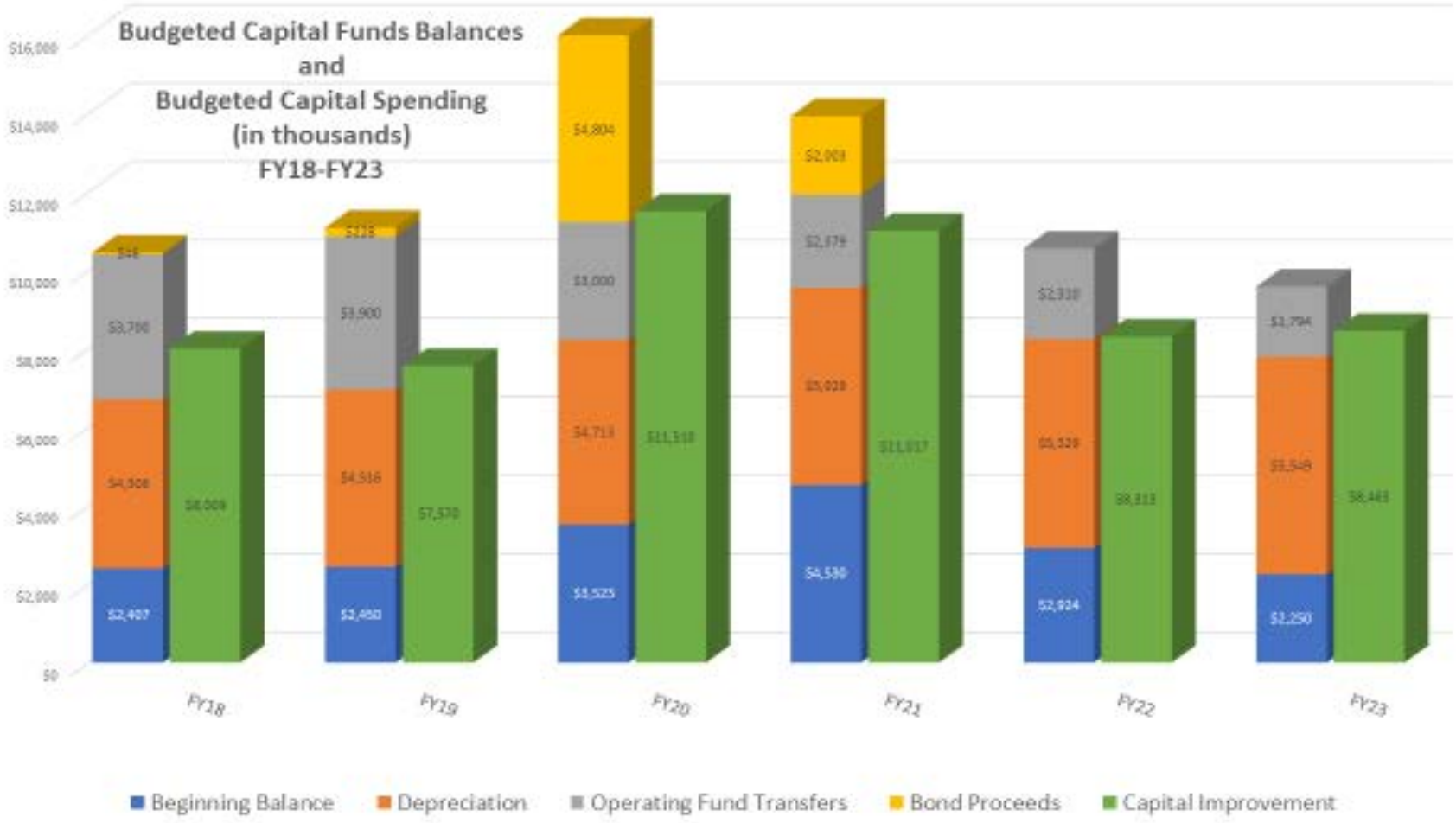
The strategy at the RMLD was to raise the ROR to approximately eight percent for five or less years to increase operating income for transfer to the construction/capital fund. This strategy was short-term and intended to mitigate other financial burdens such as bonding and associated interests. This was done to avoid creating a long-term debt that would be compounded by other industry projected costs such as transmission and distribution charges and State renewable standards (increased costs to meet state goals on renewable energy within the RMLD power portfolio). The long-term stacking of increasing costs would subject the rates to beyond competitive values. The strategy made assumptions that kWh sales would remain flat or commence to decrease slightly; the latter is now present and projected to continue to decrease a minimum of one percent per year. The period of leveling out has not been determined as new appliance technology (i.e. small variable speed drive motor appliances using fractions of energy) continues to advance in production. The Department of Transportation is hoping to see significant disruption by the electrification of vehicles by 2040, which could increase revenue. The decrease in kWh sales has been studied by the RMLD as well as outside consultants. It's possible that this area may see a leveling off in 10 years. The industry leaders confirm projections for the northeast region. The economic development pockets in each of the towns certainly help, including any major development in North Reading due to improved infrastructure. However, the input assumptions made without "meters spinning" remain unsupported conjectures.

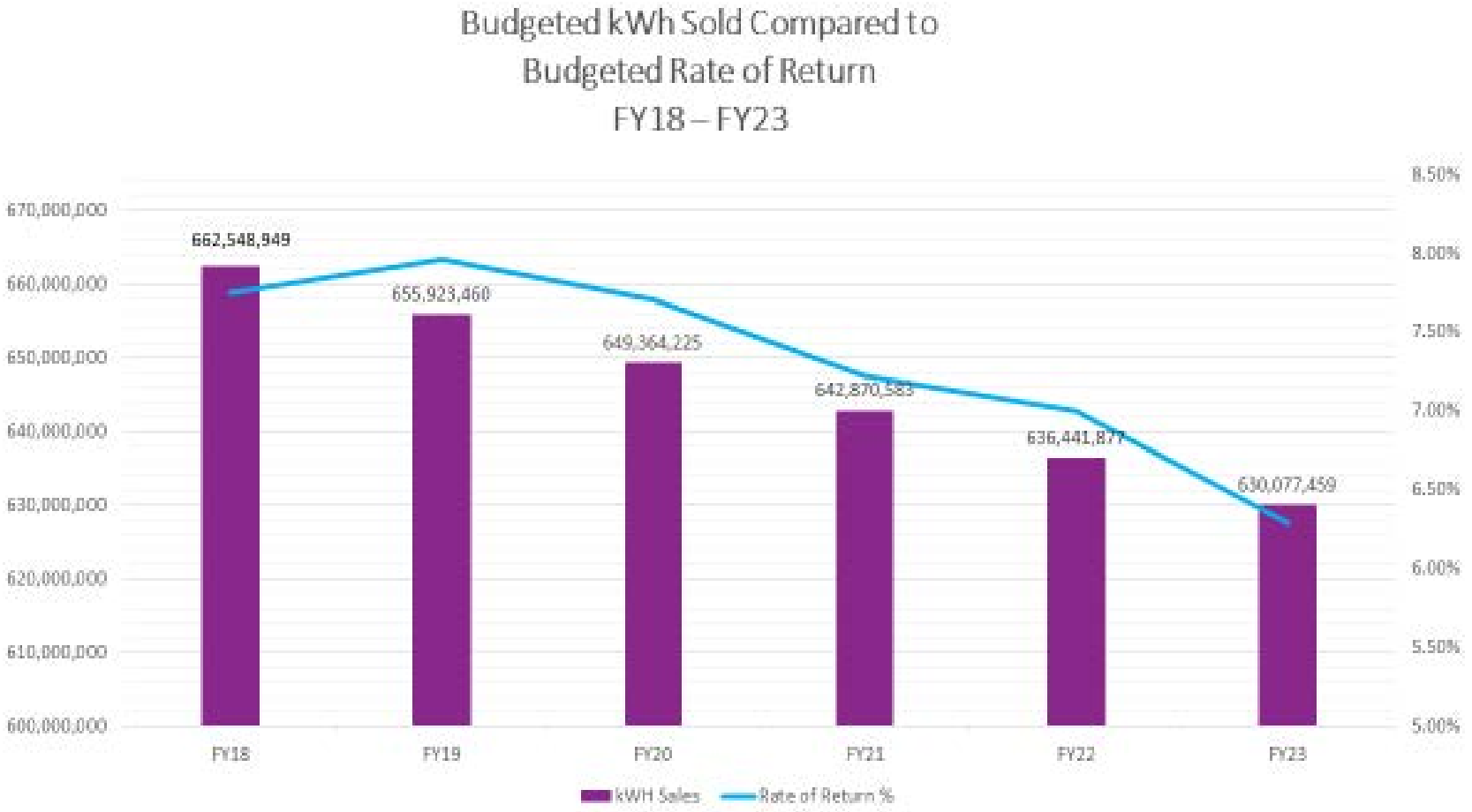
Since assumptions on sales have gone from flat to declining, the staff studied the projected ROR. It was determined that RMLD could not sustain a reasonable ROR out of the operating income, to support the capital transfer fund, along with the Town of Reading payments, and potentially the Pension and OPEB payments, without consistent annual rate increases.

Therefore, a preliminary short study was performed to determine if the budgeted amount for capital outlay was appropriate. The study looked at general asset data including the size and age of each continuing property unit type at the RMLD, e.g. transformers, circuits, poles, substations, etc. Based on the RMLD service territory and its infrastructure, $8 million per year should be invested into the system on an ongoing basis. The $8 million per year is obtained through a transfer of prior years' operating income to the construction fund, combined with the present year's depreciation expense which is based on three percent (3%) of the gross plant. The six-year plan fluctuates between $7 million and $11 million, but on average is approximately $8 million per year. It focuses on the re-building of prioritized aged underground and overhead infrastructure, GIS data collection, Outage Management and Customer Information system integrations, automation, cyber upgrades for NERC compliance, and construction of a new Wilmington substation to provide proper capacity and loading to that area of the RMLD service territory.

Estimated Annual Capital Investment Needs




Budgeted Capital Funds Balances
and
Budgeted Capital Spending
(in thousands)
FY18-FY23
$16,000
$14,000
$12,000
$10,000
$8,000
$6,000
$4,000
$2,000
$0
$3,700
$4,508
$2,407
$8,009
$3,900
$4,516
$2,450
$7,570
$4,804
$3,000
$4,713
$2,525
$11,318
$2,879
$5,028
$4,530
$11,017
$2,330
$5,529
$2,924
$8,313
$1,794
$5,549
$1,250
$8,443
FY18
FY19
FY20
FY21
FY22
FY23
Beginning Balance
Depreciation
Operating Fund Transfers
Bond Proceeds
Capital Improvement


Budgeted kWh Sold Compared to
Budgeted Rate of Return
FY18 – FY23
670,000,000
660,000,000
650,000,000
640,000,000
630,000,000
620,000,000
610,000,000
600,000,000
8.50%
8.00%
7.50%
7.00%
6.50%
6.00%
5.50%
5.00%
662,548,949
655,923,460
649,364,225
642,870,583
636,441,877
630,077,459
FY18
FY19
FY20
FY21
FY22
FY23
kWH Sales
Rate of Return %

Internal costs were evaluated. Each employee position was addressed under the reorganizational study and further analysis performed upon attrition, without compromising safety. Process procedures were developed to ensure efficiencies in each division. Rate structures were established to ensure that the cost of production was being properly classified and allocated. A detailed Cost of Service Study was performed to realign rates, bringing less cross subsidization, and to capture more time of use measures. While much progress has been made, the gleaming issue remains, there is a convergence coming and the operating income cannot be stretched beyond the utility's priorities.

The convergence path is clearly not a sustainable plan. Looking at the FY19 costs currently planned for the operating income use, assuming the rate increase is approved, the RMLD can make the CPI adjusted payment to the town, make the scheduled transfer to the construction fund, and keep the operating fund at no less than a $12 million level. The operating fund should be at least two-to-three months of operating cash available. The RMLD operating cash is dispersed at approximately $8-$10 million per month. The cash is currently almost two months of operating expenses but will come down with the planned transfers to the construction fund. The two months of operating expenses would be achieved with the operating fund, the rate stabilization reserve, and potentially the fuel reserve.

If the utility's strategic plan has resulted in a well-organized and laid out capital infrastructure plan, and those upgrades have been studied relative to their absolute necessity for implementation and cannot be extended further, and all operating efficiencies have been implemented, then the first priority for spending the operating income is to invest into the system. Next, if the voluntary PILOT to the Town of Reading is an agreed upon amount and its methodology for calculation is commensurate with the health of the utility, there is no present catastrophic event, and no rate increase is required to meet the cash demand of this payment, then it is justified as a community support priority. Third, if any other cost such as additional OPEB or Pension obligations are in order, then a rate increase would not be justified, and the payment must be sustained out of the ROR only if the excess ROR is not earmarked for the subsequent capital outlay transfer.

As it stands, a yearly rate increase would be needed to continue to meet the desired ROR for operations, which is currently set at 8%. If management agrees that 8% cannot be sustained for the sake of competitive rates and the burden on its customers, then a new ROR would be agreed to. Anything short of 8% would not provide the RMLD the proper cash flow to fund capital projects, fund OPEB and Pension unfunded liabilities, and continue to pay the Town of Reading at the escalated demand of the CPI index.

Pilot Payments.

Annual town PILOT payments have several designations including Return on Equity and Payment in lieu of taxes, among others. Regardless of the name of the payment, they represent a financial benefit to a town for ownership of the light plant, for covering the costs of administrative duties such as payroll, billing, etc., performed by the town (RMLD pays these admin costs in addition to PILOT payments), or an in lieu of tax payment for infrastructure residing within the town. These payments and the calculations used take on many forms. The DPU and the SJC state that MLPs are not tax collecting entities and have no obligation to make these payments.

Town	Payment	mils=1/10 cent
Rowley	$30,074	.7
Groton	$32,000	.5
Merrimac	$34,122	1.3
Sterling	$100,000	1.7
Hudson	$142,496	1.4
Shrewsbury	$237,569	.8
Holden	$270,000	.8
N. Attleboro	$300,000	1.4
Ipswich	$326,727	2.9
Concord	$465,000	2.8
Hingham	$500,000	2.5
Westfield	$500,000	1.3
Belmont	$650,000	5.2
Holyoke	$675,000	3.0
Middleboro	$702,593	2.7
Littleton	$760,000	2.6
Danvers	$800,616	2.8
Wakefield	$825,000	4.4
Braintree	$1,000,000	4.2
Reading - All Town payments	$3,764,394	5.5

The above represents a 2016 survey of towns with the mils per kWh based on the utility's annual kWh sales. Town payments range from approximately $30k to $2.37 million for Reading. In this table, however, the Unit Cost is supposed to reflect all town payments so that there is an apple to apple comparison. The 2016 total for all four RMLD town PILOT payments made as both an expense above the line at 2% of net plant paid to all four towns, plus the below the line (paid out of operating income) PILOT to the Town of Reading, was approximately $2.37 +$1.41 million = $3.78million at 5.5mils unit cost.

2% of Net Plant, above the line PILOT payments to all four towns 2013-2017

	Reading	North Reading	Lynnfield	Wilmington	Total 4 Towns
2013	$ 287,132.00	$ 253,834.00	$ 88,936.00	$ 767,132.00	$ 1,397,034.00
NET PLANT UTILITY	$ 69,851,692.00				
2% DISTRIBUTION	$ 1,397,034.00				
KWH SALES	142,052,218	125,578,270	43,998,847	379,520,541	691,149,876
KWH% OF TOTAL SALES	20.553%	18.169%	6.366%	54.911%	100.000%
2014	$ 287,368.00	$ 253,164.00	$ 91,112.00	$ 765,863.00	$ 1,397,507.00
NET PLANT UTILITY	$ 69,875,363.00				
2% DISTRIBUTION	$ 1,397,507.00				
KWH SALES	143,225,697	126,177,717	45,410,596	381,708,768	696,522,778
KWH% OF TOTAL SALES	20.563%	18.115%	6.520%	54.802%	100.000%
2015	$ 288,256.00	$ 254,610.18	$ 90,330.06	$ 760,752.55	$ 1,393,949.00
NET PLANT UTILITY	$ 69,697,353.00				
2% DISTRIBUTION	$ 1,393,947.00				
KWH SALES	141,114,831	124,643,049	44,220,762	372,423,010	682,401,652
KWH% OF TOTAL SALES	20.679%	18.265%	6.480%	54.575%	100.000%
2016	$ 291,901.00	$ 256,089.00	$ 91,389.00	$ 767,367.00	$ 1,406,746.00
NET PLANT UTILITY	$ 70,337,310.00				
2% DISTRIBUTION	$ 1,406,746.00				
KWH SALES	143,716,794	126,085,135	44,995,350	377,811,691	692,608,970
KWH% OF TOTAL SALES	20.750%	18.204%	6.497%	54.549%	100.000%
2017	$ 298,673.00	$ 266,071.00	$ 95,345.00	$ 799,451.00	$ 1,459,540.00
NET PLANT UTILITY	$ 72,977,009.00				
2% DISTRIBUTION	$ 1,459,540.00				
KWH SALES	138,206,363	123,120,767	44,119,595	369,935,097	675,381,822
KWH% OF TOTAL SALES	20.463%	18.230%	6.533%	54.774%	100.000%
TOTALS	$ 2,964,330.50	$ 2,702,292.18	$932,107.06	$ 7,996,635.55	$ 14,615,365.50

The calculation for the Town of Reading PILOT paid out of operating income is a CPI formula used over the last 22 years commencing with a $1.5 million base in 1997. The payment has escalated over the years to $2.48 million in FY2018 representing approximately 44 % of the RMLD operating income @ 7.2% ROR and a total of $41.1 million PILOT to date. The remaining 56 % is currently transferred from operating income combined with the depreciation expense to meet the capital outlay. Leaving a balance of 0 percent operating income for other commitments. Further, the 56% is not sufficient to fund the capital outlay, so further reductions to previous year's operating income are transferred into capital to ensure that the infrastructure upgrades are performed for reliability, regulatory compliance, and safety.

History of voluntary below the line PILOT Payments to the Town of Reading Since 1998 inflated at CPI, which fluctuates

Calendar Year	CPI	% Change	Year Paid	Payment
1997	167.900			
1998	171.100	2.26%	FY99	$ 1,560,414
1999	176.000	2.50%	FY00	$ 1,595,680
2000	183.600	4.32%	FY01	$ 1,635,572
2001	191.500	4.30%	FY02	$ 1,706,229
2002	196.500	2.61%	FY03	$ 1,779,597
2003	203.900	3.77%	FY04	$ 1,826,062
2004	209.500	2.75%	FY05	$ 1,894,829
2005	216.400	3.29%	FY06	$ 1,946,870
2006	223.100	3.10%	FY07	$ 2,010,991
2007	227.409	1.90%	FY08	$ 2,073,332
2008	235.370	3.50%	FY09	$ 2,112,725
2009	233.778	-0.68%	FY10	$ 2,186,670
2010	237.446	1.57%	FY11	$ 2,171,880
2011	243.881	2.70%	FY12	$ 2,205,957
2012	247.733	1.58%	FY13	$ 2,265,427
2013	251.139	1.38%	FY14	$ 2,301,221
2014	255.185	1.61%	FY15	$ 2,332,863
2015	256.716	0.60%	FY16	$ 2,370,445
2016	260.496	1.47%	FY17	$ 2,384,668
2017	267.003	2.51%	FY18	$ 2,419,770
			FY19	$ 2,480,506
	Average	**2.35%**		

If kWh sales are decreasing, there are less dollars to capture cost of production expenses and even less dollars to establish a high ROR regardless of whether the net plant value is going up. Simply, the ROR can be set at 8 percent, but unless the kWh sales support the ROR, then a rate increase is required. The ROR must be set to remain consistent with its Mission Statement, to remain fair to its customers, to have competitive rates, and the system to be reliable and safe.

RECOMMENDATION TO THE RMLD BOARD OF COMMISSIONERS:

The overall budget and recommendations come from the General Manager to the CAB and the Board of Commissioners. However, it is within the sole discretion based on all of the facts and data provided, that the Board of Commissioners are in understanding and approval of the establishment of each year's ROR, the projected operating income, and what the operating income will be spent on. Since the convergence is not commensurate with the RMLD Mission Statement, an immediate change is recommended regarding the Town of Reading PILOT payment.

PILOT calculation methodologies widely used across the nation tie to kWh sales, a true economic marker. With sales decreasing at the RMLD and the leveling period unknown, only a PILOT based on kWh sales would quickly reflect the health of the department, mitigate the convergence projections and preclude an increase in rates to make such a payment, is recommended. An alternative, although not preferred would be a percent of net plant. The existing Town of Reading PILOT (FY19) is approximately $2.48 million, calculated by an escalated by CY18 CPI of 2.51%.

This recommendation for the Town of Reading PILOT is based on mils per kWh sales. In CY20, the methodology for the calculation of the PILOT would be changed to 3.5mils or $0.0035 per kWh sold, and decrease at a rate of .1mil or $.0001 per year over a five year period to an end rate of 3 mils or $0.003 per kWh sold. The payment for CY20 would be calculated based on the actual kWh sold in CY19. This combination of below the line mil cost per unit plus the above the line 2% of net plant, as a total PILOT payout, is more in line with the surveyed results for overall town payments. Keeping in mind that while a reduction in kWh sales is projected, there is speculation that certain pockets of economic development are occurring in Reading and Wilmington, with potential development in North Reading, within a few years. In addition, the RMLD is strongly committed to increasing sales through incentive programs already in place including split HVAC units, and plug in car charging stations. Further phases of rate adjustments to mitigate subsidizations, etc. are already in place. The RMLD is also working diligently to network with similar utilities with a loss of kWh sales compounded by saturated service territories with minimal load growth expected.

The alternative would be a PILOT based on net plant. In CY20, the methodology for the calculation of the PILOT would be changed to 2.5% of net plant, and decrease at a rate of .1% over a five year period to an end percentage of 2% of net plant. The payment for CY20 would be calculated based on the reported net plant in CY19.

The Town payment would be reviewed each year when the ROR is established. The Department should continue to look at long-term finances and sales projections to ensure continued success in meeting its Mission Statement. The Subcommittee on the Town Payment should continue to meet at least every five years to address the viability of the calculation methodology. Continued long term loss of kWh sales, catastrophic events such as the loss of major kWh sales (sudden) or the catastrophic loss of a main substation or similar, would deem immediate evaluation of said calculation and could result in a suspended payment or revised payment calculation.

	Town of Reading Payment **CPI FY 18 & FY 19, 2.5 % CY19-24**	**Projected kWh Sales**	**Mils per kWh**	**Town of Reading Payment - mils/kWh sales**	**Net Plant**	**% of Net Plant**	**Town of Reading Payment - % of Net Plant**
FY18	$2,419,770	662,548,949			$78,814,000		
FY19	$2,480,506	655,923,460			$80,657,000		
CY19	$2,542,519	649,364,225	3.50	$2,295,732	$86,257,000	2.50%	$2,016,425
CY20	$2,606,082	642,870,583	3.40	$2,207,838	$90,930,000	2.40%	$2,070,168
CY21	$2,671,234	636,441,877	3.30	$2,121,473	$92,613,000	2.30%	$2,091,390
CY22	$2,738,015	630,077,459	3.20	$2,036,614	$94,308,000	2.20%	$2,037,486
CY23	$2,806,465	623,776,684	3.10	$1,953,240	$95,312,000	2.10%	$1,980,468
CY24	$2,876,627	617,538,918	3.00	$1,871,330	$96,120,000	2.00%	$1,906,240

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By Electronic Mail

To: Robert LeLacheur, Jr., Town Manager, Town of Reading

cc: Reading Municipal Light Department Board of Commissioners
Coleen O'Brien, General Manager, Reading Municipal Light Department

From: Christopher Pollart and Karla Doukas

Re: Obligation of RMLD to Make Payments to Town of Reading

Date: March 7, 2018

INTRODUCTION

On behalf of the Reading Municipal Light Department ("RMLD"), the RMLD has asked us to discuss certain issues relating to RMLD's obligation to make payments to the Town of Reading ("Town"), including the Town's ability to exercise control over the amount of payment made by RMLD and its entitlement to RMLD funds and assets. In particular, we have been asked to address the following specific issues:

(1) The requirements and terms of the Agreement between RMLD and the Towns of Wilmington, Lynnfield and North Reading, including how the Agreement governs RMLD's obligation to make in-lieu of tax payments to the Towns for a 20-year term ("20-Year Agreement");

(2) The meaning of above-the-line and below-the-line items;

(3) The unique structure of municipal lights plants and their relationship to their host municipalities; and

(4) The ability of the Town and the process by which the Town may abandon the provision of electric service and sell RMLD's system.

In summary, while municipal light plants generally have no obligation to make payments to their host towns, the 20-Year Agreement and special legislation enacted pursuant to the 20-Year Agreement obligate RMLD to make above-the-line, in-lieu of tax payments ("PILOT")

equal to two percent of (2%) of RMLD's net plant allocated to each of the towns RMLD serves on the basis of load (kWh sales). The 20-Year Agreement and the special legislation allows, but does not require, RMLD to make additional in-lieu of tax payments to the Town of Reading from its unappropriated earned surplus, which is the net income generated from its return on plant. These below-the-line in-lieu of tax payments are strictly voluntary, which have been based on an arbitrary amount of $1.5 determined more than 20 years ago and are increased annually based on the previous year's CPI. For clarity, above-the-line items are operating expenses, whereas below-the-line items are deducted after RMLD's return and expenses are calculated.

The Town of Reading has no control over the amount of RMLD's in-lieu of tax payments or over RMLD's use of funds, rates or operations. As a municipal light plant with a franchise obligation to provide low cost, reliable electric service to its ratepayers, RMLD is a legally separate and distinct, self-sustaining financial entity from the Town. RMLD's rates and its use of funds are subject to statutory and regulatory requirements and under this statutory and regulatory scheme, RMLD's obligation is to its electric ratepayers, not to the Town or taxpayers. Indeed, it is well settled that municipal light plants are not tax-collecting devices. Rather, the Town cannot acquire RMLD's funds and assets unless and until RMLD sells its plant, which requires, at a minimum, Town Meeting approval by two-thirds vote at two separate Town Meetings and approval by the Department of Public Utilities ("Department" or "DPU") that such sale and abandonment of service is in the public interest. Additional approvals also may be required, including consent of the towns of Wilmington, North Reading, and Lynnfield, as RMLD has a franchise obligation to provide electric service and a contractual obligation through the term of the 20-Year Agreement. Any such sale is likely to result in protracted proceedings and costs and present significant risks.

We have discussed these issues in more detail below as well as explained the statutory and regulatory scheme governing RMLD in order to show why the Town does not have any entitlement to RMLD funds beyond its share of the 2% above-the-line PILOT.

EXECUTIVE SUMMARY

Background and Nature of Municipal Light Plants

- Municipal light plants are public utilities which have the same service obligations as privately-owned utilities such as NStar, National Grid and other utilities. They are authorized by law to provide electricity, gas, cable television and communications services to customers in their franchise areas. Cities and towns have no inherent powers to operate light plants. Specific legislation is required.

- Because municipal light plants provide essential services traditionally provided by private sector businesses, but also are municipally-owned, they are considered to be "quasi-commercial" entities, *i.e.,* independently governed business enterprises.

- Municipal light plants generally are not governed by the same laws that govern cities and towns. Rather, General Laws Chapter 164 governs the management and operation of municipal light plants.

- In several cases, the court has recognized Chapter 164 as the primary and, in most instances, exclusive statutory authority governing municipal light plant operations.

- Municipal light plants operate and are managed as commercial enterprises, separate and independent from general city or town governmental departments and subject to regulatory oversight by the DPU. RMLD may contract in its own capacity and notably, RMLD and the Town are sufficiently separate that they even may sue each other for damages.

- Early on, municipalities were divested of control over the management of the light plants and such authority was transferred to the municipal light board and manager appointed in accordance with Chapter 164.

- Chapter 164, Section 56 vests exclusive managerial power over the municipal light plant in the light plant Manager, subject to the direction and control of the municipal light board.

- This statutory scheme provides for the operation of a commercial business, insulated from the political concerns and activities of the municipality.

- In some municipalities, the Board of Selectmen or the mayor may serve as the light board. But even in those instances, they still must act in accordance with G.L. c. 164 and the interests of the light plant and its ratepayers, and not general town interests. For the Town to have its Board of Selectmen serve as the Light Board would require a charter amendment obtained through the Home Rule process pursuant to G.L. c. 43B or special legislation. The Town's charter could only change the form of government and not how RMLD operates.

- Accordingly, RMLD would operate subject to the same requirements and restrictions, including those regarding the use of its funds, regardless of the Town's form of government.

<u>Use of Light Plant Funds</u>

- Under the statutory and regulatory scheme governing municipal light plants, ratepayer funds must be used for light plant purposes to fulfill the light plant's public service obligations, even in instances when the Board of Selectmen serves as the light commission.

- RMLD's rates are governed by statute. Pursuant to G.L. c. 164, § 58, rates must be cost-based. Rates are required to be set to cover operating expenses (above-the-line items), plus RMLD may earn a maximum return of 8% on its net plant. RMLD has discretion to earn less than an 8% return but it cannot earn more.

- Case law and DPU precedent confirm that municipal light plants, in general, have no obligation to make PILOT payments to towns and that any such payments, if made, cannot be included as above-the-line expenses and must be treated as below-the-line items.

- In general, only the income generated from the return on plant as authorized by G.L. c. 164, § 58 may be used to make payments to towns, as such payments are not legal obligations of the light plant and they do not relate to the provision of electric service.

- "Below-the-line" is an accounting term which means the item is deducted after the return and expenses are calculated. "Above-the-line" means the item is included as an expense for purposes of determining the light plant's total allowed revenues pursuant to G.L. c. 164, §. 58. In other words, above-the-line items are those expenses that a light plant incurs by statute or regulation, or are necessary to provide electric service.

- As the DPU has stated in the *Prybyla* order in 1979, the primary purpose of municipal light plants is "to provide reliable electric service at reasonable rates to its consumers," and not to subsidize the town budget or fund town expenses.

- The DPU further explained, the light department is not a tax collecting device. It has no legal obligation to make payments in lieu of taxes, and its primary purpose is to provide reliable electric service at reasonable rates to its consumers.

- In a later DPU case – 1987 - involving RMLD, the DPU confirmed that payments made by municipal light plants to the towns they serve are considered to be voluntary payments rather than in-lieu of-tax payments.

- In that case, the accounting treatment of payments made by RMLD to the towns were challenged. RMLD argued that the payments (particularly to the Town of Reading because it owns the system) should be treated as above-the-line costs, *i.e.*, operating expenses.

- The DPU distinguished tax payments made by investor owned utilities, which are treated as above-the-line costs, from payments made by municipal light plants. The DPU stated that, in contrast to investor-owned utilities, the payments made by municipal light plants to the towns they serve (including the host town) are costs which the light plant "has chosen to incur, and are not imposed by statute or regulation and are not otherwise necessary to provide electric service."

- According to the DPU, such payments, if made at all, may not be treated as an above-the-line expense (operating expense) and must be accounted for as below-the-line items (deducted after the rate of return and expenses are calculated).

- Any "PILOT" payments made by municipal light plants are voluntary and must be made from its unappropriated earned surplus, *i.e.*, the income generated from its return on plant. By statute, return on plant may not exceed 8% of net plant. RMLD has no discretion to increase this amount.

- In RMLD's discretion, its earned surplus also may be left in the business for capital projects, ameliorate rate impacts, pay for unfunded liabilities, or any light plant purpose.

- In deciding whether to make a voluntary PILOT payment (or loan) to the town and the amount of such voluntary PILOT payment or loan, the DPU expects light boards to exercise discretion and consider the present and future needs of the light plant.

20-Year Agreement – RMLD's PILOT Obligation

- In response to the *Reading* decision and to resolve a dispute with the Town of Wilmington concerning the departure of Wilmington from the RMLD system, RMLD, the Town, and the Towns of Wilmington, North Reading and Lynnfield entered into the 20-Year Agreement to address RMLD's obligation to make PILOT payments to the towns, as well as RMLD's obligation to continue to provide electric service.

- Under the 20-Year Agreement, RMLD is obligated to make an above-the-line PILOT payment to each of the towns equal to 2% of RMLD's net plant. This above-the-line PILOT is paid to each of the towns based on their load in relation to system load.

- The 20-Year Agreement allows RMLD to make additional voluntary PILOT payments to the Town from its unappropriated earned surplus, *i.e.*, revenues generated from its return on plant authorized by statute. Any additional below-the-line PILOT payment to the Town is voluntary and within RMLD's discretion.

- In order to authorize the 2% above-the-line PILOT payment to the Towns, RMLD had to obtain special legislation because the statutory and regulatory scheme does not allow RMLD to treat such payments as operating expenses. As operating expenses, RMLD can include the expense of the 2% payments in the rates that it charges to its customers.

- The special legislation does not require RMLD to make payments *per se*; it only authorizes RMLD to make the above-the-line PILOT payment. The special legislation also makes clear that any payments in excess of the 2% on net plant must be made from RMLD's below-the-line earnings, *i.e.*, from its return on plant as authorized by G.L. c. 164, § 58 (*i.e.*, up to 8%). Below the line earnings are net profit and considered unappropriated earned surplus.

- Nothing in the 20-Year Agreement, special legislation, or general statutory and regulatory scheme requires RMLD to make any PILOT payment in excess of 2% of net plant. In fact, RMLD has no legal authority to make any additional above-the-line

PILOT payments and is prohibited from increasing these above-the line PILOT payments, whether by agreement or otherwise, without obtaining legislation. In addition, RMLD cannot be compelled to relinquish its unappropriated earned surplus to the Town based on long standing precedent.

- Accordingly, there is no legal basis for the Town to demand any PILOT payment in excess of its share of the 2% on net plant or for RMLD to raise its rates to make additional PILOT payments.

Sale of Plant – Town Acquisition of RMLD Assets

- In order for the Town to obtain RMLD funds in excess of the above-the-line PILOT and voluntary below-the-line PILOT and acquire control over RMLD's property and assets, the Town must obtain Town Meeting and DPU approval to abandon service and sell the plant.

- The sale of RMLD requires two separate Town of Reading Town Meeting votes, which both must pass by a two-thirds majority.

- The sale of the plant also is subject to the jurisdiction of the DPU. The DPU only will authorize RMLD to abandon service and sell the plant if, after notice and a public hearing, it finds that it is in the public interest to do so.

- The DPU proceeding could take several years.

- RMLD also would need to obtain consent from the towns it serves if it seeks to abandon service while the 20-Year Agreement is in effect. Under the 20-Year Agreement, RMLD has an obligation to serve Wilmington, North Reading, and Lynnfield and thus, RMLD may in breach if it attempts to abandon its obligation to provide electric service.

- Additional approvals also may be required depending on the interested buyer(s), if any. The Town cannot sell the plant to just anyone. Only municipal light plants and regulated electric companies may provide electric distribution services in Massachusetts. RMLD's likely successor(s) would be another municipal light plant established by Wilmington or one of the other towns, an investor-owned utility in the area, such as National Grid, or some combination. Any town seeking to establish a municipal light plant must follow a local approval process. Service territories of investor-owned utilities already have been defined.

- Litigation would be very expensive, and would present financial risks to the Town and potential losses, assuming it receives the requisite approvals to sell the plant. Any proceedings and terms of the sale also may be particularly complex if multiple entities are involved.

- In particular, the sale price, *e.g.*, valuation of RMLD's plant, as well as the assets to be included in the sale, most likely would be contentious and subject to litigation. The valuation of the plant could be low (or lower than expected), particularly where upgrades are needed, and the Town very well may be left with significant liabilities, such as those under power agreements that are not acquired as part of any sale.

- Assuming that the sale of RMLD is approved, potential risks and adverse consequences include: (1) low valuation of plant resulting in a relatively low purchase price; (2) retention of the Town of RMLD liabilities, such as power supply contracts; (3) loss of income earned on RMLD's deposits into the Town Treasury, which, as we understand, amounts to approximately $150,000 per year, (4) loss of PILOT payments, especially if RMLD is acquired by another municipal light plant; (5) payment of significant legal costs to obtain approvals and effectuate the sale; and (6) an increase of electric rates paid by Town residents and the Town itself.

- Accordingly, the Town potentially could realize a loss by selling RMLD or at the very least, it very well may receive more income over the long-run by retaining RMLD.

DISCUSSION

I. Background and Discussion of the 20-Year Agreement

The 20-Year Agreement is the result of a settlement between RMLD and the Town of Wilmington resolving certain disputes involving the operation of RMLD and the payment of PILOTs to the towns RMLD serves. The dispute dates back to the mid-1980s when the Wilmington Chamber of Commerce and approximately 70 other customers filed a petition at the DPU requesting an investigation into RMLD's rates and practices. In that DPU proceeding, *Reading Municipal Light Department* D.P.U. 85-121/85-138/86-28-F (1987) ("*Reading*"), the DPU examined RMLD's obligation to make PILOTs to the towns and the calculation of RMLD's rate of return, among other issues. Wilmington argued that the PILOT payments are discriminatory because RMLD makes a higher payment to the Town of Reading. The DPU determined that RMLD had no obligation to make any payments to the towns, including the Town of Reading. Rather, the DPU concluded that any such PILOT payments are voluntary to be made within RMLD's discretion. Such payments, if made, cannot be expensed (treated as above-the-line items) and must be treated as below-the-line items paid from RMLD's unappropriated earned surplus generated from its return on plant.[1] In addition, the DPU concluded that RMLD may not earn more than an 8% return on plant, which shall be calculated on the basis of net plant, not gross plant.

[1] Earned surplus is net income represented by its earned return on investment as permitted by G.L. c. 164, §. 58. *See Littleton Elec. Light Dept*., D.P.U. 96-11, at 1, n.2 (1996).

In the meantime, the Town of Wilmington voted to depart from RMLD's system and acquire its own light plant. On the same day the DPU issued its decision, Wilmington filed a petition with the DPU seeking to resolve a dispute concerning the valuation of RMLD's plant located within the limits of Wilmington. As reflected by the recitals in the 20-Year Agreement, the parties decided to settle the matter given the costs and risks associated with the protracted DPU proceedings.

The 20-Year Agreement establishes RMLD's right and obligation to serve the Towns of Wilmington, North Reading, and Lynnfield Center during the term. The 20-Year Agreement also definitively establishes RMLD's obligation to make payments to the towns. The 20-Year Agreement required the parties to pursue special legislation authorizing RMLD to expense PILOT payments to the towns.[2] The parties obtained such special legislation in 1990, St. 1990, c. 405.

The special legislation, together with the 20-Year Agreement, squarely establishes RMLD's obligations to make PILOT payments to the towns, to treat such payments as expense of plant, and its right to earn and use its return on plant. Chapter 450 of the Acts of 1990 states in pertinent part:

> SECTION 1. Notwithstanding the provisions of any general or special law to the contrary, the municipal light department of the town of Reading hereby is authorized to include in annual operating expenses and recover through its electric rates voluntary, in-lieu-of-tax payments made to the towns of Reading, Wilmington, North Reading and Lynnfield. Such payments may be made during each calendar year commencing July tenth, nineteen hundred and ninety, in accordance with the following formula:
>
> (a) the municipal light department of the town of Reading shall calculate an amount equal to two percent of its net plant, determined in accordance with the policies and decisions of the department of public utilities, as/of the end of the calendar year prior to the year in which the in lieu of tax payments are to be made; and
>
> (b) the amount calculated in clause (a) shall be appropriated by the municipal light department of the town of Reading and distributed during such year to the towns of Reading, Wilmington, North Reading and Lynnfield as in lieu of tax payments based on a pro rata allocation in accordance with the respective retail kilowatt-hour sales within each town from such prior calendar year as a percentage of said municipal light department's total retail sales within all four of the town during such prior calendar year.

[2] The 20-year Agreement also addressed RMLD's obligation to make payments from unappropriated earned surplus while special legislation was being pursued. If special legislation failed, the agreement would terminate.

> Nothing in this section shall preclude said municipal light department from earning a return of eight percent per annum on the cost of the plant in accordance with section fifty-eight of chapter one hundred and sixty-four of the General Law making additional voluntary in lieu of tax payments to the town of Reading from its unappropriated earned surplus, and otherwise using its earned return of up to eight percent per annum for purposes authorized by law.
>
> [Emphasis added].

In short, the special legislation authorizes RMLD to make an above-the-line PILOT payment to the four towns in an amount equal to 2% of its net plant and include such PILOT payments as operating expenses in its rates. The above-the-line PILOT payments are to be allocated to each of the towns based on kwh sales, *i.e*., the percentage of each town's load to system load. By law, RMLD cannot increase these above-the-line PILOT payments, whether by agreement or otherwise, without obtaining additional legislation as G.L. c. 164 does not authorize municipal light plants to expense any payments to towns or otherwise obligate light plants to make such PILOT payments. The special legislation also makes it clear that RMLD may make additional voluntary (below-the-line) PILOT payments to the Town from its unappropriated earned surplus, *i.e*., income generated from its return on plant. The special legislation expressly clarifies that RMLD may earn another 8% return on net plant in accordance with G.L. c. 164, § 58, which RMLD may use, in its discretion, to make additional "voluntary" payments to the Town of Reading or for any other purposes authorized by the statutory and regulatory scheme. As discussed below, RMLD may retain such income for operations, *e.g*., rate stabilization purposes, ratepayer refunds, deposit into depreciation account, or RMLD may loan such funds to the Town or may relinquish the funds to the Town for general tax relief. Nonetheless, the special legislation unequivocally establishes that: RMLD has no obligation to make any below-the-line PILOT payments to the Town or any payment beyond the above-the-line payments made from the 2% on net plant.

RMLD's obligation to make PILOT payments to the Towns under the 20-Year Agreement is equally clear and well-established. Section 5 of the 20-Year Agreement provides:

> Subject to and expressly conditioned upon (1) there being in effect on or before January 1, 1992, the special legislation described in paragraph 3 of this Agreement which authorizes RMLD to include in annual operating expenses for purposes of G.L. c.164, §§57 and 58 in lieu of tax payments to Reading, Wilmington, North Reading and Lynnfield, and (2) upon Wilmington's performance of its obligations under paragraph 6 of this Agreement, RMLD shall make in lieu of tax payments to such towns during each year commencing with the year in which the effective date of such special legislation occurs through the end of the term of this Agreement in accordance with the following formula:
>
> > (i) RMLD shall calculate an amount equal to **two (2%) percent** of the cost of its **net plant** (determined in accordance with the policies and decisions of the DPU) as of the end of the calendar year prior to the year in which any such in lieu of tax payments are to be made; and

> (ii) the amount calculated in accordance with subparagraph (i) shall be **appropriated and applied or distributed** during such year to Reading, Wilmington, North Reading and Lynnfield as payments in lieu of taxes based on **a pro rata allocation in accordance with the respective retail kilowatthour sales** within each town from such prior calendar year as a percentage of RMLD's total retail sales within all four of the towns during the same year,

See 20-Year Agreement, Section 5(a) (emphasis added). As with the special legislation, the 20-Year Agreement also makes clear that RMLD may, but is not required, to make additional below-the-line PILOT payments to the Town of Reading from its unappropriated surplus earned from its return on plant as provided in G.L. c. 164, § 58. In this regard, Section 5 of the 20-Year Agreement states in relevant part:

> Nothing in this paragraph shall preclude RMLD from earning a return of eight percent per annum on the cost of plant in accordance with G.L. c.164, §58, making additional **voluntary** in lieu of tax payments to the Town of Reading from its unappropriated earned surplus, and otherwise using its earned return of up to eight percent per annum for purposes authorized by law.

See 20-Year Agreement, Section 5(c) (emphasis added). As such, the 20-Year Agreement squarely establishes that any PILOT payments to the Town of Reading in excess of its share of the 2% on net plant above-the-line payment are strictly voluntary and would be treated as below-the-line items. This provision also unequivocally establishes RMLD's right to use the 8% return on plant for any purposes authorized by law, including retaining such income for the operation of RMLD.

Accordingly, there is no legal basis for the Town to demand any PILOT payment in excess of its share of the above-the-line PILOT generated from the 2% on RMLD's net plant or for its assertion that RMLD can simply increase its rates to make additional payments.

