

Light Commission October 1st, 2024 meeting minutes

To: Light Commission: Commissioners
Light Department: J. Kowalik, General Manager
From: Jean-Jacques Yarmoff, Secretary
Date: December 16, 2024
Re: Light Commission Public Meeting, October 1st, 2024

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 [link](#).

Participated in meeting:

Commissioners: Commissioners Frechette, Hull, Smith, Wolf and Yarmoff participated in person.
Light Department: General Manager, J. Kowalik; Finance Manager, M. Barrett, Manager of Technical Operations, C. Coleman;
Invited: Tom Barry, Director of Energy Markets, Massachusetts Municipal Wholesale Electric Company (MMWEC).

Marblehead Land Acknowledgment declaration was read by Commissioner Frechette.

Approval of minutes

Vote #2024-16 Motion to approve the minutes of the September 10, 2024 public session was moved by Commissioner Frechette and seconded by Commissioner Hull. **Unanimous.**

Vote #2024-17 Motion to approve the minutes of September 10, 2024 executive session was moved by Commissioner Frechette and seconded by Commissioner Hull. **Unanimous.**

Comments from the Public

Commissioner Yarmoff reported the request of Ocean Avenue residents, related to the work that MMLD did in 2019 to bury electric lines. Their attorney, Robert C. McCann, has set an escrow fund for the residents to pay for this service. Work has been completed, the attorney is retiring and would like to close the account and return the remainder of the money to the residents. The General Manager commented that while the work has been completed, some legal documents have not been finalized: MMLD must have an easement to the material (transformers) that are on the private properties.

Outstanding items from previous meetings

National Grid capital expense call. The General Manager reminded the board that this call for capital investment in a Hydro Quebec transmission line is part of prior agreements that MMLD and MMWEC entered into in prior years: it is not discretionary. Commissioner Yarmoff remarked that the agreement has other benefits besides the straight financial returns. This expenditure is not discretionary on the one hand, and is good for MMLD on the other. Further details will be discussed in executive session.

Like every contract we have, we must decide whether these are still important to MMLD, and if not, possibly find acquirers for our positions or otherwise have our positions evolve.

In the case where Capital Expenses are involved, it is necessary for us to compare where we invest our scarce CapEx dollars: a plan for capital expenses is needed.

MMWEC Energy Market and Carbon Free projects review

Load forecasts and hedge contracts. Tom Barry, Director of Energy Markets at MMWEC presented the 5-year load forecasts, hedged contracts and the evolution of carbon-free supply contracts to 2050 for MMLD. See slides pp 5 - 8.

Hedging that is done on behalf of MMLD to guarantee the best possible supply contracts, in terms of price but also in term of environmental attributes. Hedges allow MMLD to manage pricing risk. Every system has a different appreciation of risk and how to handle it: some systems want no open position and are fully hedged. In the case of MMLD, hedged contracts represent ~ 25% of power contracts, while open positions represent less than 19%. The rest of the power is provided to MMLD under fixed contracts. One can also look at hedges during time of day: MMLD has less hedges during on-peak than during off-peak periods. The interested reader is encouraged to refer to the slides below and listen to the presentation available on-line.

The slide presenting the Carbon-Free forecast 2023-2050 shows that the NextEra contract starting in 2028 will allow Marblehead to meet its goals of 70% carbon free electricity by 2028. The goal of 85% carbon-free electricity by 2033 will require the completion of many projects that have been initiated. There are many ways to get there, even though this will take significant work. These intermediate targets for 2028 and 2033 were adopted in 2023, anticipating a 1.7% load growth rate (rather than 2% in this slide), aiming to get the Department to zero net emissions by 2040.

Currently Marblehead is also well placed to exceed the state-mandated emission targets until 2039.

Off-shore wind. MMWEC participated in the solicitation organized by the Commonwealth in March of 2024, and is now approved for a 50 MW power allocation option for its members, in a permitted 800 MW project. Further action depends on the State's decisions. MMWEC is putting in place Non-Disclosure Agreements as there are on-going negotiations, but price is still not known at this stage.

Berkshire Wind. The Berkshire Wind project is owned by a separate entity called Berkshire Wind Power Cooperative, with MMWEC and 16 member utilities participants. It started commercial operation with Berkshire I in 2011, with 10 turbines / 15 MW and a 25% capacity factor, while Berkshire II started operation in 2019 with an additional 2 turbines of 2.3 MW each, and a capacity factor of 35%. Total power capacity is 19.6 MW.

