

RMLD



Reading Municipal Light Department
RELIABLE POWER FOR GENERATIONS



2022 ANNUAL REPORT

TRAILBLAZING TOWARD A NON-CARBON FUTURE

Reliable | Low-Cost | Non-Carbon

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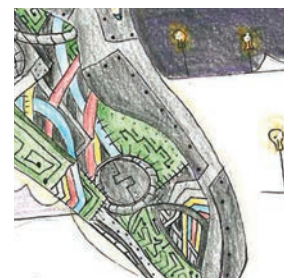
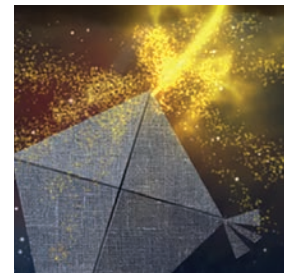
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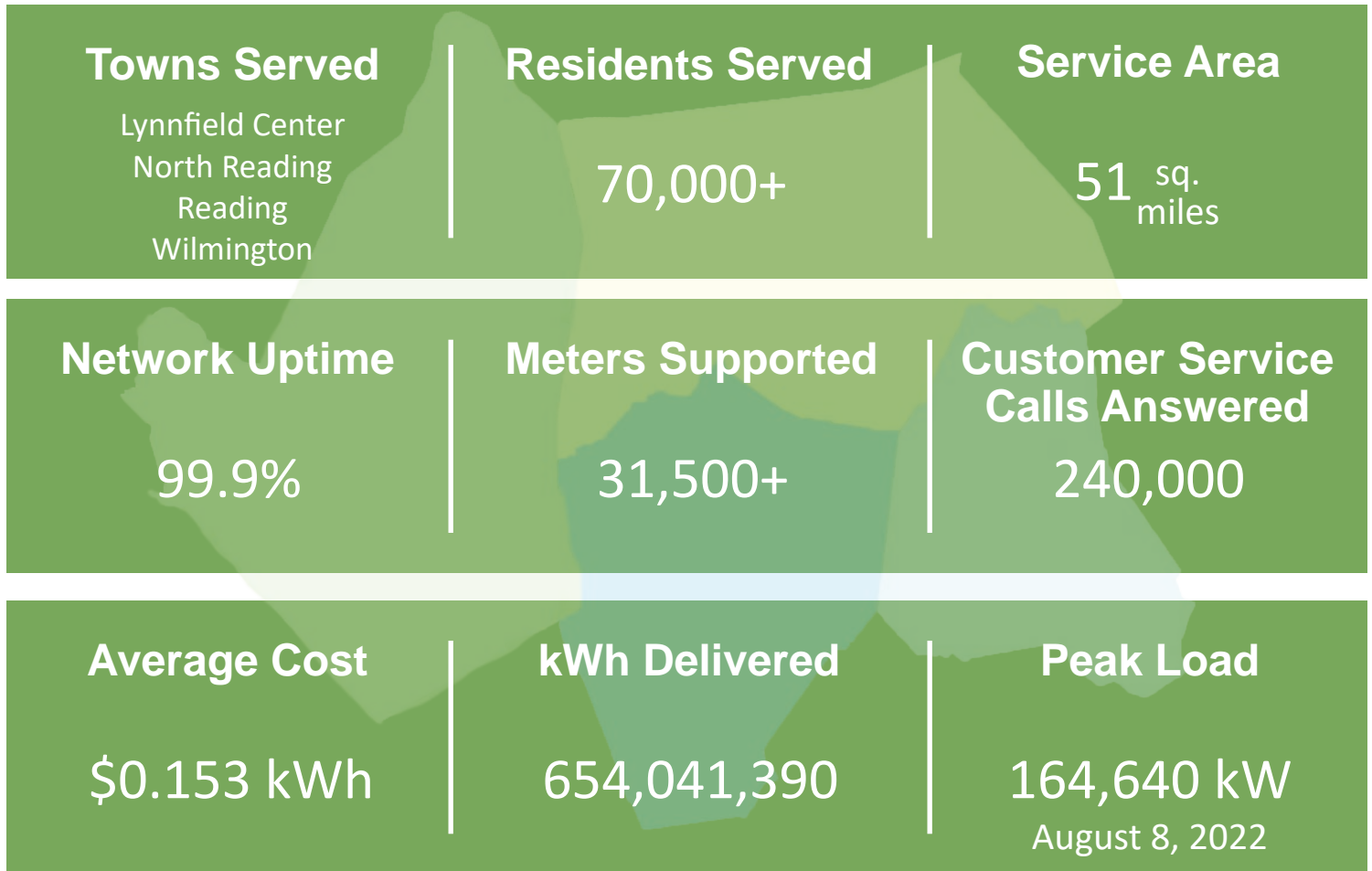
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READING MUNICIPAL LIGHT DEPARTMENT



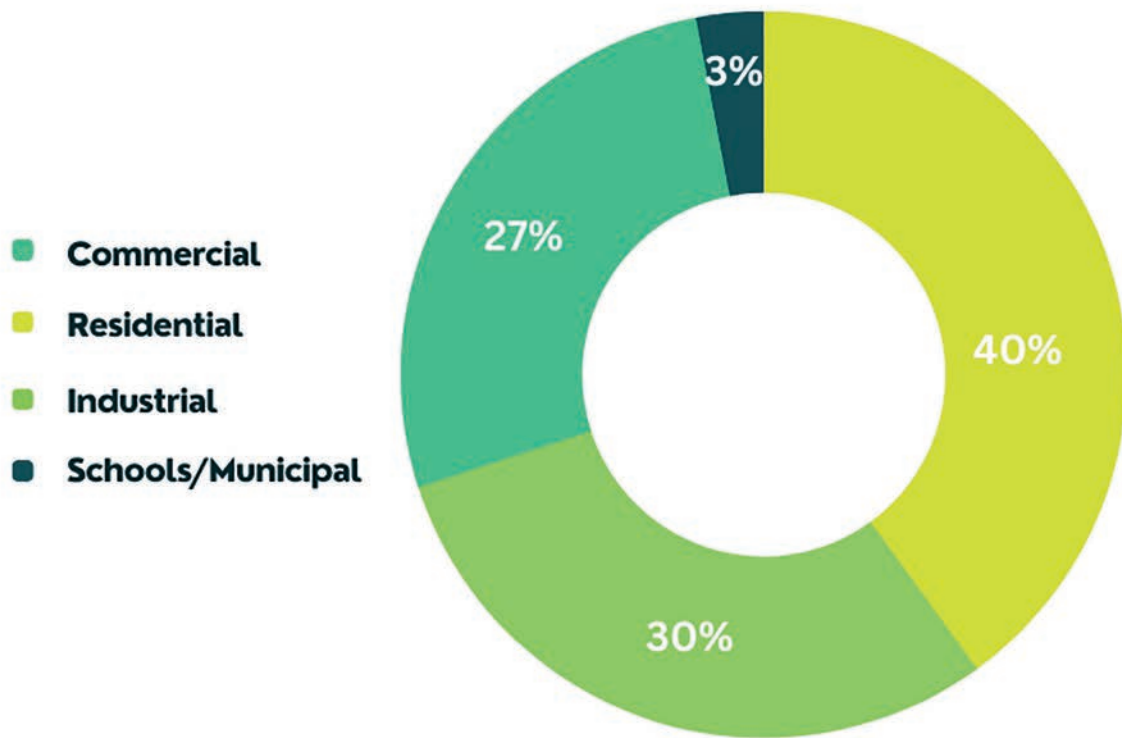
- **319 New services**
- **2,264 Trouble calls answered**
- **137 Poles installed/replaced**
- **234 Routine meter replacements**
- **6,186 Underground facility locations marked out**

READING MUNICIPAL LIGHT DEPARTMENT

Founded in 1894, RMLD is the largest (in terms of electrical load) of 41 Massachusetts municipal light utilities and is not-for-profit, locally owned, and locally controlled.

A Citizens' Advisory Board is comprised of representatives from the communities RMLD serves. The Citizens' Advisory Board makes recommendations to the Board of Commissioners. The five-member Board of Commissioners, elected by Reading voters, governs the utility.

Load Profile by Customer Type





BOARD OF COMMISSIONERS



Marlena Bitá
Chair



Philip Pacino
Vice Chair



David Talbot
Commissioner



John Stempeck
Commissioner



Robert Coulter
Commissioner

CITIZENS' ADVISORY BOARD



Jason Small, *Chair*
North Reading



Vivek Soni, *Vice Chair*
Reading



George Hooper,
Secretary
Wilmington



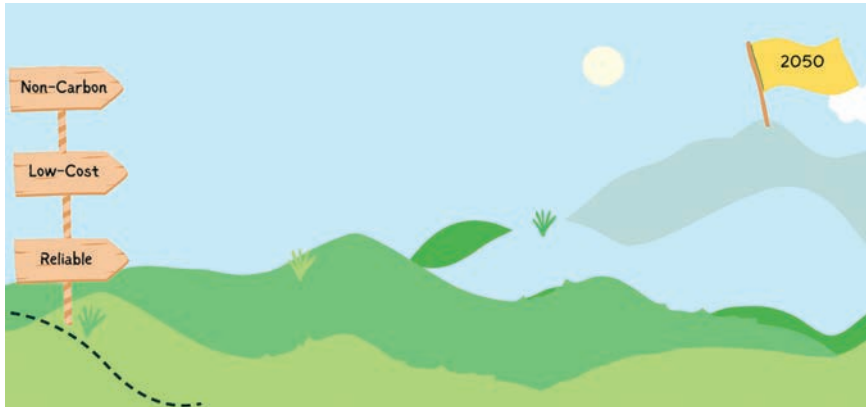
Dennis Kelley
Wilmington



Ken Welter
Lynnfield

RMLD CUSTOMERS:

2022 was a year of significant changes, including changes in strategy, energy costs, and RMLD leadership. Despite these changes, our charter remains the same: delivering reliable, low-cost, and non-carbon electricity to you. The way we accomplish this is changing rapidly, primarily due to numerous external changes in the wholesale energy market and associated legislation at both the state and federal levels.



As such, we are trailblazing new strategies to better serve you, our customers, across Lynnfield Center, North Reading, Reading, and Wilmington.

The RMLD team began blazing a new trail in 2022, toward a non-carbon future while maintaining our high standard of reliability and keeping our rates low for our customers. RMLD is charting its path to fulfill compliance mandates that require the power sold by municipal light plants to be

sourced from resources that are 50% non-carbon by 2030, 75% non-carbon by 2040, and net-zero carbon by 2050.

This 2021 Climate Bill Legislation is driving a seismic shift in customer behavior towards electrification, as we continue to see steady growth in both heat pump and EV adoption. We also installed three public EV charging stations in Reading and two in Wilmington with installations in North Reading and Lynnfield on the horizon. RMLD launched our Renewable Choice program for residential and commercial customers, which allows them to source their power from non-carbon emitting sources above RMLD's annual non-carbon energy targets.

RMLD has accelerated non-carbon generation in its power supply portfolio. In addition, RMLD is pursuing within territory generation and energy storage.

In the near-term, RMLD will source energy from the regional wholesale market and will continue to use long-term supply contracts to manage risk and dampen price volatility. However, our New England regional market is now influenced by energy costs in Europe due to LNG shipping of natural gas to Europe. Natural gas is used to generate ~50% of electricity in New England, so natural gas prices in Europe influence natural gas prices in New England. The Ukraine War dramatically affected energy costs in Europe in 2022 and the upward pressure was felt here in New England.



Infrastructure improvements are underway to prepare for a fully increased electrified future. We are now aggressively pursuing state and federal funding to contribute to our investment in distribution upgrades and expansion to handle electrification load growth. We are blazing our own trail toward becoming a non-carbon utility and are energized and excited for the journey ahead.

With Appreciation,

Greg Phipps

General Manager of the Reading Municipal Light Department



RMLD YEAR IN REVIEW

RMLD Launches Renewable Choice Program for Residential Customers to Support More Renewable Energy

In January, RMLD announced the launch of its voluntary Renewable Choice program that allows residential customers to support additional renewable energy resources above and beyond RMLD's annual non-carbon energy targets. The program was made available to commercial customers in April.

Customers can choose to contribute at one of three levels to bring their monthly electricity usage to 50%, 75%, or 100% renewable/non-carbon. The Renewable Choice charge is based on the participating customer's monthly kilowatt hour (kWh) usage and will be added as a line item on the customer's monthly electric bill. These customer funds contributed to the program were used to retire NEPOOL GIS compliant renewable certificates, starting with Mass Class 1 certificates which are in addition to RMLD's compliance retirements of 26% in 2022 and increasing 3% each year, resulting in 100% (net zero) noncarbon by 2050.



RMLD YEAR IN REVIEW

RMLD Completes Installation of Five New Public EV Charging Stations



RMLD installed five dual-port level 2 electric vehicle (EV) charging stations in its service territory to increase the availability of public charging infrastructure. The installations were partially funded through a Massachusetts Electric Vehicle Incentive Program (MassEVIP) Public Access Charging (PAC) grant through the Massachusetts Department of Environmental Protection (MassDEP), which was awarded to RMLD in July 2021. Three of the stations are located in Reading and two are located in Wilmington.

RMLD plans to install additional charging stations across its service area in 2023.

RMLD Hosts Electric Car Show

RMLD hosted a free Electric Car Show in conjunction with the Wilmington Farmers Market.

A variety of plug-in electric vehicle models were on display from area auto dealerships and local EV owners. Attendees learned about the various makes and models and talked to EV owners about their experiences. Information on home and public charging stations, electric vehicle incentive programs, and RMLD rebate programs were also available.



RMLD Holds Public Power Week Open House

After a two-year COVID-related hiatus, the RMLD Public Power Week Open House was back and better than ever.

The fun-for-all-ages event featured lineman demos, fun kids' activities, and education on electrical safety and conservation. Over 300 customers attended the event.



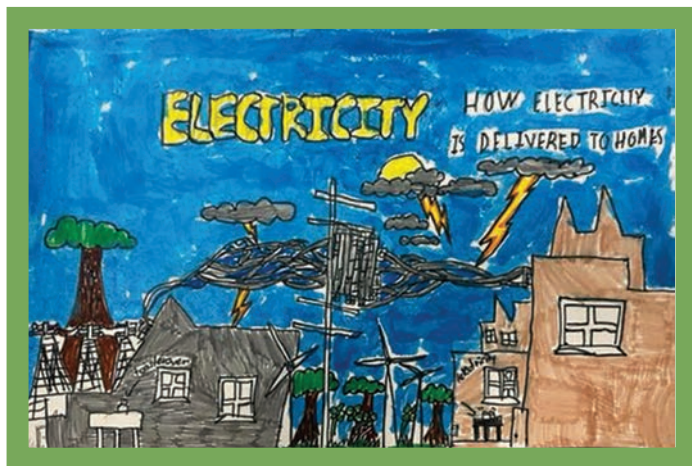


RMLD YEAR IN REVIEW

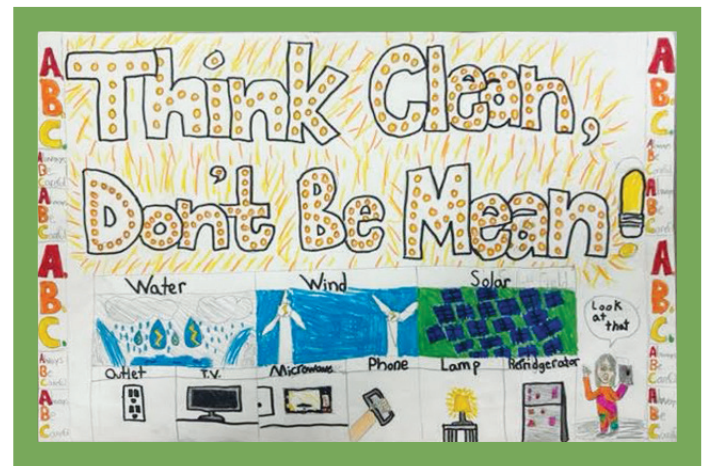
RMLD Hosts Elementary School and High School Art Contest

RMLD's annual Elementary Student Art Contest has been a consistent element of the elementary level curriculum in our towns for over 25 years. For the contest, fourth-grade students were asked to design a poster demonstrating their knowledge of topics presented in an educational video produced by the RMLD including electrical safety, how electricity gets to the home, and electricity and the sustainability. A first, second, and third-place winner was selected from each participating school based on the artwork and message. In 2017, RMLD launched its annual High School Student Art Contest as a means to engage high school age students within the communities we serve.

