

DTE Electric Company
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DTE Energy®



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April 3, 2016

Ms. Kavita Kale
Executive Secretary
Michigan Public Service Commission
7109 W. Saginaw Highway
Lansing, MI 48917

Re: In the matter on the Commission's own motion, to provide electric power
reliability information in its annual power quality report
MPSC Case No. U-16065

In the matter on the Commission's own motion to investigate the responses of
CONSUMERS ENERGY COMPANY and DTE ELECTRIC COMPANY to
recent storm damage in their service territories.
MPSC Case No. U-17542

Dear Ms. Kunkle:

Please see attached DTE Electric Company's January 1, 2016 through December 31,
2016 Report to the Michigan Public Service Commission Regarding Electric Distribution System
Power Quality.

Very truly your,

Michael J. Solo

MJS/lah
Attachments

Reliability Performance and Power Quality Resolution Process DTE Electric Report for 2016

Background

On September 5, 2009, the Michigan Public Service Commission issued an Opinion and Order in Case No. U-16065, in which it directed that the two major Michigan utilities 1) provide information related to SAIFI, CAIDI, and SAIDI reliability indices with and without major events , on a rolling five year average basis, using the industry standard IEEE method of calculation, and 2) file an annual power quality investigation report which contains data on all primary customer power quality investigations conducted in the past year for end-use customers, derived from their power quality meters, and the outcome of each investigation. This report contains the DTE Electric January 1, 2016 through December 31, 2016 results and compliance status per those requirements.

On December 4, 2014, the Michigan Public Service Commission issued an Order in Case No. U-17542, in which, in part, increased reporting requirements for Consumers Energy Company and DTE Electric Company relative to ongoing dockets Case No. U-16065 and Case No. U-12270. The additional information is to be provided no later than April 2 of each year. The additional reporting requirements are:

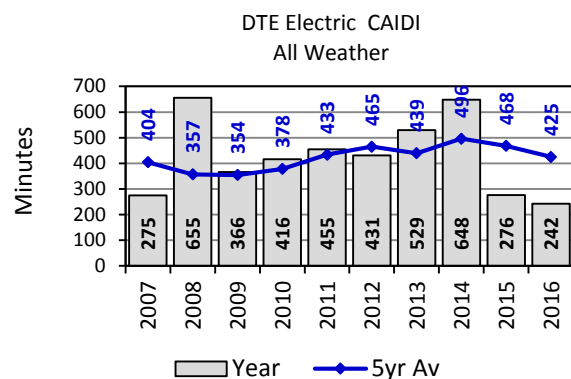
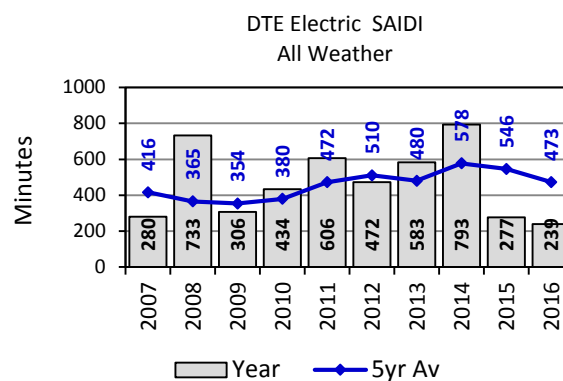
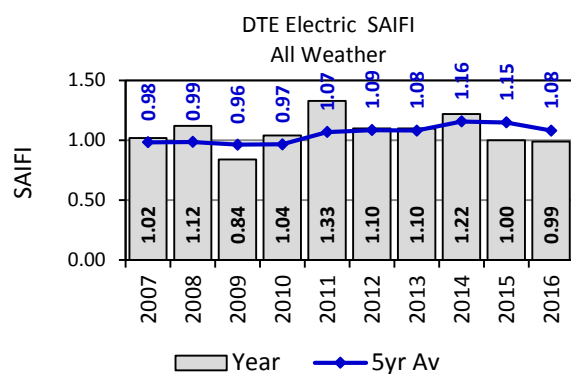
1. A list of their 10 worst performing circuits for the prior year in terms of both SAIDI and SAIFI;
2. For each of the 10 worst performing circuits, the utility shall provide the following information:
(a) SAIDI and SAIFI excluding major events for the year, (b) circuit name, number and location, (c) length of circuit (miles), (d) number of customers served, (e) substation name, (f) last circuit trim, (g) list of outages and causes, and (h) corrective action plan to improve performance;
3. Number of customers experiencing multiple interruptions (CEMI) reporting for indices CEMI₀ through CEMI₁₀₊; and
4. Number of customers experiencing long interruption durations (CELID) reporting for indices CELID_{60hrs} and CELID_{8hrs} (excluding catastrophic events).