General Manager Updates

Village 13 Update. The company manufacturing the switch gear is now telling us that shipment is anticipated to be arriving in Marblehead in late December. The bid documents should be published next week and we can expect to select an engineering firm for the construction of the base of the switchgear by November.

Tioga Way update. LightShift will propose a drawing of the expected configuration of the 5 MW / 20 MWh battery configuration at the site. The Holden Municipal Light Plant is inviting us to visit their facility. Tom Barry stated it was an impressive, compact facility. Two Commissioners at least expressed interest in participating in such a visit, which the General Manager is going to organize.

80 Commercial Street Building: Bids for repairs of the 80 Commercial Street Building roof and North wall windows have been received, and the work attributed to Campbell Construction Group LLC of Peabody. Windows on the East wall, facing the harbor, also leak, but are not included in this bid.

Vote #2024-18 Motion to approve the expenditure of \$283,839 to repair the 80 Commercial St building roof and walls, and award the contract for the repairs to the winning bidder Campbell Construction Group LLC of Peabody was moved by Commissioner Yarmoff, seconded by Commissioner Frechette. **Unanimous.**

DOE block grants: MassCEC is administering a DOE program stemming from the infrastructure bill (IIJA) to enhance the resilience of the electric grid. Applications for these grants have to be filed by October 4. MMLD will propose a project to enhance the reliability of the 23 kV feeder lines into Marblehead: replace some wood poles on the Salem Right of Way by metal or composite poles, and in a second phase underground the lines from the Lead Mills 1,800 feet toward West Shore Drive. MassCEC will request that the local utility pay a share of the project. The application needs to include a commitment to that effect. The General Manager is asking for a board vote to confirm this commitment.

Vote #2024-19 Motion to approve MMLD's funding its share of project Phase I, or project Phases I and II, if approved by MassCEC to receive a federal grant was moved by Commissioner Yarmoff, seconded by Commissioner Frechette. **Unanimous.**

ToU subcommittee: IT Manager Chris Dumbar, the General Manager have been working with NexGrid to extract data on a semi-production basis into an AWS database. We are confident that we are getting good data reads from the meters, that the data are transferred to the Northern data customer information system which translates that to bills and addresses. But we do not want to touch that production system which is working well. Hence the new database, a development environment that has similar data that will allow us to conduct analyses to look at historical data and model different scenarii. Next meeting of the Subcommittee is in two weeks.

Bilateral agreements, hedge targets and current status: Further to Tom Barry's presentation, the General Manager presented the slide enclosed p 13 to highlight the targets and current status of the bilateral hedging contracts, showing prices, month by month, and differentiating between peak and off-peak prices. While the difference between the peak and off-peak is highest in winter and summer, this difference is historically low. It is also noteworthy that the highest prices are now in the winter months. There are price/risk balances to strike which incorporate both climate uncertainties (are we going to have a cold winter?) and geopolitical uncertainties (is the global demand / supply for gas going to change drastically?) The market supposedly incorporates all these risks. Rather than try to second guess the markets, MMLD's policy is to aim for 80% hedges.

Recruiting update: MMLD has two open positions and is actively recruiting an Engineering Project Manager and an Energy Efficiency Marketing Program Manager. The lead candidate for the Engineering Project Manager position has declined our offer. MMLD is resuming interactions with the executive search firm. MMLD has received nearly one hundred responses to the Energy Efficiency Marketing position and is working with the town's HR director to sift through the resumes. Lisa Wolf mentioned that she is one of the applicants for this position.

Executive Session

During the Light Commission Meeting of October 1st, 2024, Chair Lisa Wolf proposed to vote on a motion to meet in Executive Session to discuss trade secrets or confidential, competitively-sensitive or other proprietary information when such disclosure will adversely affect our ability to conduct business in relation to other entities making, selling or distributing electric power and energy, and to conduct strategy sessions in preparation for negotiations with nonunion personnel or to conduct collective bargaining sessions or contract negotiations with nonunion personnel, with the intent not to return to open session.

Motion was moved by Commissioner Yarmoff and seconded by Commissioner Frechette.

Votes: Simon Frechette: Yes; Mike Hull: Yes; Adam Smith, Yes; Lisa Wolf: Yes; Jean-Jacques Yarmoff: Yes.

Executive Session started at 5:32 pm.

