

S T A T E O F M I C H I G A N
B E F O R E T H E M I C H I G A N P U B L I C S E R V I C E C O M M I S S I O N

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**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-21534

QUALIFICATIONS AND DIRECT TESTIMONY OF
LAUREN FROMM
MICHIGAN PUBLIC SERVICE COMMISSION

July 26, 2024

**QUALIFICATIONS OF LAUREN FROMM
CASE NUMBER U-21534
PART I**

1 Q. Please state your full name and business address for the record.

2 A. My name is Lauren Fromm and my business address is 7109 W. Saginaw Hwy.,
3 Lansing, MI 48917.

4 Q. By whom are you employed and in what capacity?

5 A. I am employed by the Michigan Public Service Commission (MPSC or
6 Commission) as a State Administrative Manager of the Data Access, Privacy &
7 IT Section of the Customer Assistance Division.

8 Q. Please describe your educational background.

9 A. I earned a Bachelor of Science in Civil Engineering from Western Michigan
10 University in 2013.

11 Q. What is your professional experience?

12 A. In 2013, I began working for the MPSC in the Smart Grid Section. My
13 responsibilities include performing analysis of utilities' rate case cost recovery
14 requests related to Advanced Metering Infrastructure (AMI), Automated Meter
15 Reading (AMR), Customer Experience and Information Technology (IT), as well
16 as monitoring smart energy programs and serving as a member of the MPSC
17 Staff's (Staff) Demand Response and Electric Vehicles team. The Smart Grid
18 Section has been renamed the Data Access, Privacy & IT Section and has
19 expanded its scope to include issues regarding customer data accessibility and
20 privacy.

21 Q. Have you received any work-related training since your employment with the
22 MPSC?

QUALIFICATIONS OF LAUREN FROMM
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PART I

1 A. Yes, I have attended several programs hosted by the Institute of Public Utilities
2 (IPU) at Michigan State University, IPU's Grid and Rate Schools, and a number
3 of Advanced Regulatory Studies Program sessions. I have also attended
4 Regulatory Training Initiative's (RTI) How to Read and Analyze a Rate Case
5 training as well as NARUC's Rate School.

6 Q. Have you previously filed testimony before the Commission?

7 A. Yes. I have filed testimony in the following cases:

8 - Case No. U-17735, Consumers Energy's electric rate case

9 - Case No. U-17882, Consumers Energy's gas rate case

10 - Case No. U-17990, Consumers Energy's electric rate case

11 - Case No. U-18124, Consumers Energy's gas rate case

12 - Case No. U-18322, Consumers Energy's electric rate case

13 - Case No. U-18424, Consumers Energy's gas rate case

14 - Case No. U-20276, Upper Peninsula Power Company's electric rate case

15 - Case No. U-20322, Consumers Energy's gas rate case

16 - Case No. U-20359, Indiana Michigan's electric rate case

17 - Case No. U-20476, SEMCO's gas rate case

18 - Case No. U-20650, Consumers Energy's gas rate case

19 - Case No. U-20697, Consumers Energy's electric rate case

20 - Case No. U-20963, Consumers Energy's electric rate case

21 - Case No. U-21148, Consumers Energy's gas rate case

22 - Case No. U-21224, Consumers Energy's electric rate case

23 - Case No. U-21286, Upper Peninsula Power Company's electric rate case

QUALIFICATIONS OF LAUREN FROMM
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- 1 - Case No. U-21308, Consumers Energy’s gas rate case
- 2 - Case No. U-21389, Consumers Energy’s electric rate case
- 3 - Case No. U-21405, Upper Michigan Electric Resources Corporation’s request to
- 4 amend its Rate Book for Electric Service to provide customers a non-standard
- 5 metering option
- 6 - Case No. U-21461, Indiana Michigan Power Company’s electric rate case
- 7 - Case No. U-21490, Consumers Energy’s gas rate case
- 8 -Case No. U-21555, Upper Peninsula Power Company’s electric rate case

DIRECT TESTIMONY OF LAUREN FROMM
CASE NUMBER U-21534
PART II

1 Q. What is the purpose of your testimony in this proceeding?

2 A. The purpose of my testimony is to present the Michigan Public Service
3 Commission Staff's (Staff) recommendation regarding DTE Electric Company's
4 (DTE or Company) request for recovery of capital expenditures categorized as
5 "Other Miscellaneous" for the bridge year and projected test year.

6 Q. Are you sponsoring any exhibits in this proceeding?

7 A. Yes. I am sponsoring the following exhibits:
8 Exhibit S-9.0: Supporting Audit Response LF-1.1a

9 Q. Were these exhibits prepared by you or under your direction?

10 A. Yes.

11 Q. What is the Company requesting recovery of for the line item "Other
12 Miscellaneous" on Exhibit A-12 Schedule B5.8?

13 A. The Company is requesting recovery of \$1.7 million in capital expenditures in
14 2024 and 2025 for environmental management.¹ Also included in this line item is
15 the offset for investment recovery salvage sales. Due to the offset, the Company
16 is requesting total recovery of -\$3.185 million in the historical period 12 months
17 ended 12/31/2022, -\$1.524 million in bridge period 12 months ending
18 12/31/2023, \$0.150 million in the bridge period 12 months ending 12/31/2024 and
19 \$0.150 million for the projected test year 12 months ending 12/31/2025.

20 Q. What is Staff's recommended adjustment for the "Other Miscellaneous" line
21 item?

¹ Direct Testimony of Company Witness Theresa M. Uzenski, p. 66

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1 A. Staff is recommending the Commission disallow \$720,000 in projected capital
2 expenditures in both 2024 and 2025.

3 Q. Please explain Staff's recommendation.

4 A. Staff is recommending a disallowance of \$720,000 to the Company's projected
5 2024 and 2025 capital expenditures because this is the amount that the Company
6 has identified is being projected for emergent spend for a project for underground
7 storage tank removal and cleanup. (Exhibit S-9.0.) The Company is planning to
8 spend \$1.2 million in each 2024 and 2025 for this project and has identified that
9 40% of this projection is for planned work, while the remaining 60% is for
10 emergent spend. Staff recommends the Commission disallow the expenditures
11 included in the Company's projection for emergent spend because it is not for any
12 specific work at this time. These expenditures may not incur in full, if at all, and
13 the Commission cannot perform retroactive ratemaking to correct rates, should
14 that be the case. It is not reasonable to pass these expenditures onto customers at
15 this time, because they cannot be judged for their reasonableness and prudence.

16 Q. Does this conclude your testimony?

17 A. Yes.

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)
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Case No. U-21534

QUALIFICATIONS AND DIRECT TESTIMONY OF
BRITTNEY KLOCKE
MICHIGAN PUBLIC SERVICE COMMISSION

July 26, 2024

QUALIFICATIONS OF BRITTNEY KLOCKE
CASE NUMBER U-21534
PART I

1 Q. Please state your full name and business address.

2 A. My name is Brittney Klocke and my business address 7109 West Saginaw
3 Highway, Lansing, MI 48917.

4 Q. By whom are you employed and in what capacity?

5 A. I am employed by the Michigan Public Service Commission (MPSC or
6 Commission) as a Senior Analyst in the Data Access, Privacy and IT (DAPIT)
7 Section of the Customer Assistance Division (CAD).

8 Q. Please describe your educational background.

9 A. I earned a Bachelor of Arts degree in Political Science from Miami University in
10 2006 and a Juris Doctor degree from Michigan State University College of Law in
11 2009.

12 Q. Please describe your professional experience.

13 A. I began my professional career with the State of Michigan in 2010, when I was
14 hired as an Eligibility Specialist with the Department of Health and Human
15 Services (DHHS). While with DHHS, I worked in a Specialized Medicaid Unit
16 that reviewed retroactive and opened ongoing Medicaid cases.

17 In 2011, I accepted a position with the Department of Treasury
18 (Treasury) as a Field Officer in the Collection Services Bureau. In that role, I was
19 primarily tasked with performing research and analysis assignments related to
20 various tax laws administered by Treasury. That entailed conducting field calls at
21 businesses all over Michigan to verify taxpayer compliance and registration
22 status, as well as identifying complex schemes related to tax avoidance and fraud.

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1 In July 2022, I accepted my current position with the MPSC. In this
2 role, I perform analysis of utilities' rate case recovery requests related to
3 Customer Experience and Information Technology (IT).

4 Q. Have you received any work-related training since your employment with the
5 MPSC?

6 A. Yes. I attended Michigan State University's Institute for Public Utilities' (IPU)
7 Annual Regulatory Studies Program in August of 2022. In September of 2022, I
8 attended IPU's Accounting & Ratemaking Course. In March of 2023, I attended
9 the National Association of Regulatory Utility Commissioners' Rate Case Basics
10 course.

11 Q. Have you previously filed testimony before the Commission?

12 A. Yes.

13 Q. Please list the cases in which you have filed testimony before the Commission.

14 A. I filed testimony in Case No. U-21308, the Consumers Energy gas case, Case No.
15 U-21297, the DTE electric case, Case No. U-21389, the Consumers Energy
16 electric case, Case No. U-21461, the Indiana Michigan Power Company electric
17 case, Case No. U-21490, the Consumers Energy gas case, and U-21540, the
18 Michigan Gas Utilities gas case.

DIRECT TESTIMONY OF BRITTNEY KLOCKE
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PART II

1 Q. What is the purpose of your testimony in this proceeding?

2 A. The purpose of my testimony is to present MPSC Staff's (Staff) recommendations
3 regarding DTE Electric Company's (DTE or the Company) Error Free
4 Communication (EFC) and Outage map projects, from Exhibit A-12, Schedule
5 B5.4 Distribution Plant – Technology and Automation and Exhibit A-24,
6 Schedule N7.

7 Q. Are you sponsoring any exhibits in this proceeding?

8 A. Yes, I am sponsoring the following exhibits:

9 S-18.1 – Audit Response BMK-1.2

10 S-18.2 – Audit Response BMK-1.3

11 S-18.3 – Audit Response BMK-1.4

12 Q. Were these exhibits prepared by you or under your supervision?

13 A. Yes.

14 Q. Please provide a summary of your testimony.

15 A. My testimony explains Staff's recommendations regarding the Company's Outage
16 digital transactions, namely the Error Free Communication (EFC) Project.

17 Q. What are Staff's recommendations regarding the Error Free Communication
18 Project?

19 A. Though Staff does not recommend any monetary adjustments to the requested
20 expenditures for the Error Free Communication and Outage map projects, there
21 are recommendations regarding those projects that Staff proposes. Staff supports
22 and understands the Company's need to spend money on these projects, and
23 believes they are worthy projects that have important value for customers. As

DIRECT TESTIMONY OF BRITTNEY KLOCKE
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1 described in Company witness Michael Hatsios’ direct testimony, the focus for
2 these projects is “the improvement of the timeliness and accuracy with which we
3 provide customer power status updates, restoration estimates, and other outage
4 information and notifications.”¹ Staff supports these efforts, and also understands
5 that due to record outages in past years, specifically 2021 and 2023, the Company
6 has been given the opportunity to glean more insight on how to enhance the
7 Outage self-service experience, as well as the type and quality of information that
8 is being provided to customers during an outage.²

9 Going forward, Staff would like the Company to continue to focus on
10 the established metrics and improvements delineated in testimony: power
11 restoration accuracy and timeliness, first estimate accuracy, and outage
12 notification delivery.³ Staff would also like the Company to strive for
13 improvements as noted in an audit response, namely to improve estimate accuracy
14 and enhance outage status reporting capabilities, address emergent defects as a
15 result of the 2023 Advanced Distribution Management System (ADMS)
16 implementation, and to further enhance the Premise Power Status (PPS) outage
17 system. (Staff Exhibits S-18.1 & S-18.2.) The Company also stated that from the
18 2023 storms, it was determined that there needed to be improvements made to the
19 Outage Status and Reporting Dashboards, to improve the Company’s visibility
20 into customers’ outage experience, as well as enhancements to the Customer-
21 Facing Systems, including the Systems Enhancements Workstream, Customer

¹ Prefiled direct testimony of Company witness Michael Hatsios, p. 32.

² *Id.* at p. 30.

³ *Id.* at pp. 70-73.

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1 Notifications Workstream, Customer Channels Workstream, and Police and Fire
2 Website. (Staff Exhibit S-18.3.) While staff supports these enhancements, it
3 recommends that the Company be required to demonstrate the results of these
4 investments in future rate cases.

5 Q. Does Staff have any other recommendations regarding the EFC or other outage
6 system projects?

7 A. Yes. Staff understands that storms are out of the Company's control and the
8 Company must try to react and respond to those storms and resulting outages as
9 best they can. Staff believes that the EFC is a worthy investment for the
10 Company to keep its customers informed during the stressful time of an outage.
11 With every storm and outage, the Company has the opportunity to learn and better
12 themselves in anticipation of the next storm. Staff recommends that the
13 Commission order the Company to describe, in detail, continuous improvements,
14 as well as any failures, experienced with the EFC and its various components
15 going forward. Staff would like to see the Company demonstrate specific goals it
16 expects to achieve in areas concerning Outage Status and Reporting Dashboards,
17 the Company's visibility into the customer's outage experience, and Customer-
18 Facing Systems, expected timelines for these goals, and ultimately, the execution
19 of goals, including the costs to achieve them. At a cost of \$50.0 million in total
20 capital from 2022-2025, the EFC is undeniably expensive, and Staff would like
21 continuous status updates, preferably in the form of biannual meetings with Staff,

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1 | as well as detailed updates in future rate cases, that this money is being well-
2 | spent, for the betterment of customers.⁴

3 | Q. Does this conclude your testimony?

4 | A. Yes.

⁴ *Id.* at p. 68.

S T A T E O F M I C H I G A N
BEFORE THE MICHIGAN PUBLIC SERVICE COMMISSION

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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)
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Case No. U-21534

QUALIFICATIONS AND DIRECT TESTIMONY OF
DANIELLE R ROGERS
MICHIGAN PUBLIC SERVICE COMMISSION

July 26, 2024

QUALIFICATIONS OF DANIELLE R ROGERS
CASE NUMBER U-21534
PART I

1 Q. Please state your full name and business address for the record.

2 A. My name is Danielle R Rogers and my business address is 7109 W. Saginaw
3 Hwy., Lansing, MI 48917.

4 Q. By whom are you employed and in what capacity?

5 A. I am employed by the Michigan Public Service Commission (MPSC or
6 Commission) as a Departmental Analyst in the Data Access, Privacy, and IT
7 Section of the Customer Assistance Division.

8 Q. What is your professional background?

9 A. In 2010, I began working for the State Office of Administrative Hearings and
10 Rules as a Legal Secretary for the Administrative Law Judges (ALJs), presiding
11 over MPSC cases. My responsibilities included managing the ALJs' schedules, as
12 well as reviewing, editing, and processing legal documents, including proposals
13 for decision. In 2016, I became a Departmental Analyst in the Executive Secretary
14 Section of the MPSC. In that role, I analyzed electronic filings for public posting
15 and served as the subject matter expert in the development and deployment of the
16 current E-docket system. In 2019, I joined the Smart Grid Section which has since
17 been renamed the Data Access, Privacy, and IT Section. My responsibilities
18 include working on issues related to smart grid, data privacy tariffs, data
19 access/privacy/sharing, information technology (IT), contingency, and performing
20 analysis of requests by utility companies in rate case filings pertaining to the
21 issues stated above. Additionally, I co-led the Commission's MI Power Grid
22 Customer Education and Participation workgroup and supported many of the
23 other MI Power Grid activities in various workgroups, such as Energy Programs

QUALIFICATIONS OF DANIELLE R ROGERS
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PART I

1 and Technology Pilots, New Technologies and Business Models, Grid Security
2 and Reliability Standards, Electric Distribution Planning, and Integration of
3 Resource/Distribution/Transmission Planning.

4 Q. Have you received any additional training?

5 A. Yes. In February 2020, I attended the training program hosted by the Institute for
6 Public Utilities (IPU) at Michigan State University on Economic Regulatory
7 Policy. In May 2020, I attended the IPU Power Grid Course. I also attended the
8 Regulatory Training Initiative Rate Case Basics- How to Read and Analyze a
9 Rate Case training in March 2023. Additionally, I have actively participated in
10 various utility-related webinars and web conferences, covering topics such as
11 Advanced Meter Infrastructure (AMI), data security, data access and sharing,
12 smart grid deployment, distribution planning, and renewable energy integration
13 with the electric grid.

14 Q. Have you previously filed testimony before the Commission?

15 A. Yes, I have testified in the following cases:

- 16 - Case No. U-20650, Consumers Energy Company's gas rate case
- 17 - Case No. U-20697, Consumers Energy Company's electric rate case
- 18 - Case No. U-20836, DTE Electric Company's electric rate case
- 19 - Case No. U-20837, DTE Energy Company's revised AMI Opt Out Program case
- 20 - Case No. U-21297, DTE Electric Company's electric rate case
- 21 - Case No. U-21461, Indiana Michigan Power Company's electric rate case
- 22 - Case No. U-21291, DTE Gas Company's gas rate case

QUALIFICATIONS OF DANIELLE R ROGERS
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1 | Q. Have you provided technical analysis or participated in a joint review in any other
2 | cases before the MPSC?

3 | A. Yes, I participated in a joint review and provided technical analysis in the
4 | following cases:

5 | - Case No. U-20134, Consumers Energy Company's electric rate case

6 | - Case No. U-20162, DTE Electric Company's electric rate case

7 | - Case No. U-20322, Consumers Energy Company's gas rate case

8 | - Case No. U-20718, Michigan Gas Utilities Corporation's gas rate case

9 | - Case No. U-21045, Alpena Power Company's electric rate case

10 | - Case No. U-21097, Northern States Power Company's electric rate case

DIRECT TESTIMONY OF DANIELLE R ROGERS
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PART II

1 Q. What is the purpose of your testimony in this proceeding?

2 A. The purpose of my testimony is to present the Michigan Public Service
3 Commission Staff's (Staff) position regarding the reasonableness and prudence of
4 Information Technology (IT) project related expenses in this electric rate case.

