Light Commission September 5, 2023 meeting minutes

Light Commission: Commissioners
Light Department: J. Kowalik, General Manager
Jean-Jacques Yarmoff, Secretary
October 20, 2023
Commission Meeting September 5, 2023: Public Session

A quorum being present, Chair Wolf brought the meeting to order at 4:02 pm. The meeting was held in person and with remote internet access, both available to public participation. A recording of the meeting is made available to the public at the following <u>link</u>.

Participated in meeting:

Commissioners:	Frechette, Smith, Wolf and Yarmoff participated in person;
	Commissioner Hull was excused.
Light Department:	General Manager, J. Kowalik; Financial Manager, Matt Barrett; Distribution
	Manager, Greg Chane and Manager of Technical Operations, C. Coleman.
Invited from MMWEC:	Ron DeCurzio, CEO, Justin Connell, Director Energy Markets,
	Zoe Eckert, Sustainable Energy Policy & Program Senior Manager.

Marblehead Land Acknowledgment declaration was read prior to the start of business.

Approval of Minutes of previous meetings.

 Vote #2023-35 A motion to approve the minutes of the three Light Commission meetings of: December 19, 2022 Executive session; July 26, 2023, Public Session; and July 26, 2023 Executive session was moved by Commissioner Frechette and seconded by Commissioner Yarmoff. Unanimous.

Comments from the Public

Jim Zisson, 2 Mound Road, brought to the attention of the board that Danvers had implemented solar projects on some of their schools, with possible learnings for Marblehead.

Outstanding items from previous meetings

Residential Batteries

Commissioner Frechette proposed to rescind motion #2022-29 and moved to replace it with the following text: "The Board recommends that to promote residential battery storage, MMLD allow connection of UL Certified batteries installed following the requirements of the appropriate codes (Massachusetts building and fire codes as they may apply, and specific Marblehead requirements, if any). Batteries enrolled in the Connected Homes Program should receive a financial incentive as recommended by MMWEC for its members to implement." The motion was seconded by Commissioner Yarmoff.

Discussion: As background, on August 30, 2022 the Light Commission approved motion #2022-29 which reads: "To promote residential battery storage, MMLD will discontinue its practice of denying

interconnection permits, and allow batteries to connect, provided customers participate in a demandresponse program allowing MMLD or its agent to control dispatch to and charging from the grid." A question was previously raised about whether Tesla would be able to bid retail customers aggregated demand response into the forward capacity market. Commissioner Wolf was able to resolve that question and the answer to that interrogation is "No", Tesla cannot aggregate Marblehead batteries, because of ISO-NE rules concerning Muni territories. Hopefully, Tesla will participate in the future to Connected Homes program. It is the battery of choice by consumers.

Commissioner Yarmoff remarked that the MMLD interconnection agreement can (and should) state language that reinforces that residents that want to participate in an aggregation program must be part of the Connected Homes program. This would bring an additional level of legal protection to MMLD in asserting its MGL Chapter 164 privilege. A discussion ensued on the likelihood that a third party would violate the ISO-NE rules and the Massachusetts law and the possibility to detect such violations in a hypothetical situation. General Manager Joe Kowalik agreed that such a clause in the interconnection agreement (preventing a resident from participating in an aggregation program not approved by MMLD in view of Chap. 164 exclusivity clauses) would be a good protection to have. Justin Connell of MMWEC added that this clause would prevent the monetization by any potential aggregator not authorized by MMLD, and take away any potential incentives for residents to participate.

The General Manager pointed out that the proposed motion does two things: authorize batteries on the one hand, recommend incentives for the batteries participating in an aggregation program on the other. Shouldn't these two aspects be dissociated and the motion amended? He reviewed the status of MLPs participation in MMWEC's incentives programs, shown on the first slide page 7. The level of participation by MLPs and by residents is low, the program cannot be characterized as a success to date, why do we want to join? Administration of the program for potentially only very few customers is a burden on MMLD. Commissioner Smith remarked that these administrative costs are already incurred as we are providing residents with a \$30 monthly incentive. We are also providing incentives to residents participating in the heat pump program. There would be only very limited additional administrative burden to add the upfront incentive. With this motion, stating "... should receive a financial incentive ...", the Commission recommends that as a matter of policy MMLD additionally provide rebates to battery owners, to make the program a success.

