



Town of Reading Meeting Minutes

Board - Committee - Commission - Council:

RMLD Citizens Advisory Board

Date: 2023-10-05

Time: 5:30 PM

Building: Reading Municipal Light Building

Location: Winfred Spurr Audio Visual Room

Address: 230 Ash Street

Session: Open Session

Purpose: General Business

Version: Final

Attendees: **Members - Present:**

Vivek Soni, Chair (Reading); Ken Welter, Vice Chair (Lynnfield); Jason Small, Secretary (North Reading); Dennis Kelley (Wilmington).

Members - Not Present:


George Hooper, (Wilmington)

Others Present:

RMLD Staff: Gregory Phipps, General Manager; Erica Morse, Executive Assistant, Bill Bullock, Director of Integrated Resources; Erin MacDonough, Operational Assistant.

Board of Commissioners Rep: Commissioner Bitá

Minutes Respectfully Submitted By: Vivek Soni, Chair


Vivek Soni (Feb 1, 2024 22:03 EST)

Topics of Discussion:

Documents and exhibits used at this meeting can be found on the RMLD website in the CAB meeting packet and linked here: [Citizens' Advisory Board Meeting Agenda & Packet | Reading Municipal Light Dept \(rmlld.com\)](#)

Call Meeting to Order

Chair Soni called the RMLD Citizens' Advisory Board (CAB) meeting to order at 5:30 PM and announced that the meeting would be held in person, remotely on Zoom, and recorded.

Opening Remarks

Chair Soni stated that George Hooper, Town of Wilmington CAB representative, is retiring from the CAB and his role within the Town of Wilmington. Mr. Hooper will be recognized at a future CAB meeting.

CAB Secretary Appointment

Mr. Small was appointed the Secretary of the CAB.

Chair Soni nominated Jason Small for Secretary of the CAB. Mr. Kelley seconded the nomination.

Chair Soni made a **motion**, seconded by Mr. Kelley, that the RMLD Citizens' Advisory Board appoint Jason Small as Secretary to the RMLD Citizens' Advisory Board to be effective immediately after the vote. **Motion Carried: 3:1:1** (3 in favor; 1 abstained; 1 absent). *Roll Call: Chair Soni, Aye; Vice Chair Welter, Aye; Mr. Kelley, Aye; Mr. Small, Abstained. Mr. Hooper was absent from the meeting.*

Approval of Citizens' Advisory Board Meeting Minutes

Materials: Draft Meeting Minutes (CAB Packet, attachment 1)

The minutes were approved as presented.

Chair Soni made a comparison of the Maple Meadows project's progress from past meeting minutes to now.

Mr. Welter made a **motion**, seconded by Chair Soni, that the RMLD Citizens' Advisory Board approve the October 27, 2022, December 8, 2022, and January 18, 2023, open session meeting minutes, as presented, on the recommendation of the General Manager and the Board Secretary. **Motion Carried: 4:0:1** (4 in favor; 0 abstained; 1 absent). *Roll Call: Chair Soni, Aye; Vice Chair Welter, Aye; Mr. Kelley, Aye; Mr. Small, Aye. Mr. Hooper was absent from the meeting.*

2022 Annual Report Confirmation

Materials: Draft CY2022 Annual Report (CAB packet, attachment 2)

Mr. Phipps presented the CY2022 Annual Report to the CAB.

Annual report format

Mr. Phipps noted that the format of the annual report changed slightly in recent years. The introductory portions include a summary section with key statistics and highlights.

Mr. Phipps mentioned the report's emphasis on power supply, RMLD's art contest, and certificate handling.

BoC feedback

Mr. Phipps highlighted the Board of Commissioner's (BoC) feedback on the characterization of RMLD's non-carbon and carbon energy portfolio, discussed at the recent BoC meeting.

Information on the characterization of RMLD's non-carbon and carbon energy portfolio and certificate handling is outlined on pages 18-19.

Carbon metrics

Chair Soni suggested adding a carbon metric to page 3 of the annual report starting next year. Chair Soni gave an example of something that demonstrates RMLD's status in relation to state compliance.