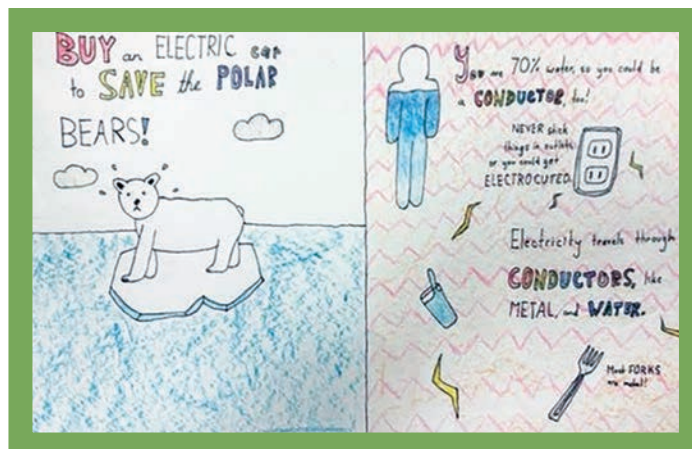
Here are some of the winners from the elementary school art contest, and the high school winners are featured on the next page.



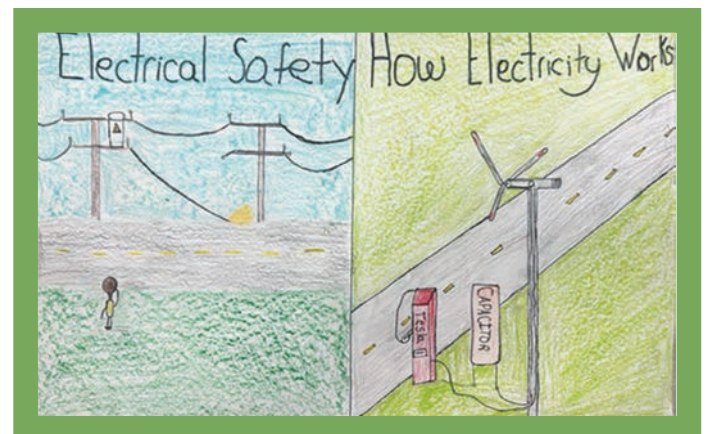
Andrew Taylor
Little Elementary School, North Reading



Lana Hays
Eaton Elementary School, Reading



Ivy Libby
Huckleberry Hill Elementary School, Lynnfield



Anthony Cooper
North Elementary School, Wilmington

HIGH SCHOOL ART CONTEST WINNERS

“SUSTAINABLY”



High School Art Contest - First-Place Winner

Chris Ferreira

Reading Memorial High School, Grade 12





“NEW INVENTIONS”

High School Art Contest
Second-Place Winner

Astrid Puff

Reading Memorial High School
Grade 11

“A REVOLUTION FOR THE FUTURE GENERATIONS”

High School Art Contest
Second-Place Winner

Kurt Rothermund

Lynnfield High School
Grade 11



All submissions and student write-ups are posted on www.rml.com.
Thanks to the students who participated for submitting their beautiful artwork!



“TRAIL BLAZING BEGINS BUT NEVER ENDS”

High School Art Contest
Third-Place Winner

Tim Sullivan

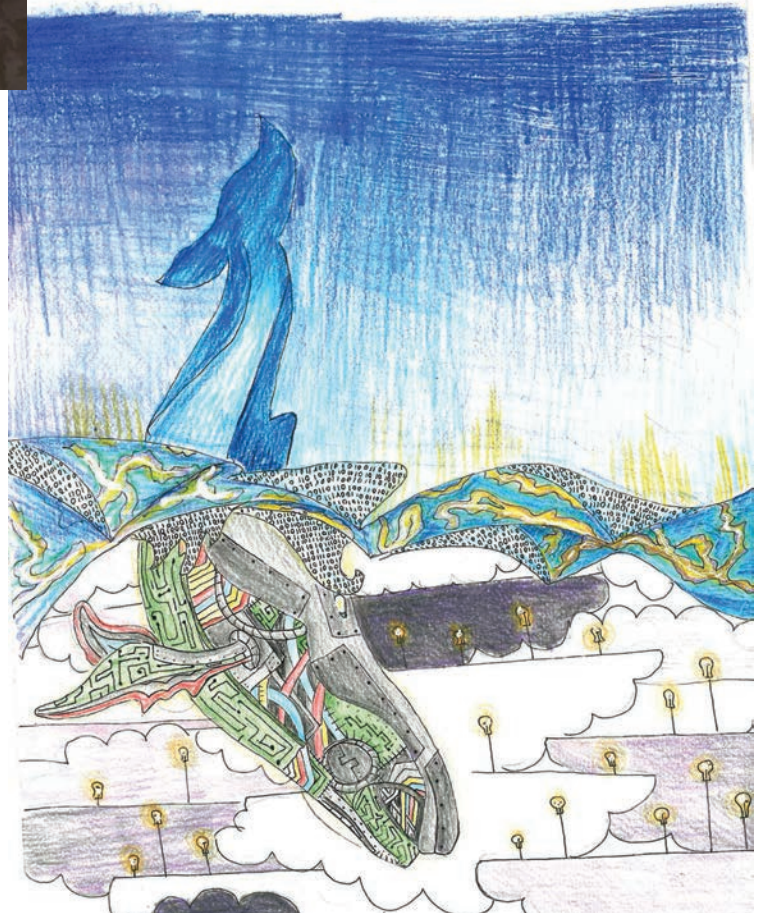
North Reading High School
Grade 10

“NOSEDIVE”

High School Art Contest
Fourth-Place Winner

Piper Kirwin

North Reading High School
Grade 11



All submissions and student write-ups are posted on www.rmlld.com.
Thanks to the students who participated for submitting their beautiful artwork!



RECOGNIZED FOR RELIABILITY

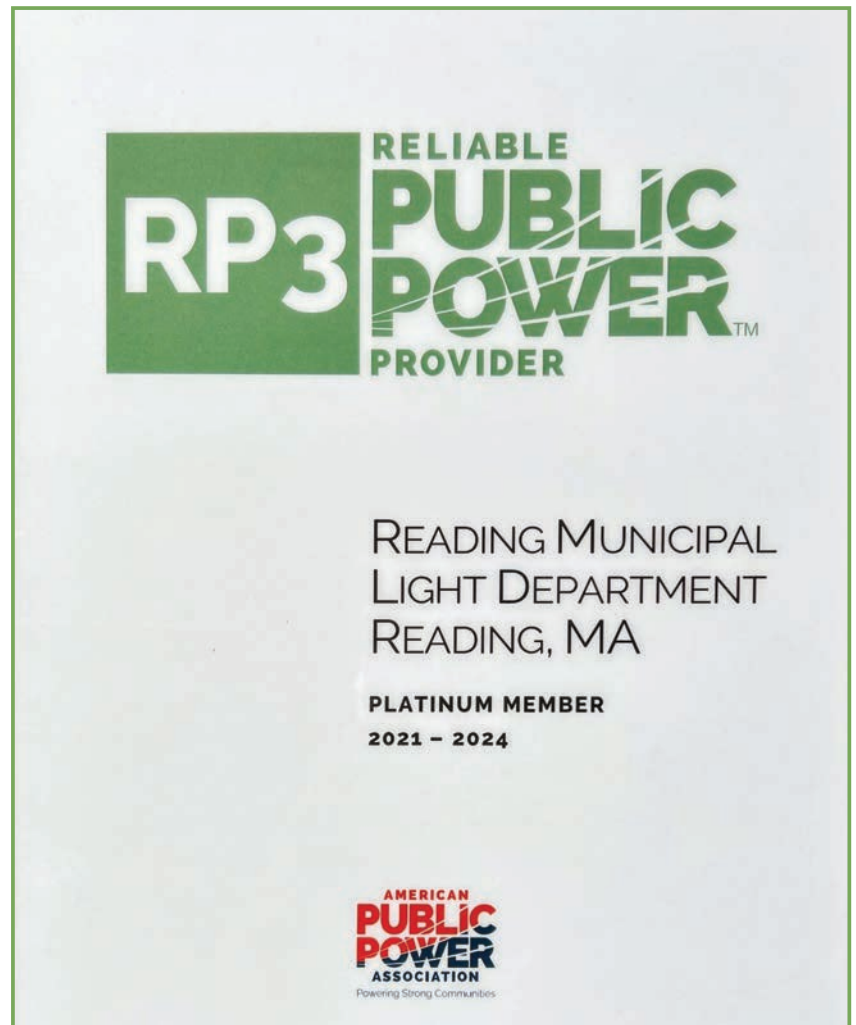


In 2022, RMLD earned the American Public Power Association (APPA) Certificate of Excellence in Reliability for the seventh consecutive year. The certificate signifies that RMLD is in the top 25 percent of utilities in the nation that substantially exceed the System Average Interruption Duration Index (SAIDI) when compared with national reliability data collected by the U.S. Energy Information Administration.

Some of the preventative maintenance initiatives that are critical to achieving award-winning reliability include a comprehensive tree trimming program, planned upgrades to distribution assets including poles, wires, and transformers, and regular substation maintenance.

In 2021, RMLD earned the prestigious Reliable Public Power Provider (RP3)[®] designation from the American Public Power Association (APPA) for providing reliable and safe electric service. The designation will last through 2024.

The RP3 designation recognizes public power utilities that demonstrate proficiency in four key disciplines: reliability, safety, workforce development, and system improvement. Criteria include sound business practices and a utility-wide commitment to safe and reliable delivery of electricity. To be considered for the RP3 designation, utilities submit a detailed application with accompanying documentation which is reviewed and scored by a panel of nationwide utility experts. RMLD joined more than 275 (of the over 2,000) public power utilities nationwide that hold the RP3 designation.

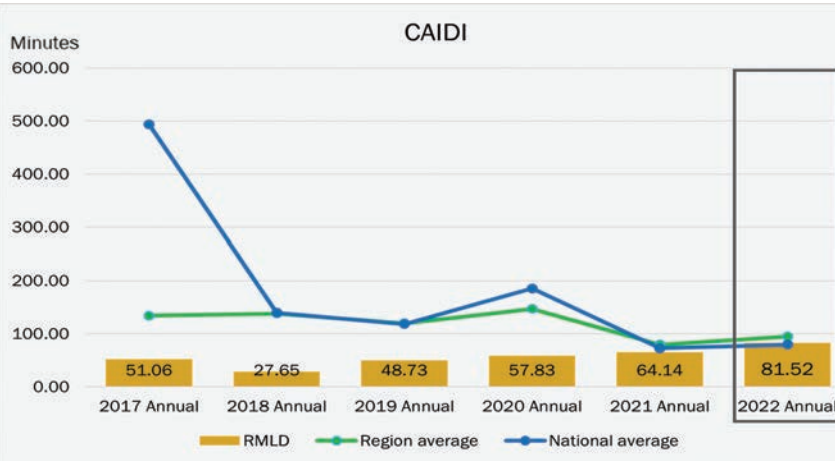
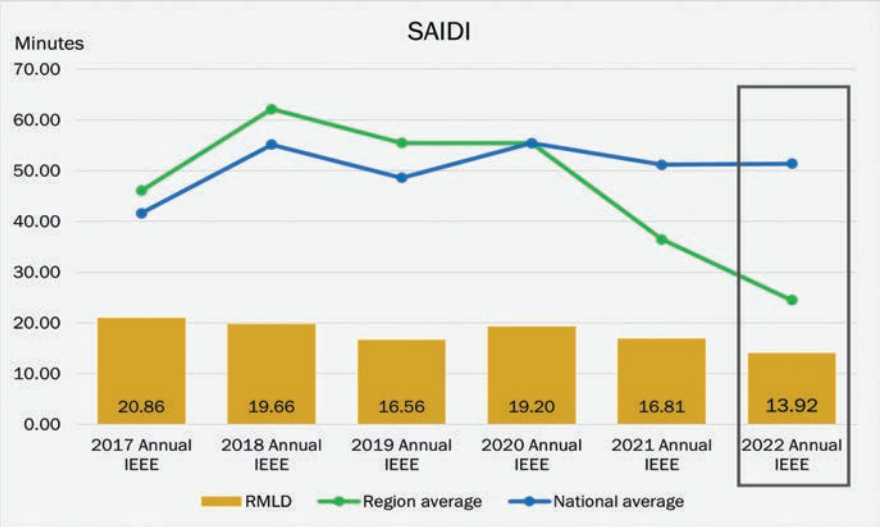


SYSTEM RELIABILITY INDICES

Key industry-standard metrics enable the RMLD to measure and track system reliability.

SAIDI (System Average Interruption Duration Index) is defined as the average interruption duration (in minutes) for customers served by the utility system during a specific time period. Lower numbers are better.

SAIDI = the sum of all customer interruption durations within the specified timeframe ÷ average number of customers served during that period.

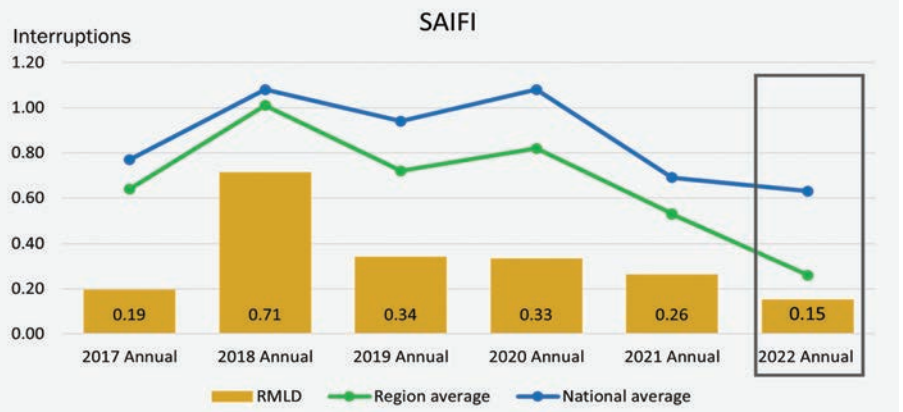


CAIDI (Customer Average Interruption Duration Index) is defined as the average duration (in minutes) of an interruption experienced by customers during a specific timeframe. Lower numbers are better.

CAIDI = the sum of all customer interruption durations during that time period ÷ the number of customers that experienced one or more interruptions during that time period.

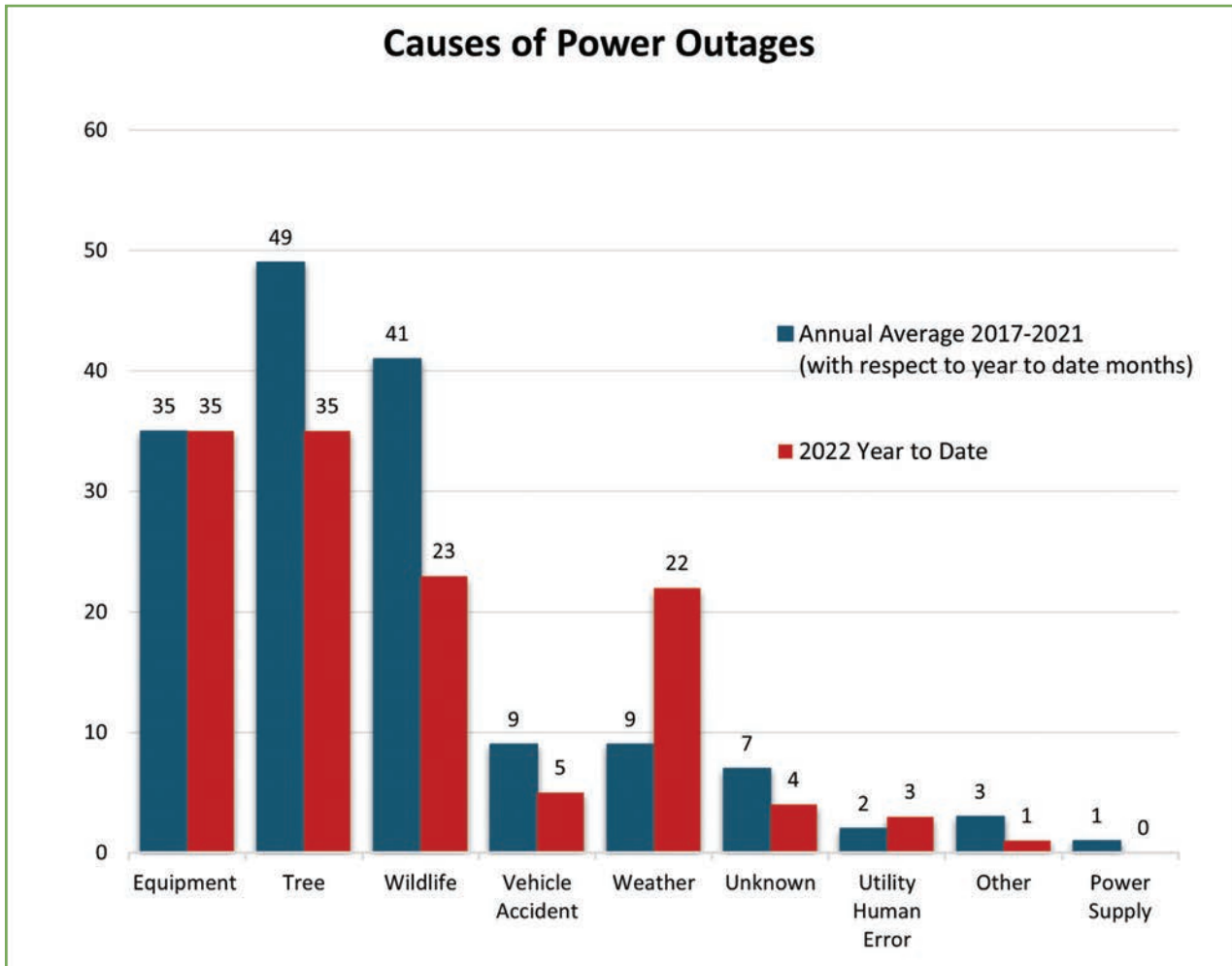
SAIFI (System Average Interruption Frequency) is defined as the average number of instances a customer on the utility system will experience an interruption during a specific time period. Lower numbers are better.

