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October 9, 2024

Lisa Felice
Executive Secretary
Michigan Public Service Commission
7109 West Saginaw Highway
Lansing, MI 48917

RE: In the matter of the Application of **DTE ELECTRIC COMPANY** for authority to increase its rates, amend its rate schedules and rules governing the distribution and supply of electric energy, and for miscellaneous accounting authority
MPSC Case No(s). U-21297 and U-21354

Dear Ms. Felice:

Attached in the above captioned matter is DTE Electric Company's 2025 Investment Recovery Mechanism (IRM) Investment Plan Amended. Also attached is the Proof of Service.

Very truly yours,

Paula Johnson-Bacon

Digitally signed by Paula Johnson-Bacon
Date: 2024.10.09 14:55:55 -04'00'

Paula Johnson-Bacon

PJB/erb
Attachment

cc: Service List

DTE Electric Company

2025 Investment Recovery Mechanism (IRM) Plan (Amended)

October 9, 2024

DTE

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1 Introduction

1.1 MPSC IRM Approval

In the Order dated December 1, 2023 in Case No. U-21297, DTE Electric (DTEE) received approval for a two-year distribution investment recovery mechanism (IRM) for the following five programs: (1) conversions, (2) subtransmission redesign & rebuild, (3) breaker replacement, (4) underground residential distribution (URD) replacement, and (5) 4.8kV circuit automation. The Commission directed DTEE to file an IRM Investment Plan at least four months prior to the start of each plan year to allow for a meaningful review by both Michigan Public Service Commission (MPSC) Staff and other interested stakeholders. In addition, the Company will hold a forum two months prior to the start of the plan year. The forum provides the opportunity for interested parties to raise concerns and allows for additional collaboration and input into the proposed investments. A formal reconciliation process will be filed as a contested case proceeding after the end of an IRM year to provide transparency and an opportunity for review of the reasonableness and prudence of the company's expenditures.

For the IRM Plan Year 2 (12 months ending December 31, 2025), the Commission approved the following investment and in-servicing to be included in the IRM (in $ millions):

Program	Investment	In-service[1]
Circuit conversions	185.8	139.8
Subtransmission redesign & rebuild	53.8	41.8
Breaker replacement	12.6	12.6
URD replacement	13.5	13.5
4.8kV circuit automation	24.4	24.4
Total	**290.1**	**232.1**

The following sections provide the selection criteria, targets, and project details of the investment for each program that will be in-serviced in Year 2 of the IRM and relevant to the associated IRM

[1] For Breaker replacement, URD replacement, and 4.8kV circuit automation the investment and in-service amounts match because the assets are generally put into service as soon as the investment occurs (similar to the DTE Gas IRM). For circuit conversions and subtransmission redesign & rebuild, the numbers are different to account for some investment occurring before the asset goes into service

surcharge. The IRM surcharge is based only on in-serviced investment amounts, so that is the focus for each of the plans.

1.2 2025 IRM Amendment

This section serves to amend the 2025 Investment Recovery Mechanism (IRM) Plan that was originally filed on August 30, 2024.

After the original filing of the 2025 IRM plan, DTEE determined that four of the planned projects had roughly $2.9 million of historic 2022 investment that was being proposed for recovery in Case No. U-21534. These four projects are listed below and were included in the Company's Exhibit A-12, Schedule B5.4, in Case No. U-21534, with an in-service year of 2025.

Ex. A-12, Sch. B5.4	Project	Historic 12 mos. ended 12/31/2022 ($000s)
Page 14, Line 15	Subtransmission Redesign & Rebuild: Tie 4105 Phase 4	2,808
Page 14, Line 19	Subtransmission Redesign & Rebuild: Trunk 4266	3
Page 14, Line 33	CODI: Islandview Substation – Phase 3	45
Page 14, Line 36	CODI: Howard Conversion	3

To avoid "double recovery" of historic 2022 investment, the Amended 2025 IRM Plan presented here has been reduced by the corresponding amount of 2022 historic investment. The adjustments are shown in the 3.2 2025 Subtransmission Redesign & Rebuild IRM Plan and 2.2 2025 Circuit Conversion IRM Plan tables below in strikethrough format for clarity.

Investment in these projects for 2023 and beyond was not requested for recovery in Case No. U-21534, and therefore remains included in the Amended 2025 IRM Plan.

