

Michigan Public Service Commission  
DTE Electric Company  
**Projected Capital Expenditures**  
**Steam, Hydraulic and**  
**Other Power Generation**  
**(\$000)**

Case No.: U-20162  
Exhibit: A-12  
Schedule: B5.1  
Witness: M. T. Paul  
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Line No.	Description	(a)	(b)	(c)	(d)	(e)	(f)	(g)
		<b>Capital Expenditures</b>					<b>Projected Test Year</b>	<b>Reference</b>
		<b>Historical</b>	<b>Projected Bridge Period</b>			<b>Projected Test Year</b>		
		<b>12 mos. ended 12/31/2017</b>	<b>12 mos. ending 12/31/2018</b>	<b>4 mos. ending 4/30/2019</b>	<b>16 mos. ending 4/30/2019</b>	<b>12 mos. ending 4/30/2020</b>		
					<i>col. (c)+(d)</i>			
1	<b>Steam Power Generation</b>							
2	Routine	216,167	152,894	50,445	203,339	148,436	Exh A-12, B5.1 page 4	
3	Non-Routine	31,994	35,318	28,627	63,945	75,572	Exh A-12, B5.1 page 2	
4	Total Steam Power Generation	248,162	188,212	79,072	267,284	224,008		
5	<b>Hydraulic Power Generation</b>							
6	Routine	2,529	3,242	2,257	5,499	5,397	Exh A-12, B5.1 page 4	
7	Non-Routine	58,591	43,980	13,029	57,009	35,579	Exh A-12, B5.1 page 2	
8	Total Hydraulic Power Generation	61,120	47,222	15,286	62,508	40,976		
9	<b>Other Power Generation</b>							
10	Routine	26,456	28,123	4,275	32,398	20,008	Exh A-12, B5.1 page 4	
11	Non-Routine	32,497	130,237	273,612	403,849	275,564	Exh A-12, B5.1 page 2	
12	Total Other Power Generation	58,953	158,359	277,887	436,246	295,572		
13	Grand Total	368,234	393,793	372,245	766,038	560,556		

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Steam, Hydraulic, and  
Other Power Generation -- Non-Routine  
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Line No.	(a) Description	(b)	(c)	(d)	(e)	(f)
		Capital Expenditures				Projected Test Year
		Historical	Projected Bridge Period			
		12 mos. ended	12 mos. ending	4 mos. ending	16 mos. ending	12 mos. ending
		12/31/2017	12/31/2018	4/30/2019	4/30/2019	4/30/2020
						<i>col. (c)+(d)</i>
1	<b>Steam Power Generation - Non-Routine Additions:</b>					
2	Monroe Dry Fly Ash Basin	3,301	124	-	124	-
3	Monroe Fly Ash Basin Vertical Extension	4,232	115	-	115	-
4	Monroe Coal Combustible Residuals Transfer Pad	3,377	428	-	428	-
5	Monroe ELG Fly Ash Dry Conversion	2,419	11,250	8,927	20,177	21,437
6	Monroe Dry Fly Ash Processing	-	1,100	8,333	9,433	24,667
7	Monroe Site Security	7,539	3,644	1,333	4,978	2,667
8	DSI/ACI Control Projects	1,129	285	-	285	-
9	316b	1,225	1,000	118	1,118	160
10	St Clair Fire Restoration	24,786	-	-	-	-
11	St Clair Fire Insurance Recovery	(23,850)	(14,850)	-	(14,850)	-
12	Trenton Channel Aux Boiler & Main Steam Reducing Station	817	(18)	-	(18)	-
13	Trenton Channel Ash Handling & Sibley Quarry Landfill	788	1,011	-	1,011	-
14	Total Steam Power Generation - Non-Routine	<u>25,762</u>	<u>4,088</u>	<u>18,711</u>	<u>22,799</u>	<u>48,930</u>
15	<b>Steam Power Generation - Non-Routine Removals:</b>					
16	River Rouge Bottom Ash Remediation	282	2,728	-	2,728	-
17	St. Clair Scrubber Basin Remediation	398	3,841	-	3,841	-
18	Monroe Inactive Impoundment Remediation	841	2,220	7,595	9,815	5,405
19	Harbor Beach Decommissioning	2,111	9,480	-	9,480	-
20	Conners Creek Decommissioning	601	11,050	1,973	13,023	18,332
21	River Rouge Decommissioning	998	1,000	191	1,191	1,942
22	Trenton Channel Decommissioning	1,001	910	157	1,067	963
23	Steam Power Generation - Non-Routine Removals - TOTALS	<u>6,232</u>	<u>31,229</u>	<u>9,916</u>	<u>41,146</u>	<u>26,642</u>
24	Steam Power Generation - Non-Routine - TOTALS	<u>31,994</u>	<u>35,318</u>	<u>28,627</u>	<u>63,945</u>	<u>75,572</u>