SAIFI = the total number of customer interruptions ÷ average number of customers served during that period.





OUTAGE CAUSES



ENERGY EFFICIENCY AND ELECTRIFICATION

PROGRAM PARTICIPATION

Program	# of Customers
Cordless Electric Yard Equipment Rebates	291
Air Source Heat Pump Rebates	218
Electric Panel Upgrade Rebates	48
EV Charger Rebates - Residential	40
Energy Star Appliance Rebates - Residential	318
Heat Pump Water Heater Rebates - Residential	1
Online Store Rebates - Residential	178
Home Energy Assessments - Residential	146
Custom Rebates - Commercial	1
Holiday Lighting Rebates - Municipal	2

Total Annual Estimated Energy Saved: 678,892 kWh

Total Annual Estimated Carbon Reduction: 1,413,738 Lbs





PEAK DEMAND REDUCTION AND INSTALLED SOLAR

In 2022, RMLD continued efforts to offset wholesale power supply (capacity and transmission) costs related to peak demand. The following efforts produced a net savings of approximately \$1,000,000; these savings are passed directly to RMLD customers:

- Continued to optimally dispatch RMLD’s 5 MW, 10 MWh lithium-ion Battery Energy Storage System (BESS) and 2.5 MW Distributed Generator located at Substation 3 to offset peak wholesale market costs resulting in savings of approximately \$980,000 in 2022.
- Promoted residential Shred the Peak Program and continued to enroll customers for email alerts (over 2,600 currently).
- Continued pilot Peak Demand Reduction (PDR) Program for our largest commercial, industrial, and municipal customers to effectively promote demand management and reward key accounts who achieve load shed during events.
- Solar Choice 1, with a rating of 1 MW AC, produced 1,571,239 kWh. Solar Choice 2, with a rating of 1.7 MW AC, produced 2,297,490 kWh. The output from these two community Solar Choice projects during peak demand hours saved a combined total of about \$87,011 in 2022; these savings were distributed amongst program participants.

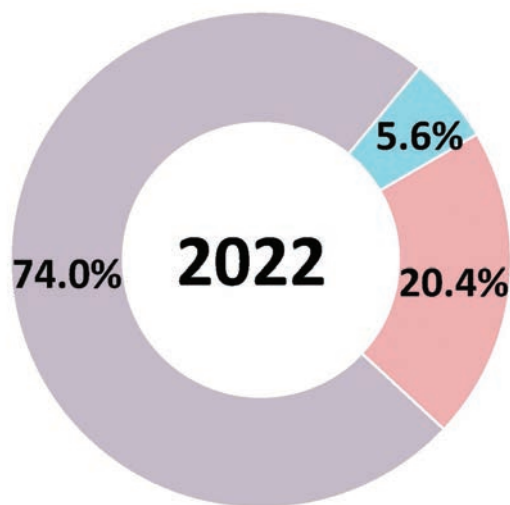
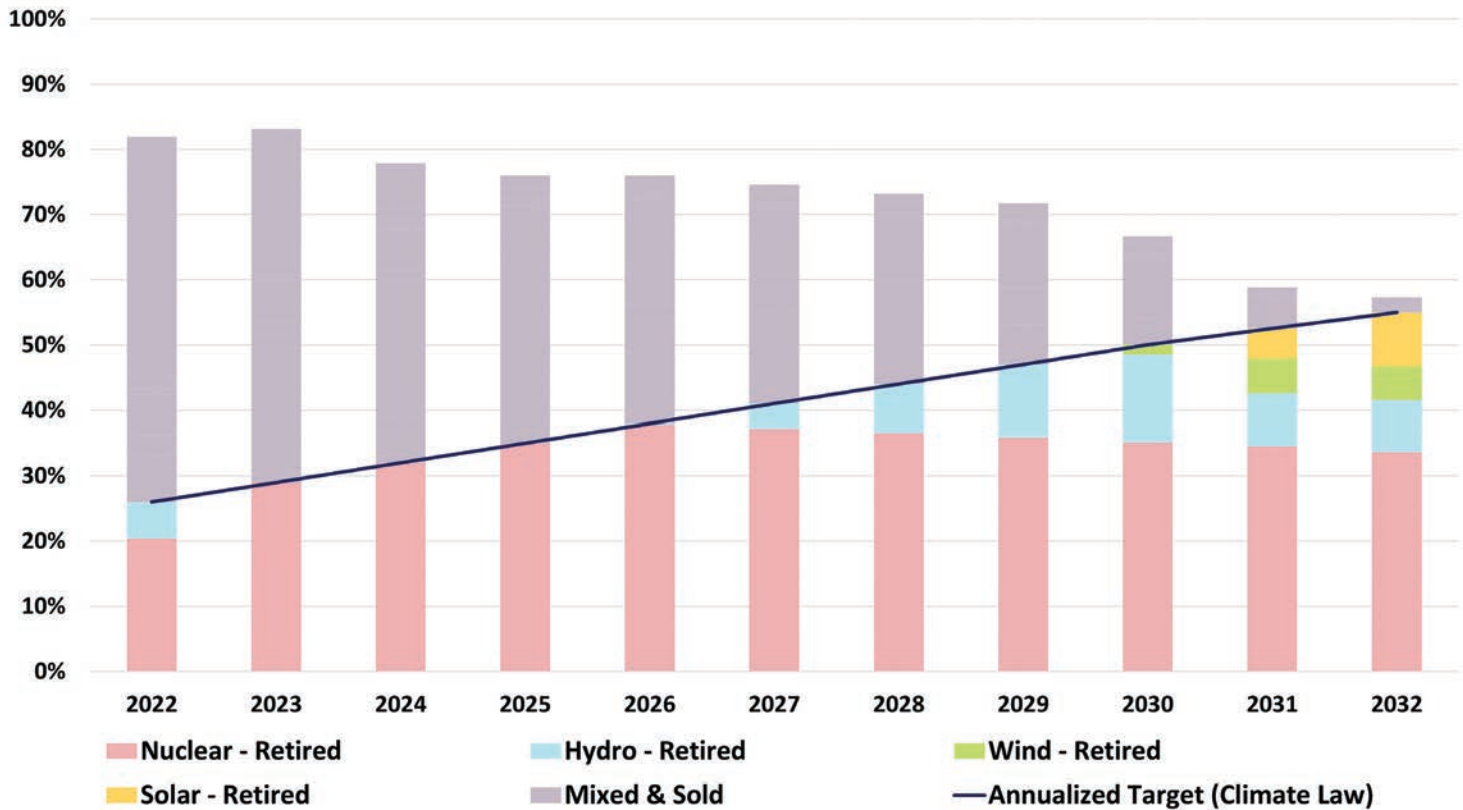
INSTALLED SOLAR (AS OF END OF 2022)			
Class	New Arrays	Total Arrays	Capacity (kW AC)
Residential	35	209	1,621
Commercial	0	19	2,154
Wholesale	0	3	4,709

Total: 8,484 kW AC



POWER SUPPLY CLIMATE BILL COMPLIANCE

OUTLOOK TO 2032



■ Nuclear - Retired ■ Hydro - Retired
■ Mixed & Sold

DEFINITIONS

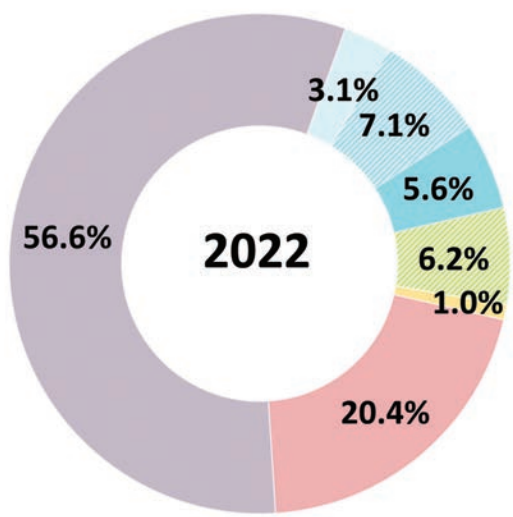
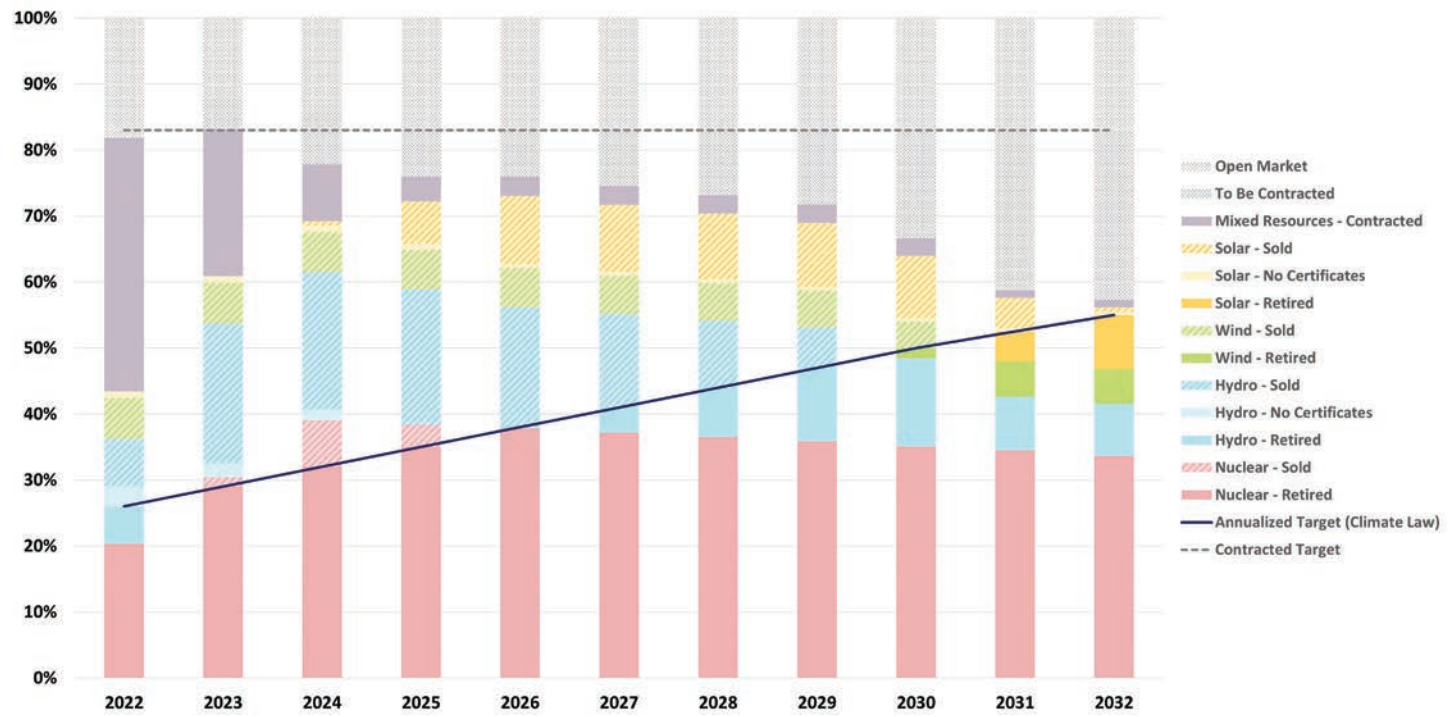
Climate Law – Massachusetts climate legislation which requires that the power sold by utilities be sourced from resources that are 50% non-carbon by 2030, 75% non-carbon by 2040, and net-zero carbon by 2050. To be considered a non-carbon resource, the associated energy certificates must be retired by the utility.

Mixed Sources and Certificates Sold – Contracts for non-specific power supply sources and day-ahead or real-time spot market purchases. These reflect the fuel mix of the New England grid and are assumed to be primarily carbon-emitting.



POWER SUPPLY TRANSACTION BY SOURCE

OUTLOOK TO 2032



DEFINITIONS

Certificate Management – RMLD retires certificates up to the annualized line then sells the balance which are typically higher value to help reduce power supply costs. The cross-hatched portions of the charts above represent actual certificate sales in 2022 and planned certificate sales going forward.

POWER SUPPLY BY CONTRACT

Name	Type	Duration	MWH	%
Millstone	Nuclear	1986-2045	36,512	5.38%
Seabrook	Nuclear	1990-2050	69,360	10.22%
	Nuclear	Total:	105,872	15.60%
NYPA	Hydro	2002-2025	26,062	3.84%
Aspinook	Hydro	2016-2022	10,335	1.52%
Collins	Hydro	2013-2028	4,966	0.73%
First Light	Hydro	2019-2023	35,284	5.20%
Hosiery Mills	Hydro	2014-2024	2,085	0.31%
Indian River	Hydro	2011-2026	1,517	0.22%
Pepperell	Hydro	2011-2026	4,456	0.66%
Pioneer	Hydro	2013-2028	4,807	0.71%
Turner's Falls	Hydro	2011-2026	1,771	0.26%
Woronoco	Hydro	2011-2026	5,671	0.84%
Quinebaug	Hydro	2020-2030	4,818	0.71%
Dahowa	Hydro	2022-2045	6,409	0.94%
	Hydro	Total:	108,183	15.94%
Kearsage	Solar	2017-2037	2,293	0.34%
Altus Power	Solar	2017-2037	1,624	0.24%
GSRP	Solar	2015-2025	3,195	0.47%
	Solar	Total:	7,112	1.05%
Jericho	Wind	2015-2035	5,748	0.85%
Saddleback	Wind	2015-2035	12,861	1.90%
Rox Wind	2021-2041	2021-2041	21,833	3.22%
	Wind	Total:	40,441	5.96%
Nextera	Bilateral Mixed	2016-2025	293,429	43.24%
ISO	Bilateral Mixed	Ongoing	100,105	14.75%
	Bilateral Mixed	Total:	393,533	57.99%
StonyBrook Intermediate	Gas/Oil Peaker	Life of Unit	15,039	2.22%
StonyBrook Peaking	Gas/Oil Peaker	Life of Unit	1,180	0.17%
Braintree Watson	Gas/Oil Peaker	2009-2029	3,477	0.51%
	Gas/Oil Peaker	Total:	19,696	2.90%
RMLD Generator	Natural Gas	N/A	499	0.07%
	TOTAL		675,338	100%
	TOTAL W/O RMLD GENERATOR		674,839	



CONSTRUCTION HIGHLIGHTS

Line construction throughout the system is performed to provide reliability enhancement, to connect new load, or to address areas needing upgrades. This work includes both overhead and underground cable installation, service installation and upgrades, installation and removal of poles, transfer of electrical equipment, and work related to Massachusetts highway projects.

