



DTE Electric Company
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Detroit, MI 48226-1221

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September 12, 2024

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

RE: In the matter of the Application of **DTE ELECTRIC COMPANY** for authority to increase its rates, amend its rate schedules and rules governing the distribution and supply of electric energy, and for miscellaneous accounting authority
MPSC Case No. U-21534

Dear Ms. Felice:

The following is attached for paperless electronic filing:

Official Exhibits of the DTE Electric Company admitted into the record on September 4-6, 2024 and September 9-10, 2024:

Exhibit A-24, Schedule N1 (Part 1)

If you have any questions or concerns with this filing, please contact me at the above referenced number.

Respectfully submitted,

Estella R. Branson
Senior Paralegal

Enclosure

Line No.	Business Case / Project Name	IT Portfolio/Program	Spend Year	BCD ID	Exhibit Page Number
1	Core ERP Stacks and Packs	Corporate Applications	2022	BCD-CA-22-006	9
2	Core ERP Stacks and Packs	Corporate Applications	2023, 2024, 2025	DMND0001215	10
3	Corporate Services Application Health	Corporate Applications	2022	BCD-CA-22-011	13
4	Corporate Services Application Health	Corporate Applications	2023, 2024, 2025	DMND0001218	14
5	Documentum (EDM) Application Health	Corporate Applications	2023, 2024, 2025	DMND0001382	17
6	Enterprise Applications Health	Corporate Applications	2022	BCD-CA-22-005	19
7	Enterprise Applications Health	Corporate Applications	2022	BCD-CA-22-022	20
8	Enterprise Applications Health	Corporate Applications	2023, 2024	DMND0001221	22
9	Enterprise Resource Planning	Corporate Applications	2022	BCD-CA-22-016	24
10	Enterprise Resource Planning	Corporate Applications	2022	BCD-CA-22-017	25
11	Enterprise Resource Planning	Corporate Applications	2023, 2024, 2025	DMND0001213	26
12	Enterprise Resource Planning	Corporate Applications	2023, 2024, 2025	DMND0001214	29
13	Financial Applications Health	Corporate Applications	2022	BCD-CA-22-014	32
14	Financial Applications Health	Corporate Applications	2023, 2024, 2025	DMND0001224	33
15	Human Resources Applications Health	Corporate Applications	2022	BCD-CA-22-004	35
16	Human Resources Applications Health	Corporate Applications	2023, 2024, 2025	DMND0001227	37
17	Production Growth	Corporate Applications	2022	BCD-CA-22-015	39
18	Production Growth	Corporate Applications	2023, 2024, 2025	DMND0001231	40
19	Cloud Health and Safety	Corporate Applications	2024, 2025	DMND0001490	42
20	Core ERP Data Archiving	Corporate Applications	2024	DMND0001217	45
21	Source to Pay (S2P) Transformation	Corporate Applications	2025	DMND0001230	47
22	Powerplan Upgrade	Corporate Applications	2022, 2023	BCD-CA-21-002	50
23	SOTeria Safe Worker Observations (SWO)	Corporate Applications	2022, 2023	BCD-CA-22-012	51
24	SuccessFactors Program	Corporate Applications	2022	BCD-CA-22-001	53
25	SuccessFactors Program	Corporate Applications	2023	DMND0001236	54
27	Enhanced Document Management Capability Projects	Corporate Applications	2024, 2025	DMND0001448	56
28	Organizational Management Optimization	Corporate Applications	2024	DMND0001617	59
29	SAP Employee Central Payroll	Corporate Applications	2025	DMND0001785	61
30	Talent System Optimization	Corporate Applications	2025	DMND0001619	64
31	Transparency Electric Data	Corporate Applications	2024	DMND0003095	66
32	Automated Application Monitoring Application Health	Customer Service	2022	BCD-CS-22-022	68
33	Automated Application Monitoring Application Health	Customer Service	2023, 2024, 2025	DMND0001243	70
34	Business Planning and Development (BPD) and Electric Sales & Marketing (ESM) Application Health	Customer Service	2022	BCD-CS-22-013	73

Line No.	Business Case / Project Name	IT Portfolio/Program	Spend Year	BCD ID	Exhibit Page Number
35	Business Planning and Development (BPD) and Electric Sales & Marketing (ESM) Application Health	Customer Service	2023, 2024, 2025	DMND0001246	75
36	Contact Center Application Health	Customer Service	2022	BCD-CS-22-006	77
37	Contact Center Application Health	Customer Service	2023, 2024, 2025	DMND0001258	79
38	Closed Loop COCL Application Health	Customer Service	2022	BCD-CS-22-014	81
39	Closed Loop COCL Application Health	Customer Service	2023, 2024, 2025	DMND0001255	83
40	Cloud Platform Enterprise Agreement	Customer Service	2024	DMND0002646	85
41	Customer Digital Channels and Self Service Program	Customer Service	2022	BCD-CS-22-016	87
42	Customer Digital Channels and Self Service Program	Customer Service	2022	BCD-CS-22-017	89
43	Customer Digital Channels and Self Service Program	Customer Service	2022	BCD-CS-22-023	91
44	Customer Digital Channels and Self Service Program	Customer Service	2022	BCD-CS-22-024	93
45	Customer Digital Channels and Self Service Program	Customer Service	2023, 2024	DMND0001269	95
46	Customer Digital Channels and Self Service Program	Customer Service	2023, 2024	DMND0001291	97
47	Customer Digital Channels and Self Service Program	Customer Service	2025	DMND0002740	99
48	Customer Digital Channels and Self Service Program	Customer Service	2025	DMND0002741	101
49	Customer Information Technology (CIT) Configuration Management	Customer Service	2022	BCD-CS-22-025	103
50	Customer Information Technology (CIT) Configuration Management	Customer Service	2022	BCD-CS-22-020	105
51	Customer Information Technology (CIT) Configuration Management	Customer Service	2023, 2024, 2025	DMND0001253	107
52	Customer Legacy Application Health	Customer Service	2022	BCD-CS-22-019	109
53	Customer Legacy Application Health	Customer Service	2023, 2024, 2025	DMND0001264	110
54	Customer Relationship and Billing Program	Customer Service	2022	BCD-CS-22-018	112
55	Customer Relationship and Billing Program	Customer Service	2022	BCD-CS-22-026	114
56	Customer Relationship and Billing Program	Customer Service	2023, 2024, 2025	DMND0001259	116
57	Customer Relationship and Billing Program	Customer Service	2023, 2024, 2025	DMND0001260	118
58	Hybris Application Health	Customer Service	2022	BCD-CS-22-012	120
59	Hybris Application Health	Customer Service	2023, 2024, 2025	DMND0001276	122

60	MIGreenPower Program Stabilization	Customer Service	2022	DMND0001852	124
Line No.	Business Case / Project Name	IT Portfolio/Program	Spend Year	BCD ID	Exhibit Page Number
61	MIGreenPower Program Stabilization	Customer Service	2023	DMND0001680	126
62	MIGreenPower Program Stabilization	Customer Service	2024, 2025	DMND0001759	128
63	Powerley Customer Platform Application Health	Customer Service	2023	DMND0002363	130
64	Powerley Customer Platform Application Health	Customer Service	2024, 2025	DMND0002599	132
65	Service Cloud Product Support For Customer Document Submission	Customer Service	2023	DMND0001289	134
66	Supporting capabilities Test data and test data mgmt	Customer Service	2024, 2025	DMND0001491	136
67	Agency Web Site AGW Rebuild	Customer Service	2022, 2023	BCD-CS-22-035	138
68	Archive and Purge	Customer Service	2022, 2023	BCD-CS-22-052	140
69	Contact Center Infrastructure	Customer Service	2022, 2023	BCD-CS-22-039	142
70	Customer Bill Print and Archive Software	Customer Service	2022	BCD-CS-21-013	144
71	Customer Experience Suite	Customer Service	2022, 2023	BCD-CS-22-032	146
72	Customer Service Infrastructure Landscape & Growth Project	Customer Service	2023	DMND0001263	147
73	Digital Channels Transformation Program	Customer Service	2022	BCD-CS-22-034	149
74	Digital Channels Transformation Program	Customer Service	2022	BCD-CS-22-036	151
75	Digital Channels Transformation Program	Customer Service	2023	DMND0001250	153
76	Digital Channels Transformation Program	Customer Service	2023, 2024	DMND0001251	155
77	Digital Channels Transformation Program	Customer Service	2025	DMND0002742	157
78	Distributed Generation Upgrades	Customer Service	2022, 2023	BCD-CS-21-024	159
79	Migrate IVR to the cloud	Customer Service	2024	DMND0001538	161
80	Systems, Applications, and Products (SAP) Upgrade Program	Customer Service	2022	BCD-CS-22-033	163
81	Systems, Applications, and Products (SAP) Upgrade Program	Customer Service	2023	DMND0001290	165
82	GenOpts-FERC Order 841 Compliance	Plant and Field - ES	2025	DMND0001655	167
83	Advance Metering Infrastructure (AMI) Application Health	Plant and Field - DO	2022, 2023, 2024, 2025	DMND0001365	169
84	ClickSoft Application Health	Plant and Field - DO	2022, 2023	BCD-PFD-22-007	172
85	ClickSoft Application Health	Plant and Field - DO	2023, 2024, 2025	DMND0001373	173
86	Distribution Operations Application Health	Plant and Field - DO	2022	BCD-PFD-22-003	175
87	Distribution Operations Application Health	Plant and Field - DO	2022, 2023, 2024, 2025	DMND0001380	176
88	DTE Electric Generation Capacity Application Health	Plant and Field - ES	2022	BCD-PFP-22-004	179
89	DTE Electric Generation Capacity Application Health	Plant and Field - ES	2022, 2023, 2024, 2025	DMND0001424	180

Line No.	Business Case / Project Name	IT Portfolio/Program	Spend Year	BCD ID	Exhibit Page Number
90	DTE Electric Utility Network (UN)	Plant and Field - DO	2023, 2024	DMND0001466	183
91	ESRI Application Health	Plant and Field - DO	2024, 2025	DMND0001385	185
92	Fuel Supply Application Health	Plant and Field - ES	2022	BCD-PFP-22-006	187
93	Fuel Supply Application Health	Plant and Field - ES	2022, 2023, 2024, 2025	DMND0001437	189
94	ITS-SRS Application Health	Plant and Field - DO	2024, 2025	DMND0002489	192
95	ITS ADMS Application Health	Plant and Field - DO	2024, 2025	DMND0002490	194
96	Network Reliability and Monitoring	Plant and Field - DO	2023, 2024	DMND0001396	196
97	Nuclear Generation Business Systems Replacement	Plant and Field - DO	2022	BCD-PFP-22-001	198
98	Nuclear Generation Business Systems Replacement	Plant and Field - DO	2023, 2024, 2025	DMND0001447	199
99	Production Growth	Plant and Field - DO	2022	BCD-PFD-22-019	201
100	Production Growth	Plant and Field - DO	2023, 2024, 2025	DMND0001400	202
101	Renewable Operations Application Health	Plant and Field - ES	2022	BCD-PFP-22-022	204
102	Renewable Operations Application Health	Plant and Field - ES	2023, 2024, 2025	DMND0001995	205
103	Supervisory Control and Data Acquisition (SCADA) System Improvement	Plant and Field - DO	2022	BCD-PF-22-001	207
104	Supervisory Control and Data Acquisition (SCADA) System Improvement	Plant and Field - DO	2023, 2024, 2025	DMND0001395	208
105	System for Fossil Generation for Coal and Gas	Plant and Field - ES	2022, 2023, 2024, 2025	DMND0001436	210
106	Advance Metering Infrastructure Field Collection System	Plant and Field - DO	2022	BCD-PF-22-002	213
107	Advance Metering Infrastructure Field Collection System	Plant and Field - DO	2022, 2023, 2024, 2025	DMND0001366	215
108	Cable Routing Application (CRA) Replatform	Plant and Field - ES	2024	DMND0001431	218
109	Corporate Instance - Maximo Application Suite Upgrade Phase 1	Plant and Field - ES	2025	DMND0002451	220
110	DO Business Warehouse (DOBW) Replacement	Plant and Field - DO	2024	DMND0001376	222
111	DO Equipment Engineering Transformer Database	Plant and Field - DO	2024	DMND0001381	225
112	ESRI Application Health	Plant and Field - DO	2022	BCD-PFD-022-015	227
113	ESRI Application Health	Plant and Field - DO	2023	DMND0001385	229
114	Fuel Supply-Plant Fuel Management System	Plant and Field - ES	2024	DMND0001440	231
115	Maximo Platform Program	Plant and Field - DO	2022	BCD-PFD-22-017	233
116	Maximo Platform Program	Plant and Field - DO	2023, 2024, 2025	DMND0001392	234

Line No.	Business Case / Project Name	IT Portfolio/Program	Spend Year	BCD ID	Exhibit Page Number
117	Meter Data Management (MDM) Consolidation	Plant and Field - DO	2022, 2023	BCD-PFD-22-018	236
118	P3M Heat Rate Calculation and GADS Reporting Functions	Plant and Field - ES	2023	DMND0001434	238
119	Plant & Field Document Repository	Plant and Field - DO	2022	BCD-PF-19-061	240
120	Plant & Field Document Repository	Plant and Field - DO	2023	DMND0002015	242
121	Replace DO Lines - SOC Radio	Plant and Field - DO	2022, 2023	BCD-PFD-22-025	244
122	Replace DO Lines - SOC Radio	Plant and Field - DO	2023	DMND0002287	245
123	DTE Electric Generation Capacity Enhancements	Plant and Field - DO	2022	BCD-PFP-22-004	247
124	Fermi Enhancements	Plant and Field - ES	2022	BCD-PFP-22-024	248
125	Field Service Management- ClickSoft for EFO (Electric Field Operations)	Plant and Field - ES	2022, 2023	BCD-PF-19-119	250
126	Integrated Information Resource (I2R) Replacement	Plant and Field - ES	2022, 2023	BCD-PFP-22-023	252
127	Maximo Engineering Process Automation	Plant and Field - ES	2023, 2024	DMND0001445	254
128	Maximo HSE Support	Plant and Field - ES	2023	DMND0001433	257
129	Primavera Modernization	Plant and Field - ES	2022, 2023	DMND0001450	260
130	Storm Data Lakehouse	Plant and Field - DO	2025	DMND0003213	263
131	Storm Simulation Lab	Plant and Field - DO	2024, 2025	DMND0003237	265
132	IT for IT Application Health	Information Technology for IT	2022	BCD-IT-22-009	268
133	IT for IT Application Health	Information Technology for IT	2023, 2024, 2025	DMND0001350	270
134	IT for IT Tools	Information Technology for IT	2022, 2023	BCD-IT-22-005	272
135	Application Portfolio Management - APM	Information Technology for IT	2023	DMND0001704	273
136	Cloud Management (Service Now)	Information Technology for IT	2022, 2023	BCD-IT-22-011	275
137	IT Service Management Tool	Information Technology for IT	2022, 2023	BCD-IT-22-008	276
138	Cloud Privilege Access Management	Information Protection Security	2023, 2025	DMND0001849	277
139	Security Information & Event Management (SIEM) End of Life Replacement	Information Protection Security	2025	DMND0002645	279
140	Vendor Onboarding for DTE	Information Protection Security	2025	DMND0001869	282
141	Vulnerability Scan tool	Information Protection Security	2023, 2024	DMND0001723	284
142	Cloud Security project	Information Protection Security	2023, 2024, 2025	DMND0001344	286
143	Cyber Security Defense Center (CSDC) Growth and LifeCycle Management	Information Protection Security	2022	BCD-IS-22-003	288
144	Cyber Security Defense Center (CSDC) Growth and LifeCycle Management	Information Protection Security	2022, 2023, 2024, 2025	DMND0001303	290
145	IPS Operations PAW and DC Replacement	Information Protection Security	2024	DMND0002264	292
146	Endpoint Protection	Information Protection Security	2022	BCD-IT-22-013	294
147	Endpoint Protection	Information Protection Security	2022, 2023, 2024, 2025	DMND0001359	295
148	Automated Provisioning	Information Protection Security	2022	BCD-IT-22-014	297

Line No.	Business Case / Project Name	IT Portfolio/Program	Spend Year	BCD ID	Exhibit Page Number
149	Automated Provisioning	Information Protection Security	2022, 2023, 2024, 2025	DMND0001460	298
150	Azure Active Directory Federation Implementation	Information Protection Security	2022	BCD-IT-21-003	302
151	Azure Active Directory Federation Implementation	Information Protection Security	2023, 2024, 2025	DMND0001342	303
152	Cyber Excellence Plan (CEP) Program	Information Protection Security	2022	BCD-IS-22-004	305
153	Cyber Excellence Plan (CEP) Program	Information Protection Security	2023, 2024, 2025	DMND0001468	307
154	Enterprise Mobility Management	Information Protection Security	2023, 2025	DMND0001346	309
155	Network Access Control	Information Protection Security	2022, 2023	BCD-IT-22-023	311
156	Network Access Control	Information Protection Security	2024, 2025	DMND0001647	312
157	Ransomware Protection	Information Protection Security	2022	BCD-IT-22-020	314
158	Ransomware Recovery	Information Protection Security	2023, 2024, 2025	DMND0001360	315
159	Recovery Manager for AD - Disaster Recovery Edition	Information Protection Security	2024	DMND0002692	317
160	Threat Intel module	Information Protection Security	2022	BCD-IT-22-001	320
161	Threat Intel module	Information Protection Security	2023	DMND0001361	321
162	Automating Database Event Log Monitoring	Infrastructure Operations	2022, 2023	BCD-IT-21-014	323
163	Tower and Lighting Inspections and Repairs	Infrastructure Operations	2022	BCD-IO-22-017	325
164	Tower and Lighting Inspections and Repairs	Infrastructure Operations	2023, 2024, 2025	DMND0001338	327
165	Ashley Mews Closure and Relocation	Infrastructure Operations	2022	BCD-SI-21-002	329
166	Backup Environmental Growth	Infrastructure Operations	2022	BCD-IO-22-007	331
167	Backup Environmental Growth	Infrastructure Operations	2023, 2024, 2025	DMND0001317	332
168	Collaboration Application Health	Infrastructure Operations	2022	BCD-CA-22-019	334
169	Collaboration Application Health	Infrastructure Operations	2023, 2024, 2025	DMND0001211	335
170	Dell Storage Hardware Refresh	Infrastructure Operations	2024	DMND0003143	337
171	Endpoint End of Life Electric Support Services	Infrastructure Operations	2022	BCD-IO-22-015	340
172	Endpoint End of Life Electric Support Services	Infrastructure Operations	2023, 2024, 2025	DMND0001321	341
173	Enterprise Monitoring License Renewal	Infrastructure Operations	2025	DMND0002778	343
174	Enterprise Monitoring Strategy Operational Growth	Infrastructure Operations	2022	BCD-IO-22-003	345
175	Enterprise Monitoring Strategy Operational Growth	Infrastructure Operations	2023, 2024, 2025	DMND0001322	346
176	Field Communications Network FCN Growth and Upgrade	Infrastructure Operations	2022	BCD-IO-22-009	348
177	Field Communications Network FCN Growth and Upgrade	Infrastructure Operations	2023, 2024, 2025	DMND0001324	349
178	Network Hardening and Operations	Infrastructure Operations	2022	BCD-IO-22-016	351

Line No.	Business Case / Project Name	IT Portfolio/Program	Spend Year	BCD ID	Exhibit Page Number
179	Network Hardening and Operations	Infrastructure Operations	2023, 2024, 2025	DMND0001334	352
180	Palo Alto Capital License Purchase	Infrastructure Operations	2025	DMND0002757	354
181	Server Engineering Support Services	Infrastructure Operations	2022	BCD-IO-22-005	356
182	Server Engineering Support Services	Infrastructure Operations	2023, 2024, 2025	DMND0001336	357
183	VMWare License Purchase	Infrastructure Operations	2025	DMND0002871	359
184	Compute and Storage Cache Refresh	Infrastructure Operations	2023, 2024	DMND0001646	361
185	Conference Room Audio Video Support	Infrastructure Operations	2022	BCD-IO-22-006	363
186	Conference Room Audio Video Support	Infrastructure Operations	2023, 2024, 2025	DMND0001318	364
187	Data Center Modernization and Optimization	Infrastructure Operations	2022	BCD-IO-22-002	366
188	Data Center Modernization and Optimization	Infrastructure Operations	2023, 2024	DMND0001339	367
189	Data Center Modernization and Optimization	Infrastructure Operations	2025	DMND0002499	369
190	Digital Worker Experience Electric EOL	Infrastructure Operations	2022	BCD-IO-22-013	371
191	Digital Worker Experience Electric EOL	Infrastructure Operations	2023, 2024, 2025	DMND0001320	372
192	End of Life Asset Replacements	Infrastructure Operations	2022	BCD-IO-22-010	374
193	End of Life Asset Replacements	Infrastructure Operations	2023, 2024, 2025	DMND0001319	375
194	Field Worker Device End Of Life	Infrastructure Operations	2024, 2025	DMND0002889	377
195	Load Balancer Asset Health and Re-Engineering	Infrastructure Operations	2025	DMND0002421	379
196	Microwave End Of Life	Infrastructure Operations	2022	BCD-IO-22-008	381
197	Microwave End Of Life	Infrastructure Operations	2023, 2024, 2025	DMND0001329	382
198	Modernize Disaster Recovery Tools	Infrastructure Operations	2025	DMND0002534	384
199	Network Advanced Metering Infrastructure Support	Infrastructure Operations	2022	BCD-IO-22-011	386
200	Network Advanced Metering Infrastructure Support	Infrastructure Operations	2023, 2024, 2025	DMND0001330	388
201	Network Data Center End of Life Project	Infrastructure Operations	2022	BCD-IO-22-019	390
202	Network Data Center End of Life Project	Infrastructure Operations	2023, 2024, 2025	DMND0001331	392
203	Network End of Life Electric	Infrastructure Operations	2022	BCD-IO-22-018	394
204	Network End of Life Electric	Infrastructure Operations	2023, 2024, 2025	DMND0001332	396
205	Security Infrastructure Growth and EOL	Infrastructure Operations	2022	BCD-IS-22-002	398
206	Security Infrastructure Growth and EOL	Infrastructure Operations	2023, 2024, 2025	DMND0001315	400
207	Wide Area Network and Wireless Local Area Network Expansion	Infrastructure Operations	2023, 2024, 2025	DMND0001732	402
208	Virtual Desktop Infrastructure	Infrastructure Operations	2022, 2023	BCD-IO-22-022	405
209	Virtual Desktop Infrastructure End of Life	Infrastructure Operations	2024, 2025	DMND0002397	407
210	Afaria Upgrade / Replacement	Infrastructure Operations	2022, 2023	BCD-IT-22-012	409
211	Network Segmentation (phase 2+) emergent extension	Infrastructure Operations	2023, 2024, 2025	DMND0001362	410
212	Self-healing Endpoint Automation	Infrastructure Operations	2025	DMND0001682	413

Line No.	Business Case / Project Name	IT Portfolio/Program	Spend Year	BCD ID	Exhibit Page Number
213	Wide Area Network Redesign Session Initiation Protocol Backhaul	Infrastructure Operations	2022, 2023	BCD-IO-22-004	415
214	Wireless Local Area Network Expansion	Infrastructure Operations	2022, 2023	BCD-IO-22-012	416
215	ConnectUs Teams	Infrastructure Operations	2022, 2023	BCD-CA-22-018	418
216	Data Power Replacements	Infrastructure Operations	2023	DMND0002223	419
217	Data Power Replacement Phase 2	Infrastructure Operations	2024	DMND0001645	421
218	Digital Infrastructure and Services	Infrastructure Operations	2022	DMND0002356	423
219	DTE Private Cloud Infrastructure as a Service	Infrastructure Operations	2022	BCD-IT-22-021	425
220	DTE Private Cloud Infrastructure as a Service	Infrastructure Operations	2023	DMND0001356	426
221	Endpoint Operating System and Hardware Upgrade	Infrastructure Operations	2024, 2025	DMND0001855	428
222	Enterprise Monitoring Strategy Implementation	Infrastructure Operations	2022, 2023	BCD-IT-22-007	430
223	External Secure File Transfer Replacement	Infrastructure Operations	2024, 2025	DMND0001641	431
224	Firewall Threat Protection	Infrastructure Operations	2023, 2024	DMND0001746	433
225	Mobile Device Management (MDM)	Infrastructure Operations	2023, 2024	DMND0001720	435
226	Network Operations Center (NOC) Automation Project	Infrastructure Operations	2022, 2023	BCD-IT-22-022	437
227	Storm Cloud (Scalable/Uptime)	Infrastructure Operations	2024, 2025	DMND0003227	438
228	Enterprise Data Platform Application Health	Enterprise Data Analytics	2024, 2025	DMND0001299	440
229	Advance and Enhance the Enterprise Data Platform	Enterprise Data Analytics	2022, 2023	BCD-EDA-22-001	442
230	Applied Innovation	Innovations	2022	BCD-EA-20-002	444



Executive Summary
 DTE Electric Company
 IT Business Case Executive Summaries

Business Case ID	BCD-CA-22-006	Business Case Name	Core ERP Stacks and Packs (2021-25)
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Stakeholders

IT Portfolio	Corporate Apps	Business Unit	IT for IT
IT Sub-Portfolio	Corporate Apps	Business Unit Director	Christine Garber
IT Director	Christine Garber	Business Unit SME	Vasantha Inturi / Diane Alston
Managed by	IT	Business Units Impacted	Electric

Project Description

Initiative Category	Sustainment	Initiative Type	Operational
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Business Opportunity

What business problem are we trying to solve?	Recurring annual investment to ensure the Core Enterprise Resource Planning platform in up to date with the latest required support packs and patches. This includes yearly application patching of ECC HR - service packs for required year end payroll and benefits processing to ensure business processes will continue to run successfully and in compliance with updated tax laws. This is a mandatory investment for legal and regulatory purposes.
What system or process is being affected?	Corporate ERP (EBS). Also includes: SAP PO upgrade, SAP ADS, SAP MDM upgrades required because Netweaver 7.40 for JAVA is out of support. SAP Cloud connector needs to be upgraded - it has not been upgraded since initial installation. DBAs will also do an Database upgrade as part of the yearly patching outage. Basis team wants to have upgrade of OS from 7.1 to 7.2 during outage rather than just patching, for efficiency and reduction of outage windows.
What functionality or capability is being provided?	Yearly Application Patching of ECC HR - the application of the HR Service packs for the required year end payroll and benefits processing. The W-2s, vacation balances, tax updates and other mandated payroll/personnel requirements would not be able to be processed if we do not do this yearly upgrade.
What is the customer or employee value?	HR update must be implemented to process year-end HR reporting, like W-2s, and Benefits. Major risk is NOT implementing. The HR department, another customer, must have this patching in order to perform their mandated business processes and reporting.
What alternatives have been considered?	None at this time, until we are residing the application in the Cloud.

Key Objectives

- 1) This application patching cycle will be done on a yearly basis, need to work around user schedules for releases and downtime per Business requirements, SLA agreements
- 2) Support pack patching needs to be done on a regular basis since Go-Live of EBS. This keeps a regular cycle of patching to keep current with the Support Pack level.
- 3) This patching needs to be done to meet mandatory legal and regulatory requirements for payroll and benefits, HR reporting.
- 4) Minimize outage time by scheduling all required patching during same outage window.
- 5)
- 6)
- 7)
- 8)
- 9)
- 10)

Start Month	January	2022
Duration to Complete	Years	12 Months
End Month	January	2023

Funding Source	ITS
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IT Financial Impact

	Year 1	Year 2	Year 3	Year 4	Year 5	Total amount is sent for approval on all business cases. Total
Capital	\$1,672,222	\$0	\$0	\$0	\$0	\$1,670,000
O&M	\$24,864	\$0	\$0	\$0	\$0	\$20,000
Total	\$1,697,086	\$0	\$0	\$0	\$0	\$1,690,000

Business Unit Costs

BU O&M	\$0	Trailing BU O&M Costs	\$0			
OCM O&M	Year 1	Year 2	Year 3	Year 4	Year 5	Total
	\$0	\$0	\$0	\$0	\$0	\$0



Executive Summary

Business Case Number	Business Case Name
DMND0001215	Core Enterprise Resource Planning Stacks and Packs

Stakeholders

Portfolio Category	Business Unit
Corporate Applications	Corporate Applications
Portfolio	Business Unit Director
Corporate Applications	Tony Bolda
Portfolio Manager	Business Unit SME
Tony Bolda	Vasantha L Inturi
Managed By	PPS
IT	150

Project Description

Investment Type	Initiative Type
Regulatory/Compliance	Operational

What business problem or opportunity are we trying to solve?

For FY23-FY25: The SAP Enterprise Resource Planning platform was first installed in 2007 and its core functionality is to store, process data, and provide Business User process functionality in the areas of Finance, General Ledger, Human Resources, Supplier management, accounts payable/receivable, payroll, and, in general to encompass all financial and SOX processes. These processes are required to meet Corporate Reporting mandates for the Securities and Exchange Commission (SEC) for Annual reports, K-1s, tax authorities, and other regulatory bodies such as the Michigan Public Service Commission. The system must be kept current for both the underlying software (SAP), and the platform on which it resides. Thus, annual updates are needed to keep running on supported operating system, data base software, and be able to process annual payroll and benefits as they change each year.



What functionality or capability is being provided?

Yearly Application Patching of ECC HR - the application of the HR Service packs for the required year end payroll and benefits processing. The W-2s, vacation balances, tax updates and other mandated payroll/personnel requirements would not be able to be processed if we do not do this yearly upgrade.

Key Objectives:

This application patching cycle will be done on a yearly basis, need to work around user schedules for releases and downtime per Business requirements, SLA agreements

Support pack patching needs to be done on a regular basis since Go-Live of EBS. This keeps a regular cycle of patching to keep current with the Support Pack level.

This patching needs to be done to meet mandatory legal and regulatory requirements for payroll and benefits, HR reporting.

Minimize outage time by scheduling all required patching during same outage window.

Describe alignment of project to Business Unit Goal(s) and Strategy(ies).

Patching is done yearly, with minimal disruption to EBS and interface systems. EBS is updated with most current support pack per recommended versions of SAP support. Maintain a regular patching cycle in line with DTE practices for the database and OS patching cycle. Business (HR) is able to process mandatory business processes for payroll and benefits. Patching is completed before required final deadline set by HR.



Define the Benefit/Value to the Organization, Customer, Employee.

HR update must be implemented to process year-end HR reporting, like W-2s, and Benefits. Major risk is NOT implementing. The HR department, another customer, must have this patching in order to perform their mandated business processes and reporting.

How will you monitor and measure expected value?

Strategic Alignment: % improvement in core safety metric - due to HR updates Meeting MPSC commitments on time Meeting other governing bodies commitments on time
 Employee Engagement: Reduction in pain points Used by all employees Improvement in efficiency
 Affordability: IT & BU productivity: hours freed up by process improvements in the system Reduction in inefficiencies due to supporting non-compatible products
 Operational Reliability: Financial and Supply Chain support during critical outages (Plant Outage, Storm)
 Foundational Capability: Expansion of capabilities Applicability to other business units Future efficiency gains

What alternatives have been considered?

Applications will not be able to process legally mandated payroll, W-2, vacation quota updates if we do nothing. Application will fall out of maintenance, lose compatibility with other DTE infrastructure. We do not have a choice to do nothing.

Start Date	End Date	Shared Asset	Funding Source
2023-01-02	2025-12-30	Yes	IT

IT Costs

Type	FY23	FY24	FY25	Total
Capex	\$1,668,123	\$1,667,976	\$1,800,027	\$5,136,126
Opex	\$231,422	\$231,684	\$226,891	\$689,997
Total	\$1,899,545	\$1,899,660	\$2,026,918	\$5,826,124

BU Costs

Category	Term of Contract	BU O&M Cost
Business Unit		\$0
Cloud Usage Cost		\$0
Digital EXP Design Cost Est		\$0
Maintenance/Renewals		\$0
Organizational Change Management		\$0
Vendor Support & Licensing		\$0

Michigan Public Service Commission
DTE Electric Company
IT Business Case Executive Summaries

Case No : U-21534
Exhibit : A-24
Schedule: N1
Witness: P. Sharma



Executive Summary

Business Case ID	BCD-CA-22-011	Business Case Name	Corporate Services Application Health
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Stakeholders

IT Portfolio	Corporate Apps	Business Unit	IT for IT
IT Sub-Portfolio	Corporate Apps	Business Unit Director	Christine Garber
IT Director	Christine Garber	Business Unit SME	Janet Esser
Managed by	IT	Business Units Impacted	Electric

Project Description

Initiative Category	Sustainment	Initiative Type	Operational
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Business Opportunity

What business problem are we trying to solve?	The BRM organization supports several of the Corporate Services business units including Fleet, Facilities, Supply Chain, Government Affairs and Environmental. This is a continued year over year annual investment to cover enhancements in support of changes to business processes, implement hardware and environment upgrades, maintain information security standards and implement software changes. Included in the application health initiatives are the costs to upgrade or replace existing application environments or operating systems. Application health maintenance is critical to the integrity and security of DTE data.
What system or process is being affected?	The application health funding is used to support and sustain systems used by business units that are within the portfolio. The funding is necessary to maintain a healthy and secure environment for multiple systems. The 2022 efforts will include the enhancements to the supply chain business warehouse capabilities and the purchase of additional technologies to enhance efficiency. Legacy applications which have reached the end of life listed in the portfolio roadmap will be reviewed and selected for replacement or updates during this budget cycle. This list includes, but is not limited to TITAN, a DTE transformer asset inventory tool, chemical and barcode label printing capability, retirement of facility energy monitoring application and cloud migration of metric and reporting capabilities.
What functionality or capability is being provided?	Functionality and capabilities supported through the asset health efforts are prioritized as part of the ITS asset health roadmap. During the budget year additional asset updates may be identified due to security vulnerabilities, product stability issues or business efficiency initiatives. The 2022 efforts will support inventory management, environmental reporting, facilities cost tracking and optimization, fleet maintenance tools and enhanced performance metric reporting.
What is the customer or employee value?	Employees provide value to their organizations and our customers through the use of technology. Maintaining a stable and updated computing environment allows the employees to complete daily tasks efficiently and with less errors.
What alternatives have been considered?	All applications that are within the portfolio are evaluated and included in a five year maintenance and disposition strategy. The strategy is reviewed annually. The requirement to update, replace or retire applications are evaluated taking into consideration vendor roadmaps and the needs of the business units. Throughout the year environment vulnerability to security or failures are identified and mediated through sustainment efforts. Allowing applications and operating environments to become obsolete puts DTE at risk of security breaches, data loss and performance degradation.

Key Objectives

- 1) Remediate vulnerability risks for multiple applications through implementing DTE security protocols and replacing obsolete hardware and operating systems.
- 2) Maintain release updates for business applications within the portfolio. Providing enhanced capabilities and operational efficiencies.
- 3) Implement security changes to certificates, firewall updates and overall environment updates which may impact application performance.
- 4) Implement security changes to certificates, firewall updates and overall environment updates which may impact application performance.
- 5) Replace aged applications with updates technologies to reduce support costs and data integrity risks.
- 6)
- 7)
- 8)
- 9)
- 10)

Start Month	January	2022
Duration to Complete	0 Years	12 Months
End Month	January	2023

Funding Source	ITS
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IT Financial Impact

	Year 1	Year 2	Year 3	Year 4	Year 5	Total amount is sent for approval on all business cases. Total
Capital	\$495,940	\$0	\$0	\$0	\$0	\$500,000
O&M	\$92,126	\$0	\$0	\$0	\$0	\$90,000
Total	\$588,066	\$0	\$0	\$0	\$0	\$590,000

Business Unit Costs

BU O&M	\$0	Trailing BU O&M Costs	\$0
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	Year 1	Year 2	Year 3	Year 4	Year 5	Total
OCM O&M	\$0	\$0	\$0	\$0	\$0	\$0



Executive Summary

Business Case Number	Business Case Name
DMND0001218	Corporate Services Application Health

Stakeholders

Portfolio Category	Business Unit
Corporate Applications	Corporate Services
Portfolio	Business Unit Director
Corporate Applications	Tony Bolda
Portfolio Manager	Business Unit SME
Tony Bolda	Janet A Esser
Managed By	PPS
IT	200

Project Description

Investment Type	Initiative Type
Sustainment	Operational

What business problem or opportunity are we trying to solve?

DTE needs to invest and maintain technology assets which are critical to business operations. IT technologies that are not maintained or replaced quickly become obsolete and at risk of becoming vulnerable to cyber attacks. Operating platforms and computing equipment require periodic updates and replacement. The business units identified in the executive summary have approximately 40 applications that support their day to day operations. This investment will address aging infrastructure by migrating to supported server, operating system, and application versions. In addition to upgrading applications for vendor updates or enhancements to functionality.

What functionality or capability is being provided?

The funding requirements for 2023 through 2025 was based on current and future state of the application portfolio. In 2023 we will continue the retirement and replacement of administrative forms hosted on the Quest platform which started in 2022. The Quest platform is no longer supported by the vendor and has been identified as subject to 132 different security vulnerabilities. Additional 2023 updates and replacements will include quarterly process enhancements to the employee safety platform that was developed in 2022. Between 2024 and 2025 several corporate facility monitoring applications are to a be replaced by a single enterprise application. Allowing the facilities engineers to have quick access to our DTE buildings to asses and respond to water, gas, heating and cooling issues that arise. The future 2023 to 2025 application health efforts are also influenced by vulnerabilities and risks that emerge from the technologies. DTE is continuously scanning and reviewing applications to identify security risks. The application health funding of these emergent high risk applications will be updated or replaced as quickly as possible.

Describe alignment of project to Business Unit Goal(s) and Strategy(ies).

Application health supports many different business partners process'. The tools and technologies need to be maintained in a healthy state and receive available updates and enhancements in order to support business growth and reduce costs.



Define the Benefit/Value to the Organization, Customer, Employee.

Employees provide value to their organizations and our customers through the use of technology. Maintaining a stable and updated computing environment allows the employees to complete daily tasks efficiently and with less errors. Applying application upgrades and enhancements for existing products allows the business units to access new business functionality and in some cases assists DTE in meeting regulatory compliance objectives.

How will you monitor and measure expected value?

Strategic Alignment: Mitigate Enterprise and Operational Risks through the support of new technologies that meet security and maintenance issues. Leveraging supported versions of software and hardware prevents cyber attacks. Updating hardware or enhancing tools limits the number of unplanned outage disruptions to the business unit.
Customer Experience: Stable easy to use computing technologies provide for a more positive experience in all areas of the company. Use of technology to manage purchases of field equipment, maintain fleet vehicles and track environmental compliance activities impacts DTE employees ability to respond and support our customers.
Employee Engagement: Stable easy to use computing technologies provide for a more positive experience in all areas of the company. Use of technology to manage purchases of field equipment, maintain fleet vehicles and track environmental compliance activities impacts DTE employees ability to respond and support our customers.
Affordability: Lack of maintenance of applications increases support costs over time. Poorly managed computing assets result in increased outage times, DTE exposure to adverse risk and reduction in employee productivity.

What alternatives have been considered?

Maintaining the health of DTE computing assets is necessary to protect DTE against security threats, address product bug fixes and provide support for hardware assets. Not addressing issues that arise would leave DTE vulnerable to process failures, computing security vulnerability and operating process failures for all of the Corporate Application Business units.
The need to replace or update all applications that are within the portfolio is continuously evaluated throughout the year. The identification of applications subject to an application health update, replace or retirement also takes into consideration vendor product roadmaps and business efficacy improvement. Throughout the year applications and equipment are subject to security testing tools which identify criticality vulnerabilities that could expose DTE customers and critical business processes to security breaches. Allowing applications and operating environments to become obsolete puts DTE customers at risk of data security breaches.

Start Date	End Date	Shared Asset	Funding Source
2023-01-02	2025-12-31	Yes	IT



IT Costs

Type	FY23	FY24	FY25	Total
Capex	\$775,001	\$779,062	\$775,130	\$2,329,192
Opex	\$139,014	\$138,074	\$135,097	\$412,185
Total	\$914,015	\$917,136	\$910,227	\$2,741,378

BU Costs

Category	Term of Contract	BU O&M Cost
Business Unit		\$0
Cloud Usage Cost		\$0
Digital EXP Design Cost Est		\$0
Maintenance/Renewals		\$0
Organizational Change Management		\$0
Vendor Support & Licensing		\$0



Executive Summary

Business Case Number	Business Case Name
DMND0001382	Documentum (EDM) Application Health

Stakeholders

Portfolio Category	Business Unit
Corporate Applications	Corporate Applications
Portfolio	Business Unit Director
Corporate Applications	Tony Bolda
Portfolio Manager	Business Unit SME
Tony Bolda	Gulzar Mohammad
Managed By	PPS
IT	200

Project Description

Investment Type	Initiative Type
Sustainment	Solutions Delivery - On Prem

What business problem or opportunity are we trying to solve?

With the implementation of the Documentum Upgrade and the processes that it will support there is a need to operate and consistently improve/maintain this system. This investment will ensure that this system will remain secure, operationally stable and up to date between its implementation and a future platform improvements.

What functionality or capability is being provided?

An integrated electronic repository where records can be easily retrievable based on predefined attributes and the workflow automated.

Describe alignment of project to Business Unit Goal(s) and Strategy(ies).

An integrated electronic methodology that tracks record workflow in and out of a central data repository that contains record control management processes and makes records easily assessable with flexible and querying support to ensure record regulatory compliance.

Define the Benefit/Value to the Organization, Customer, Employee.

This investment will ensure that the system meets the operational and availability goals for which is was implemented and remains secure and available to meet both current and future document repository objectives. These objectives will support our defined document management strategy which spans across business units.

How will you monitor and measure expected value?

Organizations should expect to see benefits such as productivity and efficiency improvements, reduction in operating costs, higher team engagement and elevated protection and management of critical information.

What alternatives have been considered?

This solution has been in place for last 15-20 years. It has been pretty stable but was not up to date with latest upgrades from the vendor.

Start Date	End Date	Shared Asset	Funding Source
2023-01-02	2025-12-31	Yes	IT



IT Costs

Type	FY23	FY24	FY25	Total
Capex	\$391,893	\$391,503	\$386,863	\$1,170,259
Opex	\$61,371	\$60,113	\$58,604	\$180,087
Total	\$453,264	\$451,615	\$445,467	\$1,350,346

BU Costs

Category	Term of Contract	BU O&M Cost
Business Unit		\$0
Cloud Usage Cost		\$0
Digital EXP Design Cost Est		\$0
Maintenance/Renewals		\$0
Organizational Change Management		\$0
Vendor Support & Licensing		\$0



Executive Summary

DTE Electric Company

IT Business Case Executive Summaries

Business Case ID	BCD-CA-22-005	Business Case Name	Enterprise Application Health
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Stakeholders

IT Portfolio	Corporate Apps	Business Unit	Enterprise
IT Sub-Portfolio	Corporate Apps	Business Unit Director	Christine Garber
IT Director	Christine Garber	Business Unit SME	Anthony Bolda
Managed by	IT	Business Units Impacted	Electric

Project Description

Initiative Category	Sustainment	Initiative Type	Operational
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Business Opportunity

What business problem are we trying to solve?	This investment aligns strategic goal, as defined in the DTE Five-Year IT Plan, to maintain asset health and update less reliable IT assets in corporate applications portfolio. Investment in this project are used to ensure IT assets avoid outages that may occur due to IT component failure, security flaws, incompatibility with newer components, and inability to get supplier support. In 2020, the Company invested in Windows 8 server-related activity impacting our document repository, and OpenText Captiva Capture software upgrades (version 6.5 to version 16.6). The Captiva upgrades enhanced the Company's ability to store and archive documents that currently exist only in paper form. The upgrade provided image capture, image conversion and image enhancement capabilities, as well as enhanced page classification and recognition tools for accurate page identification and Optical Character Recognition (OCR) results
What system or process is being affected?	Applications that are potential candidates for upgrade include DTHA-WEB, RightFax, PageMate, LoadRunner, VPA Visitor Processing, HP Quality Center and Continuum. HP Quality center does not include ALM.
What functionality or capability is being provided?	The Captiva upgrades enhanced the Company's ability to store and archive documents that currently exist only in paper form. The upgrade provided image capture, image conversion and image enhancement capabilities, as well as enhanced page classification and recognition tools for accurate page identification and Optical Character Recognition (OCR) results. The new version also enhanced automatic refinements to classification and recognition steps to identify changes to image templates thereby reducing manual intervention and/or error.
What is the customer or employee value?	DTE sends an average of 1500 of invoices to the State of Michigan MDOT on a monthly basis. By converting the billing to an electronic format, DTE will reduce the labor time that the state spends on processing their invoices, reduce the labor hours by approximately 1.5 FTEs (15 min per invoice [conservative estimate] x 1000 invoices per month), which can be refocused on higher priority work. DTE will also save time on the labor that it takes to print and prepare invoices for mailing. This is estimated at a labor time savings of 0.5 FTEs (using same equation above); this savings in time will allow us to re-prioritize our labor to focus on higher priority work.
What alternatives have been considered?	Continue to keep our application on unsupported versions which will increase our risk of experience security incidents

Key Objectives

- 1) The ongoing and annual sustainment investment will ensure the health and stability of a suite of smaller applications within the portfolio to support organizations such as Major Enterprise Projects, Legal, Corporate
- 2) DTE will reduce the labor time that the state spends on processing their invoices,
- 3) DTE will also save time on the labor that it takes to print and prepare invoices for mailing.
- 4)
- 5)
- 6)
- 7)
- 8)
- 9)
- 10)

Start Month	January	2022
Duration to Complete	Years	11 Months
End Month	December	2022

Funding Source	ITS
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IT Financial Impact

	Year 1	Year 2	Year 3	Year 4	Year 5	Total
Capital	\$196,719	\$0	\$0	\$0	\$0	\$200,000
O&M	\$32,030	\$0	\$0	\$0	\$0	\$30,000
Total	\$228,749	\$0	\$0	\$0	\$0	\$230,000

Business Unit Costs

BU O&M	\$0	Trailing BU O&M Costs	\$0
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	Year 1	Year 2	Year 3	Year 4	Year 5	Total
OCM O&M	\$0	\$0	\$0	\$0	\$0	\$0



Executive Summary

Business Case ID	BCD-CA-22-022	Business Case Name	Enterprise Applications Health
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Stakeholders

IT Portfolio	Corporate Apps	Business Unit	Enterprise
IT Sub-Portfolio	Corporate Apps	Business Unit Director	Christine Garber
IT Director	Christine Garber	Business Unit SME	Hadil Ismail
Managed by	IT	Business Units Impacted	Electric

Project Description

Initiative Category	Sustainment	Initiative Type	Operational
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Business Opportunity	
What business problem are we trying to solve?	This project is to maintain operations and sustain applications to ensure that we meet standard service level objectives for the applications within Enterprise Applications BRM space. In 2020, we remediating 10 servers and in 2021 we plan to remediate another 10 servers. Microsoft is no longer supporting Windows 2008, and further security patches are no longer available, which renders these servers at an unacceptably high risk for security breaches of critical and confidential information. The typical expected life of a server is three to five years. Even with stretching the threshold to a 7- year cycle, these servers are 12 years old and would need replacement even if Microsoft were still supporting Windows 2008.
What system or process is being affected?	Primavera, ensuring security patches, system updates, database maintenance OurDTE, our new intranet and employee portal Quest, our previous intranet that is linked to critical processes E-discovery Legal applications that are critical to matter management and litigation support
What functionality or capability is being provided?	We are able to deliver critical and timely information to our employees, along with keeping applications up to date with security patches to prevent vulnerabilities in our environment.
What is the customer or employee value?	The value of completing the project is real-time project management reporting and scheduling versus lengthy, delayed reporting and scheduling which impacts critical projects throughout DTE. Value is also obtained by improved user experience by fixing issues that may arise due to incompatibility with different IT systems (browsers, operating systems, end oflife intergrations). Value is also obtained by providing real time information to all DTE employees via our intranet, including emergency and safety incidents.
What alternatives have been considered?	The alternate technology solution would be to test, select, and migrate to a completely new system with the same features, but this would both delay a replacement unnecessarily as well as be prohibitively expensive. If we chose to completely change the underlying operating systems (to Linux, AIX , etc.) instead of remediating the existing system, we would not only incur significant cost, but may find areas where the transition is simply not possible due to both vendor recommendations and the tight integrations of Windows-dependent products, systems, and applications.

Michigan Public Service Commission
 Executive Summary
 DTE Electric Company
 IT Business Case Executive Summaries

Case No : U-21534
 Exhibit : A-24
 Schedule: N1
 Witness: P. Sharma

Key Objectives	
1)	Ensure all supported applications are on current versions and are up to date.
2)	Ensure timely patching of critical and non-critical security vulnerabilities, which support our robust security posture
3)	Deliver timely repairs to user issues
4)	Deliver proper increases in server storage for e-discovery applications as required by business or regulatory/compliance need
5)	Obtain required hardware as servers, endpoints (laptops, desktops) are required or at end-of-life
6)	Urgent vendor support for issues that arise in our cloud supported applications
7)	
8)	
9)	
10)	

Start Month	January	2022
Duration to Complete	0 Years	11 Months
End Month	December	2022

Funding Source	ITS
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IT Financial Impact						Total amount is sent for approval on all business cases.
	Year 1	Year 2	Year 3	Year 4	Year 5	
Capital	\$307,191	\$0	\$0	\$0	\$0	\$310,000
O&M	\$38,768	\$0	\$0	\$0	\$0	\$40,000
Total	\$345,959	\$0	\$0	\$0	\$0	\$350,000

Business Unit Costs						
BU O&M	\$0		Trailing BU O&M Costs		\$0	
	Year 1	Year 2	Year 3	Year 4	Year 5	Total
OCM O&M	\$0	\$0	\$0	\$0	\$0	\$0



Executive Summary

Business Case Number	Business Case Name
DMND0001221	Enterprise Applications Application Health

Stakeholders

Portfolio Category	Business Unit
Corporate Applications	Enterprise Data and Analytics
Portfolio	Business Unit Director
Corporate Applications	Tony Bolda
Portfolio Manager	Business Unit SME
Tony Bolda	Murali Kaza
Managed By	PPS
IT	200

Project Description

Investment Type	Initiative Type
Sustainment	Operational

What business problem or opportunity are we trying to solve?

This project is to sustain operations that meet standard service level objectives that are supported by the team for the enterprise Applications in its span of control. If we lose support, we will be vulnerable in our security increasing our risk of experiencing security incidents. There are 11 applications that support Enterprise Application Health

Here are some examples from the eleven applications in corporate applications: EDI - would effect our ability to accurately accept payments from our customers and potentially leading to service shutoffs. Everbridge - Impact our abilities to send safety messages to our employees and deliver service messages to some of our customers, PACS (Physical Access Control System) and CSAS - impact our ability to enter buildings as needed. Impacting our ability to successfully provide energy to our customers). Additional Applications Includes Primavera, ePAT, Captiva, Rightfax, Extensis, Pagemate, and DTHA Commander.