5 Q. Are you sponsoring any exhibits?

6 A. Yes. The exhibits I am sponsoring are:

7 S-15.1: Staff's Recommended IT Adjustments

8 S-15.2: Projects with Level 2 Cost Estimates

9 S-15.3: DTE Electric Audit Responses

10 S-15.4: Comparison of Level 2 and Level 3 cost estimates

11 S-15.5: Projects with Level 3 Cost Estimates

12 S-15.6: Comparison of Level 3 Cost Estimates and Actual Costs

13 S-15.7: Digital Worker Experience EOL Recommended Adjustment

14 Q. Were these exhibits prepared by you or under your direction?

15 A. Yes

16 Q. What is DTE Electric's total IT expenditure request in this case?

17 A. DTE is requesting \$224.295 million for the 2022 historical year, \$314.591 million
18 for the bridge period (\$162.310 million in 2023 and \$152.281 million in 2024),
19 and \$145.653 million in the 2025 test year¹ for IT capital expenditures in this
20 case. The Company is also requesting \$82.251 million in IT O&M expenses.²

21 Q. What is Staff's position regarding the Company's IT expenditure requests?

¹ Company Exhibit A-12 Schedule B5.7 pg 1

² Company Exhibit A-13 Schedule C5.13

DIRECT TESTIMONY OF DANIELLE R ROGERS
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1 A. Staff recommends an IT expenditure disallowance of \$0.5 million in the 2022
2 historical year, \$36.197 million in the bridge period (\$12.258 million in 2023 and
3 \$23.939 million in 2024), and \$22.033 million in the 2025 test year. Staff also
4 recommends an IT O&M disallowance of \$5.644 million.³

5 Q. Is there a difference in the amounts which you are recommending as adjustments
6 to those which other Staff may have used in their testimony or exhibits for your
7 adjustments?

8 A. Yes, due to internal deadlines for Staff to finalize its calculated revenue
9 deficiency, Staff was unable to include its updated Digital Worker Experience
10 EOL project adjustment amount, which will be discussed below. The 2022
11 historical year, 2023 bridge year, 2025 test year, and O&M recommended
12 disallowances remain unchanged, however the revenue deficiency is calculated
13 using an adjustment of \$36.032 million in the bridge period. Staff's updated
14 recommended adjustment disallows an additional \$0.166 million in 2024. As a
15 result, Staff's 2024 adjustment changed from \$23.774 million to \$23.939 million,
16 for an updated total bridge period recommended adjustment of \$36.197 million.
17 The figure included in Exhibit S-15.1 contains the corrected recommended
18 adjustment for the Digital Worker Experience EOL project.

19 Q. What is Staff's recommended IT expenditure disallowance comprised of?

20 A. Staff's recommended IT disallowance can be categorized into 4 categories:
21 Projects with Level 2 cost estimates⁴, Projects with Level 3 cost estimates⁵,

³ Staff Exhibit S-15.1 Line 8

⁴ Staff Exhibit S-15.1 Line 6

⁵ Staff Exhibit S-15.1 Line 5

DIRECT TESTIMONY OF DANIELLE R ROGERS
CASE NUMBER U-21534
PART II

1 Individual IT projects⁶, and Unsupported O&M⁷. Staff will discuss each category
2 below.

3 **PROJECTS WITH LEVEL 2 COST ESTIMATES**

4 Q. What is Staff's recommendation regarding IT projects with Level 2 cost
5 estimates?

6 A. Staff recommends a 20% disallowance for 102 unique IT projects with a Level 2
7 cost estimate. This includes a capital expenditure disallowance of \$22.433 million
8 in 2024 and \$20.169 million in 2025, as well as an O&M disallowance of \$2.386
9 million.⁸

10 Q. Please explain Staff's recommendation of a 20% disallowance of costs for
11 projects with Level 2 cost estimates.

12 A. Staff recommends a 20% disallowance of costs related to IT projects with Level 2
13 cost estimates due to their incomplete, imprecise, and indefinite nature. According
14 to the Company's Annual Planning Cycle (APC) Cadence⁹, IT projects are given
15 a Level 2 cost estimate more than a year before they are ready for
16 implementation. Additional reviews, final approval, and budget allocation occur
17 after projects are given a Level 2 cost estimate. Many things can happen between
18 the time a project is given a Level 2 cost estimate and the year or more later at the
19 time of execution including a change in scope, a change in schedule, the quote
20 from the vendor, prioritization within the APC, or the necessity of the project

⁶ Staff Exhibit S-15.1 Line 4

⁷ Staff Exhibit S-15.1 Line 7

⁸ Staff Exhibit S-15.2 pg 2 Line 118

⁹ U-21297 Sharma 5Tr 1822 Figure 1

DIRECT TESTIMONY OF DANIELLE R ROGERS
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1 altogether. These examples show the uncertainty of the costs associated with IT
2 projects with Level 2 cost estimates. It is unfair to pass such uncertain expenses
3 onto ratepayers.

4 Additionally, through audit, the Company provided U-21534 DR-1 1 Level 2&3
5 Cost Estimates, a spreadsheet showing IT projects with their Level 2 cost estimate
6 from DTE Electric's previous rate case, Case Number U-21297, and their,
7 theoretically more accurate, Level 3 cost estimate in the instant case.¹⁰ Analyzing
8 the Company's spreadsheet, Staff calculated the percent difference of the Level 2
9 and Level 3 project costs to range from -99.86% to 277.36% and found that of the
10 142 listed projects, only 24 projects had no change in cost. The Company over
11 recovered costs on 75 of the projects, and the Company under recovered costs on
12 43 of the projects.¹¹ Evaluating the 75 projects in which the Company over
13 recovered from, the percent difference ranged from 0.11% to 99.86% with an
14 average of 31.45% over-recovery.¹² Evaluating the 43 projects in which the
15 Company under recovered from, the percent difference ranged from 0.10% to
16 277.36% with an average of 37.28% under recovery.¹³ Staff finds the significant
17 percent cost differences between Level 2 and Level 3 cost estimates to be
18 concerning. This speaks to the inaccuracy of Level 2 cost estimates and the
19 inadequacy of DTE's cost estimation practices when it comes to including these
20 projected costs in rates. The Company chooses to file a projected test year in its

¹⁰ Staff Exhibit S-15.3 pg 1

¹¹ Staff Exhibit S-15.4 pgs 1-3

¹² Staff Exhibit S-15.4 pgs 4-5

¹³ Staff Exhibit S-15.4 pg 6

DIRECT TESTIMONY OF DANIELLE R ROGERS
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1 rate case application. As projected, the Company is able to over recover costs for
2 these IT projects for known projected costs. Axiomatically, the Commission is
3 unable to perform retroactive ratemaking to correct for this issue if costs are
4 projected at too high of a level. It is unfair to pass such uncertain and imprecise
5 costs onto ratepayers. If the Company spends more than 80% of the requested
6 cost, they can always seek recovery in the next rate case.

7 Q. How did Staff arrive at a 20% recommended disallowance for projects with Level
8 2 cost estimates?

9 A. Staff used the Association for the Advancement of Cost Engineering (AACE)
10 International Recommended Practice Cost Estimation Classification¹⁴ and the
11 information provided for the basis of Level 2 cost estimations to establish a class
12 of estimate. As indicated by the Company in Case Number U-20836¹⁵ and
13 unchanged in the instant case, Level 2 cost estimates are based on labor hours,
14 hardware costs, and software costs, but do not have a defined scope. Staff finds
15 this level of cost information best applies to the AACE Class 3 estimate, with
16 semi-detailed unit costs. AACE Class 3 estimates have a lower bound of
17 -20%, meaning the actual cost could be as much as 20% less than the estimate.
18 Subsequently, Staff chose a 20% adjustment to reflect the amount that the
19 Company could over-recover from Level 2 project cost estimates. Based on
20 Staff's analysis above, 20% is a conservative adjustment as the average percent of

¹⁴ AACE International Recommended Practice No 18R-97, Cost Estimation Classification System - As Applied in Engineering, Procurement, and Construction for the Processing Industries, Staff.

https://web.aacei.org/docs/default-source/toc/toc_18r-97.pdf?sfvrsn=4

¹⁵ U-20836 Sharma 7Tr 1928

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1 over projection between Level 2 and Level 3 cost estimates is actually greater
2 than 30%. Given these findings, the level of over recovery between a Level 2 cost
3 estimate and the actual cost is likely greater than 30%.

4 Q. Has Staff taken this position in previous DTE rate cases?

5 A. Yes, Staff recommended a 20% disallowance of costs related to IT projects with
6 Level 2 cost estimates in DTE’s last two decided electric rate cases, Case Nos. U-
7 20836 and U-21297, as well as DTE’s current gas rate case, Case No. U-21291.

8 Q. How did the Commission rule on IT investments with Level 2 cost estimates in
9 prior rate cases?

10 A. In Case No. U-20836, the Commission approved a 20% disallowance of costs
11 related to business cases with Level 2 cost estimates and stated, “The cost
12 variances pointed out by the Staff and the ALJ are telling. Regardless of whether
13 costs are for projects that are similar to earlier projects, it is still necessary to have
14 a clear understanding of the timing of the project and a level of detail regarding
15 the costs that demonstrates that the costs are reasonable and prudent—without
16 that, the costs cannot be properly evaluated by the Commission for inclusion in
17 rate base and the projections are incomplete. The Commission also finds it
18 appropriate that the Staff recommends adjustments to individual projects rather
19 than to a budget as a whole. That is the only way to determine whether a project
20 presents benefits to ratepayers. The Commission’s determination of
21 reasonableness and prudence (and its obligation to protect ratepayers) involves

DIRECT TESTIMONY OF DANIELLE R ROGERS
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1 more than the simple hope that the over- and under-projections balance one
2 another out. MCL 460.6; MCL 460.6a.”¹⁶

3 The Commission also approved a 20% disallowance of costs associated with IT
4 projects with Level 2 cost estimates in Case Number U-21297 and stated, “The
5 Commission further agrees with the Staff that “Level 2 cost estimates are
6 incomplete and indefinite in nature.”” It added, “The Commission also finds
7 persuasive the Staff’s rationale for using the AACE Class 3 Estimate to derive its
8 20% disallowance here, and as acknowledged by the Staff, “[i]f the Company
9 spends more than 80% of the projected cost, it can include the updated
10 information in the next electric rate case to be reviewed for reasonableness and
11 prudence.””¹⁷

12 The Commission has not yet ruled on Staff’s recommended 20% disallowance in
13 DTE’s current gas rate case, Case No. U-21291.

14 **PROJECTS WITH LEVEL 3 COST ESTIMATES**

15 Q. What is Staff’s recommendation regarding IT projects with Level 3 cost
16 estimates?

17 A. Staff recommends a 10% disallowance for 104 unique IT projects with a Level 3
18 cost estimate. This includes a capital disallowance of \$11.861 million in the
19 bridge period (\$11.315 million in 2023 and \$0.546 million in 2024), and \$0.823

¹⁶*In re application of DTE Electric Company electric rate case, MPSC Case No. U-20836, 11/18/2022 Order, p. 192.*

¹⁷*In re application of DTE Electric Company electric rate case, MPSC Case No. U-21297, 12/01/2023 Order, p. 147.*

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1 million in the 2025 test year, as well as an O&M disallowance of \$0.084
2 million.¹⁸

3 Q. Please explain Staff's recommendation of a 10% disallowance of costs for
4 projects with Level 3 cost estimates.

5 A. Staff recommends a 10% disallowance to IT projects with a Level 3 cost estimate
6 due to their inaccurate nature. Using a spreadsheet of IT projects with Level 3
7 cost estimates provided through audit in Case Number U-21297, Staff compared
8 the then Level 3 cost estimate with the actual cost in the instant case. Of the 125
9 projects listed (Staff removed 2 lines of the Oracle Forecasting Tool project as the
10 Commission approved the disallowance of the investment in its December 1, 2023
11 Order)¹⁹, 121 of the projects had a spend year of 2022. The remaining 4 projects
12 had a spend year of 2023. Analyzing the costs, Staff found that the percent
13 difference of the costs ranged from -100% to 1269%.²⁰ The Company over
14 recovered on 70 of the 125 projects with an average percent over recovery of
15 38.31%.²¹ The Company under recovered on 55 of the 125 projects with an
16 average percent under recovery of 86.31%.²² Three of the projects had an under
17 recovery of over 500%. These are Production Growth (547.66%), Ransomware
18 Protection (625.14%), and End of Life Asset Replacements (1269%). Without
19 these three projects, the average percent under recovery decreases to 44.34%.

¹⁸ Staff Exhibit S-15.5 pg 3 Line 120

¹⁹ *In re application of DTE Electric Company electric rate case*, MPSC Case No. U-21297, 12/01/2023 Order, p. 148.

²⁰ Staff Exhibit S-15.6 pgs 1-3

²¹ Staff Exhibit S-15.6 pgs 4-5

²² Staff Exhibit S-15.6 pgs 6-7

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1 Staff once again finds these cost variances to be concerning. According to the
2 Company, Level 3 cost estimates are the most accurate cost estimate prior to
3 actual costs; however, Staff's analysis demonstrates a significant discrepancy.
4 The cost variance between Level 3 cost estimates and actual costs are not much
5 more improved than the cost variance between Level 2 cost estimates and Level 3
6 cost estimates. Once again Staff emphasizes that the Company chooses to file a
7 projected test year in its rate case application and has an obligation to make
8 accurate expense requests. As projected, the Company may over recover costs for
9 these IT projects, but the Commission is unable to perform retroactive ratemaking
10 to correct for this issue. It is unfair to pass costs onto ratepayers without the
11 assurance that its entirety will be used for the intended reasonable and prudent
12 investment. If the Company spends more than 90% of the requested cost, they can
13 always seek recovery in the next rate case.

14 Q. How did Staff arrive at a 10% recommended disallowance for projects with Level
15 3 cost estimates?

16 A. Staff used the Association for the Advancement of Cost Engineering (AACE)
17 International Recommended Practice Cost Estimation Classification²³ and the
18 information provided for the basis of Level 3 cost estimations to establish a class
19 of estimate. As indicated by the Company in Case Number U-20836²⁴ and
20 unchanged in the instant case, a Level 2 project transitions to a Level 3 project

²³ AACE International Recommended Practice No 18R-97, Cost Estimation Classification System - As Applied in Engineering, Procurement, and Construction for the Processing Industries, Staff.

https://web.aacei.org/docs/default-source/toc/toc_18r-97.pdf?sfvrsn=4

²⁴ U-20836 Sharma 7Tr 1928

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1 when the project is approved for project execution and the scope, cost, and
2 schedule are managed. Staff finds this level of cost information best applies to the
3 AACE Class 1 estimate, with more detailed costs. AACE Class 1 estimates have a
4 lower bound of -10%, meaning the actual cost could be as much as 10% less than
5 the estimate. Subsequently, Staff chose a 10% adjustment to reflect the amount
6 that the Company could over-recover from Level 3 project cost estimates.
7 Subsequent to Staff's analysis above, 10% is a generous adjustment as the
8 average percent over recovery exceeds 30%.

9 Q. Has Staff taken this position in previous DTE rate cases?

10 A. Staff has not supported an adjustment for projects with Level 3 cost estimates in
11 previous DTE rate cases, however Staff continues to be troubled by the
12 Company's imprecise cost estimation practices when it comes to setting rates.
13 What was stated to be the most precise cost estimation prior to actual cost is in
14 fact not precise at all. Level 3 cost estimates should be very comparable to actual
15 costs. Directly preceding execution is when the scope and schedule should be
16 defined, the vendor should be chosen, and a contract should be in place. The
17 percent cost difference between Level 3 cost estimates and actual costs shows
18 otherwise.

19 **DIGITAL WORKER EXPERIENCE EOL**

20 Q. What is the Digital Worker Experience EOL project?

21 A. The Digital Worker Experience EOL investment is DTE's support, issuance, and
22 maintenance of the Company's 14,000 endpoint devices including desktop
23 computers, laptops, tablets, smart devices, and ruggedized field computers. In

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1 testimony, DTE states that it replaces 20% of the devices annually to maintain the
2 asset refresh rate of 95% devices greater than 5 years old. It also adds 25 units
3 each year for new hires and replaces 100 units each year that were damaged or
4 destroyed from normal use. Additionally, due to more prevalent remote work, the
5 Company replaces desktop towers with laptops.²⁵

6 Q. What is DTE projecting for the Digital Worker Experience EOL investment?

7 A. The Company is requesting \$7.90 million in the 2022 historical year, \$5.672
8 million in the bridge period (\$3.022 million in 2023 and \$2.650 million in 2024),
9 and \$2.650 in the 2025 test year for the Digital Worker Experience EOL project.²⁶

10 Q. What is Staff's recommendation regarding the Digital Worker Experience EOL
11 project?

12 A. Staff recommends a disallowance of \$1.903 million in the bridge period (\$0.943
13 million in 2023 and \$0.960 million in 2024), and \$1.041 million in the 2025 test
14 year for the Digital Worker Experience EOL project.²⁷

15 Q. Is there a difference in the amounts which you are recommending as adjustments
16 to those which other Staff may have used in their testimony or exhibits for your
17 adjustments?

18 A. Yes, as stated above, Staff's calculated revenue deficiency reflects a
19 recommended disallowance of \$1.738 million in the bridge period (\$0.943 million
20 in 2023 and \$0.795 million in 2024). However, the figure included in Exhibit S-
21 15.1 is the corrected recommended adjustment for the Digital Worker Experience

²⁵ Testimony of Company witness P. Sharma pg 111

²⁶ Company Exhibit A-12 Schedule B5.7.7 Line 18

²⁷ Staff Exhibit S-15.1 Line 1

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1 EOL project. The recommended 2023 bridge year and 2025 test year
2 disallowances remain unchanged, but Staff's updated recommended adjustment
3 disallows an additional \$0.166 million in 2024. As a result, Staff's 2024
4 adjustment changed from \$0.795 million to \$0.960 million, for an updated total
5 bridge period recommended adjustment of \$1.903 million.

6 Q. Please explain Staff's position.

7 A. Staff's recommended adjustment is due to the Company's lack of support for the
8 full requested expense. In testimony, DTE provided Table 2, Endpoint Devices
9 Replaced by Year. This table supports the total number of laptops, desktops,
10 monitors, and tablets replaced in 2023, 2024, and 2025.²⁸ Through audit, Staff
11 requested the cost of each individual laptop, desktop, monitor, and tablet. The
12 Company responded with the following prices: laptop kits- \$1655, desktops-
13 \$1105, monitors- \$165, and tablets- \$795.²⁹ Using the number of devices replaced
14 from Table 2 and adding 125 units (at the most expensive cost) for new hires and
15 replacements, Staff calculated the total cost of the devices from the information
16 provided and the difference from the requested expense.³⁰ The Company states
17 that in 2023, devices were deployed to support ADMS, primarily in vehicles,
18 requiring additional docks, cabling harnesses, and installation, at a cost of \$0.8
19 million.³¹ Removing that expense from the \$1.743 million difference in 2023
20 calculates to an expense difference of \$0.943 million.

²⁸ Testimony of Company witness Sharma pg 111

²⁹ Staff Exhibit S-15.3 pg 2

³⁰ Staff Exhibit S-15.7

³¹ Company Exhibit A-24 Schedule N3 Line 305

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1 Staff's Total Recommended Adjustment for each year is the amount that is
2 unaccounted for. The Company failed to provide evidence in support of these
3 remaining costs for the Digital Worker Experience EOL. Staff finds it unfair to
4 pass unsupported, unjustified, and unaccounted for expenses onto ratepayers.