Vote #2023-36 Motion was made by Commissioner Yarmoff and seconded by Commissioner Smith to vote and approve the following text: "The Board recommends that to promote residential battery storage, MMLD allow connection of UL Certified batteries installed following the requirements of the appropriate codes (Massachusetts building and fire codes as they may apply, and specific Marblehead requirements, if any). Batteries enrolled in the Connected Homes Program should receive a financial incentive as recommended by MMWEC for its members to implement." **Unanimous**

Battery Program recommended incentives: This agenda item was discussed with the previous one.

Summary of EV Charging program

There have been changes in the EV Charger program administered by MMWEC that MMLD participates in, which prompted a review of the program. MMWEC initially worked with ChargePoint, but the program is now administered by the company Virtual Peaker. This shift created some unexpected changes, such as preventing some of the 27 JuiceBox chargers from charging during peak hours rather than the anticipated Level 1 slower charging during these periods. The review also highlighted that while residents could benefit from the incentive of a free charger in consideration of a 3 years participation in the load management program, not all participants rolled over in the longer term program. EV Chargers can also be enrolled in different programs: - either in the EV Scheduled Charging program, in which case they are curtailed to Level 1 charging from 5 pm to 9 pm on non-holidays week days, daily; or, - if they participate in the Connected Homes program curtailed during peak events, happening several times a summer. Going forward, the program will distribute Charge Point chargers, and curtailment can be to level 1. This is what the program is supposed to be now. Yet, some MMLD documents on the web site seem to indicate curtailment to zero.

MMLD needs to clarify the details of the proposed program going forward: Frequency of curtailment, (curtailing every day or only during peaks), level of curtailment. It would be beneficial for the program to be organized so that the participants stay in it for longer than three years, unless they chose to drop out.

The discussion is postponed until a written description of the EV Charging program is presented to the Commission.

NEPPA Conference Overview

In the interest of time, the chair proposes to forego the presentation and that commissioners interested refer to the slides that have been distributed.

Several Commissioners participated in the conference, and their participation was paid for by MMLD. Commissioner Yarmoff proposes that, for transparency purposes, a budget dedicated to the professional development of Commissioners be authorized by the Commission on a yearly basis, and that at the end of the year there should be a report on the use of such funds. Similarly, a budget for legal advice and expenses of the board should be identified as well. Commissioner Yarmoff will propose a motion for the board's consideration at the next meeting.

Amendment to the General Manager Contract

It was agreed during the December 12, 2022 executive session meeting that the calendar for the goals of the General Manager should be aligned with the calendar year (also the fiscal year of MMLD). Currently the General Manager's contract states that the timing for the goals is on an April to April basis. A simple amendment to the contract is necessary to adjust the timelines. The Secretary of the Commission has sent a draft version of this amendment to the General Manager, who indicated that he has reviewed the proposed amendment, and that it is acceptable. From a process perspective, it is proposed that both the General Manager and the Chair (on behalf of the board) sign the amendment at a later time.

Letter to DOER

DOER is conducting a study of Long Duration Energy Storage (LDES), as directed by law: an update to the "State of charge" study that was conducted 7 years ago. DOER and MassCEC held two public sessions to review the progress of the study, and asked for stakeholders comments. After discussions with MMLD's General Manager and with Reading's General Manager, we wrote a joint letter to highlight three points, sent to DOER on August 31:

- Climate is not static, and future climate conditions should be taken into consideration, not only the harshest historical events;
- EVs are going to represent a large amount of potential storage over the time horizon covered by the study, and options to mobilize that storage should be evaluated at;
- Munis represent an exceptional way to test different business cases of Long Duration storage.

Further, the Federal DOE has published a study on use cases of Long Duration storage, and the General Manager and Commissioner Yarmoff are talking with one supplier of LDES to evaluate whether this could be useful to Marblehead.