25	<b>Hydraulic Power Generation - Non-Routine:</b>					
26	Ludington Upgrades	50,831	36,980	12,959	49,939	27,189
27	Ludington Transformers	7,759	7,000	70	7,070	8,390
28	Hydraulic Power Generation - Non-Routine - TOTALS	<u>58,591</u>	<u>43,980</u>	<u>13,029</u>	<u>57,009</u>	<u>35,579</u>
29	<b>Other Power Generation - Non-Routine:</b>					
30	Combined Cycle - 2022	31,871	92,425	271,191	363,616	252,414
31	Peaker Site Security & Blackstart	626	83	333	416	667
32	Ford CHP Unit	-	37,729	2,088	39,817	22,483
33	Other Power Generation - Non-Routine - TOTALS	<u>32,497</u>	<u>130,237</u>	<u>273,612</u>	<u>403,849</u>	<u>275,564</u>
34	TOTAL NON-ROUTINE	<u>123,082</u>	<u>209,534</u>	<u>315,269</u>	<u>524,803</u>	<u>386,715</u>

Michigan Public Service Commission  
DTE Electric Company  
**Projected Capital Expenditures**  
**Steam, Hydraulic, Environmental**  
**and Other Power Generation - St. Clair Outage Event**  
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Line No.	Description	Unit	(b)
			<b>Capital Expenditures</b> Historical 12 mos. ended 12/31/2017
1	Boiler House Window Replacement	Common	2,719
2	Bridge Crane Restoration	Common	-
3	Turbine Area Lead and Asbestos Abatement	Common	-
4	Turbine Deck Lighting Replacement	Common	-
5	Turbine Vent Fans Replacement	Common	-
6	Turbine Window Replacement	Common	-
7	Turbine Roof Replacement	Common	-
8	Unit 1 to 3 Power Batteries (North and South) Replacement	Common	4
9	Misc Electrical Panels, Breakers and Transformers Replacement	Common	289
10	Asbestos and Lead Abatement/Removal	Common	3,360
11	Computer Equipment Replacement	Common	25
12	Plant Radio System Replacement	Common	184
13	Central Control Room Annunciator Replacement	Common	40
14	Sub Total	Common	6,621
15	Unit 1 LP Generator Brush Holder Assembly Replacement	Unit 1	-
16	Unit 1 HP and LP Exciter Cables Replacement	Unit 1	-
17	Unit 1 Generators Neutral Bus Cable Replacement	Unit 1	-
18	Unit 5 Asbestos Removal	Unit 5	-
19	Unit 6 Uninterruptible Power Supply (UPS) Replacement	Unit 6	-
20	Unit 6 Control Battery Chargers Replacement	Unit 6	-
21	Unit 6 Control Battery DC Distribution System Replacement	Unit 6	152
22	Unit 6 Replace #1 Boiler Water Circulating Pump	Unit 6	-
23	Unit 6 Replace #1 Boiler Water Circulating Pump	Unit 6	409
24	Unit 6 Replace #2 Boiler Water Circulating Pump	Unit 6	-
25	Unit 6 Replace #3 Boiler Water Circulating Pump	Unit 6	9
26	Unit 6 Replace #4 Boiler Water Circulating Pump	Unit 6	(5)
27	Unit 7 turbine dissembly, reassembly and inspection	Unit 7	10,708
28	Unit 7 Replace #2 Boiler Water Circulating Pump	Unit 7	425
29	Unit 7 Condenser Expansion Joints	Unit 7	67
30	Unit 7 MTG Front Standard Control & Monitoring System	Unit 7	6,073
31	Unit 7 MTG Restoration (other than LP1)	Unit 7	328
32	Sub Total	Units	18,165
33	Total		24,786

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Line No.	(a) Total Capital - Routine	(b)	(c)	(d)	(e)	(f)
		<b>Capital Expenditures</b>				
		<b>Historical</b>	<b>Projected Bridge Period</b>			<b>Projected Test Year</b>
	<b>12 mos. ended 12/31/2017</b>	<b>12 mos. ending 12/31/2018</b>	<b>4 mos. ending 4/30/2019</b>	<b>16 mos. ending 4/30/2019</b>	<b>12 mos. ending 4/30/2020</b>	
					<i>col. (c)+(d)</i>	
<b>DATA BY SITE</b>						
1	Fleet Support Services	3,156	2,832	257	3,088	770
2	Greenwood	6,956	1,826	600	2,426	2,500
3	Belle River/Range Road	29,945	11,571	8,747	20,317	27,983
4	St. Clair	32,446	15,626	4,259	19,885	11,373
5	River Rouge	5,371	3,076	467	3,543	1,400