The Executive Session concluded at 7:05 pm at which point a motion to adjourn was proposed, seconded and, after a roll call of the commissioners voting unanimously in favor, adopted.

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Agenda

- 4:00 Call to Order, Land Acknowledgement, Minutes, and Public Comments
- 4:10 Outstanding items and requests from last meeting
- 4:30 Tom Barry, Energy Markets Director, MMWEC
- 4:45 General Manager updates
- 5:15 Executive Session. Not to return to Open Session
- Adjourn

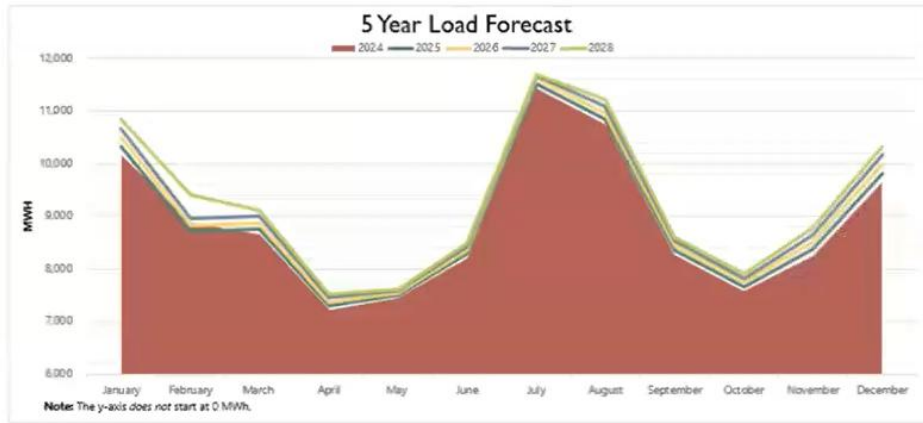
Who am I?
Why am I here?



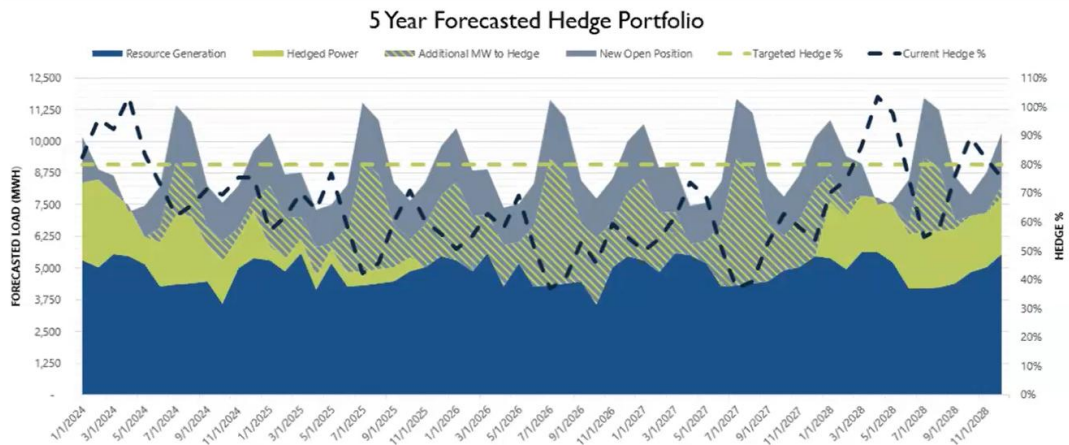
Why am I here TODAY?

- Power Supply
 - Hedged Positions
 - Carbon Diversification
- Offshore Wind
 - Basic Terms
 - Participation Opportunities
- Berkshire
 - Frustrations
 - Economics
 - Future
- Wilkins Diesel Unit
 - Basics
 - More To Come
- Hydro Quebec Capital Calls & Dividends





5 Year Load Forecast					
Month	2024	2025	2026	2027	2028
January	10,163	10,335	10,502	10,669	10,848
February	8,880	8,703	8,831	8,960	9,413
March	8,643	8,755	8,877	8,998	9,111
April	7,206	7,285	7,365	7,444	7,513
May	7,439	7,486	7,532	7,576	7,618
June	8,210	8,277	8,345	8,410	8,476
July	11,442	11,522	11,633	11,682	11,700
August	10,741	10,841	10,959	11,095	11,233
September	8,268	8,360	8,443	8,525	8,599
October	7,578	7,662	7,736	7,811	7,903
November	8,249	8,379	8,512	8,646	8,778
December	9,634	9,816	9,990	10,172	10,319
Total	106,454	107,421	108,724	109,990	111,510