General Manager Updates

Solar on Schools

MMLD is evaluating installing solar panels on six schools in Marblehead (either solar alone or in combination with storage). The potential benefit is not limited to electricity production: local solar production also alleviates transmission and capacity charges, bills that MMLD has to pay. All costs savings are directly passed on to all Marblehead customers. The potential for solar production from these sites is summarized in the slide shown page 8. At a total of 2.3% of Marblehead's total electricity consumption, this is not negligible production, especially given the non-emitting and local nature of the electricity produced, which has financial advantages noted above.

Due diligence is on-going, with a proposal to start with the Brown school. Commissioner Smith remarked that it would be good to have MMLD's Financial Director's take on the project, given the various spreadsheets that have been distributed to the Commissioners. As part of this due diligence, what assumptions will make the numbers change? Total investment for a solar array with battery option is around \$2.5M. The vendor is also proposing a PPA option, which might make the project attractive from a financing perspective, and that we need to evaluate separately. The financial benefits are not completely captured by the "Net Levelized Cost of Energy", NCOE, which does not incorporate the avoided costs of transmission and capacity. While the NCOE allows to compare energy costs from different production methods, the location where the electricity is produced is important and has an impact as well. This would be "home-grown" energy that will alleviate costs that MMLD would have to pay.

- One of the most impactful of these is the evolution of the price of RECs over time. This evolution is tricky to assess as the evolution of prices will depend on policies of the New England states, which are getting stricter meaning that there are more buyers for RECs (with New Hampshire potentially setting new policies), while on-shore and off-shore wind projects will generate more RECs. We are evaluating the project with both current prices continuing over the life of the project, or much more conservative assumptions if early large scale production of RECs from wind farms does take place.

- Another impactful assumption is the level of interest rates moving forward, as the project economics will depend on financing possibilities. A community solar type of program might allow to lower the financing costs.

The timeline of the project depends on meetings with the School Committee and Select Board, when we have a finalized proposal. The last formal meeting with the School was in August 2021, and MMLD has been moving forward under the oral agreement that was reached at the time. Construction on the roof does not have to take place during the summer. Whether MMLD go to bid on this project, if a decision to move forward is taken, is the subject of legal considerations that will be discussed in Executive session. Separately, we should make sure the Select Board is aware of these projects as – these activities will benefit the town as a whole; - but also, there are several public buildings (not schools) where solar panels could also be installed.

Next steps:

- scheduling a meeting with the school board, ideally before Thanksgiving;
- reviewing all options in writing, with an opinion from the finance director of MMLD, by next meeting.

Utility-Scale Battery Electric Storage System (BESS)

The objectives of this project is to lower our transmission and capacity payments to ISO-NE, which will generate savings to ratepayers estimated as a Net Present Value of \$9.8M. An ancillary benefit is lower GHG emissions coming from lower reliance on emitting peaker plants. We are currently looking for the best site suitable for this 5 MW / 20 MWh battery (a site of roughly 15,000 square feet). Proximity to the Village 13 substation will lower connection costs as there are positions in the switch gear to directly interconnect the battery to the distribution backbone. It is also of interest to Delorean as expressed in contractual terms: Marblehead has the highest financial share among participating MLPs in similar projects (page 11). MMLD is evaluating whether a site on Vine Street under the Recreation and Park jurisdiction might be a possibility (see aerial view, possible connection and foot print on site, p 9). The Tioga Way site remains a possibility. The red areas on the Tioga Way plot could host the battery, see p 10.

There are several contractual agreements that need to be put in place to make this project work, as shown on page 9. At this stage, the GM has been focusing on the site agreement, and selecting the site, as without a site we do not have a project. MMLD has received drafts for the other agreements.

Fence around 80 Commercial Street

Bids were received, Premier Fence is the lowest bid, and MMLD will enter into a contract with the company. See page 11.

Financial Operations – July 2023

Energy sales (kWh) were on line with forecast and budget, but total \$ sales were lower because of the 2 cent reduction of the PPA in June. MMLD continue to have a good operating cash position of \$5.7M at the end of July. See slides page 11 and 12. Adjusted Net Income at the end of July is \$1.115M.