READING

- MassDOT Force Account Project – Main and Hopkins Streets – RMLD replaced three poles, Verizon replaced eight poles and set four new poles, RMLD transferred existing spacer cable, secondary cable, services and streetlights to new poles. RMLD also upgraded four pole-mounted transformers.
- Lakeview Ave performed an area upgrade.
- John Street, Phase -1: Verizon replaced twelve poles on the southern section of John Street. RMLD transferred existing spacer cable and single-phase primary cables, pole-mount transformers, secondary cable, services, streetlights and the RMLD fiber optic cable
- Carnation Circle replaced transformers and provided oil clean up.
- Purchased direct replacement CCVT's that were installed on the existing structures at the Bulk Electric Supply Station 4. These replacements consist of two sets of three CCVT's on each supply line and seven individual CCVT's on each of 115Kv bus sections.
- Summit Towers – Replaced aged switchgear with new solid dielectric unit and replaced two aged transformers.
- Green Street, R – Verizon replaced seven poles. The RMLD transferred the existing spacer cable, transformers, secondary cable, services and streetlights to the new poles.
- RMLD upgraded the 5kV step-down area of Willow St, Reading to the nominal system voltage of 13.8kV. We replaced seven poles and reconnected primary lines, replaced three transformers, and upgraded the primary metering rig for Austin Prep. This was done in conjunction with Austin Prep upgrading their internal electrical facilities.
- Archstone – Replaced two aged switchgears with new solid dielectric units.
- Woburn St– Replaced aged switchgear with new solid dielectric unit.
- Reading Woods – Replaced aged switchgear with new solid dielectric unit.

Notable examples of new service additions or upgrades:

- 1312 Main Street, R – new commercial service - Reading Animal Hospital
- 292 Grove Street, R – new commercial service – Meadowbrook Country Club

CONSTRUCTION HIGHLIGHTS (CONTINUED)

WILMINGTON

- Bigger and Ring Street received an area upgrade
- Allenhurst Way received an underground subdivision upgrade and replaced the leaking transformer.
- Fletcher and Morgan St – Reconductored 1,500 feet of underground primary cable and neutral.

New Wilmington Substation:

- Upton Drive – Pole relocations/replacements – replace eight poles and set two new poles along the easement. Transferred existing spacer cable circuit, secondary cable, fiber optic cable and replaced a gang operated switch.
- 2022 saw the purchase of the land on Ballardvale St in Wilmington which will be the site of the new substation. This will include two 60 MVA transformers and 15kV switchgear with 8 (or more if needed) feeder breaker positions.

Notable examples of new service additions or upgrades:

- 207 Lowell Street, W – service upgrade – Lubrizol
- 100 Eames Street, W – new commercial service – Gerrity Stone
- 99 Fordham Road, W – new commercial service – Amazon

NORTH READING

- Magnolia Drive – Stepdown conversion, replaced poles 5, 6, 10 and 11 and converted area to a 15 kV
- Aldersgate Road – Underground Subdivision upgraded two padmount transformers.
- 108 Haverhill St and 51 Main St RMLD replaced poles and installed IntelliRupter in each location.
- P/106 North St – RMLD replaced a typical gang-operated switch with a Scada-Mate Switch as part of our Distribution Automation project.
- Installed Scada Mate Switch and Under Arm Disconnects on Pole #31 North Street, North Reading
- Demetri Way, Haverhill St, and Peter Road- Underground Subdivision Upgrade
- Sand Iron Way replaced aged transformers and replaced two position switchgear with the same.
- 300 Riverpark Dr – Completed upgrade of transformer.
- Completed 3W18 Gateway Improvements, installed new underground cable from Substation 3 to previously installed riser. Performed all overhead line work to time in new riser to existing circuit.
- Notable examples of new service additions or upgrades:
 - 303 Main Street, NR – new commercial service – North Reading DPW

LYNNFIELD

- Heritage and Windsor – Reconductored 2,500 feet of underground primary cable, neutral and replaced/upgraded four transformers.
- Center Village – Underground subdivision Upgrades – replaced one aged transformer.



EV CHARGERS BY THE NUMBERS (CY 2022)

RMLD owns and operates 21 dual-port Level 2 charging station within its service area.

- 14 level 2 charging stations are located at the Analog Device campus in Wilmington
- 2 level 2 charging stations are located at the RMLD offices at 230 Ash Street in Reading
- 3 level 2 charging stations were installed in Reading in June 2022 through the MassEVIP Public Access Charging (PAC) Program
- 2 level 2 charging stations were installed in Wilmington through the MassEVIP Public Access Charging (PAC) Program

91,694

Dispensed Energy (kWh)

\$18,371

Total Revenue

30,565

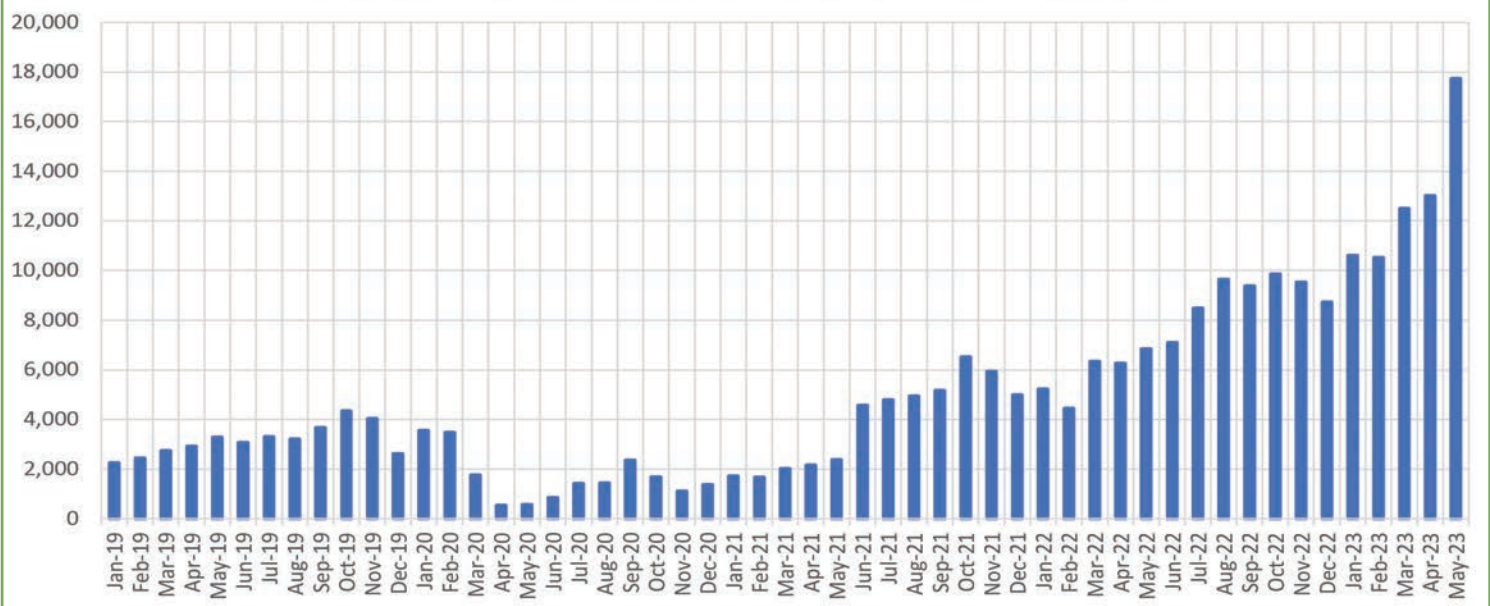
Estimated Gasoline Miles Offset

5,649

Charging Sessions



Dispensed Energy (kWh) for RMLD Owned EV Chargers



RMLD



Reading Municipal Light Department
RELIABLE POWER

**TOWN OF READING, MASSACHUSETTS
READING MUNICIPAL LIGHT DEPARTMENT**

Annual Financial Statements
For the Year Ended December 31, 2022

(With Independent Auditor's Report Thereon)

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INDEPENDENT AUDITOR'S REPORT

To the Municipal Light Board
Town of Reading, Massachusetts
Reading Municipal Light Department

Report on the Financial Statements

Opinions

We have audited the financial statements of the Reading Municipal Light Department (the Department) (an enterprise fund of the Town of Reading, Massachusetts), and its Other Post-Employment Benefits Trust Fund (a fiduciary fund), as of and for the year ended December 31, 2022, and the related notes to the financial statements as listed in the table of contents.

In our opinion, the accompanying financial statements present fairly, in all material respects, the respective financial position of the Reading Municipal Light Department as of December 31, 2022, and the respective changes in financial position and, where applicable, cash flows thereof for the year then ended in accordance with accounting principles generally accepted in the United States of America.

Basis for Opinions

We conducted our audit in accordance with auditing standards generally accepted in the United States of America (GAAS). Our responsibilities under those standards are further described in the Auditor's Responsibilities for the Audit of the Financial Statements section of our report. We are required to be independent of the Department and to meet our other ethical responsibilities, in accordance with the relevant ethical requirements relating to our audit. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinions.

Responsibilities of Management for the Financial Statements

The Department's management is responsible for the preparation and fair presentation of the financial statements in accordance with accounting principles generally accepted in the United States of America and for the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

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Andover, Massachusetts
Greenfield, Massachusetts
Ellsworth, Maine

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In preparing the financial statements, management is required to evaluate whether there are conditions or events, considered in the aggregate, that raise substantial doubt about the Department's ability to continue as a going concern for twelve months beyond the financial statement date, including any currently known information that may raise substantial doubt shortly thereafter.

Auditor's Responsibilities for the Audit of the Financial Statements

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinions. Reasonable assurance is a high level of assurance but is not absolute assurance and therefore is not a guarantee that an audit conducted in accordance with GAAS will always detect a material misstatement when it exists. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control. Misstatements are considered material if there is a substantial likelihood that, individually or in the aggregate, they would influence the judgment made by a reasonable user based on the financial statements.

In performing an audit in accordance with GAAS, we:

- Exercise professional judgment and maintain professional skepticism throughout the audit.
- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, and design and perform audit procedures responsive to those risks. Such procedures include examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Department's internal control. Accordingly, no such opinion is expressed.
- Evaluate the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluate the overall presentation of the financial statements.
- Conclude whether, in our judgment, there are conditions or events, considered in the aggregate, that raise substantial doubt about the Department's ability to continue as a going concern for a reasonable period of time.



We are required to communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit, significant audit findings, and certain internal control related matters that we identified during the audit.

Emphasis of Matter

As discussed in Note 1, the financial statements of the Department are intended to present the financial position, and the changes in financial position and cash flows, where applicable, of only that portion of the Town of Reading, Massachusetts that is attributable to the transactions of the Reading Municipal Light Department. They do not purport to, and do not, present fairly the financial position the Town of Reading, Massachusetts as of December 31, 2022, and the changes in its financial position and its cash flows, where applicable, for the year then ended in accordance with accounting principles generally accepted in the United States of America.

Required Supplementary Information

Accounting principles generally accepted in the United States of America require that Management's Discussion and Analysis and certain pension and OPEB schedules be presented to supplement the basic financial statements. Such information is the responsibility of management and, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with evidence sufficient to express an opinion or provide any assurance.

A handwritten signature in dark ink that reads "Melanson".

Andover, Massachusetts
June 20, 2023

MANAGEMENT'S DISCUSSION AND ANALYSIS

Within this section of the Reading Municipal Light Department's (the Department) annual financial report, management provides a narrative discussion and analysis of the Department's financial activities for the year ended December 31, 2022. The Department's performance is discussed and analyzed within the context of the accompanying financial statements and disclosures following this section.

Overview of the Financial Statements

The basic financial statements include (1) the Statement of Net Position, (2) the Statement of Revenues, Expenses and Change in Net Position, (3) the Statement of Cash Flows, (4) the Statement of Fiduciary Net Position, (5) the Statement of Change in Fiduciary Net Position, and (6) Notes to Financial Statements.

Proprietary Fund

Proprietary fund reporting focuses on the determination of operating income, changes in net position (or cost recovery), financial position, and cash flows. The proprietary fund category includes enterprise funds.

Enterprise funds are used to report activity for which a fee is charged to external users, and must be used when one of the following criteria are met (1) activity is financed with debt that is secured solely by a pledge of the net revenues from fees and charges, (2) laws or regulations require the activity's costs of providing services be recovered with fees and charges, and (3) the pricing policies of the activity establish fees and charges designed to recover its costs, including capital costs such as depreciation or debt service. The primary focus on these criteria is on fees charged to external users.

Fiduciary Fund

Fiduciary funds are used to account for resources held for the benefit of parties outside the Department. The accounting used for fiduciary funds is much like that used for proprietary funds.

Notes to Financial Statements

The notes provide additional information that is essential to a full understanding of the data provided in the financial statements.

Other Information

In calendar year 2020, the Department implemented ASC 980, *Accounting for the Effects of Certain Types of Regulation*, which essentially adjusts for differences between how revenue/rates are budgeted and how they are accounted for in accordance with Generally Accepted Accounting Principles (GAAP). In the Department's case, contributions in aid of construction (CIAC) are set aside (deferred) and are recognized equal to the annual depreciation expense on the related assets.

In addition to the basic financial statements and accompanying notes, this report also presents certain required supplementary information which is required to be disclosed by accounting principles generally accepted in the United States of America.

Financial Highlights

The Statement of Net Position is designed to indicate our financial position at a specific point in time. At December 31, 2022, it shows our net worth of \$131,929,309 which comprises \$91,985,048 invested in capital assets, \$6,741,031 restricted for depreciation fund, and \$33,203,230 unrestricted.

The Statement of Revenues, Expenses, and Change in Net Position summarizes our operating results and reveals how much, if any, of a profit was earned for the year. As discussed in more detail below, our net profit for the year ended December 31, 2022 was \$9,896,503.

The Statement of Cash Flows provide information about cash receipts, cash payments, investing, and financing activities during the accounting period. A review of our Statement of Cash Flows indicates that cash receipts from operating activities adequately covered our operating expenses in the year ended December 31, 2022.

The following is a summary of the Department's financial data for the years ended December 31, 2022 and 2021 (in thousands).

Summary of Net Position

	<u>2022</u>	<u>2021</u>
Assets:		
Current and other assets	\$ 70,212	\$ 63,765
Capital assets	<u>91,985</u>	<u>86,306</u>
Total assets	162,197	150,071
Deferred Outflows of Resources	6,113	6,754
Liabilities:		
Long-term liabilities	11,029	18,068
Other liabilities	<u>15,550</u>	<u>12,396</u>
Total liabilities	26,579	30,464
Deferred Inflows of Resources	9,803	4,328
Net Position:		
Net investment in capital assets	91,985	86,032
Restricted for depreciation fund	6,741	8,268
Restricted for pension trust	-	6,809
Unrestricted	<u>33,203</u>	<u>20,924</u>
Total net position	<u>\$ 131,929</u>	<u>\$ 122,033</u>

Summary of Change in Net Position

	<u>2022</u>	<u>2021</u>
Operating revenues	\$ 100,202	\$ 86,404
Operating expenses	<u>(88,864)</u>	<u>(82,255)</u>
Operating income	11,338	4,149
Nonoperating revenues (expenses), net	<u>1,062</u>	<u>1,036</u>
Income Before Transfers	12,400	5,185
Return on investment to Town of Reading	<u>(2,504)</u>	<u>(2,487)</u>
Change in net position	9,896	2,698
Beginning net position	<u>122,033</u>	<u>119,335</u>
Ending net position	<u>\$ 131,929</u>	<u>\$ 122,033</u>

For the year ended December 31, 2022 electric sales (net of discounts) were \$95,974,823, an increase of 9.15% from the prior year. During calendar year 2022, cost increases for purchased electricity were primarily the result of both supply and price volatility within the global energy market. The increase in costs was passed along to the customers of the Department. For the year ended December 31, 2022, kilowatt hours sold were 655,858,726, a decrease of 0.38% from the prior year.

Operating expenses totaled \$88,864,067 for the year ended December 31, 2022, an increase of 8.04%. The largest portion of this total, \$64,682,635, was for purchase power costs. Other operating expenses included \$17,403,804 for general operating and maintenance costs, \$1,720,644 for voluntary payments to towns, and depreciation expense of \$5,056,984. For the year ended December 31, 2022 the depreciation rate was 3.0%. Change in net position of \$9,896,503 results primarily from rates and charges set at a level to fund future capital improvements.

In the year ended December 31, 2022, the Department contributed \$2,352,753 to the Town of Reading Contributory Retirement System on behalf of the Department's employees.