2 Circuit Conversions

2.1 Selection Criteria & Targets

The benefits of conversion of the 4.8kV system include increasing capacity as well as addressing the reliability risks of aged substation equipment. Therefore, the primary factors considered when developing conversion projects are substation over firm rating, circuit overloads, wire downs per

overhead mile, and substation risk ranking. Consistent with other strategic projects and programs, 4.8kV conversion projects are evaluated and prioritized using the global prioritization model (GPM), which takes into account the factors above, in addition to reliability improvements and investment in environmental justice (EJ) communities.

The Company operates some circuits as isolation (ISO) downs, which are 4.8kV circuits that are fed from a 13.2kV substation. On these circuits, the higher voltage is stepped down to 4.8kV by a transformer and the rest of the circuit downstream of that transformer operates in a 4.8kV delta configuration. As part of DTEE's long term vision to convert the 4.8kV system, converting the ISO down areas to a higher voltage will also be required.

The 4.8kV isolation down (ISO) circuits are already fed from a 13.2kV substation which removes the substation firm rating and the substation risk ranking from prioritization consideration. Without the need to consider substation factors, the following become the driving factors of 4.8kV ISO down conversions: safety (wire down reduction), reliability (customer minute interruptions), and costs (avoided O&M and capital).

Program execution metrics and associated targets for the selected conversion project that DTEE is planning to report in the reconciliation process are as follows:

Metric	Target
Overhead (OH) line miles pre-converted	49.7-51.8
Average cost per OH line mile pre-converted	$1.4M
Overhead (OH) line miles converted	43.1-44.3
Average cost per OH line mile converted	$0.5M
Conduit miles installed	3.7-4.8[2]

[2] Conduit mile work on the AC network can include conduit banks, manholes, primary switch cabinets, netbank platforms and other equipment; as such, actual project costs (rather than average unit costs) will be provided in the reconciliation process

2.2 2025 Circuit Conversion IRM Plan

Project	Substation/ Circuit	Area	Municipality	Scope of Work	Estimated 2025 In-service ($000s)
CODI: Garfield Radial (Midtown Circuits)	Garfield	SE	Detroit	3.5-3.8 miles OH pre-conversion[3]	6,000-6,500
CODI: Islandview Substation - System Conduit	Islandview	SE	Detroit	1.6-1.8 conduit miles	~~18,000-20,000~~[4] 17,955-19,955
CODI: Islandview Substation - DC9620 & DC9636	Islandview	SE	Detroit	4.4-4.6 miles OH pre-conversion	9,500-10,000
CODI: Kent/Gibson Conversion - CORKT8492	Corktown	SE	Detroit	1.0-1.2 miles OH pre-conversion	1,700-2,000
CODI: Howard AC Network Conversion	Howard	SE	Detroit	1.2-1.4 conduit miles	~~10,300-12,000~~[4] 10,297-11,997
4.8 kV CC: Calla Circuit Conversion Phase 2	Calla	SW	Ann Arbor	6.8-7.0 miles OH conversion	3,400-3,500
4.8 kV CC: I-94 Substation and Circuit Conversion (Promenade) - System Conduit	Promenade	SE	Detroit	0.6-0.95 conduit miles	6,300-10,000
4.8 kV CC: Lapeer - Elba Expansion and Circuit Conversion (Apollo)	Apollo	NE	Lapeer-Elba	0.3-0.6 conduit miles	4,700-5,000
4.8 kV CC: Hawthorne Relief and Circuit Conversion - MALRD9375 OH Work	Hawthorne	SW	Dearborn Heights	6.5-6.7 miles OH conversion	10,000-10,400
4.8 kV CC: Belleville Substation and Circuit Conversion	Belleville	SW	Belleville	8.8-9.0 miles OH conversion	1,800-2,000
4.8 kV CC: Pittsfield Substation and Circuit Conversion	Pittsfield	SW	Ann Arbor	3.5-3.7 miles OH pre-conversion	2,800-3,000

[3] OH pre-conversion scope of work includes 1) rebuilding pole tops, replacing poles and transformers as needed, and installing neutral wire, 2) reconductoring OH lines as needed, 3) installing controls and automation as needed, and 4) removing ISO down transformers
[4] Adjusted from original IRM plan, see section 1.2 above

