Mansfield Municipal Electric Department
Operating Budget Fiscal Year 2024

I. Executive Summary:

The Mansfield Municipal Electric Department (MMED) is an electric utility governed under the provisions of Massachusetts General Laws Chapter 164. The four primary objectives of MMED are:

- Establish and work continually to ensure a safe environment for its employees
- Ensure short-term and long-term system reliability
- Provide competitive electric rates to its customers
- Provide economic benefits to the Town of Mansfield

HIGHLIGHTS:
Higher Purchase Power and Non-Power expenses drove increased spot market, higher kWh Sales and contractual labor increases than were anticipated in the 2023 budget. However, with the recent decrease in forward market prices, there has been an overall decrease forecasted for FY2024

FY24 Operating Budget assumes the following revenue changes from the increase this fall:

- Decrease PPCA to $0 (from $.0713)
- Increase PPC base rate $0.0176
- Increase Distribution charge ($0.01 per kWh)
- Increase Customer charge $2.00 (Residential) $2.00 (Small Commercial), $5.00 (Med. Commercial), $10.00 (Industrial), and $2.00 (Municipal)
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Table 1: A comparison of the proposed FY24 to the FY23 approved budget:

FY24/FY23 Budget Comparison			
Description	FY23 FINAL Budget	FY24 Proposed Budget	Increase (Decrease)
Revenue	**$ 30,054,786**	**$ 33,338,387**	**$ 3,283,602**
Purchased Power Expense	$ 14,714,748	$ 15,249,724	$ 534,976
Transmission Expense	5,938,233	5,932,580	(5,653)
Operating Non Power Expense	5,137,313	5,359,971	222,659
Total Before Depreciation	25,790,294	26,542,275	751,981
Depreciation	1,593,364	2,693,014	1,099,649
Discount/Rebate Less Other Income	1,532,308	2,056,095	523,787
Total Expenses (Net Other Income)	**28,915,965**	**31,291,384**	**2,375,418**
Net Income	**$ 1,138,821**	**$ 2,047,004**	**$ 908,183**
Misc Credits to Surplus	-	-	-
Payment In Lieu of Taxes	780,960	780,960	(0)
Increase to Surplus	**$357,860**	**$1,266,044**	**$ 908,183**
Rate of Return	**1.96%**	**3.65%**	**1.69%**

The FY24 Operating Budget represents the period from July 2023 through June 2024. The Massachusetts Department of Public Utilities (DPU) Uniform System of Accounts is the basis for the categorization of costs. Under Massachusetts General Laws, a municipal plant can earn up to 8% annually of the gross plant in service. MMED's retail rates are approved by the MMED Light Board Commission and revised periodically.

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Table 2: FY24 Statement of Income and Surplus

REVENUE:		
Residential Sales	$	12,416,844
Small Commercial		1,888,549
Medium General Service		6,288,808
Large General Service		11,520,069
Municipal Sales		1,224,918
Total Metered Sales:	**$**	**33,339,188**
Over/Under Generation	$	(801)
Total Power Revenue	**$**	**33,338,387**

EXPENSES:	
Power Production:	**$15,249,724**
Transmission:	**$ 5,932,580**
Non Power Operating :	$ 5,359,971
Discounts/Rebates/Other	2,056,095
Depreciation	2,693,014
Total Expense:	**$31,291,384**

Net Income	**$**	**2,047,004**
Misc. Surplus		0
In Lieu of Taxes		780,960
Net change Surplus:	**$**	**1,266,044**

Table 3: Summary of MMED's Energy Sales (kWh) CY 2018 - CY 2022

Calendar Year	*Energy Sales (kWh)*	*Increase (Decrease)*
2018	209,522,749	4.30%
2019	205,748,407	-1.80%
2020	205,571,786	-0.09%
2021	217,137,920	5.54%
2022	228,500,548	11.15%
5 year Average	213,296,282	1.81%