II. Above-the-Line and Below-the-Line Payments. (Rates and Use of Funds)

In *Reading*, the DPU examined the accounting treatment of payments made by RMLD to the Towns of Wilmington and Reading and distinguished between above-the-line and below-the-line items or costs. As the DPU explained, "below-the-line" is an accounting term which means the item is deducted after the return and expenses are calculated. *Reading, supra, at 15, n.4*. "Above-the-line" means the item is included as an expense for purposes of determining its total allowed revenues pursuant to G.L. c. 164, § 58. *Id.*

Under the statutory scheme governing municipal lights, rates are cost based and cannot exceed more than 8% on the cost of the plant. G.L. c. 164, § 58 provides in pertinent part:

> There shall be fixed schedules of prices for gas and electricity.... No price in said schedules shall, without the written consent of the department, be fixed at less than production cost as it may be defined from time to time by order of the department. Such schedules of prices shall be fixed to yield not more than eight

> per cent per annum on the cost of the plant, as it may be determined from time to time by order of the department, after the payment of all operating expenses, interest on the outstanding debt, the requirements of the serial debt or sinking fund established to meet said debt, and also depreciation of the plant reckoned as provided in section fifty-seven, and losses; but any losses exceeding three per cent of the investment in the plant may be charged in succeeding years at not more than three per cent per annum....

G.L. c. 164, § 58. The DPU summarized the total revenues that municipal light plants may earn under G.L. 164, § 58 in the following formula:

MAXIMUM REVENUES = PLANT x RATE OF RETURN + ALLOWABLE EXPENSES

See Reading, supra, at 5, n.2. By statute, rates cannot yield more than 8% per year on cost of plant. *See* G.L. c. 164, § 58 ("Such schedules of prices shall be fixed to yield not more than eight per cent per annum on the cost of the plant"). Section 57 defines "cost of plant" as follows: "By cost of the plant is intended the total amount expended on the plant to the beginning of the fiscal year for the purpose of establishing, purchasing, extending or enlarging the same." In determining the allowable rate of return, Section 58 establishes a maximum return of 8% on cost of plant. While RMLD has discretion to earn less than an 8 percent return, it may not earn more as the allowable return is established by statute and only can be changed only by a statutory amendment. *Reading*, at 10. The return is calculated on the basis of net plant, not gross plant. *See id.*, at 9. As the DPU explained, the inclusion of previously depreciated plant in the calculation of the statutorily allowed return by RMLD would result in ratepayers repeatedly paying a return of and a return on utility plant. *See id.*

Pursuant to G.L. c. 164, § 58, income from retail electricity sales (above-the-line earnings) and the money appropriated must be used to pay the annual expense of the plant (*i.e.*, the gross expenses of operation, maintenance and repair, the interest on the bonds, notes or certificates of indebtedness issued to pay for the plant, an amount for depreciation equal to three per cent of the cost of plant), for the fiscal year. However, the DPU has determined that municipal light plants have discretion over the use of below-the-line or earned surplus funds. RMLD certainly may keep the funds in the business to pay light plant expenses or may relinquish or loan the below-the-line funds to the Town for general tax relief. Here, the Department stated:

> If there is any excess of income over current expenses (including, as required by the statute, depreciation, interest and maturing debt requirements), such excess or profit may be left in the business, or returned to the town treasury, to be used, like other municipal receipts for the relief of general taxes.

See In re Paras, D.P.U. 86-16, at 3. However, the DPU expects managers and light boards to exercise prudent management discretion in determining the amount, if any, to be transferred to the town, with consideration of the light plant's cash position and anticipated needs. *See id.* at 3-4. Thus, DPU precedent requires light plants to act reasonably in determining if, when and how

to allocate surplus funds in order to meet the ratepayers' interests. *See id.; see also Littleton Elec. Light Dept.*, D.P.U. 96-11, at 5. In other words, when deciding whether to make a voluntary, below-the-line PILOT to the Town, RMLD should consider whether such revenues are needed for light plant purposes.

In *Reading, supra*, RMLD argued that the payments (particularly to the Town of Reading because it owns the system) should be treated as above-the-line costs, *i.e.*, operating expenses. The DPU, however, distinguished tax payments made by investor owned utilities, which are treated as above-the-line costs, from payments made by municipal light plants. *See id.* The DPU stated that, in contrast to investor-owned utilities, the payments made by municipal light plants to the towns they serve (including the host town) are costs which the light plant "has chosen to incur, and are not imposed by statute or regulation and are not otherwise necessary to provide electric service." *See id.* As the DPU recognized and affirmed by the Single Justice of the Supreme Judicial Court ("SJC"), municipal light plants are not tax collecting devices and they have no legal obligation to make payments in lieu of taxes. *See Prybyla v. Wellesley Municipal Light Plant*, D.P.U. 19535, at 3, affirmed *Prybyla v. Department of Pub. Utils*. S.J. No. 79-188 (1979). In other words, an "above-the-line" item is a cost that the light plant incurs by statute or regulation or necessary to provide electric service. Therefore, according to the DPU, such payments to the towns, if made at all, may not be treated as an above-the-line expense and must be accounted for as below-the-line items. *See id.* at 15-16. Rather, any payments made to the towns are considered voluntary and are solely within the light plant's discretion to the extent it has available any surplus funds.[3]

As discussed above, these regulatory requirements governing municipal light plant PILOT payments have been altered somewhat by special legislation obtained by RMLD. Unlike all other municipal light plants, the special legislation allows RMLD to treat PILOT payments in the amount equal to 2% of RMLD's net plant to the towns as operating expenses, *i.e.*, above-the-line items. *See* St. 1990, c. 405. However, any additional PILOT payments made to the Town are treated in the same way as payments made to the towns by other municipal light plants: the special legislation makes clear that any additional PILOT payments to the Town in excess of the 2% of net plant are wholly within RMLD's discretion and must be made from its unappropriated

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[3]We note that G.L. c. 164A, § 8 imposes a statutory obligation on municipal light plants to make certain in-lieu-of-tax payments from above-the-line earnings for Pool Transmission Facilities (PTF). G.L. c. 164A, § 8 pertains to "electric power facilities," which are defined for purposes of that statute as:

> generating units rated twenty-five megawatts or above and transmission facilities rated sixty-nine kilovolts or above which (i) have been designated as pool or pool-planned facilities under the New England power pool agreement or (ii) are financed in whole or in part under the provisions of sections eleven to twenty-two, inclusive.

G.L. c. 164A, § 8. In other words, G.L. c. 164A, § 8 only authorizes in-lieu-of-tax payments on PTF facilities or certain generating and transmission facilities financed through revenue bonds. Even then, that statute does not apply to facilities constructed prior to September 30, 1973. To our knowledge, RMLD does not own any PTF facilities in the Towns, and thus, G.L. c. 164A, § 8 would not apply to any payments made to the Towns under the 20-Year Agreement or otherwise.

earned surplus in accordance with the policies of the DPU, *i.e.*, income generated from its 8% return on plant.[4]

III. Unique Structure of Municipal Light Plants and Relationship to the Town

RMLD, as a municipal utility with a franchise obligation to provide low-cost, reliable service to its ratepayers, is a legally and financially separate entity from the Town, operating as a business enterprise pursuant to G.L. c. 164, rather than another Town department. It is well settled that the Town has no authority over the management of RMLD, including its expenditures. The court has long recognized the autonomy of municipal light plants from traditional town government processes and operations. *See, e.g., Municipal Light Commission of Peabody v. Peabody*, 348 Mass. 266 (1964); *Municipal Light Commission of Taunton*, 323 Mass. 79 (1948). According to the court, municipal light plants are "quasi-commercial" entities created by special act; municipalities themselves have no inherent rights to own and operate such a business in the absence of special legislation and the enabling statutes, found at G.L. c. 164, §§ 34 *et. seq.* *See, e.g., MacRae v. Concord*, 296 Mass. 394, 396 (1934); *Spaulding v. Peabody*, 153 Mass. 129, 137 (1891). Municipal light plants, such as RMLD, operate and are managed separate and independent from general town governmental departments and subject to regulatory oversight by the DPU. The SJC has recognized G.L. c. 164 as the primary and, in most instances, exclusive statutory authority governing municipal light plant operations. *See, e.g., Municipal Light Commission of Taunton*, 323 Mass. at 84; *MacRae*, 296 Mass. at 397. As a consequence, municipal light plants generally are not subject to town by-laws and ordinances or control by Town officers. *See Municipal Light Commission of Taunton*, 323 Mass. at 84 (holding that city ordinances specifying procedures for the fixing of salaries do not apply to municipal light plants).

Municipalities were divested, early on, of control over the management of their light plants and such authority was transferred to the municipal light board. *Capron v. Taunton*, 196 Mass. 41 (1907); *Whiting v. Mayor of Holyoke*, 272 Mass. 116 (1930). The municipal light board is vested with all the powers and duties formerly exercised by the mayor and the Selectmen with respect to light plants and with all of the powers and duties conferred upon municipal light boards under G.L. c. 164. *Adie v. Mayor of Holyoke*, 303 Mass. 295 (1939).

G.L. c. 164 sets out the entire process with regard to, *inter alia*, municipal light plant budgets, expenses, accounts, and rates for service, and this statutory scheme provides for the operation of a commercial business, insulated in terms of budgets, appropriations, and operation and maintenance from the political concerns and activities of the municipality. G.L. c. 164, § 56 vests exclusive managerial power over the municipal light plant in the light plant Manager,

[4]See above for the text of the special legislation.

subject to the direction and control of the Light Board. *Commonwealth v. Oliver*, 342 Mass. 82, 85 (1961) (management and operation of the light plant is vested in the Light Board by virtue of G.L. c. 164, § 55, and in the Manager acting under them as their executive officer under G.L. c. 164, § 56). Specifically, the Manager of a municipal light plant, under the direction of the Light Board has:

> full charge of the operation and management of the plant, the manufacture and distribution of gas or electricity, the purchase of supplies, the employment of attorneys and of agents and servants, the method, time, price quantity and quality of the supply, the collection of bills, and the keeping of accounts.

G.L. c. 164, § 56. To carry out its business, RMLD also has authority under G.L. c. 164 to enter into contracts in its own name. *See* G.L. c. 164, §§ 56A - 56D. While G.L. c. 164 imposes some filing and disclosure requirements with the Town, the Town lacks authority over the approval of light plant contracts and terms. The court has interpreted G.L. c. 164 as giving municipal light plants considerable freedom to make management decisions. Indeed, by virtue of the express language of Section 56 and with the creation of a Light Board within the Town, virtually exclusive managerial control of RMLD has been placed in the hands of the Light Board and the Manager, appointed by the Light Board pursuant to G.L. c. 164, § 56. In particular, the Manager and the Light Board have full authority over RMLD's budget and expenditures, personnel policies and compensation of its employees, and the keeping of accounts, subject to any oversight authority of the DPU and any requirements imposed by G.L. c. 164. Here, the Town can exercise no control over the management of RMLD, including its finances.

The SJC's decision in *Taunton*, *supra*, illustrates the Town's lack of authority and control over the light plant. There, the court made clear that municipal light plants are not subject to Town personnel policies or bylaws or compensation levels for their employees. In that case, the City of Taunton had established an ordinance which set salary scales for janitors and custodians and sued to have the Taunton Municipal Light Plant ("TMLP") follow the City's salary scale. The court held that TMLP did not have to follow the City ordinance and that the TMLP Commission and Manager could set compensation levels pursuant to their exclusive managerial power. In so ruling the Court stated:

> It is well settled by the decisions of this court in which statutes similar to that in the present case creating municipal light commissions were considered, that where cities and towns are authorized to enter the field of business enterprises like the manufacture of gas and electricity, they do it, not under the laws relating to private corporations, but under special statutory provisions; that, the officers of the [lighting plant] have been created and their duties defined by statute, they must be held to be public officers under legislative mandate, and not agents of the city; that the design of the statute in the present case is to vest exclusive managerial powers in the commission subject to the supervision of other public officers and particularly of the department of public utilities of the Commonwealth as provided by G.L. (Ter. Ed.) c.164, Whiting v. Mayor of Holyoke, 272 Mass. 116; subject only to the provisions of c. 164. Adie v. Mayor

> of Holyoke, 303 Mass. 295. **It is also settled that a municipality can exercise no direction or control over one whose duties have been defined by the legislature.** Adie v. Mayor of Holyoke, 303 Mass. 295, 299. *Breault v. Auburn*, 303 Mass. 424, 428. *Gibney v. Mayor of Fall River*, 306 Mass. 561, 565. *Sweeney v. Boston*, 309 Mass. 106, 110.

Id. at 84 (emphasis added).

Unlike budgets for town departments, municipal light plant budgets are not subject to Town Meeting approval. In *Municipal Light Commission of Peabody v. Peabody*, 348 Mass. 266 (1964), the SJC specifically considered the scope of the light plant's authority over its budget and appropriations. In that case, the court ruled that the budget of municipal light plant should be determined in accordance with G.L. c. 164 and not by procedures of statute governing control of municipal departments, such as those procedures found in G.L. c. 44. *Peabody*, 348 Mass. at 273. Specifically, the SJC stated:

> The management and fiscal operation of the municipal light department... are vested in the commission and the manager of the plant... and the budget of the light department is to be determined in accordance with c. 164 and not by the procedures of c. 44; any appropriations under the procedures of c. 44 if less in amount than the budget the light department requires shall not limit the expenditures of the department; so far, if at all, as such appropriations are in excess of the amounts that the city is required to appropriate under c. 164, §57, they shall be deemed appropriations under c. 164, §57A.

See id. (emphasis added). G.L. c. 164 does not subject municipal light plant to the town appropriation process to use revenues generated by the light plant and therefore, the SJC determined that appropriations for the "expense of the plant" may be made by vote of the Light Board on a budget submitted by the light plant Manager. *See id.* at 268, 270. Moreover, the court found that because the town cannot control the size of the light plant's budget, it necessarily follows that it cannot control any of its expenditures. The SJC reasoned, "...§§57 and 58 confirm the implication of § 56 that the municipal light plant shall have in each fiscal year the funds to meet the 'expense of the plant' as estimated by the Manager at the beginning of the year, and that, within the limits of the business operation as defined by the statute, the mayor and city council have no restrictive powers." *Id.* at 270 (emphasis added). The SJC further noted that "[s]ection 57A of c. 164 ... throws light on the intent of § 57 and confirms that the operation of the municipal plant is not dependent upon ... appropriations [from the tax levy] by the municipality." Any appropriations made by the Town from the tax levy are considered advances on receipts of the light plant, which the light plant must repay when the receipts are collected. *Id*. at 271.

The light plant Manager's obligation to report income and expenses of the light plant pursuant to G.L. c. 164, § 57 has raised an issue of the role of municipalities over budgetary matters. That statute provides, in relevant part, that the Manager is to submit, each year, to the Light Board:

> an estimate of the income from sales of ... electricity to private customers... and of the expense of plant... meaning the gross expenses of operation, maintenance and repair, the interest on the bonds, notes of certificates of indebtedness issued to pay for the plant, an amount of depreciation equal to three per cent of the cost of the plant exclusive of land and any water power appurtenant thereto, or such smaller or larger amount as the department [of public utilities] may approve, the requirements of the sinking fund or debt incurred for the plant, and the loss, if any, in the operation of the plant during the preceding year, and of the cost, as defined in section fifty-eight, of the... electricity to be used by the town.

G.L. c. 164, § 57. The court, however, interpreted this provision as not conferring any oversight authority to the town and held that, where a Light Board exists, the statute requires the Manager to provide this information to the Light Board, rather than to other officers in the town. *See Peabody* at 268, 270.

Several years after the *Peabody* decision, the SJC reaffirmed the autonomy of municipal light plants from other town departments, even to the extent that the courts view light plants as separate and distinct financial entities. *See Middleborough v. Middleborough Gas & Elec. Dept*., 422 Mass. 583, 588 (1996). Consequently, the SJC determined that municipal light plants and towns are capable of suing each other for money damages.[5] *See id.* The SJC reasoned that the different sources of revenues largely account for this separate financial treatment. *See id.* Ratepayers support the operations of municipal light plants, whereas towns and cities generate their revenues from the taxpayers. This decision clearly illustrates that RMLD and the Town are not the same.

We note that G.L. c. 164 allows the Board of Selectmen to serve as the light board and the Town may change its form of government under Home Rule procedures. However, RMLD still must act in accordance with G.L. c. 164 and the interests of the light plant and its ratepayers, and not general town interests. *See Middleborough, supra,, citing Hull Mun. Lighting Plant v. Massachusetts Mun. Wholesale Electric Co*., 399 Mass. 640 , 647 (1987) (municipal lighting boards act on behalf of ratepayers). First and foremost, RMLD is an electric utility providing essential services. Under the statutory and regulatory scheme, RMLD is recognized as a public service corporation and has a legal obligation to provide low cost, reliable electric service to its ratepayers. It is well settled that municipal and private utilities are subject to identical public service obligations. *Planning Bd. of Braintree v. Department of Pub. Utils*., 420 Mass. 22, 27 (1995). Each has the same "duty to exercise [their] franchise for the benefit of the public, with a

[5] By filing the lawsuit, the Town of Middleborough sought to shift the burden of the cost of MGED's alleged negligence resulting from a fire from its taxpayers to MGED's ratepayers either directly or, if MGED's insurers pay for the damage, through increased premiums. The SJC agreed that MGED should be responsible for the loss. The court stated that had the loss been a loss incurred by MGED due to its mismanagement, its ratepayers would have absorbed the loss. Accordingly, for this and other reasons, the court concluded that MGED and the town are sufficiently distinct as financial and political entities to support a suit by the town against MGED for the town's loss as a result of the fire. This case illustrates that RMLD is a self-sustaining enterprise, financially and legally separate from the Town and the Town has no liability for RMLD operations, whether in contract or in tort.

reasonable regard for the rights of individuals who desire to be served, and without discrimination between them." *See id*. at 27-28; *Bertone v. Department of Pub. Util*s., Mass. 411 Mass. 536, 544 (1992). Specifically, the DPU has recognized that utilities, including municipal utilities, have an "obligation to furnish adequate, reliable service to all of [their] customers." *See North Attleborough Elec. Dept. ("NAED"),* D.P.U. 86-261, at 17 (1987). In fact, the DPU stated that the primary purpose of municipal light plants is "to provide reliable electric service at reasonable rates to its consumers." *Prybyla v. Wellesley Municipal Light Plant*, D.P.U. 19535, at 3, *affirmed Prybyla v. Department of Pub. Utils*., S.J. No. 79-188 (1979). Notably, the Appeals Court, in *Golubek v. Westfield Gas & Elec. Light Bd*., 32 Mass. App. Ct. 954 (1992), confirmed that local legislation cannot alter the comprehensive statutory scheme pertaining to municipal light plants. Thus, even if the Town were to change its form of government, RMLD would be subject to the same statutory and regulatory requirements and restrictions regarding the operation of RMLD, including the establishment of rates and the use of its funds. In other words, the Town could not simply transfer RMLD funds for Town purposes.

IV. Sale of RMLD

The Town, through its Board of Selectmen, lacks authority to sell RMLD. In general, the sale of RMLD requires **two, two-thirds vote of Town Meeting and approval of the DPU**. G.L. c. 164, § 68 governs the sale of municipal light plants, stating:

> A town which has acquired a municipal lighting plant shall not sell it for the purpose of abandoning the distribution of gas or electricity to its inhabitants until such sale has been authorized in the manner and by the votes prescribed for the acquisition of such plants by sections thirty-five and thirty-six. No sale of such a plant shall be made for any purpose until the department, after notice and a public hearing, has determined that the facilities for furnishing and distributing gas and electricity in the territory served by such plant will not thereby be diminished, and that such sale and the terms thereof are consistent with the public interest.

Pursuant to this statute, the Town must obtain the same authorization to sell RMLD as it did to acquire RMLD. G.L. c. 164, § 36 sets forth that procedure and requires two separate Town Meeting votes, which must pass by a two-thirds majority. If any of the votes fail, the Town will have to wait at least two years before attempting to sell RMLD again. Specifically, the statute states:

> A town shall not acquire such a plant until authorized by a two thirds vote, taken by ballot with the use of the voting list, at each of two town meetings called therefor and held at intervals of not less than two nor more than thirteen months. If the first of such votes is favorable and the second unfavorable, or if both such votes are unfavorable, no similar vote shall be passed within two years thereafter.
>
> *See* G.L. c. 164, § 36.

If the sale passes at Town Meeting, the town also will need to obtain DPU approval to effectuate the sale. This DPU process requires notice and a public hearing. We would expect that any such sale not only would be controversial but involve some complex issues particularly in light of the fact that RMLD serves multiple communities, Wilmington, North Reading and Lynnfield Center Wilmington, North Reading and Lynnfield Center. Pursuant to special act, St. 1908, c. 369, RMLD obtained authority to extend its service territory to these areas and as a result, RMLD has a franchise obligation to provide such service. Specifically, Section 3 of the special act states:

> The town of Reading shall furnish to the towns North Reading and Wilmington for municipal use and to the town of Lynnfield for municipal use in that part thereof known as Lynnfield Centre, and to the respective inhabitants of said towns of North Reading and Wilmington and of that part of the town of Lynnfield known as Lynnfield Centre.

Further, the 20-Year Agreement requires RMLD to provide such service. Paragraph 1 of the 20-Year Agreement states:

> Subject to the provisions of this Agreement, RMLD will continue to furnish electric service to Lynnfield, North Reading and Wilmington, and their inhabitants, on a reliable basis and at a reasonable cost.

The 20-Year Agreement also precludes Wilmington, North Reading and Lynnfield from acquiring RMLD plant. Accordingly, as long as the 20-year agreement is in effect, RMLD would have an obligation to continue to provide service. Notably, the 20-Year Agreement recognizes that RMLD's obligation to provide service extends beyond the term. Specifically, Section 12 states:

> Upon the expiration of the term of this Agreement in accordance with the provisions of paragraph 11 or termination of this Agreement in accordance with the provisions of paragraphs 3 or 6, RMLD shall continue to serve Wilmington, North Reading and Lynnfield pursuant to St. 1908, c.369 and G.L. c. 164.

In the event that RMLD were to move forward with the sale, RMLD very well could face litigation and contentious regulatory proceedings. While we are not aware of any proceedings in which a municipal light plant sought to sell its system pursuant to Section 68, the sale and acquisition of light plant facilities could take years, is very costly and presents some significant risks. Indeed, the Town of Wilmington sought to establish its own municipal light and acquire a portion of RMLD's system. The 20-Year Agreement acknowledges that placing a valuation on RMLD's plant would be contentious, take a very long time, and present some unacceptable risks not only to ratepayers in the Town of Wilmington, but to the ratepayers in Reading. Here, the recitals states:

> WHEREAS, RMLD and Wilmington are in substantial disagreement as to the **valuation to be placed upon RMLD's plant** within the limits of Wilmington and the amount of severance damages, if any, arising out of the transfer of such plant by RMLD to Wilmington;
>
> WHEREAS, discovery and the presentation of evidence to the Department would in all probability take months, if not years to complete, all at **great expense** to Wilmington and RMLD's ratepayers;
>
> WHEREAS, an adverse **outcome of a Department valuation proceeding involves substantial and unacceptable risks** for both RMLD, Wilmington and RMLD's ratepayers;

In addition, a DPU decision involving Stow's acquisition of plant in Hudson (*Petition of Stow Municipal Electric Department for a determination by the Department of Public Utilities of damages pursuant to St. 1898, c. 143, and G.L. c. 164, s.s. 42 and 43*, D.P.U. 94-176 (1996), illustrates some of the complexities, costs, and risks associated with selling plant. That case involved the sale of a portion of Hudson's system to Stow. Hudson did not seek to abandon service to Stow; rather Stow sought to depart from Hudson's system and establish its own

municipal light plant. Stow petitioned the DPU for a determination of purchase price and damages, if any, resulting from its separation from Hudson. The process involved lengthy DPU and court proceedings, taking approximately seven years. (Stow filed its petition in 1994; the DPU issued an order on reconsideration in 2001.) The DPU awarded Hudson only $2,554,472 as compensation for the purchase of its physical property located within Bolton, Boxboro, Maynard, and Harvard and physical termination and reconnection costs. The DPU denied Hudson compensation for power supplies.[6]

Any sale by RMLD could be even more complex, depending on whether the sale involves one or multiple parties, such as one or more of the towns or an investor-owned utility such as National Grid.[7] If a municipality seeks to acquire all or a portion of RMLD's plant, that municipality (or municipalities) would have to obtain the necessary Town Meeting approvals as well. We would expect any such proceedings to take years and there is no guarantee that the DPU would find such sale to be in the public interest, particularly if there is no willing buyer. Nor is there any guarantee that the Town of Reading would receive the compensation from the sale that it expects, particularly where plant is in need of updating and the Town could be left with significant contractual liabilities. Rather, the Town might be better off financially by retaining RMLD and continuing to receive low-cost, reliable electric service from RMLD and receiving income from the above-the-line and below-the line PILOT payments from RMLD and earning interest on its deposit of funds in the Town Treasury. Rates of investor-owned utilities are generally higher and service is not as reliable. The Town most likely would not receive higher PILOT payments if an investor-owned utility acquired the system within Reading and may receive no PILOT payments at all if the Town is served by another light plant. RMLD also provides other benefits to the Town, such as the use of its facilities, and community relations, through the Citizens Advisory Board ("CAB"), the Town participates in the operation of RMLD. Accordingly, selling RMLD would not necessarily place the Town in any better financial position.

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Please do not hesitate to contact us if you have any questions or comments.

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[6] G.L. c. 164, § 43 governs the purchase price when a town seeks to establish a municipal light plant. Thus, this statute would apply if Wilmington or one of the other towns seeks to acquire RMLD's system or a portion of RMLD's system. The purchase price by an investor-owned utility likely would be negotiated and subject to review under Section 68 and may be subject to additional regulatory approvals, as a regulated distribution company. We also note that it is possible that the towns or an investor-owned utility would not have a strong interest in taking over RMLD's system particularly if the valuation is high, or that its system may be sold to multiple utilities. We also note that the *Stowe* case is distinguishable as the light plant continued to provide service in the Town of Hudson.

[7] Investor-owned utilities are subject to different regulatory requirements. They are subject to retail competition and their power purchases are subject to DPU approval. Accordingly, an investor-owned utility would not necessarily seek to acquire all of RMLD's assets.

READING MUNICIPAL LIGHT DEPARTMENT

CY2022 BUDGET

October 1, 2021

Revision 1: October 14, 2021

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2022 OPERATING BUDGET

2022 POWER SUPPLY

READING MUNICIPAL LIGHT DEPARTMENT

Mission Statement

RMLD is committed to providing excellent customer service, including competitively priced electricity through due diligence of power supply, risk management, system reliability, safety, and overall business efficiency.

Vision Statement

RMLD has transitioned from a reactive to a proactive approach in all aspects of the utility business to ensure efficiency, safety, and competitive rates. The Be Efficient – Get Greener – Go Paperless, Peak Performance, and Shred the Peak, campaigns, have been integrated into a core business and include sustained procedural changes in the areas of long-term planning, technology road mapping, talent managing, customer communication, system maintenance and power supply portfolio balancing.

SYSTEM PROFILE
(based on CY20)

SERVICE TERRITORY	51 square miles serving Reading, North Reading, Wilmington, and part of Lynnfield
TOTAL OPERATING REVENUES	$85,572,332
POWER PURCHASED	$57,292,309
NUMBER OF CUSTOMERS/ ACTIVE METERS	30,321
ANNUAL PEAK DEMAND	163,970 kW on July 28, 2020, hour ending 2:00 pm
ANNUAL SALES	651,179,904
PLANT VALUE	Gross: $164,059,000 Net: $82,772,000
SUPPLY VOLTAGE	115 Kv
SUPPLY CAPACITY	Station 4: (3) 60 MVA Transformers (2) 35 MVA Transformers – feeds Station 5 250 MVA Connected, 190 MVA Firm Station 3: (2) 60 MVA Transformers 120 MVA Connected, 60 MVA Firm
DISTRIBUTION SYSTEM VOLTAGE	13,800 volt wye 4,160 volt wye
OVERHEAD PRIMARY LINES	340.5 miles
UNDERGROUND PRIMARY LINES	155.85 miles
DISTRIBUTION TRANSFORMERS	4,010 transformers – 313.675 MVA Capacity
STATION TRANSFORMER CAPACITY	370 MVA Capacity
UTILITY POLES	18,105 poles *Ownership*: 50% Verizon, 50% RMLD *Custodial By Town:* North Reading – RMLD Lynnfield – Verizon Reading • east of Main Street – Verizon • west of Main Street, east of West Street, south of Prescott Street – Verizon • west of West Street – RMLD • west of Main Street, north of Prescott Street – RMLD Wilmington • all poles with 35 kV sub-transmission circuits, and Concord Street – RMLD • all other locations in Wilmington – Verizon

APPLICATION SOFTWARE	
	ChargePoint Cloud Services CMARS Constant Contact EFI (Energy Federation) eRequester ESRI eTrack Facility Dude Filezilla Forecast Pro Forecasting Futura Great Plains/Cogsdale Home Energy Audits Yukon ISO-NE Key Accounts CenturionCARES Team Gantt Itron LexisNexis ManagerPlus MIlsoft – WindMil Map/LightTable NEPOOL GIS Office 365 E3 PoleForeman Replicon SagLine SharePoint SpryPoint Survalent (OMS) Tangent AMP VMware Windows 10 Windows Server 2016, 2012 Adobe Creative Cloud CivicPlus
CONTACT INFORMATION	
Address:	230 Ash Street Reading, MA 01867
Telephone:	781-942-6598
Fax:	781-942-2409
Website:	www.rmld.com
Office Hours	8:00 am - 4:30 pm Monday through Friday
KEY PERSONNEL	
General Manager	Coleen O'Brien email: cobrien@rmld.com
Director of Business and Finance	Wendy Markiewicz email: wmarkiewicz@rmld.com
Director of Engineering & Operations	Hamid Jaffari email: hjaffari@rmld.com
Director of Human Resources	Janet Walsh email: jwalsh@rmld.com
Director of Information Technology	Brian Hatch email: bhatch@rmld.com
Director of Integrated Resources	Gregory Phipps email: gphipps@rmld.com
GOVERNING BODY	
	Robert Coulter David Hennessy Philip B. Pacino John Stempeck David Talbot
Number of Employees	73
Year Founded	1894

2022 CAPITAL BUDGET

PLANNED PROGRAMS

READING MUNICIPAL LIGHT DEPARTMENT

Capital Improvements CY22 thru CY27

$ Shown in thousands

LINE #	PAGE #	TOWN	PROJ #	FERC #	PROJECT NAME	CY21 BUDGET	CY21 EST.	CY22 PLAN EST.	CY23	CY24	CY25	CY26	CY27	BRIEF DESCRIPTION
1	**n/a**	A	129	390	Master Facilities Site Plan (ON-HOLD)									Town economic development plan impact. Master Facilities Site Plan - on hold. Evaluate maintenance only. 2021 BOC Goal: Convene joint public meeting with the Select Board and Town Planning staff to jointly discuss and share ideas on long-term Ash Street campus site planning.
2	**17**	R/NR/W	104	361/373	RMLD Lighting (LED) Upgrade Program	125	75	125						CY21-22: Convert existing interior/exterior lighting to LED fixtures - Ash Street Campus and Stations 3 and 4 per 2021 Physical Security study Assessment and recommendations made by Burns & McDonnell.
3	**19**	R/NR/W	095	390	Building/Grounds Upgrades	270	132	259	250	50	125	50	50	CY21: AC Cooling Project complete at Station 4. *CY21/22:* Transformer Rack/Pole Yard Proactive Design and Upgrade at Station 3. CY21/22: Station 3 back-up generator delivery and install.
4	**21**	R	098	391	Office Upgrades -230 Ash Street	105	15	110	70	30	30	30	30	CY22: Office upgrade of Grid Assets & Communication, Collection Manager, Billing Manager, and Materials Management office. CY21/22: Audio Visual upgrades for all conference rooms.
5	**23**	R	136		Credit Union Renovation	0	0	85						Renovation of the interior building element (lighting, ceiling tiles, paint, carpet, door repairs).
6	**25**	A	119	398	Security Upgrades - All Sites	250	87	106	106	30	30	30	30	CY21: Physical Security Assessment complete. CY21/22/23: Implement physical security assessment recommendations and upgrades.
7	**27**	A	118	392	Rolling Stock Replacement	620	289	744	350	350	350	350	350	Scheduled vehicle replacement, following Fuel Efficiency OP 19-07 FM, is based on Fleet Assessment and the Electrification Program. Carry-over (from 2021): material handler ($284K- CY22 delivery); dump truck with sander ($85K) in procurement process (CY22 delivery). CY22: SUV, van, trouble truck.
8	**31**	A	099	392	Electric Vehicle Supply Equipment (EVSE)	100	40	744	360	280	240	240	240	Installation of L2 (5 units) and L3 DC fast chargers (5 units) in all four communities to encourage the development of EV charging infrastructure. MassEVIP grant(s): $78k awarded in 2021 for five L2 EV chargers. CY22: Construction of five L2 chargers in Reading and Wilmington. CY22: An additional $99k grant is anticipated for five DCFC (L3).
9	**35**	A	127	382	Hardware Upgrades	89	97	105	115	125	0	125	130	Miscellaneous workstations: replacements/new employees; CY21: Improved network security at RMLD substations.
10	**37**	A	128	383	Software and Licensing	438		190	100	100	100	110	110	CY22: Adhoc software needs; Customer Relationship Management Engagement Software (carry-over); IT Asset Manager; HRIS; Information Security
11	**39**	A	138	383	Customer Portal (Mobile APP)			100	100					CY22-23: Develop two-way facing customer portal mobile customer application
12	**41**	A	139	382	IT Infrastructure Enhancements			370				500	300	CY22: Additional servers to accommodate growth (MDM, security, etc.); network redesign
13	**43**	A	140	382/383	IT Security			305	100	100	100	285	250	CY22: Multi-Factor Authentication; add firewalls; network visibility software; security information event manager
14	**45**	A	122	382	New Production Environment Disaster Recovery		420							CY21: Design and develop a data backup system to include essential components to align with the Disaster Recovery Plan. This project was an add-on to the 2021 Budget. The CAB and BOC approved spending for this project at the June 3, 2021, meetings.
15	**51**	R	133	362	Station 4 CCVT Replacement			140	62					CY22-23: Replacement of all the 115Kv CCTV's at Station 4 needed to comply with the planned relay upgrade work by National Grid and Eversource.
16	**53**	A	110	370	Primary Metering Inspection and Upgrade Program	516	250	100	80					CY21-23: A condition assessment program has been established for all RMLD primary metering equipment. This project will consist of the purchase, upgrade, and construction associated with replacing all primary equipment that is in need of repair or replacement.
17	**55**	R	130	362	Relay Protection Upgrades - Station 4	100	70	150	80					CY21-23: Northeast Power Coordinating Council (NPCC) Directory 1 requires installing high speed, relay protection upgrades between National Grid's Tewksbury Station #17 and Reading Station #494. Design change made to replace both system 1 and system 2 relays at RMLD's BES Substation 4. Project completion date pushed out to CY2023 due to delays by NGrid/Eversource.
18	**57**	W/R/ NR	102	367	Pad-mount Switchgear Upgrade at Industrial Parks	799	799	764	212					FY18-CY23: Starting in FY18, replace all 15 kV pad-mount switchgear at industrial parks. Fourteen units have been replaced as of August 2021; seven additional switches will be replaced in the fall of 2021. CY22: RMLD will purchase and install the next six units (four per the existing bid plus two additional motor operated units).
19	**59**	W	105		**NEW WILMINGTON SUBSTATION**									
20				360	Purchase Land in Wilmington	599	71	650						CY22: Land purchase.
				361/362/ 366/367	Wilmington Substation Construction & Commissioning	195	0	195	4,696	4,975				CY22-24: Conceptual design, permitting, procurement of materials, construction, commissioning, and all required materials and labor to bring the proposed Wilmington substation online.
21	**n/a**	W	124	364/365	MA-125 Pole Line Installation for New Wilmington Substation				374	374				This project covers an ~3,000 foot proposed pole line that will span MA-125 from Ballardvale Street to Andover Street, which will be used for riser pole getaways from the proposed Wilmington substation, and will interconnect the new substation to RMLD's existing overhead distribution system.
22	**n/a**	W	TBD	365	Distribution Improvements Associated with New Wilmington Substation					158	158			The proposed Wilmington substation's main objective will be to transfer the existing Station 5 circuits to the new Wilmington Substation. The new station will be designed for growth of load on Station 5 circuits, and will provide capacity relief to Stations 3 and 4. This line item will account for distribution modifications to provide load relief to Stations 3 and 4.
23	**63**	A	103		**GRID MODERNIZATION & OPTIMIZATION**									**Fifteen-year plan to implement Technology Road Map for grid efficiency, reduction of losses, etc.**
				365	*Scada- Mate Switches*	297	297	300	315	325	334	344	344	Installation of 4 switches/year plus IntelliTeam licenses
				365	*IntelliRupter®*	138	138	139	146	150	155	159	159	Installation of 2 switches/year plus IntelliTeam licenses
				365	*ABB Reclosers*	225	225	208		115	110			Installation of new/replacement of older reclosers on the system.
				383	*Cap Bank Automation*	36	36	49	34	36	36	36	36	Adding feeder cap banks and making them SCADA controlled
				383	*Software Integration*	21	21	26	21	21	21	21	21	Integration of AMI/Scada-Mate switches/OMS
				397	*Communication to Field Devices*			156	100	100	100	100	100	Implement study recommendations done in CY21 by Burns & McDonnell.
				383	*Meter Data Management (MDM)*			281						Software for long-term data storage and management of data delivered by smart metering systems to accommodate meter data analytics. Integrates multiple data sources (AMI/AMR, billing systems, and GIS as needed). CY21: Katama Technologies to create RFP for both MDM and AMI/AMR metering project. This project will be a carry-over; it was previously included in the IT Software budget for 2021.
					OUTAGE MANAGEMENT SYSTEM (OMS)									Outage Management System and supplemental modules to automate outage response and customer/public communication during outage events.
				383	OMS Module: Integrated Voice Response (IVR)									Installation of Integrated Voice Response (IVR) in progress - scheduled for completion in CY21.
				383	OMS Module: Crew Management	136	0							From the OMS, field crews can receive job notifications, view work orders, display the network model and outage map in real-time, report their progress, and close job tickets. On hold for further evaluation.

READING MUNICIPAL LIGHT DEPARTMENT

Capital Improvements CY22 thru CY27

$ Shown in thousands

LINE #	PAGE #	TOWN	PROJ #	FERC #	PROJECT NAME	CY21 BUDGET	CY21 EST.	CY22 PLAN EST.	CY23	CY24	CY25	CY26	CY27	BRIEF DESCRIPTION
				383	OMS Module: Power Factor Correction/VVR		154							Installation of new SCADA module that computes and presents phase voltages, currents, and losses on the entire distribution network. License for Volt/VAR optimization which coordinates the control of reactive power and voltage. Includes installation and training for both applications. Software module installed and integrated with OMS in CY21. Testing for implementation will continue in CY22.
24	**71**	A	112	361/370	AMI Mesh Network Expansion & Meter Replacement	2,000	0	1,211	3,273	3,161				CY21: RMLD hired an MDM - AMI/AMR consultant (Katama Technologies) to prepare RFPs for MDM/AMI following the evaluation study done in CY20 by Limmerhirt Consulting. CY22-24: Upgrade the existing AMI/AMR system to the new mesh metering AMI technology.
25	**73**	A	117	370	Meters and Primary Meters (for stock)	40	40	80	40	40	20	20	20	Purchase primary meters and meters (with disconnect option as available) for new construction, upgrades and failures.
26	**75**	R	214	364/365/ 373	Force Account (MassDOT): Main & Hopkins, R		51	98						Widen Main Street and install traffic lights at the intersections of Hopkins and Main, and Summer and Main.
27	**n/a**	W	TBD	364/365/ 373	Force Account (MassDOT): Lowell at Woburn Street, W				237					Widen Lowell Street and Woburn Street; upgrade traffic signals. Up to 21 poles to be relocated, RMLD to set 17 poles, VAZ to set 6.
28					**GETAWAY UPGRADES**									
29	**77**	NR	125	364/367	3W18 Getaway Improvements	211	108	108						Construction/improvements of OH/UG to result in significant added capacity to 3W18 and moderate increase in capacity to remaining Station 3 circuits.
30	**n/a**	R	TBD	364/367	4W28 Getaway Replacement					316				Station 4: Replace 3,400 feet of underground getaway to 750 mcm cu for increased feeder capacity and improved reliability.
31	**n/a**	W	TBD	364/367	5W4/5W5 Getaway Replacement								119	Station 5: Upgrade feeders from substation to risers to increase feeders' ampacity. This project will be revisited after the new Wilmington Substation is built.
32	**n/a**	R	TBD	364/367	4W7 Getaway Replacement						177			Station 4: Replace 1,900 feet of underground getaway to 750 mcm cu for increased capacity and improved reliability.
33	**n/a**	R	TBD	364/367	4W10 Getaway Replacement						177			Station 4: Replace 1,900 feet of underground getaway to 750 mcm cu for increased capacity and improved reliability.
34	**n/a**	R	TBD	364/367	4W24 Getaway Replacement							350		Station 4: Replace 3,725 feet of underground getaway to 750 mcm cu for increased capacity and improved reliability.
35		R	TBD	364/367	4W30 Getaway Replacement								225	Station 4: Replace 2,300 feet of underground getaway to 750 mcm for increased capacity and improved reliability.
36	**79**	A	116	365/366/ 367/368	Transformers and Capacitors Purchase (Stock and Projects)	418	418	751	444	457	471	485	499	Purchase units for stock, new construction and reliability projects including Aged/Overloaded Transformer Replacement, Secondary and Main Replacement , 13.8kV Upgrades (Step-down Areas), and Underground Facilities Upgrades (listed below). Refer to Project Cost Sheet and Summary for details including labor and additional materials for these reliability programs.
					LONG-TERM UPGRADE RELIABILITY PROJECTS (NO TRANSFORMERS)									
37	**81**	A	458	365	Secondary and Main Replacement Program - All Towns	257	753	309	272	280	289	298	298	Repair as necessary secondary/main services and connectors prioritized by age as determined by system-wide inspection. CY22 targeted areas: Middlesex Avenue, Reading.
38	**83**	A	107	365	13.8kV Upgrade (Step-down Area, etc.) - All Towns	506	506	623	140	131	333	302	307	Convert step-down areas to 13.8kV. Remove antiquated equipment and step-downs to lower losses and improve system efficiency. CY22 targeted area: Middlesex Avenue , Reading. This is the only area targeted for upgrade due to its large size and the cost associated with the upgrade.
39	**85**	A	106	366/367/ 368	UG Facilities Upgrades (URDs, Manholes, etc.) - All Towns	525	525	622	400	412	424	437	437	Replace primary and neutral cables and pad-mount transformers as needed in various aging URDs. Improved reliability. For the next five years, 2-3 subdivisions are planned to be upgraded per year. CY22: King James Grant and Wildwood Estates, Lynnfield; Blanchard Road, Wilmington; Parkwood Estates and Takoma Circle, North Reading.
40	**87**	R	134	366/367	Gazebo Circle, Reading, Underground Feed Relocation			284						Gazebo Circle is currently fed through the woods off Summer Avenue. Current work with Town extended the three-phase line on Hopkins Street to the entrance of Gazebo Circle. Obtain easement from Gazebo Circle, excavate, and install new UG feed from Hopkins Street to Gazebo Circle and removing existing feed through the woods
41	**89**	A	668	366/367/ 368	Aged/Overloaded Transformer Replacement Program	443	349	641	660	680	700	721	743	Labor associated with aged transformer replacements.
42	**91**	R/NR	175	364	Pole Replacement Program, R and NR	336	336	298	307	316	326	336	346	Replace poles identified through the Pole Inspection Program (700 poles/year inspected). This will include transfers and replacement of secondary services as necessary. To replace 50 poles per year.
43	**93**	R/NR/W	111	362	Substation Equipment Upgrade	10	10	90	30	30	30	30	30	Upgrade various equipment at substations as needed per RMLD's Preventative Maintenance Programs. CY22: Purchase of spare 35Kv breaker, lighting arrester, and insulator for Station 4 and Station 5.
44	**n/a**	n/a	n/a	n/a	Communication Equipment (Fiber Optic)	49	49							In 2022 this item is being moved to Grid Modernization & Optimization: Communication to Field Devices
45	**95**	A	115	394/395	Power/Lab and Tool Equipment	156	96	110	30	30	30	30	30	CY22: Power tools and equipment as necessary including Shop Meter Tester, Flir Thermal Camera, and miscellaneous items as needed.
46	**97**	A	various	369	Service Connections (Residential and Commercial) - All Towns	151	96	153	158	162	167	172	178	Install new and upgraded residential and commercial services as requested. Includes hardware, brackets, wires and connectors.
47	**99**	A	various	various	Routine Construction - All Towns	1,488	1,949	1,445	1,488	1,533	1,579	1,626	1,675	Miscellaneous capital expenses including: overhead and underground system upgrades, pole hits, station upgrades, porcelain cutout replacements, street light connections (new equipment), pole setting/transfers, new construction (underground divisions)
48	**n/a**	W	TBD	364/365	Industrial Way, Wilmington - Pole Line Upgrade					226	226			Replace approximately twenty-five (25) 55' poles and upgrade to H1 class poles to accommodate pole loading. Poles are under classed and are over 40 years old. There are currently 4 circuits on the Industrial Way pole line, 4W4, 4W12, 4W24 and 4W28.
49	**n/a**	R	TBD	364/365	4W24 Partial Circuit Reconductoring					356	30			Station 4: Upgrade main feeder of overhead circuit 4W24 to 556 to address voltage and conductor capacity issues.
50	**n/a**	W	TBD	364/365	Butters Row, Wilmington - Pole Line Upgrade							378		Verizon to replace/upgrade 25 aged/under-class poles on Butters Row between Main Street and Chestnut Street. Replace cable, upgrade transformers, and transfer secondary cable, services and street lights. Benefit to long-term reliability.
					TOTAL	**11,648**	**8,504**	**13,226**	**15,151**	**15,450**	**6,869**	**7,565**	**7,057**	

READING MUNICIPAL LIGHT DEPARTMENT

Capital Improvements CY22 thru CY27

$ Shown in thousands

	CY21 BUDGET	CY21 EST.	CY22 PLAN EST.	CY23	CY24	CY25	CY26	CY27
Total Additions:	**11,648**	**8,504**	**13,226**	**15,151**	**15,450**	**6,869**	**7,565**	**7,057**
TABLE 1: PLANT VALUES & DEPRECIATION EXPENSE:								
Plant in Service (Beginning)	165,144	164,058	171,562	183,788	197,938	212,389	218,257	224,823
Additions	**11,648**	**8,504**	**13,226**	**15,151**	**15,450**	**6,869**	**7,565**	**7,057**
Adjustments (Property Retirement)	-1,000	-1,000	-1,000	-1,000	-1,000	-1,000	-1,000	-1,000
Plant in Service (Ending)	175,792	171,562	183,788	197,938	212,389	218,257	224,823	230,879
Less Land and Land Rights	-2,007	-1,266	-1,266	-1,266	-1,266	-1,266	-1,266	-1,266
Depreciable Plant in Service	173,785	170,296	182,522	196,673	211,123	216,992	223,557	229,614
Accumulated Reserve For Depreciation	-87,171	-86,170	-91,279	-96,754	-102,654	-108,988	-115,498	-122,205
Net Plant in Service	88,620	85,392	92,509	101,184	109,734	109,269	109,325	108,675
TABLE 2: DEPRECIATION FUND BALANCES:								
Beginning Balance	9,397	10,329	11,784	9,043	6,205	3,255	4,820	4,364
Depreciation Rate (3%)	3%	3%	3%	3%	3%	3%	3%	3%
Depreciation Expense	**4,916**	**4,884**	**5,109**	**5,476**	**5,900**	**6,334**	**6,510**	**6,707**
Bond Proceeds and Other Fund Sources	100	76	376	337	100	100	100	100
Operating Fund Transfer	5,000	5,000	5,000	6,500	6,500	2,000	500	300
	19,413	20,289	22,269	21,356	18,705	11,689	11,930	11,471
Capital Improvements	-11,648	-8,504	-13,226	-15,151	-15,450	-6,869	-7,565	-7,057
Ending Balance	**7,765**	**11,784**	**9,043**	**6,205**	**3,255**	**4,820**	**4,364**	**4,414**
TABLE 3: BOND PROCEEDS & OTHER FUND SOURCES:								
Force Account (MassDOT): Main & Hopkins, R	0	51	98	0	0	0	0	0
Force Account (MassDOT): Lowell at Woburn Street, W	0	0		237	0	0	0	0
Electric Vehicle Supply Equipment (EVSE)			177					
Interest Income	100	25	100	100	100	100	100	100
	100	76	376	337	100	100	100	100

CAPITAL PROJECTS

Facilities

CAPITAL PROJECT SUMMARY

Project Name: RMLD Lighting (LED) Upgrade Program **Project #:** 104

Project Schedule: 2021-2022 **Project Manager:** Paul McGonagle, Facilities Manager

Reason for Expenditure:
Energy conservation.