Reliability Performance and Power Quality Resolution Process

DTE Electric Report for 2016

Reliability Performance – SAIFI, SAIDI, CAIDI – All Weather

	All Weather					
	SAIFI		SAIDI		CAIDI	
Year	Each Year	5yr Avg	Each Year	5yr Avg	Each Year	5yr Avg
2007	1.02	0.98	280	416	275	404
2008	1.12	0.99	733	365	655	357
2009	0.84	0.96	306	354	366	354
2010	1.04	0.97	434	380	416	378
2011	1.33	1.07	606	472	455	433
2012	1.10	1.09	472	510	431	465
2013	1.10	1.08	583	480	529	439
2014	1.22	1.16	793	578	648	496
2015	1.00	1.15	277	546	276	468
2016	0.99	1.08	239	473	242	425

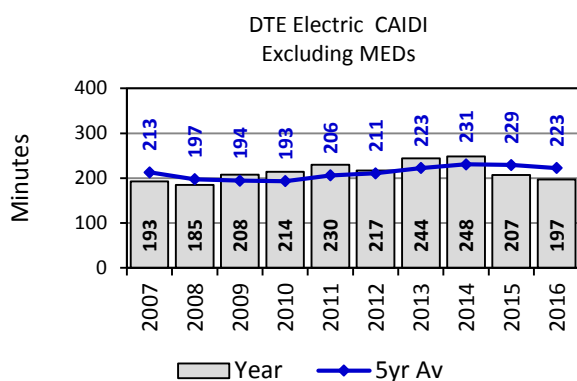
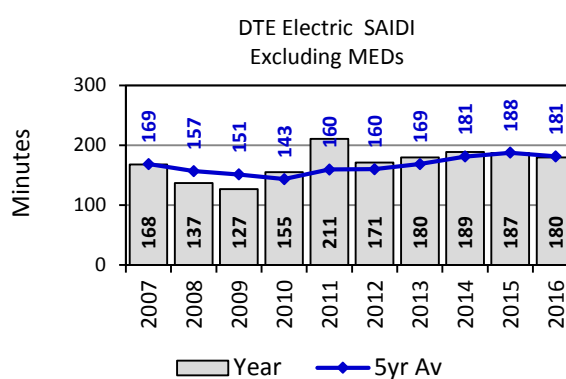
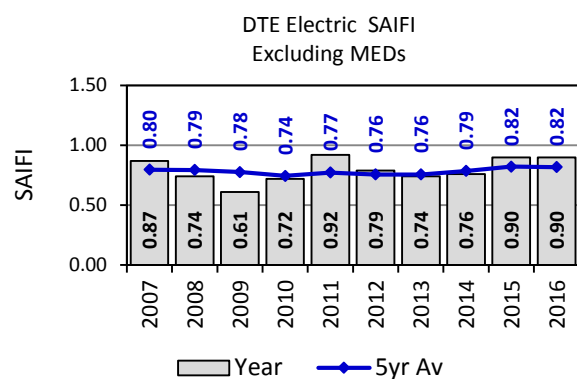


Reliability Performance and Power Quality Resolution Process

DTE Electric Report for 2016

Reliability Performance – SAIFI, SAIDI, CAIDI – Excluding MEDs

	Excluding MEDs per IEEE 1366-2003					
	SAIFI		SAIDI		CAIDI	
Year	Each Year	5yr Avg	Each Year	5yr Avg	Each Year	5yr Avg
2007	0.87	0.80	168	169	193	213
2008	0.74	0.79	137	157	185	197
2009	0.61	0.78	127	151	208	194
2010	0.72	0.74	155	143	214	193
2011	0.92	0.77	211	160	230	206
2012	0.79	0.76	171	160	217	211
2013	0.74	0.76	180	169	244	223
2014	0.76	0.79	189	181	248	231
2015	0.90	0.82	187	188	207	229
2016	0.90	0.82	180	181	197	223