Project	Substation/ Circuit	Area	Municipality	Scope of Work	Estimated 2025 In-service ($000s)
4.8 kV CC: Hemlock Decommissioning and Circuit Conversion	Hemlock	SW	Ann Arbor	2.4-2.5 miles OH pre-conversion	900-1,000
4.8 kV CC: Hilton Circuit Conversion Phase 2	Hilton	SE	Ferndale	1.1-1.2 miles OH pre-conversion ~0.1 conduit miles	4,000-4,200
ISO Gilbert	Gilbert	SW	Romulus	8.9-9.1 miles OH conversion	4,000-4,100
ISO Kern	Kern	NW	Pontiac	2.8-3.0 miles OH pre-conversion 5.3-5.5 mile OH conversion	3,800-4,000
ISO Biddle	Biddle	SW	Wayne	13.9-14.2 miles OH pre-conversion 6.8-7.0 miles OH conversion	19,500-20,000
ISO Venoy	Venoy	SW	Westland	14.2-14.5 miles OH pre-conversion	19,500-20,000
ISO HEMLK (SPRUC/PDMNT)	Hemlock	SW	Ann Arbor	2.9-3.1 miles OH pre-conversion	3,800-4,000
Total In-serviced Investment					~~**130,000-141,700**~~[4] **129,952-141,652**

3 Subtransmission Redesign & Rebuild

3.1 Selection Criteria & Targets

DTEE considers six criteria when prioritizing subtransmission redesign & rebuild projects. The first four criteria are part of what are called planning criteria violations. A planning criteria violation means that in either normal state or single contingency state, the system does not have adequate capacity to serve the existing load without exceeding equipment ratings or voltage standards. The six criteria and associated definitions for each criterion are as follows:

- Load loss for single contingency: total load that will be shed in certain conditions when a subtransmission line can no longer support the substation and does not have a back-up,
- Load over emergency rating for single contingency: load in excess of the emergency rating of a subtransmission line during a contingency event (i.e., outage),
- Load over day-to-day rating, normal conditions: Load in excess of the rating of a subtransmission line during normal conditions,
- Voltage violation: voltage drop on a subtransmission line exceeds standards when it is not in its normal configuration (i.e., due to an outage),
- Strong load growth prospect: lines that are predicted to experience load growth, and
- Reliability: history of outages or equipment failures on the subtransmission circuit.

Consistent with other strategic projects and programs, subtransmission redesign & rebuild projects are evaluated and prioritized using the GPM. Projects which provide a higher level of benefits per dollar invested will receive higher GPM scores.

The specific program execution metrics and associated targets that DTEE is proposing to report for the three subtransmission redesign & rebuild projects are as follows:

Metric	Target
OH line miles	22.2-23.1
Average cost per OH line mile[5]	$1.1-2.5M
UG line miles	4.1-4.6
Average cost per UG line mile[4]	$1.3-3.5M

[5] Projects may require distributed generation to support the required shutdowns to work on the system and/or mitigation of adjacent hazards to maintain safe working conditions, resulting in a wider variance of potential costs

3.2 2025 Subtransmission Redesign & Rebuild IRM Plan

Project	Circuit	Region	Scope of Work	Estimated 2025 In-service ($000s)
TRK 4266	TRK 4266	NE	Station work (breaker, transformer, relay panel replacement, and 60 ft of cable replacement)	~~3,900-4,400~~[4] 3,897-4,397
TRK 2419	TRK 2419	NW	0.30-0.32 miles of underground	2,900-3,300
TIE4105-4 (EI-S20-36-R3)	TIE4105	NE	Install 5.0-5.5 miles OH 40kV conductor Decommission ~3.0 miles OH 40kV conductor	~~19,400-21,600~~[4] 16,592-18,792
TRK4911 (EI-S22-67)	TRK4950	NE	Install 0.3-0.4 miles of underground Install 0.8-1.0 miles of overhead	2,700-3,000
TIE 810	TIE 9505 TIE 9514 TRK 4938	NE	2.2-2.3 Miles Seg 8 OH 3.7-3.8 Miles Seg 9 OH 6.9-7.0 Miles Seg 1 OH	14,000-15,000
TIE 6602	TIE 6602	SW	4.4-4.5 miles OH	5,200-5,500
Total In-service Investment				**~~48,140-52,800~~[4] 45,289-49,989**