6	Trenton Channel/Sibley Quarry	7,917	6,027	1,700	7,727	4,200
7	Monroe	<u>130,376</u>	<u>111,936</u>	<u>34,416</u>	<u>146,352</u>	<u>100,210</u>
8	Subtotal Steam Power Generation	216,167	152,894	50,445	203,339	148,436
9	Hydraulic Power Generation	2,529	3,242	2,257	5,499	5,397
10	Other Power Generation	<u>26,456</u>	<u>28,123</u>	<u>4,275</u>	<u>32,398</u>	<u>20,008</u>
11	Total by Site	<u>245,152</u>	<u>184,259</u>	<u>56,976</u>	<u>241,235</u>	<u>173,841</u>
	<b>DATA BY MAJOR CATEGORY</b>					
12	Reliability Tier 1 Units	132,466	92,744	33,824	126,568	103,289
13	Reliability Tier 2 Units	40,298	20,136	4,759	24,895	13,640
14	Fleet Support Services	3,156	2,832	257	3,088	770
15	Safety/Combustible Dust	25,029	25,493	7,812	33,306	20,021
16	Minor Environmental	15,219	11,689	3,793	15,482	10,717
17	Hydraulic Power Generation - Ludington	2,529	3,242	2,257	5,499	5,397
18	Other Power Generation - Peakers	<u>26,456</u>	<u>28,123</u>	<u>4,275</u>	<u>32,398</u>	<u>20,008</u>
19	Total by Major Category	<u>245,152</u>	<u>184,259</u>	<u>56,976</u>	<u>241,235</u>	<u>173,841</u>

Michigan Public Service Commission  
DTE Electric Company  
Projected Capital Expenditures  
Years 2017 to 2020  
Routine Maintenance Projects greater than \$1M

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Line No.	(a) Facility	(b) Calendar Year	(c) Unit	(d) High Level Breakdown	(e) Lower Level Breakdown	(f) Description	(g) Key Concept	(h) Amount
1	Belle River/Range Road	2017	2	Reliability	Reliability Boiler	Unit 2 Expansion Joints	Flue Gas	1,284,449
2	Belle River/Range Road	2017	2	Combustible Dust	Common System	Fuel Supply Unit 2 Coal Silo and Conveyor Belt Dust Collector	Fuel System	1,391,299
3	Belle River/Range Road	2017	2	Safety	Reliability Turbine	Unit 2 HP & IP Turbine Valves	Turbine	2,268,501
4	Belle River/Range Road	2017	2	Reliability	Reliability Turbine	Unit 2 HP Turbine	Turbine	4,357,466
5	Belle River/Range Road	2017	2	Reliability	Reliability Boiler	Unit 2 Waterwall and Lower Slope Tubes	WW Tubes	7,448,930
6	Belle River/Range Road	2017	Common	Minor Environmental	Common System	Range Road Landfill Capping	Land	1,352,322
7	Belle River/Range Road	2017	Common	Reliability	Common System	Fuel Supply Coal Crusher 1	Fuel System	2,057,959
8	Greenwood	2017	1	Safety	Reliability Turbine	Unit 1 Turbine Valves	Turbine	2,268,048
9	Monroe without Large Enviro.	2017	1	Reliability	Reliability Boiler	Unit 1 Waterwall Tubes	WW Tubes	1,023,415
10	Monroe without Large Enviro.	2017	1	Reliability	Reliability Turbine	Unit 1 South Boiler Feed Pump Turbine Blades	Turbine	1,355,185
11	Monroe without Large Enviro.	2017	1	Minor Environmental	Air Quality	Unit 1 SCR Catalyst Layers 2 & 4	Boiler Emissions	1,376,299
12	Monroe without Large Enviro.	2017	1	Reliability	Reliability Turbine	Unit 1 North Boiler Feed Pump Turbine Blades	Turbine	1,385,904
13	Monroe without Large Enviro.	2017	1	Reliability	Reliability Boiler	Unit 1 Secondary Superheat Inlet Pendants	SH/RH Tubes	1,988,287
14	Monroe without Large Enviro.	2017	1	Reliability	Common System	Unit 1 Coal Mill 1-2, 1-4 and 1-5 Silos	Fuel System	2,458,553
15	Monroe without Large Enviro.	2017	2	Reliability	Reliability Boiler	Unit 2 Economizer Tubes	Econ Tubes	1,768,425
16	Monroe without Large Enviro.	2017	2	Reliability	Reliability Boiler	Unit 2 Reheat Outlet Pendant Dutchmen	SH/RH Tubes	2,100,366
17	Monroe without Large Enviro.	2017	2	Minor Environmental	Air Quality	Unit 2 SCR Catalyst Layers 2 & 4	Boiler Emissions	2,557,554
18	Monroe without Large Enviro.	2017	2	Reliability	Reliability Boiler	Unit 2 Horizontal Reheater Tubes	SH/RH Tubes	2,661,027