For the year ended December 31, 2022, the Department contributed \$274,087 to the Other Post-Employment Benefits (OPEB) Trust Fund. Additional information on the Department's OPEB Trust Fund can be found in the corresponding note on page 32 of this report.

Capital Assets and Debt Administration

Capital Assets

Total investment in land and construction in progress at year end amounted to \$5,929,927, an increase of \$4,389,875 from the prior year. The increase is primarily due to land purchased for the purpose of a new substation. Total investment in depreciable capital assets at year-end amounted to \$86,055,122 (net of accumulated depreciation), an increase of \$1,288,732 from the prior year. This investment in depreciable capital assets includes structures and improvements, equipment and furnishings, and infrastructure assets.

Debt and Other Long-Term Obligations

At the end of the current year, the Department had no outstanding bonded debt.

Additional information on capital assets and other long-term obligations can be found in the Notes to Financial Statements.

Requests for Information

This financial report is designed to provide a general overview of the Reading Municipal Light Department's finances for all those with an interest in the Department's finances. Questions concerning any of the information provided in this report or requests for additional financial information should be addressed to:

Director of Business & Finance
Reading Municipal Light Department
230 Ash Street
Reading, Massachusetts 01867

**TOWN OF READING, MASSACHUSETTS
READING MUNICIPAL LIGHT DEPARTMENT**

Statement of Net Position
December 31, 2022

Assets	
Current:	
Unrestricted cash and short-term investments	\$ 23,411,566
Accounts receivable, net of allowance for uncollectable	9,287,089
Prepaid expenses	2,345,121
Inventory	2,295,222
Leases receivable	<u>295,384</u>
Total current assets	37,634,382
Noncurrent:	
Restricted cash and short-term investments	29,109,300
Restricted investments	793,916
Investment in associated companies	976,518
Leases receivable	1,698,215
Land and construction in progress	5,929,927
Capital assets, net of accumulated depreciation	<u>86,055,122</u>
Total noncurrent assets	<u>124,562,998</u>
Total Assets	162,197,380
Deferred Outflows of Resources	
Related to pension	4,967,090
Related to OPEB	<u>1,146,297</u>
Total Deferred Outflows of Resources	6,113,387
Liabilities	
Current:	
Accounts payable	9,763,660
Accrued liabilities	719,274
Customer deposits	1,681,059
Contributions in aid of construction	2,911,725
Other liabilities	200,000
Due to fiduciary fund	274,087
Current portion of long-term liabilities:	
Compensated absences	<u>116,269</u>
Total current liabilities	15,666,074
Noncurrent:	
Net pension liability	5,358,701
Net OPEB liability	4,269,089
Compensated absences	<u>1,284,676</u>
Total noncurrent liabilities	<u>10,912,466</u>
Total Liabilities	26,578,540
Deferred Inflows of Resources	
Related to pension	6,952,933
Related to OPEB	856,386
Related to leases	<u>1,993,599</u>
Total Deferred Inflows of Resources	9,802,918
Net Position	
Net investment in capital assets	91,985,048
Restricted for:	
Depreciation fund	6,741,031
Unrestricted	<u>33,203,230</u>
Total Net Position	<u>\$ 131,929,309</u>

The accompanying notes are an integral part of these financial statements.

**TOWN OF READING, MASSACHUSETTS
READING MUNICIPAL LIGHT DEPARTMENT**

Statement of Revenues, Expenses, and Change in Net Position
For the Year Ended December 31, 2022

Operating Revenues	
Electric sales, net of discounts of \$4,444,142	\$ 95,974,823
Purchase power adjustments:	
Fuel charge adjustment	2,039,616
Capacity and transmission adjustment	<u>2,187,920</u>
Total Operating Revenues	100,202,359
Operating Expenses	
Purchase power	64,682,635
Operating	15,082,436
Maintenance	2,321,368
Voluntary payments to towns	1,720,644
Depreciation	<u>5,056,984</u>
Total Operating Expenses	<u>88,864,067</u>
Operating Income	11,338,292
Nonoperating Revenues (Expenses)	
Investment income	300,617
Intergovernmental grants	105,000
Loss on disposal of assets	(50,596)
Other revenues	768,248
Other expenses	<u>(61,084)</u>
Total Nonoperating Revenues (Expenses), net	<u>1,062,185</u>
Income Before Transfers	12,400,477
Return on investment transfer to Town of Reading	<u>(2,503,974)</u>
Change in Net Position	9,896,503
Net Position at Beginning of Year	<u>122,032,806</u>
Net Position at End of Year	<u>\$ 131,929,309</u>

The accompanying notes are an integral part of these financial statements.

**TOWN OF READING, MASSACHUSETTS
READING MUNICIPAL LIGHT DEPARTMENT**

Statement of Cash Flows
For the Year Ended December 31, 2022

Cash Flows From Operating Activities	
Receipts from customers and users	\$ 99,789,866
Payments to vendors and employees	(84,787,398)
Customer purchase power adjustments	<u>(148,304)</u>
Net Cash Provided By Operating Activities	14,854,164
Cash Flows From Noncapital Financing Activities	
Return on investment to Town of Reading	(2,503,974)
Other revenues	768,248
Other expenses	<u>(78,302)</u>
Net Cash (Used For) Noncapital Financing Activities	(1,814,028)
Cash Flows From Capital and Related Financing Activities	
Acquisition and construction of capital assets	(10,811,016)
Contributions in aid of construction	440,521
Intergovernmental revenues	<u>105,000</u>
Net Cash (Used For) Capital and Related Financing Activities	(10,265,495)
Cash Flows From Investing Activities	
Investment income	300,617
Increase in investments	<u>1,761,710</u>
Net Cash Provided By Investing Activities	<u>2,062,327</u>
Net Change in Cash and Short-Term Investments	4,836,968
Cash and Short-Term Investments, Beginning of Period	<u>47,683,898</u>
Cash and Short-Term Investments, End of Period	<u>\$ 52,520,866</u>
Reconciliation of Operating Income to Net Cash provided by Operating Activities	
Operating income	\$ 11,338,292
Adjustments to reconcile operating income to net cash provided by operating activities:	
Depreciation expense	5,056,984
Changes in assets, liabilities, and deferred outflows/inflows	
Accounts receivable	(694,156)
Prepaid and other assets	629,093
Inventory	(465,687)
Accounts payable and accrued liabilities	944,732
Customer deposits	133,359
Due to fiduciary fund	274,087
Net pension liability and related deferrals	(2,076,024)
Net OPEB liability and related deferrals	<u>(286,516)</u>
Net Cash Provided By Operating Activities	<u>\$ 14,854,164</u>

The accompanying notes are an integral part of these financial statements.

**TOWN OF READING, MASSACHUSETTS
READING MUNICIPAL LIGHT DEPARTMENT**

Statement of Fiduciary Net Position
December 31, 2022

	Other Post Employment Benefits <u>Trust Fund</u>
Assets	
Investments:	
Pooled investments	\$ <u>4,502,991</u>
Total investments	4,502,991
Due from proprietary fund	<u>274,087</u>
Total Assets	<u>4,777,078</u>
Net Position	
Total net position held in trust	\$ <u><u>4,777,078</u></u>

The accompanying notes are an integral part of these financial statements.

**TOWN OF READING, MASSACHUSETTS
READING MUNICIPAL LIGHT DEPARTMENT**

Statement of Change In Fiduciary Net Position
For the Year Ended December 31, 2022

	<u>Other Post Employment Benefits Trust Fund</u>
Additions	
Contributions:	
Employer	\$ 855,547
Investment Income (loss):	
Investment (loss)	<u>(581,293)</u>
Total additions	274,254
Deductions	
Benefit payments to plan members, beneficiaries and other systems	<u>581,460</u>
Change in Net Position	(307,206)
Net position restricted for OPEB purposes	
Beginning of year	<u>5,084,284</u>
End of year	<u>\$ 4,777,078</u>

The accompanying notes are an integral part of these financial statements.

TOWN OF READING, MASSACHUSETTS READING MUNICIPAL LIGHT DEPARTMENT

Notes to Financial Statements

1. Summary of Significant Accounting Policies

Reporting Entity

These financial statements present only the Reading Municipal Light Department (the Department), an enterprise fund of the Town of Reading, Massachusetts (the Town). These financial statements are not intended to and do not present fairly the financial position of the Town of Reading, Massachusetts, and the changes in its financial position and its cash flows, where applicable, in accordance with accounting principles generally accepted in the United States of America.

Activities

The Department purchases electricity for distribution to more than 70,000 residents within the towns of Reading, North Reading, Wilmington, and Lynnfield Center.

Regulation

Under Massachusetts General Laws, the Department's electric rates are set by the Municipal Light Board. Electric rates, excluding the purchase power fuel charge and the purchase power capacity and transmission charge, cannot be changed more than once every three months. Rate schedules are filed with the Massachusetts Department of Public Utilities (DPU). While the DPU exercises general supervisory authority over the Department, the Department's rates are not subject to DPU approval. The Department's policy is to prepare its financial statements in conformity with account principles generally accepted in the United States of America (GAAP) as applicable to governmental units. The Governmental Account Standards board (GASB) is the accepted standard setting body for establishing governmental and financial reporting principles.

Basis of Accounting

The Department is a proprietary fund. Proprietary fund financial statements are reported using the *economic resources measurement* focus and the *accrual basis of accounting*. Under this method, revenues are recognized when earned and expenses are recorded when liabilities are incurred.

Proprietary funds distinguish operating revenues and expenses from nonoperating items. Operating revenues and expenses generally result from providing services and producing and delivering goods in connection with a proprietary fund's principal ongoing operations. The principal operating revenues of the Department are charges to customers for electric sales and services. Operating expenses for the Department include the cost of sales and services, administrative expenses, and depreciation on capital assets. All revenues and expenses not meeting this definition are reported as nonoperating revenues and expenses.

Concentrations

The Department operates within the electric utility industry. In 1998, the Commonwealth of Massachusetts (the Commonwealth) enacted energy deregulation legislation that restructured the Commonwealth's electricity industry to foster competition and promote reduced electric rates. Energy deregulation created a separation between the supply and delivery portions of electricity service and enabled consumers to purchase their energy from a retail supplier of their choice. Municipal utilities are not currently subject to this legislation.

Other Post-Employment Benefits Trust

The Other Post-Employment Benefits Trust Fund (the "OPEB Trust") was established by the Reading Municipal Light Board pursuant to Chapter 32B, Section 20 of the General Laws of the Commonwealth of Massachusetts.

The OPEB Trust constitutes the principal instrument of a plan established by the Municipal Light Board to fund the Department's annual actuarially determined OPEB contribution for future retirees.

Revenues

Revenues are based on rates established by the Department and filed with the DPU. Revenues from sales of electricity are recorded on the basis of bills rendered from monthly meter readings taken on a cycle basis and are stated net of discounts. Recognition is given to the amount of sales to customers which are unbilled at the end of the fiscal year.

Cash and Short-Term Investments

For the purposes of the Statements of Cash Flows, the Department considers unrestricted cash on deposit with the Town Treasurer to be cash and short-term investments. For purposes of the Statement of Net Position, both the proprietary fund and fiduciary fund consider unrestricted and restricted investments with original maturities of three months or less to be short-term investments.

Investments

Investments for the Department consist of domestic and foreign fixed income bonds which the Department intends to hold to maturity. These investments are reported at fair market value.

Inventory

Inventory consists of parts and accessories purchased for use in the utility business for construction, operation, and maintenance purposes and is stated at average cost. Meters and transformers are capitalized when purchased.

Leases

The Department recognizes a lease receivable and a deferred inflow of resources in the financial statements. At the commencement of a lease, the Department initially measures the lease receivable at the present value of payments expected to be received during the lease term. Subsequently, the lease receivable is reduced by the principal portion of lease payments received. The deferred inflow of resources is initially measured as the initial amount of the lease receivable, adjusted for lease payments received at or before the lease commencement date. Subsequently, the deferred inflow of resources is recognized as revenue over the life of the lease term on a straight-line basis over its useful life. The following key assumptions are made:

- The Department uses its estimated incremental borrowing rate as the discount rate for leases.
- The lease term includes the noncancellable period of the lease, including renewal terms reasonably certain to be exercised. Lease receipts included in the measurement of the lease receivable are comprised of fixed payments from the lessee.

Capital Assets and Depreciation

Capital assets, which include property, plant, equipment, and utility plant infrastructure, are recorded at historical cost or estimated historical cost when purchased or constructed. Donated capital assets are recorded at estimated fair market value at the date of the donation. The cost of normal maintenance and repairs that do not add to the value of the asset or materially extend asset lives are not capitalized.

Major outlays for capital assets and improvements are capitalized as they are acquired or constructed. When capital assets are retired, the cost of the retired asset, less accumulated depreciation, salvage value and any cash proceeds, is charged to the Department's unrestricted net position.

Massachusetts General Laws require utility plant in service to be depreciated at a minimum annual rate of 3%. To change this rate, the Department must obtain approval from the DPU. Changes in annual depreciation rates may be made for financial factors relating to cash flow for plant expansion, rather than engineering factors relating to estimates of useful lives.

Accrued Compensated Absences

Employee vacation leave is vested annually but may only be carried forward to the succeeding year with supervisor approval and, if appropriate, within the terms of the applicable Department policy or union contract. Generally, sick leave may accumulate according to union and Department contracts and policy and is paid upon normal termination at the current rate of pay. The Department's policy is to recognize vacation costs at the time payments are made. The Department records accumulated, unused,

vested sick pay as a liability. The amount recorded is the amount to be paid upon normal termination at the current rate of pay.

Use of Estimates

The preparation of financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosures for contingent assets and liabilities at the date of the financial statements, and the reported amounts of the revenues and expenses during the fiscal year. Actual results could vary from estimates that were used.

Rate of Return

The Department’s rates must be set such that earnings attributable to electric operations do not exceed 8% of the net cost of plant. To determine the net income subject to the rate of return limitations, the Department performs the following calculation. Using the net income per the audited financial statements, the pension and OPEB accruals are added or deducted, miscellaneous debits/credits (i.e., gain/loss on disposal of fixed assets, etc.) are added or deducted, leaving an adjusted net income figure for rate of return purposes. Investment income is then deducted from this figure to determine the net income subject to the rate of return. The net income subject to the rate of return is then subtracted from the allowable 8% rate of return, which is calculated by adding the book value of net plant and the investment in associated companies multiplied by 8%. Based on this calculation, the Department did not exceed 8% in 2022.

2. Cash and Investments

Total cash and investments as of December 31, 2022 are classified in the accompanying financial statements as follows:

Proprietary Fund:	
Unrestricted cash and short-term investments	\$ 23,411,566
Restricted cash and short-term investments	29,109,300
Restricted investments	793,916
Fiduciary Fund:	
Pooled investments	<u>4,502,991</u>
Total cash and investments	<u>\$ 57,817,773</u>

Interest Rate Risk

Interest rate risk is the risk that changes in market interest rates will adversely affect the fair value of an investment. Generally, the longer the maturity of an investment, the greater the sensitivity of its fair value to changes in market interest rates. The Department manages its exposure to interest rate risk by purchasing a combination of shorter term and longer-term investments and by timing cash flows from maturities so that a portion of the

portfolio is maturing or coming close to maturity evenly over time as necessary to provide the cash flow and liquidity needed for operations.

As of December 31, 2022, the Department (including the OPEB Trust Fund) held cash and short-term investments in pooled investments with the Massachusetts Municipal Depository Trust (MMDT), FDIC-insured savings accounts, and 90-day FDIC-insured bank certificates of deposit. Because of their immediate liquidity and/or short-term maturity, these funds are classified as cash and short-term investments in the accompanying financial statements and are not considered to be exposed to significant interest rate risk.

As of December 31, 2022, the Department held investments in domestic and foreign fixed income bonds with varying maturity dates as follows:

<u>Corporate Bonds</u>	<u>Amount</u>	<u>Maturity Date</u>
General Electric Cap Corp	\$ 206,936	01/09/23
Wells Fargo & Co	198,802	08/15/23
Simon Property	181,716	06/15/27
BNP Paribas	<u>206,462</u>	03/03/23
Total	<u>\$ 793,916</u>	

Credit Risk

Generally, credit risk is the risk that the issuer of an investment will not fulfill its obligation to the holder of the investment. This is measured by the assigning of a rating by a nationally recognized statistical rating organization. As of December 31, 2022, the Department held investments in domestic and foreign fixed income bonds with varying ratings as follows:

<u>Investment Type</u>	<u>Amount</u>	<u>Moody's Rating</u>
Corporate Bonds:		
General Electric Cap Corp	\$ 206,936	Baa1
Wells Fargo & Co	198,802	A3
Simon Property	181,716	A3
BNP Paribas	<u>206,462</u>	Aa3
Total	<u>\$ 793,916</u>	

Concentration of Credit Risk

The Department follows the Town's investment policy, which does not limit the amount that can be invested in any one issuer beyond that stipulated by Massachusetts General Laws. At December 31, 2022, the Department's investments were held in domestic and

foreign fixed income bonds, as detailed in the sections above. Each of the bonds individually represent between approximately 23-26% of the Department's total investments.