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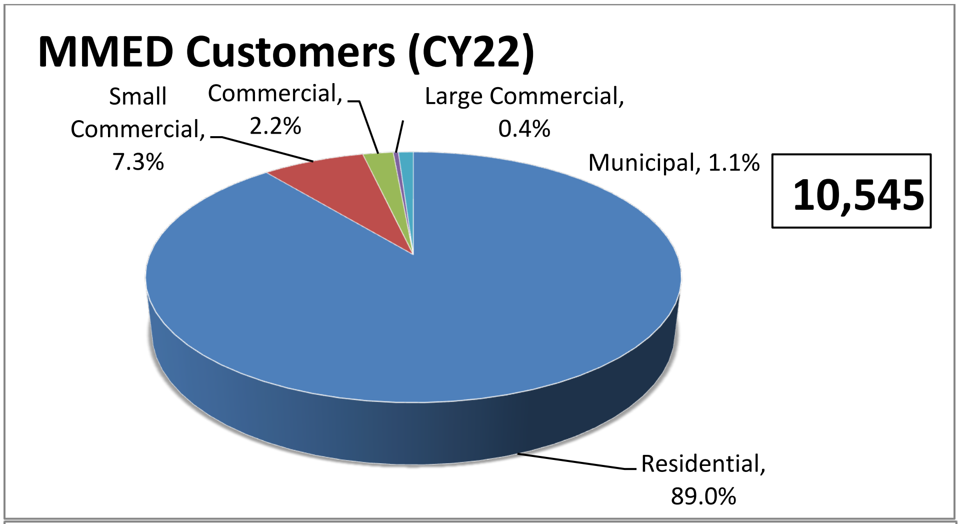
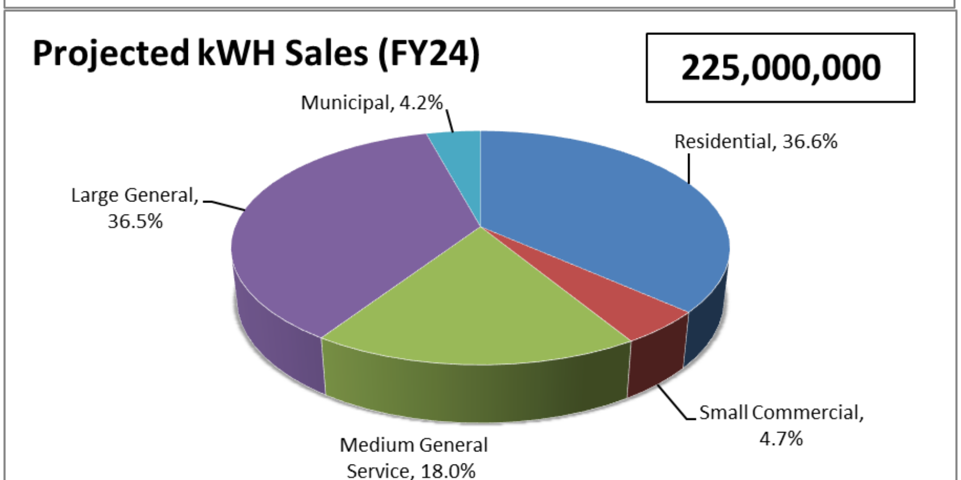
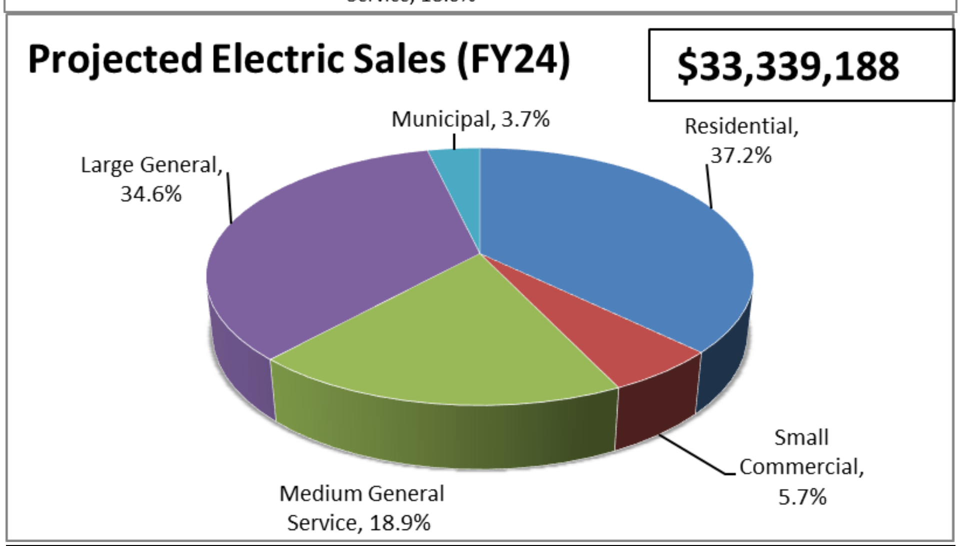
II. MMED Statistics:







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Electric sales revenues are comprised from the following charges:

<u>Customer Charge</u>:
A flat surcharge is apportioned to each customer category type which covers all standard MMED costs that exist to support the costs of meter reading, meter maintenance, customer service, billing and administrative needs. FY2024 budget increase is necessary to cover above expenses.