19	Monroe without Large Enviro.	2017	2	Reliability	Reliability Turbine	Unit 2 Generator	Generator	3,994,771
20	Monroe without Large Enviro.	2017	2	Reliability	Common System	Unit 2 Dynamic Classifiers for Coal Mills 1-7	Fuel System	6,773,278
21	Monroe without Large Enviro.	2017	2	Reliability	Reliability Boiler	Unit 2 Secondary Superheat Inlet Pendants	SH/RH Tubes	11,169,618
22	Monroe without Large Enviro.	2017	2	Reliability	Reliability Boiler	Unit 2 Waterwall Tubes	WW Tubes	15,470,599
23	Monroe without Large Enviro.	2017	3	Reliability	Common System	Unit 3 Coal Mill 3-4	Fuel System	1,188,738
24	Monroe without Large Enviro.	2017	3	Reliability	Reliability Boiler Feedwater System	Unit 3 Main Unit Condenser	Condenser	1,805,902
25	Monroe without Large Enviro.	2017	4	Minor Environmental	Air Quality	Unit 4 SCR Catalyst Layer 2	Boiler Emissions	1,201,747
26	Monroe without Large Enviro.	2017	4	Reliability	Reliability Turbine	Unit 4 North Boiler Feed Pump Turbine Blades	Turbine	1,202,189
27	Monroe without Large Enviro.	2017	Common	Safety	Common System	Fuel Supply Street Lighting	Lighting	1,175,053
28	Monroe without Large Enviro.	2017	Common	Reliability	Common System	Fuel Supply Caterpillar D10 Dozer	Fuel System	1,398,009
29	Monroe without Large Enviro.	2017	Common	Reliability	Common System	Fuel Supply Caterpillar D10 Dozer	Fuel System	1,408,953
30	Monroe without Large Enviro.	2017	Common	Combustible Dust	Common System	Fuel Supply Coal Crusher Sizing Grid & Bypass Chute	Fuel System	1,452,340
31	Monroe without Large Enviro.	2017	Common	Combustible Dust	Common System	Fuel Supply Unit 1 & 2 Cascade Counterweight Room	Fuel System	1,637,279
32	Monroe without Large Enviro.	2017	Common	Combustible Dust	Common System	Fuel Supply Dust Collector 1	Fuel System	3,317,392
33	Monroe without Large Enviro.	2017	Common	Reliability	Capacity Electrical	Fuel Supply Control System	Fuel System	3,609,547
34	Monroe without Large Enviro.	2017	Common	Reliability	Common System	Outlet Canal Gates	Water	1,229,027
35	Monroe without Large Enviro.	2017	Common	Reliability	Common System	Make-Up Water System	Water	1,784,890
36	Monroe without Large Enviro.	2017	Common	Reliability	Common System	#8 Sootblowing Air Compressor	Plant Air	4,185,225
37	Peakers	2017	Belle River	Reliability	Capacity Electrical	Belle River 12-1, 12-2 & 13-1 Peakers Control System	Peakers	1,805,737
38	Peakers	2017	Delray	Reliability	Reliability Turbine	Delray 12-1 Peaker Generator Field	Peakers	1,711,751
39	Peakers	2017	Delray	Reliability	Reliability Turbine	Delray 11-1 Peaker Turbine Hot Gas Path	Peakers	3,955,931
40	Peakers	2017	Delray	Reliability	Reliability Turbine	Delray 12-1 Peaker Turbine Hot Gas Path	Peakers	4,046,178
41	Peakers	2017	Northeast	Reliability	Reliability Turbine	Northeast 12-1 Peaker Turbine Combustion Cans & Hot Gas Path	Peakers	3,597,118
42	Peakers	2017	Renaissance	Reliability	Reliability Turbine	Renaissance Unit 2 Peaker Combustion Cans	Peakers	2,417,370
43	Peakers	2017	Superior	Reliability	Reliability Turbine	Superior 11-4 Peaker Turbine Combustion Cans & Hot Gas Path	Peakers	2,884,787
44	St. Clair	2017	6	Reliability	Reliability Turbine	Unit 6 LP1 & LP2 Turbine L-0 Blades	Turbine	2,344,827
45	St. Clair	2017	7	Reliability	Common System	Unit 7 Coal Mill D	Fuel System	1,025,211
46	St. Clair	2017	7	Reliability	Common System	Unit 7 Coal Bunker Walls	Fuel System	1,082,849
47	St. Clair	2017	7	Reliability	Reliability Boiler	Unit 7 North & South Air Preheater Baskets (Cold End)	Air Heater	1,119,316