Because of the variations in investments results between 2021 and 2022, we can expect the expenses for pensions and OPEB for 2023 to be higher than the numbers we received from the town for the 2022 exercise (and expect 2023 numbers to be in line with what we have forecasted). Looking at the financials for July 2023, one can notice a sizable increase of interest income: the treasurer has moved some of MMLD funds from the National Grand Bank to the Eastern Banks and we are receiving higher returns on our funds as a result.

A discussion of MMLD capital expenses took place: there are still some uncertainties with regards to some of the contracts for the Village 13 substation upgrade, but if one takes into account the funds which will be needed for all coming expenses, the Capital Expenditure fund is not so largely endowed. As we are putting in place a plan to catch up on deferred maintenance of our distribution network, the Commission will be attentive to the capital needed. MMLD is currently accruing into the Capital Expenditure fund at 5% depreciation rate, which is the maximum we can as per DPU rules. Another constraint is that net income cannot exceed 8% of MMLD's plant equipment value. This number is around \$3.2M, is a big number: we are not close. Projecting to Year end of 2023, and including the PILOT payment to the town of \$330K, we are anticipating Adjusted Net Income at year end to reach \$331K.

Vote #2023-37 Chair Wolf moved the motion to transfer \$330,000 from MMLD 2022 operating revenue Surplus to the Town of Marblehead, motion seconded by Commissioner Yarmoff. **Unanimous.**

Organization

<u>The current organization</u> chart is shown on page 13. MMLD is organized with one Finance Manager, one Distribution Manager and one Technical Services Manager reporting to the General Manager, as shown. Since 2022, we have had two positions budgeted for staff increase. With one extra departure this year, we have now three open positions.

<u>New organization</u>: At this stage, MMLD is proposing the following organization with three new positions, keeping the organization flat, as shown below (p 13).

Capital Improvements Project Manager: MMLD is facing many projects, some on-going and more that need to be managed. We have also new categories of assets coming in town that need to be managed appropriately. This person could have engineering qualifications.

Energy services Manager: This position is turned towards customers rather than infrastructure, and it will have a strong marketing component. MMLD has many programs that are geared towards residents, such as the EV charging program. The responsibility of looking for and following up on grants will also be with this person.

GIS/IT Tech Specialist: MMLD has an acute need of a GIS system expert, as well as for a person responsible for the maintenance and integration of our IS and communication systems.

<u>Next steps</u>: The proposed new organization was shared with MMLD staff today. Position descriptions need to be developed for these positions. Energy Services position is an evolution from the previous position we were considering (Sustainability Manager), and is essentially ready. For the other two positions, MMLD needs to build the job descriptions.

Commissioner Smith remarked that the plan seems to be well thought through. Implementation is launched, starting with discussions with the staff. But we need to have commitment to make this happen and an end date: having the new organization in place by the end of the year would be a reasonable deadline. Otherwise, as we have seen in the past, things can slip, these positions have been discussed for over a year. A recruitment agency will be very useful to both source candidates and sort through the first steps of the process. Commissioner Yarmoff strongly encouraged the General Manager to get outside help for this process, and offered to vote on a budget to this end. Chair Wolf gave the General Manager the name of a firm that has already worked on recruiting people of this caliber and would be turnkey for this process. Having a recruitment agency on board will help make sure the process is on track in a timely manner.

Town Right of Way Improvement Project

The General Manager explained MMLD's position with regards to the Right of Way improvement project, summarized on the last two slides below.

Go Green Now rate

Given the market value of RECs and the evolution of the power portfolio of MMLD, the General Manager proposes to reduce the opt-in rate charge for all Go Green Now participants from 2.2 cents to 2.0 cents per kilowatt-hour. Go Green Now is considered an official rate by the Department, and as for every rate change, a vote of the Commission is requested prior to filing the new rate with DPU. This new rate is to be effective October 1, 2023. At this stage, there are 56 customers of which one commercial customer, who pay on average about \$160 a year to participating.

