

Mansfield Municipal Electric Department (MMED)
Capital Work Plan
(FY 2025) July 2024 – June 2025

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I. Executive Summary

Each year MMED establishes a 'Capital Work Plan' to invest ratepayer funds to improve system infrastructure and solidify Mansfield Electric's position as an industry leader in providing safe, reliable, and affordable electric energy to all its customers.

MMED has consistently had four primary objectives:

- I. Maintain a safe working environment for its employees.
- II. Invest in a strong system reliability performance.
- III. Provide affordable and competitive electric rates to its ratepayers.
- IV. Provide financial benefits to the Town of Mansfield that is consistent with sound financial management of the utility.

Each year the Engineering and Operations staff of MMED spend considerable time identifying critical infrastructure improvements and overall MMED operational needs to improve system operations. After defining each project along with stating its intended goal, each investment is estimated by the following breakdown;

- Labor Expenses (MMED)
- Expenses for outside resources (Contractor, Police Details, etc.)
- Vehicle hours
- Timeline to complete
- Total Cost estimate

Finally, each investment in the 'Capital Work Plan' is classified in one of four type of projects:

1. One Time Projects - are to be completed in the Fiscal Year
2. Recurring Projects - with a period of two or more years
3. Billable Projects (ex. State Funded projects)
4. General Plant Improvements

From the analysis above, the MMED staff has identified (1) carry over project from FY23 and (24) new capital project investments equal to \$ 3,099,287 for FY25.

A summary breakdown of each is identified in the following chart:

Capital Work Plan Cost Summary July 2024 to June 2025

IDENTIFIED PROJECTS									
Project	GL	Cat*	Carry Over Projects	Contract	Labor	Materials	Details	Total	Hours
FY 24-1	365-183	2	Gilbert ROW UG Cbale Project (Jewell St UG)	\$5,000	\$145,000	\$1,250,000	\$8,000	\$1,408,000	1208
FY 24-10	365-220	2	Field Recloser		\$30,000	\$231,613	\$5,000	\$266,613	250
FY 24-13	390-300	1	Gates & Garage Door	\$160,000				\$160,000	0
Total Specifically Identified				\$165,000	\$175,000	\$1,481,613	\$13,000	\$1,834,613	1458
FY2025 Projects									
FY 25-1	367-200	1	East St UG Project	\$835,610	\$20,000		\$45,000	\$900,610	167
FY 25-2	392-300	1	Truck 13 with Plow	\$75,000				\$75,000	0
FY 25-3	365-231	2	Animal Guard Project		\$18,000	\$80,000		\$98,000	150
FY 25-4	367-111	3	Balcom ST (1W1 Circuit) OH Reliability Construction	\$150,000	\$30,000	\$130,000	\$40,000	\$350,000	250
FY 25-5	392-300	1	High St Office Renovation	\$250,000				\$250,000	
Total Specifically Identified				\$1,310,610	\$68,000	\$210,000	\$85,000	\$1,673,610	567
GENERAL									
FY 25-6	364-300	4	Pole Replacements		\$7,500	\$26,700	\$2,000	\$36,200	63
FY 25-7	365-300	4	Overhead conductors & fiber system.	\$26,000	\$10,000	\$85,000	\$9,000	\$130,000	83
FY 25-8	366-300	4	Underground cable and conduit.	\$10,000	\$12,667	\$50,000	\$2,500	\$75,167	106
FY 25-9	367-300	4	UG Devices (PM Switchgear & Pothead Replacement)		\$10,500	\$20,000	\$11,000	\$41,500	88
FY 25-10	368-300	4	Transformers (Overhead & Padmount)		\$10,000	\$966,477	\$13,500	\$989,977	83
FY 25-11	369-300	4	New/Upgrade of services		\$6,667	\$10,000		\$16,667	56
FY 25-12	370-300	4	Metering Equipment		\$1,000	\$12,500		\$13,500	8
FY 25-13	373-300	4	Street Lighting		\$1,000	\$6,667		\$7,667	8
FY 25-14	390-300	4	Structures and Improvements			\$20,000		\$20,000	0
FY 25-15	394-300	4	Tools for vehicles			\$50,000		\$50,000	0
FY 25-16	395-300	4	New Laboratory Equipment			\$20,000		\$20,000	
FY 25-17	399-300	4	Computer Hardware & Software			\$25,000		\$25,000	
Total Specifically Identified				\$36,000	\$59,333	\$1,292,344	\$38,000	\$1,425,677	494
Reimbursable Projects									
FY 25-18	415-200	3	Mass DOT Reimbursable Projects (Rt 140 & Rt 106)		\$25,000		\$5,000	\$30,000	125
FY 25-19	415-200	3	Mass DOT Balcom St Bridge		\$10,000			\$10,000	50
FY 25-20	415-200	3	General Reimbursable		\$40,000			\$40,000	200
Total Specifically Identified				\$0	\$75,000	\$0	\$5,000	\$80,000	375
FY25-FY26: The following items will be ordered in FY25 for Delivery in FY26									
FY 25-21	392-300	1	Digger (FY25 Approval with FY 26 DELIVERY/PAYMENT)	\$340,000				\$340,000	0
FY 25-22	365-300	2	Capacitor & Controls Replacement			\$97,000	\$5,000	\$102,000	0
FY 25-23	362-500	2	Gilbert Sub Distribution Regulators (3)	\$5,000		\$65,000		\$70,000	0
Total Specifically Identified				\$345,000		\$162,000	\$5,000	\$512,000	0
Total FY25				\$1,856,610	\$377,333	\$3,145,957	\$146,000	\$5,525,900	2894