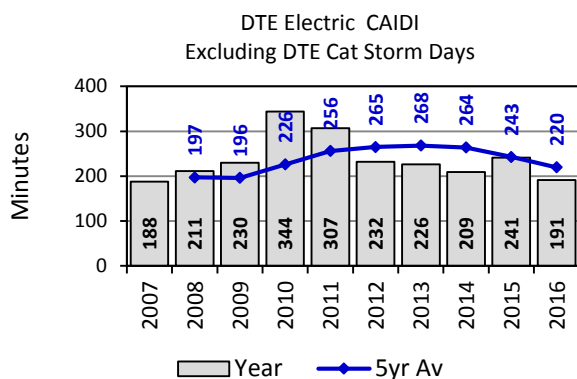
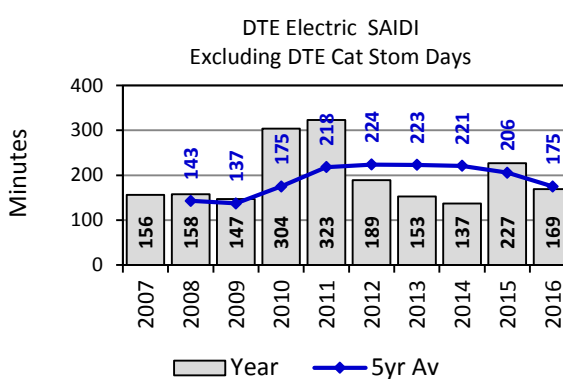
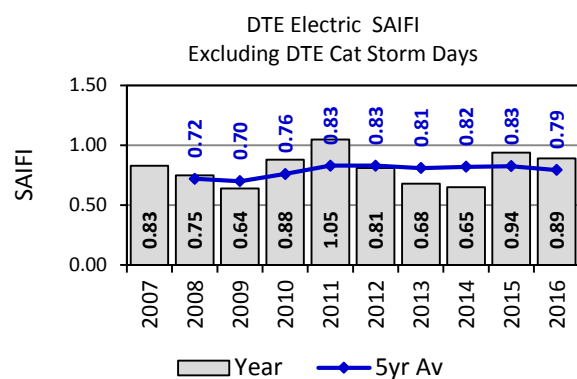


Reliability Performance and Power Quality Resolution Process

DTE Electric Report for 2016

Reliability Performance – SAIFI, SAIDI, CAIDI – Excluding DTE Electric Catastrophic Storm Days

	Excluding DTE Electric Catastrophic Storm Days					
	SAIFI		SAIDI		CAIDI	
Year	Each Year	5yr Avg	Each Year	5yr Avg	Each Year	5yr Avg
2007	0.83		156		188	
2008	0.75	0.72	158	143	211	197
2009	0.64	0.70	147	137	230	196
2010	0.88	0.76	304	175	344	226
2011	1.05	0.83	323	218	307	256
2012	0.81	0.83	189	224	232	265
2013	0.68	0.81	153	223	226	268
2014	0.65	0.82	137	221	209	264
2015	0.94	0.83	227	206	241	243
2016	0.89	0.79	169	175	191	220



Reliability Performance and Power Quality Resolution Process

DTE Electric Report for 2016

In 2016, DTE Electric experienced 22 severe weather events: zero were catastrophic storms interrupting greater than 10% of its customer base (MPSC catastrophic criteria), two were catastrophic storms interrupting greater than 5% of its customer base (DTE Electric catastrophic criteria), and the remaining twenty were smaller storms.

In 2016, DTE Electric was in storm restoration mode for 50 days (7 days for DTE catastrophic storms and 43 days for small storms) – yet by definition, there were only two MEDs. Hence, a significant portion of the storm restoration is not excluded using the IEEE MED methodology.

Major Event Days by Catastrophic Storm

Storm No	Storm Criteria	Customers Interrupted	Storm Start Date/Time	Storm Finish Date/Time	Days in Storm Mode	# MEDs	MED Dates
2016002	DTE	161,366	02/19/16 12:00	02/22/16 17:30	3.2	1	02/19
2016010	DTE	162,806	07/08/16 00:00	07/11/16 19:00	3.8	1	07/08

There are also Major Event Days that occur during smaller non-catastrophic storms.