Brief Description/Scope:
RMLD continues to replace old and obsolete lighting fixtures and bulbs with LED fixtures. To complete this effort, RMLD will replace the site lighting on the Ash Street campus and Substation 3 and 4.

Barriers:
None anticipated at this time.

Change in Scope of Work From Prior Fiscal Year: Increase (Decrease)
Substation lighting was reviewed as part of the physical security assessment completed in 2021, and the RMLD is implementing the recommendations of this assessment. The office building fluorescent light fixtures that were once removed from this project have been included again for LED conversion.

Status Update From Prior Fiscal Year:
In 2021 an electrical engineering firm will be hired to prepare bid specs for the construction and installation of the lighting fixtures.

CAPITAL PROJECT COST SHEET

PROJECT NAME: RMLD Lighting (LED) Upgrade Program **SCHEDULE:** CY2022

	LABOR					MATERIALS/OTHER				
	# of Units		Labor Total (unit rate x labor units)		Vehicle (labor units x vehicle rate)					
ITEM/TASK	Straight Time	OT	Straight Time	OT		DESCRIPTION	Unit	Unit Rate	# of Units	TOTAL
RMLD Line Crews 2-man crew - unit rate in weeks			**$7,290**	**$7,077**	**$920**					
			$0	$0	$0	Station (3 and 4) Upgrade (interior and exterior lighting)				$25,000
			$0	$0	$0	Ash Street Campus Upgrade (interior and exterior lighting)				$100,000
			$0	$0	$0					$0
Overhead Contractor 2-man crew - unit rate in weeks			**$8,000**	**N/A**	**$2,080**					
			$0		$0					$0
			$0		$0					$0
Underground Contractor 2-man crew - unit rate in weeks			**$6,991**	**N/A**	**$400**					
			$0		$0					$0
			$0		$0					$0
			$0		$0					$0
Line Operations Supervision: unit rate in hours			**$106**	**$103**						
Supervision of Line crews			$0	$0						$0
Engineering: unit rate in hours			**$96**	**$93**						
			$0	$0						$0
			$0	$0						$0
Senior Tech: unit rate in hours			**$87**	**$85**	**$21**					
			$0	$0	$0					$0
			$0	$0	$0					$0
Meter Tech: unit rate in hours			**$66**	**$64**	**$21**					
			$0	$0	$0					$0
Technical Services Manager: unit rate in hours			**$113**	**$109**						
Supervision/Project Management			$0	$0		**Police Details**	**weeks**	**$2,427**		**$0**
TOTAL LABOR/VEHICLES			**$0**	**$0**	**$0**	**TOTAL MATERIALS/OTHER**				**$125,000**

PROJECT TOTAL: $125,000

CAPITAL PROJECT SUMMARY

Project Name: Building/Grounds Upgrades **Project #:** 095

Project Schedule: Annual **Project Manager:** Paul McGonagle, Facilities Manager

Reason for Expenditure:
Repairs and upgrades to RMLD buildings and grounds.

Brief Description/Scope:
The backup generator at Station 3 needs to be replaced due to age. The existing generator will be replaced with a similar generator. This is a proactive approach to eliminate the possibility of a significant failure of the equipment. The design and bid process has been completed, and the new generator has been ordered. Due to COVID and supply chain issues, the generator will be delivered and installed in 2022.

The Transformer Rack and Pole Yard Redesign Project (at Station 3) is a proactive approach to include a complete redesign of the pole yard. This includes:

- relocating the current spill containment,
- installing rack shelving to store the transformers, and
- installing a 32-foot-wide asphalt driveway to improve vehicle access, operations, deliveries, and snow removal.

A construction specification will be developed by the end of 2021 and construction will be completed in the Spring of 2022.

Barriers:
None anticipated at this time.

Change in Scope of Work from Prior Fiscal Year:
The original transformer rack project included a multitiered shelving system to be located at Station 3 to store transformers currently being stored in the Barbas Warehouse. This would reduce storage costs and space by 20%. This design was determined not feasible due to operational logistics and testing of equipment. Therefore, the scope of the project was changed to include a redesign of the entire pole yard at Station 3.

Status Update:
The Station 4 Cooling Project was completed in 2021.

CAPITAL PROJECT COST SHEET

PROJECT NAME: Building/Grounds Upgrades **SCHEDULE:** CY2022

	LABOR					MATERIALS/OTHER				
	# of Units		Labor Total (unit rate x labor units)		Vehicle (labor units x vehicle rate)					
ITEM/TASK	Straight Time	OT	Straight Time	OT		DESCRIPTION	Unit	Unit Rate	# of Units	TOTAL
RMLD Line Crews 2-man crew - unit rate in weeks			**$7,290**	**$7,077**	**$920**					
			$0	$0	$0	Station 3 New Backup Generator (carry-over)				$59,000
			$0	$0	$0	Transformer Racks and Pole Yard Redesign (carry-over)				$200,000
Overhead Contractor 2-man crew - unit rate in weeks			**$8,000**	**N/A**	**$2,080**					
			$0		$0					$0
			$0		$0					$0
Underground Contractor 2-man crew - unit rate in weeks			**$6,991**	**N/A**	**$400**					
			$0		$0					$0
			$0		$0					$0
			$0		$0					$0
Line Operations Supervision: unit rate in hours			**$106**	**$103**						
Supervision of Line crews			$0	$0						$0
Engineering: unit rate in hours			**$96**	**$93**						
			$0	$0						$0
			$0	$0						$0
Senior Tech: unit rate in hours			**$87**	**$85**	**$21**					
			$0	$0	$0					$0
			$0	$0	$0					$0
Meter Tech: unit rate in hours			**$66**	**$64**	**$21**					
			$0	$0	$0					$0
Technical Services Manager: unit rate in hours			**$113**	**$109**						
Supervision/Project Management			$0	$0		**Police Details**	**weeks**	**$2,427**		**$0**
TOTAL LABOR/VEHICLES			**$0**	**$0**	**$0**	**TOTAL MATERIALS/OTHER**				**$259,000**

PROJECT TOTAL: $259,000

CAPITAL PROJECT SUMMARY

Project Name: Office Upgrades - 230 Ash Street **Project #:** 098

Project Schedule: Annual **Project Manager:** Paul McGonagle, Facilities Manager

Reason for Expenditure:
General office upgrades at 230 Ash Street.

Brief Description/Scope:
In 2021 an architect/designer will be hired to develop a bid specification and construction drawings to build offices and redirect the ceiling HVAC system and other building systems. Also, a feasibility review will be performed for the possible installation of a roof-top thermal energy heat pump for the leased area in the garage building.

In 2021-2022, RMLD will evaluate integrated AV technology for installation in the Winfred Spurr AV Room, General Manager's Conference Room, and the E&O Conference Room to facilitate meetings, webinars, training, etc.

In 2022, office upgrades will be scheduled for construction for the following staff:

- General Foreman Grid Asset and Communications
- Assistant Materials Manager
- Collection Manager
- Billing Manager

Barriers:
Scheduling of projects has been negatively impacted due to COVID 19 and the resulting equipment supply chain delays and increased material costs.

Change in Scope of Work from Prior Fiscal Year:
Not applicable.

Status Update:
RMLD is expecting to complete the installation of the auto/visual equipment in the Winfred Spurr AV Room by the end of 2021 or early 2022.

The construction of a Facilities/Grid Asset Conference Room will be moved to 2023.

CAPITAL PROJECT COST SHEET

PROJECT NAME: Office Upgrades - 230 Ash Street **SCHEDULE:** CY2022

	LABOR					MATERIALS/OTHER				
	# of Units		Labor Total (unit rate x labor units)		Vehicle (labor units x vehicle rate)					
ITEM/TASK	Straight Time	OT	Straight Time	OT		DESCRIPTION	Unit	Unit Rate	# of Units	TOTAL
RMLD Line Crews 2-man crew - unit rate in weeks			**$7,290**	**$7,077**	**$920**					
			$0	$0	$0	General Foreman Grid Asset and Communications Office				$15,000
			$0	$0	$0	Assistant Materials Manager Office				$15,000
			$0	$0	$0	Modernization and installation of AV equipment in the Winfred Spurr AV Room, General Manager's Conference Room, and E&O Conference Room.				$50,000
						Collection Manager Office				$15,000
			$0	$0	$0	Billing Manager Office				$15,000
Overhead Contractor 2-man crew - unit rate in weeks			**$8,000**	**N/A**	**$2,080**					
			$0		$0					$0
			$0		$0					$0
Underground Contractor 2-man crew - unit rate in weeks			**$6,991**	**N/A**	**$400**					
			$0		$0					$0
			$0		$0					$0
			$0		$0					$0
Line Operations Supervision: unit rate in hours			**$106**	**$103**						
Supervision of Line crews			$0	$0						$0
Engineering: unit rate in hours			**$96**	**$93**						
			$0	$0						$0
			$0	$0						$0
Senior Tech: unit rate in hours			**$87**	**$85**	**$21**					
			$0	$0	$0					$0
			$0	$0	$0					$0
Meter Tech: unit rate in hours			**$66**	**$64**	**$21**					
			$0	$0	$0					$0
Technical Services Manager: unit rate in hours			**$113**	**$109**						
Supervision/Project Management			$0	$0		**Police Details**	**weeks**	**$2,427**		**$0**
TOTAL LABOR/VEHICLES			**$0**	**$0**	**$0**	**TOTAL MATERIALS/OTHER**				**$110,000**

PROJECT TOTAL: $110,000

CAPITAL PROJECT SUMMARY

Project Name: Credit Union Renovation **Project #:** 136

Project Schedule: 2022 **Project Manager:** Paul McGonagle, Facilities Manager

Reason for Expenditure:

To upgrade the office space in the leased area of 218 Ash Street, currently occupied by the private entity “Reading Mass Town Employees Federal Credit Union.”

Brief Description/Scope:

In 2021 an architect/designer will be hired under Project 098 (Office Upgrades) to develop a basic layout and renovation plan for this area and the 230 Ash Street offices. This leased space consists of three rooms that have seen minimal upgrades over the years.

In 2022, the leased space will be renovated to include lighting, ceiling tiles, paint, carpet, door repairs, and other improvements. The Credit Union will need to be relocated temporarily. The existing floor tile contains asbestos and will have to be abated. The renovation is expected to start in April 2022.

The designer will specifically review the feasibility and cost-benefit of eliminating the existing window air conditioning units and replacing them with a roof top thermal energy heat pump system.

Barriers:
Scheduling of projects has been negatively impacted due to COVID 19 and the resulting equipment supply chain delays and increased material costs.

Change in Scope of Work from Prior Fiscal Year:
Not applicable.

Status Update:
Not applicable.

CAPITAL PROJECT COST SHEET

PROJECT NAME: Credit Union Renovation **SCHEDULE:** CY2022

	LABOR					MATERIALS/OTHER				
	# of Units		Labor Total (unit rate x labor units)		Vehicle (labor units x vehicle rate)					
ITEM/TASK	Straight Time	OT	Straight Time	OT		DESCRIPTION	Unit	Unit Rate	# of Units	TOTAL
RMLD Line Crews 2-man crew - unit rate in weeks			**$7,290**	**$7,077**	**$920**					
			$0	$0	$0	Renovation				$85,000
			$0	$0	$0					
			$0	$0	$0					
Overhead Contractor 2-man crew - unit rate in weeks			**$8,000**	**N/A**	**$2,080**					
			$0		$0					$0
			$0		$0					$0
Underground Contractor 2-man crew - unit rate in weeks			**$6,991**	**N/A**	**$400**					
			$0		$0					$0
			$0		$0					$0
			$0		$0					$0
Line Operations Supervision: unit rate in hours			**$106**	**$103**						
Supervision of Line crews			$0	$0						$0
Engineering: unit rate in hours			**$96**	**$93**						
			$0	$0						$0
			$0	$0						$0
Senior Tech: unit rate in hours			**$87**	**$85**	**$21**					
			$0	$0	$0					$0
			$0	$0	$0					$0
Meter Tech: unit rate in hours			**$66**	**$64**	**$21**					
			$0	$0	$0					$0
Technical Services Manager: unit rate in hours			**$113**	**$109**						
Supervision/Project Management			$0	$0		**Police Details**	**weeks**	**$2,427**		**$0**
TOTAL LABOR/VEHICLES			**$0**	**$0**	**$0**	**TOTAL MATERIALS/OTHER**				**$85,000**

PROJECT TOTAL: $85,000

CAPITAL PROJECT SUMMARY

Project Name: Security System Upgrades – All Sites **Project #:** 119

Project Schedule: Annual **Project Manager:** Paul McGonagle, Facilities Manager

Reason for Expenditure:

This project represents an annual allotment for security upgrades as needed at all RMLD facilities.

A physical security consultant performed a physical security risk assessment of all RMLD properties in 2021 and provided recommendations to improve the existing security systems and equipment. A work group has been formed to review, approve, and implement the security recommendations.

Brief Description/Scope:
The security work group will meet monthly to develop a security program and discuss the specifics of each of the security consultant's recommendations to secure the RMLD properties and substations. Security equipment and systems will be procured and installed per the assessment and recommendation of the work group.

Barriers:
None anticipated at this time.

Change in Scope of Work from Prior Fiscal Year:

Not applicable.

Status Update:
Physical security risk assessment was completed in 2021.

CAPITAL PROJECT COST SHEET

PROJECT NAME: Security Upgrades - All Sites **SCHEDULE:** CY2022

	LABOR					MATERIALS/OTHER				
	# of Units		Labor Total (unit rate x labor units)		Vehicle (labor units x vehicle rate)					
ITEM/TASK	Straight Time	OT	Straight Time	OT		DESCRIPTION	Unit	Unit Rate	# of Units	TOTAL
RMLD Line Crews 2-man crew - unit rate in weeks			**$7,290**	**$7,077**	**$920**					
			$0	$0	$0	Comprehensive Security System Upgrade. Implement recommendations such as site access, intrusion detection, foliage clearing, increased signage, etc.	1	$106,292.00	1	$106,292
			$0	$0	$0					$0
			$0	$0	$0					$0
Overhead Contractor 2-man crew - unit rate in weeks			**$8,000**	**N/A**	**$2,080**					
			$0		$0					$0
			$0		$0					$0
Underground Contractor 2-man crew - unit rate in weeks			**$6,991**	**N/A**	**$400**					
			$0		$0					$0
			$0		$0					$0
			$0		$0					$0
Line Operations Supervision: unit rate in hours			**$106**	**$103**						
Supervision of Line crews			$0	$0						$0
Engineering: unit rate in hours			**$96**	**$93**						
			$0	$0						$0
			$0	$0						$0
Senior Tech: unit rate in hours			**$87**	**$85**	**$21**					
			$0	$0	$0					$0
			$0	$0	$0					$0
Meter Tech: unit rate in hours			**$66**	**$64**	**$21**					
			$0	$0	$0					$0
Technical Services Manager: unit rate in hours			**$113**	**$109**						
Supervision/Project Management			$0	$0		**Police Details**	**weeks**	**$2,427**		**$0**
TOTAL LABOR/VEHICLES			**$0**	**$0**	**$0**	**TOTAL MATERIALS/OTHER**				**$106,292**

PROJECT TOTAL: $106,292

CAPITAL PROJECT SUMMARY

Project Name: Rolling Stock Replacement **Project #:** 118

Project Schedule: Annual **Project Manager:** Paul McGonagle, Facilities Manager

Reason for Expenditure:
Scheduled vehicle replacement, following Fuel Efficiency OP 19-07 FM, and based on the Electrification Program and the "8 to 10" year cycle to reduce maintenance costs and improve reliability. Vehicles removed from the fleet will be traded-in to the dealer providing the new vehicle.

Brief Description/Scope:
Specifications, bids, and purchase orders will be completed for 2022 delivery of the following:

- Small SUV
- Van
- Trouble Truck

Barriers:
None anticipated at this time.

Change in Scope of Work from Prior Fiscal Year: Increase (Decrease)
Not applicable.

Status Update:

- Digger Derrick (carry-over from 2020) was delivered in 2021.
- Material Handler was bid and ordered in 2021; delivery expected in 2022.
- Dump Truck will be bid and ordered in 2021; delivery expected in 2022.

CAPITAL PROJECT COST SHEET

PROJECT NAME: Rolling Stock Replacement **SCHEDULE:** CY2022

	LABOR					MATERIALS/OTHER				
	# of Units		Labor Total (unit rate x labor units)		Vehicle (labor units x vehicle rate)					
ITEM/TASK	Straight Time	OT	Straight Time	OT		DESCRIPTION	Unit	Unit Rate	# of Units	TOTAL
RMLD Line Crews 2-man crew - unit rate in weeks			**$7,290**	**$7,077**	**$920**					
			$0	$0	$0	Small SUV	each	$50,000.00	1	$50,000
			$0	$0	$0	Van	each	$75,000.00	1	$75,000
			$0	$0	$0	Trouble Truck	each	$250,000.00	1	$250,000
			$0	$0	$0	Material Handler (carry-over)	each	$284,049.00	1	$284,049
			$0	$0	$0	Small Dump Truck w/Sander Attachment (carry-over)	each	$85,000.00	1	$85,000
Overhead Contractor 2-man crew - unit rate in weeks			**$8,000**	**N/A**	**$2,080**					
			$0		$0					$0
			$0		$0					$0
Underground Contractor 2-man crew - unit rate in weeks			**$6,991**	**N/A**	**$400**					
			$0		$0					$0
			$0		$0					$0
			$0		$0					$0
Line Operations Supervision: unit rate in hours			**$106**	**$103**						
Supervision of Line crews			$0	$0						$0
Engineering: unit rate in hours			**$96**	**$93**						
			$0	$0						$0
			$0	$0						$0
Senior Tech: unit rate in hours			**$87**	**$85**	**$21**					
			$0	$0	$0					$0
			$0	$0	$0					$0
Meter Tech: unit rate in hours			**$66**	**$64**	**$21**					
			$0	$0	$0					$0
Technical Services Manager: unit rate in hours			**$113**	**$109**						
Supervision/Project Management			$0	$0		**Police Details**	**weeks**	**$2,427**		**$0**
TOTAL LABOR/VEHICLES			**$0**	**$0**	**$0**	**TOTAL MATERIALS/OTHER**				**$744,049**

PROJECT TOTAL: $744,049

CAPITAL PROJECTS

Integrated Resources

CAPITAL PROJECT SUMMARY

Project Name: Electric Vehicle Supply Equipment (EVSE) **Project #:** 099

Project Schedule: On-going **Project Manager:** Tom Ollila, Resource Engineer

Reason for Expenditure:

The goal of the EVSE project is to plan and install public charging infrastructure for electric vehicles within RMLD's service territory. This project will consist of Level 2 and DC Fast Charger (DCFC) systems. The goal of the DCFC portion of the project is to deploy high-speed, plug-in, electric vehicle chargers to provide short-duration charging cycles for EVs operated within the RMLD service territory.

This project increases the deployment of EV technology and availability of remote rapid charging capability for use by customers, thereby supporting state and local efforts to reduce carbon emissions in both the transportation and energy sectors.

Brief Description/Scope:

RMLD is working with each of the four towns to determine prioritized locations for installing Level 2 and DCFC charging stations in parking areas owned by the towns. All charging stations will be owned and operated by RMLD.

Barriers:

None anticipated at this time although changes to parking related policies will take persistence to resolve and then adapt as all parties learn more.

Change in Scope of Work from Prior Fiscal Year:

This project continues to evolve and expand. In 2021 RMLD received funding from a MassEVIIP Level 2 grant.

Status Update:

RMLD was awarded a $78,150 state grant in July 2021 to install five Level 2 chargers: three dual-head units in Reading and two dual-head units Wilmington. It is anticipated that these units will be installed in 2022.

RMLD has applied to MassEVIP for a DCFC grant ($99,136) to install rapid charging stations within RMLD's service territory. If awarded, this grant money would supplement the RMLD budget and hopefully enable us to install more DCFC units earlier.

CAPITAL PROJECT COST SHEET

PROJECT NAME: Electric Vehicle Supply Equipment (EVSE) **SCHEDULE:** CY2022

	LABOR					MATERIALS/OTHER				
	# of Units		Labor Total (unit rate x labor units)							
ITEM/TASK	Straight Time	OT	Straight Time	OT	Vehicle (labor units x vehicle rate)	DESCRIPTION	Unit	Unit Rate	# of Units	TOTAL
			$7,290	**$7,077**	**$920**					
			$0	$0	$0	DC Fast Charger (DCFC) Equipment	each	$70,000.00	5	$350,000
						Contractor design and install DCFC chargers	each	$35,000.00	5	$175,000
						Level 2 (L2) Charger Equipment	each	$10,000.00	5	$50,000
						Contractor design and install L2 chargers	each	$26,000.00	5	$130,000
Overhead Contractor 2-man crew - unit rate in weeks			**$8,000**	**N/A**	**$2,080**					
			$0		$0					$0
			$0		$0					$0
Underground Contractor 2-man crew - unit rate in weeks			**$6,991**	**N/A**	**$400**					
			$0		$0					$0
			$0		$0					$0
Line Operations Supervision: unit rate in hours			**$106**	**$103**						
Supervision of Line crews			$0	$0						$0
Engineering: unit rate in hours			**$96**	**$93**						
Project Management	192.0		$18,439	$0						$0
			$0	$0						$0
Senior Tech: unit rate in hours			**$87**	**$85**	**$21**					
			$0	$0	$0					$0
			$0	$0	$0					$0
Meter Tech: unit rate in hours			**$66**	**$64**	**$21**					
Metering	50.0		$3,305	$0	$1,050					$0
Technical Services Manager: unit rate in hours			**$113**	**$109**						
Supervision/Project Management	100.0		$11,259	$0		**Police Details**	**weeks**	**$2,427**	**2.0**	**$4,855**
TOTAL LABOR/VEHICLES			**$33,003**	**$0**	**$1,050**	**TOTAL MATERIALS/OTHER**				**$709,855**

PROJECT TOTAL: $743,908

CAPITAL PROJECTS

Information Technology

CAPITAL PROJECT SUMMARY

Project Name: Hardware Upgrades **Project #:** 127

Project Schedule: Annual **Project Manager:** Brian Hatch, Director of IT

Reason for Expenditure:
Each year RMLD must replace failed or obsolete computers and related equipment, as well as purchase equipment for new users.

Brief Description/Scope:
Miscellaneous hardware will be purchased to replace user workstations and purchase hardware for new employees as necessary.

Barriers:
None anticipated at this time.

Change in Scope of Work From Prior Fiscal Year:
Not applicable.

Status Update:
In 2021 IT sought and received Board and CAB approval to initiate a New Production Environment Disaster Recovery system. The new EMC data domain which was scheduled for 2021 will be accommodated as part of this new disaster recovery system.

The new firewalls for SCADA domain were installed along with separate vLans for security.

CAPITAL PROJECT COST SHEET

PROJECT NAME: Hardware Upgrades **SCHEDULE:** CY2022

	LABOR					MATERIALS/OTHER				
	# of Units		Labor Total (unit rate x labor units)		Vehicle (labor units x vehicle rate)					
ITEM/TASK	Straight Time	OT	Straight Time	OT		DESCRIPTION	Unit	Unit Rate	# of Units	TOTAL
RMLD Line Crews 2-man crew - unit rate in weeks			**$7,290**	**$7,077**	**$920**					
			$0	$0	$0	Miscellaneous Hardware (computers, laptops, printers)				$105,000
			$0	$0	$0					
			$0	$0	$0					
Overhead Contractor 2-man crew - unit rate in weeks			**$8,000**	**N/A**	**$8,000**					
			$0		$0					$0
			$0		$0					$0
Underground Contractor 2-man crew - unit rate in weeks			**$6,991**	**N/A**	**$400**					
			$0		$0					$0
			$0		$0					$0
			$0		$0					$0
Line Operations Supervision: unit rate in hours			**$106**	**$103**						
Supervision of Line crews			$0	$0						$0
Engineering: unit rate in hours			**$96**	**$93**						
			$0	$0						$0
			$0	$0						$0
Senior Tech: unit rate in hours			**$87**	**$85**	**$21**					
			$0	$0	$0					$0
			$0	$0	$0					$0
Meter Tech: unit rate in hours			**$66**	**$64**	**$21**					
			$0	$0	$0					$0
Technical Services Manager: unit rate in hours			**$113**	**$109**						
Supervision/Project Management			$0	$0		**Police Details**	**weeks**	**$2,427**		**$0**
TOTAL LABOR/VEHICLES			**$0**	**$0**	**$0**	**TOTAL MATERIALS/OTHER**				**$105,000**

PROJECT TOTAL: $105,000

CAPITAL PROJECT SUMMARY

Project Name: Software and Licensing **Project #:** 128

Project Schedule: Annual **Project Manager:** Brian Hatch, Director of IT

Reason for Expenditure:

Each year RMLD purchases miscellaneous new software for new users and to update existing users. Additional new software projects may be added at the request of various operating units as outlined below:

Brief Description/Scope:

- *Customer Relationship Management (CMR) Engagement Software:* Cloud-based CRM software that will fully integrate SpryPoint with the Great Plans/Cogsdale system. This item is a carry-over from 2021.
- *HRIS: Software t*o assist with previsioning and deprovisioning users at the employee lifecycle.
- *IT Asset Manager:* This software will allow IT to barcode and asset-tag all equipment as it comes in and efficiently track the user and location of that equipment. This will help IT better maintain their asset inventory and will help in depreciating and replacing equipment.

Barriers:

None anticipated at this time.

Change in Scope of Work From Prior Fiscal Year:

Not applicable.

Status Update:

The migration of the Yukon AMI metering system, which was planned for 2021, has been cancelled. This will be accommodated as part of the MDM and AMI projects scheduled to start in 2022.

The Work Order Management (WOMS)/Futura Staking Software was installed in 2021. Testing and implementation to be completed in 2022 after the GIS integration is completed. The cloud-based phone system is being re-evaluated and will likely not require any additional in-house assets. Meter Data Management (now included with Grid Modernization and Optimization) will be purchased and implemented in 2022.

CAPITAL PROJECT COST SHEET

PROJECT NAME: Software and Licensing **SCHEDULE:** CY2022

	LABOR					MATERIALS/OTHER				
	# of Units		Labor Total (unit rate x labor units)		Vehicle (labor units x vehicle rate)					
ITEM/TASK	Straight Time	OT	Straight Time	OT		DESCRIPTION	Unit	Unit Rate	# of Units	TOTAL
RMLD Line Crews 2-man crew - unit rate in weeks			**$7,290**	**$7,077**	**$920**					
			$0	$0	$0	Miscellaneous Software				$100,000
			$0	$0	$0	Customer Relationship Management (CMR)/SpryPoint Engagement Software (carryover)				$20,000
			$0	$0	$0	HRIS				$30,000
			$0	$0	$0	IT Asset Manager				$40,000
Overhead Contractor 2-man crew - unit rate in weeks			**$8,000**	**N/A**	**$2,080**					
			$0		$0					$0
			$0		$0					$0
Underground Contractor 2-man crew - unit rate in weeks			**$6,991**	**N/A**	**$400**					
			$0		$0					$0
			$0		$0					$0
			$0		$0					$0
Line Operations Supervision: unit rate in hours			**$106**	**$103**						
Supervision of Line crews			$0	$0						$0
Engineering: unit rate in hours			**$96**	**$93**						
			$0	$0						$0
			$0	$0						$0
Senior Tech: unit rate in hours			**$87**	**$85**	**$21**					
			$0	$0	$0					$0
			$0	$0	$0					$0
Meter Tech: unit rate in hours			**$66**	**$64**	**$21**					
			$0	$0	$0					$0
Technical Services Manager: unit rate in hours			**$113**	**$109**						
Supervision/Project Management			$0	$0		**Police Details**	**weeks**	**$2,427**		**$0**
TOTAL LABOR/VEHICLES			**$0**	**$0**	**$0**	**TOTAL MATERIALS/OTHER**				**$190,000**

PROJECT TOTAL: $190,000

CAPITAL PROJECT SUMMARY

Project Name: Customer Portal (Mobile APP) **Project #:** 138

Project Schedule: 2022-23 **Project Manager:** Gregory Phipps, Director of Integrated Resources

Reason for Expenditure:
Residential as well as commercial and industrial customers are now accustomed to accessing information and account data via secure applications on their mobile devices.

As electrification increases and electricity costs increase due to the recently passed climate bill and other legislation, customers are likely to more actively control their energy use. RMLD is adding new rates, including additional time-of-use options to further encourage customers to take a more active role in their energy use and associated costs.

A customer portal will be an additional communication avenue (ultimately two-way) keeping customers up-to-date and allowing them to compare rates, initiate incentive participation, and check on their monthly bill status, as examples.

Brief Description/Scope:
The RMLD will subcontract software development and integration of this customer portal. Where possible, the RMLD will attempt to use as much off-the-shelf software as possible. It is anticipated that this software application will interface with several RMLD databases; this requires noteworthy cyber security provisions.

The Customer Portal will have several sections including: news, usage, billing, events, UAN, rebate status, and rate comparison. The login will be secure and the RMLD data and network will remain secure, as will customer data.

Barriers:
None anticipated at this time.

Change in Scope of Work from Prior Fiscal Year:

Not applicable.

Status Update:
Not applicable.

CAPITAL PROJECT COST SHEET

PROJECT NAME: Customer Portal (Mobile APP) **SCHEDULE:** CY2022-2023

	LABOR					MATERIALS/OTHER				
	# of Units		Labor Total (unit rate x labor units)		Vehicle (labor units x vehicle rate)					
ITEM/TASK	Straight Time	OT	Straight Time	OT		DESCRIPTION	Unit	Unit Rate	# of Units	TOTAL
			$7,290	$7,077	$920					
			$0	$0	$0	Subcontracted development of Customer Portal (Mobile APP)				$200,000
			$0	$0	$0					$0
Overhead Contractor 2-man crew - unit rate in weeks			**$8,000**	**N/A**	**$2,080**					
			$0		$0					$0
			$0		$0					$0
Underground Contractor 2-man crew - unit rate in weeks			**$6,991**	**N/A**	**$400**					
			$0		$0					$0
			$0		$0					$0
			$0		$0					$0
Line Operations Supervision: unit rate in hours			**$106**	**$103**						
Supervision of Line crews			$0	$0						$0
Engineering: unit rate in hours			**$96**	**$93**						
			$0	$0						$0
			$0	$0						$0
Senior Tech: unit rate in hours			**$87**	**$85**	**$21**					
			$0	$0	$0					$0
			$0	$0	$0					$0
Meter Tech: unit rate in hours			**$66**	**$64**	**$21**					
			$0	$0	$0					$0
Technical Services Manager: unit rate in hours			**$113**	**$109**						
Supervision/Project Management			$0	$0		**Police Details**	**weeks**	**$2,427**		**$0**
TOTAL LABOR/VEHICLES			**$0**	**$0**	**$0**	**TOTAL MATERIALS/OTHER**				**$200,000**

PROJECT TOTAL:	**$200,000**

2022 ESTIMATED SPENDING	**$100,000**
2023 ESTIMATED SPENDING	**$100,000**

CAPITAL PROJECT SUMMARY

Project Name: IT Infrastructure Enhancements **Project #:** 139

Project Schedule: 2022 **Project Manager:** Brian Hatch, Director of IT

Reason for Expenditure:
The RMLD must continually evaluate its IT infrastructure to be sure the environment will accommodate system growth and change, and to remain up to date with current technology and best practices.

Brief Description/Scope:
In 2022 we will address the following items:

- *Servers:* The RMLD will expand its current virtual server environment to meet growing data needs. The addition of the meter data management software and its underlying database, the need for additional data in the transformer load management tool, and the expected exponential growth in the Yukon database, requires IT to plan to add additional resources to its current environment.

- *Network Redesign*: RMLD will be replacing its core networking stack as well as other network switches that are well beyond their useful life. Additionally, the current networking environment needs to be overhauled in order to be better aligned, be more secure, and to take advantage of IT best practices. This overhaul and implementation will provide RMLD with a more robust and reliable network infrastructure.

Barriers:
None anticipated at this time

Change in Scope of Work from Prior Fiscal Year: Increase (Decrease)
Not applicable.

Status Update from Prior Fiscal Year:
Not applicable.

CAPITAL PROJECT COST SHEET

PROJECT NAME: IT Infrastructure Enhancements **SCHEDULE:** CY2022

	LABOR					MATERIALS/OTHER				
	# of Units		Labor Total (unit rate x labor units)		Vehicle (labor units x vehicle rate)					
ITEM/TASK	Straight Time	OT	Straight Time	OT		DESCRIPTION	Unit	Unit Rate	# of Units	TOTAL
			$7,290	$7,077	$920					
			$0	$0	$0	Servers	each	$60,000.00	2	$120,000
			$0	$0	$0	Network Re-Design				$250,000
			$0	$0	$0					$0
Overhead Contractor 2-man crew - unit rate in weeks			**$8,000**	**N/A**	**$2,080**					
			$0		$0					$0
			$0		$0					$0
Underground Contractor 2-man crew - unit rate in weeks			**$6,991**	**N/A**	**$400**					
			$0		$0					$0
			$0		$0					$0
			$0		$0					$0
Line Operations Supervision: unit rate in hours			**$106**	**$103**						
Supervision of Line crews			$0	$0						$0
Engineering: unit rate in hours			**$96**	**$93**						
			$0	$0						$0
			$0	$0						$0
Senior Tech: unit rate in hours			**$87**	**$85**	**$21**					
			$0	$0	$0					$0
			$0	$0	$0					$0
Meter Tech: unit rate in hours			**$66**	**$64**	**$21**					
			$0	$0	$0					$0
Technical Services Manager: unit rate in hours			**$113**	**$109**						
Supervision/Project Management			$0	$0		**Police Details**	**weeks**	**$2,427**		**$0**
TOTAL LABOR/VEHICLES			**$0**	**$0**	**$0**	**TOTAL MATERIALS/OTHER**				**$370,000**

PROJECT TOTAL: $370,000

CAPITAL PROJECT SUMMARY

Project Name: IT Security **Project #:** 140

Project Schedule: 2022 **Project Manager:** Brian Hatch, Director of IT

Reason for Expenditure:
The RMLD is continually monitoring both the cyber and internal environments to assess and respond to threats. Systems must be added and/or updated to respond to these threats. The projects listed below are planned for 2022 in order to maintain the security and integrity of RMLD data assets.

Brief Description/Scope:

- *Multi-Factor Authentication*: RMLD will implement a multi-factor authentication service to improve overall security for RMLD servers and workstations. This will provide all RMLD users with a token that will need to be used to authenticate users logging into any RMLD device. This helps prevent any external sources from accessing any RMLD equipment.

- *Firewalls:* RMLD plans to expand its current firewall environment to improve the overall security of the RMLD network. RMLD will segment RMLD workstations from the RMLD server environment with two firewalls in a high availability pair between these two environments. This will allow IT to have greater control over what communication is allowed between user workstations and RMLD servers. This will improve the overall security posture of RMLD and provide greater defense over potential attacks.

- *Network Visibility Software:* Implement software to allow IT better optics on the current network infrastructure, and to provide tools for monitoring the flow of data and provide insight on how the network can be improved and alleviate any bottlenecks.

- *Security Information Event Manager (SIEM):* Implement a SIEM that will allow for greater optics on all RMLD IT enterprise systems. This will provide dashboards and tools that will allow IT to monitor and remediate any security events that may happen to any appliances in real time. This allows IT to have better optics for our environment and provide greater security for the network.

- *Information Security (Miscellaneous):* This is an allotment to address any unforeseen security issues which may arise during the year.

Barriers:
None anticipated at this time.

Change in Scope of Work from Prior Fiscal Year: Increase (Decrease)
Not applicable.

Status Update from Prior Fiscal Year:
Not applicable.

CAPITAL PROJECT COST SHEET

PROJECT NAME: IT Security **SCHEDULE:** CY2022

	LABOR					MATERIALS/OTHER				
	# of Units		Labor Total (unit rate x labor units)		Vehicle (labor units x vehicle rate)					
ITEM/TASK	Straight Time	OT	Straight Time	OT		DESCRIPTION	Unit	Unit Rate	# of Units	TOTAL
			$7,290	$7,077	$920					
			$0	$0	$0	Muti-Factor Authentication	project			$25,000
						Firewalls	each	$15,000.00	2	$30,000
						Network Visibility Software	project			$50,000
			$0	$0	$0	Security Information Event Manager	project			$100,000
			$0	$0	$0	Information Security (miscellaneous)				$100,000
Overhead Contractor 2-man crew - unit rate in weeks			**$8,000**	**N/A**	**$2,080**					
			$0		$0					$0
			$0		$0					$0
Underground Contractor 2-man crew - unit rate in weeks			**$6,991**	**N/A**	**$400**					
			$0		$0					$0
			$0		$0					$0
			$0		$0					$0
Line Operations Supervision: unit rate in hours			**$106**	**$103**						
Supervision of Line crews			$0	$0						$0
Engineering: unit rate in hours			**$96**	**$93**						
			$0	$0						$0
			$0	$0						$0
Senior Tech: unit rate in hours			**$87**	**$85**	**$21**					
			$0	$0	$0					$0
			$0	$0	$0					$0
Meter Tech: unit rate in hours			**$66**	**$64**	**$21**					
			$0	$0	$0					$0
Technical Services Manager: unit rate in hours			**$113**	**$109**						
Supervision/Project Management			$0	$0		**Police Details**	**weeks**	**$2,427**		**$0**
TOTAL LABOR/VEHICLES			**$0**	**$0**	**$0**	**TOTAL MATERIALS/OTHER**				**$305,000**

PROJECT TOTAL: $305,000

CAPITAL PROJECT SUMMARY

Project Name: New Production Environment Disaster Recovery **Project #:** 122

Project Schedule: 2021 **Project Manager:** Brian Hatch, Director of IT

Reason for Expenditure:
RMLD does not have a proper industry standard data backup system or the essential components in place for disaster recovery. We currently are using external hard drives to backup RMLD data nightly. These drives are written over and over they start to cause corruption and it will become impossible to restore our data assets in the event of a small or large disaster. Plus, when tested our backups we have seen missing backups, corruption, and not full complete backups.

Brief Description/Scope:
Overall, need for two separate sites (Reading data center and an off-site data center rack) to separate the corporate and SCADA servers. Connect both sites with a high-speed WAN connection to a separate location outside of New England. As well as, repurposing all of our data storage and servers to use in disaster recovery location (outside of New England).

Phase 1 (Backup system with off-site replication): Purchase two backup systems. The first backup system will stay on-site at our data center at 230 Ash Street. We then deploy an agent on each server. That will continuously provide reliable backups nightly for one to 14 days. Then connect the second backup system to the first backup system, to hydrate the data from the first backup system to the second backup system. Upon completion, we ship the second backup system off-site to a designated disaster recovery site and connect the Reading data center to the disaster recovery site for nightly replication.

Phase 2 (New Production and repurposing our existing servers and storage): Purchase new production servers and storage and add it to RMLD existing network. Migrate all of the current production servers (including SCADA) to the new production device. Once all the virtual servers have been successfully moved, dismantle and erase all data and storage and repurpose the former hardware and ship it out to disaster recovery.

Phase 3 (A minute-by-minute backup and restoration): A minute-by-minute application will be replicated as an intermediary between the two sites and has a DVR like function and replication to synchronize the sites on a minute-by-minute basis. It also gives us a month of good backups every minute. For example, if we were hit with the ransomware attack, we would just identify that attack, then use minute-by-minute application to restore all of the data on the server or every server in the environment on a minute-by-minute basis.