FY 2025 Less (Carry Over, Reimbursables, and FY26 deliveries)=

\$3,099,287

*** Categories**

1. Single Year Projects - are to be completed in the Fiscal Year
2. Multiple Year Projects - with a period of two or more years

3. Billable Projects (ex. State Funded projects)
4. Recurring Projects General Plant Improvements

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III. Capital Work Project Descriptions

FY25 Capital Projects:

- FY24-1: Gilbert ROW UG cable project –project to install new underground cable for the 1W1, 1W4 and 1W7 from Sweet's Pond to Justin Drive. As part of this plan three (3) circuits will be rerouted using the newly constructed underground duct system to increase reliability of power to all customers fed from these circuits.
- FY24-10: Field Recloser Replacement Project Carry Over – Six (6) reclosers were purchased to replace the existing old field reclosers and controllers in the field. Six (6) more to be ordered in FY26.
- FY24-13: Garage & Motorized Gates – Replace and install new motorized gates. Four gates at High Street and 1 gate at Gilbert Street Substation. The new system will be capable of operating open/close from phone.
- FY25-1: East St UG Project - Install seven (7) manholes and 2500 feet of 4-5" duct system from East Street at Hope Street to Downtown area utilizing the bike path to connect Bird sub to Gilbert sub on South Main Street. It is planned to extend one (1) circuit in the future from Bird sub to pick up part of Circuit 1W5 on South Main St through Wilson Place.
- FY25-2: Truck 13 with Plow- This new truck will replace old pickup truck 13.
- FY25-3: Animal Guard Installation Project – Install new animal guard products at potential animal contact locations to reduce outages. Locations include riser poles, transformer banks and switch/reclosers.
- FY25-4: Balcom St (1W1 Circuit) OH Reliability Construction: – Replace 54 poles on Balcom St & Otis St to install new 477 AL spacer primary wire and transfer existing facilities to increase the reliability for customers in this area.
- FY25-5: High Street Office Renovation – Renovate customer service space and facility bathrooms which are 40+ years old. Due to pandemic, the existing open office space for (3) customer service personnel is not optimal working space.
- FY25-6: Pole Replacements – Increase system reliability by replacing old & deteriorated poles. MMED maintains a list of poles that need to be replaced.