<u>Distribution Charge</u>:
This rate is based upon the individual customer's energy consumption (kWh) each month and reflects the costs associated with delivering energy from the distribution substations to homes and businesses in Mansfield. This includes the cost of constructing and maintaining all local distribution electrical lines. FY2024 budget increase is necessary to cover other non-power expenses due to rising inflationary costs for equipment maintenance, tools, and other service agreements.

<u>Purchase Power Charge</u>:
This rate is based upon the individual customer's energy consumption (kWh) each month and reflects the costs associated with power production and transmission of energy to the Mansfield distribution substations.

> Mansfield power production resources vary from long-term joint ownership in various generation plants (Solar, Wind, Nuclear, Oil, & Natural Gas) through Massachusetts Municipal Wholesale Electric Company (MMWEC), along with other short-term hedges in the 'Spot Market' to cover open market positions.
>
> Such rate may be adjusted to reflect changes in market conditions (i.e. price of fuel, supply factors, etc.). The Purchase Power Charge varies with market conditions and can fluctuate significantly depending on the time of year.

Adjustment increase from 2023 Budget is necessary to cover increasing purchase power expenses mainly driven by

- *Inflationary spot forward market prices*
- *Increasing kWh sales (est. 4.5%) increases MMED's Open Market position*

Note: The rate is a net decrease as compared to current rates that were adjusted in September of 2022.

Revenue projections are based on current commodity market pricing for future energy purchases during the FY24 period and are subject to change depending on market conditions at the time.

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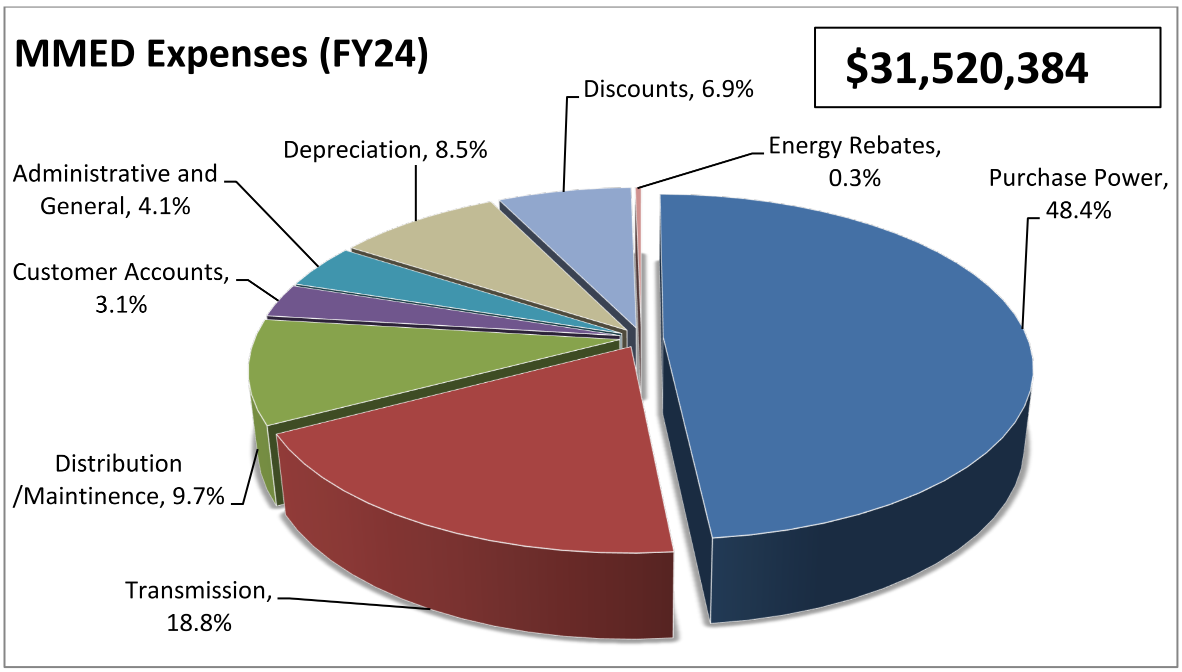
III. MMED Expenses:

Table 4: Major Expense Categories:

EXPENSES:		Amount	% Total
Purchase Power	$	15,249,724	48.4%
Transmission Expense		5,932,580	18.8%
Total Power Expense	**$**	**21,182,304**	**67.2%**
Total Non-Power Operating Expense	**$**	**5,359,971**	**17.0%**
Discounts		2,188,095	6.9%
Energy Rebates		97,000	0.3%
Depreciation Expense		2,693,014	8.5%
Other Expenses	**$**	**4,978,109**	**15.8%**
TOTAL OPERATING EXPENSE	**$**	**31,520,384**	**100%**



Non Power Expense (Labor vs Non Labor) Impact

Labor vs Non Labor Growth		BUDGET 2023	BUDGET 2024	%
TOTAL Non Power Expense	Total	$ 5,178,313	$ 5,359,971	3.5%
	Labor	$ 3,384,513	$ 3,514,771	3.8%
	Non-Labor	$ 1,793,800	$ 1,845,200	2.9%

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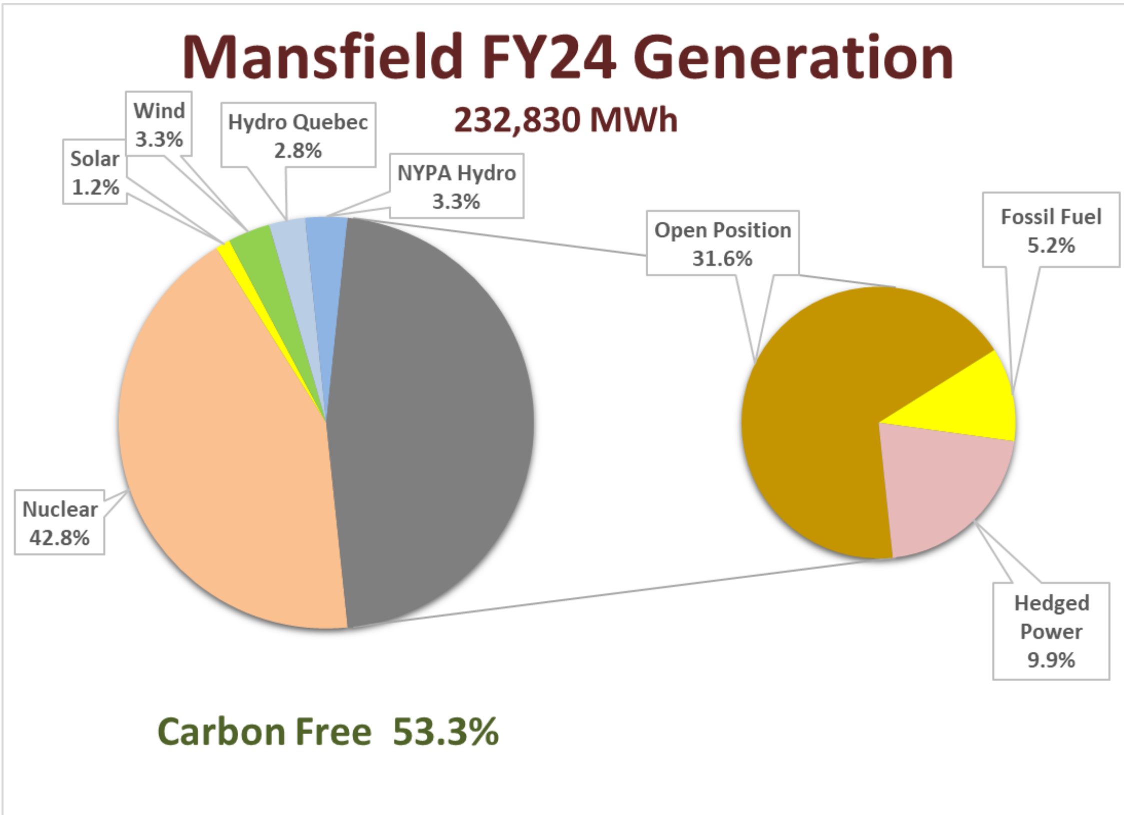
Purchased Power:

For the twelve-month period ending in June 2024, the MMED budget for purchased power expense is $21,182,304. This represents 67.7% of the total operating budget request.