4 Breaker Replacement

4.1 Selection Criteria & Targets

The Company has approximately 6,000 breakers on the electrical distribution and subtransmission systems. As stated in the Company's September 2023 Distribution Grid Plan (page 79), 60% of all breakers are beyond expected useful life and 53% are candidates for replacement based on the findings in the asset health assessment. Included in this 53% are approximately 2,090 oil-filled breakers that require replacement due to a combination of multiple risk factors associated with that equipment, such as the environmental concerns of possible leaks. Replacement factors and their associated impacts include:

- Interrupting medium: known issues such as oil breakers being an environmental concern due to possible leaks and air magnetic breakers being prone to failure due to issues extinguishing arcs within the breaker,
- High maintenance costs: high maintenance costs due to more frequent repairs required, longer time to troubleshoot issues, and/or shorter maintenance cycles,
- Unavailable parts: parts are obsolete or difficult and/or expensive to replace, and
- Known performance issues: higher failure rates or frequent failures to operate.

The Company has identified 29 breaker replacements for inclusion in the 2025 IRM. The specific program execution metrics and associated targets that the Company is proposing to report for the breaker replacement program are as follows:

Metric	Target
Number of breakers replaced	29
Average cost per 4.8kV breaker (000s)	$440
Average cost per recloser breaker (000s)	$391
Average cost per subtransmission breaker (000s)	$598

4.2 2025 Breaker Replacement IRM Plan

Equip. Type	Region	Station	Substation Municipality	Scope of Work	Estimated 2025 In-service ($000s)
4.8kV Breaker	N	COOLG	Detroit	COOLG Pos Q Breaker Replacement	440
4.8kV Breaker	N	COOLG	Detroit	COOLG Pos E Breaker Replacement	440
4.8kV Breaker	N	WDTRK	Port Huron	WDTRK Pos BC Breaker Replacement	440
4.8kV Breaker	SE	VILLA	Redford	VILLA Pos A Breaker Replacement	440
4.8kV Breaker	SE	FRISB	Detroit	FRISB Pos R Breaker Replacement	440
4.8kV Breaker	N	FRISB	Detroit	FRISB Pos Z Breaker Replacement	440
4.8kV Breaker	N	FRISB	Detroit	FRISB Pos S Breaker Replacement	440
4.8kV Breaker	SE	FRISB	Detroit	FRISB Pos W Breaker Replacement	440
4.8kV Breaker	SE	FRISB	Detroit	FRISB Pos X Breaker Replacement	440
4.8kV Breaker	SE	FRISB	Detroit	FRISB Pos BX Breaker Replacement	440
4.8kV Breaker	SE	FRISB	Detroit	FRISB Pos BW Breaker Replacement	440
4.8kV Breaker	N	EVRSB	Detroit	EVRSB Pos F Breaker Replacement	440
4.8kV Breaker	SE	MOUND	Warren	MOUND Pos O Breaker Replacement	440
Recloser	SE	PDMNT	Ann Arbor	PDMNT Pos J Breaker Replacement	391
Recloser	SE	ATLAN	Reese	ATLAN Pos Trf 2 Breaker Replacement	391

Equip. Type	Region	Station	Substation Municipality	Scope of Work	Estimated 2025 In-service ($000s)
Recloser	SE	KILGR	Kenockee	KILGR Pos D Breaker Replacement	391
Recloser	SE	COTAG	Burtchville Township	COTAG Pos F Breaker Replacement	391
Recloser	SE	ELM	Taylor	ELM Pos D Breaker Replacement	391
Recloser	SE	ELM	Taylor	ELM Pos I Breaker Replacement	391
Recloser	SE	ELM	Taylor	ELM Pos C Breaker Replacement	391
Recloser	SE	PLACD	Clarkston	PLACD Pos HE Breaker Replacement	391
Recloser	SE	PLACD	Clarkston	PLACD Pos HL Breaker Replacement	391
Recloser	SW	PAGE	Milford	PAGE Pos D Breaker Replacement	391
Recloser	N	SLKRK	Brighton	SLKRK Pos N Breaker Replacement	391
Recloser	N	SLKRK	Brighton	SLKRK Pos O Breaker Replacement	391
Recloser	N	MACK	Detroit	MACK Pos TRF1-L Breaker Replacement	391
Subtrans	SE	COLFX	Fowlerville	COLFX Pos RM Breaker Replacement	598
Subtrans	SE	COLFX	Fowlerville	COLFX Pos RR Breaker Replacement	598
Subtrans	SE	TCOLA	Caro	TCOLA Pos RJ Breaker Replacement	598