Mr. Phipps agreed with this recommendation and committed to adding the carbon metric to the 2024 annual report and RMLD's website.

RMLD Strategic Plan

Materials: RMLD Strategy Overview (CAB packet, attachment 3)

RMLD Mission and Vision – Updated (slide 3)

Mr. Phipps introduced the updated mission and vision statements for RMLD, emphasizing simplicity and clarity.

Mission statement

Mr. Phipps emphasized the incorporation of RMLD "Team" and the focus on serving customers with reliable, low-cost, and increasingly non-carbon energy. Increasingly was added to the mission because RMLD's portfolio is not 100% non-carbon.

Vision statement

Mr. Phipps highlighted RMLD's support for electrification and the transition to non-carbon energy with customer engagement. At the suggestion of the BoC, "sensibly facilitate" was added to emphasize the importance of a careful transition to non-carbon energy.

Chair Soni asked when the mission and vision statement were last updated. Mr. Phipps responded that they were recently modified with input from the BoC at the last meeting.

Executive Summary (slide 4)

Mr. Phipps noted that slide 4 is meant to be a quick summary of the highlights.

Context – External to RMLD (slide 5)

Mr. Phipps discussed the external factors influencing RMLD's strategic planning, as outlined on slide 5.

Legislative compliance

Mr. Phipps noted that the transition to electrification and decarbonization is driven by legislation and is a key factor in RMLD's strategy. The transition involves increasing electric vehicle adoption and electrification of building heating and cooling.

The 2021 Climate Bill (now Law) mandates increased use of non-carbon energy sources, particularly in transportation (e.g., Electric Vehicles) and aims to phase out light-duty vehicles with internal combustion engines by 2035.

Mr. Phipps emphasized RMLD's focus on complying with current legislation. The organization operates under the assumption that current laws will remain in place and may become stricter.

Chair Soni made a comment on Mr. Phipps' point about electrification moving fast, adding that other industries will need to have green power coming in as well.

Energy generation and network stability

Mr. Phipps discussed energy generation and network stability, emphasizing the fragility inherent in the transition to non-carbon sources. Mr. Phipps clarified that ISO New England maintains the reliability of the network.

Mr. Phipps highlighted the potential impacts on the natural gas network due to the closure of large generation plants like the Mystic Generation Plant.

Mr. Phipps discussed the challenges with Offshore Wind Projects. Significant external challenges include delays and cost increases in offshore wind projects, as well as the need for new transmission systems to handle increased capacity beyond 6,000 MWs.

Context –Internal to RMLD (slide 6)

Mr. Phipps discussed the internal context, highlighting RMLD's power supply portfolio and infrastructure.

Portfolio management & hedging

Mr. Phipps emphasized that the current power supply portfolio is in good condition but requires ongoing management due to the shift towards more intermittent resources. Currently, RMLD's hedging is nearly 95%, influenced by a milder year and lower than anticipated kilowatt-hour sales.

Transmission system – reliability

Mr. Phipps explained that RMLD uniquely ties to both Eversource and National Grid transmission systems, which is important from a reliability perspective. Substation 6 will create a third tie point (with National Grid), and the Maple Meadows site will establish a fourth tie point (with Eversource).

Battery storage

RMLD currently has a 5 MW 2-hour battery system and plans to expand this to 30 megawatts of nearly 3-hour capacity by 2025. This expansion aims to enhance both reliability and peak management.

Annual Load (MWHs) nearly doubles by 2050 (slide 7)

Mr. Phipps presented RMLD's annual load forecast from 2023 to 2050, projecting nearly a doubling of load.

projected growth

MWh sales are expected to increase from ~ \$700K to ~1.3m by 2050.

Key drivers of load increase

Electric Vehicles (EVs) are a major contributor to load growth. Residential EV adoption is distinguished from fleet vehicles (industrial and commercial).

Air Source Heat Pumps (ASHPs) also contribute to the increase, though to a lesser extent than EVs and the net increase is only during winter months.