For MMED, there main sources of actual generation of electrical power broken out in the components below of which 53% is non-carbon admitting sources:



From those resources, there are five (4) main purchased power expenses:

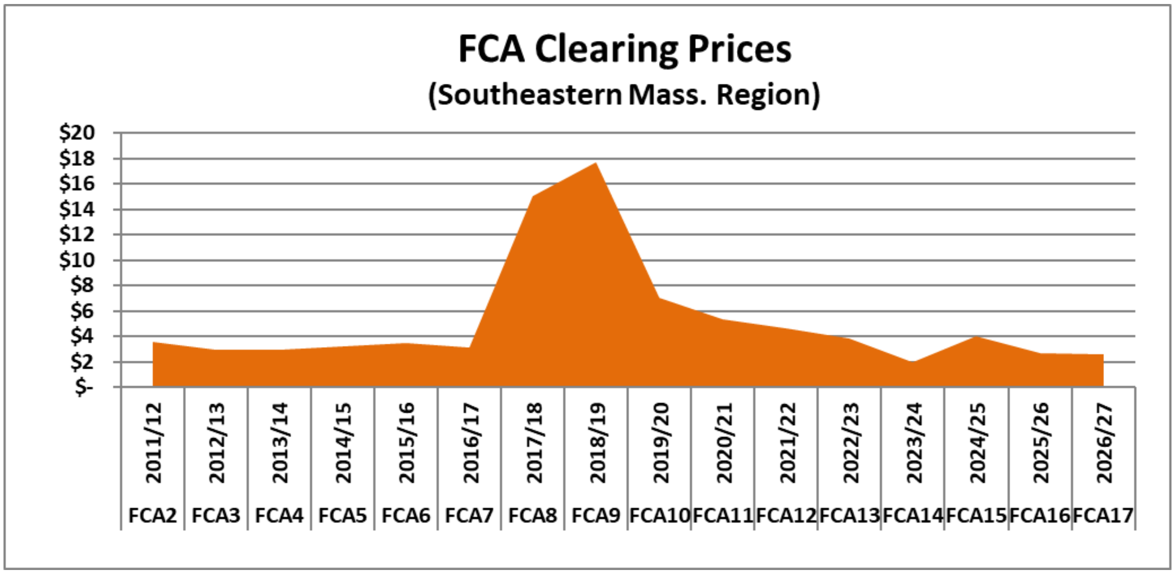
1) MMWEC Project Expenses – MMED is a project participant in numerous Massachusetts Municipal Wholesale Electric Company (MMWEC) generation projects through Power Sales Agreements. As a project participant, MMED is required to pay its share of the fixed costs of the plants, which includes the debt service, as well as its prorated share of the operating costs associated with running the plants.

2) Hedged Energy – In 2017, MMED approved the process of purchasing power directly from the market based upon ‘Price’ and ‘Time’ triggers. When MMED is within short duration, the purchase is made to fill open positions (i.e. ‘Time’ trigger). When the price is attractive enough below the average market price, then the purchase is made to fill the future open position (i.e. ‘Price’ trigger).

   Under this process, MMED has contract with three suppliers covering portions of MMED’s energy requirements for FY24.

3) Forward Capacity: In its continuing efforts to reward existing generators and encourage new generators in specific areas where there are constraints, the ISO has a Forward Capacity Market (FCM) to solicit bids through a Forward Capacity Auction (FCA) on an annual basis for a period 5 years in the future (the logic being it would take 5 years to build generation and the auction provides developers with the cash flow forecast for financing purposes). These monies are collected from service providers (like MMED) and are awarded to generators for being available to generate on demand and the costs are distributed to all customers on a kWh basis and built into the cost of power purchased in the market.

   The chart (below) illustrates the impact of the FCM auctions on MMED ratepayers.



   This shows the clearing prices from the previous (16) auctions already completed. The results show a steady rate of about $3.50 per kW per month through FCA 7 (2016-2017). In FCA 8, however, the price increased to $7.025 per kW per month. In FCA 9 the price skyrocketed to $11.80 for existing generators and to $17.73 for new generation in the MMED load zone. Following five consecutive decreases in the FCA clearing price to a low of $2.00 in FCA14, FCA15 (2024/25) increased to $2.61 for Rest of Pool and $3.98 for the Southeast New England zone where MMED is located. *The price fell in FCA16 (2025/26) to $2.64 and again in FCA17 (2026/27) to 2.59.*

4) Spot Market Energy Purchases: To the extent that the sum of MMED's project entitlements and the hedge contracts either overstate or are deficient relative to MMED's actual hourly load, MMED is either a purchaser or seller into this market every hour. Approximately 41% of MMED's energy is projected to be purchased off the spot market in FY23, although this will most likely be reduced by additional hedging transactions when market conditions stabilize.