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- FY25-7: Overhead Conductors & Fiber System – **Overhead Conductors:** increase system reliability by addressing unforeseen problems as they arise. This is for unforeseen overhead pole work that must be performed based on customer complaint, system conditions or storm repair. **Fiber System:** extend fiber network to connect field devices (i.e. Reclosers, Capacitors, Regulators) to the SCADA system
- FY25-8: Underground Cable & Conduit – increase system reliability by addressing unforeseen problems as they arise. This is for unforeseen underground cable work that must be performed based on customer complaint, system outage conditions or storm repair.
- FY25-9: UG Devices (Pad Mount Switch & Pothead Replacement) – **Pad Mount Switchgear Replacement:** replace (4) live front switches per year with dead front switches to improve customer service reliability and operational safety. **Pothead Replacement:** replace porcelain pothead terminations (transition between OH and UG cable).
- FY25-10: Transformers (Overhead & Padmount) – This project serves two goals to: (1) meet new customer service deadlines by maintaining an adequate stock of transformers and (2) upgrading overloaded and aged transformers. These transformers (overhead & padmount) are used to serve customers in new subdivisions as well as upgrading/replacing transformers in older residential subdivisions to improve the reliability. This project will increase system reliability by replacing deteriorated transformers.
- FY25-11: New/upgraded electric services required – This is for the installation of new services, upgrade of existing service due to load or demand increase, or replacement of electric services that fail to meet customer load demands in timely manner.
- FY25-12: Metering Equipment – This is for the purchase and installation of metering equipment such as current transformers and potential transformers and related equipment to properly meter both residential and commercial customers systemwide.
- FY25-13: Street Lighting – This is for inventory & stock and used for the replacement of failed or damaged street light components to properly maintain the street lights in town.
- FY25-14: Structures and Improvements – This project will be used for MMED's structural improvements as needed.
- FY25-15: Tools for Vehicles – This is for the purchase of new tools for line operations, metering, and maintenance divisions.
- FY25-16: New Laboratory Equipment – Purchase of new equipment as required (i.e. PMI Single Phase Meter Recorder, testing equipment, etc.).

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FY25-17: Computer hardware and software – Purchase of new computers and software.

FY25-18: Mass DOT Reimbursable Project (Rt140 & Rt106): This is a Mass DOT project to upgrade the intersection of Rt 140 & Rt 106 and widen the Rt 106. National Grid will upgrade poles on Et 106 to share with MEED. The scope of this project is from Fisher St to School St on Rt 106. MMED will relocate all its 1W5 circuit assets on poles located opposite side of the street to newly set poles by National Grid. This work requires to install approximately 2700' of new 477 AL Hendrix primary and 1/O Al triplex secondary wires and do some underground construction to relocate (1) street light and traffic control cabinets at the intersection and (2) three riser poles on Chauncy Street.

FY25-19: Mass DOT Balcom St Reimbursable Project:

FY25-20: General Reimbursable Customer Projects: – This project is for the work needed to meet the new customer service deadlines. All costs reimbursed by the customer.

FY25-21: Digger Derrick (Expect FY26 delivery and payment): –Digger to be replaced is a 2000 Sterling truck with 23,338 miles on it.

FY25-22: Capacitors & Controls Replacement (Expect FY26 delivery and payment): – As a result of a reliability study conducted in 2024, it is desired to purchase new capacitors and controls to upgrade the existing antiquated caps and controls and connect them all to the SCADA system for better monitoring and control in order to minimize system losses during seasonal and system peak.

FY25-23: Gilbert Sub Distribution Regulators (Expect FY26 delivery and payment): – Three regulators to be purchased to be used as spares for Gilbert Sub and replace the controls for 1W5 regulators at High Street. These regulators will be ordered in FY25 to arrive in FY26.