What functionality or capability is being provided?

The functionality or capability is that it provides the sustain level management for current Enterprise Applications portfolio. This project will also focus on keeping our applications on supported versions.

Describe alignment of project to Business Unit Goal(s) and Strategy(ies).

The goal is to reduce unplanned outages, enhance workflow and improve efficiencies in ServiceNow, improving employee engagement. Information Security patches are intended to prevent increases in unplanned outages because the information security landscape is continually evolving. Since this is a Shared Service, this functionality an/or capability is being provided to DTE Electric and DTE Gas business unites and/or customers.

Define the Benefit/Value to the Organization, Customer, Employee.

Through continuous improvement efforts and automations are identified to improve process efficiency and effectiveness.

How will you monitor and measure expected value?

Employee Engagement: Target State - Cycle time Improvement for implemented areas
 Affordability: Target State - Cycle time Improvement for implemented areas

What alternatives have been considered?



Continue with the current system state will not realize business productivity gains. Also potentially may fall out of support with vendor and decreasing the asset health. Falling out of support with the vendor will prevent us from receiving security patches, increasing our security risk.

Start Date	End Date	Shared Asset	Funding Source
2023-01-02	2025-12-29	Yes	IT

IT Costs

Type	FY23	FY24	FY25	Total
Capex	\$675,000	\$700,000	\$800,159	\$2,175,159
Opex	\$75,014	\$100,000	\$98,293	\$273,307
Total	\$750,014	\$800,000	\$898,452	\$2,448,466

BU Costs

Category	Term of Contract	BU O&M Cost
Business Unit		\$0
Cloud Usage Cost		\$0
Digital EXP Design Cost Est		\$0
Maintenance/Renewals		\$0
Organizational Change Management		\$0
Vendor Support & Licensing		\$0

Michigan Public Service Commission
DTE Electric Company
IT Business Case Executive Summaries

Case No : U-21534
Exhibit : A-24
Schedule: N1
Witness: P. Sharma



Executive Summary

Business Case ID	BCD-CA-22-016	Business Case Name	Enterprise Resource Planning
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Stakeholders

IT Portfolio	Corporate Apps	Business Unit	IT for IT
IT Sub-Portfolio	Corporate Apps	Business Unit Director	Christine Garber
IT Director	Christine Garber	Business Unit SME	Kelly Flowers / CA BRM Managers
Managed by	IT	Business Units Impacted	Electric

Project Description

Initiative Category	Sustainment	Initiative Type	Operational
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Business Opportunity	
What business problem are we trying to solve?	This investment enables the updates to ERP systems to meet Legal, Regulatory, Finance, and Safety requirements. These are mandatory updates for DTE as an organization.
What system or process is being affected?	EBS SAP and related add-ons (ERP/SRM/BW/PO/GRC environments)
What functionality or capability is being provided?	Capability to meet mandatory requirements from Governmental, IRS, Union, and other entities for which DTE has responsibility. EBS is a SOX application, and this allows the business to comply with reporting and legal requirements, as well as respond to new legislative rules.
What is the customer or employee value?	The business customer will have the ability to respond to mandated legal and regulatory requirements in a timely manner, to avoid fines or penalties. Also, in terms of safety, the user can comply with required reporting and information, processes that impact DTE employees and the safety goals.
What alternatives have been considered?	None - work is mandatory

Key Objectives	
1)	Maintain application availability
	Maintain application at a level to be able to respond to governmental, legal, tax, safety requirements and new emergent requirements as a result of new laws, or governing body requirements
2)	
3)	
4)	
5)	
6)	
7)	
8)	
9)	
10)	

Start Month	January	2022	Funding Source	ITS
Duration to Complete	0	Years	11	Months
End Month	December	2022		

IT Financial Impact						Total amount is sent for approval on all business cases.
	Year 1	Year 2	Year 3	Year 4	Year 5	
Capital	\$825,891	\$0	\$0	\$0	\$0	\$830,000
O&M	\$92,630	\$0	\$0	\$0	\$0	\$90,000
Total	\$918,521	\$0	\$0	\$0	\$0	\$920,000

Business Unit Costs						
BU O&M	\$0		Trailing BU O&M Costs		\$0	
	Year 1	Year 2	Year 3	Year 4	Year 5	Total
OCM O&M	\$0	\$0	\$0	\$0	\$0	\$0

Michigan Public Service Commission
DTE Electric Company
IT Business Case Executive Summaries

Case No : U-21534
Exhibit : A-24
Schedule: N1
Witness: P. Sharma



Executive Summary

Business Case ID	BCD-CA-22-017	Business Case Name	Enterprise Resource Planning
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Stakeholders

IT Portfolio	Corporate Apps	Business Unit	IT for IT
IT Sub-Portfolio	Corporate Apps	Business Unit Director	Chris Garber
IT Director	Christine Garber	Business Unit SME	Kelly Flowers
Managed by	IT	Business Units Impacted	Electric

Project Description

Initiative Category	Sustainment	Initiative Type	Operational
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Business Opportunity

What business problem are we trying to solve?	This is a continued year over year annual investment to cover enhancements in support of changes to business processes, implement hardware and environment upgrades, security patches, and adopt both major and minor software releases to avoid or account for software version obsolescence. Enhancements of this type are often critical in ensuring that system integrity is maintained allowing for the timely adoption of security patches and emerging versions.
What system or process is being affected?	The Enterprise Resource Planning system supports all resource planning process and systems for Corporate Services, Human Resources, and Finance.
What functionality or capability is being provided?	This business case will support Corporate Applications by maintaining the ERP/SRM/BW/PO/GRC environments/applications currency. This is done by implementation of core ERP asset health enhancements. For 2022 support additions include: SuccessFactors, BOTS, SWO, SRM add-ons, 2 failover tests, LMS, Aspire, and EDI support. In addition, several JAVA systems will be out of support under Netweaver 7.40 and will need to be upgraded: 1) Process Orchestration - SAP PO, 2) Adobe Document Services - ADS, and 3) SAP MDM.
What is the customer or employee value?	Allowing systems to stagnate negatively impacts the Company's ability to remain compliant with SOX (Sarbanes-Oxley) and other financial requirements that protect from accounting errors and ensures the accuracy of corporate disclosures. These enhancements further improve efficiencies in the financial close process and improve overall system health.
What alternatives have been considered?	The alternative is a Do Nothing approach which will introduce unacceptable risk such as, applications will stagnate and platform will not be running on the latest releases/patches which could impact security and application performance.

Key Objectives

- 1) Maintain application availability
- 2) Improve Asset Health
- 3) Implement operational improvements by improving monitoring capability
- 4)
- 5)
- 6)
- 7)
- 8)
- 9)
- 10)

Start Month	January	2022
Duration to Complete	0 Years	11 Months
End Month	December	2022

Funding Source	ITS
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IT Financial Impact

	Year 1	Year 2	Year 3	Year 4	Year 5	Total
Capital	\$278,021	\$0	\$0	\$0	\$0	\$280,000
O&M	\$15,089	\$0	\$0	\$0	\$0	\$20,000
Total	\$293,110	\$0	\$0	\$0	\$0	\$300,000

Total amount is sent for approval on all business cases.

Business Unit Costs

BU O&M	\$0	Trailing BU O&M Costs	\$0
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	Year 1	Year 2	Year 3	Year 4	Year 5	Total
OCM O&M	\$0	\$0	\$0	\$0	\$0	\$0



Executive Summary

Business Case Number	Business Case Name
DMND0001213	Core Enterprise Resource Planning Application Health

Stakeholders

Portfolio Category	Business Unit
Corporate Applications	Information Technology
Portfolio	Business Unit Director
Corporate Applications	Tony Bolda
Portfolio Manager	Business Unit SME
Tony Bolda	Vasantha L Inturi
Managed By	PPS
IT	200

Project Description

Investment Type	Initiative Type
Sustainment	Operational

What business problem or opportunity are we trying to solve?

For FY23-FY25: This is a continued year over year annual investment to cover enhancements in support of changes to business processes, implement hardware and environment upgrades, security vulnerability remediation, and adopt both major and minor software releases to avoid or account for software version obsolescence. Enhancements of this type are often critical in ensuring that system integrity is maintained allowing for the timely adoption of security vulnerability remediation and emerging versions. Included in this opportunity is the support for Monthly production releases for Core SAP Enterprise Resource Planning, related updates to Application Platform to maintain vendor support, and support for Business process changes from the User base as they respond to new business needs, CI improvements, and process changes to improve their productivity.



What functionality or capability is being provided?

This business case will support Corporate Applications by maintaining the ERP/SRM/BW/PO/GRC environments/applications currency. This is done by implementation of core ERP asset health enhancements.

For 2023 and forward support additions include: SuccessFactors, BOTS, SWO, SRM add-ons, 2 failover tests, LMS, Aspire, and EDI support. In addition, as JAVA systems will be out of support under Netweaver 7.40 they will need to be upgraded. EBS is a SOX application, and this allows the business to comply with reporting and legal requirement, as well as respond to new legislative rules. Allowing systems to stagnate negatively impacts the Company’s ability to remain compliant with SOX (Sarbanes-Oxley) and other financial requirements that protect from accounting errors and ensures the accuracy of corporate disclosures. These updates further improve efficiencies in the financial close process and improve overall system health. The assumptions of funding required are based on historical trend of the past four years for the scope of work required to maintain the portfolio of applications so they do not go out of service, are replaced appropriately at end-of-life, and run efficiently to meet current processing needs and timings of the business units supported.

2024 scope

Maintain application availability
Improve Asset Health
Implement operational improvements by improving monitoring capability
Maintain application at a level to be able to respond to governmental, legal, tax, safety requirements and new emergent requirements as a result of new laws, or governing body requirements.

Describe alignment of project to Business Unit Goal(s) and Strategy(ies).

This investment is to maintain application availability, ensure key controls and all SOX related requirements can be maintained, and keep applications at a level to be able to respond to updates required for implementation of new projects that use the ERP platform. In addition, implement operational improvements by improving monitoring capability and capability of CI opportunities.

Define the Benefit/Value to the Organization, Customer, Employee.

Allowing systems to stagnate negatively impacts the Company’s ability to remain compliant with SOX (Sarbanes-Oxley) and other financial requirements that protect from accounting errors and ensures the accuracy of corporate disclosures. These enhancements further improve efficiencies in the financial close process and improve overall system health. The business customer will have the ability to respond to mandated legal and regulatory requirements in a timely manner, to avoid fines or penalties. Also, in terms of safety, the user can comply with required reporting and information, processes that impact DTE employees and the safety goals.



How will you monitor and measure expected value?

Strategic Alignment: % improvement in core safety metric, meeting MPSC commitments on time for Health and Safety reporting, responding to MPSC inquiries and complaints, and meeting other governing bodies commitments on time.

Employee Engagement: Reduction in pain points, Used by all employees and Improvement in efficiency. Major portion of value is actually avoidance of outages, impact on usability / response time to employees, updated security certificates, and avoidance of non-supported software.

Affordability: IT & BU productivity hours freed up by process improvements in the system. Reduction in inefficiencies due to supporting non-compatible products

Operational Reliability: Financial and supply chain support during critical outages (Plant Outage, storm)

Foundational Capability: Expansion of capabilities, applicability to other business units and future efficiency gains

What alternatives have been considered?

Applications will stagnate and platform will not be running on the latest releases/patches which could impact security and application performance. Do Nothing is not an option. DTE must react and comply with requirements imposed by legal and governmental entities.

Start Date	End Date	Shared Asset	Funding Source
2023-01-02	2025-12-30	Yes	IT

IT Costs

Type	FY23	FY24	FY25	Total
Capex	\$276,030	\$276,045	\$498,999	\$1,051,073
Opex	\$28,546	\$28,052	\$27,405	\$84,004
Total	\$304,576	\$304,097	\$526,404	\$1,135,078

BU Costs

Category	Term of Contract	BU O&M Cost
Business Unit		\$0
Cloud Usage Cost		\$0
Digital EXP Design Cost Est		\$0
Maintenance/Renewals		\$0
Organizational Change Management		\$0
Vendor Support & Licensing		\$0



Executive Summary

Business Case Number	Business Case Name
DMND0001214	Core Enterprise Resource Planning Maintenance

Stakeholders

Portfolio Category	Business Unit
Corporate Applications	IT for IT
Portfolio	Business Unit Director
Corporate Applications	Tony Bolda
Portfolio Manager	Business Unit SME
Tony Bolda	Vasantha L Inturi
Managed By	PPS
IT	200

Project Description

Investment Type	Initiative Type
Sustainment	Operational

What business problem or opportunity are we trying to solve?

For FY23-FY25: This is a continued year over year annual investment to cover mandatory enhancements in support of changes to business processes, implement hardware and environment upgrades, security vulnerability remediation, and adopt both major and minor software releases to avoid or account for software version obsolescence. Enhancements of this type are often critical in ensuring that system integrity is maintained allowing for the timely adoption of security vulnerability remediation and emerging versions. Be able to update ERP systems to meet Legal, Regulatory, Finance, and Safety requirements. These are mandatory updates for DTE as an organization in respect to Legal, Governmental, and Regulatory requirements. We have a regular schedule of monthly Software Production Releases, and twice weekly BRM initiated master data updates to accomplish the supportability of our Core Enterprise systems.



What functionality or capability is being provided?

This business case will support Corporate Applications by maintaining the ERP/SRM/BW/PO/GRC environments/applications currency. This is done by implementation of core ERP asset health enhancements. For 2023-2025 support additions include: SuccessFactors, BOTS, SWO, SRM add-ons, 2 failover tests, LMS, Aspire, and EDI support. In addition, several JAVA systems will be out of support under Netweaver 7.40 and will need to be upgraded: 1) Process Orchestration - SAP PO, 2) Adobe Document Services - ADS, and 3) SAP MDM. Capability to meet mandatory requirements from Governmental, IRS, Union, and other entities for which DTE has responsibility. EBS is a SOX application, and this allows the business to comply with reporting and legal requirement, as well as respond to new legislative rules.

Key Objectives:

Maintain application availability

Improve Asset Health to meet mandatory requirements with no delay due to outdated software

Maintain application at a level to be able to respond to governmental, legal, tax, safety requirements and new emergent requirements as a result of new laws, or governing body requirements

Describe alignment of project to Business Unit Goal(s) and Strategy(ies).

This investment is to maintain application availability, ensure key controls and all SOX related requirements can be maintained, and keep applications at a level to be able to respond to governmental, legal, tax, safety requirements and new emergent requirements because of new laws, or governing body requirements.

Define the Benefit/Value to the Organization, Customer, Employee.

Allowing systems to stagnate negatively impacts the Company’s ability to remain compliant with SOX (Sarbanes-Oxley) and other financial requirements that protect from accounting errors and ensures the accuracy of corporate disclosures. These enhancements further improve efficiencies in the financial close process and improve overall system health. The business customer will have the ability to respond to mandated legal and regulatory requirements in a timely manner, to avoid fines or penalties. Aslo, in terms of safety, the user can comply with required reporting and information, processes that impact DTE employees and the safety goals.

How will you monitor and measure expected value?

Strategic Alignment: Meeting MPSC commitments for reporting on safety, response to MPSC inquiries or complaints, in a timely manner. Meeting other governing bodies commitments on time.

Major portion of value is actually avoidance of outages, impact on usability / response time to employees, updated security certificates, and avoidance of non-supported software for systems that must be be operational to meet mandated financial reporting, payroll, Union contracts, MPSC requirements.

Employee Engagement: Reduction in pain points, Used by all employees and Improvement in efficiency.

Affordability: IT & BU productivity: hours freed up by process improvements in the system. Reduction in inefficiencies due to supporting non-compatible products

Operational Reliability: Financial and Supply Chain support during critical outages(Plant Outage, Storm)

Foundational Capability: Expansion of capabilities, Applicability to other business units, Future efficiency gains

What alternatives have been considered?



Applications will stagnate and platform will not be running on the latest releases/patches which could impact security and application performance. Do Nothing is not an option. DTE must react and comply with requirements imposed by legal and governmental entities.

Start Date	End Date	Shared Asset	Funding Source
2023-01-02	2025-12-30	Yes	IT

IT Costs

Type	FY23	FY24	FY25	Total
Capex	\$831,962	\$832,027	\$1,000,001	\$2,663,990
Opex	\$112,780	\$111,354	\$105,944	\$330,078
Total	\$944,742	\$943,382	\$1,105,945	\$2,994,068

BU Costs

Category	Term of Contract	BU O&M Cost
Business Unit		\$0
Cloud Usage Cost		\$0
Digital EXP Design Cost Est		\$0
Maintenance/Renewals		\$0
Organizational Change Management		\$0
Vendor Support & Licensing		\$0



Executive Summary

Business Case ID	BCD-CA-22-014	Business Case Name	Financial Applications Health
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Stakeholders

IT Portfolio	Corporate Apps	Business Unit	IT Operations
IT Sub-Portfolio	Corporate Apps	Business Unit Director	Christine Garber
IT Director	Christine Garber	Business Unit SME	Ralph Shelly
Managed by	IT	Business Units Impacted	Electric

Project Description

Initiative Category	Sustainment	Initiative Type	Operational
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Business Opportunity

What business problem are we trying to solve?	There are multiple applications that support the business processes for DTE's Financial Business Units. This is an annual investment to cover enhancements in support of changes to business processes, implement hardware upgrades, security patches, and adopt software releases to avoid version obsolescence. Enhancements of this type are critical in ensuring that system integrity is maintained allowing for the timely adoption of security patches and emerging versions. Allowing systems to stagnate negatively impacts the Company's ability to remain compliant with Sarbanes-Oxley and other requirements that protect DTE from accounting errors and ensure accurate financials. These enhancements improve efficiencies in the financial close process and improve overall system health.
What system or process is being affected?	The following Financial systems are being affected or could be affected as a result of emerging requests (e.g. SAP ERP, SAP BPC, One Source Sales & Use Tax, Prodiagio, PowerPlan, Visual Corporate Keeper, Teammate, etc.). Financial processes that are impacted are processing the Financial Month-End Close, consolidating and publishing financial reports, paying Sales & Use Tax, Accounts Payable, retaining corporate records and maintaining Audit plans and audits.
What functionality or capability is being provided?	The scope of this business case is to continue sustain support work associated with DTE's Financial applications. This includes maintaining current levels of software at all levels, and supporting operational hardware and environment upgrades and security patches. It also includes the testing and implementation of the changes, as well as the installation of new functionality if required to maintain useability or mandated changes.
What is the customer or employee value?	Employee Value - DTE Financial employees will continue to have the the functionality and features required to execute their processes, and will utilize financial applications that remain compliant with Sarbanes-Oxley and other compliance requirements that protect DTE from accounting errors and ensure accurate financials. These enhancements further improve efficiencies in the financial close process and improve overall system health.
What alternatives have been considered?	N/A: Financial applications will stagnate and will not be running on the latest releases/patches which could impact security, application performance and usability.

Key Objectives

- 1) Maintain application availability.
- 2) Improve asset health.
- 3) Provide critical functionality and features required by our Financial business partners to execute their processes.
- 4) Support SOX compliance efforts.
- 5)
- 6)
- 7)
- 8)
- 9)
- 10)

Start Month	January	2022	Funding Source	ITS
Duration to Complete	0	Years	11	Months
End Month	December	2022		

IT Financial Impact

	Year 1	Year 2	Year 3	Year 4	Year 5	Total
Capital	\$246,151	\$0	\$0	\$0	\$0	\$246,000
O&M	\$21,423	\$0	\$0	\$0	\$0	\$20,000
Total	\$267,574	\$0	\$0	\$0	\$0	\$270,000

Total amount is sent for approval on all business cases.

Business Unit Costs

BU O&M	\$0	Trailing BU O&M Costs	\$0
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	Year 1	Year 2	Year 3	Year 4	Year 5	Total
OCM O&M	\$0	\$0	\$0	\$0	\$0	\$0



Executive Summary

Business Case Number	Business Case Name
DMND0001224	Financial Applications Health

Stakeholders

Portfolio Category	Business Unit
Corporate Applications	Infrastructure Operations
Portfolio	Business Unit Director
Corporate Applications	Tony Bolda
Portfolio Manager	Business Unit SME
Tony Bolda	Ralph H Shelly
Managed By	PPS
IT	200

Project Description

Investment Type	Initiative Type
Sustainment	Operational

What business problem or opportunity are we trying to solve?

There are multiple applications that support the business processes for DTE's Financial Business Units. This is an annual investment to cover enhancements in support of changes to financial business processes, implement hardware upgrades, security vulnerability remediation, and adopt software releases to avoid version obsolescence. Enhancements of this type are critical in ensuring that system integrity is maintained allowing for the timely adoption of security vulnerability remediation and emerging versions. Allowing systems to stagnate negatively impacts the Company's ability to remain compliant with Sarbanes-Oxley and other requirements that protect DTE from accounting errors and ensure accurate financials. These enhancements improve efficiencies in the financial close process and improve overall system health.

On an annual basis, 1 to 2 applications are upgraded per year. In 2022, the Teammate application was upgraded. In 2023, OneSource Sales & Use Tax will be upgraded. In 2024, TeamConnect will be upgraded.

What functionality or capability is being provided?

The scope of this business case is to continue sustain support work associated with DTE's Financial applications. This includes maintaining current levels of software at all levels, and supporting operational hardware and environment upgrades and security patches. It also includes the testing and implementation of the changes, as well as the installation of new functionality if required to maintain usability or mandated changes.

Key Objectives:
 Maintain application availability. Improve asset health. Provide critical functionality and features required by our Financial business partners to execute their processes. Support SOX compliance efforts.

Describe alignment of project to Business Unit Goal(s) and Strategy(ies).

The Finance Application Health work aligns with our ITS and Controller's Organization priorities: Strengthen our strong security posture, focusing on operational technology resiliency Mature our operating performance with digital resiliency capabilities Accurate and compliant Financial Statements Automation and elimination of manual work and work arounds



Define the Benefit/Value to the Organization, Customer, Employee.

Employee Value - DTE Financial employees will continue to have the the functionality and features required to execute their processes, and will utilize financial applications that remain compliant with Sarbanes-Oxley and other compliance requirements that protect DTE from accounting errors and ensure accurate financials. These enhancements further improve efficiencies in the financial close process and improve overall system health.

The DTE Financial Organizations will be able to obtain minor enhancements on an annual basis to their applications outside of the Annual Planning Cycle (APC) ensuring that they have the necessary functionality and features to support their business processes. Additionally, IT will be able to support changes to business processes, implement hardware upgrades, security patches, and adopt software releases to avoid version obsolescence.

How will you monitor and measure expected value?

Expected value will be monitored via the following metrics:
 Operating Impact: Improve asset health and improve end user experience (e.g. reduce number of application outages, improve processing time, reduce number of system vulnerabilities) Customer Impact: Improve end user experience (e.g. ability to navigate in the application, time required to complete business unit process activities)

What alternatives have been considered?

Do nothing - Financial applications will stagnate and will not be running on the latest releases/patches which could impact security, application performance and usability.

Start Date	End Date	Shared Asset	Funding Source
2023-01-02	2025-12-29	Yes	IT

IT Costs

Type	FY23	FY24	FY25	Total
Capex	\$275,000	\$250,000	\$250,935	\$775,935
Opex	\$25,000	\$30,000	\$29,306	\$84,306
Total	\$300,000	\$280,000	\$280,240	\$860,240

BU Costs

Category	Term of Contract	BU O&M Cost
Business Unit		\$0
Cloud Usage Cost		\$0
Digital EXP Design Cost Est		\$0
Maintenance/Renewals		\$0
Organizational Change Management		\$0
Vendor Support & Licensing		\$0



IT Business Case Executive Summaries

Business Case ID	BCD-CA-22-004	Business Case Name	Human Resources Application Health
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Stakeholders

IT Portfolio	Corporate Apps	Business Unit	Human Resources
IT Sub-Portfolio	Corporate Apps	Business Unit Director	Christopher Hoosang
IT Director	Christine Garber	Business Unit SME	Stephen Owsley
Managed by	IT	Business Units Impacted	Electric

Project Description

Initiative Category	Sustainment	Initiative Type	Operational
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Business Opportunity

What business problem are we trying to solve?	This is a continued year over year annual investment to cover HR end to end process optimization that digitally enable hire to retire workflow in support of changes to business processes, implement hardware and environment upgrades, security patches, and adopt both major and minor software releases to avoid or account for software version obsolescence. Changes of this type are often critical in ensuring that system integrity is maintained allowing for the timely adoption of security patches and emerging versions. These updates further improve efficiencies in HR processes and improve overall system health.
What system or process is being affected?	The system and process being affected is our HR hire to retire process and Success Factors platform. There are multiple applications that support the business processes for DTE's HR business units (e.g. SAP, myDTE, United Way, Payroll, Labor Relations, Compensation and Benefits).
What functionality or capability is being provided?	The functionality and capability to be provided pertains to continued sustain support work associated with DTE's HR applications.
What is the customer or employee value?	The value of this investment ensure that we are able to maintain current levels of software at all levels, support operational hardware, environment upgrades, and security patches and keep the HR systems up-to-date. These are imparitive to system health and meeting the business' objectives for DTE.
What alternatives have been considered?	There is an alternative to making this investment which is to continue running the system as is with no changes to business processes and no system upgrades. This approach risks asset health and introduces risk to asset availability and prevents updates to critical business processes, all of which are not recommended.

Key Objectives

<ol style="list-style-type: none"> 1) Digital transformation of HR hire to retire processes 2) Improve asset health. 3) Provide critical functionality and features required by our HR business partners to execute their processes. 4) Provide updates and enhancements to critical functionality and features required by HR business partners to continue to support the Enterprise. 5) Maintain application availability. 6) 7) 8) 9) 10)

Start Month	January	2022
Duration to Complete	Years	11 Months
End Month	December	2022

Funding Source	ITS
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IT Financial Impact

Michigan Public Service Commission
 approval on all business cases.
 DTE Electric Company

Case No : U-21534
 Exhibit : A-24
 Schedule: N1
 Witness: P. Sharma

	Year 1	Year 2	Year 3	Year 4	Year 5	Total
Capital	\$249,823	\$0	\$0	\$0	\$0	\$250,000
O&M	\$35,067	\$0	\$0	\$0	\$0	\$40,000
Total	\$284,890	\$0	\$0	\$0	\$0	\$290,000

Business Unit Costs

BU O&M	\$30,000	Trailing BU O&M Costs	\$0
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	Year 1	Year 2	Year 3	Year 4	Year 5	Total
OCM O&M	\$0	\$0	\$0	\$0	\$0	\$0



Executive Summary

Business Case Number	Business Case Name
DMND0001227	Human Resources Applications Health

Stakeholders

Portfolio Category	Business Unit
Corporate Applications	Human Resources
Portfolio	Business Unit Director
Corporate Applications	Tony Bolda
Portfolio Manager	Business Unit SME
Tony Bolda	Carmelene D Corona
Managed By	PPS
IT	200

Project Description

Investment Type	Initiative Type
Sustainment	Operational

What business problem or opportunity are we trying to solve?

HR Application Health is used to maintain production applications in the HR portfolio. Historically, this includes planned upgrades and security vulnerability remediation of SuccessFactors platform bi-annually. Application Health includes enhancements to add functionality to production applications to address business process changes. If we did not maintain the application upgrades and perform security vulnerability remediation, the application would not longer function as required, additional support would be required, and enhancements to support changes in business process would not be possible. This is a continued year over year annual investment to cover updates in support of changes to business processes, implement hardware and environment upgrades, security vulnerability remediation, and adopt both major and minor software releases to avoid or account for software version obsolescence. Updates of this type are often critical in ensuring that system integrity is maintained allowing for the timely adoption of security vulnerability remediation and emerging versions. These updates further improve efficiencies in HR processes and improve overall system health.

What functionality or capability is being provided?

The functionality and capability to be provided pertains to continued sustain support work associated with DTE's HR's Success Factors applications.

Key Objectives:
 Maintain application availability.
 Improve asset health.
 Provide critical functionality and features required by our HR business partners to execute their processes.
 Provide updates necessary to critical functionality and features required by HR business partners to continue to support the Enterprise.

Describe alignment of project to Business Unit Goal(s) and Strategy(ies).

The goal is to provide updates to workflows, improve end user experience, improve employee engagement, and improve efficiencies across the Human Resources Portfolio.



Define the Benefit/Value to the Organization, Customer, Employee.

The value of this investment ensure that we are able to maintain current levels of software at all levels, support operational hardware, environment upgrades, and security patches and keep the HR systems up-to-date. These are imperative to system health and meeting the business' objectives for DTE.

How will you monitor and measure expected value?

Foundational Capability: 50% reduction in response and cycle time from 48hrs to 24hrs
 Current State - 48hrs response time to requests Target State - 50% improvement in response time

What alternatives have been considered?

HR applications will stagnate and will not be running on the latest releases/patches which could impact security, application performance and usability.

Start Date	End Date	Shared Asset	Funding Source
2023-01-02	2025-12-31	Yes	IT

IT Costs

Type	FY23	FY24	FY25	Total
Capex	\$251,668	\$250,619	\$247,391	\$749,677
Opex	\$52,262	\$49,459	\$49,320	\$151,040
Total	\$303,930	\$300,077	\$296,710	\$900,717

BU Costs

Category	Term of Contract	BU O&M Cost
Business Unit		\$0
Cloud Usage Cost		\$0
Digital EXP Design Cost Est		\$0
Maintenance/Renewals		\$0
Organizational Change Management		\$0
Vendor Support & Licensing		\$0



Executive Summary

Business Case ID	BCD-CA-22-015	Business Case Name	Production Growth
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Stakeholders

IT Portfolio	Corporate Apps	Business Unit	IT for IT
IT Sub-Portfolio	Corporate Apps	Business Unit Director	Chris Garber
IT Director	Christine Garber	Business Unit SME	Kelly Flowers
Managed by	IT	Business Units Impacted	Electric

Project Description

Initiative Category	Sustainment	Initiative Type	Operational
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Business Opportunity

What business problem are we trying to solve?	<p>This investment is intended to provide the ability to support business growth of the Corporate Applications portfolio (corporate applications covers LLC business units such as Supply Chain, Finance, Human Resources, et al.). The annual server storage, capacity, and memory growth for the Corporate Application portfolio in 2020 was approximately 11 TB storage and 16 GB of memory across all environments (test and development). The portfolio memory and storage continues to grow on an annual basis; to ensure the platform and associated applications continue to function as intended, this investment is critical as it covers the costs for computing power, storage capacity, database availability and middle tier infrastructure</p> <p>Scope of technology associated with implementing the solution (in scope) includes the purchase of:</p> <ul style="list-style-type: none"> a) IBM layered software licensing on Power systems. b) additional CPU and memory on Power systems. c) RedHat software subscriptions for enterprise Linux environment d) VMware licenses, including but not limited to, VCloud and SRM. e) Microsoft Server licenses. f) Purchase additional storage racks and engines to accommodate for storage growth. g) IBM DB2, WebSphere, WebSphere portal and WebSphere MQ licenses. h) Oracle DB and necessary management packs, and options. i) F5 (load balancing) appliances and management tools. j) SQL licensing and management tools. k) Agile employee training program to close mindset and delivery gap.
What system or process is being affected?	EBS (SAP ERP) System and related add-ons
What functionality or capability is being provided?	The following functionality will be provided by implementing this project: Application Performance Monitoring, Infrastructure and Network Performance Monitoring and installation of computing and storage capacity and database availability.
What is the customer or employee value?	<ul style="list-style-type: none"> a) Delivering adequate computing power, storage capacity, and middleware support to enable business growth and operational excellence b) Enabling IT business operations, and performing to the prescribed metrics and business analytics KPIs c) Development and implementation of Agile/DevOps methodologies enabling increased agility and faster time to market
What alternatives have been considered?	alternative option would be to purchase hardware and licenses in an on-demand or ad-hoc manner. This would cause unnecessary delays in implementation, increasing the impact to the business and customer. A "do-nothing" approach would include halting all upgrades, enhancements, and replacements of hardware and the requisite licensing and would mean the IT infrastructure could not meet and support the demands of the business and customer computing

Key Objectives

1) Deliver new and consistent computing power, storage capacity, and middleware support to enable business growth and operational excellence
2)
3)
4)
5)
6)
7)
8)
9)
10)

Start Month	January	2022	Funding Source	ITS
Duration to Complete	Years	12		
End Month	January	2023		

IT Financial Impact

	Year 1	Year 2	Year 3	Year 4	Year 5	Total amount is sent for approval on all business cases
Capital	\$934,367	\$0	\$0	\$0	\$0	\$936,000
O&M	\$0	\$0	\$0	\$0	\$0	\$0
Total	\$934,367	\$0	\$0	\$0	\$0	\$936,000

Business Unit Costs

BU O&M	\$0	Trailing BU O&M Costs	\$0			
	Year 1	Year 2	Year 3	Year 4	Year 5	Total
OCM O&M	\$0	\$0	\$0	\$0	\$0	\$0



Executive Summary

Business Case Number	Business Case Name
DMND0001231	Production Growth

Stakeholders

Portfolio Category	Business Unit
Corporate Applications	Corporate Applications
Portfolio	Business Unit Director
Corporate Applications	Tony Bolda
Portfolio Manager	Business Unit SME
Tony Bolda	Vasantha L Inturi
Managed By	PPS
IT	200

Project Description

Investment Type	Initiative Type
Sustainment	Operational

What business problem or opportunity are we trying to solve?

For FY23-FY25: This business case represents the investment needed to support the business growth of the Corporate Applications portfolio (corporate applications covers LLC business units such as Supply Chain, Finance, Human Resources, et al.). The investment covers infrastructure assets for computing power, storage capacity, database availability and middle tier infrastructure and the definition / implementation of Agile methodologies. We expect the purchases to be spread, for the most part, throughout the year, with potential for some higher level of year-end need to support additional growth. List of Corporate Applications active Portfolio:
 SOTERIA 1.0 (On Premise)Corporate Services Fleet & Facility RPAQUESTFLIX - VIDEO DBON TRACKPeople FluentDEV - ATW/OPSENV/CEMRWSAP UPERFORMSAP SOLUTION MANAGER - BACK OFFICESAP JAVA DEVELOPMENT INFRASTRUCTUREGIFTS-OnlineFuel Force - Fuel Service NetSAFETY OBSERVATIONRICOH Intelligent Mail Delivery ServicesSAP Cloud Connector - EBSQuorumHoneywell EBI OurDTEsAP FIORISHOPGOODWILLSAP PROCESS ORCHESTRATORDB2 DATABASE CONNECTION MONITORWEBSPHERE BUSINESS INTEGRATIONPowerAdvocateSAP RouterKey ManagementENTERPRISE BUSINESS SERVICES - R/3 (SAP DTE2)SAP ENTERPRISE PORTALDTE KNOWSAP ENTERPRISE RESOURCE PLANNINGSAP GRC GOVERNANCE

What functionality or capability is being provided?

The following functionality will be provided by implementing this project:
 Key Objectives:
 Deliver new and consistent computing power, storage capacity, and middleware support to enable business growth and operational excellence
 Deliver a Agile/DevOps program to improve agility, collaboration, and speed to market for both IT and business focused outcomes.

Describe alignment of project to Business Unit Goal(s) and Strategy(ies).

Delivering adequate computing power, storage capacity, and middleware support to enable business growth and operational excellence. Enabling IT business operations and performing to the prescribed metrics and business analytics KPIs.



Define the Benefit/Value to the Organization, Customer, Employee.

a) Delivering adequate computing power, storage capacity, and middleware support to enable business growth and operational excellence b) Enabling IT business operations, and performing to the prescribed metrics and business analytics KPIs c) Development and implementation of Agile/DevOps methodologies enabling increased agility and faster time to market

How will you monitor and measure expected value?

Strategic Alignment: % improvement in core safety metric. Meeting MPSC commitments for financial, safety, and response to MPSC inquiries on time. Meeting other governing bodies commitments on time
 Employee Engagement: Reduction in pain points. Used by all employees. Improvement in efficiency
 Affordability: IT & BU productivity: hours freed up by process improvements in the system
 Reduction in inefficiencies due to supporting non-compatible products
 Operational Reliability: Financial and Supply Chain support during critical outages(Plant Outage, Storm)
 Foundational Capability: Expansion of capabilities. Applicability to other business units. Future efficiency gains

What alternatives have been considered?

Do Nothing is not an option. Applications performance and availability would be critically impacted. Failure to invest in the continued growth of the platform and associated application infrastructure would compromise functionality of the supported assets as database availability, CPU, server storage, etc. would be consumed and negatively impact performance.

Start Date	End Date	Shared Asset	Funding Source
2023-01-02	2025-12-31	Yes	IT

IT Costs

Type	FY23	FY24	FY25	Total
Capex	\$1,049,288	\$893,263	\$746,883	\$2,689,434
Opex	\$0	\$0	\$0	\$0
Total	\$1,049,288	\$893,263	\$746,883	\$2,689,434

BU Costs

Category	Term of Contract	BU O&M Cost
Business Unit		\$0
Cloud Usage Cost		\$0
Digital EXP Design Cost Est		\$0
Maintenance/Renewals		\$0
Organizational Change Management		\$0
Vendor Support & Licensing		\$0



Executive Summary

Business Case Number	Business Case Name
DMND0001490	Cloud Health and Safety

Stakeholders

Portfolio Category	Business Unit
Corporate Applications	Corporate Safety
Portfolio	Business Unit Director
Corporate Applications	Christopher M Sulewski
Portfolio Manager	Business Unit SME
Tony Bolda	De Prater
Managed By	PPS
MEP	100

Project Description

Investment Type	Initiative Type
Return-to-Health	Solutions Delivery - Cloud

What business problem or opportunity are we trying to solve?

Current DTE safety reporting systems are not integrated, and safety related metrics are predominantly lagging in nature. Moreover, incidents created in multiple systems, lack robust workflow engine, etc. DTE has too many hurdles in place for incident & near-miss tracking DTE stores pSIFs* in 3 different systems which create missed opportunities for catching leading indicators. DTE has systems housing sensitive employee data which do not utilize DTE defined security roles. The multiple systems are used throughout the corporation to capture, store and report safety information, these systems are not user friendly, preventing prompt and detailed trending and root cause analysis. Increase accuracy, sufficient details, timely reporting, and sharing for prompt compliance.



What functionality or capability is being provided?

The project scope will include the implementation of SAP EHSM Incident Management (IM) S/4 HANA. The implementation will involve the standard IM application along with a Fiori application with Dynamic Forms. Standard Dashboards in SAP Analytics Cloud will also be leveraged.

Several programs will be associated with Incident Management, including Incident, Near Miss, and Safety Observation Recording. Events can be captured online and on a mobile device. Events can be further processed, and an Investigation can be triggered, including the identification of root causes, and corrective actions.

Analytical dashboards have been requested as well. Some dashboards may be included in the standard S/4 HANA CDS view Fiori tiles that are embedded within EHS. Advanced analytics views may leverage SAP Analytics Cloud. Further details on the Dashboard scope follow.

Online Basic Incident Recording
Accessible from online for users who need to report an Incident. This simple one-page form will be used for quick entry of incidents / Incidents.

Rizing EHS Forms
Rizing will implement the Rizing EHS Forms mobile application which allows for simple online and offline entry of incidents. This will be used for Incidents, Near Misses, and Safety Observations. Fields can be derived from EHS Forms which will provide DTE with flexibility for data collection requirements.

Report Submission
Once an incident is submitted, an email notification is sent and the responsible manager will be able to view and process the event from their Incident Inbox / Queue.

Incident Processing
Once an Incident, Near Miss, or Safety Observation is submitted, it can be accessed for additional processing. This post-processing form is called the Online Incident Form (OIF). It has several standard tabs that may be used for processing. These include Basic Info, People, Assets, Financial Tracking, Risk Matrix, Investigation, Reports/Documents, and Tasks. Fields from the EHS Form can be viewed with a hyperlink on the incident record.

Investigation
An investigation can be conducted for Incidents, Near Misses, or Safety Observations. Users will be able to identify Root Causes, and additional investigation steps can be configured.

Internal and External Reporting
Regulatory Forms Templates for OSHA 300, OSHA 300A, and OSHA 301. They can be created, generated, stored, and accessed from within Incident Management. In some cases, Analytics can be leveraged to retrieve the desired information as well.

Corrective Actions
Corrective Actions can be identified, created, and tracked through Incident Management. This functionality applies to Incidents, Near Misses, and Safety Observations. Incidents can be closed after the completion of all associated investigation steps and corrective actions.

Analytics Review & Dashboards
EHS related analytics can be used to view summarized information related to Incident and Injury details. These leverage standard CDS views in S/4 HANA. Actual screens may vary. Standard Analytical dashboards and tiles will be leveraged. Dashboard CDS View tiles are available in S/4 HANA. Standard SAP Analytics Cloud story boards may also be used. The following requests will be reviewed during the design phase to determine requirements, feasibility, and recommended approach. An executive safety dashboard with legacy safety metrics will show safety metrics over time. The executive safety dashboard will incorporate safety metrics and KPIs with the ability to filter views based on organizational hierarchy. This will allow for multiple perspectives for managers across the organization, as well as different levels of metrics within the organizational hierarchy.

Describe alignment of project to Business Unit Goal(s) and Strategy(ies).

A fluid and comfortable accident reporting software encourages employment engagement, increases the accuracy of data collected, allows for proper care and help, increases the effectiveness of the investigation process, removes administrative, routine tasks, encourages Self-Service, provides a standardized message to the enterprise, streamlines training recommendations, increases Sharing lessons learned, provides insight on Corrective Action(s) Effectiveness, and reduces Injury and Accidents.



Define the Benefit/Value to the Organization, Customer, Employee.

Provide our employees a simple, single point of access for all safety related reporting and data analysis, intuitively designed to reduce training needs. The layered safety data analytics would provide leaders visibility to measurable changes in their safety KPIs through actionable safety data analysis tailored to their work group. A fluid and comfortable accident reporting software encourages employment engagement, increases the accuracy of data collected, allows for proper care and help, increases the effectiveness of the investigation process, removes administrative, routine tasks, encourages Self-Service, provides a standardized message to the enterprise, streamlines training recommendations, increases Sharing lessons learned, provides insight on Corrective Action(s) Effectiveness, and reduces Injury and Accidents.

- Reduce Lost Productivity (~\$0.3 million): Centralized CAPA (corrective and preventative action) system for all incident types to make remediation more streamlined.
- Repurpose Health and Safety Staff Time (~\$0.4 million): Reduction in manual work, and avoidable seeking and manipulation of data
- Reduce IT Support Costs (~\$1.5 million): IT Support Costs of application and interface support for the landscape of safety apps in use at DTE today

How will you monitor and measure expected value?

The layered safety data analytics would provide leaders visibility to measurable changes in their safety KPIs through actionable safety data analysis tailored to their work group.

What alternatives have been considered?

Reviewed migrating the custom developed in-house application from SOTeria 1.0 to SOTeria 2.0 cloud for incident response capabilities. Due to the complexity and integration with HR information, the migration of the custom developed option and cost of needed enhancements would be more expensive in the short term and year-over-year costs for maintenance. The SAP SOTeria solution is already integrated with the system's used to manage human resources information and meets DTE's needs for incident response with very little customization.

Start Date	End Date	Shared Asset	Funding Source
2024-01-02	2025-12-31	Yes	IT

IT Costs

Type	FY24	FY25	Total
Capex	\$2,517,981	\$582,504	\$3,100,485
Opex	\$101,688	\$99,947	\$201,635
Total	\$2,619,669	\$682,451	\$3,302,120

BU Costs

Category	Term of Contract	BU O&M Cost
Business Unit		\$0
Cloud Usage Cost		\$0
Digital EXP Design Cost Est		\$0
Maintenance/Renewals		\$0
Organizational Change Management		\$24,000
Vendor Support & Licensing		\$0



Executive Summary

Business Case Number	Business Case Name
DMND0001217	Core ERP Data Archiving

Stakeholders

Portfolio Category	Business Unit
Corporate Applications	DTE Corporate Services
Portfolio	Business Unit Director
Corporate Applications	Tony Bolda
Portfolio Manager	Business Unit SME
Tony Bolda	Murali Kaza
Managed By	PPS
IT	100

Project Description

Investment Type	Initiative Type
Return-to-Health	Infrastructure - On Prem

What business problem or opportunity are we trying to solve?

Over the last three years, the average data growth is ~ 1.1 terabyte of storage annually. The Core ERP platform is currently storing approximately nine terabytes of data which has an impact to how the asset functions, specifically slowing down month-end processing. Over the last three years, the month-end processing time has increased by ~40%. Data growth is being driven by several factors including: time, in which more transactional data, journal entries, etc. are stored as business processes proceed, growth of corporation -new companies being added to the DTE portfolio, and new applications and interfaces which require data from the Core system. When the ERP platform was implemented in 2007, these factors were known to be a future consideration, but the platform was sized properly for the first years of operation. We have reached the point where the size of the platform will hamper processing time, especially for heavy use, like the mandatory Financial Month-End close. We also need to perform data archiving to prepare for the move to SAP S/4 Hana and Unicode conversion to reduce the size of data required to be converted and stored in the new platform. This landscape strategy is defined in the DTE IT Architectural roadmap.

What functionality or capability is being provided?

Ability to archive data to reduce load on SAP ERP systems, avoid performance degradation, and meet legal archiving requirements at the same time. In addition, the ability to purge Database tables which are not subject to DTE retention policies.

Describe alignment of project to Business Unit Goal(s) and Strategy(ies).

Project aligns with goals to maintain high performing systems, meet legal requirements to store data per the required time for retrieval. Also, maintain the asset health and ensure performance and ability to expand or support future enhancements. We require that the solution meet DTE Legal departments requirements for archiving by types of data stored in the Core ERP system.

Define the Benefit/Value to the Organization, Customer, Employee.

The result of this investment will protect asset health of the platform, improve performance and reduce month end processing time by 40% for end users and key business processes, reduce cost to operate by reducing disk space (disk space costs ~10k annually to increase database size by 1TB) and simplify future strategic platform projects by reducing the amount of data to be migrated



How will you monitor and measure expected value?
 Measuring the difference in month-to-month end time processing as well the cost to operate by reducing disk space

What alternatives have been considered?
 The alternative to this investment would be to look for other industry solutions for data archiving which would require us to replace the entire platform, as the SAP data archiving module is the only solution compatible with the platform. This solution is cost prohibitive and would not align with the Platform Strategy as defined in the DTE Five-Year IT Plan.

Start Date	End Date	Shared Asset	Funding Source
2024-01-02	2024-12-01	Yes	IT

IT Costs

Type	FY24	Total
Capex	\$750,007	\$750,007
Opex	\$149,936	\$149,936
Total	\$899,943	\$899,943

BU Costs

Category	Term of Contract	BU O&M Cost
Business Unit		\$0
Cloud Usage Cost		\$0
Digital EXP Design Cost Est		\$0
Maintenance/Renewals	Annual	\$39,600
Organizational Change Management		\$0
Vendor Support & Licensing		\$0



Executive Summary

Business Case Number	Business Case Name
DMND0001230	Source to Pay (S2P) Transformation

Stakeholders

Portfolio Category	Business Unit
Corporate Applications	Supply Chain
Portfolio	Business Unit Director
Corporate Applications	Jaspreet Singh
Portfolio Manager	Business Unit SME
Tony Bolda	Madhup Singh
Managed By	PPS
MEP	100

Project Description

Investment Type	Initiative Type
Return-to-Health	Solutions Delivery - Cloud

What business problem or opportunity are we trying to solve?

SAP has not invested in their current purchase to pay (P2P) functionality Supplier Relationship Manager (SRM) product in nine years. The purchasing business process and system required to support our customer commitments, storm activities and power distribution and generation operations are relying on old technologies such as email, fax and manual created reports or dashboards to measure and maintain the materials and services to keep our organization running. In 2027, the SAP support for our current Enterprise Resource Planning Central Component (ECC) financial system and SRM purchasing system will expire. The two-year effort to replace the purchase to pay system and implement modernized process should be completed prior to the upgrade of the SAP ECC financial to reduce risk. Many of the same resources are required for replacing and upgrading both systems from the business and their support teams. The new Source to Pay/Purchase to Pay technology should be in place prior to implementing S4 Hana the replacement for SAP ECC.

What functionality or capability is being provided?

A fully integrated solution to manage the purchase to pay transactions in the following areas. External portals that support bidding to contract processes Integrated order tracking and delivery estimates. Greater visibility into material demand, availability and location for work scheduled from Maximo Flexible reporting tools and dashboards Updated integration with Maximo for work order fulfillment. Reduction in administrative efforts related to manual integration of purchasing activities across multiple applications. Improved throughput of vendor management, quality assurance for services and materials and diversity spend outreach. Modernize end user technology experience, integrating mobile capabilities.

Describe alignment of project to Business Unit Goal(s) and Strategy(ies).

DTE will spend billions of dollars over the 5-10 years to support storms, periodic outages, gas and electric distribution system upgrades. DTE requires a state-of-the-art Source to Pay technology solution to procure material and services in a timely and efficient manner. This initiative will help with the efforts to replace the current on-prem P2P system and other disparate supply chain applications with an integrated Source-to-Pay system using cloud-based technology.



Define the Benefit/Value to the Organization, Customer, Employee.

Potentially improve material availability and increase payment efficiencies. Vendor portal will allow masterdata efficiencies in that the vendor can update their own data, onboard and make changes more readily, and increases privacy of vendor information. PO's and contracts will also move through the portal streamlining the process. Portal will provide space for terms and conditions negotiations, drawings, specifications, and all other information to flow through a central repository. Enhance analytics and visualization for reporting capabilities. Enhanced user experience with a cloud-based solution and with better mobile and reporting capabilities.

How will you monitor and measure expected value?

Monitor through Improved operational metrics (ORM) which include cost per purchase order and cycle times. Detailed cost benefit analysis of cost to achieve (IT, Supply Chain, and other costs) for implementing new cloud-based solution and estimated cost savings and benefits.

What alternatives have been considered?

Investment into the current SRM application is no longer on the roadmap for our ERP provider SAP. In 2025 DTE will be beginning the process of replacing the ERP system to the supported SAP cloud solution, S4 Hana. The existing SRM application currently in place will not be supported with standard integrations to S4 Hana and as a result needs to be replaced with a different solution that meets DTE needs. Continuing to use the SRM application is no longer an option for DTE. Changing the purchase to pay process and the ERP foundational processes at the same time is a risk to the success of operations and the organization. Both efforts will rely on the same business unit experts and IT resources throughout the company. A staggered replacement approach will allow DTE to avoid risks.