5 **END OF LIFE ASSET REPLACEMENTS**

6 Q. What is the End of Life Asset Replacements project?

7 A. The End of Life Asset Replacements project replaces servers, storage, databases,
8 and operating licenses that are at the end of their serviceable life. These assets
9 cannot accept operating system or security vulnerability remediation, have
10 reached their threshold of processing ability, or the technology no longer interacts
11 with newer components within the architecture.³²

12 Q. What is DTE requesting for the End of Life Asset Replacements project?

13 A. The Company is requesting \$6.845 million in the 2022 historical year, \$0.971
14 million in the bridge period (\$0.471 million in 2023 and \$0.5 million in 2024),
15 and \$0.5 million in the 2025 test year for the End of Life Asset Replacements
16 project.³³

17 Q. What is Staff's recommendation regarding the End of Life Asset Replacements
18 project?

19 A. Staff recommends a \$0.5 million disallowance in the 2022 historical year for the
20 End of Life Asset Replacements project.³⁴

21 Q. Please explain Staff's position.

³² Testimony of Company witness Sharma pg 112 Lines 6-10

³³ Company Exhibit A-12 Schedule B5.7.7 Line 19

³⁴ Staff Exhibit S-15.1 Line 2

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1 A. In testimony, Company witness Sharma states that the End of Life Asset
2 Replacements project had a variance of \$6.5 million more in the 36 months
3 ending December 31, 2024, than was approved for cost recovery in U-21297, and
4 \$6.1 million of that variance was due to the purchase of a 3 year license purchase
5 of VMWare in 2022.³⁵ Company testimony also includes a 2025 capital
6 expenditure request for the renewal of the VMWare 3 year license as its own
7 project at a cost of \$5.6 million.³⁶ The Company does not provide any explanation
8 as to the difference in cost between 2022 and 2025 for the 3 year license
9 purchases. Without more information, Staff finds it unnecessary to pass the full
10 \$6.1 million onto ratepayers when three years later, the cost is \$0.5 million less.
11 For this reason, Staff recommends a \$0.5 million disallowance in the historical
12 year for the End of Life Asset Replacements investment.

13 **O&M PROJECT COST TO ACHIEVE**

14 Q. How has DTE broken down its IT O&M costs?

15 A. DTE has broken down its IT O&M costs into five categories. The five categories
16 include Base Operate, License Management & Maintenance, Project Cost to
17 Achieve, Other-Dell Finance Lease, and A&G Capitalized. Company testimony
18 further explains these categories. Base Operate includes the operational labor
19 support. License Management & Maintenance is the software maintenance cost.
20 Project Cost to Achieve is the O&M costs attributed to each capital investment in

³⁵ Testimony of Company witness Sharma pg 112 Lines 16-19

³⁶ Testimony of Company witness Sharma pg 107 Lines 15-17

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1 Company Exhibit A-24 Schedule N-3. And A&G Capitalized is the transfer of
2 A&G costs to capital as an overhead.³⁷

3 Q. What is DTE requesting for O&M Project Cost to Achieve?

4 A. The Company is projecting a Project Cost to Achieve expense of \$21.369
5 million.³⁸

6 Q. What is Staff's recommendation regarding the Project Cost to Achieve O&M
7 category?

8 A. Staff recommends a disallowance of \$3.174 million for the Project Cost to
9 Achieve O&M category.³⁹

10 Q. Please explain Staff's position.

11 A. Staff recommends a \$3.174 million disallowance in the Project Cost to Achieve
12 O&M category because it is the amount that is unsupported by the Company. In
13 Exhibit A-24 Schedule N-3, Column Y, the Company provided the projected
14 O&M for each investment. Staff added the projected O&M for all projects listed
15 for a total of \$18.195 million. This leaves \$3.174 million unsupported and
16 unaccounted for. In testimony, Company witness Sharma states that, "The O&M
17 costs reflected in Exhibit A-24 Schedule N-3 represent the total O&M cost to
18 achieve each project and are provided for informational purposes only."⁴⁰
19 Company witness Uzenski further testifies that IT O&M is forecasted based on
20 historical costs plus inflation. O&M related to capital projects is only a portion of

³⁷ Testimony of Company witness Sharma pg 9 Lines 19-20 and pg 10 Line 1

³⁸ Company Exhibit A-13 Schedule C5.13 Line 5

³⁹ Staff Exhibit S-15.1 Line 7

⁴⁰ Testimony of Company witness Sharma pg 9 Line 20 and pg 10 Lines 1-2

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1 the total IT O&M costs and consequent to the method of expense forecasting,
2 specific costs are not included in the O&M projections. As work related to
3 historical projects is done, it is replaced with work on new projects.⁴¹
4 Staff believes that all costs requested by the Company for inclusion in rates
5 should be supported with evidence in testimony and exhibits to show they are
6 reasonable and prudent. Replacing historical project work with new project work
7 does not assure the expenses are used or usefully used. The remaining \$3.174
8 million in the Project Cost to Achieve category is arbitrary and not connected to
9 any project or investment. Staff believes it is unfair to pass a cost onto ratepayers
10 that is unsupported, and unjustified, and without a known purpose.

11 Q. Please summarize Staff's recommended IT adjustments supported in this
12 testimony.

13 A. **Projects with Level 2 Cost Estimates**

14 - \$22.433 million in the 2024 bridge year

15 - \$20.169 million in the 2025 test year

16 - \$2.386 million in O&M

17 **Projects with Level 3 Cost Estimates**

18 - \$11.861 million in the bridge period (\$11.315 million in 2023 and \$0.546
19 million in 2024)

20 - \$0.823 million in the 2025 test year

21 - \$0.084 million in O&M

⁴¹ Testimony of Company witness Uzenski pg 56 Lines 2-5

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1 **Digital Worker Experience EOL project**

2 - \$1.903 million in the bridge period (\$0.943 million in 2023 and \$0.960 million
3 in 2024)

4 - \$1.041 million in the 2025 test year

5 **End of Life Asset Replacements**

6 - \$0.5 million in the 2022 historical year

7 **Project Cost to Achieve**

8 - \$3.174 million in O&M

9 Q. Does this conclude your testimony?

10 A. Yes.

S T A T E O F M I C H I G A N
BEFORE THE MICHIGAN PUBLIC SERVICE COMMISSION

* * * *

In the matter of the application of)	
DTE Electric Company)	
for authority to increase its rates, amend)	Case No. U- 21534
its rate schedules and rules governing the)	
distribution and supply of electric energy, and)	
for miscellaneous accounting authority.)	
_____)	

EXHIBITS OF
CUSTOMER ASSISTANCE DIVISION
MICHIGAN PUBLIC SERVICE COMMISSION

July 26, 2024

MPSC Case No: U-21534

Requester: Staff

Question No.: LF-1.1a

Respondent: T. Uzenski

Page: 1 of 1

Question: The following questions pertain to Exhibit A-12 Schedule B5.8 line 5:

1. On page 66 of Company witness Theresa M. Uzenski’s testimony it is stated that line 5 of Exhibit A-12 Schedule B5.8 contains approximately \$1.7 million for environmental management to evaluate and develop technologies and controls to provide cost effective solutions in meeting environmental compliance and energy requirements.
 - a. Audit request HH-1.1 page 2 indicates that there is projected spend of \$0.256 million in 2024 and \$1.742 million in 2025 for planned and emergent environmental capital projects. Please provide a breakdown of what is planned and what is emergent.

Answer: Audit request HH-1.1 page 2 indicates that there is projected spend of \$0.256 million in 2023 (not 2024) for planned and emergent environmental capital projects. In addition, there is projected spend of \$1.742 million in 2024 and in 2025 for planned and emergent environmental capital projects.

Below is a breakdown of planned and emergent spend in 2023 – 2025:

- 2 Environmental Technical Assessments (planned spend)

2023	2024	2025
\$200,000	\$200,000	\$300,000

- Equipment (planned spend)

2023	2024	2025
\$30,000	\$300,000	\$250,000

- Underground Storage Tank Removal and Cleanup (~40% planned and ~60% emergent spend)

2023	2024	2025
\$20,000	\$1,200,000	\$1,200,000

Attachment: None.

Case No. U-21534, Audit Request BMK-1.2
Requested By: Brittney Klocke
Respondents: M. Hatsios
Date of Response: 5/8/2024

Question: Please provide the following documents or data. If the requested item is already included in the Company's filing, please provide a reference to its location (exhibit, workpaper, schedule, etc.).

2) What changes or enhancements are expected for the EFC project in future years? How is this project expected to differ from that as presented in Case No. U-21297?

Answer: By future years, the Company interprets this period to be the projected 2023-2024 bridge and 2025 test periods in Case No. U-21534. Discussion of these future year enhancements are split by the EFC Core System and Customer-Facing System as shown in Exhibit A-24, Schedule N7 and as they are discussed in my direct testimony.

EFC Core System

Please see Pages MJH-73, Lines 18-25 through MJH-80, Lines 1-16, of my direct testimony for the 2023-2025 enhancements to the EFC Core System, discussed by technical component, as shown on Page 1 of Exhibit A-24, Schedule N7 in columns (c) through (e).

New 2023-2025 EFC Core System scope, relative to scope that was already approved in Case No. U-21297, includes \$5.8 million in incremental capital (that was not requested for capital cost recovery in Case No. 21297) to address emergent defects as a result of the 2023 ADMS implementation, and to further enhance the PPS system, improve estimate accuracy, and to enhance outage status reporting capabilities based on learnings from 2023. See Exhibit A-24, Schedule N7, Page 1, Line 10. Also, see Exhibit A-24, Schedule N10, Pages 5-6 which provides screenshots of the Outage Map enhancements.

EFC Customer-Facing System

Please see Pages MJH-80, Lines 18-25 through MJH-84, Lines 1-7, of my direct testimony which supports the recovery of \$16.8 million in incremental 2022-2024 EFC capital, which includes fully (2022 Customer Channel enhancements that were included in digital self-service project disallowances) and partially disallowed capital (2024 Level 2 project disallowance) not recovered in Case No. U-21297. See Exhibit A-24, Schedule N7, Page 3, Line 11. Also, see Exhibit A-24, Schedule N10, which provides screenshots of the 2022-2024 Web and Mobile channel enhancements.

Attachment: None.

Case No. U-21534, Audit Request BMK-1.3
Requested By: Brittney Klocke
Respondents: M. Hatsios
Date of Response: 5/8/2024

Question: Please further describe the Outage Map contained within the EFC project, and any changes being made to it for future years.

Answer: By future years, the Company interprets this period to be the projected 2023-2024 bridge and 2025 test periods in Case No. U-21534.

The current Outage Map was deployed in May 2023, concurrent with the new ADMS system. As described on Pages MJH-81, Lines 8-21, of my direct testimony, 2023 enhancements were made to improve the integration between WISMO and the Outage Map to ensure the consistency of the data that was being presented in customer outage notifications and what customers see on the Outage Map. See below for more details regarding these enhancements and their customer benefits. Please also see Pages 5-6 of Exhibit A-24, Schedule N10, in which we provided screenshots and summarized notes on the features of the Outage Map.

2023 enhancements include the following areas:

Consistency and Quality of Outage Map Information

- Ensuring customer outage counts match what is displayed and provided in all the customer channels.
- Updating estimate verbiage in the map for clearer messaging.
- Adjusting the use and calculation of electrical system components (e.g., transformer location) to improve the accuracy of the outage map polygons that display customer outages and enabling the ability to fix incorrect premise data used to generate outage areas displayed in the map.

Resiliency and Performance of the Outage Map

- In addition to the Central US Region, hosting the map from servers in the Eastern US Region to minimize down-time and ensure high availability during storms.
- Integrating master data from multiple sources and made readily available in the Cloud platform and enabling automated data feeds to the map.

System Monitoring

- Generating alerts when there are process or system failures that prevent the delivery and update of key data points during processing of the map inputs.
- Implementing tools to track customer engagement with the map.
- Creating a dashboard to audit and reconcile customer outage counts between the map and back-end systems (e.g., ADMS) to identify anomalies and reduce incorrect information from being displayed and communicated to customers.

2024 Outage Map enhancements include the following areas, as we continue to improve our customers' outage experience and eliminate errors in communicating with them:

Enhancing Information Provided to Customers

- Providing outage cause codes / reasons.
- Updating logic to reduce the display of overlapping areas /polygons and reduce confusion with customer counts.
- Continuing to fix incorrect premise data used to generate outage areas displayed in the map.

System Monitoring

- Generating alerts when key data points for outage areas are not rendering properly on the map.

Attachment: None.

Case No. U-21534, Audit Request BMK-1.4
Requested By: Brittney Klocke
Respondents: M. Hatsios
Date of Response: 5/8/2024

Question: 4) Please further describe what the Company learned from the 2023 catastrophic storms and what changes are being implemented to the EFC due to them, per Exhibit A-24, Schedule N3.1. Specifically, please describe the additional scope that was added to the Core and Customer-facing systems.

Answer: See below for the additional scope, mostly in 2023 and 2024, that was added to the EFC Core and Customer-facing Systems because of learnings from the 2023 catastrophic storms.

EFC Core System

- Improvements in Customer Power Status with Premise-Power Status (PPS) Enhancements in 2023 to ensure the number of customer outages align across all systems and making minor enhancements in 2024-2025 such as adding logic in our systems to allow OMS to process outages before we send communication to customers, ensuring error free outage communications. See Pages MJH-74, Lines 4-19 of my direct testimony.
- Improvements in the Accuracy and Timeliness of Restoration Estimates included standardization of processes to improve the timeliness of providing customer estimates such as aligning the daily restoration plan with our estimate strategy and machine-learning modeling to improve the accuracy of restoration estimates. Machine-learning offers the opportunity to reduce our reliance on the manual process which left customers waiting for prolonged periods of time without an estimate, especially during catastrophic storms like the one in February 2023. Work began on the model in 2023 with enhancements and testing in 2024; from these learnings, we expect to continue to refine the model over several years per industry peers who are using machine-learning to generate restoration estimates. See Pages MJH-76, Lines 4-18 through MJH-77, Lines 1-5 of my direct testimony.
- Improvements to the Outage Status and Reporting Dashboards to improve our visibility into the customers outage experience by integrating our view of Customer Power Status provided from our AMI-meters and the successful delivery of outbound customer outage notifications. See Pages MJH-78, Lines 9-19 through MJH-80, Lines 1-16 of my direct testimony for a discussion of our learnings in 2023 of what additional dashboard enhancements, and data analysis are required to effectively monitor our customers' outage experience with investments in 2024.

Customer-Facing System

- System Enhancements Workstream: The 2023 enhancements and changes to the Outage Map and the interfaces with WISMO and the SAP Customer System discussed in BMK-1.3 were

mostly in response to learnings from the 2023 catastrophic storm. Changes had to be made with the Outage Map and its interfaces to ensure the consistency and quality of data being presented to customers during significant storm events. The performance and resiliency of the map was improved by decoupling Outage reporting from our SAP Customer System so that it stood alone. Monitoring and tracking mechanisms were also implemented to make inconsistencies and anomalies in customer outage information visible so that we could remediate them during storms. See Pages MJH-81, Lines 23-25 through MJH-82, Lines 14-21, of my direct testimony.

- Customer Notifications Workstream: Learnings from the 2023 catastrophic storms led to enhancements and changes being made so that outage notification interaction records would no longer be sent to the SAP Customer System and instead stored in the DTE cloud platform for ease of access, alleviating performance issues in the SAP Customer System. We also integrated learnings into modifications to the language and content of outage Email, SMS and Voice notifications as we transitioned from the prior OMS to ADMS System. See Pages MJH-81, Line 25 through MJH-82, Lines 1-2, of my direct testimony.
- Customer Channels Workstream: Changes were made in the Web for channel resiliency to better support the higher volume of customers reporting outages during significant events such as storms and to ensure stability and consistency in the customer experience. For example, the address search function was modified and decoupled from the SAP CRM System and moved over to WISMO to retrieve this information when reporting an outage. This learning came from the 2023 catastrophic storm when we noticed that the search function was over-loading our CRM System. Web enhancements were also needed to support the Outage Map changes discussed above. Adjustments were also made to the re-write of the native mobile app with new features and functionality so that it is more intuitive and user-friendly to use in situations such as a catastrophic storm. See screenshots and summarized notes related to the native mobile app on Page 8 of Exhibit A-24, Schedule N10.
- Police and Fire Website: This Website was enhanced to better support emergency workers and city officials during storms, including the ability to identify a power line problem for locations that are difficult to identify by address or intersection by providing the ability to pin a location on a map, the capability to upload photos and provide more timely estimated time of arrival information, which were based on direct feedback following the 2023 catastrophic storm. See Pages MJH-83, Lines 12-19, of my direct testimony for where these enhancements are discussed. Please also see Page 9 of Exhibit A-24, Schedule N10 where we provided screenshots and summarized notes on the Police and Fire Website.

Attachment: None.