5 URD Replacement

5.1 Selection Criteria & Targets

URD is a specific type of cable designed for underground residential use on the Company's secondary electric system. URD consists of small diameter cable surrounded by polyethylene insulation and is either directly buried into the ground or installed inside conduit. Based on age and other factors, 41% of URD cables (about 4,500 miles) are candidates for replacement based on findings of the Company's asset health assessment, as stated in the Company's September 2023 Distribution Grid Plan (page 79). Replacement factors and their associated impacts include:

- Manufacturing year: pre-1985 the insulation is XLPE (non-tree retardant) while post-1985 the insulation is TR-XLPE (tree retardant) and
- Number of outages: the rate of URD cable failures increases with the age of the cable, and the rate further increases once a cable experiences its first failure.

The Company has identified 111 URD replacement jobs for a total of approximately 287 thousand feet for inclusion in the 2025 IRM. The specific program execution metrics and associated targets that the Company is proposing to report for the URD replacement program are as follows:

Metric	Target
Feet of URD replaced (000s)	287
Average cost per thousand feet of URD replaced (000s)	$47

5.1 2025 URD Replacement IRM Plan

Region	Substation Municipality	URD Map	Circuit	Feeder	Scope Length (000s ft)	Estimated 2025 In-service ($000s)
NE	Lapeer	LPR5	LAPER8785	PF848	3.434	158
NW	Brighton	BTN 86	NOLAN9790	PFK755	3.600	166
SE	Allen Park	DET6 19	JUPTR8373	PF3442	1.209	56
SE	Allen Park	DET6-25	JUPTR8390	PFA041	0.470	22
NE	Warren	WRN 54	LNDIS8048	PFB674	1.835	84
NE	Warren	WRN 54	LNDIS8132	PFB678	0.706	32
SW	Northville	N0V13	HAGER9425	PFH196	3.085	142
NW	Wixom	NOV76	WIXOM9532	PFH3245	4.861	224
NW	West Bloomfield	WBL59	LILY 9126	PFH1529	4.118	189
NW	Bloomfield	BLM 3	LNGLK9110	PF192	4.635	213
SW	Ypsilanti	PIT46	CROWN9832	PFJ321	5.105	235
SW	Novi	FAR79	QUAKR9236	PFH3476	2.790	128
SW	Farmington Hills	FAR62	DRAKE9066	PFH1475	1.598	74
SW	Novi	FAR79	QUAKR9237	PFH1866	9.165	422
NE	Clinton Township	CLN 100	MACMB8521	PFB819	1.014	47
SE	Southfield	SFD110	HIKRY8209	PFH2021	0.678	31

Region	Substation Municipality	URD Map	Circuit	Feeder	Scope Length (000s ft)	Estimated 2025 In-service ($000s)
NW	Sterling Heights	STG 35	BISMK8439	PFB041	2.597	119
NW	Rochester Hills	AVN 4	TINKN8850	PF1703	0.240	11
NW	Sterling Heights	STG 35	BISMK8439	PFB042	2.369	109
NE	Clinton Township	CLN 100	MACMB8521	PFB817	3.126	144
NW	Lake Orion	OAK 75	GODSN8134	PFH2159	6.800	313
NW	Auburn Hills	PON16	CARTR9115	PFH2596	2.753	130
NW	Clarkston	IND20	CLKSN8860	PFH1550	3.247	154
NW	Troy	TRY22	APACE8978	PFH2773	2.956	140
NW	Troy	TRY84	APACE9072	PFH1927	5.344	253
NW	Brighton	GEN1	NOLAN9852	PFK475	2.357	112
NW	Orion Township	ORI11	BALDW8945	PFH789	3.422	162
NW	Waterford Township	WLK22	LARDO8973	PFH1828	6.851	325
NW	Shelby Township	SBY 41	BRONC8677	PFB1057	1.747	83
NW	Rochester Hills	AVN 4	TINKN8850	PFH474	5.894	279
NE	Fort Gratiot	FTG 15	PRKRD8760	PFC107	2.285	108
SE	Southfield	SFD 2	LCSTR8858	PF190	2.822	134
SE	Southfield	SFD 119	LCSTR9092	PFH2264	0.706	33
SW	Ann Arbor	PIT 17	PIONR9795	PF2643	3.169	150