Vote #2023-38 Commissioner Smith moved the motion to reduce the opt-in rate for all Go Green Now! Participants from 2.2 cents to 2.0 cents per kwh, effective October 1, 2023, seconded by Commissioner Frechette. Unanimous.

Executive Session

Chair Lisa Wolf proposed a motion to enter Executive Session Motion to discuss trade secrets or confidential or proprietary information regarding activities of a governmental body as energy supplier, municipal aggregator or energy cooperative, if an Open Session will adversely affect conducting business relative to other entities making, selling or distributing energy. Not to return to Open Session. Motion moved by Commissioner Yarmoff and seconded by Commissioner Frechette.

Vote: Simon Frechette: Yes; Adam Smith: Yes; Lisa Wolf: Yes; Jean-Jacques Yarmoff: Yes. Executive Session started at 6:05 pm.

The Executive Session concluded at 7:12 pm at which point a motion to adjourn was proposed, seconded and after a roll call of commissioners with unanimous result, adopted.

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Documents presented during September 5 Light Commission Meeting

MMWEC Residential Bat	tery P	rograms
Number of MLDs in 2023 MMWEC Energy Efficiency Programs	21	
Number of MLDs in NextZero Connected Homes (NCH) Program	14	I
Number of MLD's offering a Residential Battery Rebate (\$100/kWh; eligible size range 7.5 kWh to 20 kWh)	5	Shrewsbury, South Hadley, Sterling, Wakefield, West Boylston
Participating Battery Manufacturers	2 now; 4 soon	Current- Sonnen, Generac, Q4 additions Emporia, OEL
Number of Customers Receiving a Residential Battery Rebate	0	
Number of Customers w/ a Residential Battery Enrolled in NCH (\$30/mo)	2	



Agenda - General Manager Items

5:00 General Manager Items

- 1. Solar on Schools
- 2. Utility Scale Battery update
- 3. 80 Commercial St Fence and Gates
- 4. YTD Financial Update Matt Barrett...Include VOTE on Surplus Payment to the Town
- 5. Current MMLD Organization Chart & Proposed Changes
- 6. Town ROW improvements, Salem ROW bridges & Access Control
- 7. BOARD VOTE: Go Green Now! Rate reduction 2.2 to 2.0 cents/kWh



Solar on Schools

- 6 Schools total under evaluation for solar PV-only, and 4 Schools total for solar PV plus on-site battery
- Solar PV plus on-site battery option significantly increases cost per site, but also increases the economic benefits generated at the site...carbon-free energy plus the potential to lower the MMLD monthly ISO-NE transmission bill and lower the monthly charge for capacity payments for a year. *All such cost savings are directly passed on to all Marblehead customers.*
- Continuing due diligence on analyzing the model assumptions and financial forecasts...
- Process for gaining Town agreement next...



Solar PV on Schools

Solar PV	Solar PV Nameplate Capacity (KW dc)	25-year Average Energy Production (kWh/yr)
Brown Elementary	247	260,959
Marblehead HS	749	784,690
Village School	695	703,293
Veterans Middle School	389	401,123
Glover School	216	217,097
Marblehead Charter	<u>88</u>	90,467
	2,384	2,457,629
2022 MMLD Actual Wholesale I	Energy Supply (kWh)	106,610,000
Percent of 2022 Actual Energy S	Supply	2.3%

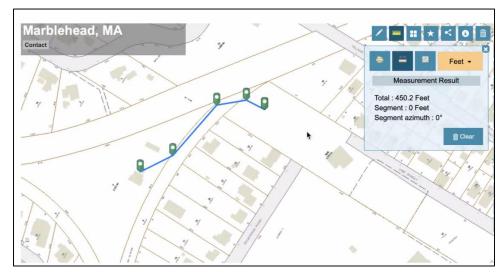


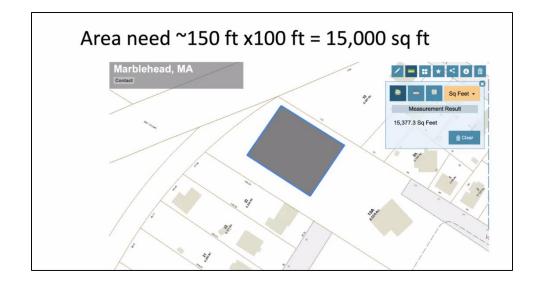
Utility-Scale Battery Electric Storage System (BESS)