48	St. Clair	2017	7	Safety	Air Quality	Unit 7 Stack Liner Insulation	Boiler Emissions	1,120,690
49	St. Clair	2017	7	Reliability	Reliability Turbine	Unit 7 MTG Low Pressure Turbine LP1 Blades	Turbine	1,278,107
50	St. Clair	2017	7	Reliability	Reliability Boiler	Unit 7 Front & Rear Reheat Pendants	SH/RH Tubes	2,886,668
51	St. Clair	2017	7	Reliability	Reliability Boiler	Unit 7 Waterwall Tubes	WW Tubes	3,387,643
52	St. Clair	2017	7	Reliability	Reliability Turbine	Unit 7 MTG Low Pressure Turbine LP2 Blades	Turbine	3,985,782
53	St. Clair	2017	Common	Reliability	Common System	Fuel Supply Caterpillar D10 Dozer	Fuel System	1,487,172
54	<b>Total 2017 Projects</b>							<b>145,245,684</b>

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55	Belle River/Range Road	2018	1	Reliability	Reliability Turbine	Unit 1 HP Turbine	Turbine	3,700,067
56	Monroe without Large Enviro.	2018	1	Reliability	Reliability Turbine	Unit 1 North Boiler Feed Pump Turbine Condenser	Condenser	1,008,659
57	Monroe without Large Enviro.	2018	1	Safety	Reliability Turbine	Unit 1 Turbine Valves	Turbine	1,200,000
58	Monroe without Large Enviro.	2018	1	Reliability	Reliability Boiler Feedwater System	Unit 1 Feedwater Heater 3	Feedwater Heater	2,148,382
59	Monroe without Large Enviro.	2018	1	Safety	Common System	Unit 1 ID Fan Discharge Dampers	Fans	2,617,601
60	Monroe without Large Enviro.	2018	1	Reliability	Reliability Boiler	Unit 1 Economizer Tubes	Econ Tubes	2,900,000
61	Monroe without Large Enviro.	2018	1	Reliability	Reliability Boiler	Unit 1 Horizontal Reheat Tubes	SH/RH Tubes	2,900,000
62	Monroe without Large Enviro.	2018	1	Reliability	Reliability Boiler	Unit 1 Expansion Joints	Flue Gas	3,296,966
63	Monroe without Large Enviro.	2018	1	Reliability	Common System	Unit 1 Coal Mill 1-2, 1-4 and 1-5 Silos	Fuel System	3,328,991
64	Monroe without Large Enviro.	2018	1	Minor Environmental	Air Quality	Unit 1 SCR Catalyst Layers 2 & 4	Boiler Emissions	3,777,281
65	Monroe without Large Enviro.	2018	1	Reliability	Reliability Boiler	Unit 1 Secondary Superheat Inlet Pendants	SH/RH Tubes	11,853,710
66	Monroe without Large Enviro.	2018	1	Reliability	Reliability Boiler	Unit 1 Waterwall Tubes	WW Tubes	11,928,188
67	Monroe without Large Enviro.	2018	3	Reliability	Reliability Turbine	Unit 3 South Boiler Feed Pump Turbine Blades	Turbine	1,329,391
68	Monroe without Large Enviro.	2018	3	Reliability	Reliability Boiler	Unit 3 Secondary Superheat Inlet Pendants	SH/RH Tubes	1,752,145
69	Monroe without Large Enviro.	2018	3	Reliability	Common System	Unit 3 Coal Mill 3-3 & 3-4 Silos	Fuel System	2,213,505
70	Monroe without Large Enviro.	2018	3	Minor Environmental	Air Quality	Unit 3 SCR Catalyst Layers 1 & 3	Boiler Emissions	2,244,606
71	Monroe without Large Enviro.	2018	4	Reliability	Reliability Boiler	Unit 4 Secondary Superheat Inlet Pendants	SH/RH Tubes	1,100,000
72	Monroe without Large Enviro.	2018	4	Reliability	Common System	Unit 4 Coal Mill 4-5 Silo	Fuel System	1,800,000
73	Monroe without Large Enviro.	2018	4	Minor Environmental	Air Quality	Unit 4 SCR Catalyst Layer 2	Boiler Emissions	2,342,869
74	Monroe without Large Enviro.	2018	Common	Combustible Dust	Common System	Fuel Supply Coal Crusher Sizing Grid & Bypass Chute	Fuel System	1,715,128
75	Monroe without Large Enviro.	2018	Common	Safety	Capacity Electrical	Fuel Supply 480V Breakers	Fuel System	2,121,390
76	Monroe without Large Enviro.	2018	Common	Combustible Dust	Common System	Fuel Supply Train Unloading Tripper Car Chute	Fuel System	2,200,000