Line	IT Projects	Historical Period	Projected Bridge Period				Projected Test Year		Resource
		12 months ending 12/31/2022	12 months ending 12/31/2023	12 months ending 12/31/2024	24 months ending 12/31/2024	12 months ending 12/31/2025	O&M Test Year		
1	Digital Worker Experience EOL		\$943,000	\$960,325	\$1,903,325	\$1,041,000		Exhibit A-12 Schedule B5.7.7 Line 18	
2	End of Life Asset Replacements	\$500,000						Exhibit A-12 Schedule B5.7.7 Line 19	
4	Total Individual IT Project Disallowances	\$500,000	\$943,000	\$960,325	\$1,903,325	\$1,041,000			
5	Level 3 Cost Estimate Disallowance		\$11,315,000	\$545,500	\$11,860,500	\$823,200	\$84,044	Exhibit S-15.5	
6	Level 2 Cost Estimate Disallowance			\$22,433,200	\$22,433,200	\$20,169,000	\$2,385,653	Exhibit S-15.2	
7	O&M Disallowance						\$3,173,840	Exhibit A13 Sch C5.13 Line 5	
8	TOTAL Recommended IT Disallowance	\$500,000	\$12,258,000	\$23,939,025	\$36,197,025	\$22,033,200	\$5,643,537		

Line	Level 2 Projects	Portfolio	12 months ending 12/31/2024	12 months ending 12/31/2025	Exhibit	O&M (Test Year)
1	Core ERP Stacks and Packs	Corporate Applications	\$1,668,000	\$1,800,000	A-12 Sch B5.7.1	\$226,891
2	Corporate Services Application Health	Corporate Applications	\$779,000	\$775,000		\$135,097
3	Documentum (EDM) Application Health	Corporate Applications	\$392,000	\$387,000		\$58,603
4	Enterprise Applications Health	Corporate Applications	\$740,000			
5	Enterprise Resource Planning	Corporate Applications	\$1,108,000	\$1,490,000		\$133,349
6	Financial Applications Health	Corporate Applications	\$250,000	\$250,000		\$29,306
7	Human Resources Applications Health	Corporate Applications	\$250,000	\$247,000		\$49,320
8	Production Growth	Corporate Applications	\$893,000	\$747,000		\$0
9	Cloud Health and Safety	Corporate Applications	\$2,518,000	\$582,000		\$99,947
10	Core ERP Data Archiving	Corporate Applications	\$750,000			
11	Source to Pay (S2P) Transformation	Corporate Applications		\$1,995,000		\$996,999
12	Enhanced Document Management Capability Projects	Corporate Applications	\$1,218,000	\$2,958,000		\$313,033
13	Organizational Management Optimization	Corporate Applications	\$500,000			
14	SAP Employee Central Payroll	Corporate Applications		\$864,000		\$30,438
15	Talent System Optimization	Corporate Applications		\$280,000		\$33,064
16	Transparency Electric Data	Corporate Applications	\$1,817,000			\$142,590
17	Total:		\$12,883,000	\$12,375,000		\$2,248,637
18	Disallowance (20% of total):		\$2,576,600	\$2,475,000	\$449,727	
19	Automated Application Monitoring Application Health	Customer Service	\$380,000	\$413,000	A-12 Sch B5.7.2	\$30,492
20	Business Planning and Development (BPD) and Electric Sales &	Customer Service	\$800,000	\$730,000		\$325,818
21	Contact Center Application Health	Customer Service	\$1,250,000	\$1,369,000		\$811,609
22	Closed Loop COCL Application Health	Customer Service	\$760,000	\$835,000		\$290,400
23	Cloud Platform Enterprise Agreement	Customer Service	\$750,000			\$0
24	Customer Digital Channels and Self Service Program	Customer Service	\$2,770,000	\$2,763,000		\$340,000
25	Customer Information Technology (CIT) Configuration	Customer Service	\$1,920,000	\$1,057,000		\$115,426
26	Customer Legacy Application Health	Customer Service	\$450,000	\$491,000		\$77,537
27	Customer Relationship and Billing Program	Customer Service	\$1,750,000	\$1,916,000		\$159,719
28	Hybris Application Health	Customer Service	\$640,000	\$855,000		\$363,000
29	MIGreenPower Program Stabilization	Customer Service	\$1,550,000	\$1,550,000		\$100,183
30	Powerley Customer Platform Application Health	Customer Service	\$500,000	\$3,750,000		\$120,366
31	Supporting capabilities Test data and test data mgmt	Customer Service	\$500,000	\$500,000		\$50,000
32	Digital Channels Transformation Program	Customer Service	\$4,420,000	\$2,300,000		\$230,000
33	Migrate IVR to the cloud	Customer Service	\$2,570,000			
34	Total:		\$21,010,000	\$18,529,000	\$3,014,550	
35	Disallowance (20% of total):		\$4,202,000	\$3,705,800	\$602,910	
36	GenOpts-FERC Order 841 Compliance	Plant and Field		\$1,296,000	A-12 Sch B5.7.4	\$38,284
37	Advance Metering Infrastructure (AMI) Application Health	Plant and Field	\$1,382,000	\$1,376,000		\$100,051
38	ClickSoft Application Health	Plant and Field	\$400,000	\$395,000		\$472,817
39	Distribution Operations Application Health	Plant and Field	\$1,180,000	\$1,180,000		\$50,725
40	DTE Electric Generation Capacity Application Health	Plant and Field	\$570,000	\$563,000		\$62,140
41	DTE Electric Utility Network (UN)	Plant and Field	\$370,000			
42	ESRI Application Health	Plant and Field	\$441,000	\$436,000		\$19,296
43	Fuel Supply Application Health	Plant and Field	\$470,000	\$469,000		\$51,698
44	ITS-SRS Application Health	Plant and Field	\$1,050,000	\$520,000		\$1,111
45	ITS ADMS Application Health	Plant and Field	\$1,070,000	\$1,070,000		
46	Network Reliability and Monitoring	Plant and Field	\$750,000			
47	Nuclear Generation Business Systems Replacement	Plant and Field	\$650,000	\$648,000		\$52,000
48	Production Growth	Plant and Field	\$1,485,000	\$1,292,000		\$7,000
49	Renewable Operations Application Health	Plant and Field	\$120,000	\$123,000		\$10,251
50	Supervisory Control and Data Acquisition (SCADA) System	Plant and Field	\$520,000	\$515,000		\$39,396
51	System for Fossil Generation for Coal and Gas	Plant and Field	\$415,000	\$413,000		\$29,783
52	Advance Metering Infrastructure Field Collection System	Plant and Field	\$1,682,000	\$1,678,000		\$147,648
53	Cable Routing Application (CRA) Replatform	Plant and Field	\$614,000			
54	Corporate Instance - Maximo Application Suite Upgrade Phase 1	Plant and Field		\$3,749,000	\$660,000	
55	DO Business Warehouse (DOBW) Replacement	Plant and Field	\$250,000			
56	DO Equipment Engineering Transformer Database	Plant and Field	\$370,000		\$60,000	
57	Fuel Supply-Plant Fuel Management System	Plant and Field	\$2,127,000			
58	Maximo Platform Program	Plant and Field	\$1,192,000	\$1,187,000	\$70,078	
59	Maximo Engineering Process Automation	Plant and Field	\$3,757,000			
60	Storm Data Lakehouse	Plant and Field		\$2,000,000	\$205,000	
61	Storm Simulation Lab	Plant and Field	\$6,500,000	\$3,500,000	\$39,484	
62	Total:		\$27,365,000	\$22,410,000	\$2,116,762	
63	Disallowance (20% of total):		\$5,473,000	\$4,482,000	\$423,352	
64	IT for IT Application Health	Information Technology for IT	\$16,622,000	\$1,695,000	A-12 Sch B5.7.5	\$360,844
65	Total:		\$16,622,000	\$1,695,000		\$360,844
66	Disallowance (20% of total):		\$3,324,400	\$339,000		\$72,169

67	Cloud Privilege Access Management	Information Protection Security		\$500,000		\$198,707
68	Security Information & Event Management (SIEM) End of Life	Information Protection Security		\$1,000,000		\$231,000
69	Vendor Onboarding for DTE	Information Protection Security		\$805,000		
70	Vulnerability Scan tool	Information Protection Security	\$425,000			
71	Cloud Security project	Information Protection Security	\$440,000	\$434,000		\$85,669
72	Cyber Security Defense Center (CSDC) Growth and LifeCycle	Information Protection Security	\$300,000	\$296,000		\$1,912
73	IPS Operations PAW and DC Replacement	Information Protection Security	\$320,000			
74	Endpoint Protection	Information Protection Security	\$314,000			
75	Automated Provisioning	Information Protection Security	\$2,429,000			
76	Azure Active Directory Federation Implementation	Information Protection Security	\$440,000			
77	Cyber Excellence Plan (CEP) Program	Information Protection Security	\$300,000			
78	Network Access Control	Information Protection Security	\$500,000	\$1,257,000		\$44,159
79	Ransomware Recovery	Information Protection Security	\$500,000			
80	Recovery Manager for AD - Disaster Recovery Edition	Information Protection Security	\$664,000			
81		Total:	\$6,632,000	\$4,292,000		\$561,447
82		Disallowance (20% of total):	\$1,326,400	\$858,400		\$112,289
83	Tower and Lighting Inspections and Repairs	Infrastructure Operations	\$150,000	\$280,000		\$9,942
84	Backup Environmental Growth	Infrastructure Operations	\$624,000	\$500,000		\$0
85	Collaboration Application Health	Infrastructure Operations	\$1,531,000	\$1,523,000		\$285,237
86	Dell Storage Hardware Refresh	Infrastructure Operations	\$255,000			\$0
87	Endpoint End of Life Electric Support Services	Infrastructure Operations	\$853,000	\$853,000		\$0
88	Enterprise Monitoring Licensing	Infrastructure Operations		\$5,000,000		\$200,000
89	Enterprise Monitoring Strategy Operational Growth	Infrastructure Operations	\$600,000	\$1,000,000		\$204,455
90	Field Communications Network FCN Growth and Upgrade	Infrastructure Operations	\$300,000	\$400,000		\$0
91	Network Hardening and Operations	Infrastructure Operations	\$400,000	\$400,000		\$0
92	Palo Alto Capital License Purchase	Infrastructure Operations		\$5,500,000		\$0
93	VMWare License Purchase	Infrastructure Operations		\$5,610,000		\$0
94	Compute and Storage Cache Refresh	Infrastructure Operations	\$528,000			\$0
95	Conference Room Audio Video Support	Infrastructure Operations	\$500,000	\$750,000		\$0
96	Data Center Modernization and Optimization	Infrastructure Operations	\$2,100,000	\$800,000		\$0
97	Load Balancer Asset Health and Re-Engineering	Infrastructure Operations		\$466,000		\$0
98	Microwave End Of Life	Infrastructure Operations	\$402,000	\$402,000		\$0
99	Modernize Disaster Recovery Tools	Infrastructure Operations		\$500,000		\$20,000
100	Network Advanced Metering Infrastructure Support	Infrastructure Operations	\$2,200,000	\$2,200,000		\$199,947
101	Network Data Center End of Life Project	Infrastructure Operations	\$450,000	\$450,000		\$40,000
102	Security Infrastructure Growth and End of Life	Infrastructure Operations	\$1,400,000	\$1,400,000		\$2,000,000
103	Wide Area Network and Wireless Local Area Network Expansion	Infrastructure Operations	\$600,000	\$1,000,000		\$19,200
104	Virtual Desktop Infrastructure End of Life	Infrastructure Operations	\$975,000	\$565,000		\$0
105	Self-healing Endpoint Automation	Infrastructure Operations		\$250,000		\$50,000
106	Data Power Replacement Phase 2	Infrastructure Operations	\$650,000			
107	Endpoint Operating System and Hardware Upgrade	Infrastructure Operations	\$280,000	\$4,100,000		\$296,017
108	External Secure File Transfer Replacement	Infrastructure Operations	\$355,000	\$65,000		
109	Firewall Threat Protection	Infrastructure Operations	\$600,000			
110	Mobile Device Management (MDM)	Infrastructure Operations	\$340,000			
111	Storm Cloud	Infrastructure Operations	\$10,000,000	\$6,000,000		\$0
112		Total:	\$26,093,000	\$40,014,000		\$3,324,798
113		Disallowance (20% of total):	\$5,218,600	\$8,002,800		\$664,960
114	Enterprise Data Platform Application Health	Enterprise Data Analytics	1,561,000	1,530,000		\$301,227
115		Total:	\$1,561,000	\$1,530,000		\$301,227
116		Disallowance (20% of total):	\$312,200	\$306,000		\$60,245
117		Total of all Level 2 Projects:	\$112,166,000	\$100,845,000		\$11,928,265
118		Disallowance (20%) for all Level 2 Projects:	\$22,433,200	\$20,169,000		\$2,385,653

MPSC Case No: U-21534

Requester: Staff

Question No.: DR-1.1

Respondent: P. Sharma

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Question: 1. The following questions pertain to Exhibit A-24 Sch N3 and the testimony of Witnesses Sharma and Hatsios:

Please provide a list of IT projects that moved from a Level 2 cost estimate in Case Number U-21297 to a Level 3 cost estimate in the instant case. Please also provide the Level 2 cost estimate and the Level 3 cost estimate for each IT project listed.

Answer: Please refer to the attachment for the list of IT projects that moved from a Level 2 cost estimate in Case Number U-21297 to a Level 3 cost estimate in the instant case.

Exhibit A-24 Sch N3 displays yearly project spend within the rate case period and does not provide the overall project cost; this may cause confusion since there are projects where the annual planned cost was impacted due the project work being re-timed (e.g., pulled-ahead or split into multiple years)

Attachment: U-21534 DR-1 1 Level 2&3 cost estimates

Co-Respondent(s): M. Hatsios

MPSC Case No: U-21534

Requester: Staff

Question No.: DR-1.31

Respondent: P. Sharma

Page: 1 of 1

Question: 31. Regarding the Digital Worker Experience Electric EOL project (Exhibit A-24 Sch N3 line 304), please provide the cost of each individual laptop, desktop, tablet, and monitor.

Answer: Please see the average cost for each individual device below:

- Laptop kits \$1,655
- Desktops \$1,105
- Monitors \$165
- Tablets \$795

Attachment: None

Line No.	Spend Year	U-21534 Business Case / Project Name	IT Portfolio/Program	U-21297 Capital Cost (000's) Spend Year	U-21297 Cost Estimate Level	U-21534 Capital Cost (000's) Spend Year	U-21534 Cost Estimate Level	Percent Difference in Cost
1	2023	Core ERP Stacks and Packs	Corporate Applications	\$ 1,668	Level 2	\$ 1,437	Level 3	-13.85%
2	2024	Core ERP Stacks and Packs	Corporate Applications	\$ 1,668	Level 2	\$ 1,668	Level 3	0.00%
3	2023	Corporate Services Application Health	Corporate Applications	\$ 775	Level 2	\$ 507	Level 3	-34.58%
4	2024	Corporate Services Application Health	Corporate Applications	\$ 780	Level 2	\$ 779	Level 3	-0.13%
5	2023	Documentum (EDM) Application Health	Corporate Applications	\$ 370	Level 2	\$ 110	Level 3	-70.27%
6	2023	Enterprise Applications Health	Corporate Applications	\$ 675	Level 2	\$ 366	Level 3	-45.78%
7	2024	Enterprise Applications Health	Corporate Applications	\$ 700	Level 2	\$ 740	Level 3	5.71%
8	2023	Enterprise Resource Planning	Corporate Applications	\$ 1,108	Level 2	\$ 302	Level 3	-72.74%
9	2024	Enterprise Resource Planning	Corporate Applications	\$ 1,108	Level 2	\$ 1,108	Level 3	0.00%
10	2023	Financial Applications Health	Corporate Applications	\$ 275	Level 2	\$ 292	Level 3	6.18%
11	2024	Financial Applications Health	Corporate Applications	\$ 250	Level 2	\$ 250	Level 3	0.00%
12	2023	Human Resources Applications Health	Corporate Applications	\$ 250	Level 2	\$ 410	Level 3	64.00%
13	2024	Human Resources Applications Health	Corporate Applications	\$ 250	Level 2	\$ 250	Level 3	0.00%
14	2023	Production Growth	Corporate Applications	\$ 1,050	Level 2	\$ 517	Level 3	-50.76%
15	2024	Production Growth	Corporate Applications	\$ 894	Level 2	\$ 893	Level 3	-0.11%
16	2023	SuccessFactors Program	Corporate Applications	\$ 310	Level 2	\$ 329	Level 3	6.13%
17	2023	Automated Application Monitoring Application Health	Customer Service	\$ 342	Level 2	\$ 302	Level 3	-11.62%
18	2024	Automated Application Monitoring Application Health	Customer Service	\$ 376	Level 2	\$ 380	Level 3	1.11%
19	2023	Business Planning and Development (BPD) and Electric Sales & Marketing (ESM) Application Health	Customer Service	\$ 730	Level 2	\$ 851	Level 3	16.58%
20	2024	Business Planning and Development (BPD) and Electric Sales & Marketing (ESM) Application Health	Customer Service	\$ 800	Level 2	\$ 800	Level 3	0.00%
21	2023	Contact Center Application Health	Customer Service	\$ 1,139	Level 2	\$ 1,202	Level 3	5.54%
22	2024	Contact Center Application Health	Customer Service	\$ 6,253	Level 2	\$ 1,250	Level 3	-80.01%
23	2023	Closed Loop COCL Application Health	Customer Service	\$ 690	Level 2	\$ 1	Level 3	-99.86%
24	2024	Closed Loop COCL Application Health	Customer Service	\$ 759	Level 2	\$ 760	Level 3	0.10%
25	2023	Customer Digital Channels and Self Service Program	Customer Service	\$ 2,774	Level 2	\$ 2,219	Level 3	-20.01%
26	2024	Customer Digital Channels and Self Service Program	Customer Service	\$ 2,111	Level 2	\$ 2,770	Level 3	31.25%
27	2023	Customer Information Technology (CIT) Configuration Management	Customer Service	\$ 896	Level 2	\$ 574	Level 3	-35.93%
28	2024	Customer Information Technology (CIT) Configuration Management	Customer Service	\$ 1,916	Level 2	\$ 1,920	Level 3	0.23%
29	2023	Customer Legacy Application Health	Customer Service	\$ 405	Level 2	\$ 668	Level 3	64.94%
30	2024	Customer Legacy Application Health	Customer Service	\$ 446	Level 2	\$ 450	Level 3	0.90%
31	2023	Customer Relationship and Billing Program	Customer Service	\$ 1,584	Level 2	\$ 550	Level 3	-65.28%
32	2023	Hybris Application Health	Customer Service	\$ 1,000	Level 2	\$ 2,424	Level 3	142.40%
33	2024	Hybris Application Health	Customer Service	\$ 635	Level 2	\$ 640	Level 3	0.83%
34	2023	MIGreenPower Program Stabilization	Customer Service	\$ 1,548	Level 2	\$ 1,579	Level 3	2.03%
35	2023	Service Cloud Product Support For Customer Document Submission	Customer Service	\$ 753	Level 2	\$ 790	Level 3	4.91%
36	2023	Customer Service Infrastructure Landscape & Growth Project	Customer Service	\$ 5,500	Level 2	\$ 5,947	Level 3	8.13%
37	2023	Digital Channels Transformation Program	Customer Service	\$ 4,823	Level 2	\$ 3,802	Level 3	-21.17%
38	2023	Systems, Applications, and Products (SAP) Upgrade Program	Customer Service	\$ 4,017	Level 2	\$ 3,410	Level 3	-15.11%
39	2023	ClickSoft Application Health	Plant and Field - DO	\$ 400	Level 2	\$ 309	Level 3	-22.75%
40	2023	Distribution Operations Application Health	Plant and Field - DO	\$ 1,280	Level 2	\$ 1,098	Level 3	-14.22%
41	2024	Distribution Operations Application Health	Plant and Field - DO	\$ 1,180	Level 2	\$ 1,180	Level 3	0.00%
42	2023	DTE Electric Generation Capacity Application Health	Plant and Field - ES	\$ 560	Level 2	\$ 593	Level 3	5.89%
43	2024	DTE Electric Generation Capacity Application Health	Plant and Field - ES	\$ 560	Level 2	\$ 570	Level 3	1.79%
44	2024	DTE Electric Utility Network (UN)	Plant and Field - DO	\$ 375	Level 2	\$ 370	Level 3	-1.33%
45	2023	Fuel Supply Application Health	Plant and Field - ES	\$ 470	Level 2	\$ 383	Level 3	-18.51%
46	2024	Fuel Supply Application Health	Plant and Field - ES	\$ 470	Level 2	\$ 470	Level 3	0.00%
47	2023	Network Reliability and Monitoring	Plant and Field - DO	\$ 750	Level 2	\$ 246	Level 3	-67.20%
48	2024	Network Reliability and Monitoring	Plant and Field - DO	\$ 750	Level 2	\$ 750	Level 3	0.00%