Adoption rates

The forecast assumes a slightly less than 100% adoption rate of EVs by 2050, with current EVs in the service territory around 1,000 vehicles out of 55K total vehicles.

Notable growth years

Significant increases in EV-related load are anticipated starting in 2026, becoming more substantial by 2038 -2050.

Legislation impacts

The forecast is designed around current legislation, with acknowledgment that adoption rates could vary based on potential legislative changes.

Monthly Load Shape Changes by 2050 (slide 8)

Mr. Phipps discussed the monthly load shape for the years 2023, 2038, and 2050, emphasizing the impact of increased electrification.

Monthly load shape changes

Mr. Phipps explained that the charts show the addition of load, primarily due to ASHPs and EVs.

Summer load increase

Between 2023 and 2050, the summer load is projected to be about 60% higher.

Winter load doubling

The winter load in January 2050 is nearly twice that of January 2023, attributed mainly to ASHPs and EV charging.

EV charging efficiency

RMLD assumes that EVs are about 15% less efficient in winter, requiring additional power supply.

Chair Soni commented that relative to generation in 2024, Mystic closing will be a big risk to the ISO system. Mr. Phipps agreed that the closing within itself is a challenge, but temperature is the key driver of load in the region.

Dramatic daily load shape change possible (slide 9)

Mr. Phipps discussed the average daily load curves for RMLD, illustrating energy consumption patterns from midnight to midnight.

Load curve characteristics

Mr. Phipps explained that the curve appears flat, but this is due to the factor of 2x from the bottom to the top.

EV charging impact

Mr. Phipps noted that the model for 2043 assumes 80% EV adoption in the territory. The orange line on the chart represents the load with EV charging primarily overnight.

rate structure design

Mr. Phipps explained that a rate structure focused on overnight charging works near-term but is not viable long-term due to overnight being triple day time load.. The bottom left-hand chart shows a scenario that aims for a flatter load curve through different rate blocks (overnight, morning, peak afternoon).

EV rate structure

Mr. Phipps noted that RMLD is working on introducing a dedicated EV rate. The assumption is that residential customer habits won't change significantly. The only difference will be EV charging, which is a new and learnable behavior.

Rate design flexibility

Mr. Phipps explained that recent analysis is leading RMLD to rethink rate design, especially for EVs, to encourage desired charging behaviors and maintain grid stability.

In response to Vice Chair Welter's inquiry, Mr. Phipps confirmed that V2G stands for Vehicle to Grid.

Demand (MWs) 75% higher by 2050 (slide 10)

Mr. Phipps differentiated between load (MWh sold) and demand (network peak), clarifying that slide 10 references demand.

Current network peak

Mr. Phipps stated that RMLD's network peak typically occurs in July (around 170 MWs) with a network capacity designed for 220 MWs.

2050 Forecast

Mr. Phipps mentioned that by 2050, demand is expected to approach 300 MWs, exceeding current network capacity.

Substation impact

Mr. Phipps noted that the addition of the new substation will raise capacity to ~ 270 MWs, but further enhancements will be necessary to meet future demands.

Network stress forecast

Mr. Phipps emphasized that anticipated EV adoption will significantly increase network stress by the early to mid-2030s.

Infrastructure planning

RMLD is analyzing future load to plan network upgrades, with consideration of the lifespan of transformers, substations, and wiring.

Safety buffer and charging patterns

Mr. Phipps highlighted the need for a safety buffer above 300 MWs.

Mr. Phipps discussed assumptions around simultaneous EV charging, which significantly influences demand projections.

In response to an inquiry regarding commercial demand, Mr. Phipps confirmed that commercial is primarily composed of offices and commercial stores.

Chair Soni commented that commercial is risky and in big cities people are beginning to rethink energy use. Mr. Phipps agreed, and noted this is happening in Boston.

Investment Timing – Key Initiatives (slide 12)

Mr. Phipps outlined RMLD's investment timeline and key initiatives, which will be detailed in the upcoming budget review in October and November.