Alternatives considered:

1. Do nothing - using SRM unsupported would be a catastrophic risk to the business and the organization that we are unwilling to take. If it fails without the resources to fix it, we encounter enterprise-wide work stoppage.
2. Upgrade to SAP Ariba
3. Market test - send RFP to market leaders to ascertain best solution providing the most value per dollar.

Team has chosen the third alternative. RFP has been sent to the four industry leaders - Ariba, Coupa, Ivalua, Jaggaer and are expecting to get bid in by end of May 2023.

UPDATE 10/31/23- After receiving proposals from different vendors, attending demos, reviewing intensively with architecture and supply chain, team has decided to select Ariba as the SRM replacement. Decision has not been announced to the organization yet, just Supply Chain and IT Leadership.

Start Date	End Date	Shared Asset	Funding Source
2024-09-01	2026-12-31	Yes	IT



IT Costs

Type	FY24	FY25	FY26	Total
Capex	\$0	\$2,636,792	\$2,746,192	\$5,382,984
Opex	\$0	\$297,240	\$71,231	\$368,471
Total	\$0	\$2,934,032	\$2,817,423	\$5,751,455

BU Costs

Category	Term of Contract	BU O&M Cost
Cloud Usage Cost		\$0
Digital EXP Design Cost Est		\$0
Maintenance/Renewals		\$0
Organizational Change Management		\$512,200
Vendor Support & Licensing	Annual	\$1,613,000

Executive Summary

Business Case ID	BCD-CA-21-002	Business Case Name	Powerplan Upgrade
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Stakeholders

IT Portfolio	Corporate Apps	Business Unit	Controller's Organization
IT Sub-Portfolio	Corporate Apps	Business Unit Sponsor	Tracy Myrick
IT Director	Christine Garber	Business Units Impacted	Electric
Managed by	MEP		

Project Description

Project Category	Return-to-Health	Innovation?	No
Project Type	Solutions Delivery - On Prem	Strategic Fit	Superior & Sustainable Financial Performance

Business Outcome

- Upgrade PowerPlan to the latest release in order to maintain support and expand interface functionality.
- Improve productivity through improved reliability and performance.
- Increased visibility into CWIP backlog.
- Eliminate ARO (Asset Retirement Obligation) work-arounds, and improve the Month-End Close, retirement processes and cost element updates.

Key Objectives

- 1) Technical Upgrade of PowerPlan.
- 2) Eliminate ARO (Asset Retirement Obligation) work-arounds.
- 3) Upgrade Property Tax component.
- 4) Eliminate work-arounds for known defects in the current version.
- 5) Increase data functionality from Maximo to PowerPlan. (e.g., dates and class codes).
- 6) Upgrade current Windows and Oracle to supported versions.
- 7) Archive data to improve performance.
- 8) Increase number of automated review for closing configurations (ARCS).
- 9)
- 10)

Start Month	April	2021	
Duration to Complete	0	Years	13 Months
End Month	May	2022	

Funding Source	ITS
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Financial Impact

	Year 1	Year 2	Year 3	Year 4	Year 5	Total
Capital	\$2,000,000	\$300,000	\$0	\$0	\$0	\$2,300,000
O&M	\$190,000	\$30,000	\$0	\$0	\$0	\$220,000
OCM	\$80,000	\$40,000	\$0	\$0	\$0	\$120,000
Total O&M	\$270,000	\$70,000	\$0	\$0	\$0	\$340,000
Total	\$2,270,000	\$370,000	\$0	\$0	\$0	\$2,640,000

Hardware/Software/ Cloud	Year 1	Year 2	Year 3	Year 4	Year 5	Total
Capital	\$220,570	\$32,959	\$0	\$0	\$0	\$253,529
O&M	\$4,350	\$650	\$0	\$0	\$0	\$5,000

BU O&M	\$14,000	Incremental Costs	\$1,400
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Executive Summary

Business Case ID	BCD-CA-22-012	Business Case Name	SOTeria 2.0
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Stakeholders

IT Portfolio	Corporate Applications	Business Unit	Corporate Safety
IT Sub-Portfolio	Corporate Applications	Business Unit Director	Christopher M. Sulewski
IT Director	Christine Garber	Business Unit SME	Denise Prater
Managed by	IT	Business Units Impacted	Electric

Project Description

Initiative Category	IT Enhancements	Initiative Type	Solutions Delivery - Cloud
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Business Opportunity	
What business problem are we trying to solve?	Corporate Safety owns the SOTeria 2.0 system and needs a developer to support the maintenance and production support requests for reporting, form creation and dashboard changes and the ever-changing needs of our Safety culture. The SOTeria system will include the migration and enhancement of near miss and good catch observations and tools to perform the anatomy of a safety event. These capabilities will be migrated from a legacy system that has reached end of life, as it was written in a programming language that is obsolete, no longer supported, and complex to maintain. We will further address increased safety requirements regarding data retention requirements and while increasing reporting and data visualization capabilities.
What system or process is being affected?	The affected asset is the Soteria Safe Worker Observations (SWO) which is our Corporate Safety Tracking system in which employees report various activity related to safe operation, referred to as SWOs.
What functionality or capability is being provided?	Upgrades to the next version, Soteria 2.0, provides a Cloud based system and will simplify the collection, tracking, and analysis of safety data gathered by company leadership through targeted electronic SWOs.
What is the customer or employee value?	This observation data along with a better way to identify improvement opportunities is a key component of the company's ability to drive worker safety. The SOTeria application drives proactive inspection, discussion, and reporting of safe work practices, as leading indicators of potential unsafe situations and injuries. By identifying unsafe work practices, the company can implement corrective actions at both the local level and Enterprise level, depending on the extend of condition, and reduce the potential for on-the-job injuries.
What alternatives have been considered?	There is an alternative to making this investment which is to continue running the system as is with no changes to business processes and no system upgrades. This approach risks asset health and introduces risk to asset availability and prevents updates to critical business processes, all of which are not recommended.

Michigan Public Service Commission
 Executive Summary
 DTE Electric Company
 IT Business Case Executive Summaries

Case No : U-21534
 Exhibit : A-24
 Schedule: N1
 Witness: P. Sharma

Key Objectives	
1)	Key elements, such as carrying over new near/miss, good/catch form, will be carried over from Soteria 1.0 to Soteria Safe Worker Observations 2.0 (SWO) as per requirements.
2)	Reports are easy to produce and provide up-to-date correct data i.e., leader reporting relationship
3)	Develop dashboards, graphs and reports to create key and critical safety metrics.
4)	Developer will maintain system health
5)	Add additional functionality to reflect recent need to address safety considerations for employees working from home.
6)	
7)	
8)	
9)	
10)	

Start Month	January	2022
Duration to Complete	Years	11 Months
End Month	December	2022

Funding Source	ITS
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IT Financial Impact						Total amount is sent for approval on all business cases.
	Year 1	Year 2	Year 3	Year 4	Year 5	
Capital	\$246,275	\$0	\$0	\$0	\$0	\$250,000
O&M	\$51,958	\$0	\$0	\$0	\$0	\$50,000
Total	\$298,233	\$0	\$0	\$0	\$0	\$300,000

Business Unit Costs						
BU O&M	\$0		Trailing BU O&M Costs		\$18,000	
	Year 1	Year 2	Year 3	Year 4	Year 5	Total
OCM O&M	\$0	\$0	\$0	\$0	\$0	\$0



Executive Summary

Business Case ID	BCD-CA-22-001	Business Case Name	SuccessFactors Program
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Stakeholders

IT Portfolio	Corporate Applications	Business Unit	Human Resources
IT Sub-Portfolio	Corporate Applications	Business Unit Director	Christopher Hoosang
IT Director	Christine Garber	Business Unit SME	Stephen Owsley
Managed by	IT	Business Units Impacted	Electric

Project Description

Initiative Category	Strategic	Initiative Type	Solutions Delivery - Cloud
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Business Opportunity

What business problem are we trying to solve?	In today's environment, the HR process to internally transfer or terminate an employee is managed outside of the SuccessFactors platform and is not tied to the existing employee records which results in HR being unable to monitor process timing, number of employees impacted, etc. SuccessFactors Cross-board solution will utilize existing SuccessFactors tools, including role-based permissions, business rules and the Employee Central data model which will integrate Onboarding with the Employee Central hiring and leaving processes to improve process efficiency, quality and reduce administrative workload for HR.
What system or process is being affected?	SuccessFactors Suite of Onboarding (hiring), Offboarding (termination) and Crossboarding (onboarding for employee internal transfers)
What functionality or capability is being provided?	SuccessFactors Cross-board solution will provide the capability to manage role-based permissions, business rules and the Employee Central data model. This capability avoids redundancy in implementation and maintenance. Additionally, the Onboarding 2.0 module will provide data awareness in a single platform approach. This capability provide an intuitive experience for all users from the process administrator to the talent acquisition team to the new employee. It helps to reduce employee turnover and educate new hires quickly about the company and their new role in the workplace.
What is the customer or employee value?	Implementation of this module will integrate onboarding, offboarding, and cross-boarding with the existing employee central processes and will provide improved process efficiency and compliance, faster time to employee contribution, increased employee engagement, improved employee socialization, higher employee retention rate. Based on input from our vendor partner, we can anticipate improvements in voluntary turnover – the average of 9 (avg) to 6 (top 25%) annually; Improve percentage of external workforce that go through crossboard process from 66 (avg) to 100 (top 25%); Improve time to full productivity for new hires in days from 61 (avg) to 30 (top 25%).
What alternatives have been considered?	The alternative to this investment is to do nothing and continue to hire, terminate and transfers transactions in Employee Central and replicate data to SAP. This is not a viable option as it will not provide the opportunity to optimize the crossboard processes within HR and will continue to incur manual work and the associated time to manage.

Key Objectives

- 1) Manage Legal And Compliance Documentation With Onboarding
- 2) Assign An Onboarding Buddy
- 3) Support Employee Terminations With A Formalized Offboarding Process
- 4) Pro-Actively Measure And Manage Employee Experience During On- And Offboarding Processes
- 5) Use Mobile Onboarding
- 6)
- 7)
- 8)
- 9)
- 10)

Start Month	January	2022
Duration to Complete	Years	6 Months
End Month	July	2022

Funding Source	ITS
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IT Financial Impact

	Year 1	Year 2	Year 3	Year 4	Year 5	Total
Capital	\$196,518	\$0	\$0	\$0	\$0	\$200,000
O&M	\$43,888	\$0	\$0	\$0	\$0	\$40,000
Total	\$240,406	\$0	\$0	\$0	\$0	\$240,000

Total amount is sent for approval on all business cases.

Business Unit Costs

BU O&M	\$0	Trailing BU O&M Costs	\$0
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	Year 1	Year 2	Year 3	Year 4	Year 5	Total
OCM O&M	\$0	\$0	\$0	\$0	\$0	\$0



Executive Summary

Business Case Number	Business Case Name
DMND0001236	SuccessFactors EC Shared Services

Stakeholders

Portfolio Category	Business Unit
Corporate Applications	Human Resources
Portfolio	Business Unit Director
Corporate Applications	Christopher P HooSang
Portfolio Manager	Business Unit SME
Tony Bolda	Tye Owsley
Managed By	PPS
IT	5.1

Project Description

Investment Type	Initiative Type
IT Enhancements	Solutions Delivery - Cloud

What business problem or opportunity are we trying to solve?

The current state is there is multiple channels to get Human Resources assistance, each with various levels of effectiveness. Many inquiries begin with the Client Relation Consultants (CRC) who then need to research answers or redirect to a different Human Resource source for assistance. Employee Central Shared Services will allow for a single one stop shop to resolve issues and to track resolution and will increase greater employee satisfaction where they will have their needs met. Human Resource's will be more productive and can focused on more added valued work. The problem is difficult to quantify because there is currently no standard or centralized method of tracking inquiries from all sources. Therefore, Employee Central Service Center will help DTE Energy provide new ways of delivering HR services: Provide employees with easier access to answers to their Human Resource questions and also provides agents with immediate, secure access to employee data and relevant Human Resource policy information to resolve queries quickly "

What functionality or capability is being provided?

The successful launch of this Success Factors Employee Central Shared Service with "Ask HR" (which is a sub product inside Employee Central Service Center) and Jam repository will provide a one stop shop for improving Human Resource response time to our employees. An interactive knowledge base will be built, allowing for quick Tier 0 resolution for commonly asked Human Resource questions, a structure Tier 1, Tier 2 and Tier 3 helpdesk support for Human Resource issues with a tracking system will be implemented. *Deliver a ticketing system, with queues and workflows integrated with SuccessFactors *Secure access of employee profiles from Employee Central to service agent *Integration with SuccessFactors Employee Central for employee Data *Configuration of the ASK HR app *Integration with SAP JAM knowledge Base and structural design of the knowledge base *Integration with ASK HR app *Integration with Outlook

Describe alignment of project to Business Unit Goal(s) and Strategy(ies).

The EC Shared Services effort enables Human Resources to deliver on our new Operating Model's strategic goal of distinctive service excellence and growth.

Define the Benefit/Value to the Organization, Customer, Employee.

The system will eliminate the need to speak to a representative or help desk person. The employees will be able to access an interactive knowledge base to quickly receive answers to their HR questions.



How will you monitor and measure expected value?

Project Prioritization Scoring Criteria: Metric Impacted: Identify the metric and indicate the expected % change (the positive metric movement compared to if the project is not implemented). One Key Output Measure and Expected % change is required to be identified in any category. Key Output Measure (Metrics Affected) Scoring Values Definition of Metric Impacted Strategic Alignment Current State- No Current Baseline Metric Reduction in pain points % improvement in efficiency % improvement in Gallup scores Target State- 20% improvement in efficiency 6 Customer Experience Current State- 48hrs response time to requests cycle time, customer satisfaction survey, first contact resolution, system down time Internal customer include: all employees and contractors Target State- 50% improvement in response time 6 Employee Engagement Current State- 48hrs response time to requests 50% reduction in response time from 48 hrs to 24 hrs Target State- 50% improvement in response time 6 Affordability Current State- 37,000 administrative hours per year # of Hours freed up for HR CRC employees (~2 FTE) Efficiency improvement for front line supervisors and other leaders who interact with HR Target State- 15% reduction in HR administrative activities 6 Cost/Benefit Current State- No Current Baseline Metric Efficiency gains with administrative activities, workflows, leader activities Target State- 10% improvement in efficiency 3 Operational Reliability Current State- human errors - manually responding to questions Errors occur due to variation between CRC's. Will automating responses from single source of information will improve quality (consistent responses to inquiries). Current state and target = TBD Target State- improvement in quality (TBD) 3 Foundational Capability Current State- No Current Baseline Metric Efficiency gains with administrative activities, workflows, leader activities, IT system integrations Target State- 10% improvement in efficiency 3

What alternatives have been considered?

If we do nothing, we would be unable to stand up a HR Shared Services organization for the company. Without EC Shared Services organization, employees would have to contact HR personnel directly which is inefficient to the employee and ineffective for HR. Also, having EC Shared Services enables the HR CRC's to be more productive and gives them an opportunity to produce more value-added work.

Start Date	End Date	Shared Asset	Funding Source
2023-01-02	2023-12-01	Yes	IT

IT Costs

Type	FY23	Total
Capex	\$309,914	\$309,914
Opex	\$30,205	\$30,205
Total	\$340,118	\$340,118

BU Costs

Category	Term of Contract	BU O&M Cost
Business Unit		\$117,000
Cloud Usage Cost		\$0
Digital EXP Design Cost Est		\$0
Maintenance/Renewals		\$0
Organizational Change Management		\$156,000
Vendor Support & Licensing		\$160,000



Executive Summary

Business Case Number	Business Case Name
DMND0001448	Enhanced Document Management Capability Projects

Stakeholders

Portfolio Category	Business Unit
Corporate Applications	Corporate Applications
Portfolio	Business Unit Director
Corporate Applications	Tony Bolda
Portfolio Manager	Business Unit SME
Tony Bolda	Matthew J Wagner
Managed By	PPS
IT	4.2

Project Description

Investment Type	Initiative Type
Strategic	Solutions Delivery - On Prem

What business problem or opportunity are we trying to solve?

With the implementation of our new document management system (Documentum, 2022), there is a case for change proposing to address gaps identified by the Plant & Field (P&F) Document Management Governance Board led by business units (BU's) to define an aligned strategy in how documents are received, processed, reviewed, approved, stored, retrieved, and eventually purged.

What functionality or capability is being provided?

With a defined document management strategy that spans across BU's, organizations could expect to see benefits such as productivity and efficiency improvements, reduction in operating costs, higher team engagement and elevated protection and management of critical information.

Key functions and capabilities are:

- Stabilize System
- Centralized Record Management
- Document Governance
- Align Core Business Processes with Industry Standards
- Migrate to D2
- Maximo Work Management
- Media files from EZMax Mobile

- Automate Workflows
- Streamline Searches
- Enable Documentum Mobile access
- Business Continuity Plan (build in DR)
- Bulk upload of scanned images
- Watermarks
- Media File storage
- BCSI Enhancements
- Integrations (CRA, ClickSoft)

Describe alignment of project to Business Unit Goal(s) and Strategy(ies).



This effort aligns with our Employee Engagement priority by providing transparent access to asset maintenance documents for end-users at the point of activity. This also aligns with safety by providing end-users the most up-to-date information and configuration of the DTE assets they maintain, providing a safer work experience at the point of activity. Companies that operate in top decile of asset maintenance pillar engage in these types of TQM (Total Quality Management) efforts, which aligns with our Operational Excellence priority. Enhancing and streamlining our records retention policies and practices reduces DTEs exposure to operational risk.

Outcomes expected which align with Business Unit Goals:

- Highly reliable application and architecture
- Simple and supportable code base
- Industry-best business functions
- Secure & Compliant data storage and management
- Upgradable format to support future growth

Define the Benefit/Value to the Organization, Customer, Employee.

Defining a common document management strategy that can span across all P&F BU's and addresses gaps in how documents are received, processed, reviewed, approved, stored, retrieved, and eventually purged.

This program will significantly reduce the frustration and pain points our plant and field users experience on a daily basis while they search for documents on DTE assets. These changes will impact all plant and field employees in Fossil Generation, Renewables, DO, and Gas. We will use a qualitative survey to engage with our stakeholders and measure their responsiveness to the system change. Stakeholder survey prior to and post system upgrade to gage employee engagement. Expected increase of 75% in user satisfaction.

Expected time savings within the FosGen business unit alone are estimated at 220,000 man-hours a year. These efficiency gains are expected to be achieved by all business department users. This reduction results in a minimal annual waste reduction of 3.3 million dollars.

All priorities that were defined for this project were done so in a cross-functional manner. The deliverables from this project will be leveraged by multiple business units and departments across DTE. These changes will impact all plant and field employees in Energy Supply, DO, and Gas. Metric: Increase of unique number of users logging into the system by 50%

How will you monitor and measure expected value?

We will use a qualitative survey to engage with our stakeholders and measure their responsiveness to the system change. Stakeholder survey prior to and post system upgrade to gage employee engagement. Expected increase of 75% in user satisfaction.

What alternatives have been considered?

We are enhancing the capabilities of a new system. We considered outsourcing this effort, but it was cost preventative and we have the IT skillset in-house to accomplish the outlined project goals.

Start Date	End Date	Shared Asset	Funding Source
2024-01-02	2026-12-31	Yes	IT



IT Costs

Type	FY24	FY25	FY26	Total
Capex	\$1,212,974	\$2,957,979	\$452,571	\$4,623,525
Opex	\$250,952	\$376,988	\$407,550	\$1,035,491
Total	\$1,463,927	\$3,334,967	\$860,122	\$5,659,016

BU Costs

Category	Term of Contract	BU O&M Cost
Business Unit		\$0
Cloud Usage Cost		\$0
Digital EXP Design Cost Est		\$0
Maintenance/Renewals		\$0
Organizational Change Management		\$0
Vendor Support & Licensing		\$0



Executive Summary

Business Case Number	Business Case Name
DMND0001617	Organizational Management Optimization

Stakeholders

Portfolio Category	Business Unit
Corporate Applications	Human Resources
Portfolio	Business Unit Director
Corporate Applications	Christopher P HooSang
Portfolio Manager	Business Unit SME
Tony Bolda	Tye Owsley
Managed By	PPS
IT	2.45

Project Description

Investment Type	Initiative Type
Strategic	Solutions Delivery - Cloud

What business problem or opportunity are we trying to solve?

In 2017 the company implemented Success Factors (SF) and integrated the solution with SAP on Premise. In order to keep cost down for the initial implementation in 2017 the replication of data between the two systems was required to be completed manually. Since 2017 this has required 1 Full Time Equivalent dedicated to manual replication and has impacted the productivity of HR staffing in replication downstream process impacts. In order to optimize operating cost and meet customer affordability targets the Company must invest in streamlining all business processes. In response to these challenges, this project will optimize organization management process, removing the manual replication requirements resulting in 100% reduction , 30% efficiency in downstream process improvements and achieve productivity gains of 2 full time equivalents.

What functionality or capability is being provided?

This project will build a better Org Management and HR master data replication between the two systems.

Describe alignment of project to Business Unit Goal(s) and Strategy(ies).

The Org management effort enables Human Resources to deliver on our new Operating Model's strategic goal of distinctive service excellence and growth.

Define the Benefit/Value to the Organization, Customer, Employee.

The solution will ensure a reduction in time spent in working in two HR systems, SAP On Premise (SAP) and Success Factors (SF). Success factors is the system of record, but due to inconsistencies between the two systems, dual entry is often required. Current state key output measure is 100% HR FTE equivalent dedicated to manual work due to replication between SAP and SuccessFactors. Additionally, with this solution there is a 30% improvement in efficiency of HR FTE equivalents, and they will be able to focus on more value-added work. Finally, there will be a productivity gain of 2 FTE equivalents as a result in the efficiency gains due to reduction in maintaining both systems.



How will you monitor and measure expected value?

Current state key output measure is 100% HR FTE equivalent dedicated to manual work due to replication between SAP and SuccessFactors. Additionally, with this solution there is a 30% improvement in efficiency of HR FTE equivalents, and they will be able to focus on more value-added work. Finally, there will be a productivity gain of 2 FTE equivalents as a result in the efficiency gains due to reduction in maintaining both systems.

What alternatives have been considered?

The alternative is to do nothing. If this solution is not implemented, we have 100% of our FTE'S doing manual work nor will we be able to implement further process improvements.

Start Date	End Date	Shared Asset	Funding Source
2024-01-09	2024-10-02	Yes	IT

IT Costs

Type	FY24	Total
Capex	\$500,671	\$500,671
Opex	\$56,474	\$56,474
Total	\$557,144	\$557,144

BU Costs

Category	Term of Contract	BU O&M Cost
Business Unit		\$0
Cloud Usage Cost		\$0
Digital EXP Design Cost Est		\$0
Maintenance/Renewals		\$0
Organizational Change Management		\$0
Vendor Support & Licensing		\$0



Executive Summary

Business Case Number	Business Case Name
DMND0001785	SAP Employee Central Payroll

Stakeholders

Portfolio Category	Business Unit
Corporate Applications	Treasury Operations
Portfolio	Business Unit Director
Corporate Applications	Kenneth R Bridge
Portfolio Manager	Business Unit SME
Tony Bolda	Jessica Spencer
Managed By	PPS
MEP	4.5

Project Description

Investment Type	Initiative Type
Strategic	Solutions Delivery - Cloud

What business problem or opportunity are we trying to solve?

SAP is mandating that the current SAP ERP application be replaced with their SAP S4 Hana application by 2027. SAP S4 Hana does not have a built-in Payroll System. Therefore, SAP Employee Central Payroll, a nine month initiative, needs to start in 2024 to avoid resource issues and a bottleneck of applications accumulating prior to moving to S4 Hana. Additionally, the Time and Attendance Application, another prerequisite implementation for S4 Hana has to be started in 2023 before SAP Employee Central Payroll can be started. A time entry system is a prerequisite for a payroll system.

What functionality or capability is being provided?

DTE Energy will invest in the SAP Employee Central Payroll cloud solution and will replace the current SAP ERP on-premises solution implemented in 2007. Additional benefits include improved usability and end-user experience, supports IT strategies to move on-premises assets to the cloud, and incorporate industry-best practices for IT and business processes.

Describe alignment of project to Business Unit Goal(s) and Strategy(ies).

The project aligns to DTE business unit goals and strategies via the following:
 ITS Strategy: Supports IT goals / strategies to move on-premises assets to the cloud, and incorporates industry-best practices for IT and business processes.
 Payroll Strategy: Supports Treasury goals / strategies to reduce administrative tasks, errors and re-work.
 Increases process reliability: This will be a state-of-the art, cloud-based, payroll system.



Define the Benefit/Value to the Organization, Customer, Employee.

DTE Energy will invest in the SAP Employee Central Payroll cloud solution and will replace the current SAP ERP on-premises solution implemented in 2007. Based on industry standards, implementing SAP Employee Central Payroll will improve payroll accuracy and streamline payroll processing. Additional benefits include improved usability and end-user experience, integration with existing systems, supports IT strategies to move on-premises assets to the cloud, and incorporates industry best practices for IT and business processes. The SAP Employee Central Payroll application will be the system of record for Payroll Management. The cloud-based SAP Employee Central Payroll application will integrate with multiple internal and external interfaces.

How will you monitor and measure expected value?

We will leverage payroll statistics to improve the following:
Ensure compliance with payroll rules and regulations 100% of the time. Eliminate risks for unsupported environments. Reduce exit time (time to begin posting of payroll). Reduce non-controllable errors (i.e. system errors)
SAP Employee Central Payroll software will automate and accelerate processing, reduce risk, and simplify payroll management.
1) Employee Engagement - Improves employee engagement by reducing Payroll Help Desk inquiries and questions: (A) Current State: Averaging 350 to 400 bi-weekly Payroll Help Desk inquiries/questions. (B) Target State: Reduce bi-weekly Payroll Help Desk inquiries to average 300 (~25% reduction based on 400 Payroll Help Desk inquiries).
(2) Operational Excellence - Reduces Payroll Cycle Time (A) Current State: Averaging 21 hours to process / run payroll. (B) Target State: Reduce time to process / run payroll to 17 to 18 hours (~25% based reduction on 17 hour to process / run payroll). Will save \$75k per year so Payroll employees can do other work.

What alternatives have been considered?

Do nothing / continue current process - This is not being considered because of support and compliance issues. SAP is mandating that DTE's current SAP ERP application (includes time entry, payroll, benefits, and compensation) be replaced with their SAP S4 Hana application by 2027. Utilize non SAP products - DTE ITS and Human Resources previously implemented SAP Success Factors and have chosen SAP products for Human Resource Capital Management (HCM). Utilizing SAP products for the entire HCM program (Core HR, talent management, data collection, scheduling, and timekeeping) across the Company will minimize interface and data integration problems.

Start Date	End Date	Shared Asset	Funding Source
2024-09-02	2026-06-30	Yes	IT



IT Costs

Type	FY24	FY25	FY26	Total
Capex	\$0	\$863,982	\$433,070	\$1,297,052
Opex	\$0	\$30,438	\$22,615	\$53,053
Total	\$0	\$894,420	\$455,685	\$1,350,105

BU Costs

Category	Term of Contract	BU O&M Cost
Business Unit		\$0
Cloud Usage Cost		\$0
Digital EXP Design Cost Est		\$0
Maintenance/Renewals		\$0
Organizational Change Management		\$275,185
Vendor Support & Licensing		\$0



Executive Summary

Business Case Number	Business Case Name
DMND0001619	Talent System Optimization

Stakeholders

Portfolio Category	Business Unit
Corporate Applications	Human Resources
Portfolio	Business Unit Director
Corporate Applications	Christopher P HooSang
Portfolio Manager	Business Unit SME
Tony Bolda	Tye Owsley
Managed By	PPS
IT	3.3

Project Description

Investment Type	Initiative Type
Strategic	Solutions Delivery - Cloud

What business problem or opportunity are we trying to solve?

We currently have our IT systems set up to work independently of one another, not connecting an individual's skills and competencies with learning, career pathing, or any other talent process. In today's competitive talent environment, it is important for the company to invest in talent manage because employees expect a clear development plan for their career aspirations. The optimization of the system will be more effective in attracting talent. With the system fully optimized, the Success Factors platform will be able to provide this functionality. There is no quantitative measure of the current impact of this problem. There is no current quantitative measure to demonstrate the impact this problem creates.

What functionality or capability is being provided?

The following functionality will be provided: Skills and Competency Mapping to LMS, Career Pathing, Mentoring matchmaking, job description management, internal job board and AI for career development.

Describe alignment of project to Business Unit Goal(s) and Strategy(ies).

Human Resources to deliver on our new Operating Model's strategic goal of distinctive service excellence and growth.

Define the Benefit/Value to the Organization, Customer, Employee.

The primary benefit will be employee engagement, skill and competency inventory and the increase of awareness for developmental opportunities for employees. There are currently no quantitative metrics. The metrics will be developed as we assess current state for employee development. These metrics will be built in the system, allowing for decision makers to have the information at their fingertips.

How will you monitor and measure expected value?

The following HR measurements will be used to monitor the expected value: Critical role preparedness, career mobility, employee engagement, Job descriptions in system. Expected value will be seen in 2024.

What alternatives have been considered?

If we do nothing, we continue to provide a desperate employee development system and it will inhibit our ability to attract and retain quality employees. This can be countered by increasing headcount to manually track and recommend opportunities for employees that would soon grow cost inhibitive.



Start Date	End Date	Shared Asset	Funding Source
2025-01-03	2026-12-31	No	IT

IT Costs

Type	FY25	FY26	Total
Capex	\$87,138	\$142,833	\$229,972
Opex	\$28,338	\$31,727	\$60,065
Total	\$115,477	\$174,560	\$290,036

BU Costs

Category	Term of Contract	BU O&M Cost
Business Unit		\$0
Cloud Usage Cost		\$0
Digital EXP Design Cost Est		\$0
Maintenance/Renewals		\$0
Organizational Change Management		\$200,525
Vendor Support & Licensing		\$0



Executive Summary

Business Case Number	Business Case Name
DMND0003095	Transparency Electric Data (TED)

Stakeholders

Portfolio Category	Business Unit
Corporate Applications	Public Affairs
Portfolio	Business Unit Director
Corporate Applications	Andrew J Coulouris
Portfolio Manager	Business Unit SME
Tony Bolda	Ali M Berri
Managed By	PPS
MEP	2.2

Project Description

Investment Type	Initiative Type
Strategic	Solutions Delivery - Cloud

What business problem or opportunity are we trying to solve?

The electric grid has seen an increased strain from severe weather events leading to customer outages. This has led to mounting pressure on DTE from customers and stakeholders, who are seeking transparency and assurance at a localized level that DTE is proactively addressing this challenge. Despite investments made by DTE, there exists a communication gap in showcasing these investments both internally and externally. This has resulted in decreased confidence among customer and stakeholders regarding DTE's commitment to improve reliability.

What functionality or capability is being provided?

Internal Tool: Self-updating dashboard showing a full view of historic and current reliability performance and investment data with filtering at a hyper-localized level with easy data exporting capabilities for production of bespoke collateral.

External Tool: Customer facing dashboard-like map tool that showcases reliability performance and investment across our service territory, along with a optimized / creation of landing pages that detail our various programs for grid improvements.

Describe alignment of project to Business Unit Goal(s) and Strategy(ies).

The project aligns with the business goals of regaining customer and stakeholder confidence and trust, improving internal communication efficiency, providing engagement managers with the necessary tools to execute well, increasing transparency of electric reliability and investment data, and reaffirming DTE's commitment to reliable electric service.



Define the Benefit/Value to the Organization, Customer, Employee.

Organization: Enhanced reputation, reduced organizational drag, and increased customer and stakeholder confidence and trust.

Customer and stakeholder: Transparent visibility to reliability performance and grid investment data, leading to increased trust in DTE’s commitment to improve reliability.

Employee: Streamlined processes and efficient data access reducing organizational drag, equipped with collateral to be leverage during key stakeholder engagements, reduction of workload on teams that normally provide data and foster better communication between business units.

How will you monitor and measure expected value?

Track stakeholder engagement, customer feedback, and internal operational efficiency metrics. Monitor the frequency of data access and utilization of the new tools.

What alternatives have been considered?

Enhancing existing tools instead of introducing new ones, addressing concerns through enhanced customer communications and stakeholder meetings without the use of advanced tools.

Start Date	End Date	Shared Asset	Funding Source
2024-01-31	2024-06-30	Yes	IT

IT Costs

Type	FY23	FY24	Total
Capex	\$0	\$1,816,520	\$1,816,520
Opex	\$0	\$142,590	\$142,590
Total	\$0	\$1,959,110	\$1,959,110

BU Costs

Category	Term of Contract	BU O&M Cost
Business Unit		\$0
Cloud Usage Cost		\$0
Digital EXP Design Cost Est		\$0
Maintenance/Renewals		\$50,000
Organizational Change Management		\$130,500
Vendor Support & Licensing		\$144,000



Executive Summary

Business Case ID	BCD-CS-22-022	Business Case Name	Automated Application Monitoring Application Health
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Stakeholders

IT Portfolio	Customer	Business Unit	CR&B New Business
IT Sub-Portfolio	CIT	Business Unit Director	Lisa LeGault
IT Director	Lisa LeGault	Business Unit SME	Suresh Udaygiri
Managed by	IT	Business Units Impacted	Electric

Project Description

Initiative Category	Sustainment	Initiative Type	Operational
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Business Opportunity	
What business problem are we trying to solve?	1) Lack of complete operational visibility of all aspects of solution failures leading to extended unplanned outage duration. 2) Some Operational & Maintenance activities are reactive, leading to an Unplanned outages number increase.
What system or process is being affected?	1) Systems:- SAP Solution Manager, SAP Process Integration, SAP Customer Relationship Management, SAP Industry solution for utilities, SAP Business Warehouse. 2) Processes:- CR&B Technical and Business Process Monitoring.
What functionality or capability is being provided?	Expand Core CR&B Operational visibility of existing Solutions by adding Technology and Business Process Monitoring, Optimize Alerting & Notifications, Improve Standard Operational Procedures, Analytics and Dashboards.
What is the customer or employee value?	The Customer or employee value is configuration and deployment in line with application operations, business operations resulting in reduced unplanned downtime.
What alternatives have been considered?	Do nothing. Necessary for maintaining the Application and Business Process Monitoring.

Michigan Public Service Commission
 Executive Summary
 DTE Electric Company
 IT Business Case Executive Summaries

Case No : U-21534
 Exhibit : A-24
 Schedule: N1
 Witness: P. Sharma

Key Objectives	
1)	Improve CR&B application and business process monitoring coverage by adding new configurations for the existing solution.
2)	System Monitoring - add additional KPIs as needed.
3)	User Experience Monitoring - configuring additional 10 Critical transactions (Current: 6 transactions configured and in-active)
4)	Interface Monitoring - configuring additional 100 Critical interfaces (Current: 104 interfaces configured and active)
5)	Business Intelligence Monitoring - configuring additional 10 Critical Business Intelligence Process Chains (Current: 38 Business Intelligence Process Chains configured and active)
6)	Job Monitoring - configuring additional 50 Critical Jobs (Current: 58 Jobs configured and active)
7)	#REF!
8)	Add additional analytics and update dashboards to reflect newly configured monitoring objects.
9)	Continually improve/add/ adjust monitoring configuration to support core CR&B Pro-Active Operational activities.
10)	

Start Month	January	2021	
Duration to Complete	Years	11	Months
End Month	December	2021	

Funding Source	ITS
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IT Financial Impact						Total amount is sent for approval on all business cases.
	Year 1	Year 2	Year 3	Year 4	Year 5	
Capital	\$408,462	\$0	\$0	\$0	\$0	\$410,000
O&M	\$27,741	\$0	\$0	\$0	\$0	\$30,000
Total	\$436,203	\$0	\$0	\$0	\$0	\$440,000

Business Unit Costs						
BU O&M	\$0		Trailing BU O&M Costs			\$0
	Year 1	Year 2	Year 3	Year 4	Year 5	Total
OCM O&M	\$0	\$0	\$0	\$0	\$0	\$0



Executive Summary

Business Case Number	Business Case Name
DMND0001243	Automated Application Monitoring Application Health

Stakeholders

Portfolio Category	Business Unit
Customer	Customer Service
Portfolio	Business Unit Director
Customer Service	Lisa A LeGault
Portfolio Manager	Business Unit SME
Lisa A LeGault	Suresh Udayagiri
Managed By	PPS
IT	200

Project Description

Investment Type	Initiative Type
Sustainment	

What business problem or opportunity are we trying to solve?

The business problem we are trying to solve is:
A lack of visibility into the operational metrics, KPIs, system/interface volumetric/performance of core critical platforms including aspects of system performance which are leading indicators of failures causing extended unplanned outage durations when not observed.
As a result of not having automated application monitoring Mean Time to Repair (MTTR) is impacted. MTTR values includes the following stages:
An issue arisesThe issue is detectedTechnicians are notifiedThe issue is diagnosedThe issue is fixedThe system is reassembledThe system is restarted and testedThe system is made available for use

Automated application monitoring reduces the time of 2. The issue is detected and 3. Technicians are notified through continuous monitoring of core critical systems, environments, interfaces and databases without human involvement and automated alerting technicians of a problem when one or more indicators of impairment or failure is identified. Automated application monitoring reduces reactive operational & maintenance activities by alerting technicians when maintenance needs to be performed on numerous and various system and platform aspects such as security vulnerability remediation, exceeding data volume thresholds, exceeding memory usage thresholds, etc. without human involvement and automated alerting technicians of a problem when one or more indicators of impairment or imminent failure is identified. The impact to the company and our customers of increased MTTR is prolonged unavailability of systems, environments and functionality to perform core critical tasks and processes.



What functionality or capability is being provided?

Expand Core CR&B Operational visibility of existing Solutions by adding Technology and Business Process Monitoring, Optimize Alerting & Notifications, Improve Standard Operational Procedures, Analytics and Dashboards.

2022

Improve CR&B application and business process monitoring coverage by adding new configurations for the existing solution. System Monitoring - add additional KPIs as needed.

2023

User Experience Monitoring - configuring additional 10 Critical transactions (Current: 6 transactions configured and in-active) Interface Monitoring - configuring additional 100 Critical interfaces (Current: 104 interfaces configured and active) Job Monitoring - configuring additional 50 Critical Jobs (Current: 58 Jobs configured and active)

2024

Business Intelligence Monitoring - configuring additional 10 Critical Business Intelligence Process Chains (Current: 38 Business Intelligence Process Chains configured and active)

2025

Adjust Alert Threshold and Optimize Notification. Add additional analytics and update dashboards to reflect newly configured monitoring objects. Continually improve/add/ adjust monitoring configuration to support core CR&B Pro-Active Operational activities.

Describe alignment of project to Business Unit Goal(s) and Strategy(ies).

Operational Reliability:

Improve CR&B uptime % - 1%

Define the Benefit/Value to the Organization, Customer, Employee.

The Customer or employee value is configuration and deployment in line with application operations, business operations resulting in reduced unplanned downtime.

Success for this initiative would reduce the number of unplanned application and business process outages(p2), reduce the duration of unplanned outages(p1), and optimized business process operations (p1&p2).

How will you monitor and measure expected value?

In Scope not defined

What alternatives have been considered?

Do nothing. Determined to be unacceptable alternative as Application and Business Process Monitoring is necessary for operational effectiveness. Add internal staff for manual monitoring. Determined to be feasible but ultimately costly and prone to human error. Contract with vendor. Determined to be feasible but ultimately costly and prone to human error.

Start Date	End Date	Shared Asset	Funding Source
2023-01-02	2025-12-31	Yes	IT



IT Costs

Type	FY23	FY24	FY25	Total
Capex	\$342,000	\$375,000	\$413,000	\$1,130,000
Opex	\$30,492	\$30,492	\$30,492	\$91,476
Total	\$372,492	\$405,492	\$443,492	\$1,221,476

BU Costs

Category	Term of Contract	BU O&M Cost
Business Unit		\$0
Cloud Usage Cost		\$0
Digital EXP Design Cost Est		\$0
Maintenance/Renewals		\$0
Organizational Change Management		\$0
Vendor Support & Licensing		\$0



Executive Summary

Business Case ID	BCD-CS-22-013
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Business Case Name	Business Planning and Development and Electric Sales and Marketing Application Health
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Stakeholders

IT Portfolio	Customer
IT Sub-Portfolio	BPD
IT Director	Lisa LeGault
Managed by	IT

Business Unit	Electric Sales & Marketing
Business Unit Director	Benjamin Burns
Business Unit SME	John Bueltel
Business Units Impacted	Electric

Project Description

Initiative Category	Sustainment
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Initiative Type	Operational
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Business Opportunity

What business problem are we trying to solve?	Operational history has shown that throughout the year unforeseen issues like; customer complaints, defect remediation, software version updates, end of life hardware replacements, upgrading infrastructure (i.e. servers, databases, etc..) will arise and need to be addressed to assure the stability of the portfolio.
What system or process is being affected?	All existing applications that support Business Planning and Development (BPD) and Electric Sales and Marketing (ESM) (Goldmine, DTE Insight, Energy Forecasting Results Database, Community Lighting Reporting Database, Distributed Energy Resource Management System, Community Lighting, Load Forecasting Tools, Major Account Services Customer Database, Major Accounts Datamart, Corporate Energy Forecasting SAS).
What functionality or capability is being provided?	Following is included: 1. Security Monitoring 2. Application Performance Monitoring 3. Infrastructure and Network Performance Monitoring
What is the customer or employee value?	Improved user interface - dashboard view vs emailed report Targeted troubleshooting and faster root cause analysis Low configuration solutions (ie less administrative work) and reducing waste
What alternatives have been considered?	This is a project that includes upgrading infrastructure (i.e. servers, databases, etc..)

Key Objectives

- 1) Manage the IT business needs of the Business Planning and Development (BPD) and Electric Sales and Marketing (ESM) organizations
- 2) The scope of this business case will support achieving sustained as well as improved performance of ITS BRM portfolio for BPD and ESM organizations
- 3) Included in this effort is te operational responsibility for the Corportate Energy Forecasting SAA environment, Community Lighting environment, Demand Response, Customer Choice applications, etc
- 4) Work with the BPD and ESM to develop long term IT needs
- 5) Includes small enhancements as needed for the portfolio
- 6) Work with the BPD and ESM organizations to determine and mitigate all IT impacts due to regulatory issues
- 7)
- 8)
- 9)
- 10)

Start Month	January	2022
Duration to Complete	Years	11 Months
End Month	December	2022

Funding Source	ITS
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IT Financial Impact

	Year 1	Year 2	Year 3	Year 4	Year 5	Total
Capital	\$639,766	\$0	\$0	\$0	\$0	\$640,000
O&M	\$292,478	\$0	\$0	\$0	\$0	\$290,000
Total	\$932,244	\$0	\$0	\$0	\$0	\$930,000

Total amount is sent for approval on all business cases.

Business Unit Costs

BU O&M	\$0	Trailing BU O&M Costs	\$0
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Year 1	Year 2	Year 3	Year 4	Year 5	Total
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Executive Summary

Business Case Number	Business Case Name
DMND0001246	Business Planning and Development (BPD) and Electric Sales & Marketing (ESM) Application Health

Stakeholders

Portfolio Category	Business Unit
Customer	Customer Service
Portfolio	Business Unit Director
Customer Service	Pina Bennett
Portfolio Manager	Business Unit SME
Lisa A LeGault	John Bueltel
Managed By	PPS
IT	200

Project Description

Investment Type	Initiative Type
Sustainment	Operational

What business problem or opportunity are we trying to solve?

Operational history has shown that throughout the year unforeseen issues like; customer complaints, defect remediation, software version updates, end of life hardware replacements, upgrading infrastructure (i.e. servers, databases, etc..), performance capabilities and data storage requirements will arise and need to be addressed to assure the stability of the portfolio.

What functionality or capability is being provided?

"Following is included:1. Security Monitoring2. Application Performance Monitoring3. Infrastructure and Network Performance Monitoring"

Describe alignment of project to Business Unit Goal(s) and Strategy(ies).

Performance monitoring system will provide the ability to view dashboard and system performance in a timely manner so that system problems are more visible and can be addressed quickly preventing longer down-time of critical applications

Define the Benefit/Value to the Organization, Customer, Employee.

"Improved user interface - dashboard view vs emailed reportTargeted troubleshooting and faster root cause analysisLow configuration solutions (ie less administrative work) and reducing waste"

How will you monitor and measure expected value?

In Scope not defined

What alternatives have been considered?

This is a project that includes upgrading infrastructure (i.e. servers, databases, etc..) Do Nothing- Will not enable IT to support the business

Start Date	End Date	Shared Asset	Funding Source
2023-01-02	2025-12-30	No	IT



IT Costs

Type	FY23	FY24	FY25	Total
Capex	\$730,000	\$800,000	\$730,000	\$2,260,000
Opex	\$325,818	\$325,813	\$325,818	\$977,450
Total	\$1,055,818	\$1,125,813	\$1,055,818	\$3,237,450

BU Costs

Category	Term of Contract	BU O&M Cost
Business Unit		\$0
Cloud Usage Cost		\$0
Digital EXP Design Cost Est		\$0
Maintenance/Renewals		\$0
Organizational Change Management		\$0
Vendor Support & Licensing		\$0



Executive Summary

Business Case ID	BCD-CS-22-006	Business Case Name	Contact Center Application Health
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Stakeholders

IT Portfolio	Customer	Business Unit	Contact Center
IT Sub-Portfolio	CIT	Business Unit Director	Dawn M Hayes
IT Director	Lisa LeGault	Business Unit SME	Elizabeth Lukacs
Managed by	IT	Business Units Impacted	Electric

Project Description

Initiative Category	Sustainment	Initiative Type	Solutions Delivery - On Prem
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Business Opportunity	
What business problem are we trying to solve?	The Contact Center's hardware technology platforms and software required to run day-to-day activities must be adequately maintained. This business case provides continued performance at a level required for best in class customer experiences. Sustaining the critical systems for the Contact Center to ensure they are up to date with the latest vendor patches and point releases allows them to continue to function at the level that meets the expected service levels.
What system or process is being affected?	The systems impacted include: <ul style="list-style-type: none"> •Telephony carrier services that accepts phone calls and Integrated Voice Response (IVR) system that answers the calls •Contact Center platform that routes, records and analyzes the calls •Technology allowing leadership to manage the workforce and determine resource levels based on type of call and skill set of the representatives •Software that is used to route the calls to the agent PCs in their remote work environment
What functionality or capability is being provided?	The Contact Center will continue to have the capability to: <ul style="list-style-type: none"> •Receive customer calls and transfer them to representatives working remotely based on the type of call and the skillset of the representative •Record calls for quality assurance, as well as statistics and analytics •Monitor systems to track responses
What is the customer or employee value?	The value to Contact Center leadership is their ability to monitor call volume, change call routing and manage their day to day operations. This also allows employees to continue to take calls remotely. Customers can continue to self service through the IVR system.
What alternatives have been considered?	No alternatives are being considered at this time. Architecture and Sustainment teams evaluated alternative Contact Center vendor solutions. It was determined that the current platform is the best fit for the need. Teams continue to evaluate alternatives each year as roadmaps are refreshed and future work is planned.

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Case No : U-21534
 Exhibit : A-24
 Schedule: N1
 Witness: P. Sharma

Key Objectives	
1)	Apply point release updates for the Avaya, Swampfox and Verint products used as part of the Contact Center Platforms.
2)	Include funding for professional recordings applied to the integrated voice response unit (IVR) often required as updates and adjustments are made to call flows.
3)	Sustain hardware, operating system, databases and application software required to run the contact center.
4)	Include funding for Avaya Release Management (RM) Services as well as a Client Services Manager (CSM).
5)	Include software packaging costs to bundle and deploy updates as needed to endpoint systems.
6)	Include cost for maintenance of key software components Swampfox, Avaya RM CSM and Virtual Hold.
7)	Include cost for occasional support required outside of normal maintenance contracts such as: assistance with updating security certificates or hardware components not covered by warranty.
8)	
9)	
10)	

Start Month	January	2022	
Duration to Complete	Years	11	Months
End Month	December	2022	

Funding Source	ITS
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IT Financial Impact						Total amount is sent for approval on all business cases.
	Year 1	Year 2	Year 3	Year 4	Year 5	
Capital	\$1,044,911	\$0	\$0	\$0	\$0	\$1,040,000
O&M	\$647,923	\$0	\$0	\$0	\$0	\$650,000
Total	\$1,692,834	\$0	\$0	\$0	\$0	\$1,690,000

Business Unit Costs						
BU O&M	\$0		Trailing BU O&M Costs		\$370,000	
	Year 1	Year 2	Year 3	Year 4	Year 5	Total
OCM O&M	\$0	\$0	\$0	\$0	\$0	\$0



Executive Summary

Business Case Number	Business Case Name
DMND0001258	Contact Center Application Health

Stakeholders

Portfolio Category	Business Unit
Customer	Customer Service
Portfolio	Business Unit Director
Customer Service	Dawn M Hayes
Portfolio Manager	Business Unit SME
Lisa A LeGault	Elizabeth A Lukacs
Managed By	PPS
IT	200

Project Description

Investment Type	Initiative Type
Sustainment	Solutions Delivery - On Prem

What business problem or opportunity are we trying to solve?

The Contact Center IT portfolio includes 17 IT supported applications, 4 of which are critical and approximately 200 hardware technology platforms that are required to run day-to-day activities. Sustaining these critical systems for the Contact Center ensures they are up to date with the latest vendor security vulnerability remediation and point releases, allowing them to continue to function at expected service levels.

Operational history has shown that throughout the year unforeseen issues such as customer complaints, code or configuration changes, software version updates, end of life hardware replacements, upgrading infrastructure (i.e. servers, databases, etc.) will arise and need to be addressed to assure the stability of the portfolio. Historically we have managed 50-60 requests for enhancement or business process changes and 2-5 larger hardware or application upgrades each year.

This demand covers enhancements to support implementation of hardware and environment upgrades, security vulnerability remediation, and the adoption of both major and minor software releases. Included in this opportunity is the support for the user base as they respond to new business needs, continuous improvements, and process changes to improve their productivity.

What functionality or capability is being provided?

Through this sustainment work, the Contact Center will continue to have the capability to:

- Receive customer calls and transfer them to representatives working remotely based on the type of call and the skillset of the representative
- Record calls for quality assurance
- Gather statistics to analyze performance and health
- Utilize the IVR to allow customers to self-serve before needing a representative
- Monitor systems to track and improve call flows

Describe alignment of project to Business Unit Goal(s) and Strategy(ies).

Business Continuity - Limiting the downtime of the IVR and phone systems is critical for the contact center to remain operating and for our customers to be able to reach us.