Barriers:
None anticipated at this time

Change in Scope of Work from Prior Fiscal Year: Increase (Decrease)
Not applicable.

Status Update from Prior Fiscal Year:
It is anticipated that this project will be completed by the end of 2021.

CAPITAL PROJECT COST SHEET

PROJECT NAME: New Production Environment Disaster Recovery **SCHEDULE:** CY2021

	LABOR					MATERIALS/OTHER				
	# of Units		Labor Total (unit rate x labor units)		Vehicle (labor units x vehicle rate)					
ITEM/TASK	Straight Time	OT	Straight Time	OT		DESCRIPTION	Unit	Unit Rate	# of Units	TOTAL
			$7,290	$7,077	$920					
			$0	$0	$0	RMLD Server Storage Upgrade				$420,000
			$0	$0	$0					$0
			$0	$0	$0					$0
Overhead Contractor 2-man crew - unit rate in weeks			**$8,000**	**N/A**	**$2,080**					
			$0		$0					$0
			$0		$0					$0
Underground Contractor 2-man crew - unit rate in weeks			**$6,991**	**N/A**	**$400**					
			$0		$0					$0
			$0		$0					$0
			$0		$0					$0
Line Operations Supervision: unit rate in hours			**$106**	**$103**						
Supervision of Line crews			$0	$0						$0
Engineering: unit rate in hours			**$96**	**$93**						
			$0	$0						$0
			$0	$0						$0
Senior Tech: unit rate in hours			**$87**	**$85**	**$21**					
			$0	$0	$0					$0
			$0	$0	$0					$0
Meter Tech: unit rate in hours			**$66**	**$64**	**$21**					
			$0	$0	$0					$0
Technical Services Manager: unit rate in hours			**$113**	**$109**						
Supervision/Project Management			$0	$0		**Police Details**	**weeks**	**$2,427**		**$0**
TOTAL LABOR/VEHICLES			**$0**	**$0**	**$0**	**TOTAL MATERIALS/OTHER**				**$420,000**

PROJECT TOTAL: $420,000

CAPITAL PROJECTS

System

CAPITAL PROJECT SUMMARY

Project Name: Station 4 CCVT Replacement **Project #:** 133

Project Schedule: 2022-2023 **Project Manager:** Nick D'Alleva, Assistant General Foreman, Grid Assets & Communications

Reason for Expenditure:
This project is to replace the existing Coupled - Capacitive Voltage Transformers (CCVT's) at Substation 4 in Reading. The existing CCVT's are more than 40 years old and need replacement.

Brief Description/Scope:
Purchase direct replacement CCVT's that will be installed on the existing structures at the Bulk Electric Supply (BES) - Station 4. The replacements consist of the two sets of three CCTV's on each supply line and seven individual CCTV's on each of 115Kv bus sections.

Barriers:
The replacement of the supply line CCTV's is contingent upon the relay upgrade work proposed by National Grid and Eversource.

Change in Scope of Work From Prior Fiscal Year: Increase (Decrease)
Not applicable.

Status Update From Prior Fiscal Year:
Not applicable.

CAPITAL PROJECT COST SHEET

PROJECT NAME: Station 4 CCVT Replacement **SCHEDULE:** CY2022 - CY2023

	LABOR					MATERIALS/OTHER				
	# of Units		Labor Total (unit rate x labor units)		Vehicle (labor units x vehicle rate)					
ITEM/TASK	Straight Time	OT	Straight Time	OT		DESCRIPTION	Unit	Unit Rate	# of Units	TOTAL
			$7,290	**$7,077**	**$920**					
CCTV Installation	3.0		$21,869	$0	$2,760	Engineering services to design new protection scheme				$12,500
						Testing services				$40,000
						CCTV	each	$12,000.00	7	$84,000
			$0	$0	$0	Miscellaneous materials				$10,000
Overhead Contractor 2-man crew - unit rate in weeks			**$8,000**	**N/A**	**$2,080**					
			$0		$0					$0
			$0		$0					$0
Underground Contractor 2-man crew - unit rate in weeks			**$6,991**	**N/A**	**$400**					
			$0		$0					$0
			$0		$0					$0
Line Operations Supervision: unit rate in hours			**$106**	**$103**						
Supervision of Line crews			$0	$0						$0
Engineering: unit rate in hours			**$96**	**$93**						
			$0	$0						$0
			$0	$0						$0
Senior Tech: unit rate in hours			**$87**	**$85**	**$21**					
Installation of equipment	180.0		$15,734	$0	$3,780					$0
			$0	$0	$0					$0
Meter Tech: unit rate in hours			**$66**	**$64**	**$21**					
			$0	$0	$0					$0
Technical Services Manager: unit rate in hours			**$113**	**$109**						
Supervision/Project Management	100.0		$11,259	$0		**Police Details**	**weeks**	**$2,427**		**$0**
TOTAL LABOR/VEHICLES			**$48,863**	**$0**	**$6,540**	**TOTAL MATERIALS/OTHER**				**$146,500**

PROJECT TOTAL:	**$201,903**

2022 ESTIMATED SPENDING	**$140,000**
2023 ESTIMATED SPENDING	**$61,903**

CAPITAL PROJECT SUMMARY

Project Name: Primary Metering Inspection and Upgrade Program **Project #:** 110

Project Schedule: 2021-2023 **Project Manager:** Nick D'Alleva, Assistant General Foreman Grid Assets & Communications

Reason for Expenditure:
RMLD has initiated an inspection program of all primary metering revenue equipment. It is predicted that many of these installations will need to be replaced due to age and/or condition. Some primary metering customers are expected to be converted to secondary metering during implementation. This project will cover the cost of any necessary upgrades.

Brief Description/Scope:
Equipment will be repaired, upgraded and/or replaced as necessary based on the results of the assessment.

Barriers:
None anticipated at this time.

Change in Scope of Work From Prior Fiscal Year: Increase (Decrease)
The primary metering review team is working internally and with its primary metering customers to remove existing primary metering equipment and install more conventional metering equipment. These efforts have reduced the scope and spending originally proposed for this project.

Status Update From Prior Fiscal Year:
Replacement primary current and voltage transformers have been ordered and will all be received by the end of 2021. Aged primary metering installations are being replaced after review by the primary metering review team.

CAPITAL PROJECT COST SHEET

PROJECT NAME: Primary Metering Upgrade and Replacement Program **SCHEDULE:** CY2021-2023

	LABOR					MATERIALS/OTHER				
	# of Units		Labor Total (unit rate x labor units)		Vehicle (labor units x vehicle rate)					
ITEM/TASK	Straight Time	OT	Straight Time	OT		DESCRIPTION	Unit	Unit Rate	# of Units	TOTAL
RMLD Line Crews 2-man crew - unit rate in weeks			**$7,290**	**$7,077**	**$920**					
Primary metering make ready and installation	10.0	4.0	$72,898	$28,308	$12,880	Potential Transformers	each	$1,000.00	50	$50,000
			$0	$0	$0	Current Transformers	each	$1,000.00	70	$70,000
			$0	$0	$0	Miscellaneous equipment (racks, secondary control wire, meter sockets, and test switches)	each	$500.00	38	$19,000
Overhead Contractor 2-man crew - unit rate in weeks			**$8,000**	**N/A**	**$2,080**					
			$0		$0					$0
			$0		$0					$0
Underground Contractor 2-man crew - unit rate in weeks			**$6,991**	**N/A**	**$400**					
			$0		$0					$0
			$0		$0					$0
			$0		$0					$0
Line Operations Supervision: unit rate in hours			**$106**	**$103**						
Supervision of Line crews	100.0		$10,637	$0						$0
Engineering: unit rate in hours			**$96**	**$93**						
Primary metering installation coordination and design	160.0	80.0	$15,366	$7,459						$0
			$0	$0						$0
Senior Tech: unit rate in hours			**$87**	**$85**	**$21**					
Primary metering construction	960.0		$83,917	$0	$20,160					$0
Primary metering installation coordination and design		160.0	$0	$13,578	$3,360					$0
Meter Tech: unit rate in hours			**$66**	**$64**	**$21**					
			$0	$0	$0					$0
Technical Services Manager: unit rate in hours			**$113**	**$109**						
Supervision/Project Management	160.0	40.0	$18,015	$4,372		**Police Details**	**weeks**	**$2,427**		**$0**
TOTAL LABOR/VEHICLES			**$200,832**	**$53,717**	**$36,400**	**TOTAL MATERIALS/OTHER**				**$139,000**

PROJECT TOTAL:	**$429,949**

2021 ESTIMATED SPENDING	**$250,000**
2022 ESTIMATED SPENDING	**$100,000**
2023 ESTIMATED SPENDING	**$79,949**

CAPITAL PROJECT SUMMARY

Project Name: Relay Protection Upgrades – Station 4 **Project #:** 130

Project Schedule: 2021-2023 **Project Manager:** Nick D'Alleva, Assistant General Foreman Grid Assets & Communications

Reason for Expenditure:
NSTAR is replacing existing static wires with optical ground wire to provide a means for diverse fiber communications on the NSTAR system. This project will address the need for fiber to support Northeast Power Coordinating Council (NPCC) Directory 1, high speed, relay protection upgrades required on 211-503 and 211-504 between National Grid's Tewksbury Station #22, Eversource's Woburn #211 Substation and Reading Station #494. This will also enable RMLD to migrate its remote terminal unit (RTU) communications.

Brief Description/Scope:
Replace existing relay protection on the 211-503 and 211-504 transmission lines. The primary and secondary relay protection scheme will be a fully functional three terminal line protection scheme between Station 4, Woburn Substation and Tewksbury. This protection scheme will communicate over fiber installed on the 115Kv transmission lines.

Barriers:
National Grid and Eversource scheduling of their relay upgrades. The RMLD cannot proceed with our construction until the investor-owned utilities proceed with theirs.

Change in Scope of Work From Prior Fiscal Year: Increase (Decrease)
Both primary and secondary relay schemes are being completely replaced. This is a change from the original design proposed by National Grid and Eversource.

Status Update From Prior Fiscal Year:
The majority of the RMLD engineering and design for this project is completed. The RMLD is waiting for National Grid and Eversource to complete their design of the new relay protection system. This delay has prevented the RMLD from purchasing the new relays and equipment that were originally scheduled for 2021.

CAPITAL PROJECT COST SHEET

PROJECT NAME: Relay Protection Upgrades - Station 4 **SCHEDULE:** CY2021 - 2023

	LABOR					MATERIALS/OTHER				
	# of Units		Labor Total (unit rate x labor units)		Vehicle (labor units x vehicle rate)					
ITEM/TASK	Straight Time	OT	Straight Time	OT		DESCRIPTION	Unit	Unit Rate	# of Units	TOTAL
RMLD Line Crews 2-man crew - unit rate in weeks			**$7,290**	**$7,077**	**$920**					
			$0	$0	$0					$0
			$0	$0	$0					$0
			$0	$0	$0					$0
Overhead Contractor 2-man crew - unit rate in weeks			**$8,000**	**N/A**	**$2,080**					
			$0		$0					$0
			$0		$0					$0
Underground Contractor 2-man crew - unit rate in weeks			**$6,991**	**N/A**	**$400**					
			$0		$0					$0
			$0		$0					$0
			$0		$0					$0
Line Operations Supervision: unit rate in hours			**$106**	**$103**						
			$0	$0						$0
Engineering: unit rate in hours			**$96**	**$93**						
			$0	$0						$0
Senior Tech: unit rate in hours			**$87**	**$85**	**$21**					
Installation of equipment	300.0		$26,224	$0	$6,300	Engineering services to design new protection scheme				$90,000
Wiring and testing	180.0		$15,734	$0	$3,780	Testing services				$40,000
						Communication equipment				$20,000
						Relays	each	$10,000.00	4	$50,000
						Associated equipment for relays	per relay	$1,250.00	10	$12,500
						Misc. materials				$16,000
Meter Tech: unit rate in hours			**$66**	**$64**	**$21**					
			$0	$0	$0					$0
Technical Services Manager: unit rate in hours			**$113**	**$109**	**$21**					
Supervision/Project Management	175.0		$19,703	$0		**Police Details**	**weeks**	**$2,427**		**$0**
TOTAL LABOR/VEHICLES			**$61,662**	**$0**	**$10,080**	**TOTAL MATERIALS/OTHER**				**$228,500**

PROJECT TOTAL:	**$300,242**

2021 ESTIMATED SPENDING	**$70,000**
2022 ESTIMATED SPENDING	**$150,000**
2023 ESTIMATED SPENDING	**$80,242**

CAPITAL PROJECT SUMMARY

Project Name: Pad-mount Switchgear Upgrade at Industrial Parks **Project #:** 102

Project Schedule: FY18-CY23 **Project Manager:** Peter Price, Senior Distribution Engineer

Reason for Expenditure:
Increase distribution system protection in the underground industrial parks in Wilmington and North Reading as well as the three-phase underground distribution areas in Reading, i.e., River Park Drive, Jonspin Road, Haven Street, Woburn Street, Industrial Way, etc.

Brief Description/Scope:
Purchase new units to replace live front pad-mounted switchgear. New units will be dead front with provisions for remote/supervisor control. There are currently 29 units systemwide. In 2022 the RMLD will receive and install the last four units of a three-year bid.

Additionally, we will purchase two new motor operated units for River Park Drive. These units will be dead front with provisions for remote/supervisor control and motor operated positions to incorporate into the existing 4W10 and 3W13 automatic transfer schemes.

Barriers:
Delivery of three switchgear ordered in FY18 was significantly delayed, which has pushed back the installation schedule for all switchgear. The River Park units will need to be bid out in 2022.

Change in Scope of Work From Prior Fiscal Year: Increase (Decrease)

The two motor operated units for River Park Drive were originally slated for purchase in 2023.

Status Update From Prior Fiscal Year:
Installation of fourteen switchgear has been completed (as of August 2021):

- *Jonspin Road, Wilmington*: Switch-1 (FY18), Switch-2 and Switch-3 (CY19), Switch-4 and Switch-5 (CY19), and Switch-6 (CY20)
- *River Park Drive, North Reading:* Switch-2 in (FY18), *Switch-1 (CY20) Switch-5 (CY21)*
- *Concord Street, North Reading*: Switch-2 and Switch-3 in (FY18)
- *Reading Square (Haven Street), Reading: Switch-1 (CY20)*
- *80 Industrial Way, Wilmington: Switch-1 and Switch-2 in (CY21)*

CAPITAL PROJECT COST SHEET

PROJECT NAME: Pad-Mount Switchgear Upgrade at Industrial Parks **SCHEDULE:** CY2022

	LABOR					MATERIALS/OTHER				
	# of Units		Labor Total (unit rate x labor units)		Vehicle (labor units x vehicle rate)					
ITEM/TASK	Straight Time	OT	Straight Time	OT		DESCRIPTION	Unit	Unit Rate	# of Units	TOTAL
RMLD Line Crews 2-man crew - unit rate in weeks			**$7,290**	**$7,077**	**$920**					
Replace pad-mount switchgear (with contractor assist)		2.0	$0	$14,154	$1,840	Innovative Switchgear	each	$72,125.00	4	$288,500
Make up t-bodies and LB elbows (with contractor assist)	3.0		$21,869	$0	$2,760	Innovative Switchgear - MOS Style	each	$90,000.00	2	$180,000
Splice out line and load side primary cables (with contractor assist)	6.0		$43,739	$0	$5,520	T-bodies, LB elbows, reducers, caps, inserts, fused elbows, miscellaneous connectors per switchgear	per switch	$3,000.00	6	$18,000
						Splices for line and load side primaries (up to 12 per switchgear)	per switch	$3,000.00	6	$18,000
						Primary cable for piece outs	foot	$20.00	960	$19,200
Overhead Contractor 2-man crew - unit rate in weeks			**$8,000**	**N/A**	**$2,080**					
			$0		$0					$0
			$0		$0					$0
Underground Contractor 2-man crew - unit rate in weeks			**$6,991**	**N/A**	**$400**					
Replace pad-mount switchgear (assist RMLD crews)	2.0		$13,982		$800					$0
Make up t-bodies and LB elbows (assist RMLD crews)	3.0		$20,974		$1,200					$0
Splice out line and load-side primary cables (assist RMLD crews)	6.0		$41,947		$2,400					$0
Line Operations Supervision: unit rate in hours			**$106**	**$103**						
Supervision of Line crews	92.0	64.0	$9,786	$6,609						$0
Engineering: unit rate in hours			**$96**	**$93**						
Prepare switching order, coordinate outages, ad modifications, order materials, etc.	100.0	64.0	$9,604	$5,967						$0
			$0	$0						$0
Senior Tech: unit rate in hours			**$87**	**$85**	**$21**					
Test cable, switchgear and rotation (2 techs)	120.0	48.0	$10,490	$4,073	$3,528					$0
			$0	$0	$0					$0
Meter Tech: unit rate in hours			**$66**	**$64**	**$21**					
			$0	$0	$0					$0
Technical Services Manager: unit rate in hours			**$113**	**$109**						
Energize and test switchgear and relays	120.0	48.0	$13,511	$5,246		**Police Details**	**weeks**	**$2,427**		**$0**
TOTAL LABOR/VEHICLES			**$185,901**	**$36,050**	**$18,048**	**TOTAL MATERIALS/OTHER**				**$523,700**

PROJECT TOTAL: $763,699

CAPITAL PROJECT SUMMARY

Project Name: New Wilmington Substation **Project #:** 105

Project Schedule: FY17-CY24 **Project Manager:** Emmanuel Agouridis, Senior Distribution Engineer

Reason for Expenditure:
Substation 5 has reached the end of its useful life. The transformer and switchgear need major upgrades/repairs to keep the substation operational. The new Wilmington substation will be a replacement for Substation 5, while also providing added benefit to RMLD.

Brief Description/Scope:
Install a new 115kV / 13.8 kV substation in Wilmington in the Ballardvale area. The new substation will include two (2) 60 MVA transformers and 15kV switchgear with eight (8) (or more as needed) feeder breaker positions. It shall also provide backup and load relief for both Substation 3 and Substation 4.

Barriers:
Availability of land.

Change in Scope of Work From Prior Fiscal Year: Increase (Decrease)
Not applicable.

Status Update From Prior Fiscal Year:
RMLD continues to explore options for location of the new substation. RMLD is still in pursuit of land in the route MA-125 / Ballardvale Street Area.

CAPITAL PROJECT COST SHEET

PROJECT NAME: New Wilmington Substation
Land Purchase

SCHEDULE: CY2022

	LABOR					MATERIALS/OTHER				
	# of Units		Labor Total (unit rate x labor units)		Vehicle (labor units x vehicle rate)					
ITEM/TASK	Straight Time	OT	Straight Time	OT		DESCRIPTION	Unit	Unit Rate	# of Units	TOTAL
RMLD Line Crews 2-man crew - unit rate in weeks			**$7,290**	**$7,077**	**$920**					
			$0	$0	$0					$0
			$0	$0	$0					$0
			$0	$0	$0					$0
Overhead Contractor 2-man crew - unit rate in weeks			**$8,000**	**N/A**	**$2,080**					
			$0		$0					$0
			$0		$0					$0
Underground Contractor 2-man crew - unit rate in weeks			**$6,991**	**N/A**	**$400**					
			$0		$0					$0
			$0		$0					$0
			$0		$0					$0
Line Operations Supervision: unit rate in hours			**$106**	**$103**						
Supervision of Line crews			$0	$0						$0
Engineering: unit rate in hours			**$96**	**$93**						
			$0	$0		Land Purchase				$650,000
			$0	$0						$0
			$0	$0						$0
Senior Tech: unit rate in hours			**$87**	**$85**	**$21**					
			$0	$0	$0					$0
			$0	$0	$0					$0
Meter Tech: unit rate in hours			**$66**	**$64**	**$21**					
			$0	$0	$0					$0
Technical Services Manager: unit rate in hours			**$113**	**$109**						
Supervision/Project Management			$0	$0		**Police Details**	**weeks**	**$2,427**		**$0**
TOTAL LABOR/VEHICLES			**$0**	**$0**	**$0**	**TOTAL MATERIALS/OTHER**				**$650,000**

PROJECT TOTAL: $650,000

CAPITAL PROJECT COST SHEET

PROJECT NAME: New Wilmington Substation
Construction and Commissioning

SCHEDULE: CY2022

	LABOR					MATERIALS/OTHER				
	# of Units		Labor Total (unit rate x labor units)		Vehicle (labor units x vehicle rate)					
ITEM/TASK	Straight Time	OT	Straight Time	OT		DESCRIPTION	Unit	Unit Rate	# of Units	TOTAL
RMLD Line Crews 2-man crew - unit rate in weeks			**$7,290**	**$7,077**	**$920**					
			$0	$0	$0					$0
			$0	$0	$0					$0
			$0	$0	$0					$0
Overhead Contractor 2-man crew - unit rate in weeks			**$8,000**	**N/A**	**$2,080**					
			$0		$0					$0
			$0		$0					$0
Underground Contractor 2-man crew - unit rate in weeks			**$6,991**	**N/A**	**$400**					
			$0		$0					$0
			$0		$0					$0
			$0		$0					$0
Line Operations Supervision: unit rate in hours			**$106**	**$103**						
Supervision of Line crews			$0	$0						$0
Engineering: unit rate in hours			**$96**	**$93**						
Oversite and Management of Project	285.0		$27,370	$0		National Grid system impact study				$42,000
			$0	$0		Engineering consultant for permitting, interconnection, procurement, etc.				$73,500
			$0	$0		Survey, Civil, Permit, etc.				$52,500
Senior Tech: unit rate in hours			**$87**	**$85**	**$21**					
			$0	$0	$0					$0
			$0	$0	$0					$0
Meter Tech: unit rate in hours			**$66**	**$64**	**$21**					
			$0	$0	$0					$0
Technical Services Manager: unit rate in hours			**$113**	**$109**						
Supervision/Project Management			$0	$0		**Police Details**	**weeks**	**$2,427**		**$0**
TOTAL LABOR/VEHICLES			**$27,370**	**$0**	**$0**	**TOTAL MATERIALS/OTHER**				**$168,000**

PROJECT TOTAL: $195,370

CAPITAL PROJECT SUMMARY

Project Name: Grid Modernization & Optimization **Project #:** 103

Project Schedule: On-going **Project Manager:** Hamid Jaffari, Director of Engineering & Operations
Peter Price, Senior Distribution Engineer
Brian Smith, Systems Engineer

Reason for Expenditure:
In compliance with DPU/OSHA Order DPU 12-76B, increase system reliability, modernize/optimize system operation and functionality, decrease system losses and expenses for labor and truck rolls related to outage management.

Brief Description/Scope:
Continue implementation of the Grid Modernization/Optimization Road Map including installation and integration of smart switches, IntelliRupters, and capacitor banks and controls. Cyber security, simulator, fiber rationale connection, fault detection, economic dispatch, and overall system integration, including GIS and AMI.

Barriers:
Technology/software integration; merging old technology with new emerging technology.

Change in Scope of Work From Prior Fiscal Year:
In 2021 a study is being conducted to evaluate communication between the various field devices. This study will provide a comprehensive plan to seamlessly integrate communication amongst all devices and provide guidance for future expansion. We have added a component to this project “Communication to Field Devices,” which will be used to implement the recommendations of this study. Communication to Field Devices will replace Capital Project #126 - “Communications Equipment (Fiber Optic).”

Status Update:
Four Scada-Mate switches and two IntelliRupters were received in 2021 and all were installed. This brings the total number of devices in the field to 24 Scada-Mate switches, and eight IntelliRupters.

RMLD continues to update capacitor bank controllers to prepare for implementation of the communication study results. The V.V.O. software which automates the capacitor banks has been installed and is in the testing phase. Integrated Voice Response is completed. Meter Data Management will be a carried-over from 2021. Crew Management has been cancelled.

CAPITAL PROJECT COST SHEET

PROJECT NAME: Grid Modernization & Optimization
Scada-Mate Switches

SCHEDULE: CY2022

	LABOR					MATERIALS/OTHER				
	# of Units		Labor Total (unit rate x labor units)		Vehicle (labor units x vehicle rate)					
ITEM/TASK	Straight Time	OT	Straight Time	OT		DESCRIPTION	Unit	Unit Rate	# of Units	TOTAL
RMLD Line Crews 2-man crew - unit rate in weeks			**$7,290**	**$7,077**	**$920**					
Install Scada-Mate switches and controls	1.0		$7,290	$0	$920	Scada-Mate CX Switch	each	$30,139.10	4	$120,556
Replace pole, install bypass disconnects, transfer primary, secondary, etc.	7.0		$51,029	$0	$6,440	55' pole, x-arms, brackets, guys, anchors, miscellaneous hardware, etc.	per switch	$2,000.00	4	$8,000
			$0	$0	$0	6801 IntelliTeam License	per switch	$2,500.00	4	$10,000
Install three (3) repeaters/radios per switch	0.4		$2,916	$0	$368	S&C repeaters/radios	each	$3,000.00	12	$36,000
Install antennas	1.5		$10,935	$0	$1,380	Antennas for radios	each	$600.00	6	$3,600
Overhead Contractor 2-man crew - unit rate in weeks			**$8,000**	**N/A**	**$2,080**					
			$0		$0					$0
			$0		$0					$0
Underground Contractor 2-man crew - unit rate in weeks			**$6,991**	**N/A**	**$400**					
			$0		$0					$0
			$0		$0					$0
			$0		$0					$0
Line Operations Supervision: unit rate in hours			**$106**	**$103**						
Supervision of Line crews	120.0		$12,764	$0						$0
Engineering: unit rate in hours			**$96**	**$93**						
PoleForeman, construction drawings, etc.	40.0		$3,841	$0						$0
Prepare switching orders, order materials, establish communication	40.0		$3,841	$0						$0
Senior Tech: unit rate in hours			**$87**	**$85**	**$21**					
Controls, programming, commissioning, etc.	64.0		$5,594	$0	$1,344					$0
Meter Tech: unit rate in hours			**$66**	**$64**	**$21**					
			$0	$0	$0					$0
Technical Services Manager: unit rate in hours			**$113**	**$109**						
Controls, programming, commissioning, etc.	32.0		$3,603	$0		**Police Details**	**weeks**	**$2,427**	**4.0**	**$9,710**
TOTAL LABOR/VEHICLES			**$101,813**	**$0**	**$10,452**	**TOTAL MATERIALS/OTHER**				**$187,866**

PROJECT TOTAL: $300,132

CAPITAL PROJECT COST SHEET

PROJECT NAME: Grid Modernization & Optimization IntelliRupters

SCHEDULE: CY2022

	LABOR					MATERIALS/OTHER				
	# of Units		Labor Total (unit rate x labor units)		Vehicle (labor units x vehicle rate)					
ITEM/TASK	Straight Time	OT	Straight Time	OT		DESCRIPTION	Unit	Unit Rate	# of Units	TOTAL
RMLD Line Crews 2-man crew - unit rate in weeks			**$7,290**	**$7,077**	**$920**					
Install IntelliRupter Switches	1		$7,290	$0	$920	IntelliRupter Switches	each	$37,289.50	2	$74,579
Replace pole, install bypass disconnects, transfer primary, secondary, etc.	3		$21,869	$0	$2,760	55' pole, cross-arms, brackets, guys, anchors, miscellaneous hardware, etc.	per switch	$2,000.00	2	$4,000
			$0	$0	$0	IntelliRupter License/IntelliTeam License	each	$2,500.00	2	$5,000
Overhead Contractor 2-man crew - unit rate in weeks			**$8,000**	**N/A**	**$2,080**					
			$0		$0					$0
			$0		$0					$0
Underground Contractor 2-man crew - unit rate in weeks			**$6,991**	**N/A**	**$400**					
			$0		$0					$0
			$0		$0					$0
			$0		$0					$0
Line Operations Supervision: unit rate in hours			**$106**	**$103**						
Supervision of Line crews	40.0		$4,255	$0						$0
Engineering: unit rate in hours			**$96**	**$93**						
PoleForeman, construction drawings, etc.	24		$2,305	$0						$0
Prepare switching orders, order materials, establish communication	24		$2,305	$0						$0
Senior Tech: unit rate in hours			**$87**	**$85**	**$21**					
Controls, programming, commissioning, etc.	64		$5,594	$0	$1,344					$0
			$0	$0	$0					$0
Meter Tech: unit rate in hours			**$66**	**$64**	**$21**					
			$0	$0	$0					$0
Technical Services Manager: unit rate in hours			**$113**	**$109**						
Controls, programming, commissioning, etc.	16		$1,801	$0		**Police Details**	**weeks**	**$2,427**	**2.0**	**$4,855**
TOTAL LABOR/VEHICLES			**$45,420**	**$0**	**$5,024**	**TOTAL MATERIALS/OTHER**				**$88,434**

PROJECT TOTAL: $138,878

CAPITAL PROJECT COST SHEET

PROJECT NAME: Grid Modernization & Optimization
ABB Reclosers

SCHEDULE: CY2022

	LABOR					MATERIALS/OTHER				
	# of Units		Labor Total (unit rate x labor units)		Vehicle (labor units x vehicle rate)					
ITEM/TASK	Straight Time	OT	Straight Time	OT		DESCRIPTION	Unit	Unit Rate	# of Units	TOTAL
RMLD Line Crews 2-man crew - unit rate in weeks			**7,290**	**$7,077**	**$920**					
Install reclosers and controls	1.0		7,290	$0	$920	ABB Reclosers	each	$20,000.00	4	$80,000
Replace pole, install bypass disconnects, transfer primary, secondary, etc.	7.0		51,029	$0	$6,440	55' pole, x-arms, brackets, guys, anchors, miscellaneous hardware, etc.	per recloser	$2,000.00	4	$8,000
			$0	$0	$0	Bypass disconnects	each	$350.00	12	$4,200
			$0	$0	$0	Contractor assist with recloser settings	per recloser	$1,800.00	4	$7,200
Overhead Contractor 2-man crew - unit rate in weeks			**$8,000**	**N/A**	**$2,080**					
			$0		$0					$0
			$0		$0					$0
Underground Contractor 2-man crew - unit rate in weeks			**$6,991**	**N/A**	**$400**					
			$0		$0					$0
			$0		$0					$0
			$0		$0					$0
Line Operations Supervision: unit rate in hours			**$106**	**$103**						
Supervision of Line crews	120.0		$12,764	$0						$0
Engineering: unit rate in hours			**$96**	**$93**						
PoleForeman, construction drawings, etc.	40.0		$3,841	$0						$0
Prepare switching orders, order materials, establish communication	40.0		$3,841	$0						$0
Senior Tech: unit rate in hours			**$87**	**$85**	**$21**					
Controls, programming, commissioning, etc.	80.0		$6,993	$0	$1,680					$0
			$0	$0	$0					$0
Meter Tech: unit rate in hours			**$66**	**$64**	**$21**					
			$0	$0	$0					$0
Technical Services Manager: unit rate in hours			**$113**	**$109**						
Controls, programming, commissioning, etc.	40.0		$4,504	$0		**Police Details**	**weeks**	**$2,427**	**4.0**	**$9,710**
TOTAL LABOR/VEHICLES			**$90,262**	**$0**	**$9,040**	**TOTAL MATERIALS/OTHER**				**$109,110**

PROJECT TOTAL: $208,412

CAPITAL PROJECT COST SHEET

PROJECT NAME: Grid Modernization & Optimization
Capacitor Bank Automation

SCHEDULE: CY2022

	LABOR					MATERIALS/OTHER				
	# of Units		Labor Total (unit rate x labor units)		Vehicle (labor units x vehicle rate)					
ITEM/TASK	Straight Time	OT	Straight Time	OT		DESCRIPTION	Unit	Unit Rate	# of Units	TOTAL
RMLD Line Crews 2-man crew - unit rate in weeks			**$7,290**	**$7,077**	**$920**					
			$0	$0	$0					$0
			$0	$0	$0					$0
			$0	$0	$0					$0
Overhead Contractor 2-man crew - unit rate in weeks			**$8,000**	**N/A**	**$2,080**					
Install CAP controllers	1.0		$8,000		$2,080	CBC 8000 CAP Controller	each	$1,800.00	10	$18,000
						RADIO	each	$800.00	6	$4,800
			$0		$0	Miscellaneous	per controller	$400.00	3	$1,200
Underground Contractor 2-man crew - unit rate in weeks			**$6,991**	**N/A**	**$400**					
			$0		$0					$0
			$0		$0					$0
			$0		$0					$0
Line Operations Supervision: unit rate in hours			**$106**	**$103**						
Supervision of Line crews	12.0		$1,276	$0						$0
Engineering: unit rate in hours			**$96**	**$93**						
Connecting to Eaton System and SCADA switching	80.0		$7,683	$0						$0
			$0	$0						$0
Senior Tech: unit rate in hours			**$87**	**$85**	**$21**					
Controls, programming, commissioning, installation, etc.	24.0		$2,098	$0	$504					$0
			$0	$0	$0					$0
Meter Tech: unit rate in hours			**$66**	**$64**	**$21**					
			$0	$0	$0					$0
Technical Services Manager: unit rate in hours			**$113**	**$109**						
Controls, programming, commissioning, installation, etc.	6.0		$676	$0		**Police Details**	**weeks**	**$2,427**	**1.2**	**$2,913**
TOTAL LABOR/VEHICLES			**$19,733**	**$0**	**$2,584**	**TOTAL MATERIALS/OTHER**				**$26,913**

PROJECT TOTAL: $49,230

CAPITAL PROJECT COST SHEET

PROJECT NAME: Grid Modernization & Optimization
Software Integration

SCHEDULE: CY2022

	LABOR					MATERIALS/OTHER				
	# of Units		Labor Total (unit rate x labor units)		Vehicle (labor units x vehicle rate)					
ITEM/TASK	Straight Time	OT	Straight Time	OT		DESCRIPTION	Unit	Unit Rate	# of Units	TOTAL
RMLD Line Crews 2-man crew - unit rate in weeks			**$7,290**	**$7,077**	**$920**					
			$0	$0	$0	Services from vendor for integration of AMI and various devices				$15,000
			$0	$0	$0					$0
			$0	$0	$0					$0
Overhead Contractor 2-man crew - unit rate in weeks			**$8,000**	**N/A**	**$2,080**					
			$0		$0					$0
			$0		$0					$0
Underground Contractor 2-man crew - unit rate in weeks			**$6,991**	**N/A**	**$400**					
			$0		$0					$0
			$0		$0					$0
			$0		$0					$0
Line Operations Supervision: unit rate in hours			**$106**	**$103**						
Supervision			$0	$0						$0
Engineering: unit rate in hours			**$96**	**$93**						
Work with vendor for software integration	80.0		$7,683	$0						$0
Senior Tech: unit rate in hours			**$87**	**$85**	**$21**					
Work with vendor for software integration	24.0		$2,098	$0	$504					$0
Meter Tech: unit rate in hours			**$66**	**$64**	**$21**					
			$0	$0	$0					$0
Technical Services Manager: unit rate in hours			**$113**	**$109**						
Supervision	8.0		$901	$0		**Police Details**	**weeks**	**$2,427**		**$0**
TOTAL LABOR/VEHICLES			**$10,682**	**$0**	**$504**	**TOTAL MATERIALS/OTHER**				**$15,000**

PROJECT TOTAL: $26,186

CAPITAL PROJECT COST SHEET

PROJECT NAME: Grid Modernization & Optimization
Communication to Field Devices

SCHEDULE: CY2022

	LABOR					MATERIALS/OTHER				
	# of Units		Labor Total (unit rate x labor units)		Vehicle (labor units x vehicle rate)					
ITEM/TASK	Straight Time	OT	Straight Time	OT		DESCRIPTION	Unit	Unit Rate	# of Units	TOTAL
RMLD Line Crews 2-man crew - unit rate in weeks			**$7,290**	**$7,077**	**$920**					
Install Radio Antenna	1.2		$8,748	$0	$1,104	Radio	Each	$800.00	24	$19,200
			$0	$0	$0	Miscellaneous Fiber Optic Equipment				$53,460
		0	$0	$0	$0	Contractor to make connections to SCADA	Each	$2,000.00	24	$53,460
Overhead Contractor 2-man crew - unit rate in weeks			**$8,000**	**N/A**	**$2,080**					
			$0		$0					$0
			$0		$0					$0
Underground Contractor 2-man crew - unit rate in weeks			**$6,991**	**N/A**	**$400**					
		0.0	$0		$0					$0
			$0		$0					$0
			$0		$0					$0
Line Operations Supervision: unit rate in hours			**$106**	**$103**						
Supervision of Line crews	24.0	0.0	$2,553	$0						$0
Engineering: unit rate in hours			**$96**	**$93**						
Prepare construction documents, PoleForeman, 605As, outage setup, outages, GIS updates	72.0	0.0	$6,915	$0						$0
			$0	$0						$0
Senior Tech: unit rate in hours			**$87**	**$85**	**$21**					
	0.0	0.0	$0	$0	$0					$0
			$0	$0	$0					$0
Meter Tech: unit rate in hours			**$66**	**$64**	**$21**					
Install devices.	24.0	0.0	$1,586	$0	$504					$0
Technical Services Manager: unit rate in hours			**$112.59**	**$109**						
Supervision of Meter crews	24.0		$2,702	$0		**Police Details**	**weeks**	**$2,427**	**2.4**	**$5,826**
TOTAL LABOR/VEHICLES			**$22,504**	**$0**	**$1,608**	**TOTAL MATERIALS/OTHER**				**$131,946**

PROJECT TOTAL: $156,058

CAPITAL PROJECT COST SHEET

PROJECT NAME: Grid Modernization & Optimization
Meter Data Management (MDM)

SCHEDULE: CY2022

	LABOR					MATERIALS/OTHER				
	# of Units		Labor Total (unit rate x labor units)		Vehicle (labor units x vehicle rate)					
ITEM/TASK	Straight Time	OT	Straight Time	OT		DESCRIPTION	Unit	Unit Rate	# of Units	TOTAL
RMLD Line Crews 2-man crew - unit rate in weeks			**$7,290**	**$7,077**	**$920**					
			$0	$0	$0	Meter Data Management Software				$280,700
			$0	$0	$0					$0
			$0	$0	$0					$0
Overhead Contractor 2-man crew - unit rate in weeks			**$8,000**	**N/A**	**$2,080**					
			$0		$0					$0
										$0
			$0		$0					$0
Underground Contractor 2-man crew - unit rate in weeks			**$6,991**	**N/A**	**$400**					
			$0		$0					$0
			$0		$0					$0
			$0		$0					$0
Line Operations Supervision: unit rate in hours			**$106**	**$103**						
			$0	$0						$0
Engineering: unit rate in hours			**$96**	**$93**						
			$0	$0						$0
			$0	$0						$0
Senior Tech: unit rate in hours			**$87**	**$85**	**$21**					
			$0	$0	$0					$0
			$0	$0	$0					$0
Meter Tech: unit rate in hours			**$66**	**$64**	**$21**					
			$0	$0	$0					$0
Technical Services Manager: unit rate in hours			**$113**	**$109**						
			$0	$0		**Police Details**	**weeks**	**$2,427**		**$0**
TOTAL LABOR/VEHICLES			**$0**	**$0**	**$0**	**TOTAL MATERIALS/OTHER**				**$280,700**

PROJECT TOTAL: $280,700

CAPITAL PROJECT SUMMARY

Project Name: AMI Mesh Network Expansion and Meter Replacement **Project #:** 112

Project Schedule: 2022-2024 **Project Manager:** John McDonagh, Assistant Director of E&O and Nick D'Alleva, Assistant General Foreman Grid Assets & Communications

Reason for Expenditure:
The RMLD has ~28,600 Itron non-AMI/AMR meters that are not capable of providing end-of-line voltage. End-of-line voltage readings would provide the ability to monitor voltage, current, demand, power factor and power quality for these locations. Of these ~28,000 non-AMI meters, there are 3,600 commercial, industrial, and time-of-use meters that are not capable of communicating with the RMLD Outage Management System (OMS). Customers with these meters are not able to receive outage and restoration notifications.

Brief Description/Scope:
The RMLD hired a consultant who performed a system-wide evaluation of the current AMI/AMR mesh network and metering system and made recommendations for system upgrades to accommodate current deficiencies as outlined above and to address future metering needs. The RMLD then hired Katama Technologies, Inc., to prepare RFPs for both the AMI and MDM systems based on the recommendations of the consultant evaluation. Once the RFPs are created and the technical specifications are generated, it will be put out to bid in 2022. The MDM procurement will take place first followed by the AMI procurement in 2022. Once an AMI vendor is selected through the bidding process, and we have procured the materials, the headend and communication infrastructure installation will commence in 2022 followed by the full deployment of meters in years 2023 and 2024.

Barriers:
Supply chain concerns.

Change in Scope of Work From Prior Fiscal Year: Increase (Decrease)
Implementation has been pushed back 2022.

Status Update From Prior Fiscal Year:
In 2021 RMLD proceeded to hire an AMI/MDM consultant to prepare RFPs for both the MDM and AMI systems. The actual implementation starts in 2022 and will be completed by 2024.

CAPITAL PROJECT COST SHEET

PROJECT NAME: AMI Mesh Network Expansion and Meter Replacement **SCHEDULE:** CY2022 - 2024

	LABOR					MATERIALS/OTHER				
	# of Units		Labor Total (unit rate x labor units)		Vehicle (labor units x vehicle rate)					
ITEM/TASK	Straight Time	OT	Straight Time	OT		DESCRIPTION	Unit	Unit Rate	# of Units	TOTAL
RMLD Line Crews 2-man crew - unit rate in weeks			**$7,290**	**$7,077**	**$920**					
			$0	$0	$0	Headend				$60,000
						Infrastructure				$224,000
						Meters				$5,401,000
						Installation				$949,000
			$0	$0	$0	Project Management and Delivery				$1,011,000
Overhead Contractor 2-man crew - unit rate in weeks			**$8,000**	**N/A**	**$2,080**					
			$0		$0					$0
			$0		$0					$0
Underground Contractor 2-man crew - unit rate in weeks			**$6,991**	**N/A**	**$400**					
			$0		$0					$0
			$0		$0					$0
Line Operations Supervision: unit rate in hours			**$106**	**$103**						
Supervision of Line crews			$0	$0						$0
Engineering: unit rate in hours			**$96**	**$93**						
			$0	$0						$0
			$0	$0						$0
Senior Tech: unit rate in hours			**$87**	**$85**	**$21**					
			$0	$0	$0					$0
			$0	$0	$0					$0
Meter Tech: unit rate in hours			**$66**	**$64**	**$21**					
			$0	$0	$0					$0
Technical Services Manager: unit rate in hours			**$113**	**$109**						
				$0						
						Police Details	**weeks**	**$2,427**		**$0**
TOTAL LABOR/VEHICLES			**$0**	**$0**	**$0**	**TOTAL MATERIALS/OTHER**				**$7,645,000**

PROJECT TOTAL: $7,645,000

2022 ESTIMATED SPENDING	**$1,211,400**
2023 ESTIMATED SPENDING	**$3,272,800**
2024 ESTIMATED SPENDING	**$3,160,800**

CAPITAL PROJECT SUMMARY

Project Name: Meters and Primary Meters (for Stock) **Project #:** 117

Project Schedule: Annual **Project Manager:** Nick D'Alleva,
Assistant General Foreman
Grid Assets &
Communications

Reason for Expenditure:
Purchase of meters and metering equipment for new construction, upgrades, and failures.

Brief Description/Scope:
Meter and Primary Meter bids will be prepared, and units purchased as outlined on the Cost Sheet.

Barriers:
None anticipated at this time.

Change in Scope of Work From Prior Fiscal Year:
Not applicable.

Status Update:
Not applicable.