Region	Substation Municipality	URD Map	Circuit	Feeder	Scope Length (000s ft)	Estimated 2025 In-service ($000s)
NE	Clinton Township	CLN 145	MACMB8409	PFB840	3.302	156
NW	Whitmore Lake	HBG 19	HAMBG9909	PFK226	3.919	186
SE	Detroit	DET1 20	ALFRD8165	PFA053	3.459	164
NW	Troy	PON22	APACE9041	PFH2285	0.422	20
SE	Detroit	DET1-1s5	ALFRD8216	PFA181	28.018	1328
NW	Rochester Hills	AVN 4	TINKN8850	PFH325	0.457	22
NE	Marysville	STC1	CYPRS8812	PFC2101	0.175	8
NW	Rochester Hills	AVN 12	SPKNE9108	PFH111	0.532	25
NW	Rochester Hills	AVN 3	TINKN8914	PFH547	0.847	40
NW	Rochester Hills	AVN 6	ROCHR1838	PFH2396	0.702	33
NW	Rochester Hills	AVN 3	TINKN8914	PFH433	0.490	23
NW	Rochester Hills	AVN 3	TINKN8884	PFH3701	0.584	28
NW	Sterling Heights	AVN 3	MALTA8482	PFH3856	4.225	200
NW	Rochester Hills	AVN 4	TINKN8850	PFH480	1.990	94
NW	Bruce Township	BRU 6	BRUCE8953	PFB632	1.649	78
NW	Bruce Township	BRU 6	BRUCE8953	PFB574	2.270	108
NW	Rochester Hills	AVN 31	TINKN8922	PFH924	2.200	104
NW	Rochester Hills	AVN 31	TINKN8922	PFH818	1.819	86

Region	Substation Municipality	URD Map	Circuit	Feeder	Scope Length (000s ft)	Estimated 2025 In-service ($000s)
NW	Rochester Hills	AVN 3	TINKN8884	PFH3745	0.444	21
NW	Rochester Hills	AVN 4	TINKN8850	PF1443	0.582	28
NW	Rochester Hills	AVN 4	TINKN8850	PFH483	1.322	63
NE	Burtchville Twp	BUR 1	COTAG8743	PFC014	0.763	36
NW	Rochester Hills	AVN 3	TINKN8884	PF3760	0.725	34
NW	Rochester Hills	AVN 3	TINKN8884	PF3752	0.642	30
NW	Rochester Hills	AVN 12	SPKNE9108	PF2785	1.030	49
NW	Rochester Hills	AVN 12	SPKNE9108	PF3756	0.946	45
NW	Rochester Hills	AVN 12	SPKNE9108	PF3790	1.688	80
NW	Rochester Hills	AVN 12	SPKNE8820	PF3795	1.040	49
NW	Rochester Hills	AVN 4	TINKN8850	PFH321	0.557	26
NW	Rochester Hills	AVN 3	TINKN8884	PFH3711	0.564	27
NW	Shelby Township	SBY 41	BRONC8677	PFB1056	1.460	69
NW	Rochester Hills	AVN 4	TINKN8850	PFH2470	1.123	53
NW	Rochester Hills	AVN 31	TINKN8922	PFH909	1.289	61
NW	Rochester Hills	AVN 6	ROCHR1838	PF2728	0.965	46
NW	Rochester Hills	AVN 3	TINKN8884	PF3754	0.581	28
NE	Marysville	STC1	CYPRS8812	PFC718	1.377	65

Region	Substation Municipality	URD Map	Circuit	Feeder	Scope Length (000s ft)	Estimated 2025 In-service ($000s)
NW	Rochester Hills	AVN 12	SPKNE9108	PFH101	1.046	50
NW	Rochester Hills	AVN 12	SPKNE9108	PFH108	0.990	47
NW	Rochester Hills	AVN 31	TINKN8922	PFH1389	1.700	81
NW	Rochester Hills	AVN 4	TINKN8850	PFH628	0.966	46
NW	Rochester Hills	AVN 4	TINKN8884	PFH185	0.314	15
NW	Rochester Hills	AVN 3	TINKN8884	PFH1995	1.497	71
NW	Shelby Township	SBY 41	BRONC8677	PFB949	1.683	80
NW	Rochester Hills	AVN 3	TINKN8884	PF1910	0.283	13
NW	Rochester Hills	AVN 31	TINKN8922	PFH799	2.274	108
NW	Rochester Hills	AVN 31	TINKN8922	PFH808	3.050	144
NW	Rochester Hills	AVN 31	TINKN8922	PFH1393	1.436	68
NE	Addison Township	ADD 6	BREWR8840	PFH2092	3.561	169
NW	West Bloomfield	AVN 4	WLNUT8994	PFH314	0.605	29
SW	Canton	CAN 27	WAYNE9413	PFM570	0.888	42
NW	West Bloomfield	WBL71	LILY 9105	PFH1877	0.980	46
SW	Ypsilanti	YPS 23	CROWN9850	PF3291	1.033	49
NW	Sterling Heights	SBY 49	STERL8442	PFB1101	1.225	58
NE	Chesterfield Township	CHS 37	CHEST8430	PFB1008	1.336	63