Customer Experience - Flaws in the IVR or phone systems can have a severe impact on the experience of our customers trying to reach us, especially in times of trouble such as a power outage.



Define the Benefit/Value to the Organization, Customer, Employee.

Customers are able to self-serve via the IVR and reach a representative if need be. Representatives are able to take calls both remotely and onsite at DTE based on their circumstances. The value to Contact Center leadership is their ability to monitor call volume, change call routing, and manage their day-to-day operations. The Contact Center platform is sustained in a way that meets service level expectations.

How will you monitor and measure expected value?

Unplanned phone system outages are reported each week with targets set close to 0. IVR completion rates, customer experience, and other metrics are tracked by various groups.

What alternatives have been considered?

A "do nothing" alternative is not in scope. DTE must react and comply with requirements imposed by legal and governmental entities. If we do nothing applications will stagnate and platform will not be running on the latest releases/patches which could impact security and application performance. It is critical that we capture business process changes in all associated systems to avoid manual workarounds which add operational overhead.

Start Date	End Date	Shared Asset	Funding Source
2023-01-02	2025-12-30	Yes	IT

IT Costs

Type	FY23	FY24	FY25	Total
Capex	\$1,138,872	\$1,251,872	\$1,369,514	\$3,760,259
Opex	\$599,037	\$812,538	\$811,609	\$2,223,184
Total	\$1,737,910	\$2,064,410	\$2,181,123	\$5,983,443

BU Costs

Category	Term of Contract	BU O&M Cost
Business Unit		\$0
Cloud Usage Cost		\$0
Digital EXP Design Cost Est		\$0
Maintenance/Renewals		\$0
Organizational Change Management		\$0
Vendor Support & Licensing		\$0



Executive Summary

Business Case ID	BCD-CS-22-014	Business Case Name	Closed Loop COCL Application Health
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Stakeholders

IT Portfolio	Customer
IT Sub-Portfolio	Customer Service
IT Director	Lisa LeGault
Managed by	IT

Business Unit	CR&B New Business
Business Unit Director	Lisa LeGault
Business Unit SME	Anthony Wihelm
Business Units Impacted	Electric

Project Description

Initiative Category	Sustainment	Initiative Type	Operational
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Business Opportunity

What business problem are we trying to solve?	Provide ongoing support for the Azure Cloud APIs that interface the customer channels with the core Customer Relationship & Billing platform. The key interactions affected on these channels are: Move-in Move-out, collections, outage, and virtual-assistant.
What system or process is being affected?	Azure Cloud Customer APIs
What functionality or capability is being provided?	Application layer API support as well as support for the CosmoDB (database) that is utilized by the WISMO (Where is my order) engine.
What is the customer or employee value?	The value of this project is to have channel interactions that operate smoothly and efficiently providing a good experience for our customers
What alternatives have been considered?	Do nothing and continue operating with no formal support model

Key Objectives

- 1) Provide operations support for the Customer facing APIs and WISMO database located in the Azure Cloud.
- 2) Prevent delays in resolving issues that primarily impact our customer channels such as web and IVR which use the APIs. The key interactions which would otherwise be affected on these channels are: WISMO, M

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Case No : U-21534
 Exhibit : A-24
 Schedule: N1
 Witness: P. Sharma

- 3)
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Start Month	January	2022
Duration to Complete	Years	11 Months
End Month	December	2022

Funding Source	ITS
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IT Financial Impact						Total amount is sent for approval on all business cases.
	Year 1	Year 2	Year 3	Year 4	Year 5	
Capital	\$627,838	\$0	\$0	\$0	\$0	\$630,000
O&M	\$229,442	\$0	\$0	\$0	\$0	\$230,000
Total	\$857,280	\$0	\$0	\$0	\$0	\$860,000

Business Unit Costs						
BU O&M	\$0		Trailing BU O&M Costs	\$0		
	Year 1	Year 2	Year 3	Year 4	Year 5	Total



Executive Summary

Business Case Number	Business Case Name
DMND0001255	Closed Loop COCL Application Health

Stakeholders

Portfolio Category	Business Unit
Customer	Customer Service
Portfolio	Business Unit Director
Customer Service	Lisa A LeGault
Portfolio Manager	Business Unit SME
Lisa A LeGault	Tony Wilhelm
Managed By	PPS
IT	200

Project Description

Investment Type	Initiative Type
Sustainment	Operational

What business problem or opportunity are we trying to solve?

Prevent delays in resolving issues that primarily impact our customer channels such as web and IVR which use the APIs. The key interactions which would otherwise be affected on these channels are: WISMO, Move-in Move-out, collections, outage, and virtual-assistant.

What functionality or capability is being provided?

Application layer API support as well as support for the CosmoDB (database) that is utilized by the WISMO (Where is my order) engine.

Describe alignment of project to Business Unit Goal(s) and Strategy(ies).

The key interactions supported on these channels are: Move-in Move-out, Collections, Outage, and Virtual-assistant.

Define the Benefit/Value to the Organization, Customer, Employee.

The value of this project is to have channel interactions that operate smoothly and efficiently providing a good experience for our customers

How will you monitor and measure expected value?

In Scope not defined

What alternatives have been considered?

A "do nothing" alternative was not acceptable as it is critical that we are able to proactively detect and resolve performance issues that may prevent our customers from reporting safety concerns such outages, gas leaks and move in move out request via Web channel

Start Date	End Date	Shared Asset	Funding Source
2023-01-02	2025-12-30	Yes	IT



IT Costs

Type	FY23	FY24	FY25	Total
Capex	\$690,000	\$759,000	\$835,000	\$2,284,000
Opex	\$290,400	\$290,400	\$290,400	\$871,200
Total	\$980,400	\$1,049,400	\$1,125,400	\$3,155,200

BU Costs

Category	Term of Contract	BU O&M Cost
Business Unit		\$0
Cloud Usage Cost		\$0
Digital EXP Design Cost Est		\$0
Maintenance/Renewals		\$0
Organizational Change Management		\$0
Vendor Support & Licensing		\$0



Executive Summary

Business Case Number	Business Case Name
DMND0002646	Cloud Services Application Health - Cloud Platform Enterprise Agreement (CPEA)

Stakeholders

Portfolio Category	Business Unit
Customer	Customer Service
Portfolio	Business Unit Director
Customer Service	Lisa A LeGault
Portfolio Manager	Business Unit SME
Lisa A LeGault	Kosha Rathi
Managed By	PPS
IT	200

Project Description

Investment Type	Initiative Type
Sustainment	Solutions Delivery - Cloud

What business problem or opportunity are we trying to solve?

The demand is to cover a 3 year capital cost for the Cloud Platform Enterprise Agreement (CPEA) which is a business model that allows for the consumption of cloud credits based on actual usage. This agreement originated with the Meter Data Management (MDM) project and its need for SAP FIORI. SAP Fiori is a design system that enables you to create business apps with a consumer-grade user experience, turning casual users into SAP experts with simple screens that run on any device. By using the SAP Fiori design guidelines DTE can easily build and customize our own apps that are consistent with what we use SAP S/4HANA and our other enterprise software solutions. As a result of this service MDM was able to utilize the SAP FIORI Launchpad as an entry point to our back-end SAP system (SAP ISU). Additionally, this platform has been utilized for other critical projects such as Agency Website (an agency portal for assisting customer energy needs), Damage Claim and Document Signature lending the capability to use the Business Technology Platform services available under the CPEA. These services are key and critical to the continued success of the technical solution and architecture design in which they are based upon.

This demand covers enhancements to support implementation of hardware and environment upgrades, security vulnerability remediation, and the adoption of both major and minor software releases. Included in this opportunity is the support for the user base as they respond to new business needs, continuous improvements, and process changes to improve their productivity.

What functionality or capability is being provided?

The functionality/capability being provided is:
 Centralize Usage and Cost Monitoring
 Use of cloud services from SAP
 Ability to develop and run business applications on Business Technology Platform (BTP) using SAP cloud application programming model, APIs, services, tools and capabilities.
 ability to integrate applications with other solutions by SAP which is our staple platform for CR&B

Describe alignment of project to Business Unit Goal(s) and Strategy(ies).

Business Continuity - Limiting the downtime dependent cloud services such as BTP Cockpit is critical for the Billing, Rates & Metering and RMP businesses.



Define the Benefit/Value to the Organization, Customer, Employee.

Cloud services will remain and no disruption to those applications that are dependent on those services.

How will you monitor and measure expected value?

Measurement of usage will be done through the BTP Cockpit and overall usage of those business applications against the CPEA Cloud Credit.

What alternatives have been considered?

A "do nothing" alternative is not in scope. DTE must react and comply with requirements imposed by legal and governmental entities. If we do nothing applications will stagnate and platform will not be running on the latest releases/patches which could impact security and application performance. It is critical that we capture business process changes in all associated systems to avoid manual workarounds which add operational overhead.

Start Date	End Date	Shared Asset	Funding Source
2024-03-01	2024-03-31	Yes	IT

IT Costs

Type	FY24	Total
Capex	\$750,600	\$750,600
Total	\$750,600	\$750,600

BU Costs

Category	Term of Contract	BU O&M Cost
Business Unit		\$0
Cloud Usage Cost		\$0
Digital EXP Design Cost Est		\$0
Maintenance/Renewals		\$0
Organizational Change Management		\$0
Vendor Support & Licensing		\$0



Executive Summary

Business Case ID	BCD-CS-22-016	Business Case Name	Digital Channels S3 Enhancement R04
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Stakeholders

IT Portfolio	Customer	Business Unit	Self Service Channels
IT Sub-Portfolio	Customer Service	Business Unit Director	Siddharth Arigapudi
IT Director	Lisa LeGault	Business Unit SME	Joshua Hoepner
Managed by	IT	Business Units Impacted	Electric

Project Description

Initiative Category	IT Enhancements	Initiative Type	Solutions Delivery - On Prem
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Business Opportunity	
What business problem are we trying to solve?	Business Problem: Customers provide regular feedback on their digital transaction journey through surveys and instrumentation of the customer experience. Code enhancements add new web functionality to resolve the problem, until legacy systems can be replaced in year 2024. Continued funding of legacy systems maintains identifying, coding and testing new background functions for a smoother customer journey.
What system or process is being affected?	Systems Affected: DTE Website (New Look); Commercial & Industrial (C&I) Customer Portal; Mobile Application Enhancement Testing; Web Payment Center.
What functionality or capability is being provided?	Functionality Provided: Monthly system enhancements, delivered to the customer web and mobile channels: Website functions including view of current billing, ability to login/logout, access to customer's account information, preference center, payments, payment methods. Testing of Mobile application enhancements. No official customer communication is anticipated as a result of these seamless code implementations.
What is the customer or employee value?	Customer Value: Incremental system enhancements keeps customers engaged and aims to increase customer transaction completion rates within their channel of choice, improving customer satisfaction. Employee Value: This work is expected to further reduce customer calls to the Contact Center. Experience fewer outages and the ability to complete a full transaction without interruption. Improved customer experience ratings.
What alternatives have been considered?	Halting enhancement and support of the web channel.

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Case No : U-21534
 Exhibit : A-24
 Schedule: N1
 Witness: P. Sharma

Key Objectives	
1)	Deliver regular functional code releases, thruout this year, for customer's continued ease of use of the digital channels.
2)	Maintain and increase Digital Engagement Rate and Completion Rate for web channel
3)	
4)	
5)	
6)	
7)	
8)	
9)	
10)	

Start Month	January	2022
Duration to Complete	0 Years	11 Months
End Month	December	2022

Funding Source	ITS
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IT Financial Impact						Total amount is sent for approval on all business cases.
	Year 1	Year 2	Year 3	Year 4	Year 5	
Capital	\$1,037,127	\$0	\$0	\$0	\$0	\$1,040,000
O&M	\$134,774	\$0	\$0	\$0	\$0	\$130,000
Total	\$1,171,901	\$0	\$0	\$0	\$0	\$1,170,000

Business Unit Costs						
BU O&M	\$63,000		Trailing BU O&M Costs			\$0
	Year 1	Year 2	Year 3	Year 4	Year 5	Total
OCM O&M	\$0	\$0	\$0	\$0	\$0	\$0



Executive Summary

Business Case ID	BCD-CS-22-017	Business Case Name	Self Service Mobile Channel Enhancement R04
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Stakeholders

IT Portfolio	Customer	Business Unit	Self Service Channels
IT Sub-Portfolio	Customer Service	Business Unit Director	Siddharth Arigapudi
IT Director	Lisa LeGault	Business Unit SME	Joshua Hoepner
Managed by	IT	Business Units Impacted	Electric

Project Description

Initiative Category	IT Enhancements	Initiative Type	Solutions Delivery - Cloud
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Business Opportunity	
What business problem are we trying to solve?	Business Problem: Customers rely on the self-service mobile applications for regular interaction with DTE to view bill details, make/manage payments, and report service trouble. The applications require regular enhancement .
What system or process is being affected?	Affected Systems: DTE iOS and Android mobile applications are affected through regular code releases.
What functionality or capability is being provided?	Functionality Provided: Monthly releases that enhance the functionality of the mobile applications and prevent system degradation (responsivness / speed to user, aligned graphical user interface, app functions aligned with standards within iOS and Android, and etc.). Securing resources proficient in mobile application development ensures frequent code releases and maintains technical stability.
What is the customer or employee value?	Customer Value - seamless and continued operation of their personal mobile app encourages transaction completion and frequent engagement. Employee Value - implementation of regular functional code to the mobile app will reduce downtime, urgency in repairs, and reduced customer calls.
What alternatives have been considered?	Alternative Considered: Halt functional code releases for the mobile applications.

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Case No : U-21534
 Exhibit : A-24
 Schedule: N1
 Witness: P. Sharma

Key Objectives	
1)	Allow customer to self-serve more efficiently using the DTE Energy mobile application.
2)	Anticipate and avoid outage / downtime through proactive new code implementations.
3)	Demonstrate an interest in staying current with efficient and needed mobile features.
4)	
5)	
6)	
7)	
8)	
9)	
10)	

Start Month	January	2022
Duration to Complete	Years	11 Months
End Month	December	2022

Funding Source	ITS
----------------	-----

IT Financial Impact						Total amount is sent for approval on all business cases.
	Year 1	Year 2	Year 3	Year 4	Year 5	
Capital	\$556,262	\$0	\$0	\$0	\$0	\$560,000
O&M	\$122,451	\$0	\$0	\$0	\$0	\$120,000
Total	\$678,713	\$0	\$0	\$0	\$0	\$680,000

Business Unit Costs						
BU O&M	\$31,000		Trailing BU O&M Costs		\$0	
	Year 1	Year 2	Year 3	Year 4	Year 5	Total
OCM O&M	\$0	\$0	\$0	\$0	\$0	\$0



Executive Summary

Business Case ID	BCD-CS-22-023	Business Case Name	Digital Channels S3 Application Health
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Stakeholders

IT Portfolio	Customer	Business Unit	Self Service Channels
IT Sub-Portfolio	Customer Service	Business Unit Director	Siddharth Arigapudi
IT Director	Lisa LeGault	Business Unit SME	Charlene Draine
Managed by	IT	Business Units Impacted	Electric

Project Description

Initiative Category	Sustainment	Initiative Type	Solutions Delivery - On Prem
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Business Opportunity	
What business problem are we trying to solve?	Business Problem: There is a risk of losing continued management and operation of Legacy Customer Digital Channels. Approving this business case will ensure the following continued operational oversight of these assets and systems: Incident Prediction; Incident Remediation; System Break fix assistance; Availability Management; System Health Oversight.
What system or process is being affected?	Systems Affected: Legacy DTE Website (New Look); Commercial & Industrial (C&I) Customer Portal; Mobile Application Enhancement Testing; Payment Center.
What functionality or capability is being provided?	Functionality Provided: New functional code that resolves break/fix issues. Adequate coverage and oversight of key digital customer channels is required for fixes that include incident remediation, defects, and asset sustainment work.
What is the customer or employee value?	Employee Value: Incident Prediction for timely maintenance; Incident Remediation to avoid similar problems; System break / fix assistance; Availability Management to avoid outages; System Health Oversight by easily monitoring operation. Customer Value: Experience fewer outages and the ability to complete a full transaction without interruption. Improved customer experience ratings.
What alternatives have been considered?	Alternatives Considered: 1- Over time, DTE staff to take on work typically provided by PSA. 2- Halt support of digital web channel

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Case No : U-21534
 Exhibit : A-24
 Schedule: N1
 Witness: P. Sharma

Key Objectives	
1)	Continued management and operation of Customer Digital Channels and systems
2)	Oversee continuing operation of these assets and systems from several standpoints including Incident Prediction, Incident Remediation, System Break fix assistance, Availability Management and System Health O
3)	Improve the stability and availability of core digital assets, by reducing of technical debt and performance tuning of key services
4)	
5)	
6)	
7)	
8)	
9)	
10)	

Start Month	January	2022	
Duration to Complete	Years	11	Months
End Month	December	2022	

Funding Source	ITS
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IT Financial Impact						Total amount is sent for approval on all business cases.
	Year 1	Year 2	Year 3	Year 4	Year 5	
Capital	\$0	\$0	\$0	\$0	\$0	\$0
O&M	\$297,911	\$0	\$0	\$0	\$0	\$300,000
Total	\$297,911	\$0	\$0	\$0	\$0	\$300,000

Business Unit Costs						
BU O&M	\$0		Trailing BU O&M Costs			\$0
	Year 1	Year 2	Year 3	Year 4	Year 5	Total
OCM O&M	\$0	\$0	\$0	\$0	\$0	\$0



Executive Summary

Business Case ID	BCD-CS-22-024	Business Case Name	Self Service Mobile Channel Application Health
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Stakeholders

IT Portfolio	Customer
IT Sub-Portfolio	Customer Service
IT Director	Lisa LeGault
Managed by	IT

Business Unit	Self Service Channels
Business Unit Director	Siddharth Arigapudi
Business Unit SME	Charlene Draine
Business Units Impacted	Electric

Project Description

Initiative Category	Sustainment	Initiative Type	Solutions Delivery - Cloud
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Business Opportunity	
What business problem are we trying to solve?	The problem is that Customer self-service, native (DTE-developed apps downloaded by customers) mobile applications are at risk of being unsupported without continued sustainment effort by the vendor. Approving this business case will ensure continued project work, so that mobile applications function throughout year 2022.
What system or process is being affected?	Systems Affected: DTE iOS and Android mobile applications.
What functionality or capability is being provided?	Functionality Provided: New functional code for improved incident response and defect resolution on iOS and Android applications. Procured resources who are proficient in mobile application development ensure operational functions. In year 2022, vendor efforts will include efficiencies gained by streamlining code used in multiple business 'towers'.
What is the customer or employee value?	Customer Value: Continued used of DTE mobile apps for energy service transactions. Employee Value: The mobile applications will continue to function for our customers, reducing calls for help.
What alternatives have been considered?	Considered Alternative: Halt functional enhancement of the mobile applications.

Michigan Public Service Commission
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Case No : U-21534
 Exhibit : A-24
 Schedule: N1
 Witness: P. Sharma

Key Objectives	
1)	Troubleshoot production incidents/defects and develop code resolutions that add or enhance performance.
2)	Produce functional code additions / changes that enabling high system availability and accuracy; maintain & operate the production environment which runs mobile channel.
3)	
4)	
5)	
6)	
7)	
8)	
9)	
10)	

Start Month	January	2022	
Duration to Complete	Years	11	Months
End Month	December	2022	

Funding Source	ITS
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IT Financial Impact						Total amount is sent for approval on all business cases.
	Year 1	Year 2	Year 3	Year 4	Year 5	
Capital	\$0	\$0	\$0	\$0	\$0	\$0
O&M	\$160,815	\$0	\$0	\$0	\$0	\$160,000
Total	\$160,815	\$0	\$0	\$0	\$0	\$160,000

Business Unit Costs						
BU O&M	\$0		Trailing BU O&M Costs		\$0	
	Year 1	Year 2	Year 3	Year 4	Year 5	Total
OCM O&M	\$0	\$0	\$0	\$0	\$0	\$0



Executive Summary

Business Case Number	Business Case Name
DMND0001269	Digital Channels S3 Application Health

Stakeholders

Portfolio Category	Business Unit
Customer	Customer Service
Portfolio	Business Unit Director
Customer Service	Jacqueline L Robinson
Portfolio Manager	Business Unit SME
Lisa A LeGault	Charlene Draine
Managed By	PPS
IT	200

Project Description

Investment Type	Initiative Type
Sustainment	

What business problem or opportunity are we trying to solve?

Business Problem: There is a risk of losing continued management and operation of Legacy Customer Digital Channels. Approving this business case will ensure the following continued operational oversight of these assets and systems: Incident Prediction; Incident Remediation; System Break fix assistance; Availability Management; System Health Oversight.

What functionality or capability is being provided?

Functionality Provided: New functional code that resolves break/fix issues. Adequate coverage and oversight of key digital customer channels is required for fixes that include build, testing and deployments of new code and configuration for asset sustainment work.

Describe alignment of project to Business Unit Goal(s) and Strategy(ies).

Operational Reliability and Customer Experience

Define the Benefit/Value to the Organization, Customer, Employee.

Employee Value: Incident Prediction for timely maintenance; Incident Remediation to avoid similar problems; System break / fix assistance; Availability Management to avoid outages; System Health Oversight by easily monitoring operation. Customer Value: Experience fewer outages and the ability to complete a full transaction without interruption. Improved customer experience ratings.

How will you monitor and measure expected value?

Sustained and improved system performance expected change 1%
 Improve customer reliability in payment transaction completion expected change 1%

What alternatives have been considered?

Alternatives Considered: 1- Over time, DTE staff to take on work typically provided by PSA. 2- Halt support of digital web channel
 If nothing is done to ensure PSA continued oversight and maintenance, then unplanned outages, fewer web engagements, customer inconveniences would reflect through low reputation rating against DTE Energy.

Start Date	End Date	Shared Asset	Funding Source
2023-01-02	2024-12-30	Yes	IT



IT Costs

Type	FY23	FY24	Total
Capex	\$1,710,600	\$1,700,334	\$3,410,934
Opex	\$198,124	\$197,876	\$396,000
Total	\$1,908,724	\$1,898,211	\$3,806,934

BU Costs

Category	Term of Contract	BU O&M Cost
Business Unit		\$0
Cloud Usage Cost		\$0
Digital EXP Design Cost Est		\$0
Maintenance/Renewals		\$0
Organizational Change Management		\$0
Vendor Support & Licensing		\$0



Executive Summary

Business Case Number	Business Case Name
DMND0001291	Self Service Mobile Channel Application Health

Stakeholders

Portfolio Category	Business Unit
Customer	Customer Service
Portfolio	Business Unit Director
Customer Service	Jacqueline L Robinson
Portfolio Manager	Business Unit SME
Lisa A LeGault	Charlene Draine
Managed By	PPS
IT	200

Project Description

Investment Type	Initiative Type
Sustainment	Solutions Delivery - Cloud

What business problem or opportunity are we trying to solve?

The problem is that Customer self-service, native (DTE-developed apps downloaded by customers) mobile applications are at risk of being unsupported without continued sustainment effort by the vendor. The customer mobile applications run on frameworks and foundational code that was written in 2013-2014. Approving this business case will ensure continued project work, so that mobile applications function throughout year 2024.

What functionality or capability is being provided?

Functionality Provided: New functional code for improved incident response and defect resolution on iOS and Android applications. Procured resources who are proficient in mobile application development ensure operational functions. In year 2022, vendor efforts will include efficiencies gained by streamlining code used in multiple business 'towers'.

Describe alignment of project to Business Unit Goal(s) and Strategy(ies).

Improve external customer satisfaction levels and become "easier to do business with".

Define the Benefit/Value to the Organization, Customer, Employee.

Customer Value: Continued used of DTE mobile apps for energy service transactions.
 Employee Value: The mobile applications will continue to function for our customers, reducing calls for help.

How will you monitor and measure expected value?

Improved customer experience due to higher availability of the DTE Energy Mobile App Channel: expected change 1%

What alternatives have been considered?

Considered Alternative: Halt functional enhancement of the mobile applications.
 Do Nothing would result in : Mobile applications may cease to function.

Start Date	End Date	Shared Asset	Funding Source
2023-01-02	2024-12-31	Yes	IT



IT Costs

Type	FY23	FY24	Total
Capex	\$1,064,000	\$1,070,000	\$2,134,000
Opex	\$180,756	\$179,244	\$360,000
Total	\$1,244,756	\$1,249,244	\$2,494,000

BU Costs

Category	Term of Contract	BU O&M Cost
Business Unit		\$0
Cloud Usage Cost		\$0
Digital EXP Design Cost Est		\$0
Maintenance/Renewals		\$0
Organizational Change Management		\$0
Vendor Support & Licensing		\$0



Executive Summary

Business Case Number	Business Case Name
DMND0002740	Self Service Mobile Channel Application Health

Stakeholders

Portfolio Category	Business Unit
Customer	Customer Service
Portfolio	Business Unit Director
Customer Service	Jacqueline L Robinson
Portfolio Manager	Business Unit SME
Lisa A LeGault	Tariq Mahmood
Managed By	PPS
IT	200

Project Description

Investment Type	Initiative Type
Sustainment	Solutions Delivery - Cloud

What business problem or opportunity are we trying to solve?

The DTE Energy mobile applications require regular enhancement to ensure they continue to provide value to customers. A technical team, including developers, testers, and a team lead are required to deliver regular monthly enhancements to the application, as well as support any production issues that should arise.

What functionality or capability is being provided?

This business case funds development, testing, and project management capabilities for ongoing monthly enhancements, storm support, and production incident response.

Describe alignment of project to Business Unit Goal(s) and Strategy(ies).

Increase Digital Engagement Rate Increase NPS Increase digital transaction completion rate on mobile

Define the Benefit/Value to the Organization, Customer, Employee.

Customer Value: Continued used of DTE mobile apps for energy service transactions.
 Employee Value: The mobile applications will continue to function for our customers, reducing calls for help.

How will you monitor and measure expected value?

Improved customer experience due to higher availability of the DTE Energy Mobile App Channel: expected change 1%

What alternatives have been considered?

Halt enhancements of the mobile applications, which would result in an inability to respond to changing customer needs and a potential increase in cost resulting from customer calls.

Start Date	End Date	Shared Asset	Funding Source
2025-01-02	2027-12-31	Yes	IT



IT Costs

Type	FY25	FY26	FY27	Total
Capex	\$1,100,000	\$1,100,000	\$1,100,000	\$3,300,000
Opex	\$170,000	\$170,000	\$170,000	\$510,000
Total	\$1,270,000	\$1,270,000	\$1,270,000	\$3,810,000

BU Costs

Category	Term of Contract	BU O&M Cost
Business Unit		\$0
Cloud Usage Cost		\$0
Digital EXP Design Cost Est		\$0
Maintenance/Renewals		\$0
Organizational Change Management		\$0
Vendor Support & Licensing		\$0



Executive Summary

Business Case Number	Business Case Name
DMND0002741	Digital Channels S3 Application Health

Stakeholders

Portfolio Category	Business Unit
Customer	Customer Service
Portfolio	Business Unit Director
Customer Service	Jacqueline L Robinson
Portfolio Manager	Business Unit SME
Lisa A LeGault	Charlene Draine
Managed By	PPS
IT	200

Project Description

Investment Type	Initiative Type
Sustainment	Solutions Delivery - On Prem

What business problem or opportunity are we trying to solve?

Procures a small technical team to deliver ongoing enhancements to portions of the customer website. Specifically, this team will develop new components, as needed, for the Adobe Experience Cloud platform that hosts all static customer content and digital assets. Additionally, this team will regularly release enhancements to the portions of the website that are running on the legacy IBM WebSphere Portal platform, including customer account landing page, billing and payment history, payment program management, rebates, energy usage, landlord management, and commercial and industrial account management. In addition to monthly releases, this team will also address break/fix items and provide 24/7 production support.

What functionality or capability is being provided?

Procures a small technical team to deliver ongoing enhancements to portions of the customer website. Specifically, this team will develop new components, as needed, for the Adobe Experience Cloud platform that hosts all static customer content and digital assets. Additionally, this team will regularly release enhancements to the portions of the website that are running on the legacy IBM WebSphere Portal platform, including customer account landing page, billing and payment history, payment program management, rebates, energy usage, landlord management, and commercial and industrial account management. In addition to monthly releases, this team will also address break/fix items and provide 24/7 production support.

Describe alignment of project to Business Unit Goal(s) and Strategy(ies).

Operational Reliability and Customer Experience

Define the Benefit/Value to the Organization, Customer, Employee.

Employee Value: Incident Prediction for timely maintenance; Incident Remediation to avoid similar problems; System break / fix assistance; Availability Management to avoid outages; System Health Oversight by easily monitoring operation. Customer Value: Experience fewer outages and the ability to complete a full transaction without interruption. Improved customer experience ratings.

How will you monitor and measure expected value?

Sustained and improved system performance expected change 1%
 Monthly Release Schedule Adherence of 100%



What alternatives have been considered?

Alternatives Considered: 1- Over time, DTE staff to take on work typically provided by PSA. 2- Halt support of digital web channel
If nothing is done to ensure PSA continued oversight and maintenance, then unplanned outages, fewer web engagements, customer inconveniences would reflect through low reputation rating against DTE Energy.

Start Date	End Date	Shared Asset	Funding Source
2025-01-02	2027-12-30	Yes	IT

IT Costs

Type	FY25	FY26	FY27	Total
Capex	\$1,663,333	\$1,663,333	\$1,663,334	\$4,990,000
Opex	\$170,000	\$170,000	\$170,000	\$510,000
Total	\$1,833,333	\$1,833,333	\$1,833,334	\$5,500,000

BU Costs

Category	Term of Contract	BU O&M Cost
Business Unit		\$0
Cloud Usage Cost		\$0
Digital EXP Design Cost Est		\$0
Maintenance/Renewals		\$0
Organizational Change Management		\$0
Vendor Support & Licensing		\$0



Executive Summary

Business Case ID	BCD-CS-22-025	Business Case Name	CIT Configuration Management Application Health
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Stakeholders

IT Portfolio	Customer	Business Unit	CR&B New Business
IT Sub-Portfolio	CIT	Business Unit Director	Lisa LeGault
IT Director	Lisa LeGault	Business Unit SME	Jeff Robinson
Managed by	IT	Business Units Impacted	Electric

Project Description

Initiative Category	Sustainment	Initiative Type	Operational
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Business Opportunity	
What business problem are we trying to solve?	Provide Configuration, Release, Compliance, and Audit Management to fix non discretionary application defects identified in the CIT and BPD portfolio of assets. Ensuring Segregation of duties, compliance with change management policies, and ensuring that we that we have a fully documented production changes in compliance with the Sarbanes-Oxley act. Provide application support of CIT Tools used for defect tracking (Microstation - ALM), automated application testing (Tricentis - Tosca), and DevOps build management for SAP (Basis Technologies - Active Control) .
What system or process is being affected?	Assets Include: CR&B, Customer Self-Service Channels (Web, Mobile, IVR) and Customer ESB. Supported business units are Customer Service, BPD and Marketing. The assets are used for both Electric and Gas BPD Business Planning & Development includes the following business units: Energy Waste Reduction, Choice, Integrated Resource Planning, Corporate Energy Forecasting, Electric Strategy and Special Projects and Demand Response. BPD applications include: EOPT, CHAD, OPower, EOPT Repoprts, PowerBI reports, DERMS, Entryway and SAS Additional applications/tools supported: Microcenter ALM, Tricentas Tosca, Basis Technologies Active Control Processes located at https://dteenergy.sharepoint.com/sites/crbsustain/Shared%20Documents/Forms/AllItems.aspx?RootFolder=%2Fsites%2Fcrbsustain%2FShared%20Documents%2FRelease%20Management%2FProcess&FolderCTID=0x012000F7940267BCA613418EA186D2007F7DE5&View=%7B395356B8%2DA802%2D4B27%2DBF00%2D6888136AEDB4%7D . CIT Release Management Guidelines, CIT On Demand Build Request, CRB SAP Production Release, CRB Emergency release to production, CRB emergency release to quality, CRB Normal production release. CRB release to quality.
What functionality or capability is being provided?	Provide Configuration, Release, and Compliance and Audit Management for the CIT and BPD portfolio of assets. This is in direct alignment with Digital and Channels Sustainment, CR&B Sustainment, and BPD Sustainment initiatives.
What is the customer or employee value?	The Customer or employee value of this project is configuration, build, and deployment in line with the needs of application teams, business partners, and our customers, resulting in reduced planned and unplanned downtime and zero compliance issues across the CIT and BPD portfolio of assets.
What alternatives have been considered?	Do nothing which would create issues with ensuring Segregation of duties, compliance with change management policies, and ensuring that we that we have a fully documented production changes in compliance with the Sarbanes-Oxley act is essential to ensure a stable application in CIT and BPD.

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Case No : U-21534
 Exhibit : A-24
 Schedule: N1
 Witness: P. Sharma

Key Objectives	
1)	Support a well-managed CIT and BPD Portfolio of assets that are in compliance with all regulatory requirements.
2)	Configuration, Release, and Change Management for the entire CIT Portfolio of assets, including CR&B, Self-Service Channels, ESB, and all BPD assets.
3)	Work with the internal and external Auditors to maintain compliance and mitigate any findings related to regulatory requirements for the CR&B Platform.
4)	Configuration, build, and deployment in line with the needs of application teams, business partners, and our customers
5)	Maintain application health and support for Microstation ALM, Tricentis Tosca, Basis Technology Active Control
6)	Co-ordinate vulnerability Management and remediation for CR&B Assets.
7)	
8)	
9)	
10)	

Start Month	January	2022	
Duration to Complete	Years	11	Months
End Month	December	2022	

Funding Source	ITS
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IT Financial Impact						Total amount is sent for approval on all business cases.
	Year 1	Year 2	Year 3	Year 4	Year 5	
Capital	\$117,669	\$0	\$0	\$0	\$0	\$120,000
O&M	\$6,254	\$0	\$0	\$0	\$0	\$10,000
Total	\$123,923	\$0	\$0	\$0	\$0	\$130,000

Business Unit Costs						
BU O&M	\$0		Trailing BU O&M Costs			\$0
	Year 1	Year 2	Year 3	Year 4	Year 5	Total
OCM O&M	\$10,000	\$0	\$0	\$0	\$0	\$10,000

Executive Summary

Business Case ID	BCD-CS-22-020	Business Case Name	CIT Configuration Management Enhancement
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Stakeholders

IT Portfolio	Customer	Business Unit	CR&B New Business
IT Sub-Portfolio	CIT	Business Unit Director	Lisa LeGault
IT Director	Lisa LeGault	Business Unit SME	Jeff Robinson
Managed by	IT	Business Units Impacted	Electric

Project Description

Initiative Category	Sustainment	Initiative Type	Operational
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Business Opportunity

What business problem are we trying to solve?	Provide Configuration, Release, Compliance, and Audit Management for discretionary enhancements made to CIT and BPD portfolio of assets. Ensuring Segregation of duties, compliance with change management policies, and ensuring that we have a fully documented production changes in compliance with the Sarbanes-Oxley act. Provide application support of CIT Tools used for defect tracking (Microstation - ALM), automated application testing (Tricentis - Tosca), and DevOps build management for SAP (Basis Technologies - Active Control) .
What system or process is being affected?	Assets Include: CR&B, Customer Self-Service Channels (Web, Mobile, IVR) and Customer ESB. Supported business units are Customer Service, BPD and Marketing. The assets are used for both Electric and Gas BPD Business Planning & Development includes the following business units: Energy Waste Reduction, Choice, Integrated Resource Planning, Corporate Energy Forecasting, Electric Strategy and Special Projects and Demand Response. BPD applications include: EOPT, CHAD, OPower, EOPT Reports, PowerBI reports, DERMS, Entryway and SAS Additional applications/tools supported: Microcenter ALM, Tricentis Tosca, Basis Technologies Active Control Processes located at https://dteenergy.sharepoint.com/sites/crbsustain/Shared%20Documents/Forms/AllItems.aspx?RootFolder=%2Fsites%2Fcrbsustain%2FShared%20Documents%2FRelease%20Management%2FProcess&FolderCTID=0x012000F7940267BCA613418EA186D2007F7DE5&View=%7B395356B8%2DA802%2D4B27%2DBF00%2D6888136AEDB4%7D . CIT Release Management Guidelines, CIT On Demand Build Request, CRB SAP Production Release, CRB Emergency release to production, CRB emergency release to quality, CRB Normal production release, CRB release to quality,
What functionality or capability is being provided?	Provide Configuration, Release, and Compliance for the CIT and BPD portfolio assets. This is in direct alignment with the Digital and Channel enhancements, CR&B enhancement, and BPD enhancement initiatives. Provide support of CIT Tools used for defect tracking, automated application testing.
What is the customer or employee value?	The Customer or employee value of this project is configuration, build, and deployment in line with the needs of application teams, business partners, and our customers, resulting in reduced planned and unplanned downtime and zero compliance issues across the CIT and BPD portfolio of assets.
What alternatives have been considered?	Do nothing which would create issues with ensuring Segregation of duties, compliance with change management policies, and ensuring that we that we have a fully documented production changes in compliance with the Sarbanes-Oxley act is essential to ensure a stable application in CIT and BPD

- 1) Configuration, Release, and Change management of the entire CIT portfolio of assets including BPD assets, and all BPD assets
- 2) Support a well-managed CIT and BDP Portfolio of assets that are in compliance with all regulatory requirements
- 3) Reduced planned and unplanned downtime and zero compliance issues across the CIT and BDP portfolio of assets
- 4) (Schedule, co-ordinate and support) Configuration, build, and deployment for the needs of application teams, business partners, and our customer
- 5)
- 6)
- 7)
- 8)
- 9)
- 10)

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Exhibit : A-24
 Schedule: N1
 Witness: P. Sharma

Start Month	January	2022
Duration to Complete	Years	11 Months
End Month	December	2022

Funding Source	ITS
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IT Financial Impact

	Year 1	Year 2	Year 3	Year 4	Year 5	Total
Capital	\$693,553	\$0	\$0	\$0	\$0	\$690,000
O&M	\$56,220	\$0	\$0	\$0	\$0	\$60,000
Total	\$749,773	\$0	\$0	\$0	\$0	\$750,000

Total amount is sent for approval on all business cases.

Business Unit Costs

BU O&M	\$0	Trailing BU O&M Costs	\$0
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	Year 1	Year 2	Year 3	Year 4	Year 5	Total
OCM O&M	\$0	\$0	\$0	\$0	\$0	\$0



Executive Summary

Business Case Number	Business Case Name
DMND0001253	Customer Information Technology (CIT) Configuration Management

Stakeholders

Portfolio Category	Business Unit
Customer	Customer Service
Portfolio	Business Unit Director
Customer Service	Lisa A LeGault
Portfolio Manager	Business Unit SME
Lisa A LeGault	Jeff Robinson
Managed By	PPS
IT	200

Project Description

Investment Type	Initiative Type
Sustainment	Operational

What business problem or opportunity are we trying to solve?

The problem that DTE is trying to solve is to ensure that DTE as an organization has the resources, tools, technologies, capabilities, competencies and budget to create, transform, maintain and sustain a step-by-step protocol to manage and implement products, platforms, project, fixes, enhancements, modifications, security vulnerability remediation, etc. to systems, products and environments. A change management framework is a collection of people, processes, tools and technologies that implements and executes the change management processes for any change to the enterprises product portfolio's features or to the implementation of new enterprise products that must continuously evolve to and transform to ensure compliance to standards and adapt to new technologies, frameworks and initiatives. DTE's change management framework needs to evolve to include Agile methodologies, Digital Factories, Cloud environments/applications/adapters and the new capabilities, competencies and tools to support said evolution.

What functionality or capability is being provided?

Provide configuration, release, and compliance for the CIT and BPD portfolio assets. This is in direct alignment with the digital and channel deployments, CR&B deployments, and BPD deployments initiatives. Provide support of tools used for change management, defect tracking, automated application testing. Configuration, release, compliance and audit management for deployments made to the CIT and BPD portfolio of assets Ensuring Segregation of duties, compliance with change management policies, and ensuring that we that we have a fully documented production changes in compliance with the Sarbanes-Oxley act Provide application support of CIT Tools used for defect tracking (Microstation - ALM), automated application testing (Tricentis - Tosca), and DevOps build management for SAP (Basis Technologies - Active Control) Support of N+x hosted environments for project development and quality

Describe alignment of project to Business Unit Goal(s) and Strategy(ies).



Aligns to:

Business Unit (BU) goal of reducing planned outage frequency, duration and impact
 BU goal of reducing unplanned outage frequency, duration and impact
 BU goal of reducing SOX testing duration and mean time to provide data
 BU goal of reducing SOX deficiencies per x operations
 BU goal of reducing planned outage frequency, duration and impact
 BU goal of increasing capital efficiency through more frequent (fix, enhancement) deployment
 BU goal of increasing speed to value through more continuous code (fix, enhancement) deployments

Define the Benefit/Value to the Organization, Customer, Employee.

The Customer or employee value of this project is configuration, build, and deployment in line with the needs of application teams, business partners, and our customers, resulting in reduced planned and unplanned downtime and zero compliance issues across the CIT and BPD portfolio of assets.

How will you monitor and measure expected value?

The Customer or employee value of this project is configuration, build, and deployment in line with the needs of application teams, business partners, and our customers, resulting in reduced planned and unplanned downtime and zero compliance issues across the CIT and BPD portfolio of assets.
 Planned downtime frequency, duration, customer/employee impact
 Unplanned downtime frequency, duration, customer/employee impact
 Capital efficiency ratio of planned to deployed units of code developed
 Release playbook defects per X operations
 SOX deficiencies per X operations

What alternatives have been considered?

Do nothing which would create issues with ensuring Segregation of duties, compliance with change management policies, and ensuring that we that we have a fully documented production changes in compliance with the Sarbanes-Oxley act is essential to ensure a stable application in CIT and BPD

Start Date	End Date	Shared Asset	Funding Source
2023-01-02	2025-12-30	Yes	IT

IT Costs

Type	FY23	FY24	FY25	Total
Capex	\$895,935	\$1,915,779	\$1,057,301	\$3,869,015
Opex	\$116,285	\$115,426	\$115,426	\$347,138
Total	\$1,012,220	\$2,031,205	\$1,172,727	\$4,216,153

BU Costs

Category	Term of Contract	BU O&M Cost
Business Unit		\$0
Cloud Usage Cost		\$0
Digital EXP Design Cost Est		\$0
Maintenance/Renewals		\$0
Organizational Change Management		\$0
Vendor Support & Licensing		\$0



Executive Summary

Business Case ID	BCD-CS-21-015	Business Case Name	Customer Legacy Application Health
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Stakeholders

IT Portfolio	Customer	Business Unit	CR&B New Business
IT Sub-Portfolio	CIT	Business Unit Sponsor	Melissa Cox
IT Director	Melissa Cox	Business Units Impacted	Electric
Managed by	IT		

Project Description

Project Category	Sustainment	Innovation?	No
Project Type	Operational	Strategic Fit	Distinctive Continuous Improvement Capability

Business Outcome

This case is designed to ensure that there is adequate coverage and oversight of key CIT systems ensuring funding for broke fix work, incident remediation, minor enhancements, defects and asset sustainment work that is provided by DTE employees in support of MSA.

Key Objectives

- 1) Continued management and operation of Customer IT Channel Support (Legacy, ESB, and IVR) provided by DTE employees
- 2) Continued management and operation of Customer IT Channel Support (Legacy, ESB, and IVR) provided by Managed Service Agreements (MSA)
 Oversee the continuing operation of these assets and systems from several standpoints including 24/7 Application Monitoring, Incident Prediction, Incident Remediation, System Break fix assistance, Availability Management and System Health Oversight.
- 3) Management and System Health Oversight.
- 4) Ensure continued operation of the Enterprise Service Bus and integration platform by MSA
- 5) Improve the stability and availability of core service assets, by reducing of technical debt and performance tuning of key services
- 6)
- 7)
- 8)
- 9)
- 10)

Start Month	January 2021	Funding Source	ITS
Duration to Complete	1 Years Months		
End Month	January 2022		

Financial Impact

	Year 1	Year 2	Year 3	Year 4	Year 5	Total
Capital	\$1,520,000	\$0	\$0	\$0	\$0	\$1,520,000
O&M	\$360,000	\$0	\$0	\$0	\$0	\$360,000
OCM	\$0	\$0	\$0	\$0	\$0	\$0
Total O&M	\$360,000	\$0	\$0	\$0	\$0	\$360,000
Total	\$1,880,000	\$0	\$0	\$0	\$0	\$1,880,000

Hardware/Software/ Cloud	Year 1	Year 2	Year 3	Year 4	Year 5	Total
Capital	\$0	\$0	\$0	\$0	\$0	\$0
O&M	\$0	\$0	\$0	\$0	\$0	\$0

BU O&M	\$0	Incremental Costs	\$0
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Executive Summary

Business Case Number	Business Case Name
DMND0001264	Customer Legacy Application Health

Stakeholders

Portfolio Category	Business Unit
Customer	Customer Service
Portfolio	Business Unit Director
Customer Service	Lisa A LeGault
Portfolio Manager	Business Unit SME
Lisa A LeGault	Radhakrishnan Balasubramanian
Managed By	PPS
IT	200

Project Description

Investment Type	Initiative Type
Sustainment	Operational

What business problem or opportunity are we trying to solve?

To ensure funding to provide the required enhancements or changes necessary within the Enterprise Service Bus supporting the Customer IT Channels. Enhancement request often come from external parties like Salvation Army and others use to help our low-income customers. The IVR is a recognition system key to our customers calling contact center. Per compliance we are maintaining legacy billing systems CSB/KCS (Residential and Commercial) in read only mode for inquiries. ESB is middleware software that communicates between core billing system (CR&B) and the channels (Web, Mobile, IVR and Kiosk). It is critical that these system function for customers to do their transactions.

What functionality or capability is being provided?

The skilled resources and staffing to provide the services required to deliver the required solutions to sustain legacy Customer Applications.

Describe alignment of project to Business Unit Goal(s) and Strategy(ies).

Delivery of service to our customers

Define the Benefit/Value to the Organization, Customer, Employee.

Maintain customer legacy systems so they operate smoothly and efficiently providing a good experience for our customers and employee users
 Improve CR&B Uptime % - 1%

How will you monitor and measure expected value?

In Scope not defined

What alternatives have been considered?

A "do nothing" alternative would result in regular maintenance not being executed on these critical customer systems that are utilized to report safety concerns such as gas leaks and outages. Further, systems utilized by our internal business organizations could be impacted, preventing, or delaying them from helping low-income customers. This is not an acceptable risk that the company is willing to take.

Start Date	End Date	Shared Asset	Funding Source
2023-01-02	2025-12-30	Yes	IT



IT Costs

Type	FY23	FY24	FY25	Total
Capex	\$405,000	\$446,000	\$491,000	\$1,342,000
Opex	\$77,537	\$77,537	\$77,537	\$232,611
Total	\$482,537	\$523,537	\$568,537	\$1,574,611

BU Costs

Category	Term of Contract	BU O&M Cost
Business Unit		\$0
Cloud Usage Cost		\$0
Digital EXP Design Cost Est		\$0
Maintenance/Renewals		\$0
Organizational Change Management		\$0
Vendor Support & Licensing		\$0



Executive Summary

Business Case ID	BCD-CS-22-018	Business Case Name	CRB Accenture MSA Application Health
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Stakeholders

IT Portfolio	Customer
IT Sub-Portfolio	CIT
IT Director	Lisa LeGault
Managed by	IT

Business Unit	CR&B New Business
Business Unit Director	Lisa LeGault
Business Unit SME	Jaikishen Jayachandran
Business Units Impacted	Electric

Project Description

Initiative Category	Sustainment	Initiative Type	Operational
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Business Opportunity

	Business Opportunity
What business problem are we trying to solve?	Maintain and operate the Customer Relationship & Billing production environment to enable high availability and accuracy so systems are available 24/7 365 days a year.
What system or process is being affected?	Systems - SAP applications including: Industry Solution - Utilities (ISU), Customer Relationship Management (CRM), Process Orchestrator (PO), Business Warehouse (BW), and Solution Manager (Solman). Opentext ECM and Stream Serve Processes - Event, Incident, and Problem management. Service Introduction.
What functionality or capability is being provided?	Maintain and operate the Customer Relationship & Billing production environment (C360) to enable high availability and accuracy so systems are available 24/7 365 days a year. This includes CI activities to improve ITS processes to achieve the most efficient execution of the Business Relationship Management Processes. Support various ITS internal processes with the objective of ensuring that all production product vendor contracts are relevant and current; and, all security requirements are met. Provide support to the business in the form of consultation when exploring alternative solutions to problems encountered; trouble shooting production incidents/defects that surface. Work primarily with the CS organization to determine and mitigate all IT impacts due to regulatory issues.
What is the customer or employee value?	The value of this project is having a highly available Customer Relationship & Billing production environment that meets the needs of our customers and employees
What alternatives have been considered?	Do nothing

Key Objectives

1)	Maintain and operate the Customer Relationship & Billing production environment to enable high availability and accuracy so systems are available 24/7 365 days a year.
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Case No : U-21534
 Exhibit : A-24
 Schedule: N1
 Witness: P. Sharma

- 2) Identify, validate, and correct software or system defects so that the application can be restored to an operational condition
- 3) Identify, validate, and correct the root cause of a software or system incident by implementing a change so the incident is not experienced again
- 4) Modify applications to improve performance and reliability in order to mitigate potential future problems based on past incidents
- 5) Apply minor technical patch updates to the applications
- 6) Support projects in the SAP CR&B landscape for code and/or configuration deployment to production landscape and support production readiness
- 7) Receive functional and technical knowledge transfer from project teams and coordinate project compliance requirements
- 8) Provide business case estimates and technical project design consultation
- 9) Perform ongoing cyclical and non-cyclical operational activities for applications allowing effective system maintenance
- 10)

Start Month	January	2022
Duration to Complete	Years	11 Months
End Month	December	2022

Funding Source	ITS
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IT Financial Impact						Total amount is sent for approval on all business cases.
	Year 1	Year 2	Year 3	Year 4	Year 5	Total
Capital	\$498,416	\$0	\$0	\$0	\$0	\$500,000
O&M	\$172,594	\$0	\$0	\$0	\$0	\$170,000
Total	\$671,010	\$0	\$0	\$0	\$0	\$670,000

Business Unit Costs						
BU O&M					Trailing BU O&M Costs	
	\$0				\$0	
	Year 1	Year 2	Year 3	Year 4	Year 5	Total



Executive Summary

Business Case ID	BCD-CS-22-026	Business Case Name	CRB non MSA Application Health
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Stakeholders

IT Portfolio	Customer	Business Unit	CR&B New Business
IT Sub-Portfolio	CIT	Business Unit Director	Lisa LeGault
IT Director	Lisa LeGault	Business Unit SME	Anthony Wilhelm
Managed by	IT	Business Units Impacted	Electric

Project Description

Initiative Category	Sustainment	Initiative Type	Operational
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Business Opportunity

What business problem are we trying to solve?	Manage the IT business needs of the Customer Relationship & Billing Assets by working primarily with the CS Organization to determine and mitigate all IT impacts due to security vulnerabilities and regulatory issues.
What system or process is being affected?	PO (Process Orchestrator), CRM (Customer Relationship Management), ISU (Industry Solutions - Utilities), BW (Business Wareouse), Customer Legacy systems
What functionality or capability is being provided?	The following functionality will be provided by implementing this project: 1. Maintain and operate the Customer Relationship & Billing production environment to enable high availability and accuracy so systems are available 24/7 365 days a year. 2. Maintain Contracts that are relevant and Active. 3. Provide support to Business in the form of Consultation when exploring alternative solutions to problems encountered. 4. Trouble Shooting Vendor Incidents/ Defects thats surface.
What is the customer or employee value?	Maintain a secure and compliant environment for our employees and customers.
What alternatives have been considered?	1. Sustainment needed for maintaining the Application. 2. Operating within the needs of the Customer Service Organization. It includes, but not limited to running the daily batch in CR&B, meter read data updates, invoicing, billing, dunning, bill print and support reporting.