MANSFIELD MUNICIPAL ELECTRIC DEPARTMENT VEHICLE EXPENSE LIST												Date	3/1/24		
VEH.	YEAR	Years old	MANF.	MODEL	VIN	PLATE #	G.V.W.	FUEL	COST \$	Repair / PM Expenses	Mileage / Hours	Assigned to	VEH.	Replace	To Be Replaced in
513	2007	15	Ford	F350 Utility	1FTWTF31YX7EA84582	M80-333	10,700	gas	\$34,001.00	\$14,469.46	94626	Line	513	2019	FY19
530	2012	10	Ford	F250 4X4 P/U	1FT7X2B68CEC27564	M84020	8,800	gas	\$28,970.00	\$17,264.68	103377	Line Crew	530	2024	FY24
543	1996	24	JCB	Backhoe 214	SLP214TCTE0444474	M54-511	16,200	diesel	\$48,286.00	\$71,293.13	4854	Line Crew	543	2026	FY26
544	2001	21	IH	M4900	1HTSDAAR01H355787	M65557	35,000	diesel	\$129,470.00	\$62,298.70	51932	Line Crew	544	SOLD	?
528	2022	0	IH	MV607 Bucket	3HAEUMMR4NL462237	M9156A	35,000	diesel	\$258,363.00	\$6,993.70	3948	Spare Bucket	528	2037	FY37
523	2000	22	Sterling	L7501 Digger	2FZHAJBBSYAG46810	M58-142	36,220	diesel	\$144,790.00	\$51,320.80	22338	Spare Digger	523	2015	FY15
509	2008	14	Ford	Taurus	1FAHP24W68G123951	M79955	N/A	gas	\$18,950.00	\$4,342.37	33011	Plant	509	2023	FY23
510	2012	10	Ford	F250 4X4 P/U	1FT7X2B65CEA43053	M88522	5,080	gas	\$33,849.00	\$18,542.24	55331	Sta Op	510	2026	FY26
518	2011	11	IH	4400 /Posi-Plus	1HTMKAAR8BH362390	M84269	35,000	diesel	\$220,229.00	\$68,103.02	42888	Line Bucket	518	2026	FY26
511	2015	7	Ford	F250 4X4 P/U	1FT7X2B67FEB98501	M93043	8,800	gas	\$38,672.00	\$9,301.77	63741	Stores	511	2027	FY27
514	2015	7	Chev	K2500 Utility	1GB0KUEG1FZ544037	M93596	5,080	gas	\$39,997.00	\$6,687.83	103472	Line	514	2027	FY27
515	2020	2	Ford	Ranger R1F P/U	1FTER1FH4LLA52118	M53-630	5,080	gas	\$29,605.00	\$2,545.96	26154	Meter	515	2027	FY27
527	2006	16	Sterling	Swaploader	2FZACHCS66AM34219	M41-322	35,000	diesel	\$170,788.00	\$147,888.39	20700	Line	527	2031	FY31
516	2016	6	Ford	F350 Utility	1FTRF3B64GED28186	M97480	11,000	gas	\$34,247.08	\$9,761.68	38857	Meter	516	2028	FY28
521	2020	2	Dodge	Ram crew cab	1C6RR7KG2LS155245	M7438A	6,800	gas	\$35,000.00	\$2,420.17	10873	Line Foreman	521	2027	FY28
526	2015	7	Frtlnr	MT55/Utilimaster	4UZAARDU4FCGB9088	M89268	25,500	diesel	\$136,938.00	\$12,306.44	3933	Line UG splice	526	2027	FY27
517	2019	3	Ford	F350 Utility	1FD8X3B65KEC63135	M1839A	11,000	gas	\$47,824.47	\$2,549.33	12191	Station Op.	517	2031	FY31
522	2016	6	Ford	Ford F750	1FDYX7DE4GDA02779	M95923	35,000	diesel	\$229,641.00	\$32,481.31	28712	Line Bucket	522	2031	FY31
529	2016	6	IH	Terex Digger	3HAMMMMR8GL109952	M94817	37,000	diesel	\$249,902.00	\$26,047.43	11789	Line Digger	529	2031	FY31
501	2020	2	Chevy	Bolt EV	1G1FY6S07L4139003	M6980A	N/A	Elect	\$31,350.00	\$2,145.00	1015	Office	501	2035	FY35
520	2020	2	IH	MV607 Bucket	3HAEUMMR7LL391662	M1852B	35,000	diesel	\$271,982.00	\$9,880.43	1435	Line Bucket	520	2035	FY35
525	2020	2	INTL	MV607 Bucket	3HAEUMMRXLL858086	M6452A	33,000	diesel	\$297,885.00	\$6,658.28	16465	Line Bucket	525	2035	FY35
512	2017	5	Ford	F550 Dump	1FDUF5HY5HED14499	M99946	19,000	gas	\$72,547.59	\$4,820.62	12378	Line	512	2037	FY37
524	2022	0	Deere	310SL HL	1T0310HLCNF412703	M9157A		diesel	\$130,000.00	\$3,565.92	35	Backhoe	524	2052	FY52
									\$2,496,738.55	\$570,832.66					