77	Monroe without Large Enviro.	2018	Common	Combustible Dust	Common System	Fuel Supply Dust Collector 2	Fuel System	2,638,854
78	Monroe without Large Enviro.	2018	Common	Combustible Dust	Common System	Fuel Supply Dust Collector 3	Fuel System	2,682,819
79	Monroe without Large Enviro.	2018	Common	Reliability	Capacity Electrical	Fuel Supply Control System	Fuel System	8,321,538
80	Monroe without Large Enviro.	2018	Common	Safety	Common System	Unit 1 & 2 Precipitator SIR Lifting Rails & Trolleys	Flue Gas	1,024,486
81	Monroe without Large Enviro.	2018	Common	Reliability	Common System	Make-Up Water System	Water	1,356,873
82	Monroe without Large Enviro.	2018	Common	Reliability	Common System	#8 SBAC Compressor	Plant Air	1,490,264
83	Monroe without Large Enviro.	2018	Common	Reliability	Common System	Station Air Compressors	Plant Air	2,629,558
84	Peakers	2018	Belle River	Minor Environmental	Air Quality	Belle River Peakers CEMS	Peakers	1,000,000
85	Peakers	2018	Dean	Reliability	Capacity Electrical	Dean 11-1, 11-2, 12-1 & 12-2 Peakers Control System	Peakers	2,352,762
86	Peakers	2018	Delray	Reliability	Reliability Turbine	Delray 12-1 Peaker Turbine Hot Gas Path	Peakers	2,430,034
87	Peakers	2018	Greenwood	Reliability	Reliability Turbine	Greenwood 11-1 Peaker Combustion Cans	Peakers	1,800,000
88	Peakers	2018	Greenwood	Reliability	Capacity Electrical	Greenwood 11-1, 11-2 & 12-1 Peakers Control System	Peakers	1,933,456
89	Peakers	2018	Hancock	Reliability	Reliability Turbine	Hancock 11-3 Peaker Generator Field	Peakers	1,000,000
90	Peakers	2018	Hancock	Reliability	Capacity Electrical	Hancock 12-1 & 12-2 Peakers Control System	Peakers	1,144,708
91	Peakers	2018	Northeast	Reliability	Capacity Electrical	Northeast 11-1, 11-2, 11-3, 11-4, & 12-1 Peakers Control System	Peakers	4,000,000
92	Peakers	2018	Renaissance	Minor Environmental	Air Quality	Renaissance Peakers CEMS Monitoring	Peakers	1,000,000
93	Peakers	2018	Renaissance	Reliability	Reliability Turbine	Renaissance Unit 4 Peaker Turbine Combustion Cans	Peakers	2,594,642
94	Peakers	2018	Renaissance	Reliability	Capacity Electrical	Renaissance Units 1-4 Peakers Main Unit Transformer Insulators	Peakers	3,110,608
95	River Rouge	2018	3	Safety	Reliability Turbine	Unit 3 Reheat Stop and Intercept Turbine Valves	Turbine	1,614,358
96	St. Clair	2018	6	Safety	Reliability Turbine	Unit 6 Turbine Valves	Turbine	1,500,000
97	St. Clair	2018	6	Reliability	Reliability Turbine	Unit 6 LP1 & LP2 Turbine L-0 Blades	Turbine	4,065,268
98	Trenton Channel	2018	9	Reliability	Reliability Boiler	Unit 9 Main Steam Piping Tee	Boiler Piping	1,571,493
99	Trenton Channel	2018	9	Reliability	Reliability Turbine	Unit 9 South Boiler Feed Pump Turbine Blades	Turbine	1,696,073
100	<b>Total 2018 Projects</b>							<b>122,436,673</b>

Michigan Public Service Commission  
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Line No.	(a) Facility	(b) Calendar Year	(c) Unit	(d) High Level Breakdown	(e) Lower Level Breakdown	(f) Description	(g) Key Concept	(h) Amount
101	Belle River/Range Road	2019	1	Reliability	Reliability Boiler	Unit 1 Expansion Joints	Flue Gas	2,235,912
102	Belle River/Range Road	2019	1	Safety	Reliability Turbine	Unit 1 IP Turbine Valves	Turbine	3,046,298
103	Belle River/Range Road	2019	1	Reliability	Reliability Boiler	Unit 1 Waterwall Tubes	WW Tubes	5,668,759
104	Belle River/Range Road	2019	1	Reliability	Reliability Turbine	Unit 1 HP Turbine	Turbine	8,777,202
105	Belle River/Range Road	2019	2	Reliability	Reliability Turbine	Unit 2 LP Turbine Blades	Turbine	1,000,000