CAPITAL PROJECT COST SHEET

PROJECT NAME: Meters and Primary Meters (for stock) **SCHEDULE:** CY2022

	LABOR					MATERIALS/OTHER				
	# of Units		Labor Total (unit rate x labor units)		Vehicle (labor units x vehicle rate)					
ITEM/TASK	Straight Time	OT	Straight Time	OT		DESCRIPTION	Unit	Unit Rate	# of Units	TOTAL
RMLD Line Crews 2-man crew - unit rate in weeks			**$7,290**	**$7,077**	**$920**					
			$0	$0	$0	Residential meters for stock (with disconnect option as available)	each	$300.00	200	$60,000
			$0	$0	$0	Secondary current transformers	each	$300.00	40.0	$12,000
			$0	$0	$0	CT Rated Meter Sockets	each	$400.00	20	$8,000
Overhead Contractor 2-man crew - unit rate in weeks			**$8,000**	**N/A**	**$2,080**					
			$0		$0					$0
			$0		$0					$0
Underground Contractor 2-man crew - unit rate in weeks			**$6,991**	**N/A**	**$400**					
			$0		$0					$0
			$0		$0					$0
			$0		$0					$0
Line Operations Supervision: unit rate in hours			**$106**	**$103**						
Supervision of Line crews			$0	$0						$0
Engineering: unit rate in hours			**$96**	**$93**						
			$0	$0						$0
			$0	$0						$0
Senior Tech: unit rate in hours			**$87**	**$85**	**$21**					
			$0	$0	$0					$0
			$0	$0	$0					$0
Meter Tech: unit rate in hours			**$66**	**$64**	**$21**					
			$0	$0	$0					$0
Technical Services Manager: unit rate in hours			**$113**	**$109**						
Supervision/Project Management			$0	$0		**Police Details**	**weeks**	**$2,427**		**$0**
TOTAL LABOR/VEHICLES			**$0**	**$0**	**$0**	**TOTAL MATERIALS/OTHER**				**$80,000**

PROJECT TOTAL: $80,000

CAPITAL PROJECT SUMMARY

Project Name: Force Account: Mass DOT
Main and Hopkins Street, Reading

Project #: 214

Project Schedule: 2021-22

Project Manager: Peter Price,
Senior Distribution
Engineer

Reason for Expenditure:

Reimbursable Force Account Project

Brief Description/Scope:

MassDOT roadway improvement and signalization project will require Verizon to set 12 poles and the RMLD to set three poles along Main Street and Hopkins Street in Reading. RMLD to transfer one three-phase spacer cable circuit and associated laterals, transformers, guys, streetlights, secondaries, and risers. This project also involves the relocation of the secondary riser for the restaurant at 107 Main Street.

Barriers:

Waiting for MassDOT to move forward with the project. As of August of 2021, MassDOT is moving forward with the project. RMLD is still waiting on a ‘Notice to Proceed” notification from MassDOT.

Change in Scope of Work From Prior Fiscal Year: Increase (Decrease)

Not applicable.

Status Update From Prior Fiscal Year:

The project is anticipated to start in September of 2021 and be completed in 2022.

CAPITAL PROJECT COST SHEET

PROJECT NAME: Main & Hopkins Street, Reading
MassDOT Force Account Project

SCHEDULE: CY21-22

	LABOR					MATERIALS/OTHER			
	# of Units		Labor Total (unit rate x labor units)						
ITEM/TASK	Straight Time	OT	Straight Time	Overtime	Vehicle (labor units x vehicle rate)	DESCRIPTION	Unit	Unit Rate	# of Units
RMLD Line Crews 2-man crew - unit rate in weeks			**$7,290**	**$7,077**	**$920**				
RMLD to transfer on 11 poles and attach to 4 new poles on Main Street.	8.4	1	$61,236	$7,077	$8,648	Spacer cable brackets, insulators, etc.	per pole	$400	12
RMLD to transfer three-phase secondary underground service to restaurant		1	$0	$7,077	$920	Secondary brackets	per pole	$40	12
			$0	$0	$0	Guy wire and hardware	each	$200.00	10
			$0	$0	$0	Cutouts, crossarms, risers, etc.	each	$300.00	15
			$0	$0	$0	Miscellaneous hardware	per pole	$250.00	15
			$0	$0	$0	55'-1 poles	per pole	$1,200.00	3.0
Overhead Contractor 2-man crew - unit rate in weeks			**$8,000**	**N/A**	**$2,080**				
			$0		$0				
			$0		$0				
			$0		$0				
Underground Contractor 2-man crew - unit rate in weeks			**$6,991**	**N/A**	**$400**				
Work with contractor on UG to the restaurant at 107 Main Street	1		$6,991		$400	U-Guard, riser ties, connectors, miscellaneous hardware	each	$500.00	1.0
			$0		$0				
			$0		$0				
Line Operations Supervision: unit rate in hours			**$106**	**$103**					
Supervision of Line crews	60		$6,360	$0					
Engineering: unit rate in hours			**$96**	**$93**					
PoleForeman, telco correspondence, pole petition hearings, construction plans, switching, planned outages, GIS updates, etc.	60	40	$5,760	$3,720					
Senior Tech: unit rate in hours			**$87**	**$85**	**$21**				
Rotation (6 customers)		40	$0	$3,400	$840				
			$0	$0	$0				
Technical Services Manager: unit rate in hours			**$113**	**$109**					
			$0	$0		**Police Details**	**week**	**$2,427**	**7.2**
			$0	$0					
TOTAL			**$80,347**	**$21,274**	**$10,808**				

PROJECT TOTAL: $149,537

2021 ESTIMATED SPENDING	**$51,197**
2022 ESTIMATED SPENDING	**$98,340**

CAPITAL PROJECT SUMMARY

Project Name: 3W18 Getaway Improvements **Project #:** 125

Project Schedule: 2021-2022 **Project Manager:** Emmanuel Agouridis, Senior Distribution Engineer

Reason for Expenditure:
The objective of this project is to have the 3W18 circuit separated from the existing duct bank at Station 3. At a high level, the plan is to run the circuit out of Station 3 in a separate duct bank and ultimately to Chestnut Street via newly built overhead lines installed on the existing pole line running from Chestnut Street down the driveway to Station 3. This will improve the rating of the 3W18 circuit, while also improving the ratings of the remaining circuits in the duct bank due to reduced heating and inherent thermal relief.

Brief Description/Scope:
Install new underground cable from Station 3 to a new riser installed in 2020. Perform all overhead line work to tie the new 3W18 riser to the existing overhead 3W18 circuit located on Chestnut Street. After all new construction is in place, cutover from existing feed to new feed.

Barriers:
None anticipated at this time.

Change in Scope of Work From Prior Fiscal Year:
Not applicable.

Status Update:
Not applicable.

CAPITAL PROJECT COST SHEET

PROJECT NAME: 3W18 Getaway Improvements **SCHEDULE:** CY2021 - CY2022

	LABOR					MATERIALS/OTHER				
	# of Units		Labor Total (unit rate x labor units)		Vehicle (labor units x vehicle rate)					
ITEM/TASK	Straight Time	OT	Straight Time	OT		DESCRIPTION	Unit	Unit Rate	# of Units	TOTAL
RMLD Line Crews 2-man crew - unit rate in weeks			**$7,290**	**$7,077**	**$920**					
Replace five poles w/ 55' CL1 poles	2.0		$14,580	$0	$1,840	55' - class 1 poles	each	$800.00	5	$4,000
Frame 15 poles for added circuit	2.0		$14,580	$0	$1,840	15kV, 556 AL spacer cable	foot	$2.02	5280	$10,666
Set-up for (1,000') messenger wire	2.0		$14,580	$0	$1,840	0.052 messenger wire	foot	$1.23	1760	$2,165
Pull in and install (3,000') 556 spacer cable	2.0		$14,580	$0	$1,840	Riser pole hardware	per pole	$1,700.00	1	$1,700
Move 3W15-3W6 and 3W15-3W18 tie switches	2.0		$14,580	$0	$1,840	15 kV Hendrix brackets, misc. hardware, misc. primary connectors (spacers, insulators, etc.)	per pole	$300.00	15	$4,500
Install underground cable, splice, term (with contractor assist)	2.0		$14,580	$0	$1,840	Gang operated air break switch	each	$3,040.00	2	$6,080
Wreck out underground (with contractor assist)	1.0		$7,290	$0	$920	15kV cable, 750 MCM	foot	$14.43	1500	$21,645
						600V, 4/0 CU cable	foot	$3.08	500	$1,540
						Terminations	each	$70.64	6	$424
						Splices	each	$443.56	3	$1,331
Overhead Contractor 2-man crew - unit rate in weeks			**$8,000**	**N/A**	**$2,080**					
			$0		$0					$0
			$0		$0					$0
Underground Contractor 2-man crew - unit rate in weeks			**$6,991**	**N/A**	**$400**					
Install underground cable, splice, term (assist RMLD crews)	2		$13,982		$800					$0
Wreck out underground (assist RMLD crews)	1		$6,991		$400					$0
Line Operations Supervision: unit rate in hours			**$106**	**$103**						
Supervision of Line crews	100.0		$10,637	$0						$0
Engineering: unit rate in hours			**$96**	**$93**						
Design, work order, material procurement	80		$7,683	$0						$0
Oversight	40		$3,841	$0						$0
Switching: draft, review and execute	16		$1,537	$0						$0
Senior Tech: unit rate in hours			**$87**	**$85**	**$21**					
Switching: review and execution	16		$1,399	$0	$336					$0
Test cable	4		$350	$0	$84					$0
Meter Tech: unit rate in hours			**$66**	**$64**	**$21**					
			$0	$0	$0					$0
Technical Services Manager: unit rate in hours			**$113**	**$109**						
Switching: review and execution	16		$1,801	$0		**Police Details**	**weeks**	**$2,427**	**2.0**	**$4,855**
TOTAL LABOR/VEHICLES			**$142,989**	**$0**	**$13,580**	**TOTAL MATERIALS/OTHER**				**$58,905**

PROJECT TOTAL:	**$215,473**

2021 ESTIMATED SPENDING	**$107,737**
2022 ESTIMATED SPENDING	**$107,737**

CAPITAL PROJECT SUMMARY

Project Name: Transformers and Capacitors Purchase (Stock and Projects) **Project #:** 116

Project Schedule: Annual **Project Manager:** Vaughan Bryan, Senior Distribution Engineer

Reason for Expenditure:
All transformers and capacitors for planned and ad hoc projects are purchased under this project.

Brief Description/Scope:
Transformer and capacitor bids will be prepared, and units purchased as outlined on the Cost Sheet.

These transformers and capacitors will be used for new construction, as well as reliability projects including Secondary and Main Replacement, 13.8kV Upgrade (Step-down Areas), Underground Facilities Upgrades, and Aged/Overloaded Transformer Replacement.

Barriers:
None anticipated at this time

Change in Scope of Work From Prior Fiscal Year:
In 2022 additional single-phase pad-mount transformers will be purchased to expedite replacing aged transformers.

Status Update:
Not applicable.

CAPITAL PROJECT COST SHEET

PROJECT NAME: Transformers and Capacitors **SCHEDULE:** CY2022

	LABOR					MATERIALS/OTHER				
	# of Units		Labor Total (unit rate x labor units)		Vehicle (labor units x vehicle rate)					
ITEM/TASK	Straight Time	OT	Straight Time	OT		DESCRIPTION	Unit	Unit Rate	# of Units	TOTAL
RMLD Line Crews 2-man crew - unit rate in weeks			**$7,290**	**$7,077**	**$920**					
			$0	$0	$0	Three-phase pad-mount transformers for proposed commercial services and stock	average per transformer	$9,200	27	$248,400
			$0	$0	$0	Single-phase pad-mount transformers for proposed subdivisions and stock.	average per transformer	$2,875	91	$261,625
			$0	$0	$0	Three-phase pole-mount transformers for proposed commercial services and stock	average per transformer	$4,888	17	$83,096
			$0	$0	$0	Single-phase pole-mount transformers for proposed residential services and stock	average per transformer	$2,300	65	$149,500
			$0	$0	$0	1,200 kVar capacitor banks	average per transformer	$1,400	6	$8,400
Overhead Contractor 2-man crew - unit rate in weeks			**$8,000**	**N/A**	**$2,080**					
			$0		$0					$0
			$0		$0					$0
Underground Contractor 2-man crew - unit rate in weeks			**$6,991**	**N/A**	**$400**					
			$0		$0					$0
			$0		$0					$0
			$0		$0					$0
Line Operations Supervision: unit rate in hours			**$106**	**$103**						
Supervision of Line crews			$0	$0						$0
Engineering: unit rate in hours			**$96**	**$93**						
			$0	$0						$0
			$0	$0						$0
Senior Tech: unit rate in hours			**$87**	**$85**	**$21**					
			$0	$0	$0					$0
			$0	$0	$0					$0
Meter Tech: unit rate in hours			**$66**	**$64**	**$21**					
			$0	$0	$0					$0
Technical Services Manager: unit rate in hours			**$113**	**$109**						
Supervision/Project Management			$0	$0		**Police Details**	**weeks**	**$2,427**		**$0**
TOTAL LABOR/VEHICLES			**$0**	**$0**	**$0**	**TOTAL MATERIALS/OTHER**				**$751,021**

PROJECT TOTAL: $751,021

CAPITAL PROJECT SUMMARY

Project Name: Secondary and Main Replacement Program
All Towns

Project #: 458

Project Schedule: Annual

Project Manager: Leo Keefe, General Line Foreman
All Engineers

Reason for Expenditure:

This preventive maintenance program is intended to upgrade and improve system reliability and address aging infrastructure.

Brief Description/Scope:

This program identifies aging infrastructure and addresses a variety of work to include secondary upgrades and service drop upgrades as needed. Pole replacements, primary cable replacement and transformer upgrades will be done in conjunction with the Stepdown Area Conversions. The Middlesex Avenue area in Reading will be targeted for upgrade in 2022 in conjunction with the 13.8kV Upgrade (Step-down Areas) – Project 107.

Barriers:

The Middlesex Avenue area in Reading is an RMLD set area, so no barriers are anticipated.

Change in Scope of Work from Prior Fiscal Year: Increase (Decrease)

Not applicable.

Status Update from Prior Fiscal Year:

The Linda Lane area is predicted to be completed by the end of 2021.
The North Main Street/Lowell Street area in Lynnfield was completed 2021.
The Wisser Street and Brand Avenue area in Wilmington was completed in 2021.
Southwick Road was completed in 2021.
The Central Street area in North Reading was completed in 2021.

CAPITAL PROJECT COST SHEET

PROJECT NAME: Secondary and Main Replacement Program **SCHEDULE:** CY2022

	LABOR					MATERIALS/OTHER				
	# of Units		Labor Total (unit rate x labor units)		Vehicle (labor units x vehicle rate)					
ITEM/TASK	Straight Time	OT	Straight Time	OT		DESCRIPTION	Unit	Unit Rate	# of Units	TOTAL
RMLD Line Crews 2-man crew - unit rate in weeks			**$7,290**	**$7,077**	**$920**					
Frame up to 120 poles	6		$43,739	$0	$5,520	4/0-3/C secondary cable	foot	$2	10,000	$20,000
Install 10,000' of secondary cable	12		$87,478	$0	$11,040	Secondary hardware, brackets, connectors, etc.	per pole	$75	120	$9,000
Replace services	8		$58,319	$0	$7,360	120' of 1/0 - 3/C service wire for each service	per service	$100	100	$10,000
			$0	$0	$0					
Overhead Contractor 2-man crew - unit rate in weeks			**$8,000**	**N/A**	**$2,080**					
			$0		$0					$0
			$0		$0					$0
Underground Contractor 2-man crew - unit rate in weeks			**$6,991**	**N/A**	**$400**					
			$0		$0					$0
			$0		$0					$0
			$0		$0					$0
Line Operations Supervision: unit rate in hours			**$106**	**$103**						
Supervision of Line crews	80.0		$8,509	$0						$0
Engineering: unit rate in hours			**$96**	**$93**						
Prepare construction documents, PoleForeman, outage set-up, GIS updates	200		$19,207	$0						$0
			$0	$0						$0
Senior Tech: unit rate in hours			**$87**	**$85**	**$21**					
			$0	$0	$0					$0
			$0	$0	$0					$0
Meter Tech: unit rate in hours			**$66**	**$64**	**$21**					
			$0	$0	$0					$0
Technical Services Manager: unit rate in hours			**$113**	**$109**						
Supervision/Project Management			$0	$0		**Police Details**	**weeks**	**$2,427**	**12.0**	**$29,130**
TOTAL LABOR/VEHICLES			**$217,252**	**$0**	**$23,920**	**TOTAL MATERIALS/OTHER**				**$68,130**

PROJECT TOTAL: $309,302

NOTE: Transformers for this project are purchased under Project 116.

CAPITAL PROJECT SUMMARY

Project Name: 13.8kV Upgrades (Step-down Areas, etc.) All Towns **Project #:** 107

Project Schedule: Annual **Project Manager:** All Engineers

Reason for Expenditure:
It is expected that at the conclusion of all work in the step-down conversion areas in 2021 that there will be 21 step-down areas remaining in the RMLD service territory awaiting conversion to 13.8kV. These areas on the RMLD distribution system were originally fed from 4.16 kV distribution circuits. When RMLD began moving load over to the 13.8kV distribution circuits, most areas were converted but some areas were re-fed with pole-mount, step-down transformers. Most of the distribution system in these areas are 30+ years old and in need of upgrade before they can be converted.

Brief Description/Scope:

Replace poles, primary cable, and overhead transformers, as needed, in the various step-down areas. Convert areas to 13.8kV and remove step-down transformers. The secondary cable and service upgrades will be done in conjunction with Project 458. The only area targeted for 2022 is the Middlesex Avenue area in Reading given its large size and cost associated for the upgrade.

Barriers:
None

Change in Scope of Work From Prior Fiscal Year:
Not applicable.

Status Update:
The Central Street area in North Reading was converted in 2021. The area off of Summer Avenue in Reading that feeds Willow Street and Austin Prep is underway and is awaiting customer upgrades to complete the conversion. The areas surrounding Linda Lane in Wilmington are in progress. The areas in Reading off of South Street are awaiting some final pole sets from Verizon and RMLD expects to complete this area prior to the end of the year. Finally, a large section of North Lynnfield along Lowell and Main Streets was also converted with only a small side street remaining that requires upgrades to the underground distribution for completion.

CAPITAL PROJECT COST SHEET

PROJECT NAME: 13.8kV Upgrades (Step-down Areas, etc.) **SCHEDULE:** CY2022

	LABOR					MATERIALS/OTHER				
	# of Units		Labor Total (unit rate x labor units)		Vehicle (labor units x vehicle rate)					
ITEM/TASK	Straight Time	OT	Straight Time	OT		DESCRIPTION	Unit	Unit Rate	# of Units	TOTAL
RMLD Line Crews 2-man crew - unit rate in weeks			**$7,290**	**$7,077**	**$920**					
RMLD to set up to 100 poles	20		$145,797	$0	$18,400	40' poles	each	$400.00	100	$40,000
RMLD to frame 110 poles for new primary cable (guying and anchors as needed)	12		$87,478	$0	$11,040	Hardware, insulators, connectors, guys, cutouts, taps, brackets, ground rods, etc.	per pole	$210.00	110	$23,100
Install 19,500' of single-phase primary cable, energize and cutover	12		$87,478	$0	$11,040	1/0 AAAC primary	foot	$0.87	19,500	$16,965
Replace twenty five (25) pole-mount transformers	6		$43,739	$0	$5,520					
Remove old primary cable	4		$29,159	$0	$3,680					
Overhead Contractor 2-man crew - unit rate in weeks			**$8,000**	**N/A**	**$2,080**					
			$0		$0					$0
			$0		$0					$0
Underground Contractor 2-man crew - unit rate in weeks			**$6,991**	**N/A**	**$400**					
			$0		$0					$0
			$0		$0					$0
			$0		$0					$0
Line Operations Supervision: unit rate in hours			**$106**	**$103**						
Supervision of Line crews	120.0		$12,764	$0						$0
Engineering: unit rate in hours			**$96**	**$93**						
PoleForeman, 605As, construction drawings, switching orders, etc.	400		$38,415	$0						$0
			$0	$0						$0
Senior Tech: unit rate in hours			**$87**	**$85**	**$21**					
			$0	$0	$0					$0
			$0	$0	$0					$0
Meter Tech: unit rate in hours			**$66**	**$64**	**$21**					
			$0	$0	$0					$0
Technical Services Manager: unit rate in hours			**$113**	**$109**						
			$0	$0		**Police Details**	**weeks**	**$2,427**	**20.0**	**$48,550**
TOTAL LABOR/VEHICLES			**$444,829**	**$0**	**$49,680**	**TOTAL MATERIALS/OTHER**				**$128,615**

PROJECT TOTAL: $623,124

Note: Transformers for this project are purchased under Project 116

CAPITAL PROJECT SUMMARY

Project Name: Underground Facilities Upgrades (URDs, Manholes, etc.) **Project #:** 106

Project Schedule: Annual **Project Manager:** All Engineers

Reason for Expenditure:

There are 210 +/- underground residential subdivisions in the RMLD service territory, of which, 80 +/- are over 25 years old. These subdivisions are in need of new primary cable and transformers. Some of the URDs are in step-down areas and need to be upgraded before they can be converted to 7,970 volts. Most of the existing transformers are live-front units. The new padmount transformers will be dead-front units, which will improve reliability by eliminating the possibility of animal contacts within the pad transformer. The new transformers will be placed on box-pads that will raise the transformers out of the mulch beds preventing premature rusting and corrosion of the transformers. Manholes in the underground areas are also aging and may need repairs.

Brief Description/Scope:

Replace primary and neutral cables, and padmount transformers as needed in the various URDs. The precast transformer pads will be replaced with fiberglass box pads as needed for elevation requirements. Certain areas will be targeted each year. Areas targeted for 2022 include King James Grant and Wildwood Estates in Lynnfield, Blanchard Road in Wilmington, and Parkwood Estates and Takoma Circle in North Reading. In 2022 we will continue with inspection of manholes to determine which manholes will need to be scheduled for replacement.

Barriers:

Availability of underground crews.

Change in Scope of Work From Prior Fiscal Year:

No notable change.

Status Update:

Area upgrades either completed or expected to be completed by the end of 2021 include:

- Pocahontas Way, Hampton Court/Midland Street, Carter Road/Willard Lane, and Kimberly Terrace (completed) in Lynnfield
- Gandolf Way at Glen Acres Estate (completed), Elmwood Village, Juniper Ridge, Scaltrito Drive (completed), and Corum Meadows in Wilmington
- Sandspur Lane, Pine Glen Drive (completed), and Gloria Lane (completed) in North Reading

CAPITAL PROJECT COST SHEET

PROJECT NAME: Underground Facilities Upgrades (URDs, Manholes, etc.)

SCHEDULE: CY2022

	LABOR					MATERIALS/OTHER				
	# of Units		Labor Total (unit rate x labor units)		Vehicle (labor units x vehicle rate)					
ITEM/TASK	Straight Time	OT	Straight Time	OT		DESCRIPTION	Unit	Unit Rate	# of Units	TOTAL
RMLD Line Crews 2-man crew - unit rate in weeks			**$7,290**	**$7,077**	**$920**					
Replace approximately 18,400 feet of underground and neutral cable (with contractor assist)	20		$145,797	$0	$18,400	#2 CU 15 kV cable and neutral	foot	$3.00	18,400	$55,200
Splice, terminate, elbows, grounding, etc. (with contractor assist)	6		$43,739	$0	$5,520	Splices, elbows, terminations, tape connectors, hardware, etc.	each	$200.00	56	$11,200
Transformer replacement and crabbing (with contractor assist)	5		$36,449	$0	$4,600	Transformer box pads	each	$310.00	24	$7,440
Overhead Contractor 2-man crew - unit rate in weeks			**$8,000**	**N/A**	**$2,080**					
			$0		$0					$0
			$0		$0					$0
Underground Contractor 2-man crew - unit rate in weeks			**$6,991**	**N/A**	**$400**					
Replace approximately 15,000 feet of URD and neutral cables (assist RMLD crews)	20		$139,824		$8,000					$0
Splice, terminate, elbows, grounding, etc. (assist RMLD crews)	6		$41,947		$2,400					$0
Transformer replacement and crabbing (assist RMLD crews)	5		$34,956		$2,000					$0
Line Operations Supervision: unit rate in hours			**$106**	**$103**						
Supervision of Line crews	200.0		$21,273	$0						$0
Engineering: unit rate in hours			**$96**	**$93**						
Switching, scheduling, notices, plans, etc.	216		$20,744	$0						$0
Inspection 35 manholes.	120		$11,524	$0						$0
Senior Tech: unit rate in hours			**$87**	**$85**	**$21**					
Testing cables and transformers	48		$4,196	$0	$1,008					$0
			$0	$0	$0					$0
Meter Tech: unit rate in hours			**$66**	**$64**	**$21**					
			$0	$0	$0					$0
Technical Services Manager: unit rate in hours			**$113**	**$109**						
Supervision/Project Management	8		$901	$0		**Police Details**	**weeks**	**$2,427**	**2.0**	**$4,855**
TOTAL LABOR/VEHICLES			**$501,350**	**$0**	**$41,928**	**TOTAL MATERIALS/OTHER**				**$78,695**

PROJECT TOTAL: $621,973

Note: Transformers for this project are purchased under Project 116

CAPITAL PROJECT SUMMARY

Project Name: Gazebo Circle, Reading
Underground Feed Relocation

Project #: 134

Project Schedule: 2022

Project Manager: Brian Smith,
System Engineer

Reason for Expenditure:
Improve reliability and access to the feed to Gazebo Circle, which is currently overhead through the woods off Summer Street. Current feed is not accessible by truck and requires an outage to the entire Gazebo Circle complex to complete any maintenance or trimming (approximately 215 customers).

Brief Description/Scope:
Staff will survey and obtain easement for a new underground feed off Hopkins Street to Gazebo Circle. Crews will then install approximately three manholes and 1,200 feet of four-inch conduit, as well as approximately 750 circuit feet of new underground cable. Crews will then remove overhead feed from the woods off Summer Avenue.

Barriers:
Obtaining easements from the Town and Gazebo Circle condo association.

Change in Scope of Work From Prior Fiscal Year: Increase (Decrease)
Not applicable.

Status Update From Prior Fiscal Year:
Not applicable.

CAPITAL PROJECT COST SHEET

PROJECT NAME: Gazebo Circle, Reading - Underground Feed Relocation **SCHEDULE:** CY2022

	LABOR					MATERIALS/OTHER				
	# of Units		Labor Total (unit rate x labor units)		Vehicle (labor units x vehicle rate)					
ITEM/TASK	Straight Time	OT	Straight Time	OT		DESCRIPTION	Unit	Unit Rate	# of Units	TOTAL
			$7,290	**$7,077**	**$920**					
Installation of new conduit and wire, splice and install elbows as needed	3.0		$21,869	$0	$2,760	1,200 feet of conduit	foot	$6.00	1200.0	$7,200
			$0	$0	$0	2,000' of primary cable	foot	$4.00	2000.0	$8,000
						750 feet of ground wire	foot	$2.00	750.0	$1,500
						Miscellaneous hardware (fittings, splice kits, elbows, etc.)				$5,000
			$0	$0	$0	Surveyor and legal costs to obtain and record easements				$20,000
			$0	$0	$0	4-Manholes/Frames/Covers	each	$2,500.00	4.0	$10,000
			$0	$0	$0	Contractor excavation for manholes and duct-bank, repave driveway in area of excavations				$102,000
Overhead Contractor 2-man crew - unit rate in weeks			**$8,000**	**N/A**	**$2,080**					
Removal of old overhead line through woods	4.0		$32,000		$8,320					$0
			$0		$0					$0
Underground Contractor 2-man crew - unit rate in weeks			**$6,991**	**N/A**	**$400**					
Installation of new conduit and wire, splice and install elbows as needed	6.0		$41,947		$2,400					$0
			$0		$0					$0
			$0		$0					$0
Line Operations Supervision: unit rate in hours			**$106**	**$103**						
Supervision of Line crews	40.0		$4,255	$0						$0
Engineering: unit rate in hours			**$96**	**$93**						
Design/run project	100.0		$9,604	$0						$0
			$0	$0						$0
Senior Tech: unit rate in hours			**$87**	**$85**	**$21**					
Testing	32.0		$2,797	$0	$672					$0
			$0	$0	$0					$0
Meter Tech: unit rate in hours			**$66**	**$64**	**$21**					
			$0	$0	$0					$0
Technical Services Manager: unit rate in hours			**$113**	**$109**						
Supervision/Project Management	8.0		$901	$0		**Police Details**	**weeks**	**$2,427**	**1.0**	**$2,427**
TOTAL LABOR/VEHICLES			**$113,373**	**$0**	**$14,152**	**TOTAL MATERIALS/OTHER**				**$156,127**

PROJECT TOTAL: $283,652

CAPITAL PROJECT SUMMARY

Project Name: Aged/Overloaded Transformer Replacement Program

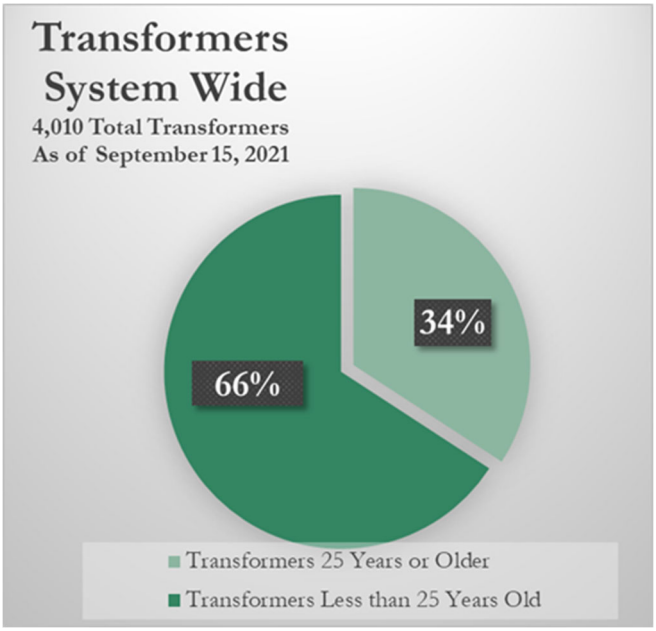
Project #: 668

Project Schedule: Annual

Project Manager: Vaughan Bryan, Senior Distribution Engineer

Reason for Expenditure:

In order to expedite the replacement of aged and over-loaded transformers on the system, the RMLD formalized the Aged/Overloaded Transformer Replacement Program as a separate capital project in 2020. RMLD plans to replace 120-150 aged or overloaded transformers annually either as part of this program or one of the other reliability programs (i.e., URD Upgrades, Stepdown Upgrades, Secondary and Main Upgrades).



Transformers Replaced 2021
108 Total YTD (through August)

	Pad-mount	Pole-Mount
Single Phase	26	75
Three Phase	3	4
Total	**29**	**79**

Brief Description/Scope:

All transformers over 25 years old have been prioritized for replacement based on age, physical condition, and load. Additionally, the transformer load management program will further identify transformers that need replacement. Any transformer replacement, which is not part of an area upgrade for one of the reliability programs, will be replaced under this project. RMLD crews, augmented by contract crews, will replace these transformers.

Barriers:

Difficulties scheduling outages with continued schooling and work from home due to the COVID-19 pandemic.

Change in Scope of Work From Prior Fiscal Year:
Not applicable.

Status Update:
Year-to-date (through August) a total of 108 aged transformers have been replaced as part of this program or one of the other reliability projects as noted above.

CAPITAL PROJECT COST SHEET

PROJECT NAME: Aged/Overloaded Transformer Replacement Program **SCHEDULE:** CY2022

	LABOR					MATERIALS/OTHER				
	# of Units		Labor Total (unit rate x labor units)		Vehicle (labor units x vehicle rate)					
ITEM/TASK	Straight Time	OT	Straight Time	OT		DESCRIPTION	Unit	Unit Rate	# of Units	TOTAL
RMLD Line Crews 2-man crew - unit rate in weeks			**$7,290**	**$7,077**	**$920**					
Replace three-phase pad-mount transformers system wide.		6.5	$0	$46,001	$5,980	Miscellaneous underground connectors, elbows, hardware and pads.	per transformer	$1,400.00	60	$84,000
Replace single-phase pad-mount transformers system side.	9.4		$68,524	$0	$8,648					
Replace three-phase pole-mount transformers system wide.		5.25	$0	$37,155	$4,830	Miscellaneous overhead connectors, poles, and hardware	per transformer	$1,000.00	35	$35,000
Replace single-phase pole-mount transformers system wide.	3.5		$25,514		$3,220					
Overhead Contractor 2-man crew - unit rate in weeks			**$8,000**	**N/A**	**$2,080**					
Replace single-phase pole-mount transformers system wide.	3.5		$28,000		$7,280					$0
Underground Contractor 2-man crew - unit rate in weeks			**$6,991**	**N/A**	**$400**					
Replace single-phase pad-mount transformers system side.	9.4		$65,717		$3,760					$0
Line Operations Supervision: unit rate in hours			**$106**	**$103**						
Supervision of Line crews	340.0	168.0	$36,164	$17,348						$0
Engineering: unit rate in hours			**$96**	**$93**						
Prepare construction documents, PoleForeman, 605As, outage setup, outages, GIS updates.	640.8	217.2	$61,540	$20,250						$0
Senior Tech: unit rate in hours			**$87**	**$85**	**$21**					
Test UG cable connections; commercial customers being off hours	184.7	217.2	$16,145	$18,432	$8,440					$0
Meter Tech: unit rate in hours			**$66**	**$64**	**$21**					
Test rotation of commercial application; commercial customers being off hours	159.0	104.0	$10,510	$6,674	$5,523					$0
Technical Services Manager: unit rate in hours			**$113**	**$109**						
Supervision/Project Management	28.6		$3,214	$0		**Police Details**	**weeks**	**$2,427**	**5.4**	**$13,108**
TOTAL LABOR/VEHICLES			**$315,330**	**$145,859**	**$47,681**	**TOTAL MATERIALS/OTHER**				**$132,108**

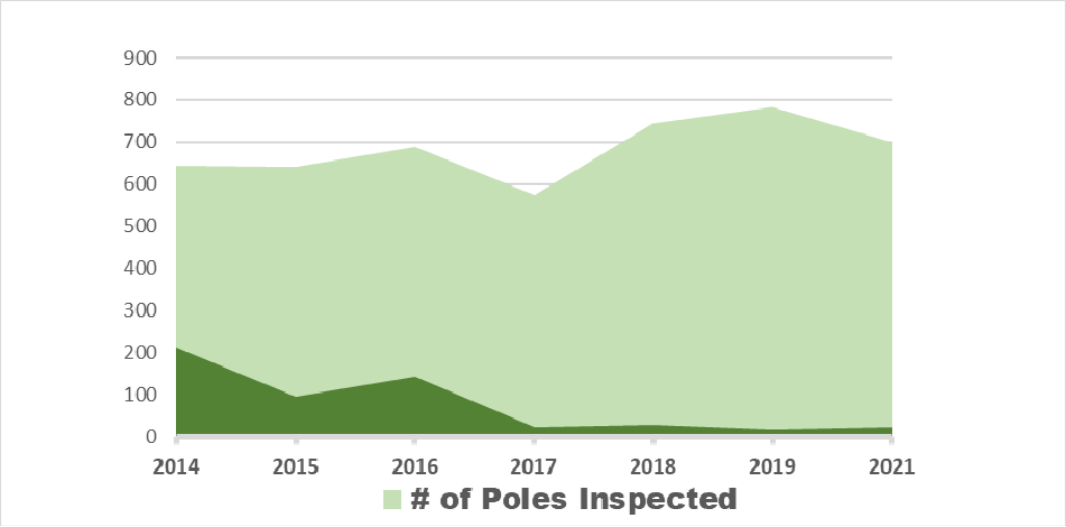
PROJECT TOTAL: $640,979

CAPITAL PROJECT SUMMARY

Project Name: Pole Replacement Program (R, NR) **Project #:** 175

Project Schedule: Annual **Project Manager:** Leo Keefe,
General Foreman Operations

Reason for Expenditure:
In 2014 RMLD initiated a Pole Inspection Program. Ten percent of RMLD-owned poles (Reading and North Reading) are inspected annually by an outside contractor using various technologies including resistorgraph technology. This Inspection Program provides RMLD with verifiable data on pole condition. Annual testing takes place each year in the fall. Testing (through 2021), has identified 541 poles that were recommended for replacement. The chart below shows the decline in the number of poles identified as "failed".



Note: Testing was not performed in 2020.

Brief Description/Scope:
RMLD will replace 50 poles per year that are identified as part of the Pole Inspection Program. This project includes setting poles, transfers, and replacing secondary services as needed.

Barriers:
None anticipated at this time.

Change in Scope of Work From Prior Fiscal Year: Increase (Decrease)
Not applicable.

Status Update From Prior Fiscal Year:
Since the inception of the Pole Inspection Program a total of 302 poles have been replaced, and 281 transfers have been completed (as of September 15, 2021).

CAPITAL PROJECT COST SHEET

PROJECT NAME: Pole Replacement Program, R/NR **SCHEDULE:** CY2022

	LABOR					MATERIALS/OTHER				
	# of Units		Labor Total (unit rate x labor units)		Vehicle (labor units x vehicle rate)					
ITEM/TASK	Straight Time	OT	Straight Time	OT		DESCRIPTION	Unit	Unit Rate	# of Units	TOTAL
RMLD Line Crews 2-man crew - unit rate in weeks			**$7,290**	**$7,077**	**$920**					
			$0	$0	$0					$0
			$0	$0	$0					$0
			$0	$0	$0					$0
Overhead Contractor 2-man crew - unit rate in weeks			**$8,000**	**N/A**	**$2,080**					
Set and transfer 50 poles.	20.0		$160,000		$41,600	Poles	each	$400.00	50.0	$20,000
			$0		$0	Miscellaneous hardware	per pole	$90.00	50.0	$4,500
Service upgrades as necessary	1.2		$9,600		$2,496	Connectors and wires (for service upgrades)	per service	$213.00	50.0	$10,650
Underground Contractor 2-man crew - unit rate in weeks			**$6,991**	**N/A**	**$400**					
			$0		$0					$0
			$0		$0					$0
			$0		$0					$0
Line Operations Supervision: unit rate in hours			**$106**	**$103**						
Supervision of Line crews	200.0		$21,273	$0						$0
Engineering: unit rate in hours			**$96**	**$93**						
Prepare PoleForemans and Digsafes	40.0		$3,841	$0						$0
Senior Tech: unit rate in hours			**$87**	**$85**	**$21**					
			$0	$0	$0					$0
			$0	$0	$0					$0
Meter Tech: unit rate in hours			**$66**	**$64**	**$21**					
			$0	$0	$0					$0
Technical Services Manager: unit rate in hours			**$113**	**$109**						
Supervision/Project Management			$0	$0		**Police Details**	**weeks**	**$2,427**	**10.0**	**$24,275**
TOTAL LABOR/VEHICLES			**$194,715**	**$0**	**$44,096**	**TOTAL MATERIALS/OTHER**				**$59,425**

PROJECT TOTAL: $298,235

CAPITAL PROJECT SUMMARY

Project Name: Substation Equipment Upgrade **Project #:** 111

Project Schedule: Annual **Project Manager:** Nick D'Alleva,
Assistant General Foreman Grid
Assets & Communications

Reason for Expenditure:
This is a proactive, preventive maintenance program for RMLD substations to increase reliability and prevent premature failure of long-lead substation equipment. United Power Group and RMLD personnel have identified substation equipment that needs to be replaced or upgraded as a result of their condition assessment. The equipment includes breakers, lightning arresters, potential transformers, bushings, and insulators at all substations.

Brief Description/Scope:

In 2022 the RMLD will purchase a spare 35Kv breaker, lightning arresters, and replacement insulator for installation at Station 4 and Station 5.

Barriers:
Availability of replacement parts.

Change in Scope of Work From Prior Fiscal Year: Increase (Decrease)
Not applicable.

Status Update From Prior Fiscal Year:
In 2021 the RMLD replaced the 35Kv lightning arresters for 115/35Kv transformers at Station 4.

CAPITAL PROJECT COST SHEET

PROJECT NAME: Substation Equipment Upgrades **SCHEDULE:** CY2022

	LABOR					MATERIALS/OTHER				
	# of Units		Labor Total (unit rate x labor units)		Vehicle (labor units x vehicle rate)					
ITEM/TASK	Straight Time	OT	Straight Time	OT		DESCRIPTION	Unit	Unit Rate	# of Units	TOTAL
RMLD Line Crews 2-man crew - unit rate in weeks			**$7,290**	**$7,077**	**$920**					
Insulator replacements	2.7		$19,683	$0	$2,484	35Kv Breaker	each	$45,000.00	1	$45,000
			$0	$0	$0	Lightning arresters	each	$400.00	6	$2,400
			$0	$0	$0	Replacement Insulators	each	$200.00	24	$4,800
Overhead Contractor 2-man crew - unit rate in weeks			**$8,000**	**N/A**	**$2,080**					
			$0		$0					$0
			$0		$0					$0
Underground Contractor 2-man crew - unit rate in weeks			**$6,991**	**N/A**	**$400**					
			$0		$0					$0
			$0		$0					$0
			$0		$0					$0
Line Operations Supervision: unit rate in hours			**$106**	**$103**						
Supervision of Line crews			$0	$0						$0
Engineering: unit rate in hours			**$96**	**$93**						
			$0	$0						$0
			$0	$0						$0
Senior Tech: unit rate in hours			**$87**	**$85**	**$21**					
Testing and installation of lightning arresters	48.0		$4,196	$0	$1,008					$0
Insulator replacements	96.0		$8,392	$0	$2,016					$0
Meter Tech: unit rate in hours			**$66**	**$64**	**$21**					
			$0	$0	$0					$0
Technical Services Manager: unit rate in hours			**$113**	**$109**						
Supervision/Project Management			$0	$0		**Police Details**	**weeks**	**$2,427**		**$0**
TOTAL LABOR/VEHICLES			**$32,270**	**$0**	**$5,508**	**TOTAL MATERIALS/OTHER**				**$52,200**

PROJECT TOTAL: $89,978

CAPITAL PROJECT SUMMARY

Project Name: Power/Lab and Tool Equipment **Project #:** 115

Project Schedule: Annual **Project Manager:** n/a

Reason for Expenditure:
This annual project is for the purchase of test equipment and tools. These purchases include the replacement or upgrade of existing equipment and new tools and equipment that assist line workers and technicians in performing their jobs safer and more efficiently.

Brief Description/Scope:

In 2022 the Grid Asset and Communications group plans to purchase a meter tester and thermal camera for detecting overheated equipment in order to schedule replacement before premature failure. The RMLD performs quarterly inspection of all substations, underground switches, and capacitor banks to detect any overheated and/or overloaded equipment system wide.

Barriers:
None anticipated at this time.

Change in Scope of Work From Prior Fiscal Year: Increase (Decrease)
Not applicable.

Status Update From Prior Fiscal Year:
Not applicable.

CAPITAL PROJECT COST SHEET

PROJECT NAME: Power/Lab and Tool Equipment **SCHEDULE:** CY2022

	LABOR					MATERIALS/OTHER				
	# of Units		Labor Total (unit rate x labor units)		Vehicle (labor units x vehicle rate)					
ITEM/TASK	Straight Time	OT	Straight Time	OT		DESCRIPTION	Unit	Unit Rate	# of Units	TOTAL
RMLD Line Crews 2-man crew - unit rate in weeks			**$7,290**	**$7,077**	**$920**					
			$0	$0	$0	Shop Meter Tester	each	$50,000.00	1	$50,000
			$0	$0	$0	Flir Thermal Camera	each	$45,000.00	1	$45,000
			$0	$0	$0	Miscellaneous equipment as needed				$15,000
			$0	$0	$0					
Overhead Contractor 2-man crew - unit rate in weeks			**$8,000**	**N/A**	**$2,080**					
			$0		$0					$0
			$0		$0					$0
Underground Contractor 2-man crew - unit rate in weeks			**$6,991**	**N/A**	**$400**					
			$0		$0					$0
			$0		$0					$0
Line Operations Supervision: unit rate in hours			**$106**	**$103**						
Supervision of Line crews			$0	$0						$0
Engineering: unit rate in hours			**$96**	**$93**						
			$0	$0						$0
			$0	$0						$0
Senior Tech: unit rate in hours			**$87**	**$85**	**$21**					
			$0	$0	$0					$0
			$0	$0	$0					$0
Meter Tech: unit rate in hours			**$66**	**$64**	**$21**					
			$0	$0	$0					$0
Technical Services Manager: unit rate in hours			**$113**	**$109**						
Supervision/Project Management			$0	$0		**Police Details**	**weeks**	**$2,427**		**$0**
TOTAL LABOR/VEHICLES			**$0**	**$0**	**$0**	**TOTAL MATERIALS/OTHER**				**$110,000**

PROJECT TOTAL: $110,000

CAPITAL PROJECT SUMMARY

Project Name: Service Connections (Residential and Commercial) – All Towns **Project #:** various

Project Schedule: Annual **Project Manager:** Leo Keefe, General Foreman Operations

Reason for Expenditure:
Installation of new and upgraded services for both residential and commercial/industrial customers in the service territory.