Vehicle Replacement Guide Lines:

- | | | |
|---|---|----------|
| 1 | Heavy Duty work vehicles (Digger and Bucket trucks) to be replaced ev | 15 years |
| 2 | Small pickups to be replaced every | 7 years |
| 3 | Large pickups to be replaced every | 12 years |
| 4 | Pool cars to be replaced every | 15 years |
| 5 | Dump trucks to be replaced every | 20 years |
| 6 | Backhoe to be replaced every | 30 years |

Vehicle replacement is based on the guidelines above as well as the operational evaluation of the vehicle and useful remaining life.

**Mansfield Municipal Electric Department
Projected Five Year Plan April 2024
FY25 Capital Budget**

Description	FY25 Proposed	FY26 Projected	FY27 Projected	FY28 Projected	FY29 Projected	FY30 Projected
General (Ongoing Annual Capital Requirements) (1)	\$ 1,355,677	\$ 1,423,461	\$ 1,494,634	\$ 1,569,366	\$ 1,647,834	\$ 1,730,226
Storage Shed for Gilbert Sub		\$ 75,000	\$ 75,000			
Gilbert ROW Cable Project	\$ 1,408,000	\$ 150,000				
Animal Guard Installation Project	\$ 98,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 50,000	
Eastman Street Underground Project			\$ 250,000	\$ 250,000	\$ 250,000	
Facilities Enhancements (2)	\$ 410,000	\$ 70,000	\$ 50,000			
Balcom St (1W1) OH Reliability Construction	\$ 350,000					
Field Reclosers	\$ 266,613	\$ 150,000	\$ 150,000			
Gilbert Sub Distribution Regulators	\$ 70,000					
East Street Underground	\$ 900,610	\$ 750,000	\$ 750,000	\$ 750,000		
Capacitor & Controls Replacement		\$ 102,000	\$ 120,000	\$ 120,000	\$ 120,000	
Future Capital Investments			\$ 250,000	\$ 350,000	\$ 750,000	\$ 1,050,000
New Vehicles (3)	\$ 75,000	\$ 340,000	\$ 350,000	\$ 360,000	\$ 375,000	\$ 375,000
Reimbursable Projects	\$ 80,000	\$ 1,100,000	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000
Total Projected Annual Capital Budget	\$ 5,525,900	\$ 4,260,461	\$ 3,639,634	\$ 3,549,366	\$ 3,242,834	\$ 3,205,226
<u>Carry Over & Reimbursable Projects</u>	<u>(\$1,914,613)</u>					
<u>Digger (FY22) & Capacitors (FY23) to be Delivered in FY26</u>	<u>(\$512,000)</u>					
Projected FY25 Budget Less (Reimbursable, Carry Over, and FY26 Delivery)	\$ 3,099,287	\$ 3,160,461	\$ 3,589,634	\$ 3,499,366	\$ 3,192,834	\$ 3,155,226

NOTES:

- (1) Ongoing Capital Budget projections based on projected proposed budget with 5% adder through FY30.
(2) This project includes \$250k for Office renovation and \$160k for Gates & Garage Project.
(3) FY 25 includes \$95000 for Truck 13 and FY26 \$340,000 for new Digger but anticipate FY26 Delivery/Payment.