106	Belle River/Range Road	2019	2	Reliability	Reliability Boiler	Unit 2 Waterwall Tubes	WW Tubes	1,100,000
107	Belle River/Range Road	2019	Common	Combustible Dust	Common System	Fuel Supply Dust Collector 109/110	Fuel System	1,500,000
108	Monroe without Large Enviro.	2019	2	Reliability	Common System	Unit 2 Coal Mill 2-6 Silo	Fuel System	1,441,213
109	Monroe without Large Enviro.	2019	2	Minor Environmental	Air Quality	Unit 2 SCR Catalyst Layer 3	Boiler Emissions	2,000,000
110	Monroe without Large Enviro.	2019	3	Reliability	Common System	Unit 3 Coal Mill Silo (1 silo)	Fuel System	1,000,000
111	Monroe without Large Enviro.	2019	3	Safety	Reliability Turbine	Unit 3 Turbine Valves	Turbine	1,200,000
112	Monroe without Large Enviro.	2019	3	Reliability	Reliability Boiler	Unit 3 Reheat Stop Valve	Turbine	1,250,000
113	Monroe without Large Enviro.	2019	3	Reliability	Common System	FGD Unit 3 North & South Booster Fan Hubs & Blades	Fans	1,350,000
114	Monroe without Large Enviro.	2019	3	Minor Environmental	Common System	Unit 3 ID Fan Guillotine Dampers	Fans	1,500,000
115	Monroe without Large Enviro.	2019	3	Reliability	Reliability Boiler	Unit 3 LPA & LPB Crossover Expansion Joints	Flue Gas	2,000,000
116	Monroe without Large Enviro.	2019	3	Reliability	Reliability Boiler Feedwater System	Unit 3 Main Unit Condenser	Condenser	2,000,000
117	Monroe without Large Enviro.	2019	3	Reliability	Reliability Boiler	Unit 3 Horizontal Reheat Tubes	SH/RH Tubes	2,900,000
118	Monroe without Large Enviro.	2019	3	Reliability	Reliability Boiler	Unit 3 Expansion Joints	Flue Gas	3,500,000
119	Monroe without Large Enviro.	2019	3	Minor Environmental	Air Quality	Unit 3 SCR Catalyst Layer 2, 3, & 4	Boiler Emissions	5,500,000
120	Monroe without Large Enviro.	2019	3	Reliability	Reliability Boiler	Unit 3 Secondary Superheat Inlet Pendants	SH/RH Tubes	10,900,000
121	Monroe without Large Enviro.	2019	3	Reliability	Reliability Boiler	Unit 3 Waterwall Tubes	WW Tubes	14,000,000
122	Monroe without Large Enviro.	2019	4	Reliability	Reliability Boiler	Unit 4 Air Heater Hot End Baskets	Air Heater	1,000,000
123	Monroe without Large Enviro.	2019	4	Reliability	Reliability Boiler Feedwater System	Unit 4 Main Unit Condenser	Condenser	1,000,000
124	Monroe without Large Enviro.	2019	4	Reliability	Reliability Boiler	Unit 4 Secondary Superheat Inlet Pendants	SH/RH Tubes	1,100,000
125	Monroe without Large Enviro.	2019	4	Reliability	Reliability Boiler	Unit 4 Waterwall Tubes	WW Tubes	1,500,000
126	Monroe without Large Enviro.	2019	4	Reliability	Reliability Turbine	Unit 4 Generator Stator	Turbine	2,900,000
127	Monroe without Large Enviro.	2019	Common	Combustible Dust	Common System	Fuel Supply Transfer Chute CVC-6 to CVC-7 & 8	Fuel System	1,500,000
128	Monroe without Large Enviro.	2019	Common	Combustible Dust	Common System	Fuel Supply Unit 3 & 4 Cascade Counterweight Room	Fuel System	1,800,000
129	Monroe without Large Enviro.	2019	Common	Combustible Dust	Common System	Fuel Supply Dust Collector 4	Fuel System	3,490,000
130	Monroe without Large Enviro.	2019	Common	Combustible Dust	Common System	Fuel Supply Dust Collector 5	Fuel System	3,490,000
131	Monroe without Large Enviro.	2019	Common	Reliability	Capacity Electrical	Fuel Supply Control System	Fuel System	7,920,000
132	Monroe without Large Enviro.	2019	Common	Reliability	Capacity Electrical	NERC CIP Med to Low Impact Migration	Misc	1,000,000
133	Peakers	2019	Belle River	Minor Environmental	Air Quality	Belle River Peakers CEMS	Peakers	1,300,000
134	Peakers	2019	Fermi	Reliability	Reliability Turbine	Fermi 11-1 Peaker Turbine Hot Gas Path	Peakers	1,000,000