5 Year Portfolio Hedging Targets										
Year	2024		2025		2026		2027		2028	
Unit	%	MWh	%	MWh	%	MWh	%	MWh	%	MWh
Forecasted Annual Open Position	22%	23,125	41%	43,995	48%	52,005	46%	50,691	23%	25,986
Total MWh to Reach Target Hedge Position	6%	6,461	21%	22,510	28%	30,260	26%	28,693	7%	8,271



C.E.T. Cost Forecast by Asset

Resource	Mwh	Capacity \$	Energy \$	Transmission \$	Other \$	Total \$	Total \$/Mwh
Resources in Front of Meter							
2020A	1,532.063	\$ 116,460.00	\$ 1,559.89	\$ -	\$ -	\$ 118,019.89	\$ 77.03
Berkshire Wind	2,560.598	\$ 602,376.36	\$ 2,232.40	\$ -	\$ -	\$ 604,608.76	\$ 236.12
Berkshire Wind Phase 2	2,064.257	\$ 252,383.52	\$ 1,745.18	\$ -	\$ -	\$ 254,128.70	\$ 123.11
Eagle Creek	2,184.696	\$ -	\$ 135,451.12	\$ -	\$ -	\$ 135,451.12	\$ 62.00
FirstLight Hydro	7,566.512	\$ -	\$ 619,601.01	\$ -	\$ -	\$ 619,601.01	\$ 81.89
Hancock Wind	2,366.557	\$ -	\$ 129,894.20	\$ -	\$ -	\$ 129,894.20	\$ 54.89
Hedged Power	25,411.000	\$ -	\$ 1,714,225.62	\$ -	\$ -	\$ 1,714,225.62	\$ 67.46
Hydro Quebec I and II	-	\$ -	\$ -	\$ (33,645.24)	\$ -	\$ (33,645.24)	\$ -
Marblehead Diesel	-	\$ 37,200.00	\$ -	\$ -	\$ -	\$ 37,200.00	\$ -
Millstone	16,996.607	\$ 540,747.09	\$ 145,279.05	\$ 22,049.04	\$ -	\$ 708,075.18	\$ 41.66
NYP&A	8,344.127	\$ 61,434.84	\$ 41,053.10	\$ 175,347.14	\$ -	\$ 277,835.08	\$ 33.30
Open Position Power	23,124.593	\$ -	\$ 1,280,287.40	\$ -	\$ -	\$ 1,280,287.40	\$ 55.36
Project 2015A	-	\$ 131,451.72	\$ -	\$ -	\$ -	\$ 131,451.72	\$ -
Seabrook	14,302.530	\$ 367,296.11	\$ 75,618.87	\$ 1,119.03	\$ -	\$ 444,034.01	\$ 31.05
Stony Brook Intermediate	-	\$ 391,535.42	\$ -	\$ 17,281.77	\$ -	\$ 408,817.19	\$ -
Stony Brook Peaking	-	\$ 73,931.05	\$ -	\$ 5,103.72	\$ -	\$ 79,034.77	\$ -
Resources in Front of Meter Total	106,453.539	\$ 2,574,816.11	\$ 4,146,947.85	\$ 187,255.46	\$ -	\$ 6,909,019.42	\$ 64.90
Capacity							
Hedged Capacity	-	\$ 209,250.00	\$ -	\$ -	\$ -	\$ 209,250.00	\$ -
ISO Capacity Net Charge	-	\$ 537,173.95	\$ -	\$ -	\$ -	\$ 537,173.95	\$ -
ISO Net Forward Reserve	-	\$ 9,969.28	\$ -	\$ -	\$ -	\$ 9,969.28	\$ -
Capacity Total	-	\$ 756,393.23	\$ -	\$ -	\$ -	\$ 756,393.23	\$ -
Transmission							
ISO OATT Charge (RNS)	-	\$ -	\$ -	\$ 3,082,457.58	\$ -	\$ 3,082,457.58	\$ -
Local Network Service (LNS)	-	\$ -	\$ -	\$ 176,085.96	\$ -	\$ 176,085.96	\$ -
Transmission Total	-	\$ -	\$ -	\$ 3,258,543.54	\$ -	\$ 3,258,543.54	\$ -
Other							
ISO Expenses	-	\$ -	\$ -	\$ -	\$ 473,957.88	\$ 473,957.88	\$ -
MMWEC Service Charges	-	\$ -	\$ -	\$ -	\$ 150,213.13	\$ 150,213.13	\$ -
Other Total	-	\$ -	\$ -	\$ -	\$ 624,171.01	\$ 624,171.01	\$ -
Grand Total	106,453.539	\$ 3,331,209.34	\$ 4,146,947.85	\$ 3,445,799.00	\$ 624,171.01	\$ 11,548,127.20	\$ 108.48