Michigan Public Service Commission
DTE Electric Company
Comparison of Level 2 and Level 3 Cost Estimates

Case Number: U-21534
Exhibit: S-15.4
Witness: Danielle R Rogers
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49	2023	Nuclear Generation Business Systems Replacement	Plant and Field - ES	\$ 650	Level 2	\$ 678	Level 3	4.31%
50	2024	Nuclear Generation Business Systems Replacement	Plant and Field - ES	\$ 650	Level 2	\$ 650	Level 3	0.00%
51	2023	Production Growth	Plant and Field - DO	\$ 800	Level 2	\$ 1,486	Level 3	85.75%
52	2024	Production Growth	Plant and Field - DO	\$ 1,310	Level 2	\$ 1,485	Level 3	13.36%
53	2023	Renewable Operations Application Health	Plant and Field - ES	\$ 124	Level 2	\$ 111	Level 3	-10.31%
54	2024	Renewable Operations Application Health	Plant and Field - ES	\$ 124	Level 2	\$ 120	Level 3	-3.04%
55	2023	Supervisory Control and Data Acquisition (SCADA) System Improvement	Plant and Field - DO	\$ 520	Level 2	\$ 404	Level 3	-22.31%
56	2024	Supervisory Control and Data Acquisition (SCADA) System Improvement	Plant and Field - DO	\$ 520	Level 2	\$ 520	Level 3	0.00%
57	2023	System for Fossil Generation for Coal and Gas	Plant and Field - ES	\$ 400	Level 2	\$ 342	Level 3	-14.50%
58	2024	System for Fossil Generation for Coal and Gas	Plant and Field - ES	\$ 400	Level 2	\$ 415	Level 3	3.75%
59	2023	Advance Metering Infrastructure Field Collection System	Plant and Field - DO	\$ 1,700	Level 2	\$ 1,243	Level 3	-26.88%
60	2023	Maximo Platform Program	Plant and Field - DO	\$ 1,175	Level 2	\$ 2,278	Level 3	93.89%
61	2024	Maximo Platform Program	Plant and Field - DO	\$ 1,175	Level 2	\$ 1,192	Level 3	1.46%
62	2023	P3M Heat Rate Calculation and GADS Reporting Functions	Plant and Field - ES	\$ 913	Level 2	\$ 850	Level 3	-6.90%
63	2023	Plant & Field Document Repository	Plant & Field ES	\$ 500	Level 2	\$ 1,395	Level 3	179.00%
64	2023	Replace DO Lines - SOC Radio	Plant and Field - DO	\$ 1,800	Level 2	\$ 2,072	Level 3	15.11%
65	2024	Maximo Engineering Process Automation	Plant and Field - ES	\$ 8,250	Level 2	\$ 3,757	Level 3	-54.46%
66	2023	Maximo HSE Support	Plant and Field - ES	\$ 334	Level 2	\$ 325	Level 3	-2.69%
67	2023	Cloud Privilege Access Management	Information Protection Security	\$ 500	Level 2	\$ 416	Level 3	-16.80%
68	2023	Vulnerability Scan tool	Information Protection Security	\$ 675	Level 2	\$ 561	Level 3	-16.89%
69	2023	IT for IT Application Health	Information Technology for IT	\$ 1,900	Level 2	\$ 1,391	Level 3	-26.79%
70	2024	IT for IT Application Health	Information Technology for IT	\$ 16,640	Level 2	\$ 16,622	Level 3	-0.11%
71	2023	Cloud Security project	Information Protection Security	\$ 441	Level 2	\$ 311	Level 3	-29.48%
72	2024	Cloud Security project	Information Protection Security	\$ 460	Level 2	\$ 440	Level 3	-4.35%
73	2023	Endpoint Protection	Information Protection Security	\$ 315	Level 2	\$ 287	Level 3	-8.89%
74	2024	Endpoint Protection	Information Protection Security	\$ 347	Level 2	\$ 314	Level 3	-9.59%
75	2023	Application Portfolio Management - APM	Information Technology for IT	\$ 500	Level 2	\$ 438	Level 3	-12.40%
76	2023	Automated Provisioning	Information Protection Security	\$ 1,500	Level 2	\$ 762	Level 3	-49.20%
77	2024	Automated Provisioning	Information Protection Security	\$ 2,433	Level 2	\$ 2,429	Level 3	-0.18%
78	2023	Azure Active Directory Federation Implementation	Information Protection Security	\$ 441	Level 2	\$ 299	Level 3	-32.20%
79	2024	Azure Active Directory Federation Implementation	Information Protection Security	\$ 460	Level 2	\$ 440	Level 3	-4.35%
80	2023	DTE Private Cloud Infrastructure as a Service	Infrastructure Operations	\$ 800	Level 2	\$ 571	Level 3	-28.63%
81	2023	Enterprise Mobility Management	Information Protection Security	\$ 331	Level 2	\$ 179	Level 3	-45.89%
82	2023	Firewall Threat Protection	Information Protection Security	\$ 1,556	Level 2	\$ 1,529	Level 3	-1.74%
83	2024	Firewall Threat Protection	Information Protection Security	\$ 3,244	Level 2	\$ 600	Level 3	-81.50%
84	2023	IT Service Management Tool	Information Technology for IT	\$ 900	Level 2	\$ 613	Level 3	-31.89%
85	2023	Ransomware Recovery	Information Protection Security	\$ 500	Level 2	\$ 418	Level 3	-16.40%
86	2024	Ransomware Recovery	Information Protection Security	\$ 500	Level 2	\$ 500	Level 3	0.00%
87	2023	Threat Intel module	Information Protection Security	\$ 263	Level 2	\$ 43	Level 3	-83.62%
88	2023	Cyber Security Defense Center (CSDC) Growth and LifeCycle Management	Information Protection Security	\$ 300	Level 2	\$ 389	Level 3	29.67%
89	2024	Cyber Security Defense Center (CSDC) Growth and LifeCycle Management	Information Protection Security	\$ 300	Level 2	\$ 300	Level 3	0.00%
90	2023	Cyber Excellence Plan (CEP) Program	Information Protection Security	\$ 300	Level 2	\$ 290	Level 3	-3.33%
91	2024	Cyber Excellence Plan (CEP) Program	Information Protection Security	\$ 300	Level 2	\$ 300	Level 3	0.00%
92	2023	Tower and Lighting Inspections and Repairs	Infrastructure Operations	\$ 280	Level 2	\$ 263	Level 3	-6.07%
93	2024	Tower and Lighting Inspections and Repairs	Infrastructure Operations	\$ 280	Level 2	\$ 150	Level 3	-46.43%
94	2023	Backup Environmental Growth	Infrastructure Operations	\$ 624	Level 2	\$ 85	Level 3	-86.38%
95	2024	Backup Environmental Growth	Infrastructure Operations	\$ 624	Level 2	\$ 624	Level 3	0.00%
96	2023	Collaboration Application Health	Infrastructure Operations	\$ 20,753	Level 2	\$ 21,783	Level 3	4.96%
97	2024	Collaboration Application Health	Infrastructure Operations	\$ 1,500	Level 2	\$ 1,531	Level 3	2.07%
98	2023	Endpoint End of Life Electric Support Services	Infrastructure Operations	\$ 853	Level 2	\$ 973	Level 3	14.07%

99	2024	Endpoint End of Life Electric Support Services	Infrastructure Operations	\$ 853	Level 2	\$ 853	Level 3	0.00%
100	2023	Enterprise Monitoring Strategy Operational Growth	Infrastructure Operations	\$ 600	Level 2	\$ 583	Level 3	-2.83%
101	2024	Enterprise Monitoring Strategy Operational Growth	Infrastructure Operations	\$ 500	Level 2	\$ 600	Level 3	20.00%
102	2023	Field Communications Network FCN Growth and Upgrade	Infrastructure Operations	\$ 400	Level 2	\$ 384	Level 3	-4.00%
103	2024	Field Communications Network FCN Growth and Upgrade	Infrastructure Operations	\$ 400	Level 2	\$ 300	Level 3	-25.00%
104	2023	Network Hardening and Operations	Infrastructure Operations	\$ 400	Level 2	\$ 880	Level 3	120.00%
105	2024	Network Hardening and Operations	Infrastructure Operations	\$ 400	Level 2	\$ 400	Level 3	0.00%
106	2023	Server Engineering Support Services	Infrastructure Operations	\$ 2,650	Level 2	\$ 10,000	Level 3	277.36%
107	2024	Server Engineering Support Services	Infrastructure Operations	\$ 3,100	Level 2	\$ 3,100	Level 3	0.00%
108	2023	Compute and Storage Cache Refresh	Infrastructure Operations	\$ 528	Level 2	\$ 3	Level 3	-99.43%
109	2024	Compute and Storage Cache Refresh	Infrastructure Operations	\$ 528	Level 2	\$ 528	Level 3	0.00%
110	2023	Conference Room Audio Video Support	Infrastructure Operations	\$ 229	Level 2	\$ 112	Level 3	-51.09%
111	2024	Conference Room Audio Video Support	Infrastructure Operations	\$ 250	Level 2	\$ 500	Level 3	100.00%
112	2023	Digital Worker Experience Electric EOL	Infrastructure Operations	\$ 2,250	Level 2	\$ 3,022	Level 3	34.31%
113	2024	Digital Worker Experience Electric EOL	Infrastructure Operations	\$ 2,650	Level 2	\$ 2,650	Level 3	0.00%
114	2023	End of Life Asset Replacements	Infrastructure Operations	\$ 500	Level 2	\$ 471	Level 3	-5.80%
115	2024	End of Life Asset Replacements	Infrastructure Operations	\$ 500	Level 2	\$ 500	Level 3	0.00%
116	2023	Microwave End Of Life	Infrastructure Operations	\$ 402	Level 2	\$ 391	Level 3	-2.74%
117	2024	Microwave End Of Life	Infrastructure Operations	\$ 402	Level 2	\$ 402	Level 3	0.00%
118	2023	Network Advanced Metering Infrastructure Support	Infrastructure Operations	\$ 2,200	Level 2	\$ 2,076	Level 3	-5.64%
119	2024	Network Advanced Metering Infrastructure Support	Infrastructure Operations	\$ 2,200	Level 2	\$ 2,200	Level 3	0.00%
120	2023	Network Data Center End of Life Project	Infrastructure Operations	\$ 650	Level 2	\$ 978	Level 3	50.46%
121	2024	Network Data Center End of Life Project	Infrastructure Operations	\$ 450	Level 2	\$ 450	Level 3	0.00%
122	2023	Network End of Life Electric	Infrastructure Operations	\$ 700	Level 2	\$ 888	Level 3	26.86%
123	2024	Network End of Life Electric	Infrastructure Operations	\$ 700	Level 2	\$ 700	Level 3	0.00%
124	2023	Data Center Modernization and Optimization	Infrastructure Operations	\$ 1,350	Level 2	\$ 941	Level 3	-30.30%
125	2024	Data Center Modernization and Optimization	Infrastructure Operations	\$ 1,650	Level 2	\$ 2,100	Level 3	27.27%
126	2023	Wide Area Network and Wireless Local Area Network Expansion	Infrastructure Operations	\$ 2,000	Level 2	\$ 984	Level 3	-50.80%
127	2024	Wide Area Network and Wireless Local Area Network Expansion	Infrastructure Operations	\$ 1,000	Level 2	\$ 600	Level 3	-40.00%
128	2023	Security Infrastructure Growth and EOL	Infrastructure Operations	\$ 1,400	Level 2	\$ 1,359	Level 3	-2.93%
129	2023	PCI Compliance	Customer Service	\$ 176	Level 2	\$ 102	Level 3	-42.05%
130	2023	Regulatory Compliance	Customer Service	\$ 2,761	Level 2	\$ 2,787	Level 3	0.94%
131	2023	Rider 17 – MIGreenPower, Residential and Small Commercial & Industrial	Customer Service	\$ 1,580	Level 2	\$ 398	Level 3	-74.81%
132	2023	MIGP Customer - Requested Renewable Energy Projects	Customer Service	\$ 4,502	Level 2	\$ 413	Level 3	-90.83%
133	2023	Advanced Analytics AA Use Cases Implementation	Customer Service	\$ 500	Level 2	\$ 457	Level 3	-8.60%
134	2023	IT Application Environments Enhancement	Customer Service	\$ 352	Level 2	\$ 320	Level 3	-9.09%
135	2023	Automated Application Monitoring Enhancement	Customer Service	\$ 895	Level 2	\$ 305	Level 3	-65.92%
136	2023	Billing Web Self-Service	Customer Service	\$ 888	Level 2	\$ 590	Level 3	-33.56%
137	2023	Collection Web Self-Service	Customer Service	\$ 6,475	Level 2	\$ 2,379	Level 3	-63.26%
138	2023	Contact Center Enablement	Customer Service	\$ 400	Level 2	\$ 889	Level 3	122.25%
139	2023	Customer Closed Loop Development	Customer Service	\$ 1,500	Level 2	\$ 1,524	Level 3	1.60%
140	2023	MIGP Data and Reporting	Customer Service	\$ 1,014	Level 2	\$ 906	Level 3	-10.65%
141	2023	MIMO Web Self-Service	Customer Service	\$ 5,100	Level 2	\$ 5,413	Level 3	6.14%
142	2023	Payment Web Self-Service	Customer Service	\$ 888	Level 2	\$ 51	Level 3	-94.26%
Highest Percent OverRecovery								-99.86%
Highest Percent UnderRecovery								277.36%

Over Recovered Projects

Line No.	Spend Year	U-21534 Business Case / Project Name	IT Portfolio/Program	U-21297 Capital Cost (000's) Spend Year	U-21297 Cost Estimate Level	U-21534 Capital Cost (000's) Spend Year	U-21534 Cost Estimate Level	Percent Difference in Cost
1	2023	Core ERP Stacks and Packs	Corporate Applications	\$ 1,668	Level 2	\$ 1,437	Level 3	-13.85%
3	2023	Corporate Services Application Health	Corporate Applications	\$ 775	Level 2	\$ 507	Level 3	-34.58%
4	2024	Corporate Services Application Health	Corporate Applications	\$ 780	Level 2	\$ 779	Level 3	-0.13%
5	2023	Documentum (EDM) Application Health	Corporate Applications	\$ 370	Level 2	\$ 110	Level 3	-70.27%
6	2023	Enterprise Applications Health	Corporate Applications	\$ 675	Level 2	\$ 366	Level 3	-45.78%
8	2023	Enterprise Resource Planning	Corporate Applications	\$ 1,108	Level 2	\$ 302	Level 3	-72.74%
14	2023	Production Growth	Corporate Applications	\$ 1,050	Level 2	\$ 517	Level 3	-50.76%
15	2024	Production Growth	Corporate Applications	\$ 894	Level 2	\$ 893	Level 3	-0.11%
17	2023	Automated Application Monitoring Application Health	Customer Service	\$ 342	Level 2	\$ 302	Level 3	-11.62%
22	2024	Contact Center Application Health	Customer Service	\$ 6,253	Level 2	\$ 1,250	Level 3	-80.01%
23	2023	Closed Loop COCL Application Health	Customer Service	\$ 690	Level 2	\$ 1	Level 3	-99.86%
25	2023	Customer Digital Channels and Self Service Program	Customer Service	\$ 2,774	Level 2	\$ 2,219	Level 3	-20.01%
27	2023	Customer Information Technology (CIT) Configuration Management	Customer Service	\$ 896	Level 2	\$ 574	Level 3	-35.93%
31	2023	Customer Relationship and Billing Program	Customer Service	\$ 1,584	Level 2	\$ 550	Level 3	-65.28%
37	2023	Digital Channels Transformation Program	Customer Service	\$ 4,823	Level 2	\$ 3,802	Level 3	-21.17%
38	2023	Systems, Applications, and Products (SAP) Upgrade Program	Customer Service	\$ 4,017	Level 2	\$ 3,410	Level 3	-15.11%
39	2023	ClickSoft Application Health	Plant and Field - DO	\$ 400	Level 2	\$ 309	Level 3	-22.75%
40	2023	Distribution Operations Application Health	Plant and Field - DO	\$ 1,280	Level 2	\$ 1,098	Level 3	-14.22%
44	2024	DTE Electric Utility Network (UN)	Plant and Field - DO	\$ 375	Level 2	\$ 370	Level 3	-1.33%
45	2023	Fuel Supply Application Health	Plant and Field - ES	\$ 470	Level 2	\$ 383	Level 3	-18.51%
47	2023	Network Reliability and Monitoring	Plant and Field - DO	\$ 750	Level 2	\$ 246	Level 3	-67.20%
53	2023	Renewable Operations Application Health	Plant and Field - ES	\$ 124	Level 2	\$ 111	Level 3	-10.31%
54	2024	Renewable Operations Application Health	Plant and Field - ES	\$ 124	Level 2	\$ 120	Level 3	-3.04%
55	2023	Supervisory Control and Data Acquisition (SCADA) System Improvement	Plant and Field - DO	\$ 520	Level 2	\$ 404	Level 3	-22.31%
57	2023	System for Fossil Generation for Coal and Gas	Plant and Field - ES	\$ 400	Level 2	\$ 342	Level 3	-14.50%
59	2023	Advance Metering Infrastructure Field Collection System	Plant and Field - DO	\$ 1,700	Level 2	\$ 1,243	Level 3	-26.88%
62	2023	P3M Heat Rate Calculation and GADS Reporting Functions	Plant and Field - ES	\$ 913	Level 2	\$ 850	Level 3	-6.90%
65	2024	Maximo Engineering Process Automation	Plant and Field - ES	\$ 8,250	Level 2	\$ 3,757	Level 3	-54.46%
66	2023	Maximo HSE Support	Plant and Field - ES	\$ 334	Level 2	\$ 325	Level 3	-2.69%
67	2023	Cloud Privilege Access Management	Information Protection Security	\$ 500	Level 2	\$ 416	Level 3	-16.80%
68	2023	Vulnerability Scan tool	Information Protection Security	\$ 675	Level 2	\$ 561	Level 3	-16.89%
69	2023	IT for IT Application Health	Information Technology for IT	\$ 1,900	Level 2	\$ 1,391	Level 3	-26.79%
70	2024	IT for IT Application Health	Information Technology for IT	\$ 16,640	Level 2	\$ 16,622	Level 3	-0.11%
71	2023	Cloud Security project	Information Protection Security	\$ 441	Level 2	\$ 311	Level 3	-29.48%
72	2024	Cloud Security project	Information Protection Security	\$ 460	Level 2	\$ 440	Level 3	-4.35%
73	2023	Endpoint Protection	Information Protection Security	\$ 315	Level 2	\$ 287	Level 3	-8.89%
74	2024	Endpoint Protection	Information Protection Security	\$ 347	Level 2	\$ 314	Level 3	-9.59%
75	2023	Application Portfolio Management - APM	Information Technology for IT	\$ 500	Level 2	\$ 438	Level 3	-12.40%
76	2023	Automated Provisioning	Information Protection Security	\$ 1,500	Level 2	\$ 762	Level 3	-49.20%
77	2024	Automated Provisioning	Information Protection Security	\$ 2,433	Level 2	\$ 2,429	Level 3	-0.18%
78	2023	Azure Active Directory Federation Implementation	Information Protection Security	\$ 441	Level 2	\$ 299	Level 3	-32.20%
79	2024	Azure Active Directory Federation Implementation	Information Protection Security	\$ 460	Level 2	\$ 440	Level 3	-4.35%
80	2023	DTE Private Cloud Infrastructure as a Service	Infrastructure Operations	\$ 800	Level 2	\$ 571	Level 3	-28.63%
81	2023	Enterprise Mobility Management	Information Protection Security	\$ 331	Level 2	\$ 179	Level 3	-45.89%
83	2023	Firewall Threat Protection	Information Protection Security	\$ 1,556	Level 2	\$ 1,529	Level 3	-1.74%
84	2024	Firewall Threat Protection	Information Protection Security	\$ 3,244	Level 2	\$ 600	Level 3	-81.50%
85	2023	IT Service Management Tool	Information Technology for IT	\$ 900	Level 2	\$ 613	Level 3	-31.89%
86	2023	Ransomware Recovery	Information Protection Security	\$ 500	Level 2	\$ 418	Level 3	-16.40%