Mr. Phipps highlighted RMLD's responsible and balanced approach to investments, incorporating grants and Investment Tax Credits to ease the financial burden on ratepayers.

Acquiring land

Mr. Phipps emphasized the importance of acquiring land immediately for future projects.

Energy storage expansion

RMLD plans to implement 30 MWs of short-term battery storage and continue exploring long-term storage solutions.

In territory generation

Mr. Phipps highlighted RMLD's focus on building generation within its territory to mitigate capacity and transmission costs, which form a significant part of the cost structure.

Metering project

RMLD plans to enhance monitoring capabilities through updated metering systems.

Software and security updates

Mr. Phipps emphasized RMLD's priority of keeping internal platforms up-to-date and ensuring robust security.

Transforming ash street campus

RMLD is considering options for the Operations building and overall site, with potential actions planned for 2025-2027.

Finance & Accounting Update

Materials: Financial Update (CAB packet, attachment 4)

Mr. Phipps presented a financial update to the BoC, on behalf of Mr. Bloomenthal.

Finance and Accounting Milestones (slide 1)

Mr. Phipps provided an overview of the RMLD financial status and milestones.

CY2024 budget

The CY2024 budget is in the final stages of preparation, and the RMLD staff is collaborating to finalize details. A formalized CY2024 budget presentation and related discussion is scheduled for the October BoC and CAB meetings.

Staffing updates

Mr. Phipps provided a staffing update, highlighting the recent promotions detailed on slide 1.

Mr. Phipps noted that RMLD has increased both hires and training.

Mr. Kelley inquired about the Director of Engineering and Operations position. Mr. Phipps responded that the position is being split into two roles: Director of Operations and Director of Engineering.

Above the line payment

Mr. Phipps reported on the above the line payments to the four service towns, detailed on slide 1.

Below the line payment

Mr. Phipps reported on the payment schedule and amount for the below the line payment to the Town of Reading, detailed on slide 1.

Preliminary Cash Balances – As of 6/30/2023 (slide 2)

Mr. Phipps reported on RMLD's preliminary cash balances.

Mr. Phipps highlighted RMLD's strong financial position, with ~\$55m in cash as of June 30, 2023. This includes restricted cash, restricted investments, and unrestricted cash.

Mr. Phipps emphasized RMLD's fiscal consciousness and awareness of industry changes. Strong cash reserves, both restricted and unrestricted, are crucial for upcoming capital projects.

Preliminary Operating Budget vs. Actuals through 6/30/2023 (slide 3)

Mr. Phipps reported on RMLD's preliminary operating budget vs. actual spending. RMLD's actual spending is currently below budgeted numbers. The June financials were finalized with ~\$10m in operating costs.

The organization managed employee head count, which allows RMLD to ensure these expenses remain under budget. Expense management continues to be effective, with forecasted expenses expected to be below budget for the year.

Cash Expenditures through 7/31/2023 (slide 4)

Mr. Phipps reported on capital expenditures, highlighting that transformers are a critical component. Transformers represent ~ \$7 million of the 2023 capital budget.

Mr. Phipps noted that as of July 21, 2023, RMLD has spent \$5.1m out of the \$22.85m total capital budget for 2023. Capital spending is increasing but projected to be around \$12m by the fiscal year-end, due to delays in transformer delivery.

DOE Awards as of 9/1 (slide 5)

Mr. Phipps reported on the DOE awards as of September 1, 2023.

RMLD is actively pursuing federal funding in various forms: grants, IRA tax credits, and rebates. These funding sources are crucial for advancing RMLD's upcoming capital program.

Rebates

RMLD was authorized to receive up to \$25K in rebates for transformers as of September 1.

Grants

RMLD is collaborating with the Congressional delegation for grant application follow-ups, ensuring RMLD's prominence in fund allocation.

IRA tax credits

RMLD is exploring direct IRS payment tax credits, akin to rebates but under a different program.