MLP/Date	Legend	Sep-24	Oct-24	Nov-24	Dec-24
Marblehead	5x16 Hedge %	89%	84%	85%	84%
	7x8 + 2x16 Hedge %	81%	76%	76%	76%
	Targeted Hedge %	80%	80%	80%	80%
	5x16 Variance	9%	4%	5%	4%
	7x8+2x16 Variance	1%	-4%	-4%	-4%
	Rec. Peak Purchase Volume	-	-	-	-
20%	Rec. Off Peak Purchase Volume	-	0.40	0.40	0.40

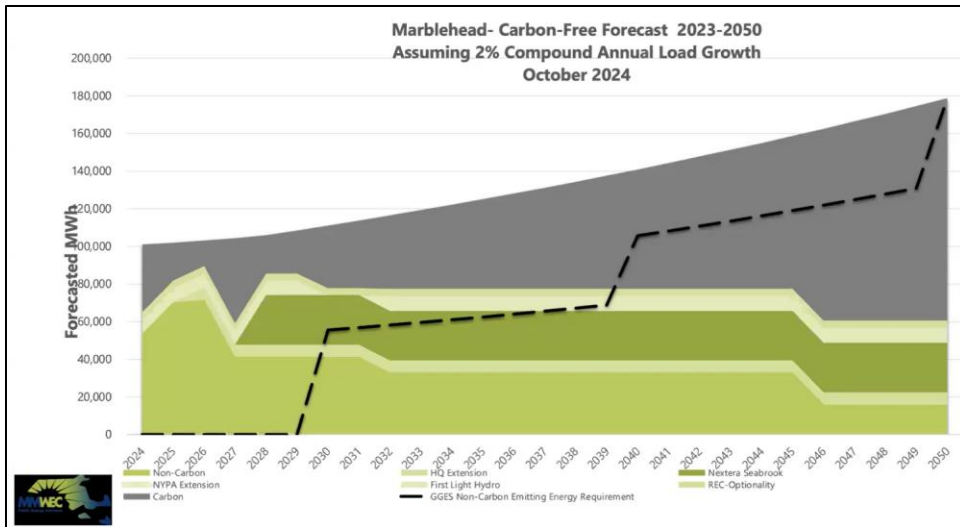
MLP/Date	Legend	Jan-25	Feb-25	Mar-25	Apr-25	May-25	Jun-25	Jul-25	Aug-25	Sep-25	Oct-25	Nov-25	Dec-25
Marblehead	5x16 Hedge %	83%	83%	82%	83%	84%	84%	82%	83%	84%	83%	85%	83%
	7x8 + 2x16 Hedge %	80%	79%	79%	81%	79%	82%	81%	79%	80%	80%	79%	79%
	Targeted Hedge %	80%	80%	80%	80%	80%	80%	80%	80%	80%	80%	80%	80%
	5x16 Variance	3%	3%	2%	3%	4%	4%	2%	3%	4%	3%	5%	3%
	7x8+2x16 Variance	0%	-1%	-1%	-1%	1%	-1%	2%	1%	-1%	0%	-1%	-1%
	Rec. Peak Purchase Volume	-	-	-	-	-	-	-	-	-	-	-	-
20%	Rec. Off Peak Purchase Volume	0.10	0.10	0.10	0.10	-	0.10	-	-	0.10	-	0.10	0.10