Custodial Credit Risk

Custodial credit risk for *deposits* is the risk that, in the event of the failure of a depository financial institution, the Department will not be able to recover its deposits or will not be able to recover collateral securities that are in the possession of an outside party. The custodial credit risk for *investments* is the risk that, in the event of the failure of the counterparty (e.g., broker-dealer) to a transaction, the Department will not be able to recover the value of its investments or collateral securities that are in the possession of another party. Massachusetts General Laws, Chapter 44, Section 55, limits deposits "in a bank or trust company or banking company to an amount not exceeding sixty percent of the capital and surplus of such bank or trust company or banking company, unless satisfactory security is given to it by such bank or trust company or banking company for such excess." The Department follows the Massachusetts statute as written, as well as the Town's deposit policy for custodial credit risk.

Because the Department pools its cash and short-term investments with the Town of Reading, and bank accounts are maintained in the name of the Town, the amount of the Department's balance exposed to custodial credit risk at December 31, 2022, cannot be reasonably determined.

As of December 31, 2022, none of the Department investments were exposed to custodial credit risk because the related securities were registered in the Department's name.

Fair Value

The Department categorizes its fair value measurements within the fair value hierarchy established by Governmental Accounting Standards Board Statement No. 72, *Fair Value Measurement and Application (GASB 72)*.

The hierarchy is based on the valuation inputs used to measure the fair value of the asset and give the highest priority to unadjusted quoted prices in active markets for identical assets or liabilities (Level 1 measurements) and the lowest priority to unobservable inputs (Level 3 measurements). The hierarchy categorizes the inputs to valuation techniques used for fair value measurement into three levels as follows:

- Level 1 – inputs that reflect quoted prices (unadjusted) in active markets for identical assets or liabilities that are accessible at the measurement date.
- Level 2 – inputs other than quoted prices that are observable for an asset or liability either directly or indirectly, including inputs in markets that are not considered to be active. Because they must often be priced on the basis of

transactions involving similar but not identical securities or do not trade with sufficient frequency, certain directly held securities are categorized as Level 2.

- Level 3 – unobservable inputs based on the best information available, using assumptions in determining the fair value of investments and derivative instruments.

The net asset value (NAV) per share is the amount of net assets attributable to each share outstanding at the close of the period. Investments measured using NAV for fair value are not subject to level classification.

In instances where inputs used to measure fair value fall into different levels in the fair value hierarchy, fair value measurements in their entirety are categorized based on the lowest level input that is significant to the valuation. The Department’s assessment of the significance of particular inputs to these fair value measurements requires judgment and considers factors specific to each asset or liability.

The Department had the following fair value measurements as of December 31, 2022:

<u>Description</u>	<u>Amount</u>	<u>Fair Value Measurements Using:</u>		
		<u>Quoted prices in active markets for identical assets (Level 1)</u>	<u>Significant observable inputs (Level 2)</u>	<u>Significant unobservable inputs (Level 3)</u>
Investments measured using fair value:				
Debt securities:				
Corporate bonds	\$ 793,916	\$ -	\$ 793,916	\$ -
Investments measured at the net asset value (NAV):				
External investment pool	<u>4,502,991</u>			
Total	<u>\$ 5,296,907</u>			
<u>Description</u>	<u>Amount</u>	<u>Unfunded Commitments</u>	<u>Redemption Frequency (If currently eligible)</u>	<u>Redemption Notice Period</u>
External investment pool	\$ 4,502,991	\$ -	Quarterly	30 days

3. Restricted Cash and Investments

The Department's restricted cash and investment balances represent the following reserves at December 31, 2022:

	<u>Cash</u>	<u>Investments</u>
Depreciation fund	\$ 6,741,031	\$ -
Construction fund	6,500,000	-
Deferred fuel reserve	3,708,756	-
Deferred energy conservation reserve	1,978,335	-
Rate stabilization	6,939,999	-
Reserve for uncollectible accounts	200,000	-
Sick leave benefits	607,029	793,916
Hazardous waste fund	750,000	-
Customer deposits	1,681,059	-
Pension trust	<u>3,091</u>	<u>-</u>
Total	<u>\$ 29,109,300</u>	<u>\$ 793,916</u>

The Department maintains the following reserves:

- Depreciation fund - The Department is normally required to reserve 3.0% of capital assets each year to fund capital improvements.
- Construction fund – This account represents amounts set aside by the Department for construction-related projects.
- Deferred fuel reserve - The Department transfers the difference between the customers' monthly fuel charge adjustment and actual fuel costs into this account to be used in the event of a sudden increase in fuel costs.
- Deferred energy conservation reserve - This account is used to reserve monies collected from a special energy charge added to customer bills. Customers who undertake measures to conserve and improve energy efficiency can apply for rebates that are paid from this account.
- Rate stabilization - This represents amounts set aside to help stabilize cost increases resulting from fluctuations in purchase power costs.
- Reserve for uncollectible accounts - This account was set up to offset a portion of the Department's bad debt reserve.
- Sick leave benefits - This account is used to offset the Department's compensated absence liability.

- Hazardous waste fund -This reserve was set up by the Municipal Light Board to cover the Department's insurance deductible in the event of a major hazardous materials incident.
- Customer deposits - Customer deposits that are held in escrow.
- Pension trust - The principal instrument of a plan established by the Municipal Light Board to fund the Department's annual required contribution to the Town of Reading Contributory Retirement System (the System), a cost-sharing, multi-employer public employee retirement system.

4. Accounts Receivable

Accounts receivable consisted of the following at December 31, 2022:

Customer Accounts:		
Billed	\$	3,314,789
Less allowances:		
Uncollectible accounts		(200,000)
Sales discounts		<u>(211,153)</u>
Total billed		2,903,636
Unbilled, net of sales discounts		<u>5,817,864</u>
Total customer accounts		8,721,500
Other Accounts:		
Liens and other		<u>565,589</u>
Total other accounts		<u>565,589</u>
Total net receivables	\$	<u><u>9,287,089</u></u>

5. Prepaid Expenses

Prepaid expenses consisted of the following at December 31, 2022:

Insurance and other	\$	1,628,916
Purchase power		15,794
NYPA prepayment fund		307,572
WC Fuel - Watson		<u>392,839</u>
Total	\$	<u><u>2,345,121</u></u>

6. Inventory

Inventory comprises supplies and materials at December 31, 2022, and is valued using the average cost method.

7. Investment in Associated Companies

Investment in associated companies consisted of the following, at December 31, 2022:

New England Hydro-Transmission (NEH & NHH)	\$ 308,113
Energy New England	619,567
Black Rock Funding - Saddleback Ridge	<u>48,838</u>
Total	<u>\$ 976,518</u>

Under agreements with the New England Hydro-Transmission Electric Company, Inc. (NEH) and the New England Hydro-Transmission Corporation (NHH), the Department has made the advances to fund its equity requirements for the Hydro-Quebec Phase II interconnection. The Department is carrying its investment at fair value, reduced by shares repurchased. The Department's equity position in the project is less than one-half of one percent.

In April 2019, the Department invested in 8.334% shares of Energy New England (ENE). The Department's equity position at December 31, 2022 is based on ENE's capital, retained earnings, and the net profit from April 2019 through December of 2022.

In December 2013, the Department 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. The Department receives energy plus all attributes for this contract. The average annual generation is estimated to be approximately 15,820 megawatt-hours per year.

8. Leases Receivable

In calendar year 2022, the Department adopted GASB Statement No. 87, *Leases*. This statement requires the recording of a lease receivable asset and a deferred inflow of resources by the lessor (the Department) in the case of a lease which does not transfer ownership of the leased asset.

As of December 31, 2022, leases receivable, and deferred inflow of resources for lease payments was \$1,993,599. The Department recognized lease revenue of \$275,811 in calendar year 2022. These leases are summarized as follows:

Light Tower Fiber LLC – The Department entered into various lease agreements with Light Tower Fiber LLC for the lease of Department owned fiber cable. Based on the agreements, the Department is receiving monthly payments through 2031. These lease agreements include an extension clause for 5 three-year renewal term, that is expected to be exercised for each individual agreement.

9. Capital Assets

The following is a summary of the year ended December 31, 2022 activity in capital assets (in thousands):

	Beginning <u>Balance</u>	<u>Increases</u>	<u>Decreases</u>	Ending <u>Balance</u>
Capital assets, being depreciated:				
Structures and improvements	\$ 21,101	\$ 66	\$ -	\$ 21,167
Equipment and furnishings	37,021	773	(102)	37,692
Infrastructure	<u>111,846</u>	<u>5,582</u>	<u>(428)</u>	<u>117,000</u>
Total capital assets, being depreciated	169,968	6,421	(530)	175,859
Less accumulated depreciation for:				
Structures and improvements	(11,914)	(566)	-	(12,480)
Equipment and furnishings	(24,887)	(941)	102	(25,726)
Infrastructure	<u>(48,401)</u>	<u>(3,592)</u>	<u>395</u>	<u>(51,598)</u>
Total accumulated depreciation	<u>(85,202)</u>	<u>(5,099)</u>	<u>497</u>	<u>(89,804)</u>
Total capital assets, being depreciated, net	84,766	1,322	(33)	86,055
Capital assets, not being depreciated:				
Land	1,266	4,009	-	5,275
Construction in progress	<u>274</u>	<u>381</u>	<u>-</u>	<u>655</u>
Total capital assets, not being depreciated	<u>1,266</u>	<u>4,390</u>	<u>-</u>	<u>5,930</u>
Capital assets, net	<u>\$ 86,032</u>	<u>\$ 5,712</u>	<u>\$ (33)</u>	<u>\$ 91,985</u>

10. Deferred Outflows of Resources

Deferred outflows of resources represent the consumption of net assets by the Department that apply to future reporting periods. Deferred outflows of resources have a positive effect on net position, similar to assets. Deferred outflows of resources related to pension and OPEB, in accordance with GASB Statements No. 68 and 75, are more fully discussed in the corresponding pension and OPEB notes.

11. Accounts Payable

Accounts payable represent 2022 expenses that were paid after December 31, 2022.

12. Accrued Liabilities

Accrued liabilities consisted of the following at December 31, 2022:

Accrued payroll	\$ 632,190
Accrued sales tax	<u>87,084</u>
Total	<u>\$ 719,274</u>

13. Customer Deposits

This balance represents deposits received from customers that are held in escrow.

14. Contributions in Aid of Construction

The application of ASC 980 results in certain revenues and expenses being removed from the Statement of Revenues, Expenses, and Change in Net Position and reflected in the Statement of Net Position as contributions in aid of construction. The revenues that have been removed from the Statement of Revenues, Expenses, and Change in Net Position and added to the Statement of Net Position are the Department's contributions in aid of construction. These liabilities will be amortized over the life of the corresponding capital assets.

15. Accrued Employee Compensated Absences

Department employees are granted sick leave in varying amounts. Upon retirement, normal termination, or death, employees are compensated for unused sick leave (subject to certain limitations) at their then current rates of pay.

16. Long-Term Liabilities

Changes in Long-Term Liabilities

During the year ended December 31, 2022, the following changes occurred in long-term liabilities (in thousands):

	Beginning Balance	Additions	Reductions	Ending Balance	Less Current Portion	Equals Long-Term Portion
Net pension liability	\$ 11,954	\$ -	\$ (6,595)	\$ 5,359	\$ -	\$ 5,359
Net OPEB liability	4,159	110	-	4,269	-	4,269
Compensated absences	<u>1,955</u>	<u>-</u>	<u>(554)</u>	<u>1,401</u>	<u>(116)</u>	<u>1,285</u>
Totals	<u>\$ 18,068</u>	<u>\$ 110</u>	<u>\$ (7,149)</u>	<u>\$ 11,029</u>	<u>\$ (116)</u>	<u>\$ 10,913</u>

17. Deferred Inflows of Resources

Deferred inflows of resources represent the acquisition of net assets by the Department that apply to future reporting periods. Deferred inflows of resources have a negative effect on net position, similar to liabilities. Deferred inflows of resources are related to pension and OPEB, in accordance with GASB Statements No. 69 and 75, will be recognized as expense in future years and are more fully described in the corresponding pension and OPEB notes. Deferred inflows related to leases, in accordance with GASB Statement No. 87, have been recognized in 2022 and are offset with leases receivable.

18. Reading Contributory Retirement System

The Department follows the provisions of GASB Statement No. 68, *Accounting and Financial Reporting for Pensions – An Amendment of GASB Statement No. 27*, with respect to employees’ retirement funds.

Plan Description

Substantially all employees of the Department are members of the Town of Reading Contributory Retirement System (the System), a cost-sharing, multiple-employer public employee retirement system (PERS). Eligible employees must participate in the System. The pension plan provides pension benefits, deferred allowances, and death and disability benefits. Chapter 32 of Massachusetts General Laws establishes the authority of the System, as well as contribution percentages and benefits paid. The System Retirement Board does not have the authority to amend benefit provisions. Additional information is disclosed in the System’s annual financial reports, which are publicly available from the System’s administrative offices located at Reading Town Hall, 16 Lowell Street, Reading, Massachusetts, 01867.

Participant Contributions

Participants contribute a set percentage of their gross regular compensation annually. Employee contribution percentages are specified in Chapter 32 of Massachusetts General Laws. The employee’s individual contribution percentage is determined by their date of entry into the System. In addition, all employees hired on or after January 1, 1979 contribute an additional 2% on all gross regular compensation over the rate of \$30,000 per year. The percentages are as follows:

Before January 1, 1975	5%
January 1, 1975 - December 31, 1983	7%
January 1, 1984 - June 30, 1996	8%
Beginning July 1, 1996	9%

For those members entering the System on or after April 2, 2012 in Group 1, the contribution rate will be reduced to 6% when at least 30 years of creditable service has been attained.

Participant Retirement Benefits

A retirement allowance consists of two parts: an annuity and a pension. A member's accumulated total deductions and a portion of the interest they generate constitute the annuity. The difference between the total retirement allowance and the annuity is the pension. The average retirement benefit is approximately 80-85% pension and 15-20% annuity.

The System provides for retirement allowance benefits up to a maximum of 80% of a member's highest 3-year average annual rate of regular compensation for those hired prior to April 2, 2012 and the highest 5-year average annual rate of regular compensation for those first becoming members of the System on or after that date. However, per Chapter 176 of the Acts of 2011, for members who retire on or after April 2, 2012, if in the 5 years of creditable service immediately preceding retirement, the difference in the annual rate of regular compensation between any 2 consecutive years exceeds 100%, the normal yearly amount of the retirement allowance shall be based on the average annual rate of regular compensation received by the member during the period of 5 consecutive years preceding retirement. Benefit payments are based upon a member's age, length of creditable service, level of compensation, and group classification.

There are four classes of membership in the retirement system, but one of these classes, Group 3, is made up exclusively of the Massachusetts State Police. The other three classes are as follows:

- Group 1 – General employees, including clerical, administrative, technical, and all other employees not otherwise classified.
- Group 2 – Certain specified hazardous duty positions.
- Group 4 – Police officers, firefighters, and other specified hazardous positions.

A retirement allowance may be received at any age, upon attaining 20 years of service. The plan also provides for retirement at age 55 if the participant was a member prior to January 1, 1978, with no minimum vesting requirements. If the participant was a member on or after January 1, 1978 and a member of Groups 1 or 2, then a retirement allowance may be received if the participant (1) has at least 10 years of creditable service, (2) is age 55, (3) voluntarily left Department employment on or after that date, and (4) left accumulated annuity deductions in the fund. Members of Group 4 have no minimum vesting requirements, however, must be at least age 55. Groups 2 and 4 require that participants perform the duties of the group position for at least 12 months immediately prior to retirement.