NEPPA 2023 Annual Conference Report

Materials: Summary Notes: NEPPA 2023 Annual Conference (CAB Packet, attachment 5)

Materials: 2023 NEPPA Conference Presentations (referenced not presented)

Mr. Phipps provided a summary of the 2023 NEPPA Annual Conference presentations to the CAB.

Gordon van Welie – Keynote (slide 3)

Mr. Phipps summarized the highlights of keynote speaker Gordon van Welie's presentation.

legislative impact & increase in non-carbon energy sources

Mr. van Welie's presentation stated that legislation is driving changes in the energy world, leading to a shift in the energy mix from primarily natural gas. It was emphasized that non-carbon energy sources are growing in the energy mix.

Solar PV funding and challenges

Mr. van Welie's presentation discussed Solar PV, which is well-funded, but facing cancellations, price increases, and delays.

Offshore wind project issues

Mr. van Welie's presentation highlighted offshore wind projects, which are facing transmission challenges and higher costs than initially planned.

Transmission system needs

Mr. Phipps explained that as the energy mix becomes more non-carbon and distributed, more transmission is needed to get energy to the load centers. Mr. van Welie's presentation emphasized the significant requirement for additional transmission systems to distribute non-carbon energy.

Natural gas as a critical resource

Mr. van Welie's presentation emphasized that despite a phase-out, natural gas will remain important for periods of low renewable energy generation, such as during cold periods with no wind.

Energy adequacy and reliability

Mr. van Welie's presentation highlighted that reliability is a critical issue, significantly for the period between 2027 and 2032. Mr. Phipps emphasized that RMLD's response to this issue is focusing on energy storage and within-territory generation.

Distribution network and winter peaking

Mr. Phipps reported that Mr. van Welie's presentation was consistent with RMLD data on winter peaking and load changes.

EVs and ASHPs as key load drivers

Mr. van Welie's presentation discussed the dynamic nature of load, reinforcing RMLD's focus on EVs and ASHPs, particularly in relation to EV charging.

Key implications for RMLD

Mr. Phipps highlighted the need to adapt to the changing energy landscape driven by legislation and market trends as well as the importance of storage, generation, and network adaptation in response to these changes.

Mr. Phipps emphasized the consistency between RMLD's strategy, and the trends outlined in Mr. Van Welie's presentation.

Mike Zenker – NE Regional Energy Outlook (slide 4)

Mr. Phipps summarized the highlights of speaker Mike Zenker's presentation.

natural gas market and LNG (liquefied natural gas)

Mr. Zenker's presentation emphasized the recent developments in the natural gas market, particularly the impact of LNG exports and the influence of the European market.

Impact of war and pipeline issues

Mr. Zenker noted that the redirection of LNG tankers to Europe due to higher prices and geopolitical factors has influenced energy prices.

winter weather impact

Mr. Zenker's presentation explained that mild winters in both Europe and the US have eased energy demands, contributing to lower energy prices.

Volatility of energy pricing

Mr. Zenker's presentation highlighted the increase in volatility in energy pricing since 2010, driven by exports of natural gas.

Future of natural gas demand

Mr. Zenker's presentation predicts an increase in natural gas demand in New England until 2032, followed by a decline, leading to potential excess and reduced prices in the mid-

2030s.

Legislative influence

Mr. Zenker's presentation noted that the legislative agenda is driving the shift towards non-carbon, renewable sources.

Key implications for RMLD

Mr. Phipps confirmed that RMLD has transitioned to higher hedging strategies (up to 95%) in response to market volatility and reduced volume requirements due to milder winters.

Mr. Phipps emphasized RMLD's focus on long-term contracts for stability amidst market fluctuations.

Mr. Phipps reiterated the legislative agenda's impact on RMLD's strategic planning and operations.

Mike O'Connor – Millstone Nuclear (slide 5)

Mr. Phipps discussed speaker Mike O'Connor's presentation in relation to RMLD's power supply strategy and portfolio.

Mr. O'Connor's presentation discussed Millstone Power Station; a nuclear power facility operated by Dominion Energy.