Brief Description/Scope:
This item includes new service connections, upgrades, and service replacements for residential, commercial, and industrial customers. This represents the time and materials associated with the replacement of an existing or installation of a new overhead service drop and the connection of an underground service, etc. This does not include the time and materials associated with pole replacements/installations, transformer replacements/installations, primary or secondary cable replacements/ installations, etc. These aspects of a project are captured under Routine Construction.

Barriers:
None anticipated at this time.

Change in Scope of Work From Prior Fiscal Year
Not applicable.

Status Update:
Not applicable.

CAPITAL PROJECT COST SHEET

PROJECT NAME: Service Connections (Residential and Commercial)

SCHEDULE: CY2022

	LABOR					MATERIALS/OTHER				
	# of Units		Labor Total (unit rate x labor units)		Vehicle (labor units x vehicle rate)					
ITEM/TASK	Straight Time	OT	Straight Time	OT		DESCRIPTION	Unit	Unit Rate	# of Units	TOTAL
RMLD Line Crews 2-man crew - unit rate in weeks			**$7,290**	**$7,077**	**$920**					
Install new and upgraded service connections at approximately 350 units.	12.0		$87,478	$0	$11,040	Secondary hardware, brackets, connectors, etc.	per service	$56.00	350	$19,600
			$0	$0	$0	120' of 1/0 - 3/C service wire for each service	per service	$100.00	350.0	$35,000
Overhead Contractor 2-man crew - unit rate in weeks			**$8,000**	**N/A**	**$2,080**					
			$0		$0					$0
			$0		$0					$0
Underground Contractor 2-man crew - unit rate in weeks			**$6,991**	**N/A**	**$400**					
			$0		$0					$0
			$0		$0					$0
Line Operations Supervision: unit rate in hours			**$106**	**$103**						
Supervision of Line crews			$0	$0						$0
Engineering: unit rate in hours			**$96**	**$93**						
			$0	$0						$0
			$0	$0						$0
Senior Tech: unit rate in hours			**$87**	**$85**	**$21**					
			$0	$0	$0					$0
			$0	$0	$0					$0
Meter Tech: unit rate in hours			**$66**	**$64**	**$21**					
			$0	$0	$0					$0
Technical Services Manager: unit rate in hours			**$113**	**$109**						
Supervision/Project Management			$0	$0		**Police Details**	**weeks**	**$2,427**		**$0**
TOTAL LABOR/VEHICLES			**$87,478**	**$0**	**$11,040**	**TOTAL MATERIALS/OTHER**				**$54,600**

PROJECT TOTAL: $153,118

CAPITAL PROJECT SUMMARY

Project Name: Routine Construction **Project #:** various

Project Schedule: Annual **Project Manager:** Various

Reason for Expenditure:
Routine Construction covers unplanned routine activity as well as capital construction projects that develop during the year including, but not limited to items shown below.

Brief Description/Scope:
- Overhead and underground system upgrades
- Miscellaneous projects
- Pole damage
- Station upgrades
- Porcelain cutout replacements
- Street Light Connections – new equipment installation
- Pole setting/transfers
- Underground subdivisions (new construction)

Barriers:
None anticipated at this time.

Change in Scope of Work From Prior Fiscal Year:
Not applicable.

Status Update:
Not applicable.

CAPITAL PROJECT COST SHEET

PROJECT NAME: Routine Construction **SCHEDULE:** CY2022

	LABOR					MATERIALS/OTHER				
	# of Units		Labor Total (unit rate x labor units)		Vehicle (labor units x vehicle rate)					
ITEM/TASK	Straight Time	OT	Straight Time	OT		DESCRIPTION	Unit	Unit Rate	# of Units	TOTAL
RMLD Line Crews 2-man crew - unit rate in weeks			**$7,290**	**$7,077**	**$920**					
Capital Construction	30.0	10.0	$218,695	$70,771	$36,800	Materials as necessary				$300,000
Street Light Installations	4.0		$29,159	$0	$3,680	Materials as necessary				$50,000
			$0	$0	$0					$0
Overhead Contractor 2-man crew - unit rate in weeks			**$8,000**	**N/A**	**$2,080**					
Pole Setting/Transfers	30		$240,000		$62,400	Materials as necessary				$95,000
			$0		$0					$0
Underground Contractor 2-man crew - unit rate in weeks			**$6,991**	**N/A**	**$400**					
Underground Construction	5		$34,956		$2,000	Materials as necessary				$125,000
			$0		$0					$0
			$0		$0					$0
Line Operations Supervision: unit rate in hours			**$106**	**$103**						
Supervision of Line crews	110.0		$11,700	$0						$0
Engineering: unit rate in hours			**$96**	**$93**						
Project Management	400.0		$38,415	$0						$0
			$0	$0						$0
Senior Tech: unit rate in hours			**$87**	**$85**	**$21**					
			$0	$0	$0					$0
			$0	$0	$0					$0
Meter Tech: unit rate in hours			**$66**	**$64**	**$21**					
			$0	$0	$0					$0
Technical Services Manager: unit rate in hours			**$113**	**$109**						
Supervision/Project Management			$0	$0		**Police Details**	**weeks**	**$2,427**	**52.0**	**$126,229**
TOTAL LABOR/VEHICLES			**$572,925**	**$70,771**	**$104,880**	**TOTAL MATERIALS/OTHER**				**$696,229**

PROJECT TOTAL: $1,444,804

2022 OPERATING BUDGET

Reading Municipal Light Department
Six Year Plan
CY22-CY27

	CY22 BUDGET	CY23 BUDGET	CY24 BUDGET	CY25 BUDGET	CY26 BUDGET	CY27 BUDGET
FORECASTED kWh SALES	**663,883,547**	**669,226,164**	**674,649,452**	**680,061,792**	**685,525,136**	**691,040,020**
OPERATING REVENUES						
SALES OF ELEC - BASE	$ 30,099,569	$ 32,040,746	$ 33,897,404	$ 34,251,312	$ 34,596,577	$ 35,464,316
SALES OF ELEC - FUEL	26,522,356	26,607,312	28,566,880	31,399,268	31,434,068	32,186,758
SALES OF ELEC - CAPACITY/TRANSMISSION	** 35,435,495	** 36,922,346	38,516,244	40,074,578	41,865,322	43,773,392
FORFEITED DISCOUNTS	902,987	961,222	1,016,922	1,027,539	1,037,897	1,063,929
EFFICIENCY ELECTRIFICATION	1,991,651	2,007,678	2,023,948	2,040,185	2,056,575	2,073,120
NYPA	(1,057,302)	(1,069,990)	(1,082,830)	(1,095,824)	(1,108,974)	(1,122,281)
TOTAL OPERATING REVENUES	93,894,755	97,469,315	102,938,568	107,697,059	109,881,465	113,439,234
OPERATING EXPENSES						
PURCHASED POWER - FUEL	25,465,054	25,537,322	27,484,050	30,303,444	30,325,094	31,064,477
PURCHASED POWER - CAPACITY	16,978,311	17,226,785	17,485,484	17,615,344	17,877,814	18,150,827
PURCHASED POWER - TRANSMISSION	18,457,184	19,695,561	21,030,760	22,459,234	23,987,508	25,622,565
EFFICIENCY AND ELECTRIFICATION EXPENSE	2,441,101	2,821,348	3,079,398	2,040,185	2,056,575	2,073,120
OPERATING & MAINTENANCE EXPENSE	6,559,972	6,756,771	6,959,474	7,168,259	7,168,259	7,383,306
GENERAL & ADMINISTRATIVE EXPENSE	13,124,771	13,518,514	13,924,070	14,341,792	14,341,792	14,772,045
DEPRECIATION EXPENSE	5,108,876	5,475,656	5,900,186	6,333,686	6,509,756	6,706,706
TOWN PAYMENTS - 2% NET PLANT	1,707,839	1,850,182	2,023,689	2,194,685	2,185,391	2,186,496
TOTAL OPERATING EXPENSES	89,843,108	92,882,139	97,887,110	102,456,628	104,452,189	107,959,543
OPERATING INCOME	4,051,647	4,587,176	5,051,458	5,240,430	5,429,277	5,479,691
NON-OPERATING REVENUES (EXPENSES)						
INTEREST INCOME	300,000	300,000	300,000	300,000	300,000	300,000
OTHER INCOME	850,000	850,000	850,000	850,000	850,000	850,000
VOLUNTARY PAYMENT TO READING	(2,528,587)	(2,550,081)	(2,573,391)	(2,593,356)	(2,614,252)	(2,635,305)
LOSS ON DISPOSAL OF ASSETS	(100,000)	(100,000)	(100,000)	(100,000)	(100,000)	(100,000)
CUSTOMER DEPOSIT INTEREST EXP	(40,000)	(40,000)	(40,000)	(40,000)	(40,000)	(40,000)
TOTAL NON-OPERATING REVENUES (EXPENSES)	(1,518,587)	(1,540,081)	(1,563,391)	(1,583,356)	(1,604,252)	(1,625,305)
NET INCOME	$ 2,533,060	$ 3,047,095	$ 3,488,067	$ 3,657,075	$ 3,825,024	$ 3,854,386
RATE OF RETURN	**5.20%**	**5.28%**	**5.30%**	**5.49%**	**5.66%**	**5.74%**

The RMLD is allowed up to 8% rate of return. However, strategic planning targets a balance of keeping rates low, funding the capital infrastructure plan and supporting non-operating expenses.
****CY22-CY23 Portion of Projected Increase Supplemented by Rate Stabilization Fund**

Town of Reading, Massachusetts
Municipal Light Department
Statement of Budgeted and Actual Revenues and Expenses

	CY20 BUDGET	CY20 ACTUAL	CY20 BUDGET/ACTUAL % CHANGE	CY21 BUDGET	CY21 8 MOS ACTUAL 4 MOS BUDGET	CY21 BUDGET/ACTUAL % CHANGE	CY22 BUDGET
Operating Revenues							
Base Revenue	$ 29,040,738	$ 27,563,289	(5.09%)	$ 28,292,988	$ 27,686,586	(2.14%)	$ 30,099,569
Fuel Revenue	28,063,578	25,190,503	(10.24%)	27,894,454	26,082,849	(6.49%)	26,522,356
Purchased Power Capacity & Transmission	37,709,613	32,421,014	(14.02%)	35,465,548	33,865,547	(4.51%)	35,435,495
Forfeited Discounts	871,222	825,514	(5.25%)	929,005	969,027	4.31%	902,987
Energy Conservation Revenue	658,683	642,683	(2.43%)	653,994	659,193	0.80%	1,991,651
NYPA Credit	(1,138,021)	(1,070,670)	(5.92%)	(1,143,574)	(1,155,827)	1.07%	(1,057,302)
Total Operating Revenues	95,205,813	85,572,333	(10.12%)	92,092,414	88,107,375	(4.33%)	93,894,755
Expenses							
Power Expenses							
555 Purchased Power - Fuel	26,925,557	25,060,119	(6.93%)	26,750,880	26,373,346	(1.41%)	25,465,054
555 Purchased Power - Capacity	22,457,141	18,181,263	(19.04%)	17,687,368	16,537,603	(6.50%)	16,978,311
565 Purchased Power - Transmission	15,252,472	14,016,892	(8.10%)	17,778,180	16,951,257	(4.65%)	18,457,184
Total Purchased Power	64,635,170	57,258,273	(11.41%)	62,216,428	59,862,206	(3.78%)	60,900,549
Operating and Maintenance Expenses							
580 Supervision and Engineering	1,127,868	1,040,014	(7.79%)	1,143,193	1,029,422	(9.95%)	1,153,589
581 Station/Control Room Operators	476,641	485,450	1.85%	497,935	479,534	(3.70%)	538,942
582 Station Technicians	543,129	442,272	(18.57%)	448,015	519,774	16.02%	674,564
583 Line General Labor	468,999	584,261	24.58%	1,058,760	696,990	(34.17%)	1,124,845
586 Meter General	166,732	159,674	(4.23%)	192,017	201,069	4.71%	197,788
588 Materials Management	504,493	442,388	(12.31%)	455,963	441,064	(3.27%)	471,160
593 Maintenance of Lines - Overhead	1,003,333	400,587	(60.07%)	558,801	462,425	(17.25%)	552,225
593 Maintenance of Lines - Tree Trimming	899,090	631,152	(29.80%)	918,849	696,410	(24.21%)	907,776
594 Maintenance of Lines - Underground	112,590	56,754	(49.59%)	80,896	51,539	(36.29%)	88,139
595 Maintenance of Lines - Transformers	223,438	188,975	(15.42%)	227,331	313,869	38.07%	373,160
598 Line General Leave Time Labor	569,169	414,901	(27.10%)	447,878	380,853	(14.97%)	477,783
Total Operating and Maintenance Expenses	6,095,483	4,846,427	(20.49%)	6,029,637	5,272,947	(12.55%)	6,559,972
General & Administrative Expenses							
903 Customer Collection	1,181,516	1,293,878	9.51%	969,389	1,035,390	6.81%	1,176,246
904 Uncollectible Accounts	105,000	41,701	(60.28%)	105,000	105,000	0.00%	105,000
916 Integrated Resources	647,519	655,991	1.31%	601,419	743,600	23.64%	987,280
916 Efficiency and Electrification Expense	958,765	986,585	2.90%	1,214,035	1,954,751	61.01%	2,441,101
920 Administrative and General Salaries	2,109,933	2,038,351	(3.39%)	2,251,022	1,886,955	(16.17%)	2,373,838
921 Office Supplies	20,000	8,504	(57.48%)	20,000	20,000	0.00%	20,000
923 Outside Services - Legal	498,400	544,220	9.19%	497,000	482,625	(2.89%)	455,918
923 Outside Services - Contract	361,250	349,362	(3.29%)	508,400	518,489	1.98%	735,700
923 Outside Services - Education	266,975	61,935	(76.80%)	257,821	152,769	(40.75%)	329,826
924 Property Insurance	437,500	383,382	(12.37%)	489,700	443,616	(9.41%)	556,500
925 Injuries and Damages	7,678	3,723	(51.51%)	25,600	34,078	33.12%	25,600
926 Employee Pensions and Benefits	3,702,391	4,766,532	28.74%	3,697,458	3,697,432	(0.00%)	3,821,325
930 Miscellaneous General Expense	317,286	257,187	(18.94%)	506,290	478,511	(5.49%)	580,127
931 Rent Expense	212,000	194,542	(8.24%)	212,000	207,530	(2.11%)	212,000
933 Vehicle Expense	333,600	279,023	(16.36%)	388,600	361,234	(7.04%)	379,000
933 Vehicle Expense - Capital	(225,125)	(336,159)	49.32%	(354,544)	(351,628)	(0.82%)	(276,428)
935 Maintenance of General Plant - Technology	394,440	544,988	38.17%	463,775	511,054	10.19%	713,120
935 Maintenance of Building & Garage	908,880	1,178,224	29.63%	933,475	847,549	(9.20%)	929,718
Total General & Administrative Expenses	12,238,008	13,251,970	8.29%	12,786,440	13,128,954	2.68%	15,565,872
Other Operating Expenses							
403 Depreciation	4,734,000	4,699,207	(0.73%)	4,916,345	4,883,756	(0.66%)	5,108,876
408 Voluntary Payments to Towns	1,617,660	1,607,009	(0.66%)	1,654,460	1,655,434	0.06%	1,707,839
Total Other Expenses	6,351,660	6,306,216	(0.72%)	6,570,805	6,539,190	(0.48%)	6,816,715
Operating Income	5,885,492	3,909,446	(33.57%)	4,489,104	3,304,079	(26.40%)	4,051,647
Non-operating Revenues (Expenses)							
415 Contributions in Aid of Construction	-	-	0.00%	300,000	30,000	0.00%	50,000
419 Interest Income	350,000	390,425	11.55%	500,000	192,000	(61.60%)	300,000
419 Other Income	850,000	546,048	(35.76%)	795,000	645,000	(18.87%)	710,000
421 Intergovernmental Grants	-	451,761	0.00%	90,000	240,000	0.00%	90,000
426 Return on Investment Payment to Reading	(2,480,506)	(2,480,506)	(0.00%)	(2,480,506)	(2,480,506)	0.00%	(2,528,587)
426 Loss on Disposal	(100,000)	(163,530)	63.53%	(100,000)	(100,000)	0.00%	(100,000)
431 Interest Expense	(25,000)	(27,777)	11.11%	(45,000)	(45,000)	0.00%	(40,000)
Total Non-operating Revenues (Expenses)	(1,405,506)	(1,283,579)	(8.67%)	(940,506)	(1,518,506)	61.46%	(1,518,587)
Net Income	$ 4,479,987	$ 2,625,868	(41.39%)	$ 3,548,598	$ 1,785,573	(49.68%)	$ 2,533,060

Town of Reading, Massachusetts
Municipal Light Department
Statement of Budgeted Revenues and Expenses

	CY22 BUDGET	CY21 BUDGET	Change in Budget %
Operating Revenues			
Base Revenue	$ 30,099,569	$ 28,292,988	6.39%
Fuel Revenue	26,522,356	27,894,454	(4.92%)
Purchased Power Capacity/Transmission	35,435,495	35,465,548	(0.08%)
Forfeited Discounts	902,987	929,005	13.40%
Energy Conservation Revenue	1,991,651	653,994	204.54%
NYPA	(1,057,302)	(1,143,574)	(7.54%)
Total Operating Revenues	93,894,755	92,092,414	2.12%
Expenses			
Power Expenses			
555 Purchased Power - Fuel	25,465,054	26,750,880	(4.81%)
555 Purchased Power - Capacity	16,978,311	17,687,368	(4.01%)
565 Purchased Power - Transmission	18,457,184	17,778,180	3.82%
Total Purchased Power	60,900,549	62,216,428	(2.12%)
Operating and Maintenance Expenses			
580 Supervision and Engineering	1,153,589	1,143,193	0.91%
581 Station/Control Room Operators	538,942	497,935	8.24%
582 Station Tech	674,564	448,015	50.57%
583 Line General Labor	1,124,845	1,058,760	6.24%
586 Meter General	197,788	192,017	3.01%
588 Materials Management	471,160	455,963	3.33%
593 Maintenance of Lines - Overhead	552,225	558,801	(1.18%)
593 Maintenance of Lines - Tree Trimming	907,776	918,849	(1.21%)
594 Maintenance of Lines - Underground	88,139	80,896	8.95%
595 Maintenance of Lines - Transformers	373,160	227,331	64.15%
598 Line General Leave Time Labor	477,783	447,878	6.68%
Total Operating and Maintenance Expenses	6,559,972	6,029,637	8.80%
General & Administrative Expenses			
903 Customer Collection	1,176,246	969,389	21.34%
904 Uncollectible Accounts	105,000	105,000	0.00%
916 Integrated Resources	987,280	601,419	64.16%
916 Efficiency and Electrification Expense	2,441,101	1,214,035	101.07%
920 Administrative and General Salaries	2,373,838	2,251,022	5.46%
921 Office Supplies	20,000	20,000	0.00%
923 Outside Services-Legal	455,918	497,000	(8.27%)
923 Outside Services-Contract	735,700	508,400	44.71%
923 Outside Services-Education	329,826	257,821	27.93%
924 Property Insurance	556,500	489,700	13.64%
925 Injuries and Damages	25,600	25,600	0.00%
926 Employee Pensions and Benefits	3,821,325	3,697,458	3.35%
930 Miscellaneous General Expense	580,127	506,290	14.58%
931 Rent Expense	212,000	212,000	0.00%
933 Vehicle Expense	379,000	388,600	(2.47%)
933 Vehicle Expense - Capital	(276,428)	(354,544)	(22.03%)
935 Maintenance of General Plant - Technology	713,120	463,775	53.76%
935 Maintenance of Building & Garage	929,718	933,475	(0.40%)
Total General & Administrative Expenses	15,565,872	12,786,440	21.74%
Other Operating Expenses			
403 Depreciation	5,108,876	4,916,345	3.92%
408 Voluntary Payments to Towns	1,707,839	1,654,460	3.23%
Total Other Expenses	6,816,715	6,570,805	3.74%
Operating Income	4,051,647	4,489,104	(6.39%)
Non-operating Revenues (Expenses)			
415 Contributions in Aid of Construction	50,000	300,000	(83.33%)
419 Interest Income	300,000	500,000	(40.00%)
419 Other Income	710,000	795,000	(10.69%)
421 Intergovernmental Grants	90,000	90,000	0.00%
426 Return on Investment Payment to Reading	(2,528,587)	(2,480,506)	1.94%
426 Loss on Disposal	(100,000)	(100,000)	0.00%
431 Interest Expense	(40,000)	(45,000)	(11.11%)
Total Non-operating Revenues (Expenses)	(1,518,587)	(940,506)	61.46%
Net Income	$ 2,533,060	$ 3,548,598	(24.38%)

Reading Municipal Light Department
Operating Budget Supplemental Information
Budgeted and Actual Fixed and Semi-Variable Costs

	CY 20 BUDGET	CY 20 ACTUAL	CY 21 BUDGET	CY 21 8 MOS ACTUAL 4 MOS BUDGET	CY 22 BUDGET	CY 22 % OF BUDGET
FIXED COSTS						
Purchased Power - Fuel	$ 26,925,557	$ 25,060,119	$ 26,750,880	$ 26,373,346	$ 25,465,054	27.53%
Purchased Power - Capacity	22,457,141	18,181,263	17,687,368	16,537,603	16,978,311	18.35%
Purchased Power - Transmission	15,252,472	14,016,892	17,778,180	16,951,257	18,457,184	19.95%
						65.82%
Depreciation Expense	4,734,000	4,699,207	4,916,345	4,883,756	5,108,876	5.52%
Return on Investment Payment to Reading	2,480,506	2,480,506	2,480,506	2,480,506	2,528,587	2.73%
Town Payments - 2% of Net Plant	1,617,660	1,607,009	1,654,460	1,655,434	1,707,839	1.85%
Loss on Disposal of Assets	100,000	163,530	100,000	100,000	100,000	0.11%
TOTAL FIXED COSTS	73,567,336	66,208,525	71,367,739	68,981,902	70,345,851	**76.04%**
SEMI-VARIABLE COSTS						
Labor Expense	8,787,642	7,896,138	8,352,246	7,817,430	9,405,351	10.17%
Labor - Capital	(1,167,165)	(1,608,870)	(1,216,814)	(1,561,885)	(1,483,143)	-1.60%
						8.56%
Overtime Expense	1,051,800	1,042,373	1,066,200	1,108,684	1,036,780	1.12%
Overtime - Capital	(176,732)	(333,903)	(190,534)	(310,528)	(184,731)	-0.20%
						0.92%
Employee Benefits/Pension	4,413,754	5,287,591	4,508,090	4,059,694	4,782,020	5.17%
Employee Benefits/Pension - Capital	(774,085)	(521,059)	(810,632)	(362,262)	(960,695)	-1.04%
						4.13%
Other Operating and Maintenance Expense	1,650,981	2,513,183	2,161,285	2,236,177	2,575,148	2.78%
Efficiency and Electrification Expense	958,765	986,585	1,214,035	1,954,751	2,441,101	2.64%
Tree Trimming Services	899,090	591,686	918,849	696,410	907,776	0.98%
Contract/Consulting Services	361,250	349,362	508,400	518,489	735,700	0.80%
Software/Hardware Maintenance	394,440	544,988	463,775	511,054	713,120	0.77%
Property Insurance	437,500	383,382	489,700	443,616	556,500	0.60%
Legal Expense	498,400	544,220	497,000	482,625	455,918	0.49%
Vehicle Expense	333,600	279,023	388,600	361,234	379,000	0.41%
Vehicle Expense - Capital	(225,125)	(336,159)	(354,544)	(351,628)	(276,428)	-0.30%
Transformer Maintenance (Hazardous Material)	210,000	186,275	215,000	313,869	360,000	0.39%
Training & Tuition Reimbursement Expense	266,975	61,935	257,821	152,769	329,826	0.36%
Rent Expense	212,000	194,542	212,000	207,530	212,000	0.23%
Bad Debt Expense	105,000	41,701	105,000	105,000	105,000	0.11%
Injuries & Damages	70,400	3,723	25,600	34,078	25,600	0.03%
RMLB/CAB	30,000	10,954	30,000	9,795	30,000	0.03%
Office Supplies	20,000	8,504	20,000	20,000	20,000	0.02%
TOTAL SEMI-VARIABLE COSTS	18,358,491	18,126,175	18,861,077	18,446,900	22,165,844	**23.96%**
TOTAL	$ 91,925,827	$ 84,334,700	$ 90,228,816	$ 87,428,802	$ 92,511,695	**100.00%**

2022 POWER SUPPLY

Bulk Power Cost Projections
Reading Municipal Light Department
Total 2022 (Jan-Dec)

FCA TK
System Peak Demand (KW)
System Energy Requirements (MWH)

RESOURCES	FIXED COSTS Budget ($)	ENERGY Budget ($)	TRANS. COSTS Budget ($)	TOTAL COSTS Budget ($)
NYPA	$ 202,783.68	$ 135,978.92	$ 366,885.81	$ 705,648.41
Millstone Mix 1	$ 733,519.88	$ 141,114.37	$ 24,692.76	$ 899,327.01
Millstone Project 3	$ 512,636.91	$ 100,574.92	$ 17,584.60	$ 630,796.43
Seabrook Mix 1	$ 44,318.02	$ 12,147.08	$ 160.73	$ 56,625.84
Seabrook Project 4	$ 1,263,511.03	$ 275,839.88	$ 3,641.74	$ 1,542,992.65
Seabrook Project 5	$ 160,567.73	$ 34,023.64	$ 449.35	$ 195,040.72
SUBTOTAL - BASE	$ 2,917,337.25	$ 699,678.81	$ 413,415.00	$ 4,030,431.06
ISO FCM Costs	$ 9,064,806.25			$ 9,064,806.25
FCM Payments from LP	$ (441,368.72)			$ (441,368.72)
Saddleback Wind		$ 1,399,198		$ 1,399,197.64
Indian River Hydro		$ 318,358		$ 318,358.40
Pepperell Hydro		$ 868,394		$ 868,393.94
Turners Falls Hydro		$ 190,205		$ 190,205.38
Woronoco Hydro		$ 295,523		$ 295,523.21
Collins Hydro		$ 458,916		$ 458,915.81
Pioneer Hydro		$ 572,543		$ 572,542.68
Silver St Hydro		$ 255,454		$ 255,454.42
Wyre Wind Hydro		$ 449,446		$ 449,445.77
Jericho Wind		$ 810,269		$ 810,269.42
Exelon		$ -		
NextEra		$ 8,990,593		$ 8,990,592.54
Shepaug		$ 738,563		$ 738,563.11
Stevenson		$ 366,153		$ 366,152.87
Solar - Altus		$ 117,668		$ 117,668.50
Solar - Marina		$ 214,968		$ 214,967.52
Solar - Kearsarge		$ 172,735		$ 172,734.63
Quinebaug Hydro		$ 861,570		$ 861,569.61
RoxWind		$ 2,228,676		$ 2,228,675.64
Gravel Pit Solar III		$ -		$ -
Cabot/Tuners		$ 1,059,172		$ 1,059,171.53
Gravity Renewables CT		$ 1,625,000		$ 1,625,000.00
Gravity Renewables Dahowa (NY)		$ 2,100,000		$ 2,100,000.00
GMP (Gravity) Plant #4 (NY)		$ 1,375,000		$ 1,375,000.00
Battery Storage	$ 274,464.00			$ 274,464.00
Coop / Resale	$ 25,200.00			$ 25,200.00
Watson	$ 1,343,738.71	$ -	$ -	$ 1,343,738.71
StonyBrook Inter	$ 2,011,544.83	$ 432,259.43	$ 54,322.22	$ 2,498,126.48
SUBTOTAL - INTERMEDIATE	$ 12,278,385.06	$ 25,900,662.06	$ 54,322.22	$ 38,233,369.34
StonyBrook Peaking	$ 695,308.98	$ 51,640.13	$ 28,074.78	$ 775,023.89
SUBTOTAL - PEAKING	$ 695,308.98	$ 51,640.13	$ 28,074.78	$ 775,023.89
ISO Energy Net Interchange		$ 2,826,168.29		$ 2,826,168.29
Eversource Transmission	$ -	-	$ 12,337.33	$ 12,337.33
ENE All Req/Short Supply	$ 312,660.00	-	-	$ 312,660.00
ISO Ancillary/Schedule Charges	1,035,243.67	-	-	$ 1,035,243.67
ISO Annual Fee	5,570.00	-	-	$ 5,570.00
PDR Transmission	$ -	$ -	$ 102,350.98	$ 102,350.98
ISO RNS Charges	$ -	$ -	$ 17,775,912.81	$ 17,775,912.81
HQ Phase I-VEC	$ -	$ -	$ 13,109.04	$ 13,109.04
HQ Phase I-NEE	$ -	$ -	$ 36,705.31	$ 36,705.31
HQ Phase II	$ -	$ -	$ 262,180.80	$ 262,180.80
HQ Use Right Sale	$ (266,193.63)	$ -	$ (241,224.06)	$ (507,417.69)
SUBTOTAL - OTHER CHARGES	$ 1,087,280.03	$ -	$ 17,961,372.22	$ 19,048,652.25
Certificates				
RECs		$ (4,013,095.14)		$ (4,013,095.14)
SUBTOTAL - Certificates		$ (4,013,095.14)		$ (4,013,095.14)
TOTAL	**$ 16,978,311.33**	**$ 25,465,054.14**	**$ 18,457,184.22**	**$ 60,900,549.69**

Description of RMLD's Power Supply Resources for 2022

Stony Brook Intermediate Unit

The Stony Brook Intermediate Unit is a 354-megawatt, combined-cycle power plant that entered commercial operation in 1981.

The unit's three gas turbines generate electricity using either No. 2 oil or natural gas, with additional electricity produced using a single steam turbine in the combined-cycle process. MMWEC completed construction of a natural gas pipeline to serve the Intermediate Unit in September 2002. RMLD has a Life of Unit (LOU) entitlement for 14.453% of the unit or approximately 51 MWs. RMLD has paid off the debt service associated with this project.

Quick Facts – Stonybrook Intermediate Unit

Location	Ludlow, Massachusetts
On-Line Date	1981
Fuel	No. 2 oil/natural gas
Principal Owner/Operator	MMWEC
Total Capacity	354 MWs

Stony Brook Peaking Unit

The Stony Brook Peaking Unit is a 172-megawatt peaking plant that entered commercial operation in 1982.

The unit's two turbines generate electricity using No. 2 oil. RMLD has a Life of Unit (LOU) entitlement for 19.516% of the unit which is equivalent to approximately 33 MWs. RMLD has paid off the debt service associated with this project.

Quick Facts – Stonybrook Peaking Unit

Location	Ludlow, Massachusetts
On-Line Date	1982
Fuel	No. 2 oil
Principal Owner/Operator	MMWEC
Total Capacity	172 MWs

Braintree Electric Light Department - Watson Unit

The simple-cycle gas fired plant is powered by the first two Rolls-Royce Trent 60 gas turbines built for the U.S. power generation market – known as Watson Units #1 and #2. The units entered commercial operation on June 23, 2009.

Both Watson Units are bid into the ISO New England market system daily and are dispatched based on their bid price.

The units two turbines generate electricity using natural gas, with No. 2 oil as backup fuel. RMLD has a 20 year entitlement for 10% of the unit which is equivalent to about 10 MWs.

Quick Facts – Watson Unit

Location	Braintree, Massachusetts
On-Line Date	2009
Fuel	Natural gas/No. 2 oil
Principal Owner/Operator	BELD
Total Capacity	100 MWs

Seabrook Station

Seabrook Station is a 1,244-megawatt nuclear generating plant located in Seabrook, New Hampshire. An operating license for Seabrook was issued in 1986, but the plant did not begin commercial operation until 1990. The principal owner and operator of Seabrook Station is NextEra Energy Resources LLC, a subsidiary of Florida based FPL Group, Inc. NextEra owns 88.2% of Seabrook Station. The other owners are MMWEC (11.59%) and two Massachusetts municipal utilities, the Taunton Municipal Lighting Plant (0.13%) and Hudson Light & Power Department (0.08%).

On March 12, 2019, NextEra received an extension of its Seabrook operating license from the current license expiration of 2030 out to March 15, 2050. RMLD signed 3 different projects to finance Seabrook; Mix 1, Project 4, and Project 5. The debt service associated with these projects will be paid-off in 2014, 2017 & 2018 respectively. RMLD has a Life of Unit (LOU) entitlement for 0.635% or approximately 8 MWs of the unit. This is a non-carbon generating resource and RMLD is entitled to the associated output certificates for its share of the facility.

Quick Facts – Seabrook Station

Location	Seabrook, New Hampshire
On-Line Date	1990
Fuel	Nuclear – Pressurized Water Reactor
Principal Owner/Operator	NextEra Energy Resources, LLC
Total Capacity	1,244 MWs

Millstone Unit 3

Millstone Unit 3 is a 1,237-megawatt nuclear generating plant located in Waterford, Connecticut. Millstone Unit 3, which began operation in 1986, is the newest and largest of the Millstone Station's three nuclear units, one of which is retired from service. The principal owner and operator of Millstone Station is Dominion Nuclear Connecticut, Inc., a subsidiary of Virginia-based Dominion Resources, Inc. Dominion Connecticut owns 93.4% of Millstone Unit 3.

The Nuclear Regulatory Commission (NRC) on November 28, 2005 approved Dominion Nuclear Connecticut's request for a 20-year operating license extension for Millstone's Unit 3 reactor. The license now expires in November, 2045. RMLD signed two different projects to finance Millstone #3, Mix 1 and Project 3. The debt service associated with these projects has been paid off as of 2018. RMLD has a LOU agreement for 0.404% of the units which equates to approximately 4.6 MWs. This is a non-carbon generating resource and RMLD is entitled to the associated output certificates for its share of the facility.

Quick Facts – Millstone Station

Location	Waterford, Connecticut
On-Line Date	1986
Fuel	Nuclear – Pressurized Water Reactor
Principal Owner/Operator	Dominion Nuclear Connecticut, Inc.
Total Capacity	1,237 MWs

New York Power Authority (NYPA)

RMLD receives inexpensive hydroelectric power from NYPA at its generating stations in Niagra and St. Lawrence NY. RMLD receives capacity and energy from this contract. The Massachusetts Department of Public Utilities (DPU) has appointed MMWEC as the administrator of this contract. The current contract expires in 2025. This is a non-carbon

generating resource and RMLD is entitled to the associated output certificates for its share of the facility.

Hydro-Quebec Interconnection

The Hydro-Quebec Interconnection Phase 1 is an approximate 2,000 MW, DC electric transmission line connecting central New England with the Canadian utility Hydro Quebec. Construction of the U.S. portion of the interconnection, which stretches from Groton/Ayer, in Massachusetts to the Canadian border in northern Vermont, was a joint effort of many New England electric utitilies. RMLD has an entitlement of approximately 0.47% of the capacity of the facility from this contract. Currently, RMLD sells it share of the facility's capacity.

The Hydro-Quebec Interconnection Phase 2 is a 450 kV DC electric transmission line connecting the Canadian utility, Hydro Quebec's hydro facilities at La Grande in James Bay with Sandy Pond in Massachusetts. This was a joint effort between Hydro Quebec and a number of New England electric utilities. RMLD receives approximately 0.48% of the capacity of the facility from this contract. Currently, RMLD sells it share of the facility's capacity.

NextEra: TFA

In December, 2017 RMLD signed a Master Supply Agreement, as well as a Transaction Facilitation Agreement with NextEra that enables RMLD to leverage NextEra's trade floor. RMLD approved a Risk Management Strategy that secures transactions based on price and time triggers. The Risk Management Strategy will permit RMLD to take advantage of price opportunities consistently over the next several years and beyond. This strategy will allow RMLD to secure monthly quantities that are below the four year average versus locking in annual quantities. Additionally, the strategy of utilizing time triggers will smooth out variations in the market over time. The TFA has prompted RMLD to purchase on-peak and off-peak energy blocks out to the year 2025. Under the TFA, RMLD has currently secured 284,947 MWHs for 2022, 174,373 MWHs for 2023, 82,300 MWHs for 2024 and 5,363 MWHs for 2025.

Eagle Creek Energy Holdings

In March, 2011 RMLD signed purchase power agreements with Swift River Hydro, LLC for the output of four hydro systems located in Massachusetts that are effective from

February 1, 2011 through January 31, 2026. Swift River Trading Company is the lead market participant for and represents these hydroelectric generators with a total nameplate capacity of approximately 7 MWs and average annual generation of 25,000 megawatt-hours per year.

These facilities include the Woronoco Hydro facility in Russell, MA, Pepperell Hydro in Pepperell, MA; Indian River Power Supply in Russell, MA; and Turners Falls Hydro in Turners Falls, MA. Each of these facilities is owned by a special purpose entity, e.g., the Woronoco facility is owned by Woronoco Hydro, LLC. In 2016, Swift River Trading Company assigned the projects to Eagle Creek Energy Holdings. The four facilities are now managed by the Eagle Creek Energy Holdings as the lead market participant for each of the facilities. RMLD is the only buyer. These are non-carbon generating resources and RMLD is entitled to the associated output certificates for its share of the facilities.

- **Pepperell Hydro:** 15-year term beginning on February 1, 2011 and ending January 31, 2026. RMLD is purchasing all of the products produced by or attributable to the facility. The facility has a nameplate capacity of 1.9 MWs. The products include, but are not limited to, Energy, Installed Capacity, Ancillary Services, Renewable Energy Certificates, and Environmental Attributes (to the extent not included in the RECs).

- **Woronoco Hydro:** 15-year term beginning on February 1, 2011 and ending January 31, 2026. RMLD is purchasing all of the products produced by or attributable to the facility. The facility has a nameplate capacity of 2.7 MWs. The products include, but are not limited to, Energy, Installed Capacity, Ancillary Services, Renewable Energy Certificates, and Environmental Attributes (to the extent not included in the RECs).

- **Turners Falls Hydro:** 15-year term beginning on February 1, 2011 and ending January 31, 2026. RMLD is purchasing all of the products produced by or attributable to the facility. The facility has a nameplate capacity of 1 MW. The products include, but are not limited to, Energy, Installed Capacity, Ancillary Services, Renewable Energy Certificates and Environmental Attributes (to the extent not included in the RECs).

- **Indian River Hydro:** 15-year term beginning on February 1, 2011 and ending January 31, 2026. RMLD is purchasing all of the products produced by or attributable to the facility. The facility has a nameplate capacity of 1.4 MWs. The products include, but are not limited to, Energy, Installed Capacity, Ancillary

Services, Renewable Energy Certificates and Environmental Attributes (to the extent not included in the RECs).

Collins Hydro

In August, 2013, RMLD signed a purchase power agreement with Swift River Hydro LLC.for the output of Collins Hydro located in between Ludlow and Wilbraham Massachusetts. The contract with Swift River Hydro is effective from September 1, 2013 through August 31, 2028. RMLD receives enery only from this contract. The average annual generation is approximately 5,667 MWHs per year. This is a non-carbon generating resource and RMLD is exploring acquisiton of the associated output certificates for the facility.

Pioneer Hydro

In August, 2013, RMLD signed a purchase power agreement with Ware River Power Inc. for the output of Pioneer Hydro located in Ware, Massachusetts. The contract for Pioneer Hydro is effective from September 1, 2013 through August 31, 2028. RMLD receives enery only from this contract. The average annual generation is approximately 4,480 MWHs per year. This is a non-carbon generating resource and RMLD is exploring acquisition of the associated output certificates for the facility.

Hoisery Mills Hydro

In March, 2014, RMLD signed a purchase power agreement with Silver Street Hydro Inc. for the output of Hosiery Mills located in Hillsborough, New Hampshire. The contract for Hosiery Mills Hydro is effective from March 1, 2014 through February 28, 2024. RMLD receives enery only from this contract. The average annual generation is approximately 2,046 MWHs per year. This is a non-carbon generating resource and RMLD is exploring acquisition of the associated output certificates for the facility.

Aspinook Hydro

In August, 2016, RMLD signed a purchase power agreement with Aspinook Hydro Inc. for the output of Aspinook Hydro located in Griswold, Connecticut. The contract is effective from August, 2016 through August, 2017. RMLD receives enery only from this contract. The average annual generation is approximately 9,300 MWHs per year. This is

a non-carbon generating resource and RMLD is exploring acquisition of the associated output certificates for the facility.

Saddleback Ridge Wind

In December, 2013, RMLD signed a purchase power agreement with Saddleback Ridge Wind, LLC for the output of Saddleback Ridge Wind located in Carthage, Maine. The contract for Saddleback Ridge Wind is effective from January 1, 2015 through December 31, 2035. RMLD receives enery plus all attributes under this contract. The average annual generation is estimated to be approximately 15,820 MWHs per year. This is a non-carbon generating resource and RMLD is entitled to the associated output certificates for its share of the facility.

Jericho Wind

In November, 2014, RMLD signed a purchase power agreement with Jericho Power, LLC for the output of Jericho Wind located in Berlin, New Hampshire. The contract for Jericho Wind is for 20 years. The project went into commercial operation in December, 2015. RMLD receives energy plus all attributes from this contract. The average annual generation is estimated to be approximately 10,788 MWHs per year. This is a non-carbon generating resource and RMLD is entitled to the associated output certificates for its share of the facility.

One Burlington - Solar

In March, 2015, RMLD signed a purchase power agreement with CREECA Energy, LLC for the output of 2 MW AC solar array located at One Burlington Ave., Wilmington, Massachusetts. The solar array went on-line in November, 2015. The term of the contract for One Burlington is effective for ten years. The average annual generation is estimated to be approximately 3,450 MWHs per year. This is a non-carbon generating resource and RMLD is exploring acquisition of the associated output certificates for the facility, once the 40 quarters of Solar (SRECs) has run its course.

Altus Power – Community Solar

In March, 2016, RMLD signed a purchase power agreement with ECA Solar, LLC for the output of a 1MW AC solar array located at 326 Ballardvale Street, Wilmington, Massachusetts. The solar array went on-line in June, 2017. In May, 2017, the contract was assigned to Altus Power America, Inc. DBA WL MA Solar LLC. The term of the

contract for WL MA Solar LLC is twenty years. The average annual generation is estimated to be approximately 1,700 MWHs per year. RMLD has developed a Community Shared Solar program called Solar Choice. This project is RMLD's first Solar Choice project and is fully subscribed by 500 residential customers. This is a non-carbon generating resource and RMLD is exploring acquisition of the associated output certificates for the facility, once the 40 quarters of Solar (SRECs) has run its course.

Kearsage – Community Solar

In October, 2017, RMLD signed a purchase power agreement with Kearsage Wilmington, LLC for the output of 1.8MW AC solar array located at 40-50 Fordham Road, Wilmington, Massachusetts. The solar array went on-line in February, 2018. The term of the contract for Kearsage Wilmington LLC is twenty years. The average annual generation is estimated to be approximately 2,376 MWHs per year. This project is RMLD's second Solar Choice project and is fully subscribed by 617 residential and commercial customers. This is a non-carbon generating resource and RMLD is exploring acquisition of the associated output certificates for the facility, once the 40 quarters of Solar (SRECs) has run its course.

Battery Energy Storage System – NextEra

In December, 2017, RMLD was awarded a $1 million grant for the installation of an energy storage unit at its North Reading substation. The grant is funded by the Masssachusetts Department of Energy Resources (DOER). RMLD's project consists of a 5 MW Lithium Ion Battery unit with 10 MWHs of storage capacity at its North Reading substation to reduce peak demand, thereby lowering future transmission and capacity costs related to the purchase of wholesale electricity. The battery unit will be co-located with RMLD's new 2.5-megawatt Distributed Generator. RMLD is negotiating a Battery Energy Storage System (BESS) Agreement with NextEra. BESS was placed in service on June 1, 2019.