A participant who became a member on or after April 2, 2012 is eligible for a retirement allowance upon 10 years creditable service and reaching ages 60 or 55 for Groups 1 and 2, respectively. Participants in Group 4 must be at least age 55. Groups 2 and 4 require that participants perform the duties of the Group position for at least 12 months immediately prior to retirement.

Methods of Payment

A member may elect to receive his or her retirement allowance in one of three forms of payment as follows:

- Option A – Total annual allowance, payable in monthly installments, commencing at retirement and terminating at the member’s death.
- Option B – A reduced annual allowance, payable in monthly installments, commencing at retirement and terminating at the death of the member, provided however, that if the total amount of the annuity portion received by the member is less than the amount of his or her accumulated deductions, including interest, the difference or balance of his accumulated deductions will be paid in a lump sum to the retiree’s beneficiary or beneficiaries of choice.
- Option C – A reduced annual allowance, payable in monthly installments, commencing at retirement. At the death of the retired employee, 2/3 of the allowance is payable to the member’s designated beneficiary (who may be the spouse, or former spouse who has not remarried, child, parent, sister, or brother of the employee) for the life of the beneficiary. For members who retired on or after January 12, 1988, if the beneficiary pre-deceases the retiree, the benefit payable increases (or “pops up” to Option A) based on the factor used to determine the Option C benefit at retirement. For members who retired prior to January 12, 1988, if the System has accepted Section 288 of Chapter 194 of the Acts of 1998 and the beneficiary pre-deceases the retiree, the benefit payable “pops up” to Option A in the same fashion. The Option C became available to accidental disability retirees on November 7, 1996.

Participant Refunds

Employees who resign from service and who are not eligible to receive a retirement allowance are entitled to request a refund of their accumulated total deductions. Members voluntarily withdrawing with at least 10 years of service or involuntarily withdrawing, receive 100% of the regular interest that has accrued on those accumulated total deductions. Members voluntarily withdrawing with less than 10 years of service get credited interest each year at a rate of 3%.

Employer Contributions

Employers are required to contribute at actuarially determined rates as accepted by the Public Employee Retirement Administration Commission (PERAC).

The Department's contribution to the System for the year ended December 31, 2022 was \$2,352,753 which was equal to its actuarially determined contribution.

Summary of Significant Accounting Policies

For purposes of measuring the net pension liability, deferred outflows of resources and deferred inflows of resources related to pension, and pension expense, information about the fiduciary net position of the System and additions to/deductions from System's fiduciary net position have been determined on the same basis as they are reported by System. For this purpose, benefit payments (including refunds of employee contributions) are recognized when due and payable in accordance with benefit terms. Investments are reported at fair value.

Pension Liabilities, Pension Expense, and Deferred Outflows of Resources and Deferred (Inflows) of Resources Related to Pension

At December 31, 2022, the Department reported a liability of \$5,358,701 for its proportionate share of the System's net pension liability. The net pension liability was measured as of December 31, 2021, and the total pension liability used to calculate the net pension liability was determined by an actuarial valuation as of January 1, 2021. The Department's proportion of the net pension liability was based on an actuarially determined projection of the Department's long-term share of contributions to the pension plan relative to the projected contributions of all participating employers. At December 31, 2021, the Department's proportion was 26.56%.

For the year ended December 31, 2022, the Department recognized pension expense of \$276,705. In addition, the Department reported deferred outflows of resources and deferred inflows of resources related to pension from the following sources:

	Deferred Outflows of <u>Resources</u>	Deferred Inflows of <u>Resources</u>
Differences between expected and actual experience	\$ 779,777	\$ 79,309
Changes of assumptions	1,834,560	374,897
Net difference between projected and actual investment earnings on pension plan	-	5,953,442
Changes in proportion and differences between employer contributions and proportionate share of contributions	-	545,285
Contributions subsequent to the measurement date	<u>2,352,753</u>	<u>-</u>
Total	<u>\$ 4,967,090</u>	<u>\$ 6,952,933</u>

The amount reported as deferred outflows of resources related to pension resulting from contributions subsequent to the measurement date and before the end of the fiscal year will be included as a reduction of the net pension liability in the year ended December 31, 2023. Other amounts reported as deferred outflows of resources and deferred inflows of resources related to pension will be recognized as increases (decreases) in pension expense as follows:

Year ended December 31:	
2023	\$ (614,787)
2024	(1,572,398)
2025	(1,079,283)
2026	(1,067,375)
2027	<u>(4,753)</u>
Total	\$ <u>(4,338,596)</u>

Actuarial Assumptions

The total pension liability was determined by an actuarial valuation as of January 1, 2021 using the following actuarial assumptions, applied to all periods included in the measurement:

Valuation Date	January 1, 2021
Actuarial Cost Method	Entry Age Normal Cost Method
Actuarial Assumptions:	
Investment rate of return	7.00%, net of pension plan investment expense, including inflation
Projected salary increases	4.25%-6.00% for Groups 1 and 2
Inflation rate	2.40% Annually
Post-retirement cost-of-living adjustment	3.00% of first \$14,000

Mortality rates were based on the RP-2014 Blue Collar Mortality Table, with full generational mortality improvement using Scale MP-2018. For disabled members, RP-2014 Blue Collar Mortality Table, set forward one year with full generational mortality improvement using MP-2018.

Target Allocations

The long-term expected rate of return on pension plan investments was determined using a building-block method in which best-estimate ranges of expected future real rates of return (expected returns, net of pension plan investment expense and inflation) are developed for each major asset class. These ranges are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation. Best estimates of

arithmetic real rates of return for each major asset class included in the pension plan's target asset allocation as of December 31, 2021 are summarized in the following table:

<u>Asset Class</u>	<u>Target Asset Allocation</u>	<u>Long-term Expected Rates of Return</u>
Global equity	38.00%	4.22%
Core Fixed income	15.00%	0.70%
Private equity	15.00%	7.70%
Portfolio completion	10.00%	3.00%
Real estate	10.00%	3.60%
Value-added fixed income	8.00%	4.00%
Timberland	<u>4.00%</u>	4.20%
Total	<u>100.00%</u>	

Discount Rate

The discount rate used to measure the total pension liability was 7.00%. The projection of cash flows used to determine the discount rate assumed that the plan member contributions will be made at the current contribution rate and that employer contributions will be made at contractually required rates, actuarially determined. Based on those assumptions, the pension plan's fiduciary net position was projected to be available to make all projected future benefit payments to current active and inactive plan members. Therefore, the long-term expected rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the total pension liability.

Sensitivity of the Proportionate Share of the Net Pension Liability to Changes in the Discount Rate

The following table presents the Department's proportionate share of the net pension liability (asset) calculated using the current discount rate of 7.00%, as well as what the Department's proportionate share of the net pension liability (asset) would be if it were calculated using a discount rate that is 1 percentage-point lower or 1 percentage-point higher than the current rate:

1% Decrease <u>(6.00%)</u>	Current Discount Rate <u>(7.00%)</u>	1% Increase <u>(8.00%)</u>
\$11,893,214	\$ 5,358,701	\$ (173,793)

Pension Plan Fiduciary Net Position

Detailed information about the pension plan's fiduciary net position is available in the System's separately issued financial report.

19. Other Post-Employment Benefits (GASB 74 and GASB 75)

GASB Statement No. 74, *Financial Reporting for Postemployment Benefit Plans Other Than Pension Plans (OPEB)*, replaces the requirements of GASB Statement No. 43, *Financial Reporting for Postemployment Benefit Plans Other Than Pension Plans*. This applies if a trust fund has been established to fund future OPEB costs. In fiscal year 2010, the Department established a single employer defined benefit OPEB Trust Fund to provide funding for future employee health care costs. The OPEB Trust Fund does not issue a stand-alone financial report.

GASB Statement No. 75, *Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions*, replaces the requirements of GASB Statement No. 45, *Accounting and Financial Reporting by Employers for Postemployment Benefits Other Than Pensions*. This statement establishes standards for recognizing and measuring liabilities, deferred outflows of resources, deferred inflows of resources, and expense/expenditures. This statement identifies the methods and assumptions that are required to be used to project benefit payments, discounted projected benefit payments to their actuarial present value, and attribute that present value to periods of employee service.

All the following OPEB disclosures are based on a measurement date of December 31, 2022.

General Information about the OPEB Plan

Plan Description

The Department provides post-employment healthcare benefits for retired employees through the Department's plan. The Department provides health insurance coverage through Blue Cross Blue Shield. The benefits, benefit levels, employee contributions, and employer contributions are governed by Chapter 32 of Massachusetts General Laws.

Benefits Provided

The Department provides medical and prescription drug insurance to retirees and their covered dependents. All active employees who retire from the Department and meet the eligibility criteria will receive these benefits.

Funding Policy

The Department's funding policy includes financing the implicit subsidy on a pay-as-you-go basis, as required by statute. Additional contributions are generally based on actuarially determined amounts.

Plan Membership

At June 30, 2022 (actuarial valuation date), the following employees were covered by the benefit terms:

Inactive employees or beneficiaries	
currently receiving benefit payments	103
Active employees	<u>47</u>
Total	<u><u>150</u></u>

Investments

The OPEB trust fund assets consist of investments with the State Retiree Benefit Trust Fund (SRBTF) in the Pension Reserves Investment Trust (PRIT).

For the year ended December 31, 2022, the annual money-weighted rate of return on investments, net of investment expense, was not available. The money-weighted rate of return expresses investment performance, net of investment expense, adjusted for the changing amounts actually invested.

Actuarial Assumptions and Other Inputs

The net OPEB liability was determined by an actuarial valuation as of June 30, 2022, and used the following actuarial assumptions, applied to all periods included in the measurement, unless otherwise specified:

Inflation	3.00%
Salary increases	6.00% decreasing to 4.25% based on service for Group 1 and Group 2
Investment rate of return	7.00%
Municipal bond rate	Unknown
Discount rate	7.00%
Healthcare cost trend rates	Medical/Prescription Drug: 7.00% decreasing by 0.25% for 10 years to an ultimate level of 4.50% per year. Contributions: Retiree contributions are expected to increase with medical trend.
Participation rate	100% of active employees

Mortality rates were based on:

- Pre-Retirement: RP-2014 Blue Collar Employee Mortality Table projected generationally using Scale MP-2018
- Healthy: RP-2014 Blue Collar Healthy Annuitant Mortality Table projected generationally using Scale MP-2018
- Disabled: RP-2014 Blue Collar Healthy Annuitant Mortality Table set forward one year projected generationally using Scale MP-2018

The actuarial assumptions used in the valuation were based on the results of an actuarial experience study as of June 30, 2022.

Target Allocations

The long-term expected rate of return on OPEB plan investments was determined using a building-block method in which best-estimate ranges of expected future real rates of return (expected returns, net of investment expense and inflation) are developed for each major asset class. These ranges are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation. Best estimates of arithmetic real rates of return for each major asset class included in the target asset allocation as of June 30, 2022 are summarized in the following table.

<u>Asset Class</u>	<u>Target Asset Allocation</u>	<u>Long-term Expected Real Rate of Return</u>
Domestic equity	22.00%	6.11%
Core fixed income	15.00%	0.38%
Private equity	15.00%	9.93%
International developed markets equity	11.50%	6.49%
Real estate	10.00%	3.72%
Hedge fund, GTAA, risk parity	10.00%	2.63%
High yield fixed income	8.00%	2.48%
International emerging markets equity	4.50%	8.12%
Timber	4.00%	3.44%
Total	<u>100.00%</u>	

Contributions

In addition to the implicit subsidy contribution, the Department’s policy is to contribute the actuarial determined contributions.

Discount Rate

The discount rate used to measure the net OPEB liability was 7.00%. The projection of cash flows used to determine the discount rate assumed that contributions from plan members will be made at the current contribution rate. Based on those assumptions, the OPEB plan fiduciary net position was projected to be available to make all projected future benefit payments of current plan members.

Net OPEB Liability

The components of the net OPEB liability, measured as of December 31, 2022, were as follows:

Total OPEB liability	\$	9,046,167
Plan fiduciary net position		<u>4,777,078</u>
Net OPEB liability	\$	<u><u>4,269,089</u></u>
Plan fiduciary net position as a percentage of the total OPEB liability		52.81%

The fiduciary net position has been determined on the same basis used by the OPEB Plan. For this purpose, the Plan recognizes benefit payments when due and payable.

Changes in the Net OPEB Liability

The following summarizes the changes in the net OPEB liability for the past year.

	<u>Increase (Decrease)</u>		
	Total OPEB Liability <u>(a)</u>	Plan Fiduciary Net Position <u>(b)</u>	Net OPEB Liability <u>(a) - (b)</u>
Balances, beginning of year	\$ 9,242,982	\$ 5,084,284	\$ 4,158,698
Changes for the year:			
Service cost	281,106	-	281,106
Interest	646,679	-	646,679
Contributions - employer	-	855,547	(855,547)
Net investment income	-	(581,293)	581,293
Changes of benefit terms	11,777	-	11,777
Differences between expected and actual experience	(53,878)	-	(53,878)
Changes in assumptions or other inputs	(501,039)	-	(501,039)
Benefit payments	<u>(581,460)</u>	<u>(581,460)</u>	<u>-</u>
Net Changes	<u>(196,815)</u>	<u>(307,206)</u>	<u>110,391</u>
Balances, end of year	<u><u>\$ 9,046,167</u></u>	<u><u>\$ 4,777,078</u></u>	<u><u>\$ 4,269,089</u></u>

Sensitivity of the Net OPEB Liability to Changes in the Discount Rate

The following presents the net OPEB liability, as well as what the net OPEB liability would be if it were calculated using a discount rate that is one percentage-point lower or one percentage-point higher than the current discount rate:

1% Decrease <u>(6.00%)</u>	Current Discount Rate <u>(7.00%)</u>	1% Increase <u>(8.00%)</u>
\$ 5,287,339	\$ 4,269,089	\$ 3,413,194

Sensitivity of the Net OPEB Liability to Changes in the Healthcare Cost Trend Rates

The following presents the net OPEB liability, as well as what the net OPEB liability would be if it were calculated using healthcare cost trend rates that are one percentage-point lower or one percentage-point higher than the current healthcare cost trend rates:

1% Decrease <u>(6.00%)</u>	Current Healthcare Cost Trend Rates <u>(7.00%)</u>	1% Increase <u>(8.00%)</u>
\$ 3,317,467	\$ 4,269,089	\$ 5,414,258

OPEB Expense and Deferred Outflows of Resources and Deferred (Inflows) of Resources Related to OPEB

For the year ended December 31, 2022, the Department recognized an OPEB expense of \$569,031. At December 31, 2022, the Department reported deferred outflows of resources and deferred inflows of resources related to OPEB from the following sources:

	Deferred Outflows of <u>Resources</u>	Deferred Inflows of <u>Resources</u>
Difference between expected and actual experience	\$ 148,268	\$ 35,918
Changes in assumptions	-	820,468
Net difference between projected and actual earnings on OPEB investment	<u>998,029</u>	<u>-</u>
Total	\$ <u>1,146,297</u>	\$ <u>856,386</u>

Amounts reported as deferred outflows and inflows of resources related to OPEB will be recognized as increases (decreases) in OPEB expense as follows:

<u>Year Ended December 31:</u>	
2023	\$ (40,396)
2024	(78,900)
2025	219,850
2026	<u>189,357</u>
Total	\$ <u>289,911</u>

20. Participation in Massachusetts Municipal Wholesale Electric Company

The Town of Reading, acting through the Reading Municipal Light Department is a participant in certain Projects of the Massachusetts Municipal Wholesale Electric Company (MMWEC).

MMWEC is a public corporation and a political subdivision of the Commonwealth of Massachusetts, created as a means to develop a bulk power supply for its members and other utilities. MMWEC is authorized to construct, own or purchase ownership interests in, and to issue revenue bonds to finance, electric facilities (Projects). MMWEC has acquired ownership interests in electric facilities operated by other entities and also owns and operates its own electric facilities. MMWEC operates the Stony Brook Intermediate Project and the Stony Brook Peaking Project, both fossil-fueled power plants. MMWEC has the Nuclear Mix No 1 Project, Nuclear Project Three, Nuclear Project Four, Nuclear Project Five and Project Six, which comprise an 11.6% ownership interest in the Seabrook Station nuclear generating unit operated by NextEra Energy Seabrook, LLC and a 4.8% ownership interest in the Millstone Unit 3 nuclear unit, operated by Dominion Nuclear Connecticut, Inc. The operating license for Seabrook Station extends to March 15, 2050. The operating license for the Millstone Unit 3 nuclear unit extends to November 25, 2045.