88	2023	Threat Intel module	Information Protection Security	\$ 263	Level 2	\$ 43	Level 3	-83.62%
91	2023	Cyber Excellence Plan (CEP) Program	Information Protection Security	\$ 300	Level 2	\$ 290	Level 3	-3.33%
93	2023	Tower and Lighting Inspections and Repairs	Infrastructure Operations	\$ 280	Level 2	\$ 263	Level 3	-6.07%
94	2024	Tower and Lighting Inspections and Repairs	Infrastructure Operations	\$ 280	Level 2	\$ 150	Level 3	-46.43%
95	2023	Backup Environmental Growth	Infrastructure Operations	\$ 624	Level 2	\$ 85	Level 3	-86.38%
101	2023	Enterprise Monitoring Strategy Operational Growth	Infrastructure Operations	\$ 600	Level 2	\$ 583	Level 3	-2.83%
103	2023	Field Communications Network FCN Growth and Upgrade	Infrastructure Operations	\$ 400	Level 2	\$ 384	Level 3	-4.00%
104	2024	Field Communications Network FCN Growth and Upgrade	Infrastructure Operations	\$ 400	Level 2	\$ 300	Level 3	-25.00%
109	2023	Compute and Storage Cache Refresh	Infrastructure Operations	\$ 528	Level 2	\$ 3	Level 3	-99.43%
111	2023	Conference Room Audio Video Support	Infrastructure Operations	\$ 229	Level 2	\$ 112	Level 3	-51.09%
115	2023	End of Life Asset Replacements	Infrastructure Operations	\$ 500	Level 2	\$ 471	Level 3	-5.80%
117	2023	Microwave End Of Life	Infrastructure Operations	\$ 402	Level 2	\$ 391	Level 3	-2.74%
119	2023	Network Advanced Metering Infrastructure Support	Infrastructure Operations	\$ 2,200	Level 2	\$ 2,076	Level 3	-5.64%
125	2023	Data Center Modernization and Optimization	Infrastructure Operations	\$ 1,350	Level 2	\$ 941	Level 3	-30.30%
127	2023	Wide Area Network and Wireless Local Area Network Expansion	Infrastructure Operations	\$ 2,000	Level 2	\$ 984	Level 3	-50.80%
128	2024	Wide Area Network and Wireless Local Area Network Expansion	Infrastructure Operations	\$ 1,000	Level 2	\$ 600	Level 3	-40.00%
129	2023	Security Infrastructure Growth and EOL	Infrastructure Operations	\$ 1,400	Level 2	\$ 1,359	Level 3	-2.93%
130	2023	PCI Compliance	Customer Service	\$ 176	Level 2	\$ 102	Level 3	-42.05%
132	2023	Rider 17 – MIGreenPower, Residential and Small Commercial & Industrial	Customer Service	\$ 1,580	Level 2	\$ 398	Level 3	-74.81%
133	2023	MIGP Customer - Requested Renewable Energy Projects	Customer Service	\$ 4,502	Level 2	\$ 413	Level 3	-90.83%
134	2023	Advanced Analytics AA Use Cases Implementation	Customer Service	\$ 500	Level 2	\$ 457	Level 3	-8.60%
135	2023	IT Application Environments Enhancement	Customer Service	\$ 352	Level 2	\$ 320	Level 3	-9.09%
136	2023	Automated Application Monitoring Enhancement	Customer Service	\$ 895	Level 2	\$ 305	Level 3	-65.92%
137	2023	Billing Web Self-Service	Customer Service	\$ 888	Level 2	\$ 590	Level 3	-33.56%
138	2023	Collection Web Self-Service	Customer Service	\$ 6,475	Level 2	\$ 2,379	Level 3	-63.26%
141	2023	MIGP Data and Reporting	Customer Service	\$ 1,014	Level 2	\$ 906	Level 3	-10.65%
143	2023	Payment Web Self-Service	Customer Service	\$ 888	Level 2	\$ 51	Level 3	-94.26%
Average Over Recovery per Project								-31.45%

Under Recovered Projects

Line No.	Spend Year	U-21534 Business Case / Project Name	IT Portfolio/Program	U-21297 Capital Cost (000's) Spend Year	U-21297 Cost Estimate Level	U-21534 Capital Cost (000's) Spend Year	U-21534 Cost Estimate Level	Percent Difference in Cost
7	2024	Enterprise Applications Health	Corporate Applications	\$ 700	Level 2	\$ 740	Level 3	5.71%
10	2023	Financial Applications Health	Corporate Applications	\$ 275	Level 2	\$ 292	Level 3	6.18%
12	2023	Human Resources Applications Health	Corporate Applications	\$ 250	Level 2	\$ 410	Level 3	64.00%
16	2023	SuccessFactors Program	Corporate Applications	\$ 310	Level 2	\$ 329	Level 3	6.13%
18	2024	Automated Application Monitoring Application Health	Customer Service	\$ 376	Level 2	\$ 380	Level 3	1.11%
19	2023	Business Planning and Development (BPD) and Electric Sales & Marketing (ESM) Application Health	Customer Service	\$ 730	Level 2	\$ 851	Level 3	16.58%
21	2023	Contact Center Application Health	Customer Service	\$ 1,139	Level 2	\$ 1,202	Level 3	5.54%
24	2024	Closed Loop COCL Application Health	Customer Service	\$ 759	Level 2	\$ 760	Level 3	0.10%
26	2024	Customer Digital Channels and Self Service Program	Customer Service	\$ 2,111	Level 2	\$ 2,770	Level 3	31.25%
28	2024	Customer Information Technology (CIT) Configuration Management	Customer Service	\$ 1,916	Level 2	\$ 1,920	Level 3	0.23%
29	2023	Customer Legacy Application Health	Customer Service	\$ 405	Level 2	\$ 668	Level 3	64.94%
30	2024	Customer Legacy Application Health	Customer Service	\$ 446	Level 2	\$ 450	Level 3	0.90%
32	2023	Hybris Application Health	Customer Service	\$ 1,000	Level 2	\$ 2,424	Level 3	142.40%
33	2024	Hybris Application Health	Customer Service	\$ 635	Level 2	\$ 640	Level 3	0.83%
34	2023	MIGreenPower Program Stabilization	Customer Service	\$ 1,548	Level 2	\$ 1,579	Level 3	2.03%
35	2023	Service Cloud Product Support For Customer Document Submission	Customer Service	\$ 753	Level 2	\$ 790	Level 3	4.91%
36	2023	Customer Service Infrastructure Landscape & Growth Project	Customer Service	\$ 5,500	Level 2	\$ 5,947	Level 3	8.13%
42	2023	DTE Electric Generation Capacity Application Health	Plant and Field - ES	\$ 560	Level 2	\$ 593	Level 3	5.89%
43	2024	DTE Electric Generation Capacity Application Health	Plant and Field - ES	\$ 560	Level 2	\$ 570	Level 3	1.79%
49	2023	Nuclear Generation Business Systems Replacement	Plant and Field - ES	\$ 650	Level 2	\$ 678	Level 3	4.31%
51	2023	Production Growth	Plant and Field - DO	\$ 800	Level 2	\$ 1,486	Level 3	85.75%
52	2024	Production Growth	Plant and Field - DO	\$ 1,310	Level 2	\$ 1,485	Level 3	13.36%
58	2024	System for Fossil Generation for Coal and Gas	Plant and Field - ES	\$ 400	Level 2	\$ 415	Level 3	3.75%
60	2023	Maximo Platform Program	Plant and Field - DO	\$ 1,175	Level 2	\$ 2,278	Level 3	93.89%
61	2024	Maximo Platform Program	Plant and Field - DO	\$ 1,175	Level 2	\$ 1,192	Level 3	1.46%
63	2023	Plant & Field Document Repository	Plant & Field ES	\$ 500	Level 2	\$ 1,395	Level 3	179.00%
64	2023	Replace DO Lines - SOC Radio	Plant and Field - DO	\$ 1,800	Level 2	\$ 2,072	Level 3	15.11%
89	2023	Cyber Security Defense Center (CSDC) Growth and LifeCycle Management	Information Protection Security	\$ 300	Level 2	\$ 389	Level 3	29.67%
97	2023	Collaboration Application Health	Infrastructure Operations	\$ 20,753	Level 2	\$ 21,783	Level 3	4.96%
98	2024	Collaboration Application Health	Infrastructure Operations	\$ 1,500	Level 2	\$ 1,531	Level 3	2.07%
99	2023	Endpoint End of Life Electric Support Services	Infrastructure Operations	\$ 853	Level 2	\$ 973	Level 3	14.07%
102	2024	Enterprise Monitoring Strategy Operational Growth	Infrastructure Operations	\$ 500	Level 2	\$ 600	Level 3	20.00%
105	2023	Network Hardening and Operations	Infrastructure Operations	\$ 400	Level 2	\$ 880	Level 3	120.00%
107	2023	Server Engineering Support Services	Infrastructure Operations	\$ 2,650	Level 2	\$ 10,000	Level 3	277.36%
112	2024	Conference Room Audio Video Support	Infrastructure Operations	\$ 250	Level 2	\$ 500	Level 3	100.00%
113	2023	Digital Worker Experience Electric EOL	Infrastructure Operations	\$ 2,250	Level 2	\$ 3,022	Level 3	34.31%
121	2023	Network Data Center End of Life Project	Infrastructure Operations	\$ 650	Level 2	\$ 978	Level 3	50.46%
123	2023	Network End of Life Electric	Infrastructure Operations	\$ 700	Level 2	\$ 888	Level 3	26.86%
126	2024	Data Center Modernization and Optimization	Infrastructure Operations	\$ 1,650	Level 2	\$ 2,100	Level 3	27.27%
131	2023	Regulatory Compliance	Customer Service	\$ 2,761	Level 2	\$ 2,787	Level 3	0.94%
139	2023	Contact Center Enablement	Customer Service	\$ 400	Level 2	\$ 889	Level 3	122.25%
140	2023	Customer Closed Loop Development	Customer Service	\$ 1,500	Level 2	\$ 1,524	Level 3	1.60%
142	2023	MIMO Web Self-Service	Customer Service	\$ 5,100	Level 2	\$ 5,413	Level 3	6.14%
Average Under Recovery per Project								37.28%

Line	Level 3 Projects	Portfolio	12 months ending 12/31/2023	12 months ending 12/31/2024	12 months ending 12/31/2025	Exhibit	O&M (Test Year)
1	Core ERP Stacks and Packs	Corporate Applications	\$1,437,000			A-12 Sch B5.7.1	
2	Corporate Services Application Health	Corporate Applications	\$507,000				
3	Documentum (EDM) Application Health	Corporate Applications	\$110,000				
4	Enterprise Applications Health	Corporate Applications	\$366,000				
5	Enterprise Resource Planning	Corporate Applications	\$302,000				
6	Financial Applications Health	Corporate Applications	\$292,000				
7	Human Resources Applications Health	Corporate Applications	\$410,000				
8	Production Growth	Corporate Applications	\$517,000				
9	Powerplan Upgrade	Corporate Applications	-\$18,000				
10	SOTeria Safe Worker Observations (SWO)	Corporate Applications	\$54,000				
11	SuccessFactors Program	Corporate Applications	\$329,000				
12	Total:		\$4,306,000	\$0	\$0		\$0
13	Disallowance (10% of total):		\$430,600	\$0	\$0		\$0
14	Automated Application Monitoring Application Health	Customer Service	\$302,000			A-12 Sch B5.7.2	
15	Business Planning and Development (BPD) and Electric Sales &	Customer Service	\$852,000				
16	Contact Center Application Health	Customer Service	\$1,202,000				
17	Closed Loop COCL Application Health	Customer Service	\$1,000				
18	Customer Digital Channels and Self Service Program	Customer Service	\$2,219,000				
19	Customer Information Technology (CIT) Configuration	Customer Service	\$574,000				
20	Customer Legacy Application Health	Customer Service	\$668,000				
21	Customer Relationship and Billing Program	Customer Service	\$550,000				
22	Hybris Application Health	Customer Service	\$2,424,000				
23	MIGreenPower Program Stabilization	Customer Service	\$1,579,000				
24	Powerley Customer Platform Application Health	Customer Service	\$2,931,000				
25	Service Cloud Product Support For Customer Document	Customer Service	\$790,000				
26	Agency Web Site AGW Rebuild	Customer Service	\$1,844,000				
27	Archive and Purge	Customer Service	\$41,000				
28	Contact Center Infrastructure	Customer Service	\$663,000				
29	Customer Experience Suite	Customer Service	\$518,000				
30	Customer Service Infrastructure Landscape & Growth Project	Customer Service	\$5,947,000				
31	Digital Channels Transformation Program	Customer Service	\$3,802,000				
32	Distributed Generation Upgrades	Customer Service	\$60,000				
33	Systems, Applications, and Products (SAP) Upgrade Program	Customer Service	\$3,410,000				
34	Total:		\$30,377,000	\$0	\$0		\$0
35	Disallowance (10% of total):		\$3,037,700	\$0	\$0		\$0

36	Advance Metering Infrastructure (AMI) Application Health	Plant and Field	\$2,247,000				
37	ClickSoft Application Health	Plant and Field	\$309,000				
38	Distribution Operations Application Health	Plant and Field	\$1,098,000				
39	DTE Electric Generation Capacity Application Health	Plant and Field	\$593,000				
40	DTE Electric Utility Network (UN)	Plant and Field	\$298,000				
41	Fuel Supply Application Health	Plant and Field	\$383,000				
42	Network Reliability and Monitoring	Plant and Field	\$246,000				
43	Nuclear Generation Business Systems Replacement	Plant and Field	\$678,000				
44	Production Growth	Plant and Field	\$1,486,000				
45	Renewable Operations Application Health	Plant and Field	\$111,000				
46	Supervisory Control and Data Acquisition (SCADA) System	Plant and Field	\$404,000				
47	System for Fossil Generation for Coal and Gas	Plant and Field	\$342,000				
48	Advance Metering Infrastructure Field Collection System	Plant and Field	\$1,243,000				
49	ESRI Application Health	Plant and Field	\$513,000				
50	Maximo Platform Program	Plant and Field	\$2,278,000				
51	Meter Data Management (MDM) Consolidation	Plant and Field	-\$1,437,000				
52	P3M Heat Rate Calculation and GADS Reporting Functions	Plant and Field	\$850,000				
53	Plant & Field Document Repository	Plant and Field	\$1,395,000				
54	Replace DO Lines - SOC Radio	Plant and Field	\$2,072,000				
55	Field Service Management- ClickSoft for EFO (Electric Field	Plant and Field	\$496,000				
56	Integrated Information Resource (I2R) Replacement	Plant and Field	\$595,000				
57	Maximo Engineering Process Automation	Plant and Field	\$3,449,000				
58	Maximo HSE Support	Plant and Field	\$325,000				
59	Primavera Modernization	Plant and Field	-\$4,000				
60		Total:	\$19,970,000	\$0	\$0		\$0
61		Disallowance (10% of total):	\$1,997,000	\$0	\$0		\$0
62	IT for IT Application Health	Information Technology for IT	\$1,391,000				
63	IT for IT Tools	Information Technology for IT	\$113,000				
64	Application Portfolio Management - APM	Information Technology for IT	\$438,000				
65	Cloud Management (Service Now)	Information Technology for IT	-\$65,000				
66	IT Service Management Tool	Information Technology for IT	\$613,000				
67		Total:	\$2,490,000	\$0	\$0		\$0
68		Disallowance (10% of total):	\$249,000	\$0	\$0		\$0
69	Cloud Privilege Access Management	Information Protection Security	\$416,000				
70	Vulnerability Scan tool	Information Protection Security	\$561,000				
71	Cloud Security project	Information Protection Security	\$311,000				
72	Cyber Security Defense Center (CSDC) Growth and LifeCycle	Information Protection Security	\$389,000				
73	Endpoint Protection	Information Protection Security	\$287,000		\$316,000		\$69,726
74	Automated Provisioning	Information Protection Security	\$762,000		\$746,000		\$190,947
75	Azure Active Directory Federation Implementation	Information Protection Security	\$299,000		\$439,000		\$76,709
76	Cyber Excellence Plan (CEP) Program	Information Protection Security	\$290,000		\$298,000		\$18,088
77	Enterprise Mobility Management	Information Protection Security	\$179,000		\$333,000		\$99,009
78	Network Access Control	Information Protection Security	\$32,000				
79	Ransomware Recovery	Information Protection Security	\$418,000		\$500,000		\$110,351
80	Threat Intel module	Information Protection Security	\$14,000				
81		Total:	\$3,958,000	\$0	\$2,632,000		\$564,830