MLP/Date	Legend	Jan-26	Feb-26	Mar-26	Apr-26	May-26	Jun-26	Jul-26	Aug-26	Sep-26	Oct-26	Nov-26	Dec-26
Marblehead	5x16 Hedge %	76%	76%	77%	76%	75%	76%	76%	75%	75%	75%	75%	76%
	7x8 + 2x16 Hedge %	83%	82%	81%	82%	82%	84%	85%	84%	84%	84%	83%	83%
	Targeted Hedge %	80%	80%	80%	80%	80%	80%	80%	80%	80%	80%	80%	80%
	5x16 Variance	-4%	-4%	-3%	-4%	-5%	-4%	-4%	-5%	-5%	-5%	-5%	-4%
	7x8+2x16 Variance	3%	2%	1%	2%	2%	4%	5%	4%	4%	4%	3%	3%
	Rec. Peak Purchase Volume	-	-	-	-	-	-	-	-	-	-	-	-
20%	Rec. Off Peak Purchase Volume	0.10	0.10	0.10	0.10	0.10	-	-	-	-	-	0.10	-

MLP/Date	Legend	Jan-27	Feb-27	Mar-27	Apr-27	May-27	Jun-27	Jul-27	Aug-27	Sep-27	Oct-27	Nov-27	Dec-27
Marblehead	5x16 Hedge %	46%	50%	58%	68%	62%	46%	33%	36%	47%	56%	53%	49%
	7x8 + 2x16 Hedge %	52%	56%	64%	78%	72%	55%	39%	43%	56%	67%	62%	58%
	Targeted Hedge %	80%	80%	80%	80%	80%	80%	80%	80%	80%	80%	80%	80%
	5x16 Variance	-34%	-30%	-22%	-12%	-18%	-34%	-47%	-44%	-33%	-24%	-27%	-31%
	7x8+2x16 Variance	-25%	-24%	-16%	-2%	-8%	-25%	-41%	-37%	-24%	-13%	-18%	-22%
	Rec. Peak Purchase Volume	5.50	4.30	3.00	1.40	2.00	4.50	8.70	7.70	4.40	2.90	3.70	5.00
20%	Rec. Off Peak Purchase Volume	3.70	2.90	1.70	0.20	0.80	2.50	5.30	6.70	2.40	1.10	1.90	2.50


MLP/Date	Legend	Jan-28	Feb-28	Mar-28	Apr-28	May-28	Jun-28	Jul-28	Aug-28	Sep-28	Oct-28	Nov-28	Dec-28
Marblehead	5x16 Hedge %	64%	69%	80%	95%	88%	68%	49%	52%	68%	80%	74%	68%
	7x8 + 2x16 Hedge %	74%	79%	91%	110%	105%	83%	59%	64%	82%	96%	88%	88%
	Targeted Hedge %	80%	80%	80%	80%	80%	80%	80%	80%	80%	80%	80%	80%
	5x16 Variance	-16%	-11%	0%	15%	8%	-12%	-31%	-16%	-12%	0%	-6%	-12%
	7x8+2x16 Variance	-6%	-1%	11%	30%	25%	3%	-21%	-16%	2%	18%	8%	0%
	Rec. Peak Purchase Volume	2.60	1.60	0.10	-	-	1.70	5.90	5.10	1.70	0.10	0.80	1.90
20%	Rec. Off Peak Purchase Volume	0.70	0.10	-	-	-	-	2.60	1.90	-	-	-	





OFFSHORE WIND

- Counterpart: Avangrid
- Timeline Milestones:
 - MOU signing: February 2024
 - Initial Bid Solicitation: March 2024
 - Approved Allocations: September 2024
- Anticipated Start Date: 2029
- MMWEC Allocation: 50MW [Permitted]
 - MMLD Preference Rights: 3.5087% or greater
- Expected Duration: 25+ year project
- Pricing: Released when Appropriate



Berkshire Wind Phase I and Phase II

- Operated & Maintained by MMWEC
 - Owned by Berkshire Wind Power Cooperative
 - MMWEC & 16 of its Member utilities
- 12-turbines
 - Phase I: 10 structures – commercial operation in 2011
 - Phase II: 2 structures – commercial operation in 2019
- 19.6 MW
 - Phase I: each unit 1.5 MW w/ approx. 25% capacity factor
 - Phase II: each unit 2.3 MW w/ approx. 35% capacity factor



Project Updates

Village 13

- Switchgear vendor informed us our delivery is delayed to late December 2024...manufacturing moved to a new facility
- Construction bid docs in review now

Tioga Way Battery Storage

- LightShift reviewing site drawings; LightShift to layout 5 MW/20 MWh BESS
- Holden MLP has invited us to visit their operational 5 MW/20 MWh site