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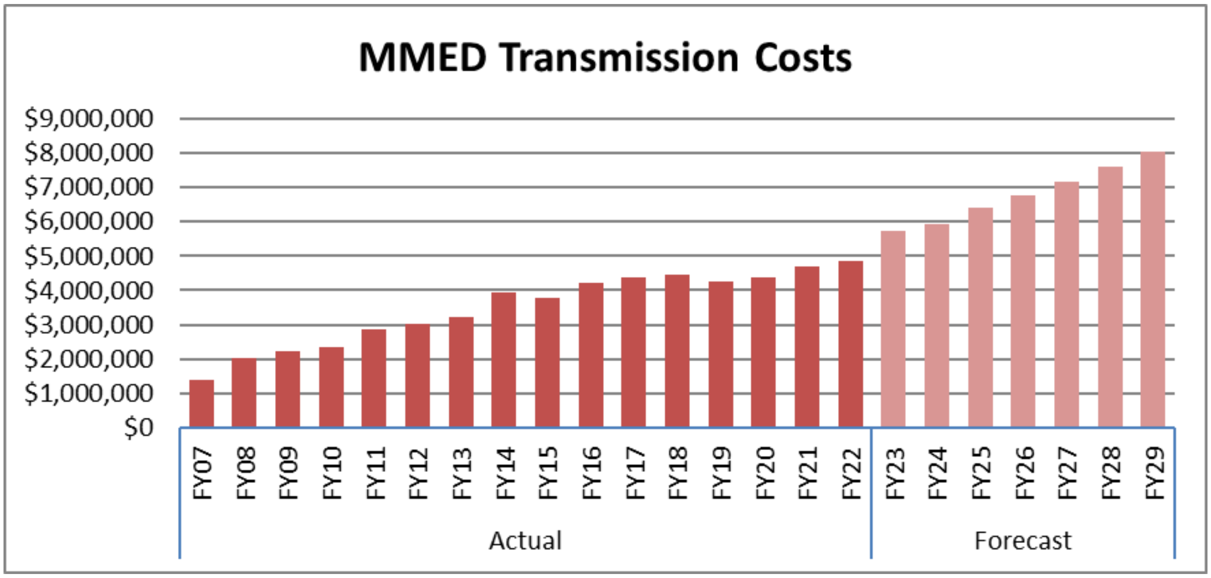
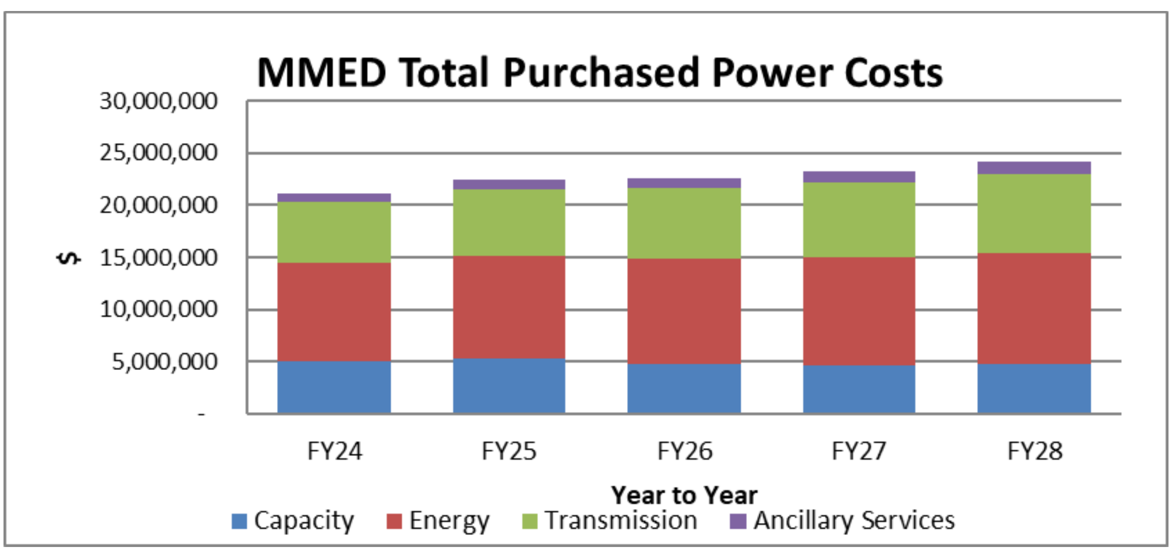
Transmission:

The cost of transmission services is associated with moving power across the regional transmission network from the sources that ISO New England uses to supply Mansfield's load. For FY24, MMED has budgeted $5,932,580 to cover its cost of transmission. *The FY24 projected cost of transmission is estimated to be 4% greater than the FY23 forecast due to an increase in forecast load and higher transmission rates in FY24.*

MMED's cost per kWh for transmission is estimated at 2.58 cents in FY24. Since FY11 when the rate was 1.28 cents/kWh, the cost of transmission has increased about 100% based on the FY24 projection. The chart below shows both the actual and projected increases in Transmission costs.