Key Objectives

1)	Regularly patch the CR&B assets to address vulnerabilities in a timely fashion
2)	Ensure that the CR&B assets remain in compliance (IE. Sarbanes-Oxley)

3)
4)
5)
6)
7)
8)
9)
10)

Start Month	January	2022
Duration to Complete	Years	11 Months
End Month	December	2022

Funding Source	ITS
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IT Financial Impact						Total amount is sent for approval on all business cases.
	Year 1	Year 2	Year 3	Year 4	Year 5	Total
Capital	\$100,450	\$0	\$0	\$0	\$0	\$100,000
O&M	\$9,010	\$0	\$0	\$0	\$0	\$10,000
Total	\$109,460	\$0	\$0	\$0	\$0	\$110,000

Business Unit Costs						
BU O&M						Trailing BU O&M Costs
	\$0					\$0
Year 1	Year 2	Year 3	Year 4	Year 5	Total	



Executive Summary

Business Case Number	Business Case Name
DMND0001259	CRB Accenture MSA Application Health

Stakeholders

Portfolio Category	Business Unit
Customer	Customer Service
Portfolio	Business Unit Director
Customer Service	Lisa A LeGault
Portfolio Manager	Business Unit SME
Lisa A LeGault	Tony Wilhelm
Managed By	PPS
IT	200

Project Description

Investment Type	Initiative Type
Sustainment	Operational

What business problem or opportunity are we trying to solve?

The CR&B production environment needs to be regularly maintained to ensure the health, compliance, vulnerability remediation, and strategic alignment of the SAP CR&B Platform while providing a high level of availability with accurate data and meeting the business needs of the Customer Services, Billing and Metering, Distribution Operations, Energy Optimization, Treasury, Controllers, Gas Operations, Electric and Gas Sales and Marketing organizations. These are all part of our ongoing customer excellence effort to enable high availability and accuracy, so systems are available 24/7 365 days a year.

What functionality or capability is being provided?

"Maintain and operate the Customer Relationship & Billing production environment (C360) to enable high availability and accuracy so systems are available 24/7 365 days a year. This includes CI activities to improve ITS processes to achieve the most efficient execution of the Business Relationship Management Processes. Support various ITS internal processes with the objective of ensuring that all production product vendor contracts are relevant and current; and, all security requirements are met. Provide support to the business in the form of consultation when exploring alternative solutions to problems encountered; trouble shooting production incidents/defects that surface. Work primarily with the CS organization to determine and mitigate all IT impacts due to regulatory issues."

Describe alignment of project to Business Unit Goal(s) and Strategy(ies).

100% Lifecycle Schedule and Standard compliance

Define the Benefit/Value to the Organization, Customer, Employee.

The value of this project is having a highly available Customer Relationship & Billing production environment that meets the needs of our customers and employees

How will you monitor and measure expected value?

In Scope not defined

What alternatives have been considered?

Do Nothing- Not an Option, Sustainment needed for maintaining the application health



Start Date	End Date	Shared Asset	Funding Source
2023-01-02	2025-12-30	Yes	IT

IT Costs

Type	FY23	FY24	FY25	Total
Capex	\$824,000	\$907,000	\$998,000	\$2,729,000
Opex	\$87,120	\$87,120	\$87,120	\$261,360
Total	\$911,120	\$994,120	\$1,085,120	\$2,990,360

BU Costs

Category	Term of Contract	BU O&M Cost
Business Unit		\$0
Cloud Usage Cost		\$0
Digital EXP Design Cost Est		\$0
Maintenance/Renewals		\$0
Organizational Change Management		\$0
Vendor Support & Licensing		\$0



Executive Summary

Business Case Number	Business Case Name
DMND0001260	CRB non MSA Application Health

Stakeholders

Portfolio Category	Business Unit
Customer	Customer Service
Portfolio	Business Unit Director
Customer Service	Lisa A LeGault
Portfolio Manager	Business Unit SME
Lisa A LeGault	Ahmad M Tarsin
Managed By	PPS
IT	200

Project Description

Investment Type	Initiative Type
Sustainment	

What business problem or opportunity are we trying to solve?

The CR&B production environment needs to be regularly maintained to ensure the health, compliance, vulnerability remediation, and strategic alignment of the SAP CR&B Platform while providing a high level of availability with accurate data and meeting the business needs of the Customer Services, Billing and Metering, Distribution Operations, Energy Optimization, Treasury, Controllers, Gas Operations, Electric and Gas Sales and Marketing organizations. These are all part of our ongoing customer excellence effort

What functionality or capability is being provided?

1. Development and maintenance of the Technology Platform Plan, as well as the development of any necessary Business Cases necessary to maintain Asset Health. 2. Functional and technical design of small enhancements as needed for the platform.3. Work with the Customer Service and other impacted IT BRMs to determine and mitigate all IT impacts due to regulatory issues, vendor technology decisions.4. Work with the Customer Service and IT BRMs to develop long term IT needs.

Describe alignment of project to Business Unit Goal(s) and Strategy(ies).

100% Lifecycle Schedule and Standard compliance

Define the Benefit/Value to the Organization, Customer, Employee.

"1. The value of improved performance of CR&B Platform, while furthering strategic alignment with the platform vendors (SAP, OpenText).2. Development and maintenance of the Technology Platform Plan, as well as the development of any necessary Business Cases necessary to maintain Asset Health."

How will you monitor and measure expected value?

In Scope not defined

What alternatives have been considered?

A "do nothing" alternative would result in continual IT asset failure and inoperable software. Further causing unplanned outages that delay, or halted transactions negatively impacting our ability to deliver invoices to our large customers and incoming customer payments to our banking partners to process in batch.

Start Date	End Date	Shared Asset	Funding Source
2023-01-02	2025-12-30	Yes	IT



IT Costs

Type	FY23	FY24	FY25	Total
Capex	\$760,000	\$835,000	\$918,000	\$2,513,000
Opex	\$72,600	\$72,600	\$72,600	\$217,800
Total	\$832,600	\$907,600	\$990,600	\$2,730,800

BU Costs

Category	Term of Contract	BU O&M Cost
Business Unit		\$0
Cloud Usage Cost		\$0
Digital EXP Design Cost Est		\$0
Maintenance/Renewals		\$0
Organizational Change Management		\$0
Vendor Support & Licensing		\$0



Executive Summary

Business Case ID	BCD-CS-22-012	Business Case Name	Hybris Application Health
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Stakeholders

IT Portfolio	Customer	Business Unit	Electric Sales & Marketing
IT Sub-Portfolio	BPD	Business Unit Director	Benjamin Burns
IT Director	Lisa LeGault	Business Unit SME	John D Bueltel
Managed by	IT	Business Units Impacted	Electric

Project Description

Initiative Category	Sustainment	Initiative Type	Operational
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Business Opportunity	
What business problem are we trying to solve?	As we roll out new products and projects on Hybris platform, more users (external and internal) are added with project release. This also leads to identifying support issues, system defects, infrastructure and platform scalability related defects etc. Hence there will be a need to enhance the current platform and improve the performance and scalability as more capabilities and functionalities are added to the platform.
What system or process is being affected?	System which will be affected is Hybris cloud platform, which includes the following products on the platform: 1. SAP Marketing Cloud 2. SAP Commerce Cloud 3. Billing and Revenue Innovation Management (BRIM) 4. <u>Convergent Charging</u>
What functionality or capability is being provided?	Following functionalities/capabilities will be included as part of sustainment: 1. Security Monitoring 2. Application Performance Monitoring 3. Infrastructure and Network Performance Monitoring 4. Scalability of the platform
What is the customer or employee value?	1. Enabling business to roll-out products and offer services without needing support from IT 2. Improved user interface - dashboard view vs. emailed report 3. Targeted troubleshooting and faster root cause analysis, 4. Low configuration solutions (i.e., less administrative work), and reducing waste.
What alternatives have been considered?	This is a application health project and hence the alternative is to continue with business requiring IT support for introducing new products and services which can be expensive and time consuming

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 Witness: P. Sharma

Key Objectives	
1)	Work with implementaion partner 'Utegration' who will provide SAP Cloud Services Support for Hybris platform based on the SOW signed between DTE Energy and Utegration
2)	Services provided by Utegration shall be limited to the SAP Application modules listed below that are currently implemented in Client's SAP landscape. Any extensions or add-ons to the landscape are subject to the
3)	The services will be provided in accordance to the processes defined through collaborative planning and prioritization of activities.
4)	
5)	
6)	
7)	
8)	
9)	
10)	

Start Month	January	2022
Duration to Complete	0 Years	11 Months
End Month	December	2022

Funding Source	ITS
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IT Financial Impact						Total amount is sent for approval on all business cases.
	Year 1	Year 2	Year 3	Year 4	Year 5	
Capital	\$576,999	\$0	\$0	\$0	\$0	\$580,000
O&M	\$320,011	\$0	\$0	\$0	\$0	\$320,000
Total	\$897,010	\$0	\$0	\$0	\$0	\$900,000

Business Unit Costs						
BU O&M	\$0		Trailing BU O&M Costs			\$0
	Year 1	Year 2	Year 3	Year 4	Year 5	Total
OCM O&M	\$0	\$0	\$0	\$0	\$0	\$0



Executive Summary

Business Case Number	Business Case Name
DMND0001276	Hybris Application Health

Stakeholders

Portfolio Category	Business Unit
Customer	Customer Service
Portfolio	Business Unit Director
Customer Service	Pina Bennett
Portfolio Manager	Business Unit SME
Lisa A LeGault	John Bueltel
Managed By	PPS
IT	200

Project Description

Investment Type	Initiative Type
Sustainment	Operational

What business problem or opportunity are we trying to solve?

The Hybris, cloud platform was initially put into production in 2019 primarily supporting the roll out of new products and services via a customer self service platform. Since going live the platformed has been leveraged for a self-service channel for customers to perform functions such as; selecting rate options, enrolling in energy efficiency program, enrolling in green energy programs and etc. The core of the platform is a software-as-a-service offering from SAP which requires DTE to stay on supported versions of the platform. New releases are typically rolled out quarterly by SAP. Hence there is a need to update the current platform to stay on supported versions of the software and improve the performance and scalability as more capabilities and functionalities are added to the platform.

What functionality or capability is being provided?

"Following functionalities/capabilities will be included as part of sustainment:1. Security Monitoring2. Application Performance Monitoring 3. Infrastructure and Network Performance Monitoring4. Scalability of the platform"

Describe alignment of project to Business Unit Goal(s) and Strategy(ies).

Reduced call volume via customer self-serviceImprove speed to market

Define the Benefit/Value to the Organization, Customer, Employee.

"1. Enabling business to roll-out products and offer services without needing support from IT2. Improved user interface - dashboard view vs. emailed report 3. Targeted troubleshooting and faster root cause analysis, 4. Low configuration solutions (i.e., less administrative work), and reducing waste. "

How will you monitor and measure expected value?

Reduction in project delivery time.

What alternatives have been considered?

This is a application health project and hence the alternative is to continue with business requiring IT support for introducing new products and services which can be expensive and time consuming DO Nothing Alternative was not accepted as it will not enable IT to support the business

Start Date	End Date	Shared Asset	Funding Source
2023-01-02	2025-12-31	No	IT



IT Costs

Type	FY23	FY24	FY25	Total
Capex	\$2,576,830	\$635,000	\$855,000	\$4,066,830
Opex	\$363,000	\$363,000	\$363,000	\$1,089,000
Total	\$2,939,830	\$998,000	\$1,218,000	\$5,155,830

BU Costs

Category	Term of Contract	BU O&M Cost
Business Unit		\$0
Cloud Usage Cost		\$0
Digital EXP Design Cost Est		\$0
Maintenance/Renewals		\$0
Organizational Change Management		\$0
Vendor Support & Licensing		\$0



Executive Summary

Business Case Number	Business Case Name
DMND0001852	MIGreenPower Program Stabilization

Stakeholders

Portfolio Category	Business Unit
Customer	Customer Service
Portfolio	Business Unit Director
Customer Service	Brian T Calka
Portfolio Manager	Business Unit SME
Lisa A LeGault	Eric J Markel
Managed By	PPS
IT	200

Project Description

Investment Type	Initiative Type
Sustainment	Operational

What business problem or opportunity are we trying to solve?

The Business problem is to support the MIGreenPower and Private solar business in making small updates, supporting process improvements. Manage IT needs of the Renewable business, enhancements to update any billing related requests, update static web content for MIGP 2021 new products. This process started in June 2021, business identified the incorrect data, billing(customer had billed incorrectly) and process issues, to fix the issues the existing sustainment process is taking long time for work prioritization, hence business is requesting this project. Our intended scope for this initiative is to support the following applications when we experience any issues in the system, also when new parks comes online. SAP CR&B (Customer Relationship and Billing), SAP BW (Business Warehouse) Reporting and SAP Commerce cloud.

What functionality of capability is being provided?

The functionality is being provided to improve renewable energy applications, accurate billing and reports.

1. Ability to create custom web links so that auto populate the referral code when a customer clicks on the link to guest enroll in MIGP
2. Solar Currents Auto Refund program – this must be in production by November
 - a. Auto enroll program must mark the solar currents refunds in the parent account for the collective customer (additional requirement)
3. Additional Work for Re-calculation of Annual estimated KWH
4. Minor adjustments to MIGreenPower Website
5. Enhancements to the MIGreenPower and Distributed Generation programs
6. Configure required data requirements that arise from MPSC, Audits and Customers
7. Billing quantity is prorated as 0 after price change and Billing quantity is captured as 0 in the billing document.
8. Any reporting enhancements/additional reporting needed that is not covered in MIGP 2021 Project (Requirement details will be shared as we go).
 - a. Need to generate a list of eligible low-income customers for MIGP Flex Support
- 9.Changes required to Data and Reports when processes or calculations change
10. Support MIGP business IT applications and assets
11. Coordination and work with internal IT, Business teams, and vendors
12. Additional changes/enhancements that are required from the control reporting and BW reports

Describe alignment of project to Business Unit Goal(s) and Strategy(ies).



The customer value is improved system functionality alignment to business process in sync customer data and billing.
The employee value is improved employee work experience by minimizing the amount of manual work arounds.

Define the Benefit/Value to the Organization, Customer, Employee.

Operating impact: Improve business continuity-5%Employee/Safety impact: Increase efficiency by removing the data errors-5%Customer impact: Increase customer satisfaction -5%Force for growth impact: Increase customer participation-5%

How will you monitor and measure expected value?

Business will monitor the continuity by using the BW Enrollment /Unenrollment/Revenue reports.

What alternatives have been considered?

Do nothing.
Data, business and reports will continue to utilize inaccurate data which could lead to program inefficiency, and failure to fulfill audit to MPSC requirements.
Additionally customer complaints, inaccurate billing, inaccurate compensation to employees and vendors.

Start Date	End Date	Shared Asset	Funding Source
2022-09-06	2022-12-30	No	IT

IT Costs

Type	FY22	Total
Capex	\$469,997	\$469,997
Opex	\$74,635	\$74,635
Total	\$544,631	\$544,631

BU Costs

Category	Term of Contract	BU O&M Cost
Business Unit		\$15,000
Cloud Usage Cost		\$0
Digital EXP Design Cost Est		\$0
Maintenance/Renewals		\$0
Organizational Change Management		\$0
Vendor Support & Licensing		\$0



Executive Summary

Business Case Number	Business Case Name
DMND0001680	MIGreenPower Program Stabilization

Stakeholders

Portfolio Category	Business Unit
Customer	Customer Service
Portfolio	Business Unit Director
Customer Service	Knox W Cameron
Portfolio Manager	Business Unit SME
Lisa A LeGault	Eric J Markel
Managed By	PPS
IT	200

Project Description

Investment Type	Initiative Type
Sustainment	Operational

What business problem or opportunity are we trying to solve?

The Business problem is to support the MIGreenPower and Private solar business in making enhancements, supporting process improvements and also completing code and configuration modifications necessary within the Renewable applications. Manage IT needs of the Renewable business, to enable the new parks/nodes into the system, and enable the latest content in the website. This project is required for accurate customer billing and reporting. To avoid incorrect compensation to employees and vendors. To populate the correct weekly score cards. Our intended scope for this initiative is to support the following applications when we experience any issues in the system, also when new parks comes online, enable the new parks/nodes into the system, and enable the latest content in the website. SAP CR&B (Customer Relationship and Billing), SAP BW (Business Warehouse) Reporting and SAP Commerce cloud.

What functionality or capability is being provided?

The functionality is being provided to improve renewable energy applications, accurate billing and reports.1. Perform necessary updates to add new parks/nodes in to the system(s), website and reports.2. Enhancements to the MIGreenPower and Distributed Generation programs3. Changes required to Data and Reports when processes or calculations change4. Adjustments/ update to MIGreenPower Website content5. To fulfill data requirements that arise from MPSC, Audits and Customers6. Support MIGP business IT applications and assets7. Coordination and work with internal IT, Business teams, and vendors

Describe alignment of project to Business Unit Goal(s) and Strategy(ies).

The customer value is improved system functionality alignment to business process in sync customer data and billing.
 The employee value is improved employee work experience by minimizing the amount of manual work arounds.

Define the Benefit/Value to the Organization, Customer, Employee.

Operating impact: Improve business continuity-5%Employee/Safety impact: Increase efficiency by removing the data errors-5%Customer impact: Increase customer satisfaction -5%Force for growth impact: Increase customer participation-5%



How will you monitor and measure expected value?
 Business will monitor the continuity by using the BW Enrollment /Unenrollment/Revenue reports. By monitoring the customer complaints, accuracy of billing and accuracy of compensation to employees and vendors.

What alternatives have been considered?
 Do nothing.
 Data, business and reports will continue to utilize inaccurate data which could lead to program inefficiency, and failure to fulfill audit to MPSC requirements.
 Additionally customer complaints, inaccurate billing, inaccurate compensation to employees and vendors.

Start Date	End Date	Shared Asset	Funding Source
2023-01-02	2023-12-30	No	IT

IT Costs

Type	FY23	Total
Capex	\$1,548,000	\$1,548,000
Opex	\$152,810	\$152,810
Total	\$1,700,810	\$1,700,810

BU Costs

Category	Term of Contract	BU O&M Cost
Business Unit		\$0
Cloud Usage Cost		\$0
Digital EXP Design Cost Est		\$0
Maintenance/Renewals		\$0
Organizational Change Management		\$0
Vendor Support & Licensing		\$0



Executive Summary

Business Case Number	Business Case Name
DMND0001759	MIGreenPower Program Stabilization

Stakeholders

Portfolio Category	Business Unit
Customer	Renewable Operations
Portfolio	Business Unit Director
Customer Service	Knox W Cameron
Portfolio Manager	Business Unit SME
Lisa A LeGault	Eric J Markel
Managed By	PPS
IT	200

Project Description

Investment Type	Initiative Type
Sustainment	Operational

What business problem or opportunity are we trying to solve?

The Business problem is to support the MIGreenPower business in making enhancements, supporting process improvements and also completing code and configuration modifications necessary within the Renewable applications.
 The Business opportunity is to continue to manage and expand the MIGreenPower program, to enable the addition of new parks and nodes into the system, enable the content on the website to improve the customer experience. With continually addition of new parks and nodes into the system, we need to further develop the management and expansion of the MIGreenPower program.
 This project is required for accurate customer billing and reporting of new components and code additions. Our intended scope for this initiative is to support the following applications.
 SAP CR&B (Customer Relationship and Billing), SAP BW (Business Warehouse) Reporting, SAP Commerce cloud and SAP Marketing cloud.

What functionality or capability is being provided?

To provide code necessary MIGreenPower product offerings in SAP
 To provide necessary new billing options/configurations
 To provide necessary web site updates in SAP Commerce and Marketing cloud
 To create new functionality to support the MIGreenPower program

Describe alignment of project to Business Unit Goal(s) and Strategy(ies).

To develop the MIGreenPower program within SAP to reflect new requirements and drive increased revenue.

Define the Benefit/Value to the Organization, Customer, Employee.

Continuing to create program options for the MIGreenPower will drive program growth, improve customer satisfaction and experience.
 The customer value is improved system functionality alignment to business process in sync customer data and billing.
 To provide necessary Employee tools to administer the MIGreenPower program.
 The employee value is improved employee work experience by minimizing the amount of manual work arounds.



How will you monitor and measure expected value?

Measure success by using the reporting tools developed to ensure the accuracy of program enrollments, billing, and payments for individual IT projects.
 Business will monitor the continuity by using the BW Enrollment /Unenrollment/Revenue reports.
 By monitoring the customer complaints, accuracy of billing and accuracy of compensation to employees and vendors.

What alternatives have been considered?

No alternatives have been identified.
 A do-nothing approach will result in a discrepancy in several business processes.
 Data, business and reports will continue to utilize inaccurate data which could lead to program inefficiency, and failure to fulfill audit to MPSC requirements.

Start Date	End Date	Shared Asset	Funding Source
2024-01-02	2025-12-30	No	IT

IT Costs

Type	FY24	FY25	Total
Capex	\$1,555,406	\$1,546,850	\$3,102,256
Opex	\$103,853	\$100,183	\$204,036
Total	\$1,659,259	\$1,647,033	\$3,306,292

BU Costs

Category	Term of Contract	BU O&M Cost
Business Unit		\$0
Cloud Usage Cost		\$0
Digital EXP Design Cost Est		\$0
Maintenance/Renewals		\$0
Organizational Change Management		\$0
Vendor Support & Licensing		\$0



Executive Summary

Business Case Number	Business Case Name
DMND0002363	Powerley Customer Platform Application Health

Stakeholders

Portfolio Category	Business Unit
Customer	Customer Service
Portfolio	Business Unit Director
Customer Service	Jason E Sparks
Portfolio Manager	Business Unit SME
Lisa A LeGault	Meesha Nolen
Managed By	PPS
IT	200

Project Description

Investment Type	Initiative Type
Sustainment	Solutions Delivery - Cloud

What business problem or opportunity are we trying to solve?

Powerley has developed and supports several systems used by DTE's external customers (e.g. DTE Insight, Energy Bridges, Bill Management). These systems needs to be maintained and upgraded to support new mobile operating systems or DTE's external customers will lose the capabilities they are paying for. DTE does not maintain the internal expertise or staffing levels to support Powerley Cloud systems and needs to provide the required support services to maintain the solutions provided by Powerley.

What functionality or capability is being provided?

Ensuring DTE customers do not see any interruptions for DTE Insight, Energy Bridges, Bill Management, and Powerley Portal

Describe alignment of project to Business Unit Goal(s) and Strategy(ies).

Ensuring that DTE customers do not see interruptions in provided capabilities

Define the Benefit/Value to the Organization, Customer, Employee.

Ensures no interruption to DTE customers using included apps

How will you monitor and measure expected value?

Monitor using AWS cloudwatch using defined KPIs like App uptime, number of defects per million opportunities etc.

What alternatives have been considered?

Investigated alternatives including bringing the capability in house, determined that the lowest risk option is to continue with Powerley

Start Date	End Date	Shared Asset	Funding Source
2023-01-02	2023-12-31	No	IT



IT Costs

Type	FY23	Total
Capex	\$2,750,784	\$2,750,784
Total	\$2,750,784	\$2,750,784

BU Costs

Category	Term of Contract	BU O&M Cost
Business Unit		\$0
Cloud Usage Cost		\$0
Digital EXP Design Cost Est		\$0
Maintenance/Renewals		\$0
Organizational Change Management		\$0
Vendor Support & Licensing		\$0



Executive Summary

Business Case Number	Business Case Name
DMND0002599	Powerley Customer Platform Application Health

Stakeholders

Portfolio Category	Business Unit
Customer	Customer Service
Portfolio	Business Unit Director
Customer Service	Jason E Sparks
Portfolio Manager	Business Unit SME
Lisa A LeGault	Meesha Nolen
Managed By	PPS
IT	200

Project Description

Investment Type	Initiative Type
Sustainment	Solutions Delivery - Cloud

What business problem or opportunity are we trying to solve?

Powerley has developed and supports several systems used by DTE's external customers (e.g. DTE Insight, Energy Bridges, Bill Management). These systems needs to be maintained and upgraded to support new mobile operating systems or DTE's external customers will lose the capabilities they are paying for. DTE does not maintain the internal expertise or staffing levels to support Powerley Cloud systems and needs to provide the required support services to maintain the solutions provided by Powerley.

Also enhancing the Bill Management web site to include various new features to assist customers to understand their usage, rates, their current and forecasted bill / usages.

What functionality or capability is being provided?

Ensuring DTE customers do not see any interruptions for DTE Insight, Energy Bridges, Bill Management, and Powerley Portal

Describe alignment of project to Business Unit Goal(s) and Strategy(ies).

Ensuring that DTE customers do not see interruptions in provided capabilities

Define the Benefit/Value to the Organization, Customer, Employee.

Ensures no interruption to DTE customers using included apps

How will you monitor and measure expected value?

Monitor using AWS cloudwatch using defined KPIs like App uptime, number of defects per million opportunities etc.

What alternatives have been considered?

Investigated alternatives including bringing the capability in house, determined that the lowest risk option is to continue with Powerley

Start Date	End Date	Shared Asset	Funding Source
2024-01-02	2025-12-31	Yes	IT



IT Costs

Type	FY24	FY25	Total
Capex	\$500,001	\$3,751,626	\$4,251,627
Opex	\$121,007	\$118,993	\$240,000
Total	\$621,008	\$3,870,619	\$4,491,627

BU Costs

Category	Term of Contract	BU O&M Cost
Business Unit		\$0
Cloud Usage Cost		\$0
Digital EXP Design Cost Est		\$0
Maintenance/Renewals		\$0
Organizational Change Management		\$0
Vendor Support & Licensing		\$0



Executive Summary

Business Case Number	Business Case Name
DMND0001289	Service Cloud Product Support For Customer Document Submission

Stakeholders

Portfolio Category	Business Unit
Customer	Business Planning and Development
Portfolio	Business Unit Director
Customer Service	Michael J Hatsios
Portfolio Manager	Business Unit SME
Lisa A LeGault	Satyanand V Jayanthi
Managed By	PPS
MEP	200

Project Description

Investment Type	Initiative Type
Sustainment	Solutions Delivery - Cloud

What business problem or opportunity are we trying to solve?

Customer Service Organization is seeking a long-term solution for customer-facing applications used by external customers to submit documents for review and approval by DTE businesses during various customer service scenarios where document verification is required. The current solution of Salesforce is not supported by DTE-ITS platform. When new or changes to existing business processes change creating updates to the existing submission process, Customer Service is forced to work with an external vendor for enhancements, maintenance, and support. When critical defects arise, or if enhancements are desired, impacted business units are required to troubleshoot with limited internal DTE Customer Service resources and navigate various Service Cloud contacts to attempt remediation. As a result, much time is spent acquiring funding to engage the necessary external vendor support.

What functionality or capability is being provided?

Service Cloud will ensure that it can continue to be utilized to support multiple processes across various business units including the ability for DTE to review customer submitted documents via the Documents Submission Portal. Examples of documents submitted include but are not limited to: ID validation documents for moves, Medical related documents for medical holds and Landlord documents for verifications.

Describe alignment of project to Business Unit Goal(s) and Strategy(ies).

Potential to send link with authentication token to customers to upload docs

Define the Benefit/Value to the Organization, Customer, Employee.

The Document Submission portal is the only secure way for Customer Service to obtain documents from DTE customers. When the document submission process is broken, it has an operational impact on customers and some examples include trying to move-in, enroll as low-income, obtain medical holds. If vendor support is needed, having a dedicated budget will reduce time spent acquiring funding; streamline operations; and lead to enhanced customer experience and improved customer satisfaction.

How will you monitor and measure expected value?

Expected value will be measured by customer satisfaction.

What alternatives have been considered?



No other short-term alternatives have been considered at this time. Usage of Document Submission Portal is expanding to other business areas and long-term solutions are currently being explored via the Corrective Action Request (CAR # 9977217) process.
 A "do nothing" alternative was rejected because it would continue to result in limited support capabilities and resolution time

Start Date	End Date	Shared Asset	Funding Source
2023-01-02	2023-12-30	No	IT

IT Costs

Type	FY23	FY24	Total
Capex	\$752,988	\$275,000	\$1,027,988
Opex	\$24,615		\$24,615
Total	\$777,603	\$275,000	\$1,052,603

BU Costs

Category	Term of Contract	BU O&M Cost
Cloud Usage Cost		\$0
Digital EXP Design Cost Est		\$0
Maintenance/Renewals		\$0
Organizational Change Management		\$64,480
Vendor Support & Licensing		\$0



Executive Summary

Business Case Number	Business Case Name
DMND0001491	Supporting capabilities Test data and test data mgmt

Stakeholders

Portfolio Category	Business Unit
Customer	Customer Service
Portfolio	Business Unit Director
Customer Service	Lisa A LeGault
Portfolio Manager	Business Unit SME
Lisa A LeGault	Neelima Dasari
Managed By	PPS
IT	200

Project Description

Investment Type	Initiative Type
Sustainment	Operational

What business problem or opportunity are we trying to solve?

Currently CR&B application team has a process to generate any type of test data to help self service channels, Assisted Channel, and Training with their Sustainment and project testing activities. Also it needs to coordinate regression and performance test with the vendors. Vendors will maintain the regression scripts and ensure the scripts are run every month to ensure there are no issues identified before production launch. Also, if the solution is customer facing, the vendor ensures the customer facing website and its corresponding backend can handle the load under certain significant events like Outage, Move in Move out etc

The recommended solution is to use TOSCA which we implemented for regression test. For performance test, the recommendation was to use load runner scripts

What functionality or capability is being provided?

Performance Testing and Regression Testing

Describe alignment of project to Business Unit Goal(s) and Strategy(ies).

Operating Impact and expected change is 1%

Define the Benefit/Value to the Organization, Customer, Employee.

Increase Quality and Minimize cost and time by generating test data using automating test data generation and regression test process. It also minimize the defect/error rate as we can provide full coverage to the test use cases by providing test data whenever is required. It also minimizes user error by performing load/performance test before every release

How will you monitor and measure expected value?

Minimize cost and time by running the regression test by avoiding manual intervention and also minimize the defect/error rate by accurately preparing the required scripts covering all the scenarios. Increase quality of the deliverable by automating the testing process.

What alternatives have been considered?

Currently Technical SME's need be involved to manually produce the test data as required for the teams testing. This will include additional effort, time and cost for every request. If this business case is not implemented then we should stay with the status quo and there is no other alternative solution.



Start Date	End Date	Shared Asset	Funding Source
2024-01-02	2025-12-31	Yes	IT

IT Costs

Type	FY24	FY25	Total
Capex	\$500,000	\$500,000	\$1,000,000
Opex	\$50,000	\$50,000	\$100,000
Total	\$550,000	\$550,000	\$1,100,000

BU Costs

Category	Term of Contract	BU O&M Cost
Business Unit		\$0
Cloud Usage Cost		\$0
Digital EXP Design Cost Est		\$0
Maintenance/Renewals		\$0
Organizational Change Management		\$0
Vendor Support & Licensing		\$0



Executive Summary

Business Case ID	BCD-CS-22-035	Business Case Name	Agency Website AGW Rebuild
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Stakeholders

IT Portfolio	Customer	Business Unit	Revenue Mngmt & Protection
IT Sub-Portfolio	CIT	Business Unit Director	Tamara Johnson
IT Director	Lisa LeGault	Business Unit SME	Cheryl A Stafford / Charles Bazner
Managed by	MEP	Business Units Impacted	Electric

Project Description

Initiative Category	Return-to-Health	Initiative Type	Solutions Delivery - Cloud
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Business Opportunity	
What business problem are we trying to solve?	The Agency Website (AGW) was designed in 2004 to provide an online interface for human service agencies (such as Michigan Department of Health and Human Services-MDHHS, Salvation Army and United Way) with the ability to view DTE customer account information when determining eligibility for energy assistance programs or committing funds. The current Agency Website (AGW) is running on an out-of-support technology stack that needs to be upgraded or replaced. The DTE Architecture team has completed its analysis and recommends replacing AGW with the Self Service Accelerator (SSA) Agency module to provide a stable and reliable solution that supports DTE business goals.
What system or process is being affected?	AGW will be replaced with Self Service Accelerator (SSA) Agency module for external agencies, and will provide a holistic customer experience by integrating front office and back office (ISU/CRM) capabilities.
What functionality or capability is being provided?	The proposed Self Service Accelerator (SSA) Agency module will provide the the following functionality: * On-boarding agency Admins and allows agency admisin to manage users. * Agency case workers can log in, search and review accounts; view bill history, payment plan history, apply holds and enroll to LSP program. * Audit support, audit tracking, reporting and dashboards * The ability for agencies to commit funds using credit cards. Self Service Accelerator (SSA) is a PCI certified platform and integrates with Paymetrics
What is the customer or employee value?	The proposed solution provides external agencies with a stable and reliable solution to obtain the information they need with limited emails and phone calls to DTE. It provides enhanced proactive customer communications, allows agencies the ability to make credit card payments on behalf of customers, and minimizes the operational cost of maintaining a separate application for agencies.
What alternatives have been considered?	Re-platforming AGW was considered, however to present a view to external agencies, there is a duplication of display logic and increased operational costs. The SAP Service Cloud with CDC was also considered, but found to lack payment functionality and would need to be custom built. As a result, the Self Service Accelerator (SSA) Agency module, which has been used by multiple utilities and is a utility grade solution that aligns with platform first principles, is the recommended solution.

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Case No : U-21534
 Exhibit : A-24
 Schedule: N1
 Witness: P. Sharma

Key Objectives	
1)	Need to provide single log-in for MEAP/NON-MEAP: MEAP/Non-MEAP currently require different log-in IDs.
2)	Need to retain current functionality such as account search, view payment and billing history, commit funds, apply 30-day hold, view bills, LSP enrollments and view payment plan history.
3)	Need the ability to onboard agency administrators and allow agency administrators the ability to manage users.
4)	Need to provide audit support and audit tracking.
5)	Reporting requirements include: Commitment reports, Activity reports, and User reports.
6)	Back-end changes/enhancements are needed for Balance Transfers, HPP Write-offs, Payment Plan and Account Balance display issues.
7)	Planned/Future requirement includes the ability for agencies to make credit card/ACH payments on behalf of customers.
8)	Need to enhance customer communications.
9)	
10)	

Start Month	February	2022	
Duration to Complete	Years	9	Months
End Month	November	2022	

Funding Source	ITS
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IT Financial Impact						Total amount is sent for approval on all business cases. Total
	Year 1	Year 2	Year 3	Year 4	Year 5	
Capital	\$1,173,525	\$0	\$0	\$0	\$0	\$1,170,000
O&M	\$177,190	\$0	\$0	\$0	\$0	\$180,000
Total	\$1,350,715	\$0	\$0	\$0	\$0	\$1,350,000

Business Unit Costs						
BU O&M	\$0		Trailing BU O&M Costs		\$0	
	Year 1	Year 2	Year 3	Year 4	Year 5	Total
OCM O&M	\$0	\$0	\$0	\$0	\$0	\$0



Executive Summary

Business Case ID	BCD-CS-22-052	Business Case Name	Archive and Purge Phase 2
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Stakeholders

IT Portfolio	Customer	Business Unit	CR&B New Business
IT Sub-Portfolio	CIT	Business Unit Director	Paolo Morra
IT Director	Lisa LeGault	Business Unit SME	Felicia Woo
Managed by	MEP	Business Units Impacted	Electric

Project Description

Initiative Category	Strategic	Initiative Type	Solutions Delivery - Cloud
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Business Opportunity	
What business problem are we trying to solve?	Retrieval of the archived data using the SAP ILM data retrieval system only allows the data to be retrieved record-by-record for the majority of fields. This retrieval mechanism does not meet internal or external customer needs to retrieve historical data upon request.
What system or process is being affected?	Customer Service Billing, Customer Service Analytics and MPSC and internal / external ad-hoc reporting
What functionality or capability is being provided?	Ability to retrieve data from the archived system in order to perform reporting or analytics to meet internal customer and regulatory, compliance and audit needs / requests.
What is the customer or employee value?	Reporting and analytics to support internal and external customer requests and needs. Analysis and insight derived from Analytics are used to improve the customer's experience and increases employee engagement.
What alternatives have been considered?	There are no alternatives at this point as the Business Users need to retrieve historical data as described above to meet reporting, analytics, including predictive modeling, and ad-hoc requests and needs from internal and external customers.

Key Objectives	
	All the tables and fields provided by the Business (CS Analytics and Select users) will be available for retrieval on demand without IT intervention via queries, PowerBI or Alteryx from the ADLS cloud platform. In order to provide data retrieval capabilities for business users of data that will be archived, the data from ISU would need to be transported to the Azure Data Lake Storage (ADLS) cloud platform before the data is archived.
1)	
2)	Prevent loss of data from October 2017 onward for machine learning modeling to support analytical use cases that lead to UCX, NPS and O&M target achievement
3)	Provide a proxy backup of ISU data in a similar in structure to how it was in ISU
4)	Security access and governance stood up to ensure proper access and handling of the data in compliance with SOX rules if applicable
5)	
6)	
7)	
8)	
9)	
10)	

Start Month	January	2022
Duration to Complete	Years	5 Months
End Month	June	2022

Funding Source	ITS
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IT Financial Impact						Total amount is sent for approval on all business cases.
	Year 1	Year 2	Year 3	Year 4	Year 5	
Capital	\$1,103,563	\$0	\$0	\$0	\$0	\$1,100,000
O&M	\$151,736	\$0	\$0	\$0	\$0	\$150,000
Total	\$1,255,299	\$0	\$0	\$0	\$0	\$1,250,000

Business Unit Costs						
BU O&M	\$0		Trailing BU O&M Costs		\$80,000	
	Year 1	Year 2	Year 3	Year 4	Year 5	Total
OCM O&M	\$0	\$0	\$0	\$0	\$0	\$0



Executive Summary

Business Case ID	BCD-CS-22-039	Business Case Name	Contact Center Infrastructure
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Stakeholders

IT Portfolio	Customer	Business Unit	Contact Center
IT Sub-Portfolio	CIT	Business Unit Director	Dawn M Hayes
IT Director	Lisa LeGault	Business Unit SME	Elizabeth Lukacs
Managed by	MEP	Business Units Impacted	Electric

Project Description

Initiative Category	Return-to-Health	Initiative Type	Solutions Delivery - On Prem
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Business Opportunity	
What business problem are we trying to solve?	This business case solves the problem of keeping several key hardware and software components of the Contact Center Infrastructure healthy by providing necessary upgrades. As our hardware and software age, vulnerabilities arise, support decreases, and maintenance becomes difficult. Making sure that our infrastructure stays current with the latest hardware and software releases is critical to maintain reliability and to continue to offer customers and the Contact Center an excellent experience.
What system or process is being affected?	The processes of receiving, routing and managing customer calls are impacted by the overall health of the Contact Center platform.
What functionality or capability is being provided?	The infrastructure updates contained in this project ensure the Contact Center is running on the latest and most supported hardware and software versions provided by our vendors. The updates provide Contact Center Customer Service Representatives and management the capability of receiving, routing and managing customer calls.
What is the customer or employee value?	Replacing key hardware and moving to the latest software allows DTE to continue to offer customers an excellent experience through a fully supported technology platform.
What alternatives have been considered?	As the 800 function for DTE is critical to our customers being able to reach us, it is not feasible to let key components lapse in health or updates.

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Case No : U-21534
 Exhibit : A-24
 Schedule: N1
 Witness: P. Sharma

Key Objectives	
1)	Upgrading/migrate the Oracle R12c on AIX Platform to Oracle R19c on supported AIX Platform Prod – aix20019, aix20020 QA – aix10031, lab aix10030 Upgrade databases: Currently on Oracle version 12C Upgrade t
2)	Move 4 IVR SQL Databases from current 2016 to the new 2019 platform. New operating system will be Windows 2019. dca-pro1448, dca-pro1449, dca-test1443, dca-dev1443
3)	Move and load test IVR Weblogic from 12C to 19C Servers (21 instances and 15 servers). Prod: Inx1279, Inx1280, Inx1281, Inx1282, Inx1289, Inx1290, Inx1291, Inx1292, Inx1293, Inx1294 QA: Inx1273, Inx1274, Inx1
4)	Upgrade Avaya Experience Portal (AEP) from 7.x to 8.x.
5)	Purchase 12 Nuance servers and operating systems: Inx1276, Inx1277, Inx1278, Inx1283, Inx1284, Inx1285, Inx1286, Inx1287, Inx1288, Inx1271, Inx1272, Inx1256
6)	Upgrade Nuance software.
7)	Load test Nuance and WebLogic.
8)	
9)	
10)	

Start Month	January	2022
Duration to Complete	Years	11 Months
End Month	December	2022

Funding Source	ITS
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IT Financial Impact						Total amount is sent for approval on all business cases.
	Year 1	Year 2	Year 3	Year 4	Year 5	
Capital	\$4,331,266	\$0	\$0	\$0	\$0	\$4,330,000
O&M	\$517,852	\$0	\$0	\$0	\$0	\$520,000
Total	\$4,849,118	\$0	\$0	\$0	\$0	\$4,850,000

Business Unit Costs						
BU O&M	\$0		Trailing BU O&M Costs		\$0	
	Year 1	Year 2	Year 3	Year 4	Year 5	Total
OCM O&M	\$46,800	\$0	\$0	\$0	\$0	\$46,800



Executive Summary

Business Case ID	BCD-CS-21-013	Business Case Name	StreamServe xECM Upgrade
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Stakeholders

IT Portfolio	Customer	Business Unit	CR&B New Business
IT Sub-Portfolio	CIT	Business Unit Sponsor	Melissa Cox
IT Director	Melissa Cox	Business Units Impacted	Electric
Managed by	MEP		

Project Description

Project Category	Return-to-Health	Innovation?	No
Project Type	Solutions Delivery - On Prem	Strategic Fit	Top-Decile Customer Satisfaction

Business Outcome

Supported version of software for any future issues resolution from 3rd party vendor support and business continuity for archiving customer bills, bill printing functionality and correspondences without any impact to execution to meet SLA.

Key Objectives

- 1) Upgrade StreamServe to the latest supported Version Exstream 16.6.
- 2) Upgrade Extended ECM Product to latest supported Version 20.2.
- 3) Upgrade OpenText Software to align with the latest CR&B product versions
- 4) Increased data security while delivering Customer Ebills via https. Current Version of StreamStudio does not support https protocol.
- 5) This upgraded Software version meets the prerequisite for Bill Redesign requirements driven from Time of Use and other ongoing Customer Projects
- 6)
- 7)
- 8)
- 9)
- 10)

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Case No : U-21534
 Exhibit : A-24
 Schedule: N1
 Witness: P. Sharma

Start Month	January	2021
Duration to Complete	1	Years 0 Months
End Month	January	2022

Funding Source	ITS
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Financial Impact

	Year 1	Year 2	Year 3	Year 4	Year 5	Total
Capital	\$2,240,000	\$0	\$0	\$0	\$0	\$2,240,000
O&M	\$190,000	\$0	\$0	\$0	\$0	\$190,000
OCM	\$0	\$0	\$0	\$0	\$0	\$0
Total O&M	\$190,000	\$0	\$0	\$0	\$0	\$190,000
Total	\$2,430,000	\$0	\$0	\$0	\$0	\$2,430,000

Hardware/Software/ Cloud	Year 1	Year 2	Year 3	Year 4	Year 5	Total
Capital	\$272,000	\$0	\$0	\$0	\$0	\$272,000
O&M	\$0	\$0	\$0	\$0	\$0	\$0

BU O&M	\$0
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Incremental Costs	\$43,000
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Executive Summary

Business Case ID	BCD-CS-21-036	Business Case Name	Customer Experience Suite
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Stakeholders

IT Portfolio	Customer	Business Unit	Self Service Channels
IT Sub-Portfolio	CIT	Business Unit Sponsor	Siddharth Arigapudi
IT Director	Melissa Cox	Business Units Impacted	Electric
Managed by	MEP		

Project Description

Project Category	Return-to-Health	Innovation?	No
Project Type	Operational	Strategic Fit	Top-Decile Customer Satisfaction

Business Outcome

Replace our outdated and unsupported CMS platform. Enabling a more robust and agile Customer Experience Management will allow us to publish content in a reliable and scalable way to provide customers with more contextual, and engaging information. Providing customers with relevant content will improve customer satisfaction and drive digital engagement rates. A robust and supported CEM will reduce sustainment costs and provide revenue generating opportunities through the use of advanced technology to achieve a deeper understanding of our customers wants and needs.

Key Objectives

- 1) Deliver relevant content at scale with contextual experiences to drive customer engagement
- 2) Technology/platform enables seamless and consistent experience across DTEenergy.com
- 3) Creates a general repository for all digital assets to maximize content reuse across multiple channels
- 4) Dynamic web content management, improves our velocity to add new content to web
- 5)
- 6)
- 7)
- 8)
- 9)
- 10)

Start Month	January	2021	
Duration to Complete	2	Years	0 Months
End Month	January	2023	

Funding Source	ITS
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Financial Impact

	Year 1	Year 2	Year 3	Year 4	Year 5	Total
Capital	\$2,530,000	\$2,530,000	\$0	\$0	\$0	\$5,070,000
O&M	\$350,000	\$1,050,000	\$0	\$0	\$0	\$1,400,000
OCM	\$0	\$0	\$0	\$0	\$0	\$0
Total O&M	\$350,000	\$1,050,000	\$0	\$0	\$0	\$1,400,000
Total	\$2,880,000	\$3,580,000	\$0	\$0	\$0	\$6,470,000

Hardware/Software/ Cloud	Year 1	Year 2	Year 3	Year 4	Year 5	Total
Capital	\$0	\$0	\$0	\$0	\$0	\$0
O&M	\$75,000	\$225,000	\$0	\$0	\$0	\$300,000

BU O&M	\$0	Incremental Costs	\$1,250,000
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Executive Summary

Business Case Number	Business Case Name
DMND0001263	Customer Service Infrastructure Landscape & Growth Project

Stakeholders

Portfolio Category	Business Unit
Customer	Customer
Portfolio	Business Unit Director
Customer Service	Lisa A LeGault
Portfolio Manager	Business Unit SME
Lisa A LeGault	Suresh Udayagiri
Managed By	PPS
IT	100

Project Description

Investment Type	Initiative Type
Return-to-Health	Infrastructure - On Prem

What business problem or opportunity are we trying to solve?

DTE Customer IT utilizes CISCO UCS Hardware for hosting SAP CR&B Applications and Hana Databases Lifecycle of the hardware components (blades) is beyond Maintenance Renewal and End of Life dates

- 10 UCS Server Blades supporting HANA DB are going EOSL on 4/30/2022
- 14 of the 4-socket B460-M4 blades are going EOSL on 12/31/2022

What functionality or capability is being provided?

Return to health

Describe alignment of project to Business Unit Goal(s) and Strategy(ies).

Return to health to ensure support until 2025/2027 migration to S/4HANA

Define the Benefit/Value to the Organization, Customer, Employee.

Reduction in IT system outage duration or interruptions

How will you monitor and measure expected value?

% and/or frequency of reduction in IT system outage duration or interruptions

What alternatives have been considered?

none

Start Date	End Date	Shared Asset	Funding Source
2023-01-02	2023-12-31	Yes	IT



IT Costs

Type	FY23	Total
Capex	\$5,500,000	\$5,500,000
Opex	\$267,880	\$267,880
Total	\$5,767,880	\$5,767,880

BU Costs

Category	Term of Contract	BU O&M Cost
Business Unit		\$0
Cloud Usage Cost		\$0
Digital EXP Design Cost Est		\$0
Maintenance/Renewals		\$0
Organizational Change Management		\$0
Vendor Support & Licensing		\$0



Executive Summary

Business Case ID	BCD-CS-22-034	Business Case Name	Channels Web
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Stakeholders

IT Portfolio	Customer	Business Unit	Self Service Channels
IT Sub-Portfolio	Customer Service	Business Unit Director	Siddharth Arigapudi
IT Director	Lisa LeGault	Business Unit SME	Joshua Hoepner
Managed by	IT	Business Units Impacted	Electric

Project Description

Initiative Category	Return-to-Health	Initiative Type	Solutions Delivery - Cloud
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Business Opportunity

What business problem are we trying to solve?	Problem: While the Company has made measurable investments to improve the digital web and mobile customer channels and begin moving to the cloud, digital platforms are aging, run on fragmented technologies, and in some cases, unsupported technology platforms. The core DTE website runs on a platform (IBM WebSphere and IBM WebSphere Portal) that is unsupported, and no longer owned by the original supplier (IBM). This is an operational risk to channel and could, leading to inability to serve DTE customers on web channel. Additionally, architecture is consistently one-off, caused by app code duplication that can be resolved by building a standardized shell to eliminate waste/redundancy in excessive app code.
What system or process is being affected?	Systems Affected: Customer Web Channel (dteenergy.com and all corresponding subdomains of the customer-facing website).
What functionality or capability is being provided?	Functionality Provided: For the web channel the Company will invest to construct a healthy and supported foundational web platform, built on modern cloud-based technologies. The platform will create a foundational platform for the transactional portions of the digital website allowing application teams to focus on development of transaction functionality and consumption of externally hosted content (see BCD-CS-22-032)
What is the customer or employee value?	Consolidating our transactional web experiences into a common platform will reduce friction currently felt by customers in their journey though the web channel. A modern transaction platform increases code re-use efficiency, allowing product teams to focus solely on developing their customer journey, without the need to recreate boilerplate elements such as headers, footers, and navigation elements.
What alternatives have been considered?	Alternatives Considered: Off the shelf solutions and continuing with the current approach of building multiple single page applications.