Year	MEDs During DTE Catastrophic Storms	# MEDs During DTE Non-Catastrophic Storms
2004	4	2
2005	3	0
2006	1	0
2007	3	1
2008	5	2
2009	3	3
2010	3	9
2011	7	10
2012	8	2
2013	9	1
2014	9	0
2015	1	2
2016	2	0

**Reliability Performance and Power Quality Resolution Process
DTE Electric Report for 2016**

Causes of Forced Interruptions – Calendar Year 2016

The most common root cause of forced interruptions is tree interference especially during adverse weather.

	Forced Interruptions by Cause		
	Percent of Customers Interrupted		
	Trees	Equipment	All Other
Conditions			
Catastrophic Storms	74.3%	8.7%	17.0%
Small Storms	56.1%	24.5%	19.4%
Non-Storm	37.0%	34.3%	28.7%
All Conditions	47.3%	28.3%	24.4%

Reliability Performance and Power Quality Resolution Process

DTE Electric Report for 2016

1A. Reliability Performance - 5 Worst Performing SAIFI Circuits - **System Basis**

	Circuit Name and Number	Substation	Location	Circuit Miles	Customers Served	SAIFI All Wthr Sys Basis	SAIFI ex MEDs Sys Basis	SAIFI All Wthr Cct Basis	SAIFI ex MEDs Cct Basis	Last Vegetation Man'gmt
1	BALDW8014	Baldwin	Orion Twp	74.7	3,012	0.0062	0.0062	4.5027	4.5027	2015
2	GODSN8134	Goodison	Oakland Twp	106.5	2,388	0.0061	0.0061	5.5946	5.5754	2012
3	MOTT 9789	Mott	Ypsilanti Twp	80.4	4,492	0.0059	0.0058	2.8491	2.8128	2009
4	WAREN8362	Warren	Dearborn	15.4	3,120	0.0052	0.0052	3.6362	3.6125	2010
5	WHMLK8099	Whitmore Lake	Northfield Twp	67.5	2,551	0.0049	0.0044	4.2070	3.8032	2012

1B. Reliability Performance – 5 Worst Performing SAIFI Circuits – **Circuit Basis**

	Circuit Name and Number	Substation	Location	Circuit Miles	Customers Served	SAIFI All Wthr Sys Basis	SAIFI ex MEDs Sys Basis	SAIFI All Wthr Cct Basis	SAIFI ex MEDs Cct Basis	Last Vegetation Man'gmt
1	WMSTN8033	Williamston	Williamstown Twp	52.7	239	0.0016	0.0011	14.6444	9.7908	2013
2	PATON8870	Patton	Southfield	7.4	605	0.0025	0.0025	9.0545	9.0496	2009
3	WMSTN9857	Williamston	Williamstown Twp	100.6	653	0.0023	0.0020	7.7320	6.7427	2013
4	SCOTN2042	Scotten	Detroit	5.9	554	0.0018	0.0016	7.0830	6.2581	2011
5	TFANY8172	Tiffany	Taylor	24.1	1,556	0.0049	0.0042	6.8959	5.9299	2013

Corrective Action Plans to Improve SAIFI Performance

	Circuit Name and Number	Corrective Actions	Outages and Causes
1A-1	BALDW8014	Capital project to improve performance of trunk line feeding Baldwin substation	See Appendix 1A
1A-2	GODSN8134	Line Clearance 2017; System Resiliency completed in 2016; CEMI - construction in progress	See Appendix 1A
1A-3	MOTT 9789	Line Clearance 2017; CEMI - construction in progress	See Appendix 1A
1A-4	WAREN8362	Circuit Renewal - engineering in progress	See Appendix 1A
1A-5	WHMLK8099	System Resiliency completed in 2016; Circuit Renewal- engineering in progress	See Appendix 1A
1B-1	WMSTN8033	Assess/patrol circuit to determine appropriate corrective actions	See Appendix 1B
1B-2	PATON8870	Efficient Frontier completed in 2016	See Appendix 1B
1B-3	WMSTN9857	System Resiliency completed in 2016; CEMI completed in 2016	See Appendix 1B
1B-4	SCOTN2042	System Resiliency completed in 2016	See Appendix 1B
1B-5	TFANY8172	System Resiliency completed in 2016; CEMI - construction in progress	See Appendix 1B