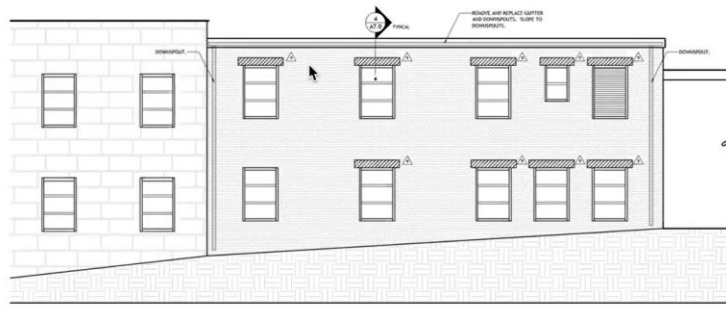
80 Commercial St repairs

- Roof leak repair and north wall window lentiil replacements
- Competitive bid process completed – 6 bidders
- Winning bidder Campbell Construction Group, LLC., Peabody \$283,829
- Do not proceed with bid alternatives for east wall window replacements and upper garage masonry repairs



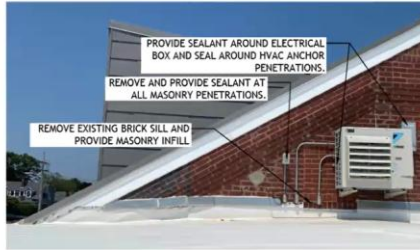
80 Commercial St

Install new lentils on nine windows to replace rusting metal lentils to stop the expanding cracks in the brick wall mortar





80 Commercial St roof leak repairs



80 Commercial St roof leak repairs



Requested Board Vote

- **Motion:** Approve the expenditure of \$283,839 to repair 80 Commercial St roof and walls, and award the contract for the repairs to winning bidder Campbell Construction Group, LLC of Peabody, MA



MassCEC-IIJA 40101(d) Grant opportunity

- “The funding aims to **enhance the resilience of the electric grid, prevent outages, and mitigate the impact of disruptive events** through eligible investments in activities, technologies, equipment and other hardening measures.”
- 5-year award period; first period \$9.2 million (2022 & 2023 combined)
- Includes a “Small Utilities Set-Aside” – retail utilities that sell less than 4 million MWh/year (MMLD is 100K MWh/yr.)
- Application deadline October 4, 2024

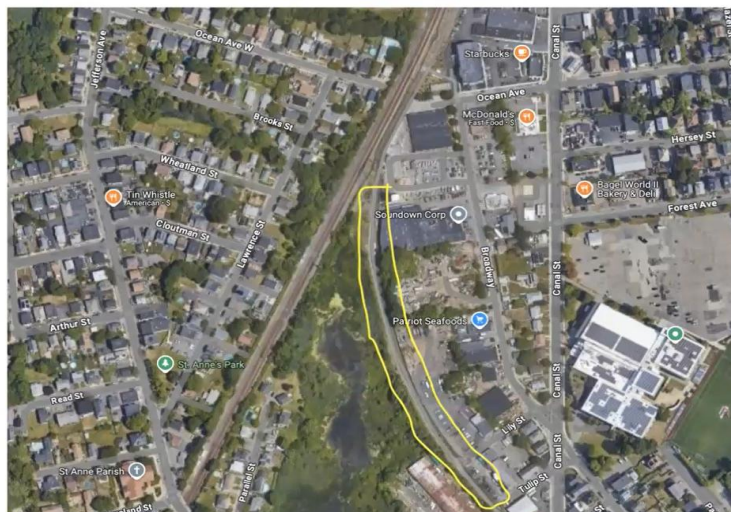


MMLD grant application

- Directly target the “enhance resiliency” grant goal, that benefits all 10,000 MMLD customers/20,000 residents
- Three Phase approach:
 1. Replace 8 wood MMLD poles in Salem with stronger galvanized steel or composite poles; eliminate the need for guy lines
 2. Put the “highest risk” section of Mhd ROW OH lines underground – 1,800 feet from Lead Mills toward West Shore Drive (Four 450-foot manhole-to-manhole UG sections)
 3. Underground the remaining Mhd ROW OH lines to Village 13: 3,700 feet (8-9 UG sections)