Increases are being driven towards fewer generating facilities in New England to maximize the flexibility of the transmission grid, so system expansion is ongoing. Secondly, there continues to be a strong push for alternative energy sources at the federal and state levels, particularly construction of off shore wind energy facilities.



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Operating Expenses (Non-Power):

MMED identifies the following 5 classes of Non-power operating expenses;

(1) Distribution
(2) Customer Accounts
(3) Administrative
(4) Depreciation
(5) Discounts/Rebates and Other Expenses

Internal 'Labor Allocations' are built within each of the identified categories above. *The proposed FY24 budget for Operating Expenses (Non-Power) represents a $181,658 increase from the approved FY23 budget or 3.5%. The increase is driven by increases in fuel prices, maintenance/software agreements and negotiated labor costs.*

- *Labor rates and Benefit expenses used in the FY24 budget reflect anticipated contractual increases for the AFSCME and IBEW units.*

1) Distribution Expenses:

The bulk of expenses in this category are those incurred by MMED for the operation and maintenance of its distribution system. This category includes most of the cost for labor expended by MMED on an annual basis.

The total budgeted cost of distribution for FY24 is $3,066,943. This is an increase of $67,130 or 2.2% increase from the approved FY23 budget.

The increase in this account is primarily due to anticipated increases in labor. An estimated 3.0% annual merit with additional associated increases in rate/step progression in classes related to more experienced staff

2) Customer Account Expenses

All the costs associated with meter reading, customer service and the billing and collection of revenues fall under this category. The bulk of the expenses are the labor for the Meter Operations, the Office Administrator and Financial Assistants. The total budgeted cost of customer accounts for FY24 is $989,153. *This represents a $29,045 or 2.9% decrease from the approved FY23 budget. The bulk of the decrease represents lower meter reader time resulting from automation.*

3) Administrative and General Expenses

The administrative and general (A&G) expenses cover management salaries, office supplies and expenses, consulting and legal costs, insurance, cost for vehicular maintenance, and other miscellaneous expenses. The total budgeted cost for A&G for FY24 is $1,303,874. *This represents an increase of $143,573 or 12.4% increase than the approved FY23 budget. The increase is primarily related to increases in fuel and utility costs and new software related expenses.*

4) Depreciation

Under M.G.L. Chapter 164, Section 57, municipal light departments are required to set aside an amount each year for depreciation expense to be used solely for “repairs, extensions, reconstruction, enlargements and additions” to the physical plant. In this manner, the Legislature ensured that money would always be made available through the collection of rates for rebuilding the infrastructure of an electric utility.

Depreciation expense of $2,393,014 is budgeted to increase by 69.0%, which is driven by actual capital spend in FY24. In January 2023 MMED increased the depreciation rate from 3% to 5% to align better with most recent cost of capital expenditures. One-twelfth of this amount is transferred each month from operating cash to a segregated Depreciation Fund bank account and is drawn down on an as-needed basis to support capital improvement work.

5) Discounts/Rebates and Other Expenses

MMED offers a 20% discount on either the Distribution Charge or Distribution Demand Charge portion of the unbundled bill (depending on the class of customer) for prompt payment within 15 days of billing. The discount does not apply to the monthly Purchase Power Charge, Customer Charge or Hydropower Credit. The discount is not granted if the account is in arrears. MMED also offers alternate payment options such as credit card, direct debit, on-line internet bill payment and recurring credit card payment.

Discounts and other expenses of $2,056,095 or 37.9% increase from the FY23 budgeted operating expenses. Increase in driven by increased sales, distribution rate, higher participating customers in autopay program and Energy efficient Rebates such as Home weatherization, Appliance Rebates and EV chargers.