Region	Substation Municipality	URD Map	Circuit	Feeder	Scope Length (000s ft)	Estimated 2025 In-service ($000s)
SW	Northville	LIV 56	HAGER9411	PFM1038	1.522	72
SW	Belleville	VAB 4	SHELD8190	PFM192	2.010	95
NW	Lake Orion	OAK 36	GODSN8134	PFH1657	2.027	96
NE	Ubly	BHM 1	BNGHM0301	PFD024	2.398	114
NW	Troy Township	TRY14	CRWFD8301	PF1799	2.405	114
SW	Ypsilanti	SUP 9	MOTT 9789	PFJ318	2.444	116
NE	New Baltimore	CHS 30	NBALT8428	PFB647	2.451	116
SW	Saline	SLN5	SALIN9794	PFJ427	2.520	119
NW	Commerce Township	COM26	HANCK8142	PFH1433	2.561	121
NE	Oxford	OXF 3	STRFD9093	PFH072	2.577	122
NW	Milford	COM3	MILFD9248	PFH3734	2.609	124
SW	Ypsilanti	VAB 25	MOTT 9783	PF1022	2.742	130
NE	Chesterfield Township	CHS 41	CHEST8430	PFB1059	2.758	131
NW	Waterford	WFD 5	NIXON9141	PFH2555	2.928	139
SW	Ypsilanti	SUP 2	MOTT 9789	PF2613	3.009	143
NW	West Bloomfield	WBL90	LILY 9126	PFH2359	3.598	170
NE	Sterling Heights	CLN 82	MALTA8999	PFB716	4.169	198
NW	Sterling Heights	STG 100	STERL8435	PFB836	4.269	202

Region	Substation Municipality	URD Map	Circuit	Feeder	Scope Length (000s ft)	Estimated 2025 In-service ($000s)
SW	Ann Arbor	SCI 17	SPRUC9874	PFJ516	4.913	233
NW	Auburn Hills	WFD49	JSLYN9140	PFH1545	5.710	271
NE	Macomb	MCB 61	AGSTA8737	PFB2220	6.231	295
SW	Farmington Hills	FAR 21	DREXL9036	PF1494	6.806	322
SW	Ann Arbor	PIT 51	PIONR9793	PFJ398	8.020	380

6 4.8kV Circuit Automation

6.1 Selection Criteria & Targets

The key factors for 4.8kV circuit automation prioritization are the safety benefits associated with de-energizing down wires, the reliability benefits associated with reduced customer interruptions and outage durations, and the improved operational efficiencies associated with improved system monitoring and control. Special weighting was given to 1) 4.8kV circuits that have experienced high levels of wire downs, 2) completing all circuits associated with a particular substation transformer to ensure ground isolation coordination, and 3) 4.8kv circuits that have experienced poor reliability.

The Company has identified 65 circuits for automation for inclusion in the 2025 IRM, for a total of 168 reclosers. The scope of work for circuit automation includes installing SCADA enabled reclosers at the station cable poles, sectionalizing points, and switching points as applicable. The specific program execution metrics and associated targets that the Company is proposing to report for the 4.8kV Circuit Automation program are as follows:

Metric	Target
Reclosers Installed	168
Average cost per recloser (000s)	$150

6.1 2025 4.8kV Circuit Automation IRM Plan

Circuit	Region	Substation Municipality	Reclosers Installed	Estimated 2025 In-service ($000s)
YPSIL0317	SW	Ypsilanti	3	450
YPSIL0305	SW	Ypsilanti	3	450
YPSIL0314	SW	Ypsilanti	3	450
YPSIL0318	SW	Ypsilanti	3	450
NEFF 0314	NE	Harbor Beach	3	450
NEFF 0011	NE	Harbor Beach	1	150
MLVDL2277	SE	Melvindale	3	450
MLVDL2010	SE	Melvindale	3	450
MLVDL2008	SE	Melvindale	3	450
MLVDL2259	SE	Melvindale	1	150
MLVDL0196	SE	Melvindale	1	150
FLANE1840	SE	Detroit	3	450
FLANE1839	SE	Detroit	3	450
GARY 1365	SE	Detroit	3	450
GARY 1376	SE	Detroit	3	450
GARY 2115	SE	Detroit	3	450

Circuit	Region	Substation Municipality	Reclosers Installed	Estimated 2025 In-service ($000s)
GARY 1399	SE	Detroit	3	450
GARY 1920	SE	Detroit	2	300
MEYRS1691	SE	Detroit	3	450
MEYRS1599	SE	Detroit	3	450
MEYRS1896	SE	Detroit	3	450
PURTN1044	SE	Detroit	2	300
PURTN1020	SE	Detroit	2	300
KENEY1461	NE	Warren	3	450
KENEY2697	NE	Warren	3	450
SUTTN1751	NE	Clinton Township	3	450
SUTTN2408	NE	Clinton Township	3	450
SUTTN1637	NE	Clinton Township	3	450
TIRMN1196	SE	Detroit	5	750
TIRMN2144	SE	Detroit	3	450
TIRMN2093	SE	Detroit	5	750
EMPIR1367	SE	Detroit	1	150
EMPIR1011	SE	Detroit	3	450
EMPIR1129	SE	Detroit	3	450

Circuit	Region	Substation Municipality	Reclosers Installed	Estimated 2025 In-service ($000s)
EMPIR0221	SE	Detroit	1	150
STLUS1394	SE	Detroit	3	450
STLUS1099	SE	Detroit	3	450
STLUS0368	SE	Detroit	1	150
MLVDL1516	SE	Melvindale	3	450
MLVDL2114	SE	Melvindale	3	450
MLVDL2105	SE	Melvindale	3	450
MLVDL0389	SE	Melvindale	1	150
MLVDL0528	SE	Melvindale	1	150
EVRGN1925	SE	Detroit	1	150
EVRGN2135	SE	Detroit	1	150
EVRGN0675	SE	Detroit	1	150
ANNCH1361	SE	Detroit	3	450
ANNCH1588	SE	Detroit	3	450
MILTN0302	NE	Millington	3	450
MILTN0301	NE	Millington	1	150
WHTLK0307	NW	White Lake	3	450
MANDY0308	SE	Royal Oak	3	450

Circuit	Region	Substation Municipality	Reclosers Installed	Estimated 2025 In-service ($000s)
MANDY2735	SE	Royal Oak	3	450
MANDY2689	SE	Royal Oak	3	450
MANDY0903	SE	Royal Oak	1	150
NHAVN0312	NE	New Haven	3	450
NHAVN0311	NE	New Haven	3	450
PLYMO0300	SW	Plymouth	3	450
PLYMO0306	SW	Plymouth	3	450
PLYMO0004	SW	Plymouth	3	450
QTNRD0322	NW	Birmingham	3	450
QTNRD0326	NW	Birmingham	3	450
QTNRD0323	NW	Birmingham	1	150
FRMNT1593	SE	Detroit	3	450
FRMNT1487	SE	Detroit	3	450

STATE OF MICHIGAN

BEFORE THE MICHIGAN PUBLIC SERVICE COMMISSION

In the matter of the Application of **DTE ELECTRIC COMPANY** for authority to increase its rates, amend its rate schedules and rules governing the distribution and supply of electric energy, and for miscellaneous accounting authority	))))))	Case No. U-21297

PROOF OF SERVICE

STATE OF MICHIGAN)
) ss.
COUNTY OF WAYNE)

ESTELLA R. BRANSON states that on October 9, 2024, she served a copy of DTE Electric Company's 2025 Investment Recovery Mechanism (IRM) Investment Plan Amended in the above captioned matter, via electronic mail, upon the persons listed on the attached service list.

Estella R. Branson

Digitally signed by Estella R. Branson
Date: 2024.10.09 14:56:38 -04'00'

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