FirstLight Hydro

In March, 2019, RMLD signed a purchase power agreement with FirstLight Power Resources Management, LLC. for 10.3% of the output of the Shepaug Hydroelectric Station and 7.3% of the output of the Stevenson Hydroelectric Station. The contract for Firstlight Hydro is effective from May, 2019 through December, 2023. The average annual generation is approximately 12,000 MWHs per year on-peak and 8,000 MWHs

per year off-peak. This is a non-carbon generating resource and RMLD is entitled to the associated output certificates for its share of the facility.

Gravity Renewables

RMLD has executed contracts with Gravity Renewables for hydroelectric generation at Cabot-Turners Falls and a facility in southern Conecticut. The Cabot-Turners Falls contract is anticipated to deliver 22,254 MWHs in 2022, 37,571 MWHs in 2023, and 33,728 MWHs from 2024 through 2030. The southern Connecticut plant is expected to produce 25,000 MWHs annually from 2021 through 2030.

RMLD has signed a Letter of Intent to purchase the output of the Dahowa Plant in Upstate New York beginning in 2021. Output from the plant is expected to be 35,000 MWHs annually from 2022 thorugh 2045. RMLD is in active negotiations for the output from Plant #4, another Upstate New York facility that is expected to deliver 25,000 MWHs annually beginning in 2022 and running through 2045. These are non-carbon generating resources and RMLD is entitled to the associated output certificates for its share of the facilities.

NextEra

RMLD has purchased a 5 MW block of around the clock power for the years 2022-2024. This is a bilateral purchase picked up at an opportunistic price and does not identify the source of the enegy. Energy delivereed under the contract will be 43,800 MWHs annually.

RoxWind

RMLD has contracted for 50% of the output from 4 wind turbines being constructed in Maine; RMLD's share of the annual output from these units will be 25,200 MWHs per year, beginning in the 4th quarter of 2021 and continuing for 20 years, through 2041. This is a non-carbon generating resource and RMLD is entitled to the associated output certificates for its share of the facility.

COMMONWEALTH OF MASSACHUSETTS

Middlesex, ss. Officer's Return, Town of Reading:

By virtue of this Warrant, I _____, on _____, 2022 notified and warned the inhabitants of the Town of Reading, qualified to vote on Town affairs, to meet at the place and at the time specified by posting attested copies of this Town Meeting Warrant, in the following public places within the Town of Reading:

Precinct 1	J. Warren Killam School, 333 Charles Street
Precinct 2	Reading Police Station, 15 Union Street
Precinct 3	Reading Municipal Light Department, 230 Ash Street
Precinct 4	Joshua Eaton School, 365 Summer Avenue
Precinct 5	Reading Public Library, 64 Middlesex Avenue
Precinct 6	Barrows School, 16 Edgemont Avenue
Precinct 7	Birch Meadow School, 27 Arthur B Lord Drive
Precinct 8	Wood End School, 85 Sunset Rock Lane
	Town Hall, 16 Lowell Street

The date of posting being not less than fourteen (14) days prior to April 5, 2022, the date set for Town Meeting in this Warrant.

_____
Constable

A true copy Attest:

_____
Laura Gemme, Town Clerk

TOWN WARRANT

COMMONWEALTH OF MASSACHUSETTS

Middlesex, ss.

To any of the Constables of the Town of Reading, Greetings:

In the name of the Commonwealth of Massachusetts, you are hereby required to notify and warn the inhabitants of the Town of Reading, qualified to vote in the Local Elections and Town affairs, to meet in the following place designated for the eight precincts in said Town, namely:

Precincts 1, 2, 3, 4, 5, 6, 7 and 8
Reading Memorial High School, Hawkes Field House, Oakland Road

TUESDAY, the FIFTH DAY OF APRIL, A.D., 2022
from 7:00 a.m. to 8:00 p.m. to act on the following Articles, viz:

ARTICLE 1 To elect by ballot the following Town Officers:

A Moderator for one year;
Two members of the Select Board for three years;
Two members of the Board of Library Trustees for three years;
Two members of the Municipal Light Board for three years;
Two members of the School Committee for three years;

One hundred and ninety-two Town Meeting Members shall be elected to represent each of the following precincts:

Precinct 1 Eight members for three years; eight members for two years; and eight members for one year;
Precinct 2 Eight members for three years; eight members for two years; and eight members for one year;
Precinct 3 Eight members for three years; eight members for two years; and eight members for one year;
Precinct 4 Eight members for three years; eight members for two years; and eight members for one year;
Precinct 5 Eight members for three years; eight members for two years; and eight members for one year;
Precinct 6 Eight members for three years; eight members for two years; and eight members for one year;
Precinct 7 Eight members for three years; eight members for two years; and eight members for one year;

Precinct 8 Eight members for three years; eight members for two years; and eight members for one year;

and to meet at the Reading Memorial High School, 62 Oakland Road, in said Reading on

MONDAY, the TWENTY-FIFTH DAY of APRIL A.D., 2022

at seven-thirty o'clock in the evening, at which time and place the following Articles are to be acted upon and determined exclusively by Town Meeting Members in accordance with the provisions of the Reading Home Rule Charter.

ARTICLE 2 To hear and act on the reports of the Select Board, School Committee, Library Trustees, Municipal Light Board, Finance Committee, Bylaw Committee, Town Manager, Town Accountant and any other Town Official, Board or Committee.

Select Board

Background: This article appears on the Warrant for all Town Meetings. At this Annual Town Meeting, the Moderator has requested that reports be submitted in writing in advance for the following:

-Financial Update (Finance Committee Chair)
-State of the Town (Select Board Chair)
-State of Town & School Buildings (Permanent Building Committee Chair)
-State of the Schools (School Committee Chair)
-ad hoc Reading Center for Active Living Committee (ReCalc)
-ad hoc Parking Advisory and Recommendations Committee (PARC)

ARTICLE 3 To choose all other necessary Town Officers and Boards or Committees and determine what instructions shall be given to Town Officers and Boards or Committees, and to see what sum the Town will vote to appropriate by borrowing or transfer from available funds, or otherwise, for the purpose of funding Town Officers and Boards or Committees to carry out the instructions given to them, or take any other action with respect thereto.

Select Board

Background: This Article appears on the Warrant of all Town Meetings. There are no known Instructional Motions at this time. The Town Moderator requires that all proposed Instructional Motions be submitted to the Town Clerk prior to Town Meeting so that Town Meeting Members may be "warned" as to the subject of an Instructional Motion in advance of the motion being made. Instructional Motions are normally held until the end of all other business at Town Meeting.

ARTICLE 4 To see if the Town will vote to amend the FY 2022-32 Capital Improvements Program as provided for in Section 7-7 of the Reading Home Rule Charter and as previously amended, or take any other action with respect thereto.

Select Board

Background: This Article is included in every Town Meeting Warrant. The Reading General Bylaw (section 6.1.3) states "… *No funds may be appropriated for any capital item unless such item is included in the Capital Improvements Program, and is scheduled for funding in the Fiscal Year in which the appropriation is to be made."* Bond ratings agencies also want to ensure that changes to a long-term Capital Improvements Program (CIP) are adequately described.

The following changes are proposed to the FY2022 – FY2032 CIP (current year plus ten years):

General Fund

FY22: +$145,000 net changes
+$110,000 Parking kiosks (4)
+$15,000 Remote Access multi factor authentication
+$20,000 Internal segmentation firewall

FY23: +$117,000
+$12,000 RISE playground design (new)
+$15,000 Town buildings doors & windows (new)
+$5,000 for Ambulance & equipment
-$100,000 Strout Ave improvements (objections at previous Town Meeting)
+$185,000 DPW Snow Holder #1 (increased $5k and moved up from FY26)

FY24: +$25,000
+$163,000 Arc Flash Hazard Study (new)
+$120,000 RISE playground project (new)
+$55,000 School Carpet/flooring (new)
+$225,000 DPW Loader (new, to replace Sicard for snow)
-$111,000 DPW Snow Prinoth (moved out to FY31)
+$165,000 Blower unit for loader (new, in conjunction with Sicard replacement)
+$200,000 DPW Truck #11 (moved up from FY26)
-$200,000 DPW Truck #18 (move out to FY26)
+$20,000 School doors & windows (new)
-$12,000 Wood End ES water heater (done)
-$250,000 Coolidge MS Roof design (moved to FY29)
-$150,000 Birch Meadow ES Roof design (moved to FY29)
-$200,000 Birch Meadow ES site improvements (moved out to FY25)

FY25+
Various other changes made

Enterprise Funds – Water

FY22: +$400,000
$400,000 water main repairs (focus on Walker's Brook)

FY23: +$400,000
$400,000 water main repairs (Emerson)

FY24+
Various changes made

Enterprise Funds – Sewer

FY22: $150,000
$150,000 Additional funding for Downtown Sewer main work

FY23: None

FY24+
Various changes made

Enterprise Funds – Storm Water

FY22: None

FY23: +$300,000
$300,000 Memorial Park drainage lining project

FY24+
Various changes made

Finance Committee Report: TBD

Bylaw Committee Report: TBD

ARTICLE 5 To see if the Town will vote to amend the Town's Operating Budget for the Fiscal Year commencing July 1, 2021, as adopted under Article 16 of the Annual Town Meeting of April 26, 2021 and amended under Article 4 of the Special Town Meeting of October 18, 2021 and further amended under Article 4 of the Subsequent Town Meeting of November 8, 2021; and to see if the Town will vote to raise and appropriate, borrow or transfer from available funds, or otherwise provide a sum or sums of money to be added to the amounts appropriated under said Article, as amended, for the operation of the Town and its government, or take any other action with respect thereto.

Finance Committee

Background:

General Fund – Wages and Expenses

Account Line	Description	Decrease	Increase
B99 - Benefits	Health Insurance premiums -$650,000 OPEB +$250,000	$400,000	
C99 - Capital	As described in Article 3		$145,000
E99 – Regional Vocational Education	Essex North Voke -$30,000	$30,000	
G91 – Administrative Services Wages	Town Manager overlap $8,000 Town Manager termination pay $17,000 OPS Buybacks $17,000 Tech Buybacks $7,000		$49,000

G92 – Administrative Services expenses	Town Manager and Deputy Police Chief Screening processes $21,000 Fiber network repairs $6,000		$27,000
H92 Public Services expenses	Housing Production Plan consulting services $50,000 Town Owned Land Community Visioning process $50,000		$100,000
J91 – Public Safety Wages	Fire OT $75,000 Fire Buybacks $75,000		$150,000
J92 – Public Safety Expenses	Public Health outsourced records $25,000		$25,000
K92 – Public Works Expenses	West/Woburn video detection processor $15,000 Electrical Cabinet $40,000		$55,000
K-93 Snow & Ice	Estimate as of 3/10/22		$200,000
	Subtotals	**$430,000**	**$751,000**
	Net Operating Expenses		**$0**
	From Free Cash		**$321,000**

Enterprise Funds

Account Line	Description	Decrease	Increase
W99 Water EF	Water main project $400,000 Fiber network repairs $6,000 Water Rate Study $13,000		$419,000
S99 Sewer EF	Downtown Sewer project add'l funding $150,000 Fiber network repairs $6,000 Sewer Rate Study $13,000		$169,000
	Subtotals		**$588,000**
	Net Operating Expenses		**$588,000**
	From Water EF Reserves		**$419,000**
	From Sewer EF Reserves		**$169,000**

ARTICLE 6 To see if the Town will vote to raise and appropriate, transfer from available funds, borrow or otherwise provide a sum or sums of money to pay bills remaining unpaid from prior fiscal years for goods and services actually rendered to the Town, or take any other action with respect thereto.

Select Board

Background: There are no prior years' bills, and this Article is expected to be tabled.

Finance Committee Report: TBD

Bylaw Committee Report: TBD

ARTICLE 7 To see if the Town will vote to raise and appropriate, transfer from available funds, borrow or otherwise provide a sum or sums of money for the purpose of funding the irrevocable trust for "Other Post-Employment Benefits Liabilities" or take any other action with respect thereto.

Select Board

Background: Each year at Annual Town Meeting, we ask to transfer funds budgeted for OPEB from that line to the actual OPEB Trust in this Article. Sometimes due to budget surpluses in health insurance premiums we have increased the budgeted contribution figures; we are prepared but have not yet needed to ask to lower the budgeted contribution figures to cover health insurance premium deficits. Recent contributions to the Trust on behalf of the General Fund have been $700,000 (FY20) and $793,400 (FY21) – each higher than budgeted.

This year, Town Meeting is requested to make the annual transfers of funds previously budgeted and held for the OPEB Trust Fund. This practice is followed each year in case health insurance costs are higher than budgeted, and therefore may be needed to fund a deficit. In FY22, as demonstrated under Article 5, a surplus exists in that account, so as to allow the addition of $100,000 to the budgeted annual OPEB transfer for a total of $200,000 in the general fund. Original annual transfers designed to fully fund OPEB liabilities in the Enterprise Funds should continue: $85,000 in the water fund, $23,000 in the sewer fund and $10,500 in the storm water fund. This Article will therefore move the total $318,500 of all these OPEB contributions to the trust for Other Post Employment Benefit liabilities.

The most recent OPEB valuation shows the Town's OPEB liability at $73.8 million and 8.1% funded as of June 30, 2020. The three Enterprise Funds and the Light Department are on a full funding schedule, and the General Fund is on a partial funding schedule. As noted, the General Fund will transition to a full funding schedule as soon as possible, as is required by law or immediately after the Pension Fund is fully funded.

Finance Committee Report: No report.

Bylaw Committee Report: No report.

ARTICLE 8 To see if the Town will vote to transfer funds received from the Commonwealth of Massachusetts in payment for development within the Town's 40R Smart Growth Zoning Districts from Free Cash into the Smart Growth Stabilization Fund; or take any other action with respect thereto.

Select Board

Background: No Smart Growth revenue receive to transfer, therefore, this Article is expected to be tabled.

Finance Committee Report: TBD

Bylaw Committee Report: TBD

ARTICLE 9 To see if the Town will vote to (1) establish the limit on the total amount that may be expended from each revolving fund established by Article 9 of the Town of Reading General Bylaw pursuant to Section 53E½ of Chapter 44 of the *Massachusetts General Laws* for the fiscal year beginning July 1, 2021; and (2) amend Section 6.5.2 of the General Bylaw, establishing the Inspection Revolving Fund, as shown below, with the additions being shown in bold and deletions being struck through:

6.5.2 Inspection Revolving Fund

Funds held in the Inspection Revolving Fund shall be used for legal costs, oversight and inspection, plan review, property appraisals and appeals, public services general management, pedestrian safety improvements, records archiving, and other costs related to building, plumbing, wiring, gas and other permits required for large construction projects and shall be expended by the Town Manager. Receipts credited to this fund shall include building, plumbing, wiring, gas and other permit fees for the Schoolhouse Commons, The Metropolitan at Reading Station, Postmark Square, 20-24 Gould Street, 467 Main Street, Oaktree, Addison-Wesley/Pearson**,** Johnson Woods, Eaton Lakeview (23-25 Lakeview Avenue and 128 Eaton Street), 258 Main Street, 267 Main Street, 531 Main Street, 25 Haven Street, ~~and~~ 18-20 Woburn Street**, 6-16 Chute Street (Green Tomato), 25 Haven Street (Rite Aid) and 459 Main Street (128 Tire)** developments.

Or take any other action with respect thereto.

Select Board

Background:

Revolving Account	Spending Authority	Revenue Source	Allowed Expenses	Expend-iture Limits	Year End Balance
Conservation Commission Consulting Fees	Conservation Commission	Fees as provided for in Reading General Bylaws Section 5.7, Wetlands Protection	Consulting and engineering services for the review of designs and engineering work for the protection of wetlands.	$25,000	Available for expenditure next year
Inspection Revolving Fund	Town Manager	Building, Plumbing, Wiring, Gas and other permits for the projects listed in the Article.	Legal, oversight and inspection, plan review, initial property appraisals and appeals, Public Services planning and general management, curb, sidewalks and pedestrian safety	$250,000	Available for expenditure next year

			improvements, records archiving and other project related costs.		
Public Health Clinics and Services	Board of Health	Clinic fees, charges and third-party reimbursements	Materials and costs associated with clinics and public health programs	$25,000	Available for expenditure next year
Library Fines and Fees	Library Director and Trustees	Charges for lost or damaged Library materials and fees from printing, faxing or similar supplementary fee-based services.	Acquire Library materials to replace lost or damaged items, and for the maintenance, upkeep and supplies for supplementary fee-based services	$15,000	Available for expenditure next year
Mattera Cabin Operating	Facilities Director	Rental Fees	Utilities and all other maintenance and operating expenses	$10,000	Available for expenditure next year
Town Forest	Director of Public Works upon the recommendation of the Town Forest Committee	Sale of timber; fees for use of the Town Forest	Planning and Improvements to the Town Forest	$10,000	Available for expenditure next year

- **Conservation Consulting Revolving Fund** - These funds are used to receive payments from applicants, hire expert consultants where required, and return the balance to the applicant. The balance in this Fund as of March 2022 is $37,559.

- **Inspections Revolving Fund –** The balance available as of March 2022 in this fund is $744,598 and of that total $182,750 is proposed by the Town Manager as part of the FY23 budget {$140,250 to support General Admin and Economic Development wages and expenses; and $50,000 to offset Building Inspections division wages}.

- **Health Clinic Revolving Fund** - The Reading Health Division contracts for third party payments for a number of immunizations. The funds are used to augment the influenza vaccine supply from the State Department of Public Health to insure vaccine for the homebound clients and first responders. The Division also uses these funds for materials for other screening clinics. Clinic client fees are also deposited into this fund to offset vaccine and clinical supply costs. The balance available as of March 2022 in this fund is $30,706. The State has been cutting back on the free flu and other vaccines to be distributed to cities and towns, and the Town therefore needs to purchase extra doses. The necessary amounts used for clinic vaccine, supplies and staff salaries related to the clinics each year directly from the revolving fund is therefore approximately $25,000.

- **Library Fines and Fees Fund –** The balance available as of March 2022 in this fund is $11,982. The added flexibility in use of this fund approved by Annual Town Meeting one year ago has been helpful.

- **Mattera Cabin Operating Fund** – Some of the use of the Cabin is revenue generating, and this Article allows those revenues to be used directly for the operating expenses of the cabin. The balance available as of March 2022 in this fund is $0. In response to a previous instructional motion by Town Meeting, the Town Manager moved the responsibility for both the Mattera Cabin and Cemetery garage to the Facilities department.

- **Town Forest Revolving Fund** was created in 2011. The purpose is to allow revenues from controlled timber harvesting and permit fees to then be spent by the DPW Director upon the recommendation of the Town Forest Committee, on improvements to the Town Forest. The Town Forest Committee has had a forest stewardship plan created (through a grant) to make recommendations on forest management including controlled timber harvesting. The balance available as of March 2022 in this fund is $0.

Finance Committee Report: TBD

Bylaw Committee Report: TBD

ARTICLE 10 To see if the Town will vote to approve an Affordable Housing Trust Fund Allocation Plan pursuant to Chapter 140 of the Acts of 2001 entitled "AN ACT AUTHORIZING THE TOWN OF READING TO ESTABLISH AN AFFORDABLE HOUSING TRUST FUND," or take any other action with respect thereto.

Select Board

Background: The State has a strong and bipartisan goal of building more affordable housing, and considers Reading a model community in this area. Town staff has been invited to speak at housing symposiums and the Town has received numerous related planning grants. The Town has achieved the 10% affordable benchmark set by statute. Reading is the lead community and is joined by North Reading, Wilmington and Saugus in sharing a Regional Housing Services Office (RHSO). The RHSO monitors and administers affordable housing requirements including tracking and updating the Subsidized Housing Inventory (SHI) and maintaining ready buyer and ready renter lists, among other responsibilities.

Chapter 140 of the Acts of 2001 authorized the Town of Reading to establish a separate fund known as the Affordable Housing Trust Fund (AHTF). The AHTF requires Town Meeting approval of an annual allocation plan submitted by the Select Board. AHTF expenditures require approval by a majority vote of the full combined membership of the Select Board and the Reading Housing Authority. AHTF uses of funds include:

- Create or preserve affordable housing;
- Maintain or operate affordable housing;
- Develop new or rehabilitate existing housing as affordable homeownership or rental units;

Affordable Housing Trust Fund Allocation Plan
FY 2023

Pursuant to Article 10 of the 2023 Annual Town Meeting, an Affordable Housing Trust Fund Allocation Plan for the Fiscal Year 2023 in accordance with the provisions of Chapter 140 of the Acts of 2001 is as follows:

Available Balance – Unrestricted Funds:		$457,716
Available Balance – Restricted Funds		$ 0

Unrestricted funds shall be used for the following purposes:

5% up to a maximum of $10,000	for administration of Affordable Housing
Remainder	for constructing affordable housing (including loan and grant programs); or for maintaining and improving affordability of existing housing stock; or for the purchase of existing housing stock to add it to or maintain it as a part of the existing affordable housing inventory

The purpose of the Affordable Housing Allocation Plan is to provide a framework for the Town to expend funds on affordable housing. The current AHTF balance of $457,716 reflects revenue generated through the actions of the CPDC, as well as proceeds from the loss of an affordable unit. There are no Town tax generated funds in the AHTF. The only expenditure to date from the AHTF, in the amount of $200,000, was to assist Oaktree development with financing affordable housing at 30 Haven Street.

Finance Committee Report: TBD

Bylaw Committee Report: TBD

ARTICLE 11 To see if the Town will vote to amend Section 6.5.2 of the General Bylaws by inserting a new revolving fund into the chart as follows:

Revolving Account	Spending Authority	Revenue Source	Allowed Expenses	Expenditure Limits	Year End Balance
Community Gardens at Mattera Cabin	Conservation Administrator	Rental and user fees	Utilities and all other maintenance and operating expenses, and project supplies and equipment	$10,000	Available for expenditure next year

And to set the limit on the total amount that may be expended from the Community Gardens at Mattera Cabin revolving fund pursuant to Section 53E½ of Chapter 44 of the *Massachusetts General Laws* for the fiscal year beginning July 1, 2022; or take any other action with respect thereto.

Select Board

Background:
A State Earmark in the amount of $10,000 was secured and Town staff collaborated with a volunteer group to establish a Community Garden at Mattera Cabin. The Community Garden has been approved by the Conservation Commission who has care and control of the Mattera

Cabin property. This new revolving fund is proposed to provide a mechanism for the Conservation Commission to generate revenue (e.g., fees from the gardeners) and expend it on utilities, other maintenance as well as operating expenses, equipment, and supplies.

Finance Committee Report: TBD

Bylaw Committee Report: TBD

ARTICLE 12 To see if the Town will vote to hear the report of the Director of Public Works that certain easements for drainage be abandoned and a new easement accepted, and authorize the Select Board to relocate a drainage easement at 104 Lilah Lane, Reading, Massachusetts by abandoning an existing drainage easement and accepting a new, equivalent drainage easement on the same property, and as further as "Existing Easement Line To Be Removed" and "Easement Area to be Removed 757 S.F." on a plan entitled "Revised Easement Plan 104 Lilah Lane Assessors Map 55 Parcel 30 Reading, MA, Prepared for Margaret & Chris Calvani 104 Lilah Lane, Reading MA," dated September 27, 2021, on file with the Town Clerk, or take any other action with respect thereto.

Select Board

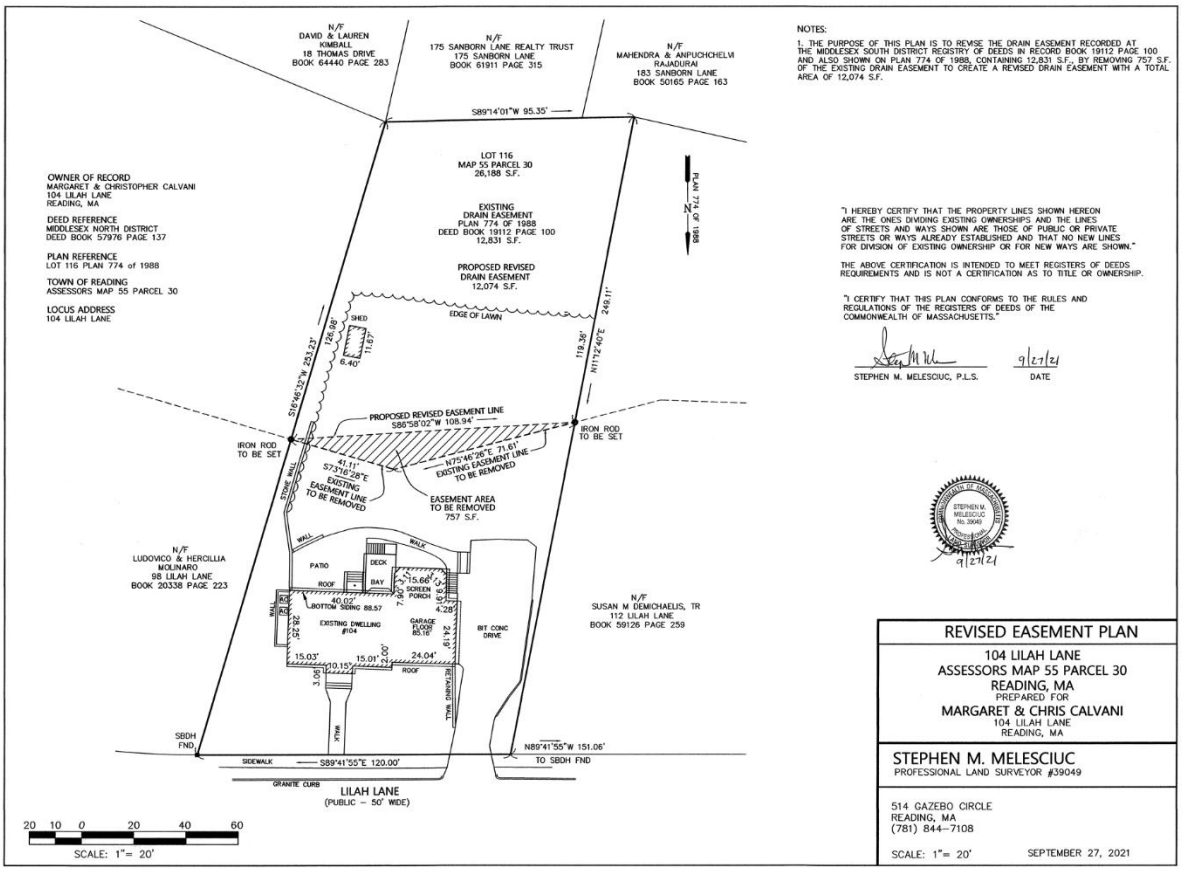
Background:

The Town currently has title and interest in a drainage easement over the property located at 104 Lilah Lane, assessors Map 55, Parcel 30. The residents are proposing a new pool and patio that will protrude into the existing easement.

In order for the residents to construct the new pool as planned, they have requested the abandonment of a portion of the drainage easement.

The easement is occupied by an existing detention basin, and if approved, the resulting easement area is of sufficient size to enable the Town to provide proper stormwater storage, maintenance or repair of the detention basin. No additional utilities are proposed to occupy this easement in the future.

If approved the Town will release all right, title, and interest to approximately seven hundred and fifty-seven (757) square feet of the drain easement as depicted in the plan below.



Finance Committee Report: TBD

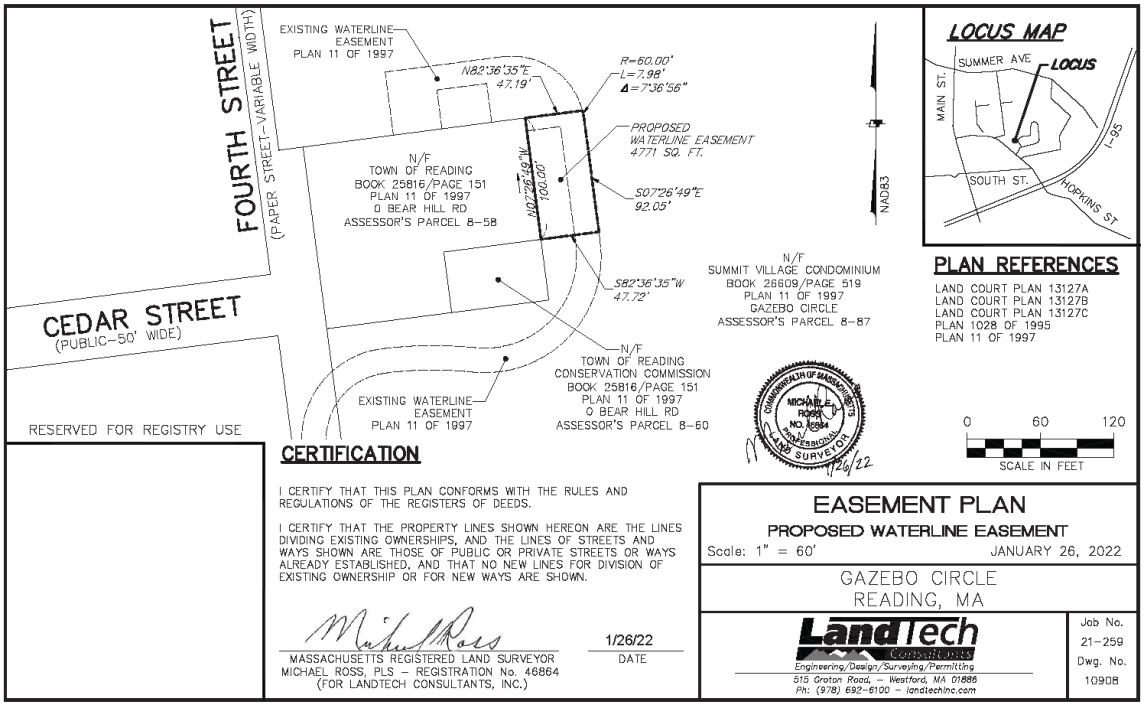
Bylaw Committee Report: TBD

ARTICLE 13 To see if the Town will vote to authorize the Select Board to acquire by purchase, gift, or eminent domain, on such terms and conditions as the Select Board shall determine, an easement over a portion of Gazebo Circle and abutting land held by the Summit Village Condominium Trust for the purpose of installing, maintaining, and operating a water connection and related utilities from 0 Bear Hill (Assessor's Parcel 8-58), to raise and appropriate or transfer from available funds a sum or sum of monies necessary for the acquisition, and to authorize the Select Board to enter into all agreements and take all related actions necessary or appropriate to carry out said acquisition and other acts authorized herein; or take any other action with respect thereto.

Select Board

Background: A Subsequent Town Meeting in November 2020 authorized the Town to borrow $1,100,000 to construct a new water booster station on town owned land located at 160 Hopkins Street.
A Special Town Meeting in October 2021 authorized the Select Board to accept an access easement over a portion of Gazebo Circle adjacent to the town owned parcel at 160 Hopkins Street.

The purpose of this article is to authorize the Select Board to accept a water easement over a portion of Gazebo Circle adjacent to the existing Bear Hill water tank. The easement will allow the Town the rights to install and maintain a new water connection to the Town distribution system. This connection is hydraulically necessary as part of the previously approved water booster station.
The Board of Trustees of Summit Village will be gifting this easement to the Town.



Finance Committee Report: TBD

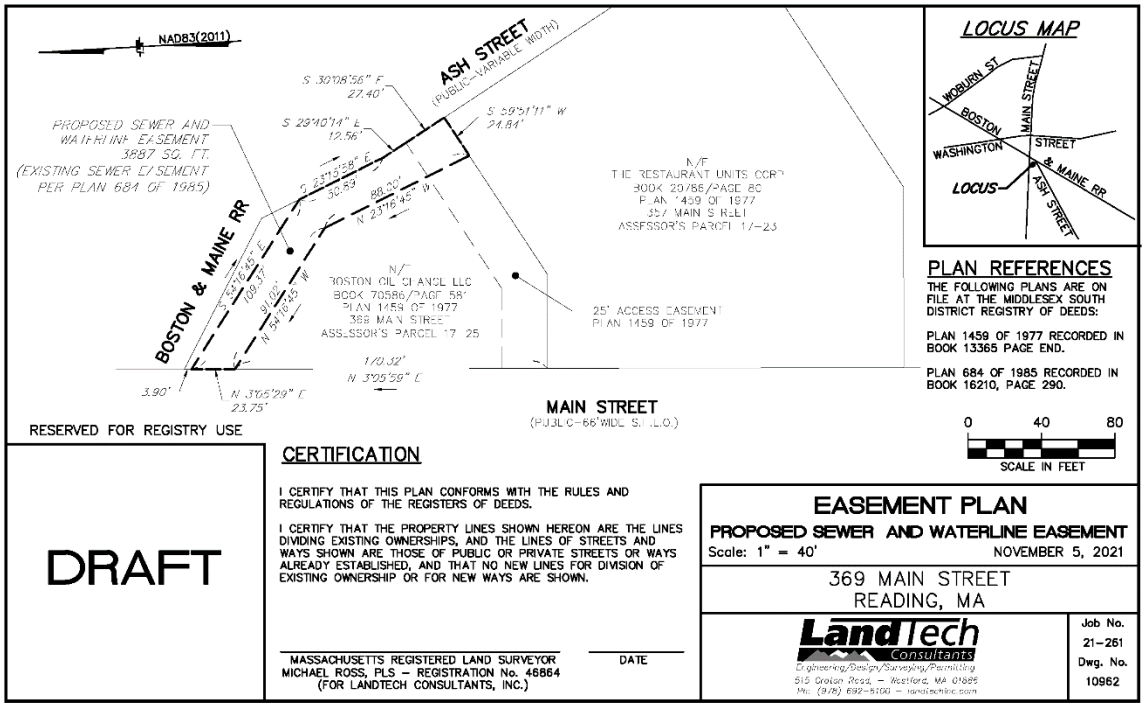
Bylaw Committee Report: TBD

ARTICLE 14 To see if the Town will vote to authorize the Select Board to acquire by purchase, gift, or eminent domain, on such terms and conditions as the Select Board shall determine, an easement over a portion of 369 Main Street, Reading (Assessor's Parcel 17-25) for the purpose of installing, maintaining, and operating water utilities, to raise and appropriate or transfer from available funds a sum or sum of monies necessary for the acquisition, and to authorize the Select Board to enter into all agreements and take all related actions necessary or appropriate to carry out said acquisition and other acts authorized herein; or take any other action with respect thereto.

Select Board

Background: A Subsequent Town Meeting in November 2020 authorized the Town to raise and appropriate and borrow $4,300,000 to make improvements to the water distribution system in the downtown area.
The purpose of this article is to authorize the Select Board to accept a water easement over a portion of 369 Main Street, currently being operated by Jiffy Lube. The easement will allow the

Town the rights to install and maintain a new water main which will connect Main Street to Ash Street. The easement will modify a pre-existing sewer easement to allow for water main access as well. This connection is hydraulically necessary and will eliminate a water main crossing under the railroad, this water main installation is part of the previously approved Downtown Water Main Improvements.



ARTICLE 15 To see if the Town will vote to amend Section 10.5 of the Zoning Bylaw, Downtown Smart Growth District, with the additions being shown in bold and italics and deletions being struck through, as follows:

10.5 Downtown Smart Growth District (DSGD)

10.5.1 Purposes

The purposes of the Downtown Smart Growth District are:

1 To provide an opportunity for residential development and to especially encourage mixed-use development, including both new construction and renovation of existing buildings, within a distinctive, attractive and livable environment that supports the commercial revitalization of Downtown Reading.

2 To promote continuing development and redevelopment in Downtown Reading that is pedestrian friendly and consistent with Reading history and architecture.

3 To ensure high quality site planning, architecture and landscape design that enhances the distinct visual character and identity of Downtown Reading and provides an environment with safety, convenience and amenity.

4 To provide for a diversified housing stock at a variety of costs within walking distance of services and public transportation, including affordable housing and other housing types that meet the needs of the Town's population.
5 To generate positive tax revenue for the Town, and to benefit from the financial incentives provided by Massachusetts General Law Chapter 40R, while providing the opportunity for new business growth and additional local jobs.
6 To encourage preservation and rehabilitation of historic structures and buildings.
7 To promote efficient use of land and existing parking supply and limit expansion within the district by encouraging shared parking.
8 To encourage adoption of energy efficient building practices and sustainable construction methods.
9 To ensure compliance with the Massachusetts Department of Environmental Protection storm water management policies and practices.
10 To ensure that the physical character of projects within the DSGD will be compatible with nearby buildings, particularly existing residential uses.

10.5.2 Definitions

As used in this Article, the following terms shall have the meanings set forth below:

Accessory Building: A detached building the use of which is customarily incidental and subordinate to that of the principal building or buildings and which is located on the same lot. An Accessory Building shall not be used to house people, domestic animals or livestock, nor shall it be used as an independent commercial enterprise. An Accessory Building located within 10 feet of a principal building shall be subject to the dimensional requirements applicable to the principal building.

Affordable Homeownership Unit: A dwelling unit required to be sold to an Eligible Household per the requirements of this Section 10.4.

Affordable Housing Restriction: A deed restriction of an Affordable Unit meeting statutory requirements in Massachusetts General Law Chapter 184 Section 31 and the requirements of Section 10.5.10 of this Article.

Affordable Rental Unit: A dwelling unit required to be rented to an Eligible Household per the requirements of Section 10.5.10.

Affordable Unit: The collective reference to Affordable Homeownership Units and Affordable Rental Units

Annual Update: A list of all approved and currently proposed Smart Growth Districts within the Town of Reading, to be filed on or before July 31st of each year with the Massachusetts Department of Housing and Community Development pursuant to

Massachusetts General Law Chapter 40R and applicable regulations.

Applicant: A landowner or other petitioner who files a plan for a Development Project subject to the provisions of this Section 10.5.

Approving Authority (AA): The Community Planning and Development Commission (CPDC) of the Town of Reading acting as the authority designated to review projects and issue approvals under this Section 10.5.

AA Regulations: The administrative rules and regulations adopted by the AA pursuant to Section 10.5.11.

As-Of-Right Development: A Development Project allowable under this Section 10.5 without recourse to a special permit, variance, zoning amendment, or other form of zoning relief. A Development Project that is subject to the Plan Review requirement of this Section 10.5 shall be considered an As-of-right Development.

Consumer Services: A barber shop, dry cleaning or laundry establishment, photographer's shop or studio or similar business where service is provided directly on the premises.

Design Standards: The document entitled Downtown Smart Growth District Design Standards and Guidelines, ***originally*** dated October 2, 2009 and approved by the Massachusetts Department of Housing and Community Development on October 31, 2009, ***most recently*** ~~as~~ amended ***and approved by DHCD on March 3, 2020***, pursuant to Massachusetts General Law Chapter 40R Section 10 and applicable regulations. Said Design Standards shall be applicable to all Development Projects within the DSGD that are subject to Plan Review by the Approving Authority.

Development Project Or Project: A residential or mixed use development undertaken under this Section 10.5. A Development Project shall be identified as such on the Plan which is submitted to the Approving Authority for Plan Review.

District Edge: The outermost edge of the Downtown Smart Growth District, where it is directly abutting another building lot and not bounded by a significant man-made (i.e. railroad, major street) or natural (i.e. river, wetland resource) feature.

Dwelling Unit: A structure or a portion of a structure containing in a self-sufficient and exclusive manner facilities for sleeping, bathing, and cooking, including one full kitchen and full bathroom facilities as defined by the Massachusetts State Building Code.

Eligible Household: An individual or household whose annual income is below eighty percent (80%) of the area-wide median income as determined by the United States Department of Housing and Urban Development (HUD), adjusted for household

size, with income computed using HUD's rules for attribution of income to assets.

Family: One (1) or more persons occupying a dwelling unit as a single house- keeping unit. Domestic employees may be housed on the premises without being counted as a family or families.

Floor Area Net: The actual occupied area of a building or buildings not including hallways, stairs, mechanical spaces and other non-habitable spaces, and not including thickness of exterior or interior walls.

Floor Area Gross: The sum of the gross areas of all floors of a building, measured from the exterior faces of the exterior walls or from the centerline of walls separating two buildings. Gross floor area does not include the following:

1. Basement space having at least one-half the floor-to-ceiling height below grade, rated as non-habitable by applicable building code.
2. Accessory parking (i.e., parking that is available on or off-site that is not part of the use's minimum parking standard).
3. Attic space having a floor-to-ceiling height less than seven feet, rated as non- habitable by applicable building code.
4. Exterior balconies.
5. Uncovered steps, landings, and ramps.
6. Inner courts open to the sky.

Household Income Median: The median income, adjusted for household size, as reported by the most recent information from, or calculated from regulations promulgated by, the United States Department of Housing and Urban Development (HUD).

Institutional Use: A non-profit or quasi-public use or institution, such as a church, library, public or private school, municipally owned or operated building, structure or land, used for public purpose.

Lot Coverage: The portion of a lot, expressed as a percent of the total lot area, that is covered by principal and accessory buildings and structures.

Mixed-Use Development Project: A Development Project containing a residential Principal Use and one or more Non-Residential, Secondary Uses as specified in Section 10.5.5.1, provided that, in newly constructed buildings, separate and distinct building entrances are provided for residential and non-residential uses.

Monitoring Agent: An entity designated by the Reading Board of Selectmen, which may be the Reading Housing Authority or other qualified housing entity, with the power to monitor and to enforce compliance with the provisions of this Bylaw related to Affordable Units, including but not limited to computation of rental and sales prices; income eligibility of households applying for Affordable

Units; administration of an approved housing marketing and resident selection plan; and recording and enforcement of an Affordable Housing Restriction for each Affordable Unit in the DSGD (See Section 10.5.10.6).

Multi-Family Residential: A building containing ~~four~~***three*** or more residential dwelling units designed for occupancy by the same number of families as the number of dwelling units.

Non-Residential Use: Office, Retail, Restaurant, Service or Institutional Use, inclusive, or some combination of the same.

Office: A place for the regular performance of business transactions and services, generally intended for administrative, professional and clerical activities, including a medical or dental office or health clinic.

Open Space: Civic Space, Green Space, and/or Private Amenity Space as defined below:

Civic Space: Portions of a private lot or building that are dedicated to civic use including but not limited to: sidewalks, pathways, alleyways, seating areas, benches, places to gather, etc. which may include streetscape features, water features, decorative surface treatments (i.e., pavers, cobblestone, etc.) and public art, and which could include Green Space as defined below, if open to the public.

Green Space: Portions of a private lot or building including but not limited to: landscaping, plantings, natural features, parks, gardens, living walls, green roofs, trails, pathways, recreational uses, etc. whether connected to or visible from the sidewalk, accessible to the public, provided as private, or provided as a Private Amenity Space to building occupants.

Private Amenity Space: Green Space, balconies, terraces, courtyards, and other open-air spaces that are available as private amenities only to the residential or commercial tenants within the development.

Plan: A plan depicting a proposed Development Project for all or a portion of the Downtown Smart Growth District and which is submitted to the Approving Authority for its review and approval in accordance with the provisions of this Section 10.5.

Plan Approval: The Approving Authority's authorization for a proposed Development Project based on a finding of compliance with this Section 10.5 and Design Standards after the conduct of a Plan Review.

Plan Review: The review procedure established by this Article and administered by the Community Planning and Development

Commission of the Town of Reading as the Approving Authority.

Restaurant: Any business establishment principally engaged in serving food, drink, or refreshments, whether prepared on or off the premises provided, however, that drive through windows are not allowed.

Residential Use: A building or part of a building containing Dwelling Units as defined herein above and parking that is accessory to the Dwelling Units.

Retail Use: Business establishments selling goods and/or services to customers on- site, generally for end use personal, business or household consumption. A reasonable amount of storage consistent with Massachusetts Building Codes of said goods shall also be assumed to be an incidental part of Retail Use.

Smart Growth District: An Overlay Zoning District adopted pursuant to Massachusetts General Law Chapter 40R, in accordance with the procedures for zoning adoption and amendment as set forth in Massachusetts General Law Chapter 40A and approved by the Department of Housing and Community Development pursuant to Massachusetts General Law Chapter 40R and applicable regulations.

Transitional Area: A site proposed for development or redevelopment under Chapter 40R that meets any of the following criteria: (1) is located at the District Edge, (2) is directly abutting a lot containing a historic or cultural resource listed on the Town of Reading's Historical and Architectural Inventory, or (3) is directly abutting a lot containing a single-family, 2-family or 3-family dwelling, either within or outside of the District. **Underlying Zoning:** The zoning requirements adopted pursuant to Massachusetts General Law Chapter 40A that are otherwise applicable to the geographic area in which the DSGD is located, as said requirements may be amended from time to time.