MMWEC sells all of the capability (Project Capability) of each of its projects to its members and other utilities (Project Participants) under Power Sales Agreements (PSAs). The Department has entered into PSAs with MMWEC. Under the PSAs the Department is required to make certain payments to MMWEC payable solely from Department revenues. Among other things, the PSAs require each project participant to pay its pro rata share of MMWEC's costs related to the Project, which costs include debt service on the revenue bonds issued by MMWEC to finance the Project. In addition, should a project participant fail to make any payment when due, other project participants of that Project may be required to increase (step-up) their payments and correspondingly their participant's share of that Project's Project Capability. Project participants have covenanted to fix, revise and collect rates at least sufficient to meet their obligations under the PSAs. Each participant is unconditionally obligated to make payments due to

MMWEC whether or not the Project is completed or operating and notwithstanding the suspension or interruption of the output of the Project(s).

Pursuant to the PSAs, the MMWEC project participants are liable for their proportionate share of the costs associated with decommissioning the plants, which costs are being funded through monthly project billings. Also, the Millstone and Seabrook project participants are liable for their proportionate share of the uninsured costs of a nuclear incident that might be imposed under the Price-Anderson Act (Act). Originally enacted in 1957, the Act has been renewed several times. In July 2005, as part of the Energy Policy Act of 2005, Congress extended the Act until the end of 2025.

MMWEC is involved in various legal actions. In the opinion of management, the outcome of such litigation or claims will not have a material adverse effect on the financial position of the company.

The total capital expenditures and annual capacity, fuel and transmission costs (which include debt service and decommissioning expenses as discussed above) associated with the Department's Project Capability of the Projects in which it participates for the years ended December 31, 2022 and 2021, respectively are listed in the table below.

Projects	Percentage Share	Years Ended			
		Total Capital Expenditures	Total Capital Expenditures	Capacity, Fuel & Transmission Billed	Capacity, Fuel & Transmission Billed
		2022	2021	2022	2021
Stony Brook Peaking Project	19.5163%	\$ 12,091,392	\$ 12,088,787	\$ 1,045,900	\$ 778,875
Stony Brook Intermediate Project	15.9249%	29,176,852	29,170,553	3,670,187	2,320,014
Nuclear Mix No. 1-Seabrook	14.7191%	1,525,857	1,513,418	70,580	63,124
Nuclear Mix No. 1-Millstone	14.7191%	9,404,582	9,169,163	874,493	978,120
Nuclear Project No. 3-Millstone	5.2617%	8,141,098	7,973,312	621,229	696,645
Nuclear Project No. 4-Seabrook	12.5560%	38,451,668	38,169,208	1,584,513	1,438,529
Nuclear Project No. 5-Seabrook	6.1186%	5,068,413	5,033,573	200,217	180,368
		<u>\$ 103,859,862</u>	<u>\$ 103,118,014</u>	<u>\$ 8,067,119</u>	<u>\$ 6,455,675</u>

21. Non-Carbon Certificates

In April of 2021, the Commonwealth of Massachusetts put the 2021 Climate Law into effect. For the first time, Massachusetts municipal light plants are under emission compliance standards. Emission compliance targets were set for 2030, 2040, and 2050. Specifically, Massachusetts municipal light plants must source energy from non-carbon sources equal to or above a percentage of kwh sales, set as 50% of annual kwh sales in 2030, 75% of annual kwh sales in 2040, net-zero of annual kwh sales in 2050, with a 2020 baseline of 20% of annual kwh sales.

Compliance is recognized as retiring non-carbon certificates. Hence, the new metric is non-carbon certificates where renewable energy certificates are a subset of non-carbon certificates. Emissions Free Energy Certificates (EFECs) are classified as non-carbon certificates and are valid for compliance. Nuclear facilities can register EFECs with the NEPOOL GIS regional tracking system. Seabrook and Millstone nuclear facilities create EFEC's as part of the Departments' contracts and NYPA certificates are also EFECs.

In anticipation of the 2021 Climate Law, the Department updated its Policy no. 30 in February 2021. In an effort to avoid rate shocks in 2030, 2040, and 2050, the updated Department policy requires the retirement of non-carbon certificates at a level of 23% of annual 2021 kwh sales. The retirement level will increase 3% annually, such that the 50% compliance target is met in 2030, then 2.5% annual retirement increases thereafter.

The Department typically purchases non-carbon certificates bundled with energy, as an associated purchase of energy plus environmental attributes (certificates), and historically has not purchased non-carbon certificates in the open market.

The Departments power supply portfolio currently provides non-carbon certificates in excess of the retirement levels required by policy no. 30 and the certificates in excess of retirement targets are sold. Accounting for the 3 to 6 month minting process, the Department retires or sells non-carbon certificates on a quarterly basis.

The table below summarizes Department's non-carbon certificate holdings as of December 31, 2022. The table includes certificates acquired as part of power supply contracts, regardless of the timing of minting where minting is a prerequisite to the Department's ability to transact (retire or sell) these certificates.

The following table reflects certificates acquired during 3rd quarter 2022 and 4th quarter 2022, where 3rd quarter 2022 certificates would typically be transacted in February 2023 and 4th quarter 2022 certificates would be typically transacted in May 2023. 1st and 2nd quarter 2022 certificates were transacted prior to December 31, 2022. The yearend certificate pricing reflects market prices as of December 31, 2022 and was sourced from weekly Marex Spectrometer US Environmental market price report dated December 31, 2022 (report: SpectrometerUSGreenWeekly_27_311221) for regularly traded certificates and most recent contract prices used for the rest.

Information regarding the Department’s year ending December 31, 2022 non-carbon certificate balances is as follows:

Non-Carbon Certificates Holdings at December 31, 2022

	<u>Projected</u> <u>Certificates</u>	<u>Estimated</u> <u>Value</u>
MA Class I	22,435	\$ 818,878
CT Class 1	1,645	60,043
RI Class 1	2,345	56,280
MA Class 2	981	28,449
CT Class 2	5,555	136,098
ME Class 2	10,985	107,104
VT Tier 1	380	2,660
EFECs	<u>85,287</u>	<u>170,574</u>
Total	<u>129,613</u>	<u>\$ 1,380,086</u>

Currently, there is no formal accounting guidance under GAAP for non-carbon certificates, including renewable energy certificates. The Department’s non-carbon certificates holdings at December 31, 2022 are not recognized as an asset in the Statement of Net Position.

22. Subsequent Events

Management has evaluated subsequent events through June 20, 2023, which is the date the financial statements were available to be issued.

23. Change in Accounting Principle

During calendar year 2022, the Department adopted Governmental Accounting Standards Board (GASB) Statement No. 87, *Leases*. This statement enhances the relevance and consistency of information of the Department’s leasing activities. It establishes requirements for lease accounting based on the principle that leases are financings of the right to use an underlying asset. A lessee is required to recognize a lease liability and an intangible right to use lease asset, and a lessor is required to recognize a lease receivable and a deferred inflow of resources. See Note 8 for further details.

24. Commitments and Contingencies

COVID-19

The COVID-19 outbreak in the United States and across the globe has resulted in economic uncertainties. There is considerable uncertainty around the duration and scope of the economic disruption. The extent of the impact of COVID-19 on our operational and financial performance will depend on certain developments, including the duration and spread of the outbreak, special acts or legislation by the state or federal government, and the impact on our customers, employees, and vendors, all of which are uncertain and cannot be predicted. At this point, the extent to which COVID-19 may impact our financial condition or results of operations is uncertain. The Department has not experienced any disruptions in operations or supply chains as of the date of the financial statements; however, the Department will continue to monitor the situation going forward.

Outstanding Legal Issues

On an ongoing basis, there are typically pending legal issues in which the Department is involved. The Department's management is of the opinion that the potential future settlement of these issues would not materially affect its financial statements taken as a whole.

25. New Pronouncements

The Governmental Accounting Standards Board (GASB) has issued GASB Statement No. 94, *Public-Private and Public-Public Partnerships and Availability Payment Arrangements* (P3s and APAs), and GASB Statement No. 96, *Subscription-Based Information Technology Arrangements* (SBITAs), effective for the Department beginning in 2023. These statements establish new reporting and disclosure requirements for P3s, APAs, and SBITAs. Management is currently evaluating the impact of implementing these GASB pronouncements.

TOWN OF READING, MASSACHUSETTS
READING MUNICIPAL LIGHT DEPARTMENT
 Required Supplementary Information
 Schedule of Proportionate Share of the Net Pension Liability

December 31, 2022
 (Unaudited)

Reading Contributory Retirement System

Fiscal Year	Measurement Date	Proportion of the Net Pension Liability	Proportionate Share of the Net Pension Liability	Covered Payroll	Proportionate Share of the Net Pension Liability as a Percentage of Covered Payroll	Plan Fiduciary Net Position Percentage of the Total Pension Liability
December 31, 2022	December 31, 2021	26.56%	\$5,358,701	\$6,949,555	77.11%	90.81%
December 31, 2021	December 31, 2020	26.82%	\$11,954,138	\$6,758,995	176.86%	79.07%
December 31, 2020	December 31, 2019	28.35%	\$12,054,935	\$6,754,079	178.48%	78.24%
December 31, 2019	December 31, 2018	28.35%	\$14,610,001	\$6,513,347	224.31%	72.56%
December 31, 2018	December 31, 2017	29.15%	\$10,781,819	\$6,938,057	155.40%	79.32%
June 30, 2018	December 31, 2017	29.15%	\$10,781,819	\$6,938,057	155.40%	79.32%
June 30, 2017	December 31, 2016	29.15%	\$13,076,538	\$6,393,765	204.52%	73.43%
June 30, 2016	December 31, 2015	28.25%	\$12,862,732	\$6,147,851	209.22%	72.17%
June 30, 2015	December 31, 2014	28.25%	\$8,464,663	\$5,908,694	143.26%	79.89%

Schedule is intended to show information for 10 years. Additional years will be displayed as they become available.

See notes to the Department's financial statements for summary of significant actuarial methods and assumptions.

See Independent Auditor's Report.

TOWN OF READING, MASSACHUSETTS
READING MUNICIPAL LIGHT DEPARTMENT

Required Supplementary Information
Schedule of Pension Contributions

December 31, 2022
(Unaudited)

Reading Contributory Retirement System

Fiscal Year	Measurement Date	Contributions in Relation to the				Contributions as a Percentage of Covered Payroll
		Actuarially Determined Contribution	Actuarially Determined Contribution	Contribution Deficiency (Excess)	Covered Payroll	
December 31, 2022	December 31, 2021	\$ 2,352,753	\$ 2,352,753	\$ -	\$ 7,449,572	31.58%
December 31, 2021	December 31, 2020	\$ 2,140,461	\$ 2,140,461	\$ -	\$ 6,949,555	30.80%
December 31, 2020	December 31, 2019	\$ 2,039,462	\$ 2,039,462	\$ -	\$ 6,758,995	30.17%
December 31, 2019	December 31, 2018	\$ 1,781,345	\$ 1,781,345	\$ -	\$ 6,754,079	26.37%
December 31, 2018	December 31, 2017	\$ 1,691,058	\$ 1,691,058	\$ -	\$ 6,513,347	25.96%
June 30, 2018	December 31, 2017	\$ 1,650,416	\$ 1,650,416	\$ -	\$ 6,938,057	23.79%
June 30, 2017	December 31, 2016	\$ 1,579,345	\$ 1,579,345	\$ -	\$ 6,938,057	22.76%
June 30, 2016	December 31, 2015	\$ 1,461,650	\$ 1,461,650	\$ -	\$ 6,393,765	22.86%
June 30, 2015	December 31, 2014	\$ 1,401,638	\$ 1,401,638	\$ -	\$ 6,147,851	22.80%

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See Independent Auditor's Report.

**TOWN OF READING, MASSACHUSETTS
READING MUNICIPAL LIGHT DEPARTMENT**

Required Supplementary Information
Other Post-Employment Benefits (OPEB)
Schedule of Changes in the Net OPEB Liability

(Unaudited)

	2022	2021	2020	2019	2018	2017
Total OPEB Liability						
Service cost	\$ 281,106	\$ 346,715	\$ 336,113	\$ 245,905	\$ 238,384	\$ 230,880
Interest	646,679	851,982	811,737	799,729	766,539	733,280
Changes of benefit terms	11,777	(2,404,503)	-	-	-	-
Differences between expected and actual experience	(53,878)	296,537	-	260,248	-	-
Changes of assumptions	(501,039)	(972,882)	-	(252,156)	-	-
Benefit payments, including refunds of member contributions	(581,460)	(549,629)	(655,233)	(577,471)	(552,351)	(504,917)
Net change in total OPEB liability	(196,815)	(2,431,780)	492,617	476,255	452,572	459,243
Total OPEB liability - beginning	9,242,982	11,674,762	11,182,145	10,705,890	10,253,318	9,794,075
Total OPEB liability - ending (a)	9,046,167	9,242,982	11,674,762	11,182,145	10,705,890	10,253,318
Plan Fiduciary Net Position						
Contributions - employer	855,547	937,222	1,042,087	1,012,408	1,159,476	813,663
Net investment income	(581,293)	188,435	33,826	90,920	75,522	35,045
Benefit payments, including refunds of member contributions	(581,460)	(549,629)	(655,233)	(577,471)	(552,351)	(504,917)
Net change in plan fiduciary net position	(307,206)	576,028	420,680	525,857	682,647	343,791
Plan fiduciary net position - beginning	5,084,284	4,508,256	4,087,576	3,561,719	2,879,072	2,535,281
Plan fiduciary net position - ending (b)	4,777,078	5,084,284	4,508,256	4,087,576	3,561,719	2,879,072
Net OPEB liability - ending (a-b)	\$ 4,269,089	\$ 4,158,698	\$ 7,166,506	\$ 7,094,569	\$ 7,144,171	\$ 7,374,246

Schedule is intended to show information for 10 years. Additional years will be displayed as they become available.

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See Independent Auditor's Report.

**TOWN OF READING, MASSACHUSETTS
READING MUNICIPAL LIGHT DEPARTMENT**

Required Supplementary Information
Other Post-Employment Benefits (OPEB)
Schedules of Net OPEB Liability, Contributions, and Investment Returns

(Unaudited)

	<u>2022</u>	<u>2021</u>	<u>2020</u>	<u>2019</u>	<u>2018</u>	<u>2017</u>
Schedule of Net OPEB Liability						
Total OPEB liability	\$ 9,046,167	\$ 9,242,982	11,674,762	\$ 11,182,145	\$ 10,705,890	\$ 10,253,318
Plan fiduciary net position	<u>4,777,078</u>	<u>5,084,284</u>	<u>4,508,256</u>	<u>4,087,576</u>	<u>3,561,719</u>	<u>2,879,072</u>
Net OPEB liability	\$ <u>4,269,089</u>	\$ <u>4,158,698</u>	\$ <u>7,166,506</u>	\$ <u>7,094,569</u>	\$ <u>7,144,171</u>	\$ <u>7,374,246</u>
Plan fiduciary net position as a percentage of the total OPEB liability	52.81%	55.01%	38.62%	36.55%	33.27%	28.08%
Covered employee payroll	\$ unavailable	\$ unavailable	unavailable	unavailable	\$ unavailable	unavailable
Participating employer net OPEB liability (asset) as a percentage of covered employee payroll	\$ unavailable	\$ unavailable	unavailable	unavailable	\$ unavailable	unavailable
Schedule of Contributions						
Actuarially determined contribution	\$ 954,088	\$ 848,942	1,136,780	\$ 1,146,987	\$ 991,048	\$ 932,387
Contributions in relation to the actuarially determined contribution	<u>855,547</u>	<u>937,222</u>	<u>1,042,087</u>	<u>1,012,408</u>	<u>1,159,476</u>	<u>813,663</u>
Contribution deficiency (excess)	\$ <u>98,541</u>	\$ <u>(88,280)</u>	\$ <u>94,693</u>	\$ <u>134,579</u>	\$ <u>(168,428)</u>	\$ <u>118,724</u>
Schedule of Investment Returns						
Annual money weighted rate of return, net of investment expense	unavailable	unavailable	unavailable	unavailable	unavailable	unavailable

Schedule is intended to show information for 10 years. Additional years will be displayed as they become available.

See notes to the Department's financial statements for summary of significant actuarial methods and assumptions.

See Independent Auditor's Report.

RMLD



Reading Municipal Light Department
RELIABLE POWER FOR GENERATIONS