135	Peakers	2019	Fermi	Reliability	Reliability Turbine	Fermi 11-3 Peaker Turbine Hot Gas Path	Peakers	1,550,000
136	Peakers	2019	Renaissance	Reliability	Capacity Electrical	Renaissance Unit 4 Peaker Main Unit Transformer	Peakers	2,500,000
137	Peakers	2019	Renaissance	Reliability	Reliability Turbine	Renaissance Unit 3 Peaker Turbine Combustion Cans	Peakers	3,100,000
138	St. Clair	2019	7	Safety	Reliability Turbine	Unit 7 Turbine Valves	Turbine	1,500,000
139	St. Clair	2019	Common	Combustible Dust	Common System	Fuel Supply 3TH3 Dust Collector	Fuel System	2,000,000
140	Trenton Channel	2019	9	Reliability	Reliability Turbine	Unit 9 North Boiler Feed Pump Turbine Blades	Turbine	1,500,000
141	Trenton Channel	2019	9	Safety	Reliability Turbine	Unit 9 Turbine Valves	Turbine	1,500,000
142	<b>Total 2019 Projects</b>							<b>116,519,384</b>

Michigan Public Service Commission  
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Line No.	(a) Facility	(b) Test Year	(c) Unit	(d) High Level Breakdown	(e) Lower Level Breakdown	(f) Description	(g) Key Concept	(h) Amount
143	Belle River/Range Road	2020 (4 mo)	2	Reliability	Reliability Boiler	Unit 2 Waterwall Tubes	WW Tubes	2,000,000
144	Belle River/Range Road	2020 (4 mo)	2	Reliability	Reliability Turbine	Unit 2 LP Turbine Blades	Turbine	3,000,000
145	Monroe without Large Enviro.	2020 (4 mo)	4	Reliability	Reliability Boiler	Unit 4 Air Heater Hot End Baskets	Air Heater	1,000,000
146	Monroe without Large Enviro.	2020 (4 mo)	4	Reliability	Reliability Boiler	Unit 4 Expansion Joints	Flue Gas	1,166,667
147	Monroe without Large Enviro.	2020 (4 mo)	4	Reliability	Common System	Unit 4 Coal Mill 4-1 Silo	Fuel System	1,400,000
148	Monroe without Large Enviro.	2020 (4 mo)	4	Reliability	Reliability Turbine	Unit 4 Generator Stator	Turbine	3,666,667
149	Monroe without Large Enviro.	2020 (4 mo)	4	Reliability	Reliability Boiler	Unit 4 Waterwall Tubes	WW Tubes	4,000,000
150	Monroe without Large Enviro.	2020 (4 mo)	4	Reliability	Reliability Boiler	Unit 4 Secondary Superheat Inlet Pendants	SH/RH Tubes	4,666,667
151	Monroe without Large Enviro.	2020 (4 mo)	Common	Reliability	Common System	Coal Mill Silos (3 silos)	Fuel System	1,400,000
152	Peakers	2020 (4 mo)	Fermi	Reliability	Capacity Electrical	Fermi 11-1 Peaker Control System & MCCs	Peakers	1,166,667
153	Peakers	2020 (4 mo)	Fermi	Reliability	Reliability Turbine	Fermi 11-1 Peaker Turbine Hot Gas Path	Peakers	1,166,667
154	Peakers	2020 (4 mo)	Renaissance	Reliability	Reliability Turbine	Renaissance Unit 3 Peaker Turbine Combustion Cans	Peakers	1,036,667
155	<b>Total 2020 Projects</b>							<b>25,670,000</b>

**Michigan Public Service Commission**  
**DTE Electric Company**  
**Projected Capital Expenditures**  
**Allowance for Funds Used During Construction (AFUDC)**  
**Fossil Generation**  
**(\$000)**

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Line No.	(a) Description	(b) Adjusted Historical 12 mos. ended 12/31/2017	(c) Projected 12 mos. ending 4/30/2020
1	Fossil Generation - Routine Expenditures 1/	<u>2,756</u>	<u>1,879</u>
2	<b>Fossil Generation - Project Specific:</b>		
3	Ludington	6,432	2,176
4	Combined Cycle	654	-
5	Other Small Projects	-	-
6	<b>Subtotal Project Specific</b>	<u><u>7,086</u></u>	<u><u>2,176</u></u>
7	<b>Total AFUDC - Fossil Generation 2/</b>	<u><u>9,842</u></u>	<u><u>4,055</u></u>

1/ AFUDC estimates for routine projects are developed at a high level based on historical trend

2/ The projected AFUDC amounts are based on the authorized U-18255 rate of 5.34%