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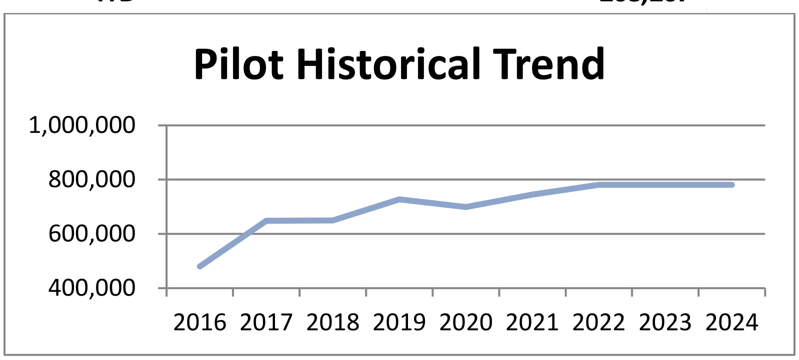
PILOT:

Request by town manager and Select person member to increase PILOT to FY2022 level

FY24 MMED PILOT	
FY22 MMED Net Book Value(GAAP)	$35,042,359
times FY23 Comm Tax Rate	$18.52
Total rounded up to nearest $	$648,984

FY23 MMED PILOT	
FY21 MMED Net Book Value(GAAP)	$34,145,587
times FY22 Comm Tax Rate	$18.88
Total rounded up to nearest $	$644,669

Change	
Net BV	$896,772
Rate	($0.36)
$ increase (decrease) Pilot	$4,316
	0.67%
Additional Funds to Town	
2023	136,291
2024	131,976
ITD	**268,267**



Pilot Historical Trend		
2016	480,000	
2017	648,648	35.1%
2018	650,199	0.2%
2019	727,925	12.0%
2020	699,478	-3.9%
2021	745,030	6.5%
2022	780,960	4.8%
2023	780,960	0.0%
2024	780,960	0.0%

MMED Projected Net Income:

Based on projected revenues and anticipated operating expenses. *MMED forecasts a FY24 Net Income of $2,047,004. This represents a 3.65% rate of return on plant assets.* Shown below is the trending of Net Income since FY18.

Net Income FY18 – FY24B

Fiscal year	*Net Income*	*Change from Prior Year Increase (Decrease)*
FY18	701,451	(374,026)
FY19	193,332	(508,119)
FY20	1,829,200	1,635,868
FY21	1,760,863	(68,338)
FY22	1,554,185	(206,678)
FY23 Budget	1,138,821	(415,365)
FY24 Budget	2,047,004	908,183

MMED has been able to keep rates lower than national competitors, in large part because of its ownership in power plants and efficient management of operation expenses. The cost of power is significantly higher in FY24 due to the increase in natural gas prices and the ultimate effect on the cost of electric energy purchased on the spot market. Operating cash has decreased due to MMED absorbing some of the increased power costs in order not to impact customer more than necessary.

Net Income in the FY24 budget is $908,183 higher than the FY23 Net Income budget. The increased Revenue sales offset by the projected increasing power expenses, fuel and utilities, estimated contractual increases and depreciation are the primary drivers.

MMED is currently working to strengthen its operating cash position. Capital improvement program will require cash resources to fund the capital improvement 5-year plan. MMED will not need to engage in borrowing as Operating Cash is currently at a level to cover planned capital improvements.

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IV. MMED Budget Assumptions & Risks

Key assumptions used when compiling the FY24 capital and operating budgets are:

1) Risks: Due to economic inflation, open market fuel prices, and the post-pandemic recovery, there are unknown variables that may impact results. Other contributory factors include
   a. Dramatic change in Load Shape
   b. Decline in Collection Trends
   c. New Regulatory Requirements

2) Labor rates used for this budget are based on estimated salary information for FY24.

3) The cost of benefits was based on estimated annual benefit costs for employees.

4) Base electric rates are assumed in this budget to be higher than FY23 but due to volatility in the market it may not represent the actual increase incurred.

5) Depreciation expense is based on estimated net plant levels at 02/28/23. A regulatory accounting method of a 20-year life for all assets was used in calculating depreciation.

6) Labor amounts used in the operating budget were based on total hours estimated to be worked by each of MMED'S (21) employees less hours spent on capital improvements, as detailed in the Capital Budget, less labor expended on reimbursable projects.

7) Interest income accrues on specific MMED accounts: Depreciation Fund; Guaranteed Deposits for customers providing a deposit for electric service; and the MMWEC Reserve Trust fund.

8) Non-Power operating costs are budgeted evenly for each month during FY24, whereas projected purchased power expenses, transmission expenses and revenues are individually calculated monthly.

Conclusion

MMED's budget is an accurate estimate of operations and maintenance expenses for FY24 and is consistent with the long-term goals established by the Electric Commission.