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Case No : U-21534
 Exhibit : A-24
 Schedule: N1
 Witness: P. Sharma

Key Objectives	
1)	Build a standard foundational architecture for improved transactional web experience.
2)	Migrate existing single-page applications running on our AWS cloud platform to this new framework.
3)	Leveraging modern architecture approaches such as micro-frontends to enhance the standard shell (container).
4)	
5)	
6)	
7)	
8)	
9)	
10)	

Start Month	February	2022	
Duration to Complete	2 Years	10 Months	
End Month	December	2024	

Funding Source	ITS
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IT Financial Impact						Total amount is sent for approval on all business cases.
	Year 1	Year 2	Year 3	Year 4	Year 5	Total
Capital	\$1,421,100	\$2,822,909	\$2,186,308	\$0	\$0	\$6,430,000
O&M	\$94,514	\$189,027	\$146,067	\$0	\$0	\$430,000
Total	\$1,515,614	\$3,011,936	\$2,332,375	\$0	\$0	\$6,860,000

Business Unit Costs						
BU O&M	\$0		Trailing BU O&M Costs			\$250,000
	Year 1	Year 2	Year 3	Year 4	Year 5	Total
OCM O&M	\$0	\$0	\$0	\$0	\$0	\$0



Executive Summary

Business Case ID	BCD-CS-22-036	Business Case Name	MYR YR1 Channels Mobile Application
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Stakeholders

IT Portfolio	Customer	Business Unit	Self Service Channels
IT Sub-Portfolio	Customer Service	Business Unit Director	Siddharth Arigapudi
IT Director	Lisa LeGault	Business Unit SME	Charlene Draine
Managed by	IT	Business Units Impacted	Electric

Project Description

Initiative Category	Return-to-Health	Initiative Type	Solutions Delivery - Cloud
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Business Opportunity	
What business problem are we trying to solve?	Business Problem: The DTE iOS and Android mobile applications have benefited from functional enhancements; however, the foundational codebases for both applications are outdated, having been written in 2013-2014, making them difficult to enhance. Apple and Google continue to regularly enhance and improve mobile phone application platforms, releasing new major versions at least yearly. The aging DTE mobile codebase makes releasing new features and functionality to customers costly, and in some cases not possible. The degraded codebase cannot efficiently support modern applications, hindering the user experience.
What system or process is being affected?	Affected Process: DTE Energy Android and iOS mobile applications are negatively affected. Digital Product teams' processing time is also affected and temporarily remedied by extending work effort to correct excessive errors/outages.
What functionality or capability is being provided?	New Capability: This funding will give DTE the ability to evaluate, select, and build a modern mobile application platform. Replacing the outdated foundational codebase with a new platform will allow efficient enhancements to DTE iOS and Android applications, keeping pace with Apple and Google releases
What is the customer or employee value?	Customer/Employee Value: Our customers will have a more seamless interaction with DTE customer-facing applications. Customers will feel encouraged to complete their transactions without system interruptions. A reliable platform will allow digital Product teams to relax their outage/modification pace and dedicate their focus on innovative technologies.
What alternatives have been considered?	Alternatives Considered: Retire the native mobile applications and focus solely on other digital customer channels.

Michigan Public Service Commission
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Case No : U-21534
 Exhibit : A-24
 Schedule: N1
 Witness: P. Sharma

Key Objectives	
1)	Define the product roadmap for the DTE mobile applications in 2022, specifically determining whether we will continue to build native mobile, or transition to alternate technology.
2)	Rebuild the foundation of our mobile applications, in alignment with the product roadmap.
3)	
4)	
5)	
6)	
7)	
8)	
9)	
10)	

Start Month	April	2022
Duration to Complete	1 Years	8 Months
End Month	December	2023

Funding Source	ITS
----------------	-----

IT Financial Impact						Total amount is sent for approval on all business cases.
	Year 1	Year 2	Year 3	Year 4	Year 5	
Capital	\$753,155	\$5,130,865	\$0	\$0	\$0	\$5,880,000
O&M	\$125,807	\$820,108	\$0	\$0	\$0	\$950,000
Total	\$878,962	\$5,950,973	\$0	\$0	\$0	\$6,830,000

Business Unit Costs						
BU O&M	\$0		Trailing BU O&M Costs			\$0
	Year 1	Year 2	Year 3	Year 4	Year 5	Total
OCM O&M	\$0	\$0	\$0	\$0	\$0	\$0



Executive Summary

Business Case Number	Business Case Name
DMND0001250	Channels Mobile Application

Stakeholders

Portfolio Category	Business Unit
Customer	Customer Service
Portfolio	Business Unit Director
Customer Service	Jacqueline L Robinson
Portfolio Manager	Business Unit SME
Lisa A LeGault	Joshua M Hoepner
Managed By	PPS
IT	100

Project Description

Investment Type	Initiative Type
Return-to-Health	Solutions Delivery - Cloud

What business problem or opportunity are we trying to solve?

Business Problem: The DTE iOS and Android mobile applications have benefited from functional enhancements; however, the foundational codebases for both applications are outdated, having been written in 2013-2014, making them difficult to enhance. Apple and Google continue to regularly enhance and improve mobile phone application platforms, releasing new major versions at least yearly. The aging DTE mobile codebase makes releasing new features and functionality to customers costly, and in some cases not possible. The degraded codebase cannot efficiently support modern applications, hindering the user experience.

What functionality or capability is being provided?

\New Capability: This funding will give DTE the ability to evaluate, select, and build a modern mobile application platform. Replacing the outdated foundational codebase with a new platform will allow efficient enhancements to DTE iOS and Android applications, keeping pace with Apple and Google releases

Describe alignment of project to Business Unit Goal(s) and Strategy(ies).

Investing in this initiative results in a healthy mobile foundation that enables digital Product Teams to create engaging transactional experiences. Experiences like these have been identified as one of five recognized attributes of best-in-class (BIC) digital customer self-service.

Define the Benefit/Value to the Organization, Customer, Employee.

Customer/Employee Value: Our customers will have a more seamless interaction with DTE customer-facing applications. Customers will feel encouraged to complete their transactions without system interruptions. A reliable platform will allow digital Product teams to relax their outage/modification pace and dedicate their focus on innovative technologies.

How will you monitor and measure expected value?

Strategic Alignment
 Current State: N/A Target State: Mitigate Op Risk; time commitment, growth. Customer Experience:
 Current State: N/A Target State: Improved customer journey, digital engagement.

What alternatives have been considered?



Alternatives Considered: Other than continuing to build native mobile, no other options exist. This initial investment begins the process of returning our mobile applications back to health. With any plausible option, a mobile application strategy and development is a multi-year effort. The investment in year 2022 will start the initiative and help DTE define the optimal customer experience. Do Nothing: Not replacing the mobile app foundational code base would cause more rapid degradation in the customer experience, discouraging their transaction completion. Fewer customers would engage with DTE using a self-service app, and increase reliance on the Call Center.

Start Date	End Date	Shared Asset	Funding Source
2023-01-02	2023-12-31	Yes	IT

IT Costs

Type	FY23	Total
Capex	\$2,000,000	\$2,000,000
Opex	\$125,000	\$125,000
Total	\$2,125,000	\$2,125,000

BU Costs

Category	Term of Contract	BU O&M Cost
Business Unit		\$0
Cloud Usage Cost		\$0
Digital EXP Design Cost Est		\$0
Maintenance/Renewals		\$0
Organizational Change Management		\$0
Vendor Support & Licensing		\$0



Executive Summary

Business Case Number	Business Case Name
DMND0001251	Channels Web

Stakeholders

Portfolio Category	Business Unit
Customer	Customer Service
Portfolio	Business Unit Director
Customer Service	Jacqueline L Robinson
Portfolio Manager	Business Unit SME
Lisa A LeGault	Siddharth Arigapudi
Managed By	PPS
IT	100

Project Description

Investment Type	Initiative Type
Return-to-Health	Solutions Delivery - Cloud

What business problem or opportunity are we trying to solve?

Problem: While the Company has made measurable investments to improve the digital web and mobile customer channels and begin moving to the cloud, digital platforms are aging, run on fragmented technologies, and in some cases, unsupported technology platforms. The core DTE website runs on a platform (IBM WebSphere and IBM WebSphere Portal) that is unsupported, and no longer owned by the original supplier (IBM). This is an operational risk to channel and could, leading to inability to serve DTE customers on web channel. Additionally, architecture is consistently one-off, caused by app code duplication that can be resolved by building a standardized shell to eliminate waste/redundancy in excessive app code.

What functionality or capability is being provided?

Functionality Provided: For the web channel the Company will invest to construct a healthy and supported foundational web platform, built on modern cloud-based technologies. The platform will create a foundational platform for the transactional portions of the digital website allowing application teams to focus on development of transaction functionality and consumption of externally hosted content (see BCD-CS-22-032)

Describe alignment of project to Business Unit Goal(s) and Strategy(ies).

Investing in this initiative results in a healthy web foundation. Digital Product Teams are empowered to create engaging transactional experiences that align with recognized attributes of best-in-class (BIC) digital self-serve customer experiences.

Define the Benefit/Value to the Organization, Customer, Employee.

Consolidating our transactional web experiences into a common platform will reduce friction currently felt by customers in their journey though the web channel. A modern transaction platform increases code re-use efficiency, allowing product teams to focus solely on developing their customer journey, without the need to recreate boilerplate elements such as headers, footers, and navigation elements.

How will you monitor and measure expected value?

In Scope not defined

What alternatives have been considered?



Alternatives Considered: Off the shelf solutions and continuing with the current approach of building multiple single page applications.
 Do Nothing- Without a common foundational architecture, product teams will continue to build separate single page applications for each transaction, driving up costs and increasing customer friction.

Start Date	End Date	Shared Asset	Funding Source
2023-01-02	2024-12-30	Yes	IT

IT Costs

Type	FY23	FY24	Total
Capex	\$2,490,377	\$4,418,708	\$6,909,085
Opex	\$168,111	\$167,217	\$335,329
Total	\$2,658,488	\$4,585,925	\$7,244,414

BU Costs

Category	Term of Contract	BU O&M Cost
Business Unit		\$0
Cloud Usage Cost		\$0
Digital EXP Design Cost Est		\$0
Maintenance/Renewals		\$0
Organizational Change Management		\$0
Vendor Support & Licensing		\$0



Executive Summary

Business Case Number	Business Case Name
DMND0002742	Channels Web

Stakeholders

Portfolio Category	Business Unit
Customer	Customer Service
Portfolio	Business Unit Director
Customer Service	Jacqueline L Robinson
Portfolio Manager	Business Unit SME
Lisa A LeGault	Jagadeesh Yedida
Managed By	PPS
IT	100

Project Description

Investment Type	Initiative Type
Return-to-Health	Solutions Delivery - Cloud

What business problem or opportunity are we trying to solve?

Problem: While the Company has made measurable investments to improve the digital web and mobile customer channels and begin moving to the cloud, digital platforms are aging, run on fragmented technologies, and in some cases, unsupported technology platforms. Investments made in 2023-2024 will address a portion of this work, specifically re-platforming customer login and building out a micro-frontend architecture for the customer website. Until all of the web transactions are moved to this architecture, customers will experience different menus and navigation across sites and operational costs will be higher maintaining unnecessary elements of the separate applications such as headers, footers, menus, cookie state, etc. Further investment will be needed for 2025-2027, migrate the Payments, Outage, Collections, Registration, MIMO, and Usage applications onto this architecture.

What functionality or capability is being provided?

Modify the separate and distinct Payments, Outage, Collections, Registration, and Usage single-page applications to become web components that can reside within the architecture that will be established in 2023-2024.
 2025: Payments and Outage functionality will be running on supported platforms

Describe alignment of project to Business Unit Goal(s) and Strategy(ies).

Investing in this initiative results in a healthy web foundation. Digital Product Teams are empowered to create engaging transactional experiences that align with recognized attributes of best-in-class (BIC) digital self-serve customer experiences.

Define the Benefit/Value to the Organization, Customer, Employee.

Consolidating our transactional web experiences into a common platform will reduce friction currently felt by customers in their journey through the web channel. A modern transaction platform increases code re-use efficiency, allowing product teams to focus solely on developing their customer journey, without the need to recreate boilerplate elements such as headers, footers, and navigation elements.

How will you monitor and measure expected value?

Weekly metrics for Digital Experience Rate, Completion Rate, System Availability, Planned Outages, and Unplanned Outages as well as delivery cycle time for new enhancements will be used to measure success of this effort.



What alternatives have been considered?

Alternatives Considered: Off the shelf solutions and continuing with the current approach of building multiple single page applications.
Do Nothing- Without a common foundational architecture, product teams will continue to build separate single page applications for each transaction, driving up costs and increasing customer friction.

Start Date	End Date	Shared Asset	Funding Source
2025-01-02	2025-12-30	Yes	IT

IT Costs

Type	FY25	Total
Capex	\$2,300,000	\$2,300,000
Opex	\$230,000	\$230,000
Total	\$2,530,000	\$2,530,000

BU Costs

Category	Term of Contract	BU O&M Cost
Business Unit		\$0
Cloud Usage Cost		\$0
Digital EXP Design Cost Est		\$0
Maintenance/Renewals		\$0
Organizational Change Management		\$0
Vendor Support & Licensing		\$0



Executive Summary

Business Case ID	BCD-CS-21-024	Business Case Name	Web Enhancements for Distributed Generation & Rooftop Solar
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Stakeholders

IT Portfolio	Customer	Business Unit	Renewable Energy
IT Sub-Portfolio	BPD	Business Unit Sponsor	Michael Rivet
IT Director	Melissa Cox	Business Units Impacted	Electric
Managed by	IT		

Project Description

Project Category	Return-to-Health	Innovation?	No
Project Type	Solutions Delivery - Cloud	Strategic Fit	Top-Decile Customer Satisfaction

Business Outcome

This project will improve the customer experience by providing the most current information, interactive tools, and resources. This will also benefit internal DTE employees and 3rd party vendors as the intent is for customer inquiries to decline with better information available on the website in addition to less manual processing of application fees.

Key Objectives

- 1) Redesign and improve Rooftop Solar & Private Generation and Interconnection Process web pages for streamlined offerings (DG/MIGP/etc).
- 2) Update the Energy Usage Report and provide functionality to include inflow/outflow data.
- 3) In the website enhance existing embedded customer bill Impact Calculator app for rooftop solar installations.
- 4) Include MIGP calculations in the Impact calculator app.
- 5) Allow for electronic payment for interconnection application fees and ability to retrieve the payment data by using a payment processing system.
- 6) To clarify the new Commission-mandated distributed generation offering.
- 7) Contractors/Customer will submit electronic payment for application fee.
- 8)
- 9)
- 10)

Michigan Public Service Commission
 Executive Summary
 DTE Electric Company
 IT Business Case Executive Summaries

Case No : U-21534
 Exhibit : A-24
 Schedule: N1
 Witness: P. Sharma

Start Month	January	2021
Duration to Complete	Years	6 Months
End Month	July	2021

Funding Source	ITS
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Financial Impact

	Year 1	Year 2	Year 3	Year 4	Year 5	Total
Capital	\$490,000	\$0	\$0	\$0	\$0	\$490,000
O&M	\$120,000	\$0	\$0	\$0	\$0	\$120,000
OCM	\$0	\$0	\$0	\$0	\$0	\$0
Total O&M	\$120,000	\$0	\$0	\$0	\$0	\$120,000
Total	\$610,000	\$0	\$0	\$0	\$0	\$610,000

Hardware/Software/ Cloud	Year 1	Year 2	Year 3	Year 4	Year 5	Total
Capital	\$0	\$0	\$0	\$0	\$0	\$0
O&M	\$25,000	\$0	\$0	\$0	\$0	\$25,000

BU O&M	\$0
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Incremental Costs	\$0
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Executive Summary

Business Case Number	Business Case Name
DMND0001538	Migrate IVR to the Cloud

Stakeholders

Portfolio Category	Business Unit
Customer	Customer Service
Portfolio	Business Unit Director
Customer Service	Dawn M Hayes
Portfolio Manager	Business Unit SME
Lisa A LeGault	Elizabeth A Lukacs
Managed By	PPS
MEP	100

Project Description

Investment Type	Initiative Type
Return-to-Health	Solutions Delivery - Cloud

What business problem or opportunity are we trying to solve?

The IVR servers, databases, and associated software currently reside on-premise split somewhat evenly between our DDC and ADC locations. With the entire system being on-prem, the IVR application is also only as scalable, reliable, and redundant as the physical infrastructure can support. Scalability is maxed out by the number of physical servers and ports the system currently has locking the IVR capacity in place. Redundancy today involves splitting across multiple servers and the two physical locations. While our current setup has worked ok for several years, changes in weather patterns have led to larger storms and more customers reporting power outages than our current system can handle. These storms are not only larger but are causing more outages over shorter periods of time. Our IVR system can see upwards of 15x the traffic during these larger storms. When this happens, our current systems reach capacity and customers are no longer able to reach us, instead getting a can't connect message. The inability to scale to support all of our customers in these times of need, is a failure of this critical system. We need a solution in place to remediate the health of this asset, which will reduce the impacts to our customers when they need us most, and improve the overall reliability of this critical asset.

What functionality or capability is being provided?

The same IVR and routing functionality that exists today for the Contact Center, just recreated in a cloud solution, with additional on-demand scalability of how many concurrent IVR sessions the system can handle at one time. Foundational work for future capabilities may also be put into place.

Describe alignment of project to Business Unit Goal(s) and Strategy(ies).

Improved Customer Experience - Allow our internal IVR to dynamically scale and support all calls coming into the IVR limiting the chance to overload our servers. A cloud solution will also allow for future integrations with other cloud systems and capabilities like artificial intelligence.
 Improved Resiliency - Cloud solutions allow for dynamic redundancy across many different servers and data centers. Much more than we could support on-prem.



Define the Benefit/Value to the Organization, Customer, Employee.

Decrease Costs - Decrease the yearly maintenance costs for supporting and upgrading all of the IVR infrastructure. With dynamic scalability, only pay for what we use.
 Improved Customer Experience - Allow our internal IVR to dynamically scale and support all calls coming into the IVR. This would allow us to scale down during low periods but ramp up instantly during storms to handle call surges. Volume 500,000 users
 Improved Resiliency - Improve the overall up-time of the IVR. There would be less outages as items are patched and many more levels of redundancy.

How will you monitor and measure expected value?

We will compare the yearly operation costs for the cloud solution to the yearly maintenance costs from the last few years.
 We will monitor customer complaints as well as planned and unplanned outages with the goal of seeing improvements to all.
 We get about 50,000 calls on a blue sky day during the week all that start in the IVR.

What alternatives have been considered?

The only alternative is remaining on-prem and continuing to manage aging infrastructure each year.

Start Date	End Date	Shared Asset	Funding Source
2024-03-01	2024-11-30	Yes	IT

IT Costs

Type	FY24	Total
Capex	\$2,570,123	\$2,570,123
Opex	\$2,426,245	\$2,426,245
Total	\$4,996,368	\$4,996,368

BU Costs

Category	Term of Contract	BU O&M Cost
Business Unit		\$0
Cloud Usage Cost		\$0
Digital EXP Design Cost Est		\$0
Maintenance/Renewals		\$0
Organizational Change Management		\$0
Vendor Support & Licensing		\$0



Executive Summary

Business Case ID	BCD-CS-22-033	Business Case Name	SAP Core Product Upgrades
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Stakeholders

IT Portfolio	Customer	Business Unit	CR&B New Business
IT Sub-Portfolio	Customer Service	Business Unit Director	Lisa LeGault
IT Director	Lisa LeGault	Business Unit SME	Anbukumar Sivasubramanian
Managed by	IT	Business Units Impacted	Electric

Project Description

Initiative Category	Return-to-Health	Initiative Type	Infrastructure - On Prem
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Business Opportunity	
What business problem are we trying to solve?	<ul style="list-style-type: none"> - We cannot utilize the latest business capabilities of the CR&B applications - Security related vulnerabilities if we continue to use TLS 1.0 - Upgrade will set us up for easy migration to S4 HANA (SAP Business suite for High Performance Analytics Appliance)
What system or process is being affected?	PO (Process Orchestrator), BW (Business Warehouse), ISU (Industry Specific Unit), CRM (Customer Relationship Management) and Convergent Charging
What functionality or capability is being provided?	This will be a technical upgrade; no functional enhancement is planned as part of this initiative
What is the customer or employee value?	The security issues with the current version will be addressed and the platform will have additional Business capabilities to be rolled out in the future
What alternatives have been considered?	Unless the upgrade is completed the security vulnerability will remain with no alternative solution

Michigan Public Service Commission
 Executive Summary
 DTE Electric Company
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Case No : U-21534
 Exhibit : A-24
 Schedule: N1
 Witness: P. Sharma

Key Objectives	
1)	Upgrade Netweaver 7.4 to 7.5 in ISU (Industry Specific Unit) and CRM (Customer Relationship Management)
2)	Upgrade ISU (Industry Specific Unit) from Enhancement pack 7 to Enhancement pack 8
3)	Upgrade CRM (Customer Relationship Management) from Enhancement pack 3 to Enhancement pack 4
4)	Upgrade Convergent Charging from version 3 to version 4 (total 7 environment)
5)	Apply the support packs in SAP BW (Business Warehouse) to bring the system upto date
6)	Apply the support packs in SAP PO (Process Orchestrator) to bring the system upto date
7)	Regression test CR&B applications for stability after the upgrade across all the environment - Sand Box (1 Sand Box), Dev (3 Dev env), QA (3 QA Env), Stg (1 Stg env), Training (1 Trng Env), Prod (1 Prod) = 40 env
8)	
9)	
10)	

Start Month	January	2022
Duration to Complete	0 Years	11 Months
End Month	December	2022

Funding Source	ITS
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IT Financial Impact						Total amount is sent for approval on all business cases.
	Year 1	Year 2	Year 3	Year 4	Year 5	Total
Capital	\$6,095,230	\$0	\$0	\$0	\$0	\$6,090,000
O&M	\$608,558	\$0	\$0	\$0	\$0	\$610,000
Total	\$6,703,788	\$0	\$0	\$0	\$0	\$6,700,000

Business Unit Costs						
BU O&M	\$0		Trailing BU O&M Costs			\$0
	Year 1	Year 2	Year 3	Year 4	Year 5	Total
OCM O&M	\$0	\$0	\$0	\$0	\$0	\$0



Executive Summary

Business Case Number	Business Case Name
DMND0001290	Systems, Applications, and Products (SAP) Upgrade Program

Stakeholders

Portfolio Category	Business Unit
Customer	Customer Service
Portfolio	Business Unit Director
Customer Service	Lisa A LeGault
Portfolio Manager	Business Unit SME
Lisa A LeGault	Amit Gadgil
Managed By	PPS
MEP	100

Project Description

Investment Type	Initiative Type
Return-to-Health	Infrastructure - On Prem

What business problem or opportunity are we trying to solve?

Business Problem – DTE would like to utilize the latest business capabilities of the CR&B applications which addresses any security related vulnerabilities and provide more business functionality, this upgrade will set us up for easy migration to S4 HANA (SAP Business suite for High Performance Analytics Appliance). Staying on the latest version of the CR&B applications keeps us supported by the vendor and reduces unplanned outage and cost of ownership

Opportunity - Implementation of the latest release of SAP Stacks & Packs will bring core CR&B applications – IS-U billing, Customer Relationship Management (CRM), Process Optimization (PO), and Business Warehouse (BW) – to the latest 2022 versions. The aim of the introduction of Minimum SP Stack Levels is to reduce direct as well as indirect costs (e.g. regression testing) during the maintenance process when applying SP Stacks caused by dependencies between multiple SAP applications. Support package stacks allow you to keep productive applications up to date on a regular basis with a minimal cost of ownership.

What functionality or capability is being provided?

"1. Development and maintenance of the Technology Platform Plan, as well as the development of any necessary Business Cases necessary to maintain Asset Health. 2. Functional and technical design of small enhancements as needed for the platform.3. Work with the Customer Service and other impacted IT BRMs to determine and mitigate all IT impacts due to regulatory issues, vendor technology decisions.4. Work with the Customer Service and IT BRMs to develop long term IT needs."

Describe alignment of project to Business Unit Goal(s) and Strategy(ies).

Investment in these key initiatives, positions DTE Electric to quickly mitigate and remediate operational issues by assuring a continued stable environment.

Define the Benefit/Value to the Organization, Customer, Employee.

"1. Continue to maintain the vendor support for CR&B Platform2. Development and maintenance of the Technology Platform Plan, as well as the development of any necessary Business Cases necessary to maintain Asset Health."



How will you monitor and measure expected value?
Based on the product vendor roadmap upgrading to this version will make us compliant with the product lifecycle management

What alternatives have been considered?
Do Nothing- A "do nothing" alternative would result in continual IT asset failure and inoperable software.

Start Date	End Date	Shared Asset	Funding Source
2023-01-02	2023-12-31	Yes	IT

IT Costs

Type	FY23	Total
Capex	\$4,019,322	\$4,019,322
Opex	\$184,741	\$184,741
Total	\$4,204,063	\$4,204,063

BU Costs

Category	Term of Contract	BU O&M Cost
Business Unit		\$0
Cloud Usage Cost		\$0
Digital EXP Design Cost Est		\$0
Maintenance/Renewals		\$0
Organizational Change Management		\$0
Vendor Support & Licensing		\$0



Executive Summary

Business Case Number	Business Case Name
DMND0001655	GenOpts-FERC Order 841 Compliance

Stakeholders

Portfolio Category	Business Unit
Plant and Field	Generation Optimization
Portfolio	Business Unit Director
Plant and Field: ES	Jenny Wang
Portfolio Manager	Business Unit SME
Jaison J Busby	Konstantin Korolyov
Managed By	PPS
MEP	150

Project Description

Investment Type	Initiative Type
Regulatory/Compliance	Solutions Delivery - On Prem

What business problem or opportunity are we trying to solve?

On June 6, 2022, MISO is expected to implement compliance with FERC Order 841 to enable Electric Storage Resources (ESR) interconnected to DTE distribution system to participate in the Wholesale Power Market. This means that potentially any DTE customer (commercial or industrial) may decide to install an ESR and start transacting wholesale power with MISO directly. DTE needs to (1) make appropriate adjustments to meter configuration to exclude wholesale power from billing calculations and (2) establish a wholesale distribution customer rate to compensate for distribution services provided to wholesale market participants. This is being initiated as a result of federal regulations requiring ESR to have the ability to participate in the MISO market. The FERC Order 841 will go into effect June 6, 2022.

What functionality or capability is being provided?

The solution will enable a new wholesale distribution rate for participating DTE customers (commercial or industrial) and provide them with the capability to start transacting wholesale energy related to the discharging and recharging ESRs from MISO.

Describe alignment of project to Business Unit Goal(s) and Strategy(ies).

The business goal is to remain compliant with MISO's FERC Order 841 and implementing this initiative will meet that goal by providing DTE commercial customers the ability to participate in the wholesale market.
The project aligns with maintaining our regulatory compliance by enabling the execution of regulatory changes.

Define the Benefit/Value to the Organization, Customer, Employee.

Customer Satisfaction: DTE customers will be provided the capability to participate with ESRs in the wholesale energy market (MISO) and capture wholesale revenues.
The solution would allow DTE customers that chose to participate in MISO are able to (1) have wholesale meters excluded from DTE billing and (2) are billed for wholesale distribution services

How will you monitor and measure expected value?

GenOps training lead will coordinate the training development and rollout. Execution of the process will be monitored to ensure regulatory expectations are met.

What alternatives have been considered?



This is a compliance effort. In theory, alternate billing outside for SAP could be considered, however, metering configuration changes must reflect customers transacting wholesale energy.

Start Date	End Date	Shared Asset	Funding Source
2025-01-01	2025-05-06	No	IT

IT Costs

Type	FY24	FY25	Total
Capex	\$0	\$1,296,634	\$1,296,634
Opex		\$38,284	\$38,284
Total	\$0	\$1,334,918	\$1,334,918

BU Costs

Category	Term of Contract	BU O&M Cost
Business Unit		\$0
Cloud Usage Cost		\$0
Digital EXP Design Cost Est		\$0
Maintenance/Renewals		\$0
Organizational Change Management		\$0
Vendor Support & Licensing		\$0



Executive Summary

Business Case Number	Business Case Name
DMND0001365	Advance Metering Infrastructure (AMI) Application Health

Stakeholders

Portfolio Category	Business Unit
Plant and Field	Distribution Operations
Portfolio	Business Unit Director
Plant and Field: DO	Daniel J Griffin
Portfolio Manager	Business Unit SME
Ajay Gupta	James P Fidler
Managed By	PPS
	200

Project Description

Investment Type	Initiative Type
Sustainment	Solutions Delivery - On Prem

What business problem or opportunity are we trying to solve?

Currently, the Automated Meter Infrastructure (AMI) collects meter data for 2.6 million electric and 1.3 million (700K from CE+ 600K from FCS~ Fidl Collection System) gas meters that is compiled and processed through the AMI Collection Engine (CE). The CE system collects and provisions meters data to IE MDM which processes meter data for billing and voltage monitoring that must be available for the business.
 The current AMI system requires manual steps for failover to alternate systems, which limits flexibility and relies on human interaction.

What functionality or capability is being provided?

The addition of an automatic, highly available AMI Collection Engine, including automatic network failover between datacenters will allow for full redundancy and business and application continuity. This redundancy in the AMI Collection Engine (CE) allows for operational maintenance without impacting business processes. In 2020, more that 200 hours of maintenance was conducted, impacting the system availability for the business. Automatic syncing between the AMI Collection Engine databases are essential to ensure data integrity and availability for the business to support our external customers, voltage and distribution operation support.

Describe alignment of project to Business Unit Goal(s) and Strategy(ies).

AMI Systems are becoming ever more critical to Distribution Operations (DO) and Customer Service and Billing. Improving the systems reliability and overall availability and limiting downtime, whether it is planned or unplanned ensures that the business has meter related data for downstream processes.

Define the Benefit/Value to the Organization, Customer, Employee.

Improving the systems reliability and overall availability and limiting downtown, whether it is planned or unplanned ensures that the business is meter related data for downstream processes.
 (CI)Improved availability of data collection systems.(CI) Improved impact assessment capability (scale)Improve Provisioning of meter quality data to EDAReduced system outages due to maintenance and system failure.



How will you monitor and measure expected value?
 Measure of success will be directly related to the actual time the system is unavailable.
 Measure success rate of provisioning data to CR&B (Customer Resource & Billing)
 Implement Dynatrace to monitor the health of the systems.

What alternatives have been considered?
 In a "do nothing" alternative, we would continue to manual failover, and this was not chosen because the automation of the failover process improves our uptime.
 Additionally, with planned personnel attrition due to retirements, knowledge around the older manual systems is at risk.
 There is not a technical alternative that would allow an automated process and reduce maintenance time.

Start Date	End Date	Shared Asset	Funding Source
2022-01-01	2025-12-31	Yes	IT

IT Costs

Type	FY21	FY22	FY23	FY24	FY25
Capex	\$43,595	\$1,378,576	\$1,376,891	\$1,381,678	\$1,376,857
Opex	\$27	\$102,691	\$102,135	\$101,876	\$100,051
Total	\$43,621	\$1,481,267	\$1,479,026	\$1,483,554	\$1,476,908

BU Costs

Category	Term of Contract	BU O&M Cost
Business Unit		\$0
Cloud Usage Cost		\$0
Digital EXP Design Cost Est		\$0
Maintenance/Renewals		\$0
Organizational Change Management		\$0
Vendor Support & Licensing		\$0



Total

\$5,557,597

\$406,780

\$5,964,377

Michigan Public Service Commission
DTE Electric Company
IT Business Case Executive Summaries

Case No : U-21534
Exhibit : A-24
Schedule: N1
Witness: P. Sharma



Executive Summary

Business Case ID	BCD-PF-22-007	Business Case Name	ClickSoft Application Health
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Stakeholders

IT Portfolio	Plant & Field	Business Unit	Plant & Field Core Operations
IT Sub-Portfolio	Plant & Field - DO	Business Unit Director	Daniel Griffin
IT Director	Daniel Griffin	Business Unit SME	Ravichandran Salem and Tanya Blanding
Managed by	IT	Business Units Impacted	Electric

Project Description

Initiative Category	Sustainment	Initiative Type	Solutions Delivery - Cloud
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Business Opportunity

What business problem are we trying to solve?	We will continue implementing the cloud-based field service management system, ClickSoft, that improves productivity and performance for both field crew and dispatchers. It will provide increased visibility of crews by dispatchers, which promotes additional safety measures. It will provide real-time status at the point of activity to customers. Additionally, it will improve timesheet functionality and develop additional interfaces between bidirectional, promoting greater automation.
What system or process is being affected?	Bidirectional systems: ClickSoft, Maximo, SAP CRM, and the Outage Management System
What functionality or capability is being provided?	The investment will provide improved auto-capture timesheet functionality and features of the appointment book. It will also include additional between the bidirectional systems.
What is the customer or employee value?	Value from the investment will include optimization of crew routes, automatic assignment of work, improved performance, and improved productivity.
What alternatives have been considered?	An alternative technology solution would include the latest version of the ABB (ASEA Brown Boveri) Service Suite. However, it provides limitations to critical functionalities such as optimizing crew routes, mobile enablement, and appointment book configuration that the business unit expects. Hence, this alternate solution is unacceptable.

Key Objectives

1) Improved productivity
2) Improved performance
3)
4)
5)
6)
7)
8)
9)
10)

Start Month	January	2022
Duration to Complete	1 Years	11 Months
End Month	December	2023

Funding Source	ITS
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IT Financial Impact

	Year 1	Year 2	Year 3	Year 4	Year 5	Total
Capital	\$400,000	\$400,000	\$0	\$0	\$0	\$800,000
O&M	\$400,000	\$400,000	\$0	\$0	\$0	\$800,000
Total	\$800,000	\$800,000	\$0	\$0	\$0	\$1,600,000

Total amount is sent for approval on all business cases.

Business Unit Costs

BU O&M	\$0	Trailing BU O&M Costs	\$0
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	Year 1	Year 2	Year 3	Year 4	Year 5	Total
OCM O&M	\$0	\$0	\$0	\$0	\$0	\$0



Executive Summary

Business Case Number	Business Case Name
DMND0001373	ClickSoft Application Health

Stakeholders

Portfolio Category	Business Unit
Plant and Field	Distribution Operations
Portfolio	Business Unit Director
Plant and Field: DO	Ajay Gupta
Portfolio Manager	Business Unit SME
Ajay Gupta	Ravichandran Salem
Managed By	PPS
IT	200

Project Description

Investment Type	Initiative Type
Sustainment	Solutions Delivery - Cloud

What business problem or opportunity are we trying to solve?

The implementation of Clicksoft will allow for scalability due to it being cloud-based, improve productivity and performance for both field crews and dispatchers by providing increased visibility of crews by dispatchers, which will promote additional safety measures.

What functionality or capability is being provided?

The investment will provide improved auto-capture timesheet functionality and features of the appointment book. It will also include additional interfaces between current DTE systems. The functionality will improve operations ability to dispatch field work in appointment book and the field will be able to add pictures to their completion, which will improve productivity.

Describe alignment of project to Business Unit Goal(s) and Strategy(ies).

Improve safety in the field, reduce customer complaints and improve their satisfaction This was necessary to align with the ADMS project launch. As a result, multiple Field Service Edge (FSE) initiatives and Clicksoft resources were resequenced

Define the Benefit/Value to the Organization, Customer, Employee.

Reduce the downtime of the application and reduction of support time maintaining the application

How will you monitor and measure expected value?

Measuring outage downtime and support team being able to keep up with incidents/tickets based on the SLAs.

What alternatives have been considered?

An alternative approach would be to resort to the previous software product to manage the field workforce. This is not viable because the product is no longer supported by the vendor. A "do nothing" alternative is also unacceptable because a failure to invest could potentially result in system degradation and unplanned outages of the hardware or software assets. Additionally, doing nothing would eventually hinder the Company's ability to respond to customer requests.

Start Date	End Date	Shared Asset	Funding Source
2023-01-02	2025-12-30	Yes	IT



IT Costs

Type	FY23	FY24	FY25	Total
Capex	\$403,499	\$401,376	\$395,212	\$1,200,087
Opex	\$450,861	\$477,476	\$472,817	\$1,401,154
Total	\$854,360	\$878,852	\$868,030	\$2,601,241

BU Costs

Category	Term of Contract	BU O&M Cost
Business Unit		\$0
Cloud Usage Cost		\$0
Digital EXP Design Cost Est		\$0
Maintenance/Renewals		\$0
Organizational Change Management		\$0
Vendor Support & Licensing		\$0



Executive Summary

Business Case ID	BCD-PFD-22-003	Business Case Name	Distribution Operations Application Health
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Stakeholders

IT Portfolio	Plant & Field	Business Unit	Distribution Operations
IT Sub-Portfolio	Plant & Field - DO	Business Unit Director	Daniel Griffin
IT Director	Daniel Griffin	Business Unit SME	Julie Sinishtaj
Managed by	IT	Business Units Impacted	Electric

Project Description

Initiative Category	Sustainment	Initiative Type	Operational
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Business Opportunity	
What business problem are we trying to solve?	The Distribution Operations (DO) area specifically deals with field crews "on the ground", live outage situations impacting our customers, and operational scenarios which allow for very little margin of error and very little absorption of risk. To best serve our business partners and customers, investment in these applications is crucial. The suite of systems and capabilities mentioned below, support the enhanced business processes that benefit our customers. Because it is important that our business partners regularly review and enhance their processes to benefit the customers, IT is asked to accommodate these changes programmatically.
What system or process is being affected?	The processes affected by these changes include the Closed Loop, Vegetation Management, Scheduling/Rostering and work completion/statusing. Systems affected included Outage Status App, Clearion Vegetation Vendor Timesheet and Time Entry app.
What functionality or capability is being provided?	The Distribution Operations (DO) area specifically deals with field crews "on the ground", live outage situations impacting our customers, and operational scenarios which allow for very little margin of error and very little absorption of risk. To best serve our business partners and customers, investment in these applications is crucial. The suite of systems and capabilities mentioned below, support the enhanced business processes that benefit our customers. Because it is important that our business partners regularly review and enhance their processes to benefit the customers, IT is asked to accommodate these changes programmatically.
What is the customer or employee value?	The values realized is an improved customer and employee experience. These improvements will target our mobile applications used by DO field workers for status and complete customer restoration work completed by both employees and contractors. This investment is an ongoing effort portant because our business partners regularly review and enhance their processes to benefit the customers, and ask us to accommodate for them programmatically
What alternatives have been considered?	It is critical that we capture business process changes in all associated systems to avoid manual workarounds which add operational overhead

Key Objectives

- 1) F001 - Add new functionality to Vendor time reporting such as allowing premium pay and week per diem to be added. Also add a fixed bid timesheet for herbicide work
- 2) F002 - Add new functionality to Rostering app by creating an interface to EFO paging system, rewriting and adding funtions to Callout screen and developing new reports for vehicles, Callout and Emergency contact information
- 3) F003 - Add new functionality that will improve the customer closed loop process
- 4) F004 - Add new functionality to Distribution Operations, IT assets by adding new feature to Time Entry app (TEA) and Storm Role Scheduling (SRS)
- 5) F005 - Add functionality to various DO processes using SAP Cloud based solutions such as new construction and Damage Claims
- 6) F006 - Add Single Sign On (SSO) functionality to various DO apps to improve and secure mobile assets used by field workers
- 7) F007 - Address other emerging changes that support DO operations using work management and scheduling applications. This includes upgrading end of life servers and replatforming some of the older apps where needed (i.e. CTVMS and PTE)
- 8) F008 - Purchase miscellaneous hardware to support non-project related efforts such as MDT's, laptops and smart phones
- 9) F009 - Upgrade existing DO apps to supported versions of Weblogix and convert from LDAP to AD (i.e. CAPS/SRS, DOPR SDR, XDPT and XPOA)
- 10)

Start Month	January	2022
Duration to Complete	Years	12 Months
End Month	January	2023

Funding Source	ITS
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IT Financial Impact

	Year 1	Year 2	Year 3	Year 4	Year 5	Total
Capital	\$1,450,000	\$0	\$0	\$0	\$0	\$1,450,000
O&M	\$30,000	\$0	\$0	\$0	\$0	\$30,000
Total	\$1,480,000	\$0	\$0	\$0	\$0	\$1,480,000

Total amount is sent for approval on all business cases.

Business Unit Costs

BU O&M	\$61,000	Trailing BU O&M Costs	\$100,000
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	Year 1	Year 2	Year 3	Year 4	Year 5	Total
OCM O&M	\$0	\$0	\$0	\$0	\$0	\$0



Executive Summary

Business Case Number	Business Case Name
DMND0001380	Distribution Operations Application Health

Stakeholders

Portfolio Category	Business Unit
Plant and Field	Distribution Operations
Portfolio	Business Unit Director
Plant and Field: DO	Ajay Gupta
Portfolio Manager	Business Unit SME
Ajay Gupta	Daniel J Griffin
Managed By	PPS
IT	200

Project Description

Investment Type	Initiative Type
Sustainment	

What business problem or opportunity are we trying to solve?

This demand is a 3 year estimate for Distribution Operations Application Health outlook. The Distribution Operations (DO) area specifically deals with field crews "on the ground", live outage situations impacting our customers, and operational scenarios which allow for very little margin of error and very little absorption of risk. To best serve our business partners and customers, investment in these applications is crucial. The suite of systems and capabilities mentioned below, support the enhanced business processes that benefit our customers. Because it is important that our business partners regularly review and enhance their processes to benefit the customers, IT is asked to accommodate these changes programmatically.

What functionality or capability is being provided?

The Distribution Operations (DO) area specifically deals with field crews "on the ground", live outage situations impacting our customers, and operational scenarios which allow for very little margin of error and very little absorption of risk. To best serve our business partners and customers, investment in these applications is crucial. The suite of systems and capabilities mentioned below, support the enhanced business processes that benefit our customers. Because it is important that our business partners regularly review and enhance their processes to benefit the customers, IT is asked to accommodate these changes programmatically.

Describe alignment of project to Business Unit Goal(s) and Strategy(ies).

The selected solutions aligns with business unit goals by supporting areas of focus in DO such as planning and scheduling, system reliability and enhancements that increase efficiencies in labor and asset management.

Define the Benefit/Value to the Organization, Customer, Employee.

The values realized is an improved customer and employee experience. These improvements will target our mobile applications used by DO field workers for status and complete customer restoration work completed by both employees and contractors. This investment is an ongoing effort important because our business partners regularly review and enhance their processes to benefit the customers, and ask us to accommodate for them programmatically.



How will you monitor and measure expected value?
 Enhancements support productivity and process improvements 5% expected Change Enhancements support increased customer satisfaction 1% Change

What alternatives have been considered?
 It is critical that we capture business process changes in all associated systems to avoid manual workarounds which add operational overhead. There are no alternatives to supporting our business partners in their effort to improve systems that benefit DTE customers. It is critical that we capture business process changes in all associated systems to avoid manual workarounds which add operational overhead.

Start Date	End Date	Shared Asset	Funding Source
2022-01-01	2025-12-31	No	IT

IT Costs

Type	FY21	FY22	FY23	FY24	FY25
Capex	\$23,611	\$1,424,220	\$1,280,820	\$1,180,973	\$1,180,414
Opex	\$27	\$38,254	\$50,960	\$50,119	\$50,725
Total	\$23,638	\$1,462,475	\$1,331,781	\$1,231,093	\$1,231,139

BU Costs

Category	Term of Contract	BU O&M Cost
Business Unit		\$0
Cloud Usage Cost		\$0
Digital EXP Design Cost Est		\$0
Maintenance/Renewals		\$0
Organizational Change Management		\$0
Vendor Support & Licensing		\$0



Total

\$5,090,039

\$190,086

\$5,280,125



Executive Summary

Business Case ID	BCD-PF-21-009	Business Case Name	DTE Electric Generation Capacity Application Health
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Stakeholders

IT Portfolio	Plant & Field	Business Unit	Generation Optimization
IT Sub-Portfolio	Plant & Field	Business Unit Sponsor	Michael Samson
IT Director	Jaïson Busby	Business Units Impacted	Electric
Managed by	MEP		

Project Description

Project Category	Regulatory/Compliance	Innovation?	No
Project Type	Solutions Delivery - Cloud	Strategic Fit	Distinctive Continuous Improvement Capability

Business Outcome

"Incorporate this process into the existing SAP platform.
 Automation of the existing process of contacting enrolled interruptible and D8 buy through rate customers to inform them of service interruption. This will greatly reduce manual efforts.
 Automate of the existing process to contact D8 customers that DTE is capacity short and the buy through rate is in effect.

Key Objectives

- 1) Create a way for user to trigger an event to notify customer of interruption and capacity deficiency buy through via phone calls, push text messages or emails by leveraging existing SAP platform modules.
- 2) Update CRM with the appropriate event information for each customer contacted
- 3) Create a way to also notify major account service reps and VPs when the event has happened
- 4) Report on notification results.. Load this data in CRM and create interaction record on customer account.
- 5) Leverage existing SAP platform
- 6)
- 7)
- 8)
- 9)
- 10)

Start Month	January	2021
Duration to Complete	Years	7 Months
End Month	August	2021

Funding Source	ITS
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Financial Impact

	Year 1	Year 2	Year 3	Year 4	Year 5	Total
Capital	\$960,000	\$0	\$0	\$0	\$0	\$960,000
O&M	\$90,000	\$0	\$0	\$0	\$0	\$90,000
OCM	\$0	\$0	\$0	\$0	\$0	\$0
Total O&M	\$90,000	\$0	\$0	\$0	\$0	\$90,000
Total	\$1,050,000	\$0	\$0	\$0	\$0	\$1,050,000

Hardware/Software/ Cloud	Year 1	Year 2	Year 3	Year 4	Year 5	Total
Capital	\$0	\$0	\$0	\$0	\$0	\$0
O&M	\$0	\$0	\$0	\$0	\$0	\$0

BU O&M	\$18,000	Incremental Costs	\$40,000
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Executive Summary

Business Case Number	Business Case Name
DMND0001424	DTE Electric Generation Capacity Application Health

Stakeholders

Portfolio Category	Business Unit
Plant and Field	Energy Supply
Portfolio	Business Unit Director
Plant and Field: ES	Jaison J Busby
Portfolio Manager	Business Unit SME
Jaison J Busby	Nicholas A Griffin
Managed By	PPS
IT	200

Project Description

Investment Type	Initiative Type
Sustainment	Solutions Delivery - On Prem

What business problem or opportunity are we trying to solve?

This project scope is to fund regularly scheduled releases to our Generation Supply Management System (GSMS) platform, which the Company uses to effectively calculate which generation plants it will offer into the Midcontinent Independent System Operator (MISO) market, which in turn contributes to the selection of plant capacity running per the MISO market schedule. Specifically, the GSMS vendor targets a quarterly release schedule, which the Company must adopt in order to remain compliant with MISO regulations such as the determination of how a plant is offered to the market and the need to remain current with MISO Shadow Billing (the method used to settle charges and revenue with the Company). When we are not current in our application release schedule, we lose our ability to understand and prepare accordingly for our financial exposure in this market as our calculations would not match current MISO calculation rules.

This business case will enable the implementation of the latest vendor release, and software updates for the Generation Supply Management System (GSMS) which contain updates for the MISO market regulations, as well as integrate to MISO's upgraded system platform.

What functionality or capability is being provided?

Capability to offer DTE's generation resources and load into the MISO wholesale power market according to current regulatory requirements.

Maintain DTE's ability to understand and prepare accordingly for our financial exposure in the MISO market by shadow settlements according to current regulatory requirements.

Describe alignment of project to Business Unit Goal(s) and Strategy(ies).

Remain compliant with MISO regulations, prevent security vulnerabilities, and maintain our ability to determine financial exposure in the MISO market.

Define the Benefit/Value to the Organization, Customer, Employee.

Complete IT support for all applications that support the buying, selling, and dispatching of power in the wholesale power market and the bulk electric system. Critical system applications are supported by IT personnel who understand the business, Strong Political and Regulatory Context – by ensuring support of applications that directly impact meeting compliance to FERC and NERC, and Superior and Sustainable Financial Performance by ensuring support of applications that directly impact power supply cost recovery (PSCR) savings initiatives.



How will you monitor and measure expected value?
 DTE will meet regulatory expectations and timelines to offer and track our generation units in the MISO market.

What alternatives have been considered?
 No alternatives considered at this time as current solution platform meets the business needs. System is required to remain current to support up-to-date business. Doing nothing is not an option in supporting our system.

Start Date	End Date	Shared Asset	Funding Source
2022-01-01	2025-12-31	No	IT

IT Costs

Type	FY21	FY22	FY23	FY24	FY25
Capex	\$17,972	\$564,266	\$563,443	\$565,049	\$563,011
Opex		\$63,252	\$63,005	\$63,314	\$62,140
Total	\$17,972	\$627,519	\$626,449	\$628,363	\$625,151

BU Costs

Category	Term of Contract	BU O&M Cost
Business Unit		\$0
Cloud Usage Cost		\$0
Digital EXP Design Cost Est		\$0
Maintenance/Renewals		\$0
Organizational Change Management		\$0
Vendor Support & Licensing		\$0



Total

\$2,273,742

\$251,712

\$2,525,454



Executive Summary

Business Case Number	Business Case Name
DMND0001466	DTE Electric Utility Network(UN) Model

Stakeholders

Portfolio Category	Business Unit
Plant and Field	Distribution Operations
Portfolio	Business Unit Director
Plant and Field: DO	Daniel J Griffin
Portfolio Manager	Business Unit SME
Ajay Gupta	Thomas L Fedokovitz
Managed By	PPS
IT	200

Project Description

Investment Type	Initiative Type
Sustainment	Solutions Delivery - Cloud

What business problem or opportunity are we trying to solve?

ESRI is moving to UN and ESRI ArcMap will not be supported by Q1 2025. This initiative will leverage the latest technology on location data, business intelligence, and integrated systems to drive enterprise system automation and business performance for our public and internal IT system. Vendor to convert current DTE Electric Data Set to into ESRI Utility Network Model.

What functionality or capability is being provided?

. The initiative will leverage the latest technology on location data, business intelligence, and integrated systems to drive enterprise system automation and business performance for our public-facing and internal IT systems. It will improve safety in the field, improve reliability metrics and outage information, reduce customer complaints, and improve overall customer satisfaction.

Describe alignment of project to Business Unit Goal(s) and Strategy(ies).