82	Disallowance (10% of total):		\$395,800	\$0	\$263,200		\$56,483	
83	Automating Database Event Log Monitoring	Infrastructure Operations	\$17,000			A-12 Sch B5.7.7		
84	Tower and Lighting Inspections and Repairs	Infrastructure Operations	\$263,000					
85	Backup Environmental Growth	Infrastructure Operations	\$85,000					
86	Collaboration Application Health	Infrastructure Operations	\$21,783,000					
87	Endpoint End of Life Electric Support Services	Infrastructure Operations	\$973,000					
88	Enterprise Monitoring Strategy Operational Growth	Infrastructure Operations	\$583,000					
89	Field Communications Network FCN Growth and Upgrade	Infrastructure Operations	\$384,000					
90	Network Hardening and Operations	Infrastructure Operations	\$880,000					
91	Server Engineering Support Services	Infrastructure Operations	\$10,000,000	\$3,100,000	\$3,100,000			\$0
92	Compute and Storage Cache Refresh	Infrastructure Operations	\$3,000					
93	Conference Room Audio Video Support	Infrastructure Operations	\$112,000					
94	Data Center Modernization and Optimization	Infrastructure Operations	\$941,000					
95	End of Life Asset Replacements	Infrastructure Operations	\$471,000	\$500,000	\$500,000			\$0
96	Field Worker Device End Of Life	Infrastructure Operations		\$900,000	\$900,000			\$0
97	Microwave End Of Life	Infrastructure Operations	\$391,000					
98	Network Advanced Metering Infrastructure Support	Infrastructure Operations	\$2,076,000					
99	Network Data Center End of Life Project	Infrastructure Operations	\$978,000					
100	Network End of Life Electric	Infrastructure Operations	\$888,000	\$700,000	\$700,000			\$0
101	Security Infrastructure Growth and EOL	Infrastructure Operations	\$1,359,000					
102	Wide Area Network and Wireless Local Area Network Expansion	Infrastructure Operations	\$984,000					
103	Virtual Desktop Infrastructure	Infrastructure Operations	\$7,000					
104	Afaria Upgrade / Replacement	Infrastructure Operations	\$10,000					
105	Network Segmentation (phase 2+) emergent extension	Infrastructure Operations	\$588,000	\$255,000	\$400,000		\$275,605	
106	Wide Area Network Redesign Session Initiation Protocol	Infrastructure Operations	\$128,000					
107	ConnectUs Teams	Infrastructure Operations	\$955,000					
108	Data Power Replacements	Infrastructure Operations	\$553,000					
109	DTE Private Cloud Infrastructure as a Service	Infrastructure Operations	\$571,000					
110	Enterprise Monitoring Strategy Implementation	Infrastructure Operations	\$24,000					
111	Firewall Threat Protection	Infrastructure Operations	\$1,529,000					
112	Mobile Device Management (MDM)	Infrastructure Operations	\$477,000					
113	Network Operations Center (NOC) Automation Project	Infrastructure Operations	\$36,000					
114	Total:		\$48,049,000	\$5,455,000	\$5,600,000		\$275,605	
115	Disallowance (10% of total):		\$4,804,900	\$545,500	\$560,000		\$27,561	
116	Advance and Enhance the Enterprise Data Platform	Enterprise Data Analytics	\$4,000,000			A-12 Sch B5.7.8		
117	Total:		\$4,000,000	\$0	\$0		\$0	
118	Disallowance (10% of total):		\$400,000	\$0	\$0		\$0	
119	Total of all Level 3 Projects:		\$113,150,000	\$5,455,000	\$8,232,000	\$0	\$840,435	
120	Disallowance (10%) for all Level 3 Projects:		\$11,315,000	\$545,500	\$823,200	\$0	\$84,044	

Michigan Public Service Commission
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Exh. A-24 N3 Line No.	Spend Year	Business Case Name	IT Portfolio	Total Projected IT Capital Cost (\$)	Cost Estimate Level	Actual Cost	Percent Difference
1	2022	Core ERP Stacks and Packs (2021-25)	Corporate Applications	\$ 1,668,123	Level 3	\$1,138,000	-31.78%
4	2022	Corporate Services Application Health	Corporate Applications	\$ 788,157	Level 3	\$481,000	-38.97%
7	2022	Enterprise Applications Health	Corporate Applications	\$ 485,000	Level 3	\$385,000	-20.62%
10	2022	Enterprise Resource Planning	Corporate Applications	\$ 1,108,000	Level 3	\$1,180,000	6.50%
13	2022	Financial Applications Health	Corporate Applications	\$ 275,000	Level 3	\$426,000	54.91%
16	2022	Human Resources Applications Health	Corporate Applications	\$ 390,000	Level 3	\$583,000	49.49%
19	2022	Production Growth	Corporate Applications	\$ 611,000	Level 3	\$515,000	-15.71%
28	2022	Powerplan Upgrade	Corporate Applications	\$ 1,300,000	Level 3	\$1,356,000	4.31%
29	2022	SOTeria Safe Worker Observations (SWO)	Corporate Applications	\$ 250,000	Level 3	\$394,000	57.60%
30	2022	SuccessFactors Program	Corporate Applications	\$ 400,000	Level 3	\$187,000	-53.25%
41	2022	Automated Application Monitoring Application Health	Customer Service	\$ 410,000	Level 3	\$589,000	43.66%
44	2022	Business Planning and Development (BPD) and Electric Sales & Marketing (ESM) Application Health	Customer Service	\$ 640,000	Level 3	\$386,000	-39.69%
47	2022	Contact Center Application Health	Customer Service	\$ 1,040,000	Level 3	\$1,148,000	10.38%
52	2022	Cloud Infrastructure and Supporting Capabilities	Customer Service	\$ 500,000	Level 3	\$221,000	-55.80%
53	2022	Customer Digital Channels and Self Service Program	Customer Service	\$ 1,600,000	Level 3	\$1,550,000	-3.13%
56	2022	Customer Information Technology (CIT) Configuration Management	Customer Service	\$ 810,000	Level 3	\$540,000	-33.33%
63	2022	Hybris Application Health	Customer Service	\$ 580,000	Level 3	\$2,019,000	248.10%
72	2022	Agency Web Site AGW Rebuild	Customer Service	\$ 2,920,000	Level 3	\$2,669,000	-8.60%
73	2022	Archive and Purge	Customer Service	\$ 1,100,000	Level 3	\$1,460,000	32.73%
74	2022	Digital Channels Transformation Program	Customer Service	\$ 1,980,000	Level 3	\$502,000	-74.65%
77	2022	Contact Center Infrastructure	Customer Service	\$ 2,040,000	Level 3	\$1,778,000	-12.84%
79	2022	Distributed Generation Upgrades	Customer Service	\$ 3,180,000	Level 3	\$3,175,000	-0.16%
80	2022	Systems, Applications, and Products (SAP) Enhancement Program	Customer Service	\$ 1,040,000	Level 3	\$1,145,000	10.10%
82	2022	Customer Experience Suite	Customer Service	\$ 2,530,000	Level 3	\$2,627,000	3.83%
83	2022	ACPP/Time of Day	Customer Service	\$ 9,530,000	Level 3	\$10,046,000	5.41%
84	2023	ACPP/Time of Day	Customer Service	\$ 6,440,000	Level 3	\$8,000,000	24.22%
85	2022	Corporate Energy Forecasting	Customer Service	\$ 260,000	Level 3	\$294,000	13.08%
86	2022	MIGP - Fixed Price Product (Rider17)	Customer Service	\$ 2,670,000	Level 3	\$2,854,000	6.89%
89	2022	MIGP Website Update	Customer Service	\$ 890,000	Level 3	\$1,080,000	21.35%
90	2022	MIGP Section 61 Settlement	Customer Service	\$ 3,827,000	Level 3	\$3,965,000	3.61%
93	2022	Payment Stability Plan	Customer Service	\$ 420,000	Level 3	\$427,000	1.67%
94	2022	Regulatory Compliance	Customer Service	\$ 1,500,000	Level 3	\$836,000	-44.27%
102	2022	Treasury Credential on File	Customer Service	\$ 1,180,000	Level 3	\$1,196,000	1.36%
103	2022	Advanced Analytics AA use cases Implementation	Customer Service	\$ 1,365,442	Level 3	\$1,131,000	-17.17%
106	2022	Customer Legacy Applications Enhancement	Customer Service	\$ 980,000	Level 3	\$868,000	-11.43%
107	2022	Customer Relationship and Billing Program Enhancement	Customer Service	\$ 2,040,000	Level 3	\$2,794,000	36.96%
108	2022	IT Application Environments Enhancement	Customer Service	\$ 300,000	Level 3	\$164,000	-45.33%
113	2022	Automated Application Monitoring Enhancement	Customer Service	\$ 1,630,000	Level 3	\$1,513,000	-7.18%
116	2022	SAP Cloud Platform - Foundational Additions	Customer Service	\$ 400,000	Level 3	\$102,000	-74.50%
117	2022	Supporting Capabilities Test Data and Test Data Management	Customer Service	\$ 1,170,000	Level 3	\$953,000	-18.55%
119	2022	API Integration Security Gateway and API Layer	Customer Service	\$ 1,550,000	Level 3	\$80,000	-94.84%
129	2022	Customer Closed Loop Development	Customer Service	\$ 500,000	Level 3	\$314,000	-37.20%
131	2022	Customer Service Communications	Customer Service	\$ 1,000,000	Level 3	\$0	-100.00%
132	2023	Customer Service Communications	Customer Service	\$ 2,355,000	Level 3	\$3,852,000	63.57%
134	2022	Enhanced Training Environments	Customer Service	\$ 250,000	Level 3	\$255,000	2.00%
135	2022	Error Free Communication	Customer Service	\$ 12,300,000	Level 3	\$14,904,000	21.17%
136	2023	Error Free Communication	Customer Service	\$ 10,000,000	Level 3	\$13,359,000	33.59%
138	2022	Field Service Management for RM&P	Customer Service	\$ 1,540,000	Level 3	\$1,534,000	-0.39%
139	2022	Field Service Management Billing & Metering	Customer Service	\$ 885,000	Level 3	\$831,000	-6.10%
140	2022	High Volume IVR Overflow	Customer Service	\$ 340,000	Level 3	\$0	-100.00%
141	2023	High Volume IVR Overflow	Customer Service	\$ 260,000	Level 3	\$23,000	-91.15%
143	2022	IVR Virtual Assistants	Customer Service	\$ 1,260,389	Level 3	\$1,271,000	0.84%
144	2022	Journey Work Product Transformation Teams	Customer Service	\$ 6,872,000	Level 3	\$6,744,000	-1.86%
147	2022	MIGP - Integrate DTE Insight	Customer Service	\$ 183,000	Level 3	\$169,000	-7.65%
152	2022	Platform Integration Component	Customer Service	\$ 1,550,000	Level 3	\$1,048,000	-32.39%
154	2022	Qualtrics Expansion	Customer Service	\$ 470,000	Level 3	\$507,000	7.87%

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156	2022	SIP in Call Center	Customer Service	\$ 200,000	Level 3	\$0	-100.00%
157	2023	SIP in Call Center	Customer Service	\$ 1,487,500	Level 3	\$856,000	-42.45%
158	2022	Speech Analytics	Customer Service	\$ 1,173,000	Level 3	\$1,145,000	-2.39%
159	2022	Social Technologies	Customer Service	\$ 170,000	Level 3		-100.00%
160	2023	Social Technologies	Customer Service	\$ 30,000	Level 3		-100.00%
161	2022	Workforce Automation for Contact Center	Customer Service	\$ 1,200,000	Level 3	\$1,233,000	2.75%
162	2023	Workforce Automation for Contact Center	Customer Service	\$ 105,000	Level 3	\$161,000	53.33%
164	2022	Advance Metering Infrastructure (AMI) Application Health	Plant and Field	\$ 1,390,000	Level 3	\$801,000	-42.37%
167	2022	ClickSoft Application Health	Plant and Field	\$ 100,000	Level 3	\$2,000	-98.00%
172	2022	Distribution Operations Application Health	Plant and Field	\$ 1,450,000	Level 3	\$1,765,000	21.72%
177	2022	DTE Electric Generation Capacity Application Health	Plant and Field	\$ 560,000	Level 3	\$691,000	23.39%
180	2022	Fuel Supply Application Health	Plant and Field	\$ 470,000	Level 3	\$387,000	-17.66%
185	2022	Nuclear Generation Business Systems Replacement	Plant and Field	\$ 620,000	Level 3	\$508,000	-18.06%
188	2022	Production Growth	Plant and Field	\$ 1,410,000	Level 3	\$9,132,000	547.66%
191	2022	Renewable Operations Application Health	Plant and Field	\$ 123,760	Level 3	\$115,000	-7.08%
194	2022	Supervisory Control and Data Acquisition (SCADA) System Improvement	Plant and Field	\$ 520,000	Level 3	\$573,000	10.19%
197	2022	System for Fossil Generation for Coal and Gas	Plant and Field	\$ 400,000	Level 3	\$394,000	-1.50%
200	2022	Advance Metering Infrastructure Field Collection System	Plant and Field	\$ 1,690,000	Level 3	\$2,076,000	22.84%
205	2022	ESRI Application Health	Plant and Field	\$ 380,000	Level 3	\$0	-100.00%
209	2022	Maximo Platform Program	Plant and Field	\$ 1,910,000	Level 3	\$4,051,000	112.09%
212	2022	Meter Data Management (MDM) Consolidation	Plant and Field	\$ 13,590,000	Level 3	\$13,157,000	-3.19%
213	2022	Replace DO Lines - SOC Radio	Plant and Field	\$ 5,070,000	Level 3	\$5,160,000	1.78%
217	2022	Fermi Enhancements	Plant and Field	\$ 500,000	Level 3	\$421,000	-15.80%
218	2022	Field Service Management- ClickSoft for EFO (Electric Field Operations)	Plant and Field	\$ 1,045,000	Level 3	\$1,057,000	1.15%
219	2022	Integrated Information Resource (I2R) Replacement	Plant and Field	\$ 12,910,000	Level 3	\$12,825,000	-0.66%
223	2022	Plant & Field Document Repository	Plant and Field	\$ 3,320,000	Level 3	\$3,031,000	-8.70%
226	2022	Primavera Modernization	Plant and Field	\$ 430,000	Level 3	\$423,000	-1.63%
227	2022	Automating Database Event Log Monitoring	Information Technology for IT	\$ 418,000	Level 3	\$319,000	-23.68%
234	2022	IT for IT Application Health	Information Technology for IT	\$ 2,000,000	Level 3	\$1,669,000	-16.55%
239	2022	Afaria Upgrade / Replacement	Information Technology for IT	\$ 300,000	Level 3	\$388,000	29.33%
240	2022	Endpoint Protection	Information Technology for IT	\$ 300,000	Level 3	\$454,000	51.33%
243	2022	IT for IT Tools	Information Technology for IT	\$ 400,000	Level 3	\$254,000	-36.50%
245	2022	Automated Provisioning	Information Technology for IT	\$ 490,000	Level 3	\$1,581,000	222.65%
251	2022	Cloud Management (Service Now)	Information Technology for IT	\$ 750,000	Level 3	\$647,000	-13.73%
253	2022	DTE Private Cloud Infrastructure as a Service	Information Technology for IT	\$ 832,293	Level 3	\$442,000	-46.89%
266	2022	IT Service Management Tool	Information Technology for IT	\$ 1,200,000	Level 3	\$1,876,000	56.33%
271	2022	Network Access Control	Information Technology for IT	\$ 350,000	Level 3	\$186,000	-46.86%
274	2022	Network Operations Center (NOC) Automation Project	Information Technology for IT	\$ 750,000	Level 3	\$738,000	-1.60%
275	2022	PBX (Private Branch Exchange) Replacement	Information Technology for IT	\$ 189,000	Level 3	\$185,000	-2.12%
276	2022	Ransomware Protection	Information Technology for IT	\$ 350,000	Level 3	\$2,538,000	625.14%
279	2022	Threat Intel module	Information Technology for IT	\$ 600,000	Level 3	\$524,000	-12.67%
287	2022	Cyber Security Defense Center (CSDC) Growth and LifeCycle Management	Information Protection Security	\$ 300,000	Level 3	\$157,000	-47.67%
291	2022	Security Infrastructure Growth and EOL	Information Protection Security	\$ 1,400,000	Level 3	\$7,416,000	429.71%
294	2022	Cyber Excellence Plan (CEP) Program	Information Protection Security	\$ 300,000	Level 3	\$310,000	3.33%
298	2022	Collaboration Application Health	Infrastructure Operations	\$ 1,500,000	Level 3	\$705,000	-53.00%
301	2022	ConnectUs Teams	Infrastructure Operations	\$ 1,000,000	Level 3	\$1,905,000	90.50%
304	2022	Tower and Lighting Inspections and Repairs	Infrastructure Operations	\$ 280,000	Level 3	\$293,000	4.64%
307	2022	Ashley Mews Closure and Relocation	Infrastructure Operations	\$ 700,000	Level 3	\$705,000	0.71%
308	2022	Backup Environmental Growth	Infrastructure Operations	\$ 500,000	Level 3	\$201,000	-59.80%

311	2022	Field Communications Network FCN Growth and Upgrade	Infrastructure Operations	\$ 400,000	Level 3	\$406,000	1.50%
314	2022	Network Hardening and Operations	Infrastructure Operations	\$ 400,000	Level 3	\$582,000	45.50%
317	2022	Server Engineering Support Services	Infrastructure Operations	\$ 2,700,000	Level 3	-\$3,466,000	-228.37%
320	2022	Conference Room Audio Video Support	Infrastructure Operations	\$ 250,000	Level 3	\$308,000	23.20%
323	2022	Digital Worker Experience Electric End Of Life	Infrastructure Operations	\$ 3,907,108	Level 3	\$7,889,000	101.91%
326	2022	Endpoint End of Life Electric Support Services	Infrastructure Operations	\$ 800,000	Level 3	\$611,000	-23.63%
329	2022	End of Life Asset Replacements	Infrastructure Operations	\$ 500,000	Level 3	\$6,845,000	1269.00%
332	2022	Microwave End Of Life	Infrastructure Operations	\$ 402,000	Level 3	\$484,000	20.40%
335	2022	Network Advanced Metering Infrastructure Support	Infrastructure Operations	\$ 2,200,000	Level 3	\$2,394,000	8.82%
338	2022	Network Data Center End of Life Project	Infrastructure Operations	\$ 525,443	Level 3	\$402,000	-23.49%
341	2022	Network End of Life Electric	Infrastructure Operations	\$ 771,015	Level 3	\$397,000	-48.51%
344	2022	Data Center Modernization and Optimization	Infrastructure Operations	\$ 1,200,000	Level 3	\$1,084,000	-9.67%
349	2022	Virtual Desktop Infrastructure	Infrastructure Operations	\$ 260,000	Level 3	\$258,000	-0.77%
350	2022	Wide Area Network Redesign Session Initiation Protocol Backhaul	Infrastructure Operations	\$ 828,000	Level 3	\$654,000	-21.01%
351	2022	Wireless Local Area Network Expansion	Infrastructure Operations	\$ 1,012,000	Level 3	\$1,260,000	24.51%
352	2022	Command Center Stand Up	Infrastructure Operations	\$ 200,000	Level 3	\$12,000	-94.00%
353	2022	Digital Infrastructure and Services	Infrastructure Operations	\$ 8,310,002	Level 3	\$6,408,000	-22.89%
354	2023	Digital Infrastructure and Services	Infrastructure Operations	\$ 250,000	Level 3	\$0	-100.00%
355	2022	Enterprise Monitoring Strategy Operational Growth	Infrastructure Operations	\$ 500,000	Level 3	\$448,000	-10.40%
360	2022	Advance and Enhance the Enterprise Data Platform	Enterprise Data Analytics	\$ 1,996,000	Level 3	\$5,521,000	176.60%
Highest Percent OverRecovery							-100.00%
Highest Percent UnderRecovery							1269.00%