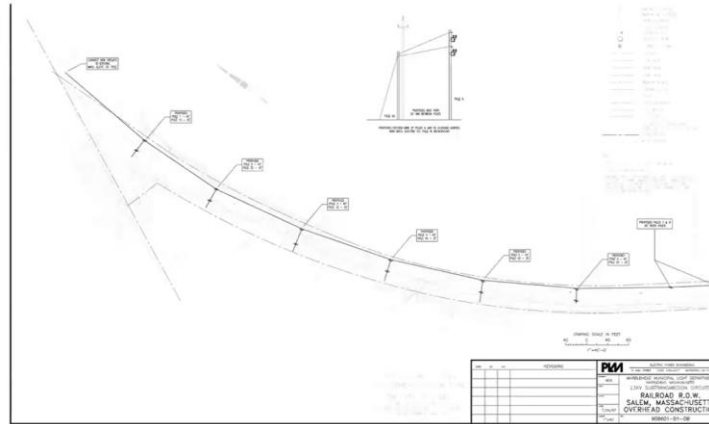


MMLD OH poles in Salem





MMLD OH poles adjacent to Broadway in Salem



MMLD ROW –Phase 2 area for UG



Existing Hydro Québec transmission line – cash call for required capital improvements

- MMLD (via MMWEC) participates in a long-term asset rights investment agreement with National Grid on existing transmission lines from Québec to Mass.
- The agreement 1985-2024 has provided MMLD positive 16% IRR (internal rate of return on capital investments)
- New National Grid “cash call” capital investment for MMLD 2024-33 totals \$247K;
- MMLD forecast dividends 2034-65 - \$472K; net dividends - \$225K



General Manager updates

- Village 13 update
- Tioga Way update
- Board Vote: to Proceed with needed roof and window repairs at 80 Commercial St
- MMLD grant application for MassCEC 40101(d) funds to focus on MMLD feeder OH line resiliency...in Salem and Mhd ROW
- Power portfolio bilateral agreement targets and current status
- Employee recruiting update
- Wilkins Plant



Bilateral agreements: targets & current status

Legend	Sep-24	Oct-24	Nov-24	Dec-24	Jan-25	Feb-25	Mar-25	Apr-25	May-25	Jun-25	Jul-25	Aug-25	Sep-25	Oct-25	Nov-25	Dec-25
Targeted Hedge %	80%	80%	80%	80%	80%	80%	80%	80%	80%	80%	80%	80%	80%	80%	80%	80%
Peak Hedge %	86%	84%	85%	84%	83%	83%	82%	83%	84%	84%	82%	83%	84%	83%	85%	83%
Peak Variance	6%	4%	5%	4%	3%	3%	2%	3%	4%	4%	2%	3%	4%	3%	5%	3%
Additional Peak MW Needed	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Off-Peak Hedge %	76%	76%	76%	76%	80%	79%	79%	79%	81%	79%	82%	81%	79%	80%	79%	79%
Off-Peak Variance	-4%	-4%	-4%	-4%	0%	-1%	-1%	-1%	1%	-1%	2%	1%	-1%	0%	-1%	-1%
Additional Off-Peak MW Needed	0.40	0.40	0.40	0.40	-	0.10	0.10	0.10	-	0.10	-	-	0.10	-	0.10	0.10
Additional Off-Peak MWh Needed	166.2	148.4	171.2	176.2	-	44.9	25.9	46.2	-	41.5	-	-	44.3	-	23.5	25.9
Peak Prices	\$ 37.34	\$ 39.15	\$ 48.54	\$ 77.42	\$ 118.56	\$ 97.87	\$ 59.34	\$ 45.79	\$ 39.94	\$ 47.98	\$ 69.89	\$ 56.31	\$ 45.85	\$ 41.81	\$ 57.79	\$ 89.34
Off-Peak Prices	\$ 28.72	\$ 31.50	\$ 41.78	\$ 69.50	\$ 107.81	\$ 88.04	\$ 53.17	\$ 37.71	\$ 32.51	\$ 35.02	\$ 43.11	\$ 35.64	\$ 33.39	\$ 33.61	\$ 49.57	\$ 80.72
Updated as of Date	9/18/24															
5x16 Hedge %	<< Peak 5x16 = Weekday Peak hours, typically from 8am to 11:59pm															
7x8 + 2x16 Hedge %	<<Off-Peak 7x8 = Weekdays Hours, typically 12am to 7:59 am and 2x16 = Weekend Hours, typically 8am to 11:59pm															



New employee recruiting

- Engineering Project Manager-
 - Leading applicant declined our final offer
 - Resuming search
- Energy Efficiency Marketing Program Manager –
 - 96+ applicants to date; paused advertising on Indeed
 - To begin screening and interviews next week

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