Improve safety in the fields, reduce customer complaints and improve their satisfaction. In addition, improve reliability metrics and outage information.

Define the Benefit/Value to the Organization, Customer, Employee.

The existing GIS system provide location information of DO assets to entire company, including electrical distribution of assets.

How will you monitor and measure expected value?

Review and measure the level of productivity of each business work flow to fulfill the internal and external business process are streamlined and time to complete.

What alternatives have been considered?

DTE rejected the "do nothing" approach because the current GIS system will not be supported by ESRI Corp. Continued use despite obsolescence would result in extensive costs for limited application support from Microsoft, Oracle, and ESRI. Any assistance with a new issue with the software or operating system would not be supported. These include security vulnerabilities. Further, DTE relies on the ESRI GIS system for both Energy Gas and Energy Gas Business units. GIS is the system of record for all spatial related assets that DO Distribution, GAS Distribution and GAS Transmission Business units primary interact with. Business continuity in these areas is required to serve our customers and communities with efficient and prudent capital use



Start Date	End Date	Shared Asset	Funding Source
2023-01-02	2024-12-31	Yes	IT

IT Costs

Type	FY23	FY24	Total
Capex	\$377,382	\$372,799	\$750,181
Opex	\$63,823	\$61,177	\$125,000
Total	\$441,206	\$433,976	\$875,181

BU Costs

Category	Term of Contract	BU O&M Cost
Business Unit		\$0
Cloud Usage Cost		\$0
Digital EXP Design Cost Est		\$0
Maintenance/Renewals		\$0
Organizational Change Management		\$0
Vendor Support & Licensing		\$0



Executive Summary

Business Case Number	Business Case Name
DMND0001385	ESRI Application Health

Stakeholders

Portfolio Category	Business Unit
Plant and Field	Distribution Operations
Portfolio	Business Unit Director
Plant and Field: DO	Ajay Gupta
Portfolio Manager	Business Unit SME
Ajay Gupta	Katina S Murry
Managed By	PPS
IT	100

Project Description

Investment Type	Initiative Type
Sustainment	Infrastructure - On Prem

What business problem or opportunity are we trying to solve?

Improved integration between ESRI GIS and Maximo, Data sharing via automation of workflow and Planned changes to business applications that enhances the value and trust of the accuracy of the location asset data to employees and customers.

What functionality or capability is being provided?

The investment will provide improved integration between ESRI GIS and Maximo. The integration allows data sharing of primary switching cabinets, pole-tops, and pad-mount transformers assets via workflow automation. Sustained operational and functionality capabilities. Integrated systems enabling data sharing. Enhanced business values.

Describe alignment of project to Business Unit Goal(s) and Strategy(ies).

Improve safety in the field, reduce customer complaints and improve their satisfaction. In addition, improve reliability metrics and outage information.

Define the Benefit/Value to the Organization, Customer, Employee.

Enhance the productivity of Distribution Operations by providing access to the status of additional equipment in the field.

How will you monitor and measure expected value?

Keep up with the demand and data, hit milestones for the maximo and ESRI GIS integrations

What alternatives have been considered?

Alternatives GIS vendors considered (such as Hexagon, Auto Desk, or Smallwork) data would cause disturbances to our internal systems that rely on GIS data, delays in servicing our customers, and safety implications of not having the supporting documentation in place. For these reasons, and because the Company would also incur substantial costs to remove ESRI GIS and replace it with an alternate GIS solution, we did not select any alternate GIS vendors.

Start Date	End Date	Shared Asset	Funding Source
2023-01-02	2025-12-31	Yes	IT



IT Costs

Type	FY23	FY24	FY25	Total
Capex	\$442,033	\$441,383	\$436,664	\$1,320,080
Opex	\$20,890	\$19,843	\$19,296	\$60,030
Total	\$462,923	\$461,227	\$455,961	\$1,380,110

BU Costs

Category	Term of Contract	BU O&M Cost
Business Unit		\$0
Cloud Usage Cost		\$0
Digital EXP Design Cost Est		\$0
Maintenance/Renewals		\$0
Organizational Change Management		\$0
Vendor Support & Licensing		\$0



Executive Summary

Business Case ID	BCD-PFP-22-006	Business Case Name	Fuel Supply Application Health
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Stakeholders

IT Portfolio	Plant and Field	Business Unit	Fuel Supply
IT Sub-Portfolio	Plant and Field EG	Business Unit Director	Jaison Busby
IT Director	Jaison Busby	Business Unit SME	Karthik Krishnamurthy
Managed by	IT	Business Units Impacted	Electric

Project Description

Initiative Category	Sustainment	Initiative Type	Solutions Delivery - On Prem
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Business Opportunity	
What business problem are we trying to solve?	This project will enable IT to manage improvements to the ARR database and stay current by providing existing application patches, and configure and install the most current software updates.
What system or process is being affected?	This business case covers software patches and updates that will sustain the cross-functional application Automated Rail Receipts (ARR).
What functionality or capability is being provided?	The application is used in real-time by Corporate Fuel Supply and Fossil Generation. The business environment changes constantly and the application must be updated to match the dynamic business need.
What is the customer or employee value?	This business case will provide funding to keep Fuel Supply's business processes running efficiently and meet business operational needs effectly.
What alternatives have been considered?	No alternatives considered at this time as current solution platform meets the business needs.

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Case No : U-21534
 Exhibit : A-24
 Schedule: N1
 Witness: P. Sharma

Key Objectives	
1)	Sustain the cross-functional application Automated Rail Receipts (ARR). The application is used in real-time by Corporate Fuel Supply and Fossil Generation. The business environment changes constantly and the application must be updated to match the dynamic business need.
2)	Support is required January 1 – December 31st, annually
3)	1 experienced FTE – IT Developer is required to support this application adequately.
4)	
5)	
6)	
7)	
8)	
9)	
10)	

Start Month	January	2022	
Duration to Complete	0 Years	11 Months	
End Month	December	2022	

Funding Source	ITS
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IT Financial Impact						Total amount is sent for approval on all business cases.
	Year 1	Year 2	Year 3	Year 4	Year 5	
Capital	\$473,796	\$0	\$0	\$0	\$0	\$470,000
O&M	\$55,163	\$0	\$0	\$0	\$0	\$60,000
Total	\$528,959	\$0	\$0	\$0	\$0	\$530,000

Business Unit Costs						
BU O&M	\$12,000		Trailing BU O&M Costs	\$0		
	Year 1	Year 2	Year 3	Year 4	Year 5	Total
OCM O&M	\$0	\$0	\$0	\$0	\$0	\$0



Executive Summary

Business Case Number	Business Case Name
DMND0001437	Fuel Supply Application Health

Stakeholders

Portfolio Category	Business Unit
Plant and Field	Fuel Supply
Portfolio	Business Unit Director
Plant and Field: ES	Jaison J Busby
Portfolio Manager	Business Unit SME
Jaison J Busby	Karthik Krishnamurthy
Managed By	PPS
IT	200

Project Description

Investment Type	Initiative Type
Sustainment	Solutions Delivery - On Prem

What business problem or opportunity are we trying to solve?

This project will enable IT to manage improvements to the ARR database and stay current by providing regular application production releases, configuring and installing the most current software updates. In scope for this spend is primarily changes to the Automated Rail Receipt (ARR) and the Power Cost Inc. ETRM application.

The ARR program plans and tracks coal inventory for our coal power plants (5) and requires monthly releases. Currently, manual methods are used to track coal deliveries and is similarly lacking in automation of data received from DELAB Warren Service Center, the Company facility that performs analysis and testing including fuel quality testing and treatments placed on coal. This results in employees to manually enter invoice information, fuel quality, and treatment information. An example of 2020 enhancements made are integration improvements to automate the above efforts which the Company estimates a resulting reduction of 1,315 hours of manual work from manual entry alone, which will free up employees for other higher-priority work, as well as reduced risk of data entry errors common to human-entered data.

We are continuing to add additional capabilities to remove manual efforts. Vendor's software updates are provided quarterly to the Power Cost Inc. ETRM application which is used to plan natural gas purchasing, transportation, inventory management, nominating, and scheduling for the DTE gas fueled generation units. Additionally, ARR system modifications will be implemented to increase efficiencies by automating workflows, improving usability, and reducing redundancies.

What functionality or capability is being provided?

The application is used in real-time by Corporate Fuel Supply and Fossil Generation. The business environment changes constantly, and the application must be updated to match the dynamic business need.

ARR system modifications will be implemented to increase efficiencies by automating workflows, improving usability, and reducing redundancies.

Vendor's software updates to the Power Cost Inc. ETRM application will be implemented and supported. Reduce manual "work-arounds" and transition manual entry into automated or programmatic features within the ARR process

Describe alignment of project to Business Unit Goal(s) and Strategy(ies).



Provide timely and accurate execution of the ARR process used for financial closing and regulatory reporting, and provide necessary updates and security patches to this system.

Define the Benefit/Value to the Organization, Customer, Employee.

This business case will provide funding to keep Fuel Supply's business processes running efficiently and meet business operational needs effectively. All ARR production software updates are configured and installed in order to ensure maximum application performance. Minimize O&M Costs. To manage improvements to the ARR database based on changing business environment that directly impacts Corporate Fuel Supply (CFS) stakeholders including MERC, FosGen power plants, FosGen ESO, and GenOps (e.g. fuel surcharge changes, new affiliates, etc.). These changes generally require 1 FTE with significant Developer experience, year-round.

How will you monitor and measure expected value?

Business will review trends and benchmark work management metrics to evaluate efficiency gains and reduction of system issues.

What alternatives have been considered?

No alternatives considered at this time as current solution platform meets the business needs. System is required to remain current to support up-to-date business processes. Alternate technology solutions include moving from existing custom solution to a vendor-provided and managed solution for which we are not seeking prioritization at this time our current forecast since it would not be a prudent use of resources.

To "do nothing" is not an alternative because it would result in an unnecessary and unjustifiably high administrative burden on the Company, with associated increases in O&M expense due to the increased staff that would be required to manually manage the gas fuel supply. If, for example, we had not undertaken the automation efforts, we would have lost expertise from retiring resources who were primarily responsible for this data entry.

Start Date	End Date	Shared Asset	Funding Source
2022-01-01	2025-12-31	No	IT

IT Costs

Type	FY21	FY22	FY23	FY24	FY25
Capex	\$15,018	\$472,762	\$471,403	\$471,713	\$469,925
Opex		\$53,426	\$52,503	\$52,672	\$51,698
Total	\$15,018	\$526,188	\$523,906	\$524,385	\$521,622

BU Costs

Category	Term of Contract	BU O&M Cost
Business Unit		\$0
Cloud Usage Cost		\$0
Digital EXP Design Cost Est		\$0
Maintenance/Renewals		\$0
Organizational Change Management		\$0
Vendor Support & Licensing		\$0



Total

\$1,900,820

\$210,299

\$2,111,119



Executive Summary

Business Case Number	Business Case Name
DMND0002489	ITS-SRS Application Health

Stakeholders

Portfolio Category	Business Unit
Plant and Field	Distribution Operations
Portfolio	Business Unit Director
Plant and Field: DO	Ajay Gupta
Portfolio Manager	Business Unit SME
Ajay Gupta	Mansimran Singh
Managed By	PPS
IT	200

Project Description

Investment Type	Initiative Type
Sustainment	Operational

What business problem or opportunity are we trying to solve?

The ITS-SRS Application Health Investment supports the core OSI (Open Systems Interconnection) system and vendor relationship used for our grid operations and has responsibility for NERC (North American Electric Reliability Corporation) compliance activities for ADMS (Advanced Distribution Management System), the GMS (Generation Management System), and the MOC (Market Operations Center) which means support of generation control, wind-park control, and powerplants.

Investment is required to keep these systems highly available and performing optimally at all times, ensuring the smooth functioning of the electrical grid.

What functionality or capability is being provided?

Please see the section entitled, "What business problem or opportunity are we trying to solve?"

Describe alignment of project to Business Unit Goal(s) and Strategy(ies).

The project aligns with the Business Unit Goal of ensuring the safe and reliable operation of the electrical grid. It also aligns with the company's overall strategy of compliance with NERC CIP standards and ensuring the highest level of customer service through effective outage management. By providing ongoing support for critical applications, the project helps maintain the high level of performance required for these business goals to be achieved.



Define the Benefit/Value to the Organization, Customer, Employee.

With this investment, DTE can ensure the safe and reliable operation of the electrical grid and maintain NERC CIP compliance of the infrastructure. This helps to avoid potential penalties, fines, and legal liabilities while maintaining the company's reputation as a reliable energy provider. The customers benefit from the ongoing support and maintenance of the Energy management System, Generation Management System, Outage Management System, and Switch Order Management systems. These systems help to ensure uninterrupted electrical service, minimize downtime, and speed up the restoration process during outages. Overall, maintaining the ITS-SRS application benefits the organization, customers, and employees by ensuring the safe and reliable operation of the electrical grid, maintaining compliance, and providing uninterrupted electrical service.

2024 upgrades/enhancements:

Upgrades/enhancements required for compliance (ad hoc) ADMS upgrades (monthly releases are the norm in 2024) VMWare/Vxrail upgrades (quarterly)

How will you monitor and measure expected value?

Expected value will be monitored and measured through ongoing analysis of system performance and uptime, as well as feedback from customers and employees regarding the effectiveness of the SRS application portfolio.

What alternatives have been considered?

The Company rejected the use of alternate technological solutions as this would require a complete overhaul of existing, established, critical platforms with no compensatory benefit, after significant investment. Similarly, a "do nothing" alternative was rejected as this would result in grid destabilization, problems with power generation (GMS), and an inability to manage outages in our system.

Start Date	End Date	Shared Asset	Funding Source
2024-01-02	2027-12-31	No	IT

IT Costs

Type	FY24	FY25	FY26	FY27	Total
Capex	\$1,057,374	\$527,116	\$1,052,633	\$1,050,858	\$3,687,980
Opex	\$2,223	\$1,112	\$1,729	\$1,482	\$6,546
Total	\$1,059,597	\$528,228	\$1,054,362	\$1,052,340	\$3,694,526

BU Costs

Category	Term of Contract	BU O&M Cost
Business Unit		\$0
Cloud Usage Cost		\$0
Digital EXP Design Cost Est		\$0
Maintenance/Renewals		\$0
Organizational Change Management		\$0
Vendor Support & Licensing		\$0



Executive Summary

Business Case Number	Business Case Name
DMND0002490	ITS ADMS Application Health

Stakeholders

Portfolio Category	Business Unit
Plant and Field	Distribution Operations
Portfolio	Business Unit Director
Plant and Field: DO	Ajay Gupta
Portfolio Manager	Business Unit SME
Ajay Gupta	Oleg Lukibanov
Managed By	PPS
IT	200

Project Description

Investment Type	Initiative Type
Sustainment	Solutions Delivery - On Prem

What business problem or opportunity are we trying to solve?

The ITS ADMS Application Health Program covers a suite of applications in use at DTE for safe and effective operation in the Electric System Operations Center (ESOC) and for Distribution Operations Dispatch. These include the following:

OMS (Outage Management System) is used to manage and respond to outages in the power grid. DMS (Distribution Management System) is used to manage the distribution of power on the grid. EMS (Energy Management System) is used to monitor and control the generation and transmission of power. GMS (Generation Management System) is used to manage the generation of power, typically at a power plant or other large facility. SOM (System Operations Management) is used to manage the overall operation of the power grid.

The ADMS application portfolio is critical in safely supporting the electrical grid through use of these systems, which each require their own level of enhancements, upgrades, and support as well as licensing. The ADMS team is responsible for supporting and updating these applications as well as for integration infrastructure (ESB or Enterprise Service Bus) that connects all aspects of ADMS to DTE legacy systems. Without the proper enhancements, upgrades, and maintenance, there is a risk of system failure or malfunction, which can have serious consequences on the safe and reliable operation of the electrical grid.

Capital investment is needed within this extensive suite of applications for the aforementioned support, upgrades, and enhancements to shore up aging infrastructure and meet the increasing demands for digitalization within ongoing business requirements to operate the grid. Additional funding is needed for licensing, operation, and support of the critical ADMS application portfolio.

What functionality or capability is being provided?

Please see the sections above.

Describe alignment of project to Business Unit Goal(s) and Strategy(ies).

The project aligns with the business unit goal of ensuring the safe and reliable operation of the electrical grid, as well as with the strategy of maintaining compliance with regulatory requirements.



Define the Benefit/Value to the Organization, Customer, Employee.

This Investment will contribute to continued safe and reliable distribution and sub-transmission activities, as well as support and enhancement for our critical outage management system. Further, this will benefit the organization by ensuring compliance with regulatory requirements, reducing the risk of system failures and downtime, and improving overall operational efficiency. Customers will benefit from more reliable service, while employees will have the tools and systems needed to effectively manage distribution operations.

How will you monitor and measure expected value?

Expected value will be monitored and measured through ongoing analysis of system performance and uptime, as well as feedback from customers and employees regarding the effectiveness of the ADMS application portfolio.

What alternatives have been considered?

No alternatives were considered as the ongoing investment in the ADMS application portfolio is necessary to ensure compliance with regulatory requirements and to ensure the safe and reliable operation of the electrical grid. The Company rejected the use of alternate technological solutions as this would require a complete overhaul of existing, established, critical platforms with no compensatory benefit, after significant investment. Similarly, a "do nothing" alternative was rejected as this would result in grid destabilization, problems with power generation (GMS), and an inability to manage outages in our system.

Start Date	End Date	Shared Asset	Funding Source
2024-01-02	2027-12-31	No	IT

IT Costs

Type	FY24	FY25	FY26	FY27	Total
Capex	\$1,066,800	\$1,066,800	\$1,063,289	\$1,056,646	\$4,253,535
Opex	\$495,822	\$492,009	\$489,574	\$487,327	\$1,964,731
Total	\$1,562,622	\$1,558,809	\$1,552,863	\$1,543,973	\$6,218,266

BU Costs

Category	Term of Contract	BU O&M Cost
Business Unit		\$0
Cloud Usage Cost		\$0
Digital EXP Design Cost Est		\$0
Maintenance/Renewals		\$0
Organizational Change Management		\$0
Vendor Support & Licensing		\$0



Executive Summary

Business Case Number	Business Case Name
DMND0001396	Network reliability and Monitoring

Stakeholders

Portfolio Category	Business Unit
Plant and Field	Distribution Operations
Portfolio	Business Unit Director
Plant and Field: DO	Ajay Gupta
Portfolio Manager	Business Unit SME
Ajay Gupta	
Managed By	PPS
	200

Project Description

Investment Type	Initiative Type
Sustainment	Operational

What business problem or opportunity are we trying to solve?

The Network Reliability and Monitoring will track the life cycle of telecommunications equipment, report and analyze the performance and the impact on the electrical system. This will enable and provide visibility into telecommunications real time performance, asset management, and ability to perform analytics on telecommunications equipment for improving equipment reliability.

What functionality or capability is being provided?

Implementation of tools to monitor and track the telecommunications system connectivity to enable improvement.

Describe alignment of project to Business Unit Goal(s) and Strategy(ies).

na

Define the Benefit/Value to the Organization, Customer, Employee.

Business value of network monitoring will improve the quality of the telecommunications system and increased reliability. Improved safety and employee engagement.

How will you monitor and measure expected value?

NA

What alternatives have been considered?

NA

Start Date	End Date	Shared Asset	Funding Source
2023-01-02	2024-12-31	No	IT



IT Costs

Type	FY23	FY24	Total
Capex	\$750,151	\$750,805	\$1,500,956
Opex	\$72,830	\$72,030	\$144,860
Total	\$822,981	\$822,835	\$1,645,816

BU Costs

Category	Term of Contract	BU O&M Cost
Business Unit		\$0
Cloud Usage Cost		\$0
Digital EXP Design Cost Est		\$0
Maintenance/Renewals		\$0
Organizational Change Management		\$0
Vendor Support & Licensing		\$0



Executive Summary

Business Case ID	BCD-PPF-22-001	Business Case Name	Nuclear Generation Business Systems Replacement
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Stakeholders

IT Portfolio	Plant & Field	Business Unit	Nuclear Generation
IT Sub-Portfolio	Plant & Field PS EG	Business Unit Director	Manish Rukadikar
IT Director	Jaison Busby	Business Unit SME	Keith Carradine
Managed by	IT	Business Units Impacted	Electric

Project Description

Initiative Category	Sustainment	Initiative Type	Solutions Delivery - On Prem
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Business Opportunity

What business problem are we trying to solve?	Changes to Nuclear Licensing, and supporting regulations require on-going application enhancements to support Nuclear Generation licensing requirements. Support of Nuclear Generation critical and key application and reporting, tools that are needed to maintain the assets and to implement enhancements for changing licensing and business needs.
What system or process is being affected?	Nuclear Generation critical and key applications and reporting, tools that are needed to maintain the assets and to implement enhancements for changing licensing and business needs.
What functionality or capability is being provided?	Nuclear Generation critical and key application and reporting, tools that are needed to maintain the assets and to implement enhancements for changing licensing and business needs. These tools are used to manage the day to day operation of the plant, refuel outage planning, regulatory reporting, etc.
What is the customer or employee value?	Enhancements made under this business case impact efficient and effective licensing compliance, optimal safe operation of the plant, worker and public safety.
What alternatives have been considered?	Not performing these necessary updates adds unnecessary compliance complexity, the opportunity for increased human errors, inefficient use of resources and increased operational risks due to security vulnerabilities and outdated and unsupported, obsolete hardware / software applications

Key Objectives

- 1) Replace obsolete server operating systems and hardware
- 2) Replace obsolete database instances with current supported versions
- 3) Memory / Processor / Storage upgrades and replacements for existing critical, key and general servers supporting Nuclear Generation as needed
- 4) Uninterruptible Power Supply unit and battery replacements for on-site Nuclear Generation key, critical and general servers
- 5) Minor enhancements to Fermi applications and infrastructure
- 6) Address emergent hardware, software and compliance issues as they occur in the Nuclear Generation Business Unit
- 7)
- 8)
- 9)
- 10)

Start Month	January	2022	Funding Source	ITS
Duration to Complete	1	Years	Months	
End Month	January	2023		

IT Financial Impact

	Year 1	Year 2	Year 3	Year 4	Year 5	Total
Capital	\$653,869	\$0	\$0	\$0	\$0	\$650,000
O&M	\$36,332	\$0	\$0	\$0	\$0	\$40,000
Total	\$690,201	\$0	\$0	\$0	\$0	\$690,000

Total amount is sent for approval on all business cases.

Business Unit Costs

BU O&M	\$45,000	Trailing BU O&M Costs	\$0
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	Year 1	Year 2	Year 3	Year 4	Year 5	Total
OCM O&M	\$0	\$0	\$0	\$0	\$0	\$0



Executive Summary

Business Case Number	Business Case Name
DMND0001447	Nuclear Generation Business Systems Replacement

Stakeholders

Portfolio Category	Business Unit
Plant and Field	Nuclear Generation
Portfolio	Business Unit Director
Plant and Field: ES	Jaison J Busby
Portfolio Manager	Business Unit SME
Jaison J Busby	Keith M Carradine
Managed By	PPS
IT	200

Project Description

Investment Type	Initiative Type
Sustainment	Solutions Delivery - On Prem

What business problem or opportunity are we trying to solve?

Nuclear Generation has 36 key and critical applications that exist to satisfy regulatory, safety or business process requirements. This business case excludes Critical A restricted applications, Critical Digital Assets that are directly connected to plant equipment, Nuclear Operational Technology (OT) platforms that perform direct manipulation of plant controls, and standard applications including but not limited to Microsoft Office and Adobe Acrobat. The business unit has historically had between 3 and 6 critical and key applications that need to be updated each year. These include software, hardware and/or database environment upgrades or replacement each year due to regulatory changes, obsolescence, security vulnerabilities and continued protection from the risk of system failure and possible cyber-attack.

Nuclear Generation has 36 applications which require regular security vulnerability remediation. Key and Critical applications are listed in the table below:

Nuclear Generation Key and Critical Applications

ALARA

DAILY/OUTAGE WORK MANAGEMENT (Syntempo/Maxavera/Jasper)DCAL (DESIGN CALCULATION UTILITY) Devonway (Observations, CAP and Actionway)Electronic PHQ (Inprocessing) EPM - GENESIS / Cable Raceway Information Management SystemEQMS - Environmental Qualification Management SystemSOMS Electronic Shift Operations Management SystemFRMS - Nuclear Fatigue Rules Management System Fermi 1 Decommissioning Records (FDR)Fermi BEST KeyFermi Chemistry (SampleIQ)Fermi Nucleus WebsiteFermi Owner Control Area AccessFermi Prime OCR / DOC PIPESFermi Servlet For CAP System (tRoom)Fermi Servlet For CAP System (vRoom)GEDDS Graphical Electronic Dosimetry Display SystemGraneda (Fermi)Material Issues TrackerMET/TEAMNetronicsNuclear Generation DocumentumNuclear Generation Intelligent Capture (Captive)Nuclear Generation MaximoNuclear Generation TrainingPHOENIX Probabilistic Risk AssessmentPro-Watch Monitoring SystemR2W - READY2WORK (FERMI INPROCESSING)Security Screening Information System (IPAA-SSIS)SENTINEL (FERMI ACCESS CONTROL SYSTEM)SOCRS Scanning and OCR ServicesTQR Training Qualification (FERMI QUALIFICATION SYSTEM)VaporstreamVISION Training VSDS Visual Survey Display System

What functionality or capability is being provided?

Nuclear Generation critical and key application and reporting, tools that are needed to maintain the assets and to implement modifications for changing licensing and business needs. These tools are used to manage the day to day operation of the plant, including but not limited to refuel outage planning and regulatory reporting.



Describe alignment of project to Business Unit Goal(s) and Strategy(ies).

Nuclear Generation is unique among the DTE Business Units due to compliance and regulatory requirements governed by Nuclear Regulatory Commission (NRC) Regulations enumerated in Title 10, Code of Federal Regulations. Nuclear Generation critical and key application and reporting tools that are needed to maintain the assets and to implement modifications for changing licensing and business needs. These tools are used to manage the daily operation of the plant, including but not limited to refuel outage planning and regulatory reporting. All Nuclear Generation IT initiatives have a designated Fermi leadership member that works with the Nuclear Generation IT team in all areas of the project including but not limited to governance, resources, requirements, benchmarking, solution selection, delivery, user acceptance testing.

Define the Benefit/Value to the Organization, Customer, Employee.

Modifications made under this business case impact efficient and effective licensing compliance, optimal safe operation of the plant, worker and public safety.

How will you monitor and measure expected value?

Business unit satisfaction, able to perform the tasks as needed

What alternatives have been considered?

Do Nothing would add unnecessary compliance complexity, the opportunity for increased human errors, inefficient use of resources and increased operational risks due to security vulnerabilities and outdated and unsupported, obsolete hardware / software applications.

Start Date	End Date	Shared Asset	Funding Source
2023-01-02	2025-12-31	No	IT

IT Costs

Type	FY23	FY24	FY25	Total
Capex	\$650,333	\$651,362	\$648,305	\$1,950,000
Opex	\$44,000	\$48,000	\$52,000	\$144,000
Total	\$694,333	\$699,362	\$700,305	\$2,094,000

BU Costs

Category	Term of Contract	BU O&M Cost
Business Unit	Annual	\$45,000
Cloud Usage Cost		\$0
Digital EXP Design Cost Est		\$0
Maintenance/Renewals		\$0
Organizational Change Management		\$0
Vendor Support & Licensing		\$0

Michigan Public Service Commission
DTE Electric Company
IT Business Case Executive Summaries

Case No : U-21534
Exhibit : A-24
Schedule: N1
Witness: P. Sharma



Executive Summary

Business Case ID	BCD-PF-22-019	Business Case Name	Production Growth
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Stakeholders

IT Portfolio	Plant & Field	Business Unit	Plant & Field Core Operations
IT Sub-Portfolio	Plant & Field - DO	Business Unit Director	Daniel Griffin
IT Director	Daniel Griffin	Business Unit SME	Jois, Ravichandran Salem, Tanya Blanding, Wayne Smith, and Christ
Managed by	IT	Business Units Impacted	Electric

Project Description

Initiative Category	Strategic	Initiative Type	Infrastructure - On Prem
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Business Opportunity

What business problem are we trying to solve?	Support the year-over-year growth resulting from the ongoing increase in data within the systems and its associated needs. Improve critical system performance, scalability, reliability, and stabilization of applications in the Plant and Field portfolio
What system or process is being affected?	Systems affected are meter reads, outage management, field service, and asset health management.
What functionality or capability is being provided?	This business case will resolve for Just-in-Time computing power, storage capacity, database availability, and middle-tier infrastructure.
What is the customer or employee value?	Enables IT business operations to perform to the prescribed metrics and business analytics key performance index (KPIs) such as CPU-capacity, storage thresholds, system response times, and availability.
What alternatives have been considered?	Due to the nature of this program, there are no alternative technology solutions that would provide a meaningful alternate course of action either physically or financially.

Key Objectives

- 1) Computing Power Growth
- 2) Storage Power Growth
- 3)
- 4)
- 5)
- 6)
- 7)
- 8)
- 9)
- 10)

Start Month	January	2022
Duration to Complete	0 Years	11 Months
End Month	December	2022

Funding Source	ITS
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IT Financial Impact

	Year 1	Year 2	Year 3	Year 4	Year 5	Total
Capital	\$796,549	\$796,549	\$0	\$0	\$0	\$1,590,000
O&M	\$27,300	\$27,300	\$0	\$0	\$0	\$50,000
Total	\$823,849	\$823,849	\$0	\$0	\$0	\$1,640,000

Total amount is sent for approval on all business cases.

Business Unit Costs

BU O&M	\$0	Trailing BU O&M Costs	\$0
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	Year 1	Year 2	Year 3	Year 4	Year 5	Total
OCM O&M	\$0	\$0	\$0	\$0	\$0	\$0



Executive Summary

Business Case Number	Business Case Name
DMND0001400	Production Growth

Stakeholders

Portfolio Category	Business Unit
Plant and Field	Distribution Operations
Portfolio	Business Unit Director
Plant and Field: DO	
Portfolio Manager	Business Unit SME
Ajay Gupta	
Managed By	PPS
	200

Project Description

Investment Type	Initiative Type
Sustainment	

What business problem or opportunity are we trying to solve?

Support the year-over-year growth resulting from the ongoing increase in data within the systems and its associated needs. Improve critical system performance, scalability, reliability, and stabilization of applications in the Plant and Field portfolio

What functionality or capability is being provided?

Provisioning Just-In-Time computing power, storage capacity, database availability, and middle-tier infrastructure.

Describe alignment of project to Business Unit Goal(s) and Strategy(ies).

This project align to the overall Plant & Field DO business unit goals and strategies as it make sure the application are not in End of life cycle

Define the Benefit/Value to the Organization, Customer, Employee.

Enables IT business operations to perform to the prescribed metrics and business analytics key performance index (KPIs) such as CPU-capacity, storage thresholds, system response times, and availability.

How will you monitor and measure expected value?

Making sure all the operational Metrics are maintaining/improving from the historical levels

What alternatives have been considered?

We did not select a "do nothing" approach because it would increase the risk of interruption of internal and external services due to infrastructure capacity failures. Due to the nature of this program, there are no alternative technology solutions that would provide a meaningful alternate course of action either physically or financially.

Start Date	End Date	Shared Asset	Funding Source
2023-01-02	2025-12-31	Yes	IT



IT Costs

Type	FY23	FY24	FY25	Total
Capex	\$809,459	\$1,491,346	\$1,292,023	\$3,592,828
Opex	\$9,738	\$7,674	\$7,180	\$24,592
Total	\$819,197	\$1,499,020	\$1,299,203	\$3,617,420

BU Costs

Category	Term of Contract	BU O&M Cost
Business Unit		\$0
Cloud Usage Cost		\$0
Digital EXP Design Cost Est		\$0
Maintenance/Renewals		\$0
Organizational Change Management		\$0
Vendor Support & Licensing		\$0

Michigan Public Service Commission
DTE Electric Company
IT Business Case Executive Summaries

Case No : U-21534
Exhibit : A-24
Schedule: N1
Witness: P. Sharma



Executive Summary

Business Case ID	BCD-PFP-22-022	Business Case Name	Renewable Operations Application Health
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Stakeholders

IT Portfolio	Plant & Field	Business Unit	Renewable Energy
IT Sub-Portfolio	Plant & Field PS EG	Business Unit Director	Jaison Busby
IT Director	Jaison Busby	Business Unit SME	Carlotta D Lindsay
Managed by	IT	Business Units Impacted	Electric

Project Description

Initiative Category	Sustainment	Initiative Type	Operational
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Business Opportunity

What business problem are we trying to solve?	IT support for Renewables business which includes release management, minor application fixes, patching support, and operational upgrades to the Renewable applications.
What system or process is being affected?	GE Predix Digital platform: Digital Wind Farm (DWF) and interfaces.
What functionality or capability is being provided?	Renewable Energy Operations & Maintenance (RE O&M) team is monitoring all wind fleet assets and managing all maintenance work from GE Predix Digital platform. This tool will mainly help predictive analytics (analyze turbine health data), case management, work order creation, work scheduling and work tracking.
What is the customer or employee value?	Sustain availability and reliability of Renewable IT supported systems. Improve the employee work experience for monitoring and managing Wind parks from GE Predix Digital platform application.
What alternatives have been considered?	Continue to use the existing GE Predix Digital platform and interfaces.

Key Objectives

- 1) The scope of this Business case will support/sustain and manage the IT business needs of the Renewable Applications.
- 2) Minor defect fixes and minor upgrades to manage vulnerability issues and validation of platform solutions that impacts Renewable Applications.
- 3) Monitor the production environment, to ensure connectivity and availability.
- 4) Manage release management and change management tasks like: build process, deployment and configurational changes.
- 5) Coordination and work with internal IT, Business and vendors to complete the server patches, certificate upgrades and maintenance activities as needed for the platform.
Coordination with DTE Internal teams , business and Vendor (Maximo and IPS etc.), includes the functional and technical design of additional requirement as needed for the platform.
- 6)
- 7)
- 8)
- 9)
- 10)

Start Month	January	2022	Funding Source	ITS
Duration to Complete	Years	11	Months	
End Month	December	2022		

IT Financial Impact						Total amount is sent for approval on all business cases.
	Year 1	Year 2	Year 3	Year 4	Year 5	Total
Capital	\$145,204	\$0	\$0	\$0	\$0	\$140,000
O&M	\$12,086	\$0	\$0	\$0	\$0	\$10,000
Total	\$157,290	\$0	\$0	\$0	\$0	\$150,000

Business Unit Costs

BU O&M	\$0	Trailing BU O&M Costs	\$0			
OCM O&M	Year 1	Year 2	Year 3	Year 4	Year 5	Total
	\$0	\$0	\$0	\$0	\$0	\$0



Executive Summary

Business Case Number	Business Case Name
DMND0001995	Renewable Operations Application Health

Stakeholders

Portfolio Category	Business Unit
Plant and Field	Renewable Operations
Portfolio	Business Unit Director
Plant and Field: ES	Paul Whitman
Portfolio Manager	Business Unit SME
Jaison J Busby	Sumanth K Makunur
Managed By	PPS
IT	200

Project Description

Investment Type	Initiative Type
Sustainment	Solutions Delivery - On Prem

What business problem or opportunity are we trying to solve?

Renewable Energy Operations organization performs monitoring and operations and maintenance of all wind and solar assets. Operations include predictive analytics on Turbine health data, case management, switch upgrades, work scheduling and work tracking.

This project is to perform work to support the reliability, security and compliance sustainment of DTE renewable assets, IT infrastructure, systems, and business processes. Renewable assets include IT infrastructure, applications, and systems for wind and solar.

Sustainment work may include application upgrades, new reports, interface changes, release management and patching support. We are continuing to add additional capabilities to remove manual efforts.

Sustainment infrastructure work includes maintaining asset health for telecommunication at all wind and solar parks, such as firewalls, routers, switches, and domain controllers. Additionally maintaining Renewable data center asset health such as software patching and vendor support.

What functionality or capability is being provided?

This business supports the sustainment of functionality of Renewable business applications. Coordination and work with internal IT, Business, and vendors to complete the additional requirements. Manage change management tasks like build process, deployment, and configurational changes. Coordination with other DTE Internal teams for example (Maximo and IPS etc.), includes the functional and technical design of additional requirements as needed for the platform.

This business case will allow IT to support the function of existing applications, keep business processes running efficiently and meet business operational needs effectively.

Describe alignment of project to Business Unit Goal(s) and Strategy(ies).

Supporting this functionality will improve the employee work experience for monitoring and managing Wind parks and also implement the improvements of the GE Predix Digital platform: Digital Wind Farm (DWF).



Define the Benefit/Value to the Organization, Customer, Employee.

This business case will allow IT to support the function of existing applications, keep business processes running efficiently and meet business operational needs effectively.

How will you monitor and measure expected value?

Business will review trends and benchmark work management metrics to evaluate efficiency gains and reduction of system issues.
 The project cost was estimated based on historical trend spend requirements and known sustainment needs.

What alternatives have been considered?

No alternatives are considered at this time as the current solution platform meets the business needs. The system is required to remain current to support up-to-date business processes, asset health, and support timely accurate execution of any system modifications.
 The Do Nothing alternative was not considered, as this is required to support to sustain and support ongoing business demand and the Renewable business operations will be adversely impacted.
 The Do Nothing alternative was not considered, as this is required to support to sustain and support ongoing business demand and the Renewable business operations will be adversely impacted.

Start Date	End Date	Shared Asset	Funding Source
2023-01-02	2025-12-31	No	IT

IT Costs

Type	FY23	FY24	FY25	Total
Capex	\$125,794	\$124,971	\$123,612	\$374,376
Opex	\$11,668	\$10,374	\$10,251	\$32,293
Total	\$137,462	\$135,345	\$133,862	\$406,668

BU Costs

Category	Term of Contract	BU O&M Cost
Business Unit		\$0
Cloud Usage Cost		\$0
Digital EXP Design Cost Est		\$0
Maintenance/Renewals		\$0
Organizational Change Management		\$0
Vendor Support & Licensing		\$0

Michigan Public Service Commission
DTE Electric Company
IT Business Case Executive Summaries

Case No : U-21534
Exhibit : A-24
Schedule: N1
Witness: P. Sharma



Executive Summary

Business Case ID	BCD-PFD-22-001	Business Case Name	Supervisory Control and Data Acquisition (SCADA) System Improvement
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Stakeholders

IT Portfolio	Plant & Field	Business Unit	IT Operations
IT Sub-Portfolio	Plant & Field - DO	Business Unit Director	Daniel Griffin
IT Director	Daniel Griffin	Business Unit SME	Curtis Yanoski
Managed by	IT	Business Units Impacted	Electric

Project Description

Initiative Category	Sustainment	Initiative Type	Operational
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Business Opportunity

What business problem are we trying to solve?	Regulatory/Compliance investments represent non-discretionary spending that is required due to regulatory requirements. The North American Reliability Corporation Critical Infrastructure Protection (NERC CIP) plan is a set of requirements designed to secure assets vital to reliably operating North America's bulk electric system. The NERC standards require regular patching and upgrades of assets in the NERC environment to add functionality and address defects.
What system or process is being affected?	Critical applications and assets in the NERC environment, Energy Management System (EMS), Generation Management System (GMS), Distribution Management System (DMS), Outage Management System (OMS). Supporting Business Processes: System Operations Center (SOC), Merchant Operations Center (MOC).
What functionality or capability is being provided?	Ensure that the assets ~300 Servers ~100 workstations are updated monthly to address security vulnerabilities. Secure assets vital to reliably operating North America's bulk electric system.
What is the customer or employee value?	Ensure that DTE electric distribution IT system is protected from external Cyberthreats. Protect our company and customers from penalties and security compromise.
What alternatives have been considered?	None. Maintaining compliance is a recurring activity, as information technology requires continuous maintenance to protect our company and customers from penalties and security compromise.

Key Objectives

- 1) Analyzing, planning and applying patches and upgrades to comply with Cyber Security needs.
- 2) Perform data adjustments and database engineering to ensure clean data in the applications.
- 3) Tuning performance of SCADA assets to ensure continued reliability.
- 4) Performing time-bound administrative activities and documentation tasks each month to remain compliant with critical infrastructure protection requirements.
- 5) Automating processes and procedures associated with patching and evidence collection for compliance. Reducing risk of human performance errors.
- 6) Performing triage and prioritizing solution development for issues and concerns associated with NERC assets.
- 7) Tracking NERC compliance tasks, ensuring timely performance of NERC-CIP requirements and collection of evidence.
- 8) Resolution of issues reported by end users.
- 9)
- 10)

Start Month	January	2022
Duration to Complete	1 Years	11 Months
End Month	December	2023

Funding Source	ITS
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IT Financial Impact

	Year 1	Year 2	Year 3	Year 4	Year 5	Total
Capital	\$520,000	\$406,000	\$0	\$0	\$0	\$930,000
O&M	\$40,000	\$40,000	\$0	\$0	\$0	\$80,000
Total	\$560,000	\$446,000	\$0	\$0	\$0	\$1,010,000

Total amount is sent for approval on all business cases.

Business Unit Costs

BU O&M	\$0	Trailing BU O&M Costs	\$0
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	Year 1	Year 2	Year 3	Year 4	Year 5	Total
OCM O&M	\$0	\$0	\$0	\$0	\$0	\$0



Executive Summary

Business Case Number	Business Case Name
DMND0001395	Supervisory Control and Data Acquisition (SCADA) System Support

Stakeholders

Portfolio Category	Business Unit
Plant and Field	Distribution Operations
Portfolio	Business Unit Director
Plant and Field: DO	Daniel J Griffin
Portfolio Manager	Business Unit SME
Ajay Gupta	
Managed By	PPS
	200

Project Description

Investment Type	Initiative Type
Sustainment	

What business problem or opportunity are we trying to solve?

The Bulk Electric System requires protection from cyber threats. Any disruption with electrical transmission due to cyber attacks could result in outages and may impact national health and safety. Therefore, DTE must adhere to NERC (North American Electric Reliability Corporation) standards to monitor critical cyber assets from malicious threat actors.

What functionality or capability is being provided?

Support and management CIP standards 7, 9, 10, 12 and 13

Describe alignment of project to Business Unit Goal(s) and Strategy(ies).

0 PNCs in 2023

Define the Benefit/Value to the Organization, Customer, Employee.

The benefits of the NERC standards ensures that DTE has the necessary Cyber security measures in place to protect critical infrastructure from threats. Adherence to these measures reduces the likelihood of a cyber event.

How will you monitor and measure expected value?

Number of PNCs in 2023 in SRS team

What alternatives have been considered?

Failure to secure, monitor and maintain critical cyber assets places DTE and the bulk electric system at risk for potential cyber attacks. In addition, DTE could be assessed fines for not complying with regulatory requirements.

Start Date	End Date	Shared Asset	Funding Source
2023-01-02	2025-12-31	No	IT



IT Costs

Type	FY22	FY23	FY24	FY25	Total
Capex	\$16,389	\$515,406	\$516,186	\$515,077	\$1,563,056
Opex		\$41,832	\$41,770	\$39,396	\$122,999
Total	\$16,389	\$557,238	\$557,956	\$554,473	\$1,686,055

BU Costs

Category	Term of Contract	BU O&M Cost
Business Unit		\$0
Cloud Usage Cost		\$0
Digital EXP Design Cost Est		\$0
Maintenance/Renewals		\$0
Organizational Change Management		\$0
Vendor Support & Licensing		\$0



Executive Summary

Business Case Number	Business Case Name
DMND0001436	System for Fossil Generation for Coal and Gas

Stakeholders

Portfolio Category	Business Unit
Plant and Field	Fossil Generation
Portfolio	Business Unit Director
Plant and Field: ES	Jaison J Busby
Portfolio Manager	Business Unit SME
Jaison J Busby	Alan R Clinton
Managed By	PPS
IT	200

Project Description

Investment Type	Initiative Type
Sustainment	Solutions Delivery - On Prem

What business problem or opportunity are we trying to solve?

This business case will enable the implementation of the latest vendor product releases, and software updates to Fossil Generation's (FosGen's) application suite which includes Akwire, Plantview, Power Plant Management System (P3M). Several Fossil Generation applications such as Power Plant Performance Management (P3M), the Laboratory Management System (LIMS), and the Overtime Management System (OTM), monthly production releases as well as hardware and software upgrades in alignment with accommodating vendor releases. Frequently, we also need updates to the Generating Availability Data System (GADS) reporting process, especially to reduce manual "work-arounds" and transition manual entry into automated or programmatic features. An example would be a manual manipulation of data to support analysis needed for Generation Outages when reporting reasons for any plant's exclusion from the MISO market. Both MISO (as described) as well as federal regulatory agencies such as the Federal Energy Regulatory Commission (FERC) review GADS data. Data validity is essential on this system and failure to install required updates presents an unacceptably high risk of data inaccuracy.

What functionality or capability is being provided?

This business case will provide funding for ongoing system updates, the integration of Plantview, PI and Laboratory Management System (LIMS) into our Maximo work management system and provide functionality to FosGens mobile workforce initiative. Reduce manual "work-arounds" and transition manual entry into automated or programmatic features within the GADS Reporting process.

Describe alignment of project to Business Unit Goal(s) and Strategy(ies).

Provide timely and accurate execution of the P3M corporate data store used for financial closing and regulatory reporting, and provide necessary updates and security patches to this system. Continuing this work allows for timely submission of data to agencies and efficient work management processes



Define the Benefit/Value to the Organization, Customer, Employee.

This business case will allow IT to support the function of existing applications, keep business processes running efficiently and meet business operational needs effectively. Continued application support by updating or replacing aging systems can translate directly into financial reporting impacts as in the case of P3M which stores the information to calculate heat rate and needs to be aligned to changes in our generation fleet.

How will you monitor and measure expected value?

Business will review trends and benchmark work management metrics to evaluate efficiency gains and reduction of system issues.

What alternatives have been considered?

No alternatives considered at this time as current solution platform meets the business needs. System is required to remain current to support up-to-date business processes, asset health, and support timely accurate execution of the P3M corporate data store used for financial closing and regulatory reporting. The "do nothing" alternative would result in continued manual work between and outside of these systems, increasing workload, as well as the likelihood of error. Such error risks our compliance with MISO and FERC, which mandate data classification and report formatting. Similarly, not continuing the work of updating or replacing aging systems can translate directly into financial reporting impacts as in the case of P3M which stores the information to calculate heat rate and needs to be aligned to changes in our generation fleet. Technology alternatives other than continuing forward with the current state, include alternatives to GADS, but is prohibitively expensive when totaling the software, vendor support, potential hardware purchases, licenses, and implementation costs. The Company finds the solutions provided through this investment to be the most cost-effective while also providing the needed feature set.

Start Date	End Date	Shared Asset	Funding Source
2022-01-01	2025-12-31	No	IT

IT Costs

Type	FY21	FY22	FY23	FY24	FY25
Capex	\$13,009	\$415,457	\$414,511	\$415,499	\$413,834
Opex	\$27	\$32,564	\$30,401	\$29,845	\$29,783
Total	\$13,036	\$448,021	\$444,912	\$445,344	\$443,618

BU Costs

Category	Term of Contract	BU O&M Cost
Business Unit		\$0
Cloud Usage Cost		\$0
Digital EXP Design Cost Est		\$0
Maintenance/Renewals		\$0
Organizational Change Management		\$0
Vendor Support & Licensing		\$0



Total

\$1,672,311

\$122,620

\$1,794,931



Executive Summary

Business Case ID	BCD-PFD-22-002	Business Case Name	MYR YR1 Advanced Metering Infrastructure Field Collection System
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Stakeholders

IT Portfolio	Plant & Field	Business Unit	Major Account Services
IT Sub-Portfolio	Plant & Field - DO	Business Unit Director	Phillip smith
IT Director	Daniel Griffin	Business Unit SME	Gary Gauthier
Managed by	IT	Business Units Impacted	Electric

Project Description

Initiative Category	Return-to-Health	Initiative Type	Operational
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Business Opportunity	
What business problem are we trying to solve?	Currently, the Automated Meter Infrastructure (AMI) has 2.6 million electric and 1.3 million gas meters that are integral to the DTE Enterprise for Distribution Operations (DO) storm management, interruptible service/demand response, electric power quality, long-term load planning, and customer billing accuracy. The problem is that servers for the AMI Collection Engine (CE) and related Oracle databases are out of support or will become out of support very soon. Increased usage of the AMI system degrades the performance of the system and requires enhancements to functionality to meet the needs of our customers. The project will address this by upgrading AMI server operating systems and databases to the current required version and add system performance capability. Additional functionality will be added to the AMI system for daily interval readings, tracking disconnects and new reporting
What system or process is being affected?	AMI Collection Engine (CE): Itron application which enables two-way communication with AMI Meters. AMI Itron Enterprise Edition Meter Data Management (IEE-MDM): IEE is a platform of data collection, storage management, and processing for AMI Meter data. AMI Openway Controls (OWC): It controls communication with Cell Relays/ Field Area Routers AMI Services: Interfaces that AMI enables for clients to interact or receive data from AMI Meters AMI Portal: Home grown application that communicates with AMI Meters to perform various meter functions
What functionality or capability is being provided?	Currently, the core AMI systems require ongoing operational asset health upgrades to maintain the overall reliability and availability of the system, ensuring that the system is available for the business by maintaining core asset health through upgrades and modernization. To achieve these objectives the project will be upgrading our AMI Collection Engine Windows Servers and Oracle databases to enable future compatibility with upgrades to the Itron AMI Collection Engine application. Additionally, through code development and AMI Portal configurations the project will add functionality to the AMI system for reporting on interval reads, tracking disconnects and reconnects, and other data management functions.
What is the customer or employee value?	The value of these project activities is to reduce operational downtime, targeting planned and unplanned maintenance outages, dependencies for our application upgrades, and add increased functionality for reporting features within the system. The upgrades to the core AMI infrastructure will reduce unplanned outages by 25%, as well as, mitigate system dependencies to allow upgrades to the AMI Collection Engine. These dependencies are critical to ensure that AMI system to complete application upgrades for the Collection Engine, these upgrades provide additional product enhancements, bug fixes, security, and compatibility updates. Maintaining long-term asset health and improving the asset lifecycle ensures that there is a reduction of IT systems negatively impacting business functions.
What alternatives have been considered?	Doing nothing to mitigate operational asset health issues or mitigate system infrastructure dependencies will prevent future upgrades to the AMI collection engine, reduce our vendor support, and will increase the need for additional maintenance outages. AMI features and data would not be as readily available for the business and their processes.