- Project objective: to lower our transmission and capacity payments to ISO-NE for the next 20 years
- MMWEC analysis indicates we can save ratepayers \$9.8 million over 20 years
- Additional benefit: Reduce run-time of higher polluting peaker plants
- We need a site suitable for the 5 MW/20 MWh battery...
 - An area 150 feet x 100 feet = 15,000 square feet
- **Preferred location**: Proximity to Village 13 substation, to directly connect to new switchgear. Evaluating a storage/open space site under Rec and Park Dept. control
- Next Step: Rec and Park Board meeting on Weds 9/6 will discuss giving MMLD approval to access the site to determine the feasibility of a battery installation.

MMWEC BESS Deal Structure						
	Document	Status	MMWEC	MMLD Board	MMLD GM	Battery Vendor - Delorean Power
1	Memo of Understanding	Completed - late 2022	хх			xx
2	Definitive Agreement (Board Vote- GM Authorization)	Completed - 1/2023	хх	xx		
3	Administrative Services Agreement (ASA)	Completed - 1/2023	хх		xx	
3	Energy Storage Services Agreement (ESSA)		x	x	xx	XX
5	Site Agreement		х	х	XX	ХХ
6	Interconnection Agreeemnt		х	х	XX	XX
	XX - Signing Party					
	X - Supporting Party					



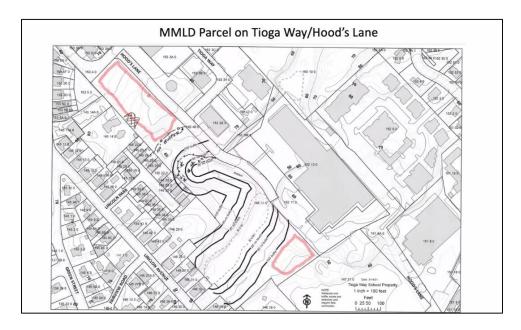






Utility Scale Battery Storage System

 Tioga Way remains a second preference location, due to distance from Village 13 and terrain



MMWEC Behind the Meter Battery **Program Participants and Shared Savings** MWh MLP Share MW Boylston* 3 8.1 54.2% Chicopee 5 20.3 52.8% 3 8.1 54.2% Georgetown Holden 3 8.1 54.8% Hull 4 16.3 48.8% Ipswich 5 20.3 52.8% Marblehead 5 20.3 56.3% Paxton 6.1 43.6% 2 20.3 50.1% Peabody 5 Princeton' 2 6.1 42.9% Rowley 3 8.1 54.8% 20.3 50.1% Shrewsbury 5 20.3 Wakefield 5 54.3%

REAL SHARE	80) Comme	ercial St	Fence	& Gates	Rebid
• Pr	remier Feno	ce LLC., Ca	nton, MA	is the lo	west price	bidder
					Alter	natives
	Vendor	Bid	<u>Variation from</u> <u>Average</u>	<u>Percent</u> <u>from</u> <u>Average</u>	<u>1- Deduct chain</u> link fence	<u>2- Add Seawall</u> Railing
1	GVW	\$406,080	\$39,622	11%	-\$6,000	\$50,000
2	Parker Fence	\$384,500	\$18,042	5%	-\$9,000	\$89,400
3	Premier Fence	\$308,795	-\$57,663	-16%	-\$3,572	\$43,772



Financial Operations- July 2023

- kWh sales of 9.4 million were in line with the budget of 9.5 million
- Sales were off \$190.9K due to the .02 cent PPA reduction in June (beginning with the June billing, PPA was reduced from .025 cents to .005 cent)
- Power costs continue to come in lower than the actual budget and MMWEC's subsequent updates.
- Our operating cash position: \$5.7 million as of 7/31/2023