~~**Unduly**~~ ***Unreasonably*** ~~**Restrictive**~~ ***Impair*****:** A provision of ~~a Smart Growth District~~***40R Zoning*** or a Design Standard that adds unreasonable costs or unreasonably ***diminishes***~~impairs~~ the economic feasibility of proposed Development Projects in a Smart Growth District.

Unrestricted Unit: A Dwelling Unit that is not restricted as to rent, price or eligibility of occupants.

Use Accessory: A use subordinate to the Principal Use on the same lot or in the same structure and serving a purpose customarily incidental to the Principal Use, and which does not, in effect, constitute conversion of the Principal Use of the lot, site or structure to a use not otherwise permitted in the Smart Growth District.

Use Principal: The main or primary purpose for which a structure,

building, or lot is designed, arranged, licensed, or intended, or for which it may be used, occupied, or maintained under this Section 10.5.

Use Secondary: A use located on the same lot as a Principal Use but which is of equal or lesser scale, impact, and visibility than the Principal Use. A Secondary Use is not an Accessory Use, as it is largely independent from the Principal Use.

10.5.3 Scope and Authority

The Downtown Smart Growth District is established pursuant to the authority of Massachusetts General Law Chapter 40R and applicable regulations, and shall be deemed to overlay the parcels as shown on the Zoning Map of the Town of Reading, as amended. The Applicant shall have the option of applying for Plan Approval pursuant to the zoning controls set forth in this Article or complying with all applicable zoning controls set forth in the Zoning Bylaw of the Town of Reading for the underlying district(s) or for other overlay zoning that may be therein defined. Development Projects proceeding under this Article shall be governed solely by the provisions of this Article and shall be deemed exempt from the standards and/or procedures of the Underlying Zoning and other overlay provisions.

10.5.4 Establishment and Delineation of the DSGD

The Downtown Smart Growth District is an overlay district that is superimposed over the Underlying District. The boundaries are delineated as the "Downtown Smart Growth District" on the Official Zoning Map of the Town of Reading on file in the office of the Town Clerk, said map hereby made a part of the Reading Zoning Bylaw.

10.5.5 Allowed and Prohibited Uses

Any use not listed herein as an Allowed Use is deemed prohibited.

10.5.5.1 Allowed Uses

The following uses shall be permitted as-of-right in the DSGD upon Plan Approval pursuant to the provisions of this article:

1 Multi-family Residential
2 Office *
3 Retail *
4 Restaurant *
5 Institutional *
6 Consumer Service *

***** Only as part of a Mixed-Use Development; see Section 10.5.7 below

In addition to the allowed uses listed above, the following uses are permitted as-of-right for Development Projects within the DSGD subject to the requirements of this Article.

7 Open Space

~~8~~7 Parking accessory to any of the above permitted uses, including surface, garage-under, and structured parking
~~9~~8 Accessory uses customarily incidental to any of the

above permitted principal uses

10.5.5.2 Prohibited Uses

The following uses are prohibited in the DSGD:

1 Any use which regularly emits strong odors, or dust particles, or smoke, or poses danger, such as manufacture of acids, gases, fertilizers and glue, petroleum refining, reduction of animal matter, and manufacture of cement, gypsum, or explosives.

2 Any other use dangerous to persons within or outside the District by reason of emission of odor, fumes, gases, particulate matter, smoke, noise, vibration, glare, radiation, electrical interference, threat of fire or explosion, or any other reason.

3 Any use that degrades water quality, reduces groundwater recharge, or increases flooding are prohibited.

10.5.6 Dimensional and Other Requirements

Applications for Plan Approval shall be governed by this Section 10.5 and the Design Standards for the Downtown Smart Growth District.

Building Type	Mixed-Use with Commercial 1st Floor	Other Mixed-Use or Residential Only
Maximum Floor Area Ratio (FAR) (Gross Floor Area / Lot Size)	2.8	2.4
Minimum Lot Frontage	50 feet	
Maximum Lot Coverage	N/A	
Minimum Lot Area	***6,000 SF*** ~~N/A~~	
Number of Buildings per lot	N/A	
Maximum Building Frontage	300 feet	
Minimum Front Setback[1]	0 feet	
Maximum Front Setback[1]	10 feet	
Minimum Side / Rear Setback[2] abutting a Residential Zone	15 feet	
Minimum Side / Rear Setback[2] in DSGD or abutting Business-B	0 feet	
Total minimum setback from one or more lot lines (any combination of front, rear, or sides)	***30 feet***	
Interior Setback (between buildings on same lot)	15 feet	

[1] See 7.1.1 of the Design Standards for front façade setback requirements

[2] See 7.1.2 of the Design Standards for building step-back requirements

<u>Setbacks:</u> Where projects are within a Transitional Area (as defined in this Bylaw and in the Design Guidelines), setbacks may be further increased by the AA to no greater than 30 feet upon a finding based on the project's massing, scale, or architectural design, that the project fails to be compatible with the character of nearby residential buildings.

<u>Step-backs:</u> Where projects are within a Transitional Area (as defined in this Bylaw and in the Design Guidelines), step-back requirements may be further increased by the AA to no greater than 25 feet upon a

finding based on the project's massing, scale, or architectural design, that the project fails to be compatible with the character of nearby residential buildings.

10.5.6.1 Residential Density Allowances

The following residential densities shall be allowed on all lots and within all buildings within the DSGD pursuant to the requirements of this Section 10.5:

Multifamily Residential 20 Units per acre

a The Approving Authority may provide a waiver as specified in Section10.5.12 to allow a density in excess of that stated above.

b The Approving Authority may provide a waiver as specified in Section 10.5.12 to promote the renovation or adaptive reuse of existing buildings.

10.5.6.2 Dimensional Standards and Requirements

The following building heights shall be allowed on all lots within the DSGD, pursuant to the requirements of this Section 10.5:

Multifamily Residential Buildings***....***33 Feet

Multifamily Residential Buildings with
~~45 Feet~~ Commercial Uses on the Ground Floor***....45 Feet***

10.5.6.3 Contiguous Lots

In the DSGD, where two or more lots ***under common ownership*** are contiguous or are separated by a right-of-way, such lots may be considered as one lot for the purpose of calculating maximum lot coverage; parking requirements; minimum useable open space; and dwelling units per acre.

10.5.6.4 Age-Restricted Housing Units

An Applicant may propose a Residential or Mixed-Use Development Project in which all dwelling units are designed for or are accessible to the elderly or the handicapped under all applicable laws and regulations, provided that not less than twenty-five percent (25%) of the housing units in any such Development Project shall be Affordable Units. All such Development Projects shall be governed by the requirements of this Section 10.5 and the Design Standards.

10.5.7 Mixed-Use Development

Development Projects may include a portion not to exceed 50% of the total ~~g~~***G***ross ~~f~~***F***loor ~~a~~***A***rea to be used for non-residential uses including Office, Retail, Restaurant, Service or Institutional Uses; provided that ~~o~~***O***ffice or ~~i~~***I***nstitutional uses ~~on the ground floor~~ may not utilize more than 33% of the total ***commercial*** ~~gross square footage~~***Gross Floor Area*** ~~of that floor~~.

A minimum of 10% of the Development Project's total Gross Floor Area shall be dedicated to commercial use, the

calculation for which may include any private outdoor space that is also dedicated to commercial use.

10.5.8 Off-Street Parking and Loading

10.5.8.1 Off-Street Parking

Retail stores, offices and consumer service establishments located within three hundred (300) feet of a public off-street parking facility shall be exempt from off-street parking requirements. In all other cases, off-street parking shall be provided to meet the following minimum requirements:

Retail or Restaurant***.....*** 0 spaces
Office and Institutional***.....***2 spaces per 1,000 square feet
Residential Units ***(studio, 1 and 2 bedroom).....***1.25 spaces per unit
Residential Units (greater than 2 bedroom).....2 spaces per unit
Other Non-Residential, less than 2,000 square feet***.....***0 spaces
Other Non-Residential, 2,000 square feet or more ~~1 space per 2,000 square feet~~ leasable space in excess of 2,000 square feet***.....1 space per 2,000 square feet***

As indicated above, off-street parking is not required for Other Non- Residential uses in the district unless such use exceeds 2,000 square feet of net floor area.

10.5.8.2 Off-Street Loading & Delivery

Front door and on-street deliveries are not allowed for non-residential establishments on Main and Haven Streets. Off-street loading spaces shall be provided to meet or exceed the following minimum requirements:

Restaurant ~~1 space per 2,000 square feet~~
leasable space in excess of 2,000 square feet***..... 1 space per 2,000 square feet***
Other allowed Secondary Use ~~1 space per 5,000 square feet~~ leasable space in excess of 2,000 square feet***..... 1 space per 5,000 square feet***

The Approving Authority may waive the loading space requirement if the Applicant provides a plan proving that the loading space is not needed or can be shared.

10.5.8.3 Location of Parking

Any surface parking lot shall, to the maximum extent feasible, be located at the side or rear of a building, relative to any public right-of-way, public open space, or pedestrian way. In no case shall surface parking for new construction be permitted within the required front yard setbacks.

10.5.8.4 Waiver of Parking Requirements

The Approving Authority may grant a Plan Approval making

such modifications in the standards or prescribe safeguards and conditions as it shall warrant appropriate, provided that it finds that it is impractical to meet the standards and that such modifications are appropriate by reason of the proposed use and will not result in or worsen parking or traffic problems in the DSGD. The Approving Authority may impose conditions of use or occupancy appropriate to such modifications.

10.5.8.5 Shared Use of Required Parking

Shared use may be made of required parking spaces by intermittent use establishments, for example, churches, assembly halls or theaters, whose peak parking demand is only at night or on specific days of the week; by other uses whose peak demand is only during the day; or in public parking lots. At the time of application, a formal agreement shall be made in writing by the owners of the uses involved concerning the number of spaces involved, substantiation of the fact that such shared use is not overlapping or in conflict, and the duration of the agreement.

The applicant shall demonstrate that shared spaces will meet parking demands by using accepted methodologies (e.g., the Urban Land Institute Shared Parking Report, ITE Shared Parking Guidelines, or other industry established studies on shared parking).

10.5.8.6 Cooperative Establishment and Operation of Parking Areas

Required spaces for any number of uses may be provided in a combined lot or lots (public or private), provided that the number of spaces in the combined facility shall not be less than the sum of those required of the individual uses, with allowances made, upon formal designation, for night use or for separate and distinct working shifts, and provided also that such lot or lots shall be within 600 feet of the principal buildings served.

10.5.8.7 Visitor Parking

The Approving Authority may allow for additional visitor parking beyond the minimum required spaces per unit if deemed appropriate given the design, layout and density of the proposed Development Project.

10.5.8.8 Parking Design

Parking shall be designed and constructed to comply with all applicable disability access requirements including but not limited to the Americans with Disabilities Act (ADA) and 521 CMR.

Parking spaces within a garage, podium or other structure shall be not less than eight (8) feet, six (6) inches in width, and seventeen (17) feet in length. CPDC may allow up to 25% of required parking spaces be provided as compact spaces at a dimension not less than eight (8) feet in width and sixteen (16) feet in

length. Drive aisle width requirements shall comply with standards outlined in the most current edition of the "Transportation and Traffic Engineering Handbook" put forth by the Institute of Transportation Engineers, and will depend on the angle of the proposed parking and whether the aisle is one-way or two-way; rows of compact spaces may necessitate greater aisle widths to ensure turning movements can be made.

10.5.9 Open Space ~~and Recreational Areas~~*Design*

The site design for Development Projects may include ~~common~~ ***O***~~o~~pen ***S***~~s~~pace ~~and facilities~~. Where proposed, the plans and any necessary supporting documents submitted with an application for Plan Approval within the DSGD shall show the general location, size, character, and general area within which ~~common~~ ***O***~~o~~pen ***S***~~s~~pace ~~or facilities~~ will be located. The plans and documentation submitted to the Approving Authority shall include a description of proposed ownership and maintenance provisions of all ~~common~~ ***O***~~o~~pen ***S***~~s~~pace ~~and facilities~~ and, if requested by the Approving Authority, any necessary restrictions or easements designed to preserve the ***O***~~o~~pen ***S***~~s~~pace ~~and recreational areas~~ from future development ***and, when applicable, to ensure they are available for public use***.

Civic Space, if within a private lot or building, shall be demarcated in such a way (i.e., through signage, continuity of pavement markings, etc.) that the general public will know the space is for public use. When possible, Civic Space shall be provided at street level, shall be visible from the street, and shall relate to the streetscape in a manner that enlivens the area and encourages a community experience.

To the extent possible, Civic Space shall be planned as single contiguous areas and aligned with abutting Open Space areas. Buildings adjacent to usable Civic Space should generally be oriented to that space, with access to the building opening onto the Civic Space. The Approving Authority may require a project to provide public access to the Civic Space from one or more streets, ways, or publicly accessed trails. In addition, there shall be a clear arrangement in place regarding responsibility for ongoing maintenance and management of any Civic Space located within a private lot or building.

Upon consideration of the above information, the Approving Authority may approve a waiver as provided for in Section 10.5.12 for a front setback to allow for common open space or facilities.

10.5.10 Affordable Housing

Affordable Units shall comply with the following requirements:

1 The monthly rent payment for an Affordable Rental Unit, including utilities and parking, shall not exceed thirty percent (30%) of the maximum monthly income permissible for an Eligible Household, assuming a Family size equal to the number of bedrooms in the

unit plus one, except in the event of an Eligible Household with a Section 8 voucher in which case program rent limits shall apply.

2 For an Affordable Homeownership Unit the monthly housing payment, including mortgage principal and interest, private mortgage insurance, property taxes, condominium and/or homeowner's association fees, insurance, and parking, shall not exceed thirty percent (30%) of the maximum monthly income permissible for an Eligible Household, assuming a Family size equal to the number of bedrooms in the unit plus one.

3 Affordable Units required to be offered for rent or sale shall be rented or sold to and occupied only by Eligible Households.

10.5.10.1 Number of Affordable Units

Affordable units shall be provided in projects of more than ~~twelve~~ ***eight*** (***8***~~12~~) units, as follows:

- Except as otherwise provided by this section, twenty percent (20%) of all dwelling units constructed in an ownership Development Project shall be Affordable Units.
- Except as otherwise provided by this section, twenty-five percent (25%) of all dwelling units constructed in a rental Development Project shall be Affordable Units.
- For Development Projects in which all of the dwelling units are limited to occupancy by elderly persons and/or by persons with disabilities, twenty- five percent (25%) of the dwelling units shall be Affordable Units, whether the dwelling units are Rental Units or Ownership Units.
- ***For projects consisting of fewer than twelve (12) units, upon request of the Applicant, the Approving Authority may waive the requirements of this section as provided in Section 10.5.12.***

10.5.10.2 Fractional Units

When the application of the percentages specified above results in a number that includes a fraction, the fraction shall ***always*** be rounded up to the next whole number. ~~if the fraction is 0.5 or more~~. ~~If the result includes a fraction below 0.5, the fraction shall be rounded down to the next whole number.~~

10.5.10.3 Design and Construction

Affordable Units must be dispersed throughout a Development Project and be comparable in initial construction quality and exterior design to the Unrestricted Units. However, nothing in this Section is intended to limit a homebuyer's rights to renovate a Dwelling Unit under applicable law. The Affordable Units must have access to all on-site amenities. Affordable Units shall be finished housing units. All Affordable Units must be constructed and occupied not later than concurrently with construction and occupancy of Unrestricted Units. In Development Projects that are constructed in phases, Affordable Units must be constructed and occupied in proportion to the number of units in each phase of the Development Project.

10.5.10.4 Unit Mix

The total number of bedrooms in the Affordable Units shall be at least proportionate to the total number of bedrooms in all units of the Project of which the Affordable Units is part.

10.5.10.5 Affordable Housing Restriction

Each Affordable Unit shall be subject to an Affordable Housing Restriction which is recorded with the County Registry of Deeds or Land Court Registry District of the County. All Affordable Housing Restrictions must include, at minimum, the following:

a A description of the Affordable Homeownership Unit, if any, by address and number of bedrooms; and a description of the overall quantity and number of bedrooms and number of bedroom types of Affordable Rental Units in a Development or portion of a Development which are rental. Such restriction shall apply individually to the specifically identified Affordable Homeownership Unit and shall apply to a percentage of rental units of a rental Development or the rental portion of a Development without specific unit identification.

b The term of the Affordable Housing Restriction which shall be in perpetuity or for the longest period customarily allowed by law but shall be no less than thirty (30) years.

c The name and address of the Monitoring Agent with a designation of its power to monitor and enforce the Affordable Housing Restriction.

d Reference to a housing marketing and resident selection plan, to which the Affordable Unit is subject, and which includes an affirmative fair housing marketing program, including public notice and a fair resident selection process. If approved by DHCD, the housing marketing and selection plan may provide for local preferences in resident selection. The plan shall designate the household size appropriate for a unit with respect to bedroom size and provide that preference for such unit shall be given to a household of the appropriate size.

e A requirement that buyers or tenants will be selected at the initial sale or initial rental and upon all subsequent sales and rentals from a list of Eligible Households compiled in accordance with the housing marketing and selection plan.

f Reference to the formula pursuant to which rent of a rental unit or the maximum resale price of a homeownership unit will be set.

g A requirement that only an Eligible Household may reside in an Affordable Unit and that notice of any lease or sublease of any Affordable Unit shall be given to the Monitoring Agent.

h Provision for effective monitoring and enforcement of the terms and provisions of the Affordable Housing Restriction by the Monitoring Agent.

i Provision that the restriction on an Affordable

Homeownership Unit shall run in favor of the Monitoring Agent and the Town of Reading, in a form approved by municipal counsel, and shall limit initial sale and re-sale to and occupancy by an Eligible Household.

j Provision that the owner(s) or manager(s) of Affordable Rental Unit(s) shall file an annual report to the Monitoring Agent, in a form specified by that agent certifying compliance with the provisions of this Section and containing such other information as may be reasonably requested in order to ensure affordability.

k Provision that the restriction on Affordable Rental Units in a rental Project or rental portion of a Project shall run with the rental Project or rental portion of a Project and shall run in favor of the Monitoring Agent and the Town of Reading, in a form approved by municipal counsel, and shall limit rental and occupancy to an Eligible Household.

l A requirement that residents in Affordable Units provide such information as the Monitoring Agent may reasonably request in order to ensure affordability.

m Designation of the priority of the Affordable Housing Restriction over other mortgages and restrictions.

10.5.10.6 Administration

The Monitoring Agent shall ensure the following (See Section 10.5.2 Definitions):

a Prices of Affordable Homeownership-Units are properly computed; rental amounts of Affordable Rental Units are properly computed.

b Income eligibility of households applying for Affordable Units is properly and reliably determined.

c The housing marketing and resident selection plan conforms to all requirements and is properly administered.

d Sales and rentals are made to Eligible Households chosen in accordance with the housing marketing and resident selection plan with appropriate unit size for each household being properly determined and proper preference being given.

e Affordable Housing Restrictions meeting the requirements of this Section are recorded with the Middlesex County Registry of Deeds or Land Court Registry District of Middlesex County. In the case where the Monitoring Agent cannot adequately carry out its administrative duties, upon certification of this fact by the Approving Authority or by the Department of Housing and Community Development, the administrative duties shall devolve to and thereafter be administered by a qualified housing entity designated by the Reading Board of Selectmen.

10.5.10.7 Costs of Housing Marketing and Selection Plan

The housing marketing and selection plan shall make provision for payment by the owner of reasonable costs to the Monitoring Agent and the owner shall pay reasonable costs to the Monitoring Agent to develop, advertise, and maintain the

list of Eligible Households and to monitor and enforce compliance with affordability requirements.

10.5.11 Plan Approval Procedures

The Approving Authority (AA) shall adopt and file with the Town Clerk Administrative Regulations relative to the application requirements and contents for Plan Review, subject to approval by the Massachusetts Department of Housing and Community Development. Plan approval procedures shall be as follows:

10.5.11.1 Pre-Application Requirements

Prior to the submittal of a Plan for Plan Approval, a "Concept Plan" may be submitted to help guide the development of the definitive submission for project build out. Such Concept Plan shall reflect the following:

a Overall building envelope areas
b Open space and natural resource areas
c General site improvements, drainage plans, groupings of buildings and proposed land uses
d Anticipated parking spaces and locations
e Site vehicular access

The Concept Plan is intended to be used as a tool for both the Applicant and the Approving Authority to ensure that the proposed Project design will be consistent with the Design Standards and other requirements of the DSGD.

10.5.11.2 Application Procedures

All Projects are subject to Plan Approval.

1 Submittal

An application for Plan Approval shall be submitted to the AA on the form provided by the Authority, along with the application fees set forth in the administrative regulations. The application shall be accompanied by such plans and other documents as required by the AA as well as any materials required to verify compliance with any of the provisions of this Section

10.5. All plans shall be prepared by certified architects or engineers as required by the Massachusetts Building Code. An application for Plan Approval shall be filed by the Applicant with the Town Clerk. A copy of the application, including the date of filing certified by the Town Clerk, as well as the required number of copies of the application, shall be filed forthwith by the Applicant with the AA. Application submissions must include a hard copy as well as an electronic copy in PDF or CAD format. Said filing shall include any required forms provided by the AA. As part of any application for Plan Approval for a Development Project, the Applicant must submit the following documents to the AA and the Monitoring Agent:

- Evidence that the Development Project complies with the cost and eligibility requirements of Section 10.5.10;
- Development Project plans that demonstrate

compliance with the design and construction standards of Section 10.5.10.3; and

- A form of Affordable Housing Restriction that satisfies the requirements of Section 10.5.10.5
- Review Fees: The Applicant shall be required to pay for reasonable consulting fees to provide peer review of the application for the benefit of the Approving Authority. Such fees shall be held by the Town of Reading in an interest-bearing escrow account, and shall be used only for expenses associated with the use of outside consultants employed by the Approving Authority in reviewing the Plan application. Any surplus funds remaining after the completion of such review, including any interest accrued, shall be returned to the Applicant forthwith;

2 Circulation to Other Boards

Upon receipt of the application, the AA shall immediately provide a copy of the application materials to all relevant municipal Boards, Departments, Commissions, Officials as determined by the AA and, if the project is subject to Affordability requirements, the Monitoring Agent. These entities shall provide any written comments within 60 days of receipt of the plan and application.

3 Public Hearing

The Approving Authority shall hold a public hearing and review all applications according to the procedure specified in Massachusetts General Law Chapter 40A Section 11

4 Criteria for Plan Approval

The Approving Authority shall approve the Development Project upon the following findings:

- The Applicant has submitted the required fees and information as set forth in applicable Regulations; and
- The proposed Development Project as described in the application meets all of the requirements and standards set forth in this Section 10.5, applicable Design Standards and the AA regulations, or a waiver has been granted there from; and
- Any extraordinary adverse potential impacts of the Project on nearby properties have been adequately mitigated.
- For a Project subject to Affordability requirements, compliance with Condition b. above shall include written confirmation by the Monitoring Agent that all Affordability requirements have been satisfied.

5 Criteria for Plan Denial

A Plan Approval application may be disapproved only where the Approving Authority finds that:

- The applicant has not submitted the required fees and information as set forth in the regulations; or
- The Project as described in the application does not meet all the requirements and standards set forth in this Section 10.5, applicable Design Standards and the AA Regulations, or that a required waiver there from

has not been granted; or

- It is not possible to adequately mitigate ~~significant~~ ***extraordinary adverse*** project impacts on nearby properties by means of suitable conditions***, including but not limited to AA's finding that in massing, scale, size, or architectural design, a project fails to be compatible with the character of nearby residential or other buildings***.

6 Time Limit

The decision of the AA shall be made, and written notice of the decision filed with the Town Clerk within 120 days of receipt of the Application by the Town Clerk. This time may be extended by mutual agreement between the AA and the Applicant by written agreement filed with the Town Clerk. Failure of the AA to take action within said 120 days or the extended time shall be deemed an approval of the Plan Approval application.

10.5.12 Waivers

Upon request of the Applicant, the Approving Authority ***may*** ~~may~~ waive dimensional and other requirements, including design standards, with conditions, in the interests of design flexibility and overall project quality, and upon a finding of consistency of such variation with the overall purpose and objectives of the DSGD and the Reading Master Plan, or if it finds that such waiver will allow the project to achieve the density, affordability, mix of uses and/or physical character allowed under this Section 10.5. Notwithstanding anything to the contrary in this Zoning Bylaw, the Affordability provisions of Section 10.5.10 shall not be waived***, except as expressly provided in Section 10.5.10.1***.

The Approving Authority will take into consideration the following ~~items~~ ***design objectives*** when ~~considering~~ ***determining whether*** a waiver ***or waivers shall be granted***:

~~**1** High performance energy efficient buildings and construction methods.~~
~~**2** Projects with publicly accessible open space.~~
~~**3** Projects that include retail and restaurants located on street level.~~
~~**4** A demonstrated shared parking initiative that makes efficient use of land and existing parking supply.~~
~~**5** The preservation or rehabilitation of historic properties or other buildings considered significant to the Town.~~

1. ***Additional open space and connectivity between sites and to existing open space areas;***
2. ***Commercial space of a quality and size characteristic of a downtown business district;***
3. ***Long-term shared parking agreements or other mechanisms to creatively and efficiently utilize or add to existing parking supply;***
4. ***High performance building design that increases energy efficiency and minimizes utility and maintenance costs to***

end users, and that provides for building resiliency to adopt future technologies and sustainable strategies as they become available;

5. ***Preservation or rehabilitation of historic properties or other buildings considered significant to the Town; and***
6. ***Deeper or broader affordability (i.e., units affordable to households earning at or below 50% Area Median Income, or additional units available to households earning at or below 80% Area Median Income).***

10.5.12.1 Tiered Schedule for Density Waiver Requests

Applicants specifically seeking a waiver for density in excess of 20 units per acre shall adhere to the following guidelines:

1. ***All projects shall achieve high performance building design that exceeds minimum energy code baseline and is designed to the LEED Certified standard, Passive House standard, Net Zero, or equivalent rating system; that increases energy efficiency and minimizes utility and maintenance costs to end users; and that provides for building resiliency to adopt future technologies and sustainable strategies as they become available;***
2. ***For the purposes of determining project density and Payment In Lieu of Open Space, fractional numbers shall always be rounded to the next highest integer;***
3. ***Tiered requirements are intended to apply to the entirety of a project, not just the portion within that tiered density;***
4. ***Compliance with the tiered schedule below in and of itself does not guarantee the waiver will be granted; CPDC will maintain their right to consider the waiver request in the context of the whole proposal and in consideration of its impacts to the Downtown Smart Growth District. However, a request for a waiver for density in excess of 20 units per acre shall be considered more favorably, up to a maximum of 65 units per acre, if providing, cumulatively, the following:***

<u>Tier 1: 21-25 units per acre</u>

Tier 1 requirements are as follows (provide at least one):

a. ***<u>Open Space</u>: Open Space provided at-grade as well as Private Amenity Space for tenants; or***
b. ***<u>Commercial</u>: Commercial tenant space that is not less than 12.5% of the total Gross Floor Area of the building; or***
c. ***<u>Parking</u>: A minimum of 2 visitor or guest parking spaces;***
d. ***<u>Historic</u>: The preservation or rehabilitation of historic properties or other buildings considered significant to the Town.***

<u>Tier 2: 26-40 units per acre</u>

Tier 2 requirements are as follows (provide at least one additional from a category not chosen under Tier 1):

a. ***<u>Open Space</u>: Open Space shall be provided:***

i. on-site, comprising 10% of the lot area; at least 50% of which is provided at-grade and is publicly accessible; or

ii. indirectly, as a Payment In Lieu of providing Open Space as required above, into a fund established by the Town of Reading for the acquisition of land for open space purposes and/or the creation or improvement of pathways, trails and other open space amenities, at a rate of $75 (in 2022 dollars indexed to inflation), per square foot of offset open space.

b. <u>Commercial</u>: Commercial tenant space that is not less than 15% of the total Gross Floor Area of the building; or

c. <u>Parking</u>: Additional parking at a rate of 1 space per 1,000 gross square feet of commercial space;

<u>Tier 3: 41 to 65 units per acre</u>

Tier 3 requirements are as follows (provide at least one additional from a category not chosen under Tier 1 or Tier 2):

a. <u>Open Space</u>: Open Space shall be provided:

i. on-site, in a total amount equivalent to 15% of the lot area, at least 50% of which is provided at-grade and is publicly accessible; or

ii. indirectly, as a Payment In Lieu of providing Open Space as required above, into a fund established by the Town of Reading for the acquisition of land for open space purposes and/or the creation or improvement of pathways, trails and other open space amenities, at a rate of $75 (in 2022 dollars indexed to inflation), per square foot of offset open space.

b. <u>Commercial</u>: Commercial tenant space that is not less than 25% of the total Gross Floor Area of the building; or

c. <u>Affordable Units</u>: Deeper or broader affordability (i.e., units affordable to households earning at or below 50% of Area Median Income, or additional units available to households earning at or below 80% of Area Median Income); or

d. <u>Parking</u>: A demonstrated long-term shared parking initiative that makes efficient use of land and existing parking supply.

10.5.13 Plan Changes After Approval by Approving Authority

10.5.13.1 Minor Plan Changes

After Plan Approval, an Applicant may apply to make minor changes in a Development Project involving minor utility or building orientation adjustments, or minor adjustments to parking or other site details that do not affect the overall build out or building envelope of the site, or provision of open space, number of housing units, or housing need or affordability features. Such minor changes must be submitted to the Approving Authority on redlined prints of the approved plan,

reflecting the proposed change, and on application forms provided by the Approving Authority. The Approving Authority may authorize such changes at any regularly scheduled meeting, without the need to hold a public hearing. The Approving Authority shall set forth any decision to approve or deny such minor change by motion and written decision, and provide a copy to the Applicant for filing with the Town Clerk.

10.5.13.2 Major Plan Changes

Those changes deemed by the Approving Authority to constitute a major change in a Development Project because of the nature of the change in relation to the prior approved plan, or because such change cannot be appropriately characterized as a minor change as described above, shall be processed by the Approving Authority as a new application for Plan Approval pursuant to this Section 10.5.

10.5.14 Fair Housing Requirement

All Development Projects within the DSGD shall comply with applicable federal, state and local fair housing laws.

10.5.15 Project Phasing

The Approving Authority may allow a Project to be phased at the request of the applicant or to mitigate any extraordinary adverse impacts on nearby properties. For projects that are approved and developed in phases, the proportion of Affordable units shall be consistent across all phases and the proportion of Existing Zoned Units to Bonus units (as those terms are defined in 760 CMR 59.00 shall be consistent across phases.

10.5.16 Decisions

The Approving Authority shall issue to the applicant a copy of its decision containing the name and address of the owner, identifying the land affected and the plans that were the subject of the decision and certifying that a copy of the decision has been filed with the Town Clerk. If 20 days have elapsed after the decision has been filed with the Town Clerk without an appeal having been filed, or if such appeal having been filed is dismissed or denied, the Town Clerk shall so certify on a copy of the decision. A copy of said decision shall be filed with the Middlesex South District Registry of Deeds.

A Plan Approval shall remain valid and run with the land indefinitely, provided that construction has commenced within two years after the decision is issued, which time shall be extended by the time required to adjudicate an appeal and which time shall be extended if the project proponent is actively pursuing other required permits or there is other good cause for failure to commence. The Approving Authority may require the posting of a performance bond to secure and/or screen a Development Project site in the event that demolition is undertaken but subsequent work lapses, for any reason within or outside the applicant's control, for a period longer than one year.

10.5.17 Date of Effect

The effective date of this Bylaw shall be the date on which such

adoption is voted upon by Town Meeting pursuant to the requirements of Section 5 of Chapter 40A of the General Laws and Chapter 40R of the General Laws; provided, however, that an Applicant may not proceed with construction pursuant to this Bylaw prior to the receipt of final approval of this Bylaw and accompanying Zoning Map by both the Department of Housing and Community Development and the Office of the Massachusetts Attorney General.

10.5.18 Severability

If any provision of this Section is found to be invalid by a court of competent jurisdiction, the remainder of this Section shall not be affected but remain in full force. The invalidity of any provision of this Section 10.5 shall not affect the validity of the remainder of the Town's Zoning Bylaw.

10.5.19 Amendments to Design Standards

The AA may adopt, by majority vote, amendments to the Design Standards. Any amendment to the Design Standards must be objective and not subjective and may only address the scale and proportions of buildings, the alignment, width, and grade of streets and sidewalks, the type and location of infrastructure, the location of building and garage entrances, off street parking, the protection of significant natural site features, the location and design of on-site open spaces, exterior signs, and buffering in relation to adjacent properties. DHCD may, at its discretion, require any amendment to the Design Standards to contain graphics illustrating a particular standard or definition in order to make such standard or definition clear and understandable.

Before adopting any Design Standard, the AA shall submit the proposed Design Standard to DHCD for approval. Any amendment to the Design Standards shall not take effect until approved by DHCD and filed with the Town Clerk.

An application for Plan Approval that has been submitted to the Town Clerk pursuant to this Section 10.5 shall not be subject to any Design Standard that has not been approved by DHCD and filed with the Town Clerk.

or take any other action with respect thereto.

Community Planning and Development Commission

Background: This is an amendment to Section 10.5 of the Zoning Bylaw, Downtown Smart Growth District (DSGD) 40R Overlay. After a year-long public process, which included a zoning workshop, two focus groups, a town-wide survey, two community events, and the requisite public hearing (which went 4 nights), the proposed amendments to the DSGD 40R Bylaw represent a holistic and waiver-based approach to supporting the desired outcomes of the community while still attracting investment in Reading.

Finance Committee Report: No report.

Bylaw Committee Report: TBD

ARTICLE 16 To see if the Town will vote to authorize the Reading Municipal Light Department (RMLD) to acquire by purchase, using available RMLD funds and on such terms and conditions as the RMLD may deem appropriate, all or a portion of the property located at 251 Ballardvale Street, Wilmington, and shown on Assessor's Map R2 as Lot 25, for light plant purposes, and to authorize the RMLD General Manager to take any and all actions and to enter into and execute any and all agreements and other documents as may be necessary or appropriate to accomplish the foregoing acquisition; or take any other action with respect thereto.

Select Board

Background: The purchase of the property is needed for the construction of an electric substation to accommodate additional load and to replace RMLD's existing Wilmington substation, which has reached the end of its useful life. The property is situated near RMLD's load center and high voltage lines required for the interconnection of the electric substation. The purchase price would be paid by RMLD from available RMLD funds and would have no impact on electric rates or property taxes. Both the RMLD Citizens Advisory Board ("CAB") and the RMLD Board of Commissioners support the purchase of this property, as reflected in the January 20, 2022 vote of the CAB and the January 19, 2022 vote of the Board of Commissioners authorizing the General Manager to move forward with the purchase.

Finance Committee Report: TBD

Bylaw Committee Report: TBD

ARTICLE 17 To see if the Town will vote to raise and appropriate, transfer from available funds, borrow or otherwise provide a sum or sums of money for highway projects in accordance with Chapter 90 of the *Massachusetts General Laws*, or take any other action with respect thereto.

Select Board

Background: This is an annual article whereby Town Meeting is asked to grant permission for the Town to accept additional roadway maintenance from the State, called Chapter 90 funding. Annual funding has been at the $600,000 area for many years, with exceptions when the state has surplus funds to allocate to this purpose. Proposed preliminary funding for FY23 is $599,388.

Finance Committee Report: TBD

Bylaw Committee Report: TBD

ARTICLE 18 To see if the Town will vote to raise and appropriate, transfer from available funds, borrow or otherwise provide a sum or sums of money for the operation of the Town and its government for Fiscal Year 2023 - beginning July 1, 2022, or take any other action with respect thereto.

Finance Committee

Finance Committee Report: TBD

Bylaw Committee Report: TBD

ARTICLE 19 To see if the Town will vote, pursuant to Section 2-6 of the Reading Home Rule Charter, to declare the seats of certain Town Meeting Members to be vacant and remove certain described persons from their position as Town Meeting Members for failure to take the oath of office within 30 days following the notice of election or for failure to attend one-half or more of the Town Meeting sessions during the previous year, or take any other action with respect thereto.

Select Board

Background: Since all members of Town Meeting are recently elected and no sessions have been held, this Article is expected to be tabled.

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and you are directed to serve this Warrant by posting an attested copy thereof in at least one (1) public place in each precinct of the Town not less than fourteen (14) days prior to April 5, 2022, or providing in a manner such as electronic submission, holding for pickup or mailing, an attested copy of said Warrant to each Town Meeting Member.

Hereof fail not and make due return of this Warrant with your doings thereon to the Town Clerk at or before the time appointed for said meeting.

Given under our hands this __th day of _____, 2022.

_____
Karen Gately Herrick, Chair

_____
Anne DJ Landry, Vice Chair

_____
Mark L Dockser, Secretary

_____
Carlo Bacci

_____
Chris Haley

SELECT BOARD OF READING

_____
, Constable

Town of Reading
Meeting Minutes

Board - Committee - Commission - Council:

Finance Committee

Date: 2022-03-09 Time: 7:00 PM

Building: Reading Town Hall Location: Conference Room

Address: 16 Lowell Street Session: Open Session

Purpose: General Business Version: Draft

Attendees: **Members - Present:**

Chair Ed Ross, Vice Chair Jeanne Borawski (remote), Eric Burkhart, Geoffrey Coram, Marianne Downing, Jackie McCarthy, Joe McDonagh, Andrew Mclauchlan (remote), Mark Zarrow

Members - Not Present:

Others Present:

Town Manager Fidel Maltez, Town Accountant Sharon Angstrom, Library Director Amy Lannon, Assistant Library Director Michelle Filleul (remote), Library Trustee Andrew Grimes (remote), Facilities Director Joe Huggins, Assistant Facilities Director Kevin Cabuzzi (remote), DPW Director Jane Kinsella, Assistant DPW Director Chris Cole (remote), Fire Chief Greg Burns, Police Chief David Clark, Administrative Services Director Matt Kraunelis (remote) Assistant Town Manager Jean Delios (remote)
Select Board Members: Vice Chair Anne Landry (remote), Secretary Mark Dockser (remote), Carlo Bacci, Chris Haley (remote)

Minutes Respectfully Submitted By: Jacquelyn LaVerde

Topics of Discussion:

This meeting was held in-person in the Town Hall Conference Room and remotely via Zoom.

Chair Ed Ross called the Finance Committee to order at 7:00 pm.

Mark Dockser called the Select Board to order at 7:00 pm.

Liaison Reports:

Mr. Coram shared an update from the School Committee. A Vacation Academy was held over February vacation to mitigate pandemic learning loss. It was well received, and the School Department will look to host it again over April Vacation and over the summer. There should be enough funds to support the Academy over April vacation, but additional funds may be needed to run it in the summer.

Mr. Zarrow shared that the School Committee also discussed the Killam project and its seven deliverables. There is $2 million needed for design work. The search for a new Wood End principal was also discussed.

Ms. Downing stated that the ARPA Subcommittee had its first meeting yesterday, at which the Town Manager shared what other communities are doing to identify their needs and spend ARPA funds. Ms. Downing was elected as Chair and Select Board member Mark

Dockser was elected Vice Chair. The next meetings of the ARPA subcommittee are scheduled for March 29th and April 12th.

FY23 Budget Presentation – Town:

Town Accountant FY23 Projected Revenues

Town Accountant Sharon Angstrom began with an overview of projected revenues, the financial forecast, spending scorecard, and shared costs.

Total projected revenues for FY23 is $111.6 million plus $2.75 million of free cash, which is a 2.8% increase over the prior year. Local revenues are down 1.7%. State aid is never certain at this point in the budget process, but a 2.5% increase is assumed, and if needed, free cash can be used at November Town Meeting.

For the Financial Forecast, revenues are projected first, then accommodated costs are figured, and what is left is split between the schools at 63.5% and town at 36.5%.

Public Library

Library Director Amy Lannon briefly presented the Library budget, asking for a 2.3% increase, primarily driven by salaries.

Facilities

Facilities Director Joe Huggins reviewed the Facilities budget. A 3.3% increase is requested, which is driven by increased costs for expenses, such as HVAC, utility rate increases, and wages driven by step and cost of living increases.

DPW

DPW Director Jane Kinsella reviewed the budget increase of 2.7% due primarily to wages, a new contract, and a few slight increases in expenses. Administration is decreased 7.5%, as the Trails Committee and Town Forest Committee were moved under the Select Board. There was a shift in operations that moved Parks from the Forestry Division to the Cemetery division. Though the budget lines for those two divisions look way off, there is no real increase. She briefly reviewed the Water, Sewer and Storm Water Enterprise Funds, and noted the added $100,000 needed for water main breaks.

Fire

Fire Chief Greg Burns shared the Fire Department budget, which increased just over 3% and salaries are up 3.2%. There are several new firefighters, and there have been several retirements. There are three firefighters in the Academy right now. The department is still down three positions, and it has been challenging trying to find qualified applicants.

Police

Police Chief David Clark provided an overview of the three different budgets he oversees: Police Department, Coalition for Prevention and Support, and Dispatch. The Police Department budget is increasing 3.1%. The new Parking Enforcement Officer is scheduled to start in April, whose budgeted hours increased from 20 hours per week to 32 hours. Expense increases are due to training; purchase of a hybrid cruiser; and tracking systems, software, and renewal contracts.

The Coalition budget increased 1.7%. Someone has accepted the job for Public Safety Clinician and will start in April. Expenses are level funded.

The Dispatch budget is increasing 2.9%. The biggest increase for expenses is for technology.

Administrative Services

Administrative Services Director Matt Kraunelis noted the budget increase of 6.9% due to three elections in FY23, $85,000 for a compensation study for non-union employees, $15,000 for the Select Board to support Boards and Committees, funding for IT to purchase

Microsoft 365 licenses, and an increase in overtime for Technology for projects that were delayed due to the pandemic. There is no change to staffing levels.

Public Services
Assistant Town Manager/Public Services Director Jean Delios highlighted broad ideas of how the department operates including staff support of many boards and committees, collaborating with regional and community partners, and seeking grant funding. The budget is increasing 2.2%. Wages increase 2.3% for a small increase in administrative support, and expanded hours for part time staff in response to demand for services in Elder and Human Services. Historical Commission expenses were moved under the Select Board.

Finance
Ms. Angstrom presented changes to the Finance budget. The overall budget increased 3.9%, with wages increasing 4.2% for step increases, COLA, and the promotion of an administrative staff member. In expenses, some funds were shifted from Professional Development to cover additional expenses for the Assessor's personal property inspection reevaluation cycle

Public Health
Town Manager Fidel Maltez reviewed the 10.7% increase in Health wages to add a support staff member. There is no change to expenses. The $30,000 request for digitization of Health records will be requested to be included in the current FY22 budget at April Town Meeting.

On a motion by Chris Haley, and seconded by Mark Dockser, the Select Board voted 3-0-0 to adjourn at 9:08 pm, as Anne Landry had already left the meeting. Roll call Vote: Carlo Bacci-Yes, Chris Haley-Yes, Mark Dockser-Yes.

Minutes:
On a motion by Ms. Downing, and seconded by Ms. McCarthy, the Finance Committee voted 9-0-0 to approve the meeting minutes of March 2, 2022.
Roll call vote: Andrew Mclauchlan-Yes, Jeanne Borawski-Yes, Joe McDonagh-Yes, Marianne Downing-Yes, Eric Burkhart-Yes, Geoffrey Coram-Yes, Mark Zarrow-Yes, Ed Ross-Yes.

Future Agendas:
The Finance Committee will vote on Town Meeting warrant articles at their next meeting scheduled for March 15th. RMLD was originally planning to attend the March 23rd meeting. However, if RMLD can attend the 15th instead, there will not need to be a meeting on the 23rd, and the email discussion and website update discussion can wait until the following meeting.

On a motion by Mr. Coram, and seconded by Mr. McDonagh, the Finance Committee voted 9-0-0 to adjourn at 9:16 pm.
Roll call vote: Andrew Mclauchlan-Yes, Jeanne Borawski-Yes, Joe McDonagh-Yes, Marianne Downing-Yes, Eric Burkhart-Yes, Jackie McCarthy-Yes, Geoffrey Coram-Yes, Mark Zarrow-Yes, Ed Ross-Yes.