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 IT Business Case Executive Summaries

Case No : U-21534
 Exhibit : A-24
 Schedule: N1
 Witness: P. Sharma

Key Objectives	
1)	We will upgrade the Database to Oracle 19c for the AMI Collection Engine.
2)	We will provide the functionality to track disconnects and reconnects issued through the AMI portal to Customer, Relations & Billing (CR&B) system.
3)	
4)	We will upgrade and automate data storage management for data management, including archiving and purging of data.
5)	We will upgrade the AMI Collection Engine from SR7.0 SP4 to SR7.2.
6)	We will add the add the UMTID and PAID deletion process to the AMI Portal.
7)	We will display daily interval readings and their status through the AMI portal.
8)	#REF!
9)	We will add a backfill screen that requests dates for data entered.
10)	#REF!

Start Month	January	2022	
Duration to Complete	1	Years	11
End Month	December		2023

Funding Source	ITS
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IT Financial Impact						Total amount is sent for approval on all business cases.
	Year 1	Year 2	Year 3	Year 4	Year 5	
Capital	\$1,689,036	\$1,698,996	\$0	\$0	\$0	\$3,390,000
O&M	\$149,940	\$149,940	\$0	\$0	\$0	\$300,000
Total	\$1,838,976	\$1,848,936	\$0	\$0	\$0	\$3,690,000

Business Unit Costs						
BU O&M	\$0		Trailing BU O&M Costs		\$0	
	Year 1	Year 2	Year 3	Year 4	Year 5	Total
OCM O&M	\$0	\$0	\$0	\$0	\$0	\$0



Executive Summary

Business Case Number	Business Case Name
DMND0001366	Advanced Metering Infrastructure Field Collection System

Stakeholders

Portfolio Category	Business Unit
Plant and Field	Distribution Operations
Portfolio	Business Unit Director
Plant and Field: DO	Daniel J Griffin
Portfolio Manager	Business Unit SME
Ajay Gupta	Gary M Gauthier
Managed By	PPS
IT	100

Project Description

Investment Type	Initiative Type
Return-to-Health	Operational

What business problem or opportunity are we trying to solve?

All Systems are End of Life hence need to be completely upgraded including Hardware, OS, Databases, Apps et al; in Sequential order to meet the demands of multiple BUs, viz. Billing, Storm, Turn-On Turn-Off, etc.
 Currently, the Automated Meter Infrastructure (AMI) has 2.6 million electric and 1.3 million gas meters that are integral to the DTE Enterprise for Distribution Operations (DO) storm management, interruptible service/demand response, electric power quality, long-term load planning, and customer billing accuracy. The problem is that servers for the AMI Collection Engine (CE) and related Oracle databases are out of support or will become out of support very soon. Increased usage of the AMI system degrades the performance of the system and requires enhancements to functionality to meet the needs of our customers. Future AMI upgrades are dependent on these operational health upgrades, future upgrades are not compatible with the current versions of the underlying infrastructure. Please see the following for specifics on how we will address this business need.

What functionality or capability is being provided?

Currently, the core AMI systems require ongoing operational asset health upgrades to maintain the overall reliability and availability of the system, ensuring that the system is available for the business by maintaining core asset health through upgrades and modernization. To achieve these objectives the project will be upgrading our AMI Collection Engine Windows Servers and Oracle databases to enable future compatibility with upgrades to the Itron AMI Collection Engine application. Additionally, through code development and AMI Portal configurations the project will add functionality to the AMI system for reporting on interval reads, tracking disconnects and reconnects, and other data management functions

Describe alignment of project to Business Unit Goal(s) and Strategy(ies).

This system directly impacts the ability to read customer meters, customer billing, connects / disconnects and storm restoration updates.



Define the Benefit/Value to the Organization, Customer, Employee.

The value of these project activities is to reduce operational downtime, targeting planned and unplanned maintenance outages, dependencies for our application upgrades, and add increased functionality for reporting features within the system. The upgrades to the core AMI infrastructure will reduce unplanned outages by 25%, as well as mitigate system dependencies to allow upgrades to the AMI Collection Engine. These dependencies are critical to ensure that AMI system to complete application upgrades for the Collection Engine, these upgrades provide additional product enhancements, bug fixes, security, and compatibility updates. Maintaining long-term asset health and improving the asset lifecycle ensures that there is a reduction of IT systems negatively impacting business functions. Applications & Databases are fully supported by vendor. Reduced system downtime. Accurate Meter & Customer information.

How will you monitor and measure expected value?

Once the AMI Infrastructure and applications, databases and Cloud Solution are updated and configured, there should be reduced downtime and increased application functionality.

What alternatives have been considered?

This solution is provided by a single vendor (Itron). Doing nothing to mitigate operational asset health issues or mitigate system infrastructure dependencies will prevent future upgrades to the AMI collection engine, reduce our vendor support, and will increase the need for additional maintenance outages. AMI features and data would not be as readily available for the business and their processes. An alternate solution would cost an exorbitant amount upwards of \$150 Million to \$200 Million.

Start Date	End Date	Shared Asset	Funding Source
2022-01-01	2025-12-31	Yes	IT

IT Costs

Type	FY21	FY22	FY23	FY24	FY25
Capex	\$70,224	\$1,678,582	\$1,677,247	\$1,682,510	\$1,678,346
Opex	\$27	\$149,650	\$149,156	\$149,159	\$147,648
Total	\$70,251	\$1,828,232	\$1,826,403	\$1,831,669	\$1,825,993

BU Costs

Category	Term of Contract	BU O&M Cost
Business Unit		\$0
Cloud Usage Cost		\$0
Digital EXP Design Cost Est		\$0
Maintenance/Renewals		\$0
Organizational Change Management		\$0
Vendor Support & Licensing		\$0



Total

\$6,786,908

\$595,640

\$7,382,548



Executive Summary

Business Case Number	Business Case Name
DMND0001431	Cable Routing Application (CRA) Replatform

Stakeholders

Portfolio Category	Business Unit
Plant and Field	Energy Supply
Portfolio	Business Unit Director
Plant and Field: ES	Meg Guillaumin
Portfolio Manager	Business Unit SME
Jaison J Busby	Perry J Zimmerman
Managed By	PPS
IT	100

Project Description

Investment Type	Initiative Type
Return-to-Health	Solutions Delivery - On Prem

What business problem or opportunity are we trying to solve?

Our current CRA solution is on a legacy application platform will be at it's end of life in 2024 and be no longer supported or able to be patched for security vulnerabilities. The application's critical business functions need to move to an updated and supported platform to ensure business needs are met.

What functionality or capability is being provided?

The solution must provide users the efficient access to cable engineering drawings and locations. The CRA is an engineering design tool that provides info for construction to install raceway equipment and pulling cables from point A to point B. The application is also used as a maintenance and operations tool for troubleshooting and repair.

Describe alignment of project to Business Unit Goal(s) and Strategy(ies).

The ability to use digital cable routing models for power plant maintenance & updates during the life of the facility supports the reliable operation of our power plants.

Define the Benefit/Value to the Organization, Customer, Employee.

The solution must provide user cable routing engineering details at the point of activity. The application provides a map of existing cable at DTE locations. This information is used to locate and maintain the cable infrastructure. The application provides detailed information on location, cable size, routes, drawings for the user in one location. The solution must provide a stable and efficient modern database that integrates with Documentum, Maximo and supports smart-numbering.

How will you monitor and measure expected value?

The functionality will be communicated and trained to the organization by the Work Mgt Specialist, as well as providing job aids. Work completion metrics will be monitored to valid efficiencies have been realized.

What alternatives have been considered?

The outsourcing, storage, and management of cable routing documentation has been considered. The current application is at the "end of life" and needs to be replaced. It is also on the soon-to-be unsupported Oracle Forms application platform. If we do nothing, we will lose access to documents necessary for critical action maintenance.



Start Date	End Date	Shared Asset	Funding Source
2024-01-02	2024-12-31	No	IT

IT Costs

Type	FY24	Total
Capex	\$613,996	\$613,996
Total	\$613,996	\$613,996

BU Costs

Category	Term of Contract	BU O&M Cost
Business Unit		\$0
Cloud Usage Cost		\$0
Digital EXP Design Cost Est		\$0
Maintenance/Renewals		\$0
Organizational Change Management		\$0
Vendor Support & Licensing		\$0



Executive Summary

Business Case Number	Business Case Name
DMND0002451	Corporate Instance - Maximo Application Suite Upgrade

Stakeholders

Portfolio Category	Business Unit
Plant and Field	DTE Corporate Services
Portfolio	Business Unit Director
Plant and Field: ES	Jaison J Busby
Portfolio Manager	Business Unit SME
Jaison J Busby	Karen M Blacha
Managed By	PPS
MEP	100

Project Description

Investment Type	Initiative Type
Return-to-Health	Infrastructure - On Prem

What business problem or opportunity are we trying to solve?

The corporate Maximo instance primarily supports the Work Asset Management function for the following business units:
 Electric Distribution Operations, Gas Operations, Energy Supply, Supply Chain, Fleet Facilities, DTE Vantage
 In order to maintain vendor support for our instance of Maximo, we are required to adhere to the manufacturer's recommended product roadmap, by maintaining a supported version of the software. The current version of Maximo 7 is scheduled to end vendor support in September of 2025. The newer version of Maximo is more than just a traditional upgrade and is considered a replatforming as the underlying hardware and technical architecture is new and different. This effort included replacing the current Maximo technology stack, modernizing custom code and modernizing a subset of business processes to align with industry best practices, where possible.

What functionality or capability is being provided?

Upgrading to the Maximo Application Suite will provide the business with its current Work Asset Management capabilities. Upgrading to Maximo 8 also enables our business partners to take advantage of new capabilities such as AI-powered monitoring, inspection and predictive maintenance, to name a few. Although they will not be part of this demand scope, the upgrade lays the foundation for the possibility of projects in the future.

Describe alignment of project to Business Unit Goal(s) and Strategy(ies).

This project aligns with the business unit strategy to ensure the asset management strategy supports the enterprise Asset Management Foundation Capabilities (AMFC) efforts.

Define the Benefit/Value to the Organization, Customer, Employee.

The assessed benefits of upgrading to MAS 8 latest technology will bring latest capabilities in WAM business value to the business units with a means of enhancing best practices for the Maximo ecosystem. Additionally it can provide business units with real-time data to reduce asset downtime, extend equipment lifespan and decrease maintenance costs and thus improve reliability of energy to the end customer. MAS8 is also intended to improve system uptime and minimize the amount of planned system outages.



How will you monitor and measure expected value?

Metrics will be used to measure business unit's goals in asset reliability, maintenance costs, and asset lifecycle management. Business Units will ensure that their business processes continue to function throughout the project as part of end to end testing. Systems uptime metrics will also be leveraged to monitor and measure the expected value vs actual.

What alternatives have been considered?

A "do-nothing" approach is not a viable option since DTE would lose vendor support by not upgrading the solution. DTE would be exposed to potential cyber security threats and would be at risk having an unstable platform which could adversely impact business operations.

Start Date	End Date	Shared Asset	Funding Source
2025-01-01	2026-12-31	Yes	IT

IT Costs

Type	FY25	FY26	FY27	Total
Capex	\$3,761,427	\$16,061,075	\$13,427,383	\$33,249,885
Opex	\$660,000	\$3,194,137	\$2,650,000	\$6,504,137
Total	\$4,421,427	\$19,255,212	\$16,077,383	\$39,754,022

BU Costs

Category	Term of Contract	BU O&M Cost
Business Unit		\$0
Cloud Usage Cost		\$0
Digital EXP Design Cost Est		\$0
Maintenance/Renewals		\$0
Organizational Change Management		\$384,150
Vendor Support & Licensing		\$0



Executive Summary

Business Case Number	Business Case Name
DMND0001376	DO Business Warehouse (DOBW) Replacement

Stakeholders

Portfolio Category	Business Unit
Plant and Field	Distribution Operations
Portfolio	Business Unit Director
Plant and Field: DO	Ajay Gupta
Portfolio Manager	Business Unit SME
Ajay Gupta	Yong Li
Managed By	PPS
IT	100

Project Description

Investment Type	Initiative Type
Return-to-Health	Solutions Delivery - Cloud

What business problem or opportunity are we trying to solve?

The Distributed Operations Business Warehouse (DOBW) system is currently used to track costs, employees, purchase orders, purchase requisitions, work data, master material items, asset specifications, locations, service receipts, and organizational structure/hierarchy. The system is built on an old Oracle database and is no longer sufficient to meet the needs of the DO Business Unit because it is end of life, and its support is no longer scalable, efficient, or cost-effective. It is hindering the organization's ability to make informed decisions and operate effectively, and its associated reports and applications are difficult to maintain and support.

The system is susceptible to errors and data inconsistencies as well as delays in processing and reporting data. Additionally, we incur costs associated with maintaining hardware and software, and the costs associated with maintaining the skills required to support the outdated system.

What functionality or capability is being provided?

The Enterprise Data Lake is an existing enterprise architectural solution designed to support large volumes of structured and unstructured data and can integrate with a wide range of modern reporting and analytics tools. This means that the organization will have access to a wider range of tested tools for analyzing and understanding data. Migrating data to the will allow DTE to leverage modern data storage and management capabilities, resulting in better data quality, scalability, and more efficient processing times. These modern reporting tools and technologies will also provide the organization with faster and more accurate insights into the data, leading to better decision-making capabilities.

An example of these modern tool are Databricks, which are widely used by companies to process, transform, and explore large quantities of data within a data lake. Using Databricks, the Company can create an environment that provides workspaces for easier collaboration between Data Scientists, Data Engineers, and Data Analysts, more easily supporting innovation and business agility for Enterprise Data Analytics.

Migrating off of the DOBW and on to the Enterprise Data Lake addresses the main problems of the current end-of -life system, while utilizing existing, accepted, architecture already well thought out and invested in by the Company.



Describe alignment of project to Business Unit Goal(s) and Strategy(ies).

The project to decommission DOBW and move to the Enterprise Data Lake aligns with the DO Business Unit's 5-year strategic plan to modernize and streamline its technology infrastructure. By moving DOBW data to the Enterprise Data Lake and redeveloping reports and applications in modern reporting tools and technologies, the project will provide a centralized and more efficient system for tracking costs, purchases, work orders, assets, material masters, organizational structures, and service receipts. This aligns with the DTE's goal of improving data-driven decision-making and optimizing business processes to reduce operating costs, improve quality, and increase reliability.

Define the Benefit/Value to the Organization, Customer, Employee.

The decommissioning of DOBW and moving to the Enterprise Data Lake aligns with the DO Business Unit's strategic goal of improving data-driven decision-making and optimizing business processes to reduce operating costs, improve quality, and increase reliability. By consolidating operational data into one supported location, the project will provide a centralized and more efficient system for tracking costs, purchases, work orders, assets, material masters, organizational structures, and service receipts. This will enable DTE to make informed decisions, reduce operational costs, and improve the reliability and quality of services. Additionally, the use of modern reporting tools and technologies will allow for faster and more accurate reporting, leading to more timely and effective decision-making. Overall, this will support the DTE in being a leading provider of high-quality services while maximizing efficiency and reducing costs.

How will you monitor and measure expected value?

First, the value of this investment will be measured by the removal of an end-of-life system and further adoption of our modern Enterprise Architecture. From that point, we will see value achieved through faster and more accurate reporting, improving the reliability of our decisions in tracking costs, purchases, work orders, assets, material masters, organizational structures, and service receipts.

What alternatives have been considered?

Technology alternatives would be either creating a new in-house data warehouse, or adopting a technology solution other than the existing Enterprise Data Lake. These alternatives are rejected because they both represent undue cost and disregard existing investment in the Enterprise Data Lake Architecture. This investment is an Enterprise wide platform for Data Analytics and is already in use. Introduction of an additional tool or system would not be a prudent use of funds.

The "Do nothing" alternative is similarly rejected as it would require the Company to continue maintaining an end-of-life system. The risk when doing this for any technology, is that the system could fail with no support available to or capable of returning it to operations.

Start Date	End Date	Shared Asset	Funding Source
2024-01-02	2024-12-31	No	IT



IT Costs

Type	FY24	Total
Capex	\$249,232	\$249,232
Opex	\$54,958	\$54,958
Total	\$304,190	\$304,190

BU Costs

Category	Term of Contract	BU O&M Cost
Business Unit		\$0
Cloud Usage Cost		\$0
Digital EXP Design Cost Est		\$0
Maintenance/Renewals		\$0
Organizational Change Management		\$0
Vendor Support & Licensing		\$0



Executive Summary

Business Case Number	Business Case Name
DMND0001381	DO Equipment Engineering Transformer Database

Stakeholders

Portfolio Category	Business Unit
Plant and Field	Distribution Operations
Portfolio	Business Unit Director
Plant and Field: DO	Joseph E Robinson
Portfolio Manager	Business Unit SME
Ajay Gupta	Joseph E Robinson
Managed By	PPS
IT	100

Project Description

Investment Type	Initiative Type
Return-to-Health	Solutions Delivery - On Prem

What business problem or opportunity are we trying to solve?

Currently at DTE, the DO Equipment Engineering Transformer Database holds key data related to our Engineering Transformers. This database uses old technology and is not in alignment with the company efforts to invest in the strength and reliability of our Distribution Operations assets through maximization of corporate platform solutions. We need to invest in upgrading this asset to continue vendor support, as well as migrate to the Maximo system for Asset and Work Management functionality.

What functionality or capability is being provided?

The following functionalities will be provided by implementing the recommended solution:

Asset management: The migration of transformer assets to Maximo will provide improved asset management capabilities, allowing the business to better track and manage their transformer assets' data and maintenance activities.

Work management: The recommended solution leverages Maximo's work management processes to provide improved work management capabilities, enabling the business to manage work orders, schedules, and assignments more efficiently.

Maintenance: The recommended solution will enable the business to better manage and schedule maintenance activities for their transformer assets, ensuring that maintenance is conducted in a timely and efficient manner.

Describe alignment of project to Business Unit Goal(s) and Strategy(ies).

The project aligns with the business unit goal of ensuring the safe and reliable operation of the electrical grid.

Define the Benefit/Value to the Organization, Customer, Employee.

As mentioned, when detailing the Maximo functionality above, the organization will gain access to better and more visible management of the assets within this database, the work associated with these assets, and the health of the system.

How will you monitor and measure expected value?

This investment will be monitored through first measuring the ability to continue operations, and then the alignment to streamlined company technology strategy through the use of Maximo tooling.

What alternatives have been considered?



An alternate technology solution would include sourcing and adopting a competitor to the Maximo product or building a custom replacement internally. These are not options that represent prudent use of capital dollars, as the Maximo platform is already broadly adopted as a corporate solution fueling numerous Distribution Operations processes and represents significant investment over many years. The "Do Nothing" alternative would involve maintaining the current system as is, without making any changes or updates. This was rejected as an outdated system is more vulnerable to security risks, such as cyber-attacks, and is likely to become less reliable, increasing the risk of system downtime or service interruptions. Updating the system and migrating transformer assets to Maximo would ensure that the system remains functional and secure while meeting the business needs.

Start Date	End Date	Shared Asset	Funding Source
2024-02-01	2024-06-30	No	IT

IT Costs

Type	FY24	Total
Capex	\$374,027	\$374,027
Opex	\$56,433	\$56,433
Total	\$430,459	\$430,459

BU Costs

Category	Term of Contract	BU O&M Cost
Business Unit		\$0
Cloud Usage Cost		\$0
Digital EXP Design Cost Est		\$0
Maintenance/Renewals		\$0
Organizational Change Management		\$0
Vendor Support & Licensing		\$0

Executive Summary

Business Case ID	BCD-PF-22-015
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Business Case Name	MYR YR1 ESRI Application Health
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Stakeholders

IT Portfolio	Plant & Field
IT Sub-Portfolio	Plant & Field - DO
IT Director	Daniel Griffin
Managed by	IT

Business Unit	Plant & Field Core Operations
Business Unit Director	Daniel Griffin
Business Unit SME	George Manolios
Business Units Impacted	Electric

Project Description

Initiative Category	Return-to-Health
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Initiative Type	Infrastructure - On Prem
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Business Opportunity

What business problem are we trying to solve?	The business case aims to improve the operational capability and functionality of DO Electric business applications. We will continue to support known and expected ESRI GIS releases and incorporate additional features and capabilities that enable Distribution Operations to utilize the system to help deliver business outcomes. These features include primary switching cabinets and pole-top integration between ESRI GIS and Maximo (the work management system). Additionally, the investment is required to improve the management and sharing of data via workflow automation.
What system or process is being affected?	Outages mapping, pad-mount transformers, pole-tops, primary switching cabinets integrations.
What functionality or capability is being provided?	The investment will provide improved integration between ESRI GIS and Maximo. The integration allows data sharing of primary switching cabinets, pole-tops, and pad-mount transformers assets via workflow automation.
What is the customer or employee value?	Enhance the productivity of Distribution Operations by providing access to the status of additional equipment in the field.
What alternatives have been considered?	Alternatives GIS vendors considered (such as Hexagon, Auto Desk, or Smallwork) data would cause disturbances to our internal systems that rely on GIS data, delays in servicing our customers and safety implications of not having the supporting documentation in place. For these reasons, and because the Company would also incur substantial costs to remove ESRI GIS and replace it with an alternate GIS solution, we did not select any alternate GIS vendors.

Key Objectives

- 1) Sustained operational and functionality capabilities
- 2) Integrated systems enabling data sharing
- 3) Enhanced business values
- 4)

- 5)
- 6)
- 7)
- 8)
- 9)
- 10)

Michigan Public Service Commission
DTE Electric Company
IT Business Case Executive Summaries

Case No : U-21534
Exhibit : A-24
Schedule: N1
Witness: P. Sharma

Start Month	January	2022
Duration to Complete	1 Years	11 Months
End Month	December	2023

Funding Source	ITS
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IT Financial Impact

	Year 1	Year 2	Year 3	Year 4	Year 5	Total amount is sent for approval on all business cases.
						Total
Capital	\$380,000	\$440,000	\$0	\$0	\$0	\$820,000
O&M	\$20,000	\$20,000	\$0	\$0	\$0	\$40,000
Total	\$400,000	\$460,000	\$0	\$0	\$0	\$860,000

Business Unit Costs

BU O&M	\$0	Trailing BU O&M Costs	\$0
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	Year 1	Year 2	Year 3	Year 4	Year 5	Total
OCM O&M	\$0	\$0	\$0	\$0	\$0	\$0



Executive Summary

Business Case Number	Business Case Name
DMND0001385	ESRI Application Health

Stakeholders

Portfolio Category	Business Unit
Plant and Field	Distribution Operations
Portfolio	Business Unit Director
Plant and Field: DO	Ajay Gupta
Portfolio Manager	Business Unit SME
Ajay Gupta	Katina S Murry
Managed By	PPS
IT	100

Project Description

Investment Type	Initiative Type
Sustainment	Infrastructure - On Prem

What business problem or opportunity are we trying to solve?

Improved integration between ESRI GIS and Maximo, Data sharing via automation of workflow and Planned changes to business applications that enhances the value and trust of the accuracy of the location asset data to employees and customers.

What functionality or capability is being provided?

The investment will provide improved integration between ESRI GIS and Maximo. The integration allows data sharing of primary switching cabinets, pole-tops, and pad-mount transformers assets via workflow automation. Sustained operational and functionality capabilities. Integrated systems enabling data sharing. Enhanced business values.

Describe alignment of project to Business Unit Goal(s) and Strategy(ies).

Improve safety in the field, reduce customer complaints and improve their satisfaction. In addition, improve reliability metrics and outage information.

Define the Benefit/Value to the Organization, Customer, Employee.

Enhance the productivity of Distribution Operations by providing access to the status of additional equipment in the field.

How will you monitor and measure expected value?

Keep up with the demand and data, hit milestones for the maximo and ESRI GIS integrations

What alternatives have been considered?

Alternatives GIS vendors considered (such as Hexagon, Auto Desk, or Smallwork) data would cause disturbances to our internal systems that rely on GIS data, delays in servicing our customers, and safety implications of not having the supporting documentation in place. For these reasons, and because the Company would also incur substantial costs to remove ESRI GIS and replace it with an alternate GIS solution, we did not select any alternate GIS vendors.

Start Date	End Date	Shared Asset	Funding Source
2023-01-02	2025-12-31	Yes	IT



IT Costs

Type	FY23	FY24	FY25	Total
Capex	\$442,033	\$441,383	\$436,664	\$1,320,080
Opex	\$20,890	\$19,843	\$19,296	\$60,030
Total	\$462,923	\$461,227	\$455,961	\$1,380,110

BU Costs

Category	Term of Contract	BU O&M Cost
Business Unit		\$0
Cloud Usage Cost		\$0
Digital EXP Design Cost Est		\$0
Maintenance/Renewals		\$0
Organizational Change Management		\$0
Vendor Support & Licensing		\$0



Executive Summary

Business Case Number	Business Case Name
DMND0001440	Fuel Supply-Plant Fuel Management System

Stakeholders

Portfolio Category	Business Unit
Plant and Field	Fuel Supply
Portfolio	Business Unit Director
Plant and Field: ES	Dave Swiech
Portfolio Manager	Business Unit SME
Jaison J Busby	Aleksandra Epshteyn
Managed By	PPS
IT	100

Project Description

Investment Type	Initiative Type
Return-to-Health	Solutions Delivery - On Prem

What business problem or opportunity are we trying to solve?

The current fuel management (and cable routing) systems are nearing end-of-life and functions on an Oracle application server utilizing Oracle Forms which will be entering extended support in 2023, and out of support in 2024.
 If fuel management solution not implemented, this could impede the business processes of planning the purchasing, transportation, inventory management, and scheduling for the coal, petcoke, and oil supply for DTE generation units.
 This would result in inability to determine fuel load and constraints and it could impact our PSCR (Power Supply Cost Recovery)

What functionality or capability is being provided?

The scheduling, nominating, procuring, tracking of coal, petcoke, and oil.
 Corporate Fuel Supply must have the capability to efficiently manage the planned increase in fuel transactions from planning to procurement and logistics to vendor payments.
 The product must include the capability to optimize the plan, provide logistics solutions and streamline invoice payment for all fuel types. Additionally, the tool must be able to manage all fuel nominations and scheduling.

Describe alignment of project to Business Unit Goal(s) and Strategy(ies).

This initiative is in alignment with the Fuel Supply business priorities of maintaining asset health and security; the current application is on a platform nearing EOL.
 Define the Benefit/Value to the Organization, Customer, Employee
 This initiative will securely enable the successful operation to continue efficiencies and maintain cost objectives: Power Supply Cost Recovery (PSCR). The current application is end of life. Application functions include planning purchasing, transportation, inventory management, and scheduling for the coal, petcoke, and oil supply for DTE generation units.

Define the Benefit/Value to the Organization, Customer, Employee.

Consolidation of all fuel management on an industry best-in-class platform will enable the successful operation to continue efficiencies and maintain cost objectives. Power Supply Cost Recovery (PSCR). The current application is end of life.



How will you monitor and measure expected value?

The functionality will be communicated and trained to the organization by the Work Mgt Specialist, as well as providing job aids.
 Work completion metrics will be monitored to validate efficiencies that have been realized.
 There will be 0% reduction in fuel supply management capabilities.

What alternatives have been considered?

The vendor PCI solution was considered, though it was determined the return on investment and ongoing annual costs to support didn't align with enterprise targeted goals of cost reduction. Do nothing is not an option as our development platform will fall out of support leading to security vulnerabilities and risk of business operation failures.

Start Date	End Date	Shared Asset	Funding Source
2024-01-02	2024-12-31	No	IT

IT Costs

Type	FY24	Total
Capex	\$2,127,343	\$2,127,343
Total	\$2,127,343	\$2,127,343

BU Costs

Category	Term of Contract	BU O&M Cost
Business Unit		\$0
Cloud Usage Cost		\$0
Digital EXP Design Cost Est		\$0
Maintenance/Renewals		\$0
Organizational Change Management		\$0
Vendor Support & Licensing		\$0



Executive Summary

Business Case ID	BCD-PFD-22-017	Business Case Name	Maximo Platform Program
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Stakeholders

IT Portfolio	Plant & Field	Business Unit	Distribution Operations
IT Sub-Portfolio	Plant & Field - DO	Business Unit Director	Phillip Smith
IT Director	Daniel Griffin	Business Unit SME	
Managed by	IT	Business Units Impacted	Electric

Project Description

Initiative Category	Sustainment	Initiative Type	Operational
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Business Opportunity	
What business problem are we trying to solve?	Continued support and improvements to the Corporate Maximo Work and Asset Management system.
What system or process is being affected?	Maximo Work and Asset Management
What functionality or capability is being provided?	Work Management for assets from initial phase to closeout, including associated purchasing, timekeeping, and materials.
What is the customer or employee value?	Example: The value of completing the project is real-time contact center response time reporting vs. hourly reporting, improved user interface - dashboard view vs. emailed report, targeted troubleshooting and faster root cause analysis, low configuration solutions (i.e., less administrative work), and reducing waste.
What alternatives have been considered?	This is an existing application that is used through the corporation for work and asset management. At this time no other solution to accomplish this is being considered.

Key Objectives

- 1) Maximo Business Requests for enhancements/functionalities changes from business units which are documented in Mercury Quality Center will be bundled together and deployed in a release. The following activities will be part of the implementation bundle: Design, Development, Configuration, Build, and Testing.
- 2) The system requires ongoing monitoring and response to incidents. Due to the criticality of the system, on-call 24x7 support is maintained for rapid response for the reduction of customer outage times.
- 3) CI activities to improve ITS processes to achieve the most efficient execution of Business Relationship Management Plant and Field Key Processes.
- 4) Provide support to the business in the form of consultation when exploring alternative solutions to problems encountered; trouble shooting production incidents/defects that surface.
- 5) Implement minor operational enhancements aligned with business CI activities. Implementing and deployment of new reports and testing.
- 6) Support Code Build and Testing from Interfacing applications
- 7) Plan, design, perform and implement Disaster Recovery process for Maximo
- 8) Upgrade to the Oracle Databases
- 9)
- 10)

Start Month	January	2022
Duration to Complete	0 Years	11 Months
End Month	December	2022

Funding Source	ITS
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IT Financial Impact

	Year 1	Year 2	Year 3	Year 4	Year 5	Total amount is sent for approval on all business cases.
						Total
Capital	\$2,626,254	\$0	\$0	\$0	\$0	\$2,630,000
O&M	\$87,896	\$0	\$0	\$0	\$0	\$90,000
Total	\$2,714,152	\$0	\$0	\$0	\$0	\$2,720,000

Business Unit Costs

BU O&M	\$0					Trailing BU O&M Costs	\$0
OCM O&M	Year 1	Year 2	Year 3	Year 4	Year 5	Total	
	\$0	\$0	\$0	\$0	\$0	\$0	



Executive Summary

Business Case Number	Business Case Name
DMND0001392	Maximo Application Health

Stakeholders

Portfolio Category	Business Unit
Plant and Field	Distribution Operations
Portfolio	Business Unit Director
Plant and Field: ES	Jaison J Busby
Portfolio Manager	Business Unit SME
Jaison J Busby	Karen M Blacha
Managed By	PPS
IT	100

Project Description

Investment Type	Initiative Type
Return-to-Health	

What business problem or opportunity are we trying to solve?

Ensure Maximo is maintained and operable for business operations by improving database health, addressing data integrity issues with inspection forms and evaluating/deploying automated testing to confirm functionality works as intended as changes occur in the environment. Elimination of technical debt by upgrading to a supported software versioning system. Also, protect privilege identities from misuse from external entities and insiders to ensure the confidentiality, integrity and availability of the Maximo application.

What functionality or capability is being provided?

Improved data management efficiency will be provided as a result of the database health objective. Archiving seldom-used information will speed up the application performance and as well protect the data for future use. In addition, data integrity will be achieved by developing controls to keep inspection forms accurate and in-sync in all environments. The testing capability will be advanced by eliminating manual execution of test scripts which will enable faster deployments. Upgrading to a supported software versioning control system supplies traceability for code changes. Protection of the Maximo privilege identities will mitigate the risk of a threat actor gaining access to the credentials.

Describe alignment of project to Business Unit Goal(s) and Strategy(ies).

Alignment with ITS priorities, secure, operate and apply.

Define the Benefit/Value to the Organization, Customer, Employee.

Business partner customer satisfaction as it pertains to having an operable application for enterprise asset management priorities. Employee satisfaction is derived by having the tools and resources to efficiently perform IT support activities.

How will you monitor and measure expected value?

Achieving 95% application availability

What alternatives have been considered?



Continuing with the execution of manual test scripts in lieu of automated testing was considered. In addition, the impact of remaining on an supported software versioning system was taken into account. Assessed the risk of not syncing inspection forms and remaining on manual process to secure privileges access were evaluated. Also, database performance tuning actions were taken into account.

Start Date	End Date	Shared Asset	Funding Source
2023-01-02	2025-12-31	Yes	IT

IT Costs

Type	FY23	FY24	FY25	Total
Capex	\$1,188,053	\$1,191,734	\$1,187,167	\$3,566,953
Opex	\$72,783	\$70,263	\$70,078	\$213,123
Total	\$1,260,835	\$1,261,997	\$1,257,244	\$3,780,076

BU Costs

Category	Term of Contract	BU O&M Cost
Business Unit		\$0
Cloud Usage Cost		\$0
Digital EXP Design Cost Est		\$0
Maintenance/Renewals		\$0
Organizational Change Management		\$0
Vendor Support & Licensing		\$0



Executive Summary

Business Case ID	BCD-PFD-22-018	Business Case Name	Meter Data Management (MDM) Consolidation
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Stakeholders

IT Portfolio	Plant & Field	Business Unit	Major Account Services
IT Sub-Portfolio	Plant & Field - DO	Business Unit Director	Jason E Sparks
IT Director	Daniel Griffin	Business Unit SME	Steven P Jackson
Managed by	MEP	Business Units Impacted	Electric

Project Description

Initiative Category	Return-to-Health	Initiative Type	Infrastructure - On Prem
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Business Opportunity

What business problem are we trying to solve?	The EIServer-MDM/EUDM application supports meter usage data aggregation and billing determinant calculation operations that feed DTE's CR&B billing system and supports the invoicing of 4500+ industrial and commercial (C&I) DTE Electric customers. This application is end of life and operating on an unsupported vendor application. This business case focuses on the construction and delivery of a new solution using supported vendor technology and architecture designs adopted across the utility industry. The build/test/deploy phase builds on requirements and function design work carried out in an earlier phase. Interfaces, secondary data feeds and new report processing are included in this effort. It also contains a special technical design effort which will build complex aggregate and determinant calculation rules embedded in the current application. (This business case covers the continuation of work performed in 2019 and 2020 (IEE-MDM product upgrade and planning/analysis work to gather requirements and define functional design for the MDM C&I application's migration to a new platform).
What system or process is being affected?	The EIServer-MDM/EUDM application supporting meter usage data aggregation and billing determinant calculation operations that feed DTE's CR&B billing system and that supports the invoicing of 4500+ industrial and commercial DTE Electric customers will be upgraded. (ESB ,AMI,CR&B and ADLS(EDA))
What functionality or capability is being provided?	All electric billing functions will operate primarily under a single product platform. This solution is intended to provide (1) long-term operational stability, (2) strategic platform and architectural alignment, and (3) DTE and vendor supported technologies. Using strategically aligned products (ESB/AMI/CR&B and ADLS(EDA)), C&I billing operations will benefit from the capability offerings (analytics, reporting, operational management) built into this consolidate platform for the foreseeable future.
What is the customer or employee value?	Improved billing accuracy for Commercial and Industrial (C&I) Customers, Real time Data availability, Automation of some of the Manual calculations, and all billing functions will operate primarily under a single product platform.
What alternatives have been considered?	As DTE continues to use EI Server v7.5, there is a risk that the application may become inoperable as platforms (i.e. Oracle) as underlying infrastructure is upgraded and/or patched. The EI Server version is currently unsupported and is delaying our ability to upgrade other systems due to compatability issues.

Key Objectives	
1)	Migrate billing operations for Major Accounts (Large C&I Customers) off of the current EIServer MDM application and onto a combination of CR&B and IEE-MDM products.
2)	Utilize the IEE-MDM application as the primary location for storing billing meter data from Major Accounts' AMI meters and non-AMI meters.
3)	Configuration of additional validation and estimation rules in IEE-MDM and CR&B for meter data.
4)	Design and construct billing determinant aggregation and calculation functions that support the Major Accounts' rate and rider requirements using the CR&B-EDM product.
5)	Integrate the IEE-MDM and the CR&B Platform to support billing meter data requests, responses and bill invoicing.
6)	Transition Major Account Billing business operations team onto the functions in both the IEE-MDM application for meter data support and onto the CR&B (EDM) Platform for billing aggregation and determinant operations.
7)	Build integration points into other business processes and operations (ex. Unbilled revenue and billing simulations, support real-time-pricing functionality).
8)	Construct data interface feeds for other application and data repositories as detailed during the requirements and functional design
9)	Some portion of the historical meter usages data will be migrated from the current repository to the new repository
10)	An early technical-driven risk mitigation effort will be run to ensure that the complex rate calculation operations (aggregation and determinant calculations are engineered out of the existing application and built into a build-ready format.

Start Month	January	2022
Duration to Complete	0 Years	11 Months
End Month	December	2022

Funding Source	ITS
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IT Financial Impact						Total amount is sent for approval on all business cases.
	Year 1	Year 2	Year 3	Year 4	Year 5	
Capital	\$10,000,000	\$0	\$0	\$0	\$0	\$10,000,000
O&M	\$300,000	\$0	\$0	\$0	\$0	\$300,000
Total	\$10,300,000	\$0	\$0	\$0	\$0	\$10,300,000

Business Unit Costs						
BU O&M	\$0	Trailing BU O&M Costs	\$1,200			
	Year 1	Year 2	Year 3	Year 4	Year 5	Total
OCM O&M	\$166,400	\$0	\$0	\$0	\$0	\$166,400



Executive Summary

Business Case Number	Business Case Name
DMND0001434	P3M Heat Rate Calculation and GADS Reporting Functions

Stakeholders

Portfolio Category	Business Unit
Plant and Field	Energy Supply
Portfolio	Business Unit Director
Plant and Field: ES	Brian Rice
Portfolio Manager	Business Unit SME
Jaison J Busby	Carol I Webb
Managed By	PPS
IT	100

Project Description

Investment Type	Initiative Type
Return-to-Health	Solutions Delivery - On Prem

What business problem or opportunity are we trying to solve?

The current P3M system is nearing end-of-life and functions on an Oracle application server utilizing Oracle Forms which will be entering extended support in 2023, and out of support in 2024. We will need to implement a supported solution to maintain the key business functions of the P3M system, which supports the key functions of the MISO and FERC required GADS reporting and Heat Rate calculations used to determine fuel costs of our generation units on the DTE Financial Reports.

What functionality or capability is being provided?

P3M supports the key functions of the MISO and FERC required GADS reporting and Heat Rate calculations used to determine fuel costs of our generation units on the DTE Financial Reports. The system will implement GADS reporting to meet regulatory requirements. The system will implement all data-cleansing functions required to support business processes. System will provide required integrations with SAP, Plant PI databases, and UCF. The system will provide needed functions for heat rate calculations for DTE financials. The system will provide the processes for both Fossil Generations' and Generation Optimizations' respective GADS reporting requirements.

Describe alignment of project to Business Unit Goal(s) and Strategy(ies).

Aligned to priorities of maintaining asset health and security as application is on platform nearing EOL. Business functions which could be impacted are regulatory (GAS reporting) and financial (heat rate calc feeds DTE financial).

Define the Benefit/Value to the Organization, Customer, Employee.

GADS reporting is a regulatory requirement that DTE is required to comply with. Required to provide accurate fuel pricing calculations for DTE Financial reports

How will you monitor and measure expected value?

Performance can be measured with on-time and accurate reporting of regulatory and financial data.

What alternatives have been considered?

Continue to upgrade the legacy P3M system. The system is over 20 years old and has legacy usability issues and requires DTE customizations to remain current with regulatory requirements and the platform does not have a clear path forward for the product without a larger re-platforming effort. To do nothing does not align with the company's objective of being best-operated utility.



Start Date	End Date	Shared Asset	Funding Source
2023-01-02	2023-10-31	No	IT

IT Costs

Type	FY23	Total
Capex	\$918,412	\$918,412
Opex	\$68,867	\$68,867
Total	\$987,279	\$987,279

BU Costs

Category	Term of Contract	BU O&M Cost
Business Unit		\$0
Cloud Usage Cost		\$0
Digital EXP Design Cost Est		\$0
Maintenance/Renewals		\$0
Organizational Change Management		\$0
Vendor Support & Licensing		\$0



Executive Summary

Business Case ID	BCD-PF-19-061	Business Case Name	YR3 P&F Document Repository Replacement
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Stakeholders

IT Portfolio	Plant & Field	Business Unit	Fossil Generation
IT Sub-Portfolio	Plant & Field	Business Unit Sponsor	Inderpal Deol
IT Director	Jaison Busby	Business Units Impacted	Electric
Managed by	MEP		

Project Description

Project Category	Return-to-Health	Innovation?	No
Project Type	Solutions Delivery - On Prem	Strategic Fit	Superior & Sustainable Financial Performance

Business Outcome

A successful project would provide a secure enterprise content management system with no loss of data. The replacement system will provide additional benefits such as a supported interface to our work management system which is needed to ensure continued user access to documents while executing work orders, as well as a complete document management workflow that will enforce storage standards to ensure documentation is searchable. As we move to this supported system, additional business units will begin using and replace their physical file processes with digital records management. This will allow employees the ability to search for

Key Objectives

- Successfully implement current version of Documentum, including utility specific Asset Management module and Maximo integration module, as replacement solution of document management functionality
- 1) for Plant & Field work and asset management.
 - 2) Successfully transfer existing documents into from old Documentum system into the new system
 - 3) Establish workflows for asset document management
 - 4) Maintain existing support application dependencies and pathways; i.e. Maximo
 - 5) Enhance search capability
 - 6) Configuration and automation of file naming conventions, including auto numbering capability
 - 7) Enhance document version promotion
 - 8) Enhance bulk document upload
 - 9) Enhance subscription and sharing capability
 - 10) Enhance document metadata capability

Michigan Public Service Commission
 Executive Summary
 DTE Electric Company
 IT Business Case Executive Summaries

Case No : U-21534
 Exhibit : A-24
 Schedule: N1
 Witness: P. Sharma

Start Month	January	2021
Duration to Complete	Years	7 Months
End Month	August	2021

Funding Source	ITS
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Financial Impact

	Year 1	Year 2	Year 3	Year 4	Year 5	Total
Capital	\$0	\$0	\$2,150,000	\$0	\$0	\$2,150,000
O&M	\$0	\$0	\$150,000	\$0	\$0	\$150,000
OCM	\$0	\$0	\$220,000	\$0	\$0	\$220,000
Total O&M	\$0	\$0	\$370,000	\$0	\$0	\$370,000
Total	\$0	\$0	\$2,520,000	\$0	\$0	\$2,520,000

Hardware/Software/ Cloud	Year 1	Year 2	Year 3	Year 4	Year 5	Total
Capital	\$0	\$0	\$0	\$0	\$0	\$0
O&M	\$0	\$0	\$0	\$0	\$0	\$0

BU O&M	\$75,000	Incremental Costs	\$0
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Executive Summary

Business Case Number	Business Case Name
DMND0002015	P&F Document Repository Replacement

Stakeholders

Portfolio Category	Business Unit
Plant and Field	Energy Supply
Portfolio	Business Unit Director
Plant and Field: ES	Jaison J Busby
Portfolio Manager	Business Unit SME
Jaison J Busby	Alan R Clinton
Managed By	PPS
MEP	100

Project Description

Investment Type	Initiative Type
Return-to-Health	Solutions Delivery - On Prem

What business problem or opportunity are we trying to solve?

This system replacement is critical in returning to health our technical content management system. The failures of the current end-of-life system have been increasing, and loss of that system would risk access to needed documentation for work assignments such as current design\configuration of equipment and safety checklists. In addition to the business process risks, the current out-of-support platform has security vulnerabilities as software updates are no longer provided.

What functionality or capability is being provided?

A successful project would provide a secure enterprise content management system with no loss of data. The replacement system will provide additional benefits such as a supported interface to our work management system which is needed to ensure continued access to documents while executing work orders, as well as a complete document management workflow that will enforce storage standards to ensure documentation is searchable. As we move to this supported system, additional business units will begin using and replace their physical file processes with digital records management. This will allow for the ability to search for documentation and associate documents to equipment or location.

Describe alignment of project to Business Unit Goal(s) and Strategy(ies).

Aligns with safety by providing end-users the most up-to-date information and configuration of the DTE assets they maintain, providing a safer work experience at the point of activity. Enhancing and streamlining our records retention policies and practices reduces DTEs exposure to operational risk.

Define the Benefit/Value to the Organization, Customer, Employee.

This program will significantly reduce the frustration and pain points our plant and field users experience on a daily basis while they search for documents on DTE assets. These changes will impact all plant and field employees in Fossil Generation, Renewables, DO, and Gas.

How will you monitor and measure expected value?

We will use a qualitative survey to engage with our stakeholders and measure their responsiveness to the system change. Stakeholder survey prior to and post system upgrade to gage employee engagement. Expected increase of 75% in user satisfaction.

What alternatives have been considered?

We considered additional products from IBM and Highland.



Start Date	End Date	Shared Asset	Funding Source
2023-01-02	2023-03-01	No	IT

IT Costs

Type	FY23	Total
Capex	\$986,946	\$986,946
Total	\$986,946	\$986,946

BU Costs

Category	Term of Contract	BU O&M Cost
Business Unit		\$0
Cloud Usage Cost		\$0
Digital EXP Design Cost Est		\$0
Maintenance/Renewals		\$0
Organizational Change Management		\$20,000
Vendor Support & Licensing		\$0

Michigan Public Service Commission
DTE Electric Company
IT Business Case Executive Summaries

Case No : U-21534
Exhibit : A-24
Schedule: N1
Witness: P. Sharma



Executive Summary

Business Case ID	BCD-PFD-22-025	Business Case Name	Replace DO Lines - SOC Radio
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Stakeholders

IT Portfolio	Plant and Field	Business Unit	Distribution Operations
IT Sub-Portfolio	Plant and Field DO	Business Unit Director	Joe Robinson
IT Director	Daniel Griffin	Business Unit SME	Jim Turner
Managed by	MEP	Business Units Impacted	Electric

Project Description

Initiative Category	Strategic	Initiative Type	Solutions Delivery - Cloud
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Business Opportunity

What business problem are we trying to solve?	Distribution Operations uses radios as their primary communication method for daily operations between Dispatchers to field crews. Their current radio system is over 25 year old, obsolete and has reached its end of life. Replacement parts are no longer available and the current configuration has limited functionality. In the thumb area, crews need to change radio channels based on geographical location in order to communicate. This could pose a safety issue for the north area fields crews. The old system is VHF which limits the capabilities needed for daily operations
What system or process is being affected?	Performance monitoring of critical applications
What functionality or capability is being provided?	The following functionality will be provided by implementing this project: Application Performance Monitoring, Infrastructure and Network Performance Monitoring.
What is the customer or employee value?	The value of completing the project is real-time contact center response time reporting vs. hourly reporting, improved user interface - dashboard view vs. emailed report, targeted troubleshooting and faster root cause analysis, low configuration solutions (i.e., less administrative work), and reducing waste.
What alternatives have been considered?	Continue emailing reports and dashboard manually which is labor intensive and does not provide the monitoring reports in a timely manner.

Key Objectives

- 1) Replace the out dated VHF radio system (25+ years old).
- 2) Explore moving to the MPSCS State radio system (Digital Trunking) currently used by Gas Operations
- 3) Improve communications by utilizing new Association of Public-Safety Communications Officials (APCO) talk groups that operate throughout the state. The new radio system should include one talk group per service center
- 4) The new radio system would also include talk groups for direct truck to truck during mutual aid/ out of state use or crew to crew.
- 5) Purchase approx. 700 radios for all OH/UG Service Center location. This should include equipment needed to support the new radios such as mounts and portables devices where applicable
- 6) 2022 work - Installation & Optimization 2022 work - Subscriber Programming 2022 work - Console and Service Center Installation & Integration
- 7) 2022 work - Vehicle installation 2022 work - Training 2022 work - Go Live, Acceptance Testing , Cutover
- 8)
- 9)
- 10)

Start Month	January	2022
Duration to Complete	0 Years	11 Months
End Month	December	2022

Funding Source	Other Business Unit
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IT Financial Impact

	Year 1	Year 2	Year 3	Year 4	Year 5	Total amount is sent for approval on all business cases.
	Total					
Capital	\$2,865,660	\$0	\$0	\$0	\$0	\$2,870,000
O&M	\$140,000	\$0	\$0	\$0	\$0	\$140,000
Total	\$3,005,660	\$0	\$0	\$0	\$0	\$3,010,000

Business Unit Costs

BU O&M	\$39,000	Trailing BU O&M Costs	\$200,000
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	Year 1	Year 2	Year 3	Year 4	Year 5	Total
OCM O&M	\$0	\$0	\$149,200	\$0	\$0	\$149,200



Executive Summary

Business Case Number	Business Case Name
DMND0002287	Replace DO Lines - SOC Radios

Stakeholders

Portfolio Category	Business Unit
Plant and Field	DTE Electric
Portfolio	Business Unit Director
Plant and Field: DO	William T Hutchinson
Portfolio Manager	Business Unit SME
Ajay Gupta	Jim Turner
Managed By	PPS
MEP	100

Project Description

Investment Type	Initiative Type
Return-to-Health	Operational

What business problem or opportunity are we trying to solve?

Distribution Operations uses radios as their primary communication method for daily operations between Dispatchers to field crews. Their current radio system is over 25 years old, obsolete and has reached its end of life. Replacement parts are no longer available and the current configuration has limited functionality. In the thumb area, crews need to change radio channels based on geographical location in order to communicate back to the dispatcher. This could pose a safety issue for the north area fields crews. The old system is VHF which limits the capabilities needed for daily operations and safety of the field employees

What functionality or capability is being provided?

The capabilities being provided from this solution are as follows:

- 24/7 availability and operational abilities in a blackout situation
- State wide coverage
- Reliable coverage throughout the state and DTE's service territory
- Compatibility with DO current Avtec dispatch console system

Describe alignment of project to Business Unit Goal(s) and Strategy(ies).

BU goal is to provide field employees with devices that improve productivity and provide a sense of safety while performing tasks in the field. A properly working radio system aligns with BU goal of safety and improved productivity for employees

Define the Benefit/Value to the Organization, Customer, Employee.

The benefits of this solution to DTE is it fulfills the goal of keeping its employees safe. By providing field employees with a working radio system that has full coverage throughout DTE service area, is the measure of success. Employees can feel safe in that radio communication back to the Dispatchers is always available. Customers can benefit when their emergency orders can be properly dispatched to the field and emergency orders can be addressed immediately.