Over Recovered Projects

Exh. A-24 N3 Line No.	Spend Year	Business Case Name	IT Portfolio	Total Projected IT Capital Cost (\$)	Cost Estimate Level	Actual Cost	Percent Difference
1	2022	Core ERP Stacks and Packs (2021-25)	Corporate Applications	\$ 1,668,123	Level 3	\$1,138,000	-31.78%
4	2022	Corporate Services Application Health	Corporate Applications	\$ 788,157	Level 3	\$481,000	-38.97%
7	2022	Enterprise Applications Health	Corporate Applications	\$ 485,000	Level 3	\$385,000	-20.62%
19	2022	Production Growth	Corporate Applications	\$ 611,000	Level 3	\$515,000	-15.71%
30	2022	SuccessFactors Program	Corporate Applications	\$ 400,000	Level 3	\$187,000	-53.25%
44	2022	Business Planning and Development (BPD) and Electric Sales & Marketing (ESM) Application Health	Customer Service	\$ 640,000	Level 3	\$386,000	-39.69%
52	2022	Cloud Infrastructure and Supporting Capabilities	Customer Service	\$ 500,000	Level 3	\$221,000	-55.80%
53	2022	Customer Digital Channels and Self Service Program	Customer Service	\$ 1,600,000	Level 3	\$1,550,000	-3.13%
56	2022	Customer Information Technology (CIT) Configuration Management	Customer Service	\$ 810,000	Level 3	\$540,000	-33.33%
72	2022	Agency Web Site AGW Rebuild	Customer Service	\$ 2,920,000	Level 3	\$2,669,000	-8.60%
74	2022	Digital Channels Transformation Program	Customer Service	\$ 1,980,000	Level 3	\$502,000	-74.65%
77	2022	Contact Center Infrastructure	Customer Service	\$ 2,040,000	Level 3	\$1,778,000	-12.84%
79	2022	Distributed Generation Upgrades	Customer Service	\$ 3,180,000	Level 3	\$3,175,000	-0.16%
94	2022	Regulatory Compliance	Customer Service	\$ 1,500,000	Level 3	\$836,000	-44.27%
103	2022	Advanced Analytics AA use cases Implementation	Customer Service	\$ 1,365,442	Level 3	\$1,131,000	-17.17%
106	2022	Customer Legacy Applications Enhancement	Customer Service	\$ 980,000	Level 3	\$868,000	-11.43%
108	2022	IT Application Environments Enhancement	Customer Service	\$ 300,000	Level 3	\$164,000	-45.33%
113	2022	Automated Application Monitoring Enhancement	Customer Service	\$ 1,630,000	Level 3	\$1,513,000	-7.18%
116	2022	SAP Cloud Platform - Foundational Additions	Customer Service	\$ 400,000	Level 3	\$102,000	-74.50%
117	2022	Supporting Capabilities Test Data and Test Data Management	Customer Service	\$ 1,170,000	Level 3	\$953,000	-18.55%
119	2022	API Integration Security Gateway and API Layer	Customer Service	\$ 1,550,000	Level 3	\$80,000	-94.84%
129	2022	Customer Closed Loop Development	Customer Service	\$ 500,000	Level 3	\$314,000	-37.20%
131	2022	Customer Service Communications	Customer Service	\$ 1,000,000	Level 3	\$0	-100.00%
138	2022	Field Service Management for RM&P	Customer Service	\$ 1,540,000	Level 3	\$1,534,000	-0.39%
139	2022	Field Service Management Billing & Metering	Customer Service	\$ 885,000	Level 3	\$831,000	-6.10%
140	2022	High Volume IVR Overflow	Customer Service	\$ 340,000	Level 3	\$0	-100.00%
141	2023	High Volume IVR Overflow	Customer Service	\$ 260,000	Level 3	\$23,000	-91.15%
144	2022	Journey Work Product Transformation Teams	Customer Service	\$ 6,872,000	Level 3	\$6,744,000	-1.86%
147	2022	MIGP - Integrate DTE Insight	Customer Service	\$ 183,000	Level 3	\$169,000	-7.65%
152	2022	Platform Integration Component	Customer Service	\$ 1,550,000	Level 3	\$1,048,000	-32.39%
156	2022	SIP in Call Center	Customer Service	\$ 200,000	Level 3	\$0	-100.00%
157	2023	SIP in Call Center	Customer Service	\$ 1,487,500	Level 3	\$856,000	-42.45%
158	2022	Speech Analytics	Customer Service	\$ 1,173,000	Level 3	\$1,145,000	-2.39%
159	2022	Social Technologies	Customer Service	\$ 170,000	Level 3	\$0	-100.00%
160	2023	Social Technologies	Customer Service	\$ 30,000	Level 3	\$0	-100.00%
164	2022	Advance Metering Infrastructure (AMI) Application Health	Plant and Field	\$ 1,390,000	Level 3	\$801,000	-42.37%
167	2022	ClickSoft Application Health	Plant and Field	\$ 100,000	Level 3	\$2,000	-98.00%
180	2022	Fuel Supply Application Health	Plant and Field	\$ 470,000	Level 3	\$387,000	-17.66%
185	2022	Nuclear Generation Business Systems Replacement	Plant and Field	\$ 620,000	Level 3	\$508,000	-18.06%
191	2022	Renewable Operations Application Health	Plant and Field	\$ 123,760	Level 3	\$115,000	-7.08%
197	2022	System for Fossil Generation for Coal and Gas	Plant and Field	\$ 400,000	Level 3	\$394,000	-1.50%
205	2022	ESRI Application Health	Plant and Field	\$ 380,000	Level 3	\$0	-100.00%
212	2022	Meter Data Management (MDM) Consolidation	Plant and Field	\$ 13,590,000	Level 3	\$13,157,000	-3.19%
217	2022	Fermi Enhancements	Plant and Field	\$ 500,000	Level 3	\$421,000	-15.80%
219	2022	Integrated Information Resource (I2R) Replacement	Plant and Field	\$ 12,910,000	Level 3	\$12,825,000	-0.66%
223	2022	Plant & Field Document Repository	Plant and Field	\$ 3,320,000	Level 3	\$3,031,000	-8.70%
226	2022	Primavera Modernization	Plant and Field	\$ 430,000	Level 3	\$423,000	-1.63%

227	2022	Automating Database Event Log Monitoring	Information Technology for IT	\$ 418,000	Level 3	\$319,000	-23.68%
234	2022	IT for IT Application Health	Information Technology for IT	\$ 2,000,000	Level 3	\$1,669,000	-16.55%
243	2022	IT for IT Tools	Information Technology for IT	\$ 400,000	Level 3	\$254,000	-36.50%
251	2022	Cloud Management (Service Now)	Information Technology for IT	\$ 750,000	Level 3	\$647,000	-13.73%
253	2022	DTE Private Cloud Infrastructure as a Service	Information Technology for IT	\$ 832,293	Level 3	\$442,000	-46.89%
271	2022	Network Access Control	Information Technology for IT	\$ 350,000	Level 3	\$186,000	-46.86%
274	2022	Network Operations Center (NOC) Automation Project	Information Technology for IT	\$ 750,000	Level 3	\$738,000	-1.60%
275	2022	PBX (Private Branch Exchange) Replacement	Information Technology for IT	\$ 189,000	Level 3	\$185,000	-2.12%
279	2022	Threat Intel module	Information Technology for IT	\$ 600,000	Level 3	\$524,000	-12.67%
287	2022	Cyber Security Defense Center (CSDC) Growth and LifeCycle Management	Information Protection Security	\$ 300,000	Level 3	\$157,000	-47.67%
298	2022	Collaboration Application Health	Infrastructure Operations	\$ 1,500,000	Level 3	\$705,000	-53.00%
308	2022	Backup Environmental Growth	Infrastructure Operations	\$ 500,000	Level 3	\$201,000	-59.80%
317	2022	Server Engineering Support Services	Infrastructure Operations	\$ 2,700,000	Level 3	-\$3,466,000	-228.37%
326	2022	Endpoint End of Life Electric Support Services	Infrastructure Operations	\$ 800,000	Level 3	\$611,000	-23.63%
338	2022	Network Data Center End of Life Project	Infrastructure Operations	\$ 525,443	Level 3	\$402,000	-23.49%
341	2022	Network End of Life Electric	Infrastructure Operations	\$ 771,015	Level 3	\$397,000	-48.51%
344	2022	Data Center Modernization and Optimization	Infrastructure Operations	\$ 1,200,000	Level 3	\$1,084,000	-9.67%
349	2022	Virtual Desktop Infrastructure	Infrastructure Operations	\$ 260,000	Level 3	\$258,000	-0.77%
350	2022	Wide Area Network Redesign Session Initiation Protocol Backhaul	Infrastructure Operations	\$ 828,000	Level 3	\$654,000	-21.01%
352	2022	Command Center Stand Up	Infrastructure Operations	\$ 200,000	Level 3	\$12,000	-94.00%
353	2022	Digital Infrastructure and Services	Infrastructure Operations	\$ 8,310,002	Level 3	\$6,408,000	-22.89%
354	2023	Digital Infrastructure and Services	Infrastructure Operations	\$ 250,000	Level 3	\$0	-100.00%
355	2022	Enterprise Monitoring Strategy Operational Growth	Infrastructure Operations	\$ 500,000	Level 3	\$448,000	-10.40%
Average Percent Over Recovery							-38.31%

Under Recovered Projects

Exh. A-24 N3 Line No.	Spend Year	Business Case Name	IT Portfolio	Total Projected IT Capital Cost (\$)	Cost Estimate Level	Actual Cost	Percent Difference
10	2022	Enterprise Resource Planning	Corporate Applications	\$ 1,108,000	Level 3	\$1,180,000	6.50%
13	2022	Financial Applications Health	Corporate Applications	\$ 275,000	Level 3	\$426,000	54.91%
16	2022	Human Resources Applications Health	Corporate Applications	\$ 390,000	Level 3	\$583,000	49.49%
28	2022	Powerplan Upgrade	Corporate Applications	\$ 1,300,000	Level 3	\$1,356,000	4.31%
29	2022	SOTeria Safe Worker Observations (SWO)	Corporate Applications	\$ 250,000	Level 3	\$394,000	57.60%
41	2022	Automated Application Monitoring Application Health	Customer Service	\$ 410,000	Level 3	\$589,000	43.66%
47	2022	Contact Center Application Health	Customer Service	\$ 1,040,000	Level 3	\$1,148,000	10.38%
63	2022	Hybris Application Health	Customer Service	\$ 580,000	Level 3	\$2,019,000	248.10%
73	2022	Archive and Purge	Customer Service	\$ 1,100,000	Level 3	\$1,460,000	32.73%
80	2022	Systems, Applications, and Products (SAP) Enhancement Program	Customer Service	\$ 1,040,000	Level 3	\$1,145,000	10.10%
82	2022	Customer Experience Suite	Customer Service	\$ 2,530,000	Level 3	\$2,627,000	3.83%
83	2022	ACPP/Time of Day	Customer Service	\$ 9,530,000	Level 3	\$10,046,000	5.41%
84	2023	ACPP/Time of Day	Customer Service	\$ 6,440,000	Level 3	\$8,000,000	24.22%
85	2022	Corporate Energy Forecasting	Customer Service	\$ 260,000	Level 3	\$294,000	13.08%
86	2022	MIGP - Fixed Price Product (Rider17)	Customer Service	\$ 2,670,000	Level 3	\$2,854,000	6.89%
89	2022	MIGP Website Update	Customer Service	\$ 890,000	Level 3	\$1,080,000	21.35%
90	2022	MIGP Section 61 Settlement	Customer Service	\$ 3,827,000	Level 3	\$3,965,000	3.61%
93	2022	Payment Stability Plan	Customer Service	\$ 420,000	Level 3	\$427,000	1.67%
102	2022	Treasury Credential on File	Customer Service	\$ 1,180,000	Level 3	\$1,196,000	1.36%
107	2022	Customer Relationship and Billing Program Enhancement	Customer Service	\$ 2,040,000	Level 3	\$2,794,000	36.96%
132	2023	Customer Service Communications	Customer Service	\$ 2,355,000	Level 3	\$3,852,000	63.57%
134	2022	Enhanced Training Environments	Customer Service	\$ 250,000	Level 3	\$255,000	2.00%
135	2022	Error Free Communication	Customer Service	\$ 12,300,000	Level 3	\$14,904,000	21.17%
136	2023	Error Free Communication	Customer Service	\$ 10,000,000	Level 3	\$13,359,000	33.59%
143	2022	IVR Virtual Assistants	Customer Service	\$ 1,260,389	Level 3	\$1,271,000	0.84%
154	2022	Qualtrics Expansion	Customer Service	\$ 470,000	Level 3	\$507,000	7.87%
161	2022	Workforce Automation for Contact Center	Customer Service	\$ 1,200,000	Level 3	\$1,233,000	2.75%
162	2023	Workforce Automation for Contact Center	Customer Service	\$ 105,000	Level 3	\$161,000	53.33%
172	2022	Distribution Operations Application Health	Plant and Field	\$ 1,450,000	Level 3	\$1,765,000	21.72%
177	2022	DTE Electric Generation Capacity Application Health	Plant and Field	\$ 560,000	Level 3	\$691,000	23.39%
188	2022	Production Growth	Plant and Field	\$ 1,410,000	Level 3	\$9,132,000	547.66%
194	2022	Supervisory Control and Data Acquisition (SCADA) System Improvement	Plant and Field	\$ 520,000	Level 3	\$573,000	10.19%
200	2022	Advance Metering Infrastructure Field Collection System	Plant and Field	\$ 1,690,000	Level 3	\$2,076,000	22.84%

209	2022	Maximo Platform Program	Plant and Field	\$ 1,910,000	Level 3	\$4,051,000	112.09%
213	2022	Replace DO Lines - SOC Radio	Plant and Field	\$ 5,070,000	Level 3	\$5,160,000	1.78%
218	2022	Field Service Management- ClickSoft for EFO (Electric Field Operations)	Plant and Field	\$ 1,045,000	Level 3	\$1,057,000	1.15%
239	2022	Afaria Upgrade / Replacement	Information Technology for IT	\$ 300,000	Level 3	\$388,000	29.33%
240	2022	Endpoint Protection	Information Technology for IT	\$ 300,000	Level 3	\$454,000	51.33%
245	2022	Automated Provisioning	Information Technology for IT	\$ 490,000	Level 3	\$1,581,000	222.65%
266	2022	IT Service Management Tool	Information Technology for IT	\$ 1,200,000	Level 3	\$1,876,000	56.33%
276	2022	Ransomware Protection	Information Technology for IT	\$ 350,000	Level 3	\$2,538,000	625.14%
291	2022	Security Infrastructure Growth and EOL	Information Protection Security	\$ 1,400,000	Level 3	\$7,416,000	429.71%
294	2022	Cyber Excellence Plan (CEP) Program	Information Protection Security	\$ 300,000	Level 3	\$310,000	3.33%
301	2022	ConnectUs Teams	Infrastructure Operations	\$ 1,000,000	Level 3	\$1,905,000	90.50%
304	2022	Tower and Lighting Inspections and Repairs	Infrastructure Operations	\$ 280,000	Level 3	\$293,000	4.64%
307	2022	Ashley Mews Closure and Relocation	Infrastructure Operations	\$ 700,000	Level 3	\$705,000	0.71%
311	2022	Field Communications Network FCN Growth and Upgrade	Infrastructure Operations	\$ 400,000	Level 3	\$406,000	1.50%
314	2022	Network Hardening and Operations	Infrastructure Operations	\$ 400,000	Level 3	\$582,000	45.50%
320	2022	Conference Room Audio Video Support	Infrastructure Operations	\$ 250,000	Level 3	\$308,000	23.20%
323	2022	Digital Worker Experience Electric End Of Life	Infrastructure Operations	\$ 3,907,108	Level 3	\$7,889,000	101.91%
329	2022	End of Life Asset Replacements	Infrastructure Operations	\$ 500,000	Level 3	\$6,845,000	1269.00%
332	2022	Microwave End Of Life	Infrastructure Operations	\$ 402,000	Level 3	\$484,000	20.40%
335	2022	Network Advanced Metering Infrastructure Support	Infrastructure Operations	\$ 2,200,000	Level 3	\$2,394,000	8.82%
351	2022	Wireless Local Area Network Expansion	Infrastructure Operations	\$ 1,012,000	Level 3	\$1,260,000	24.51%
360	2022	Advance and Enhance the Enterprise Data Platform	Enterprise Data Analytics	\$ 1,996,000	Level 3	\$5,521,000	176.60%
Average Percent Under Recovery							86.31%

Device Type	Refresh Year		
	2023	2024	2025
Laptop	617	800	700
\$1,655	\$1,021,135	\$1,324,000	\$1,158,500
Desktop	1	100	185
\$1,105	\$1,105	\$110,500	\$204,425
Monitor	180	100	100
\$165	\$29,700	\$16,500	\$16,500
Tablet	25	40	28
\$795	\$19,875	\$31,800	\$22,260
Additional	125	125	125
\$1,655	\$206,875	\$206,875	\$206,875
TOTAL	\$1,278,690	\$1,689,675	\$1,608,560
Requested Expense	\$3,022,000	\$2,650,000	\$2,650,000
DIFFERENCE	\$1,743,310	\$960,325	\$1,041,440
Additional Expense	\$800,000	\$0	\$0
TOTAL RECOMMENDED ADJUSTMENT	\$943,310	\$960,325	\$1,041,440

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)	Case No. U-21534
distribution and supply of electric energy, and)	
<u>for miscellaneous accounting authority</u>)	

PROOF OF SERVICE

Melissa S. Siemen, being duly sworn, deposes and says that on July 26, 2024, A.D., she emailed a copy of the attached MPSC Testimony and Exhibits to the persons as shown on the attached list.

Melissa S. Siemen

Melissa S. Siemen

Subscribed and sworn to before me
this 26th day of July 2024.

Jillian Bowden

Jillian Bowden, Notary Public
State of Michigan, County of Ingham
Acting in the County of Eaton
My Commission Expires June 19, 2025

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