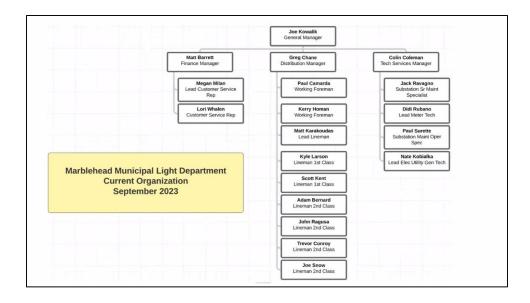
JULY 2023 YTD Actua	l Finar	ncials	
		(\$000's)	
Total kWh Revenue		\$12,575	
Street Lighting		\$29	
Misc Revenue		\$22	
Interest Income		<u>\$155</u>	
Total Revenue		\$12,781	
Operations Expense	\$4,391		
Power Costs	\$7,275		
Total Expenses		\$11,666	
Net Income		\$1,115	
Adjustments:			
Rate Stabilization Fund Transfer	\$0		
Grant Proceeds	<u>\$0</u>		
Total Adjustments		\$0	
Adjusted Net Income		\$1,115	

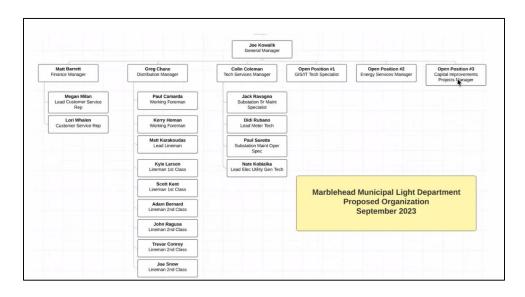
y		(\$000's)	
Total Projected kwh Revenue**		\$21,475	
Street Lighting		\$52	
Misc Revenue		\$32	
Interest Income		\$265	
Total Revenue		\$21,824	
Total Projected Expenses*	\$21,163		
PILOT Payment to Town	\$330		
Total Expenses		\$21,493	
Net Income		\$331	
Adjustments:			
Rate Stabilization Fund Transfer	\$0		
Grant Proceeds	<u>\$0</u>		
Total Adjustments		\$0	
Adjusted Net Income		\$331	



YTD Financial Update – Matt Barrett

- VOTE: to transfer \$330,000 from MMLD 2022 operating revenue surplus to the Town of Marblehead.
- (Normally done in March, but delayed due to Town delays in calculating MMLD OPEB and Retirement obligations.)

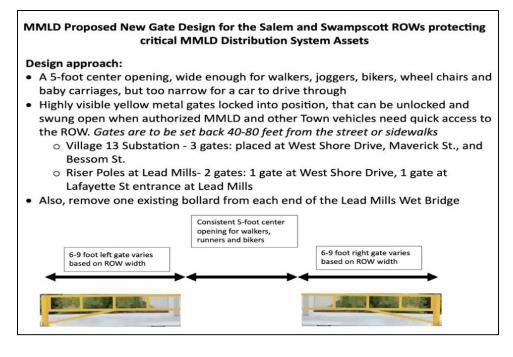


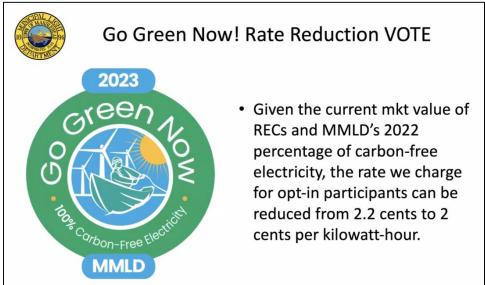




Town Right of Way Improvement Project

- MMLD sees no benefit to widening Lead Mills' two bridges, only additional risk of unauthorized 4-wheel motorized vehicles crossing the bridges...
- One bollard at each end of the two bridges is sufficient...while ensuring widest passable opening is maximum of 64 inches
- MMLD sees a public safety and MMLD employee benefit by replacing the culvert on the Salem ROW between West Shore Drive and Lead Mills, currently covered by two (unstable) metal plates





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