RMLD's nuclear portfolio

Mr. Phipps emphasized that RMLD's nuclear portfolio is approximately a third of the total portfolio, with potential to go up to 40%.

Mr. Phipps explained that RMLD has contracts with two nuclear facilities in New England: Millstone, in Connecticut, and Seabrook, in New Hampshire.

RMLD's Contracts with Millstone and Seabrook were established in the 1980s and are perpetual until the end of the facilities' life.

Mr. Phipps noted that Millstone is considered reliable and important for base load energy but is not highly responsive to customers.

RMLD is engaging in ongoing efforts to secure additional purchases from Millstone to balance risk.

Key implications for RMLD

Mr. Phipps stated that RMLD continues to rely on nuclear power as a key part of its energy portfolio, and the ongoing strategy to balance the portfolio.

John Parsons – MIT Pathways to Non-Carbon (slide 6)

Mr. Phipps discussed highlights from speaker John Parson's presentation.

Increased economic volatility

Mr. Parsons's presentation discussed the economic volatility for natural gas generators, and the future value of natural gas generators for back up capacity.

Chair Soni mentioned Bloom Energy Solutions' carbon capture fuel cell technology.

Key implications for RMLD

Mr. Phipps stated that RMLD is exploring Hydro Qubec as a storage/balancing resource through leveraging ownership rights.

Mr. Phipps noted that RMLD will continue to investigate out-of-the-box solutions to ensure network reliability.

General Managers Report

Mr. Phipps provided a General Manager's Report to the BoC.

Station 6 development

Mr. Phipps reported that ISO New England completed the system impact study for Station 6, indicating no adverse impact on the transmission system. Final approval is expected by the end of November.

flexible work schedules

Mr. Phipps noted that RMLD is implementing flexible 4-day, 10-hour work schedules for line crews from mid-October through Christmas. Overtime will be offered on Fridays, aligning with subcontractor obligations.

In response to Mr. Kelley's inquiry about overtime, Mr. Phipps noted that due to the nature of the contracts, there will always be overtime.

Mr. Small commented that some jobs require a decent amount of line crews.

Storm preparedness

Mr. Phipps emphasized RMLD's priority of ensuring storm preparedness.

Employee survey

Mr. Phipps stated that RMLD is planning another employee survey in November.

Communication enhancements

Mr. Phipps mentioned increased engagement in quarterly webinars and newsletters.

Mr. Phipps introduced RMLD's new podcast, with two sessions already recorded and live. The podcast is available on YouTube and linked in the latest RMLD newsletter.

Mr. Phipps emphasized that RMLD will continue the promotion and recording of the podcast series as a new communication channel for better customer engagement.

Scheduling

The next CAB meeting will be a joint meeting with the BoC on October 25, 2023.

Executive Session

Chair Soni made a motion, seconded by Vice Chair Welter, that the RMLD Citizens' Advisory Board go into Executive Session pursuant to Massachusetts G.L. c.164 section 47D, exemption from public records and open meeting requirements in certain instances, to consider the purchase, exchange, lease or value of real property relative to Maple Meadow and Route 125 in Wilmington, if the chair declares that an open meeting may have a detrimental effect on the negotiating position of the public body, and return to regular session, for the sole purpose of adjournment. Note: Roll call vote required. **Motion Carried: 4:0:1** (4 in favor; 0 abstained; 1 absent). *Roll Call: Chair Soni, Aye; Vice Chair Welter, Aye; Mr. Kelley, Aye; Mr. Small, Aye. Mr. Hooper was absent from the meeting.*

Adjournment

The CAB meeting was adjourned at 7:31 PM.

Chair Soni made a **motion**, seconded by Mr. Small, that the RMLD Citizens' Advisory Board adjourn regular session. **Motion Carried: 4:0:1** (4 in favor; 0 abstained; 1 absent). *Roll Call: Chair Soni, Aye; Vice Chair Welter, Aye; Mr. Kelley, Aye; Mr. Small, Aye. Mr. Hooper was absent from the meeting.*