Reliability Performance and Power Quality Resolution Process DTE Electric Report for 2016

2A. Reliability Performance - 5 Worst Performing SAIDI Circuits - **System Basis**

	Circuit Name and Number	Substation	Location	Circuit Miles	Customers Served	SAIDI All Wthr Sys Basis	SAIDI ex MEDs Sys Basis	SAIDI All Wthr Cct Basis	SAIDI ex MEDs Cct Basis	Last Vegetation Man'gmt
1	TFANY8172	Tiffany	Taylor	24.1	1,556	2.4035	1.3277	3,378	1,866	2013
2	CONRD8130	Conrad	Howell Twp	149.2	1,982	1.9090	1.5185	2,107	1,676	2015
3	WHMLK8099	Whitmore Lake	Northfield Twp	67.5	2,551	1.3994	0.9127	1,200	783	2012
4	MOTT 9789	Mott	Ypsilanti Twp	80.4	4,492	1.3884	1.3304	676	648	2009
5	CONRD9792	Conrad	Howell Twp	26.5	1,844	1.3556	1.3190	1,608	1,564	2016

2B. Reliability Performance - 5 Worst Performing SAIDI Circuits - **Circuit Basis**

	Circuit Name and Number	Substation	Location	Circuit Miles	Customers Served	SAIDI All Wthr Sys Basis	SAIDI ex MEDs Sys Basis	SAIDI All Wthr Cct Basis	SAIDI ex MEDs Cct Basis	Last Vegetation Man'gmt
1	TFANY8172	Tiffany	Taylor	24.1	1,556	2.4035	1.3277	3,378	1,866	2013
2	TAYLR8286	Taylor	Taylor	15.1	788	1.0950	0.9558	3,039	2,653	2012
3	WMSTN8033	Williamston	Williamstown Twp	52.7	239	0.3284	0.2593	3,005	2,373	2013
4	GAY 1773	Gay	Inkster	6.6	784	1.0437	0.1403	2,912	391	2010
5	CENTR0805	Centerline	Center Line	4.1	269	0.3482	0.0283	2,831	230	2013

Corrective Action Plans to Improve SAIDI Performance

	Circuit Name and Number	Corrective Actions	Outages and Causes
2A-1	TFANY8172	System Resiliency completed in 2016; CEMI - construction in progress	See Appendix 2A
2A-2	CONRD8130	Circuit Renewal - engineering in progress	See Appendix 2A
2A-3	WHMLK8099	System Resiliency completed in 2016; Circuit Renewal- engineering in progress	See Appendix 2A
2A-4	MOTT 9789	Line Clearance 2017; CEMI - construction in progress	See Appendix 2A
2A-5	CONRD9792	Line clearance completed in 2016	See Appendix 2A
2B-1	TFANY8172	System Resiliency completed in 2016; CEMI - construction in progress	See Appendix 2B
2B-2	TAYLR8286	System Resiliency 2017	See Appendix 2B
2B-3	WMSTN8033	Assess/patrol circuit to determine appropriate corrective actions	See Appendix 2B
2B-4	GAY 1773	Assess/patrol circuit to determine appropriate corrective actions	See Appendix 2B
2B-5	CENTR0805	Assess/patrol circuit to determine appropriate corrective actions	See Appendix 2B

Reliability Performance and Power Quality Resolution Process
DTE Electric Report for 2016

Reliability Performance – Customers Experiencing Multiple Interruptions (CEMI)

CEMI numbers are based on unreviewed real-time outage system (InService) data at the time of the outage. These numbers are known to be overstated on occasion, hence we review and right-size the data to more accurately determine SAIFI, SAID, and CAIDI. In the right-sizing process, however, customer individuality is lost – hence CEMI is based on the unreviewed data and is likely overstated compared to the true customer experience.

CEMI N	# Customers
CEMI 0	2,187,144
CEMI 1	1,245,866
CEMI 2	596,814
CEMI 3	270,676
CEMI 4	121,110
CEMI 5	51,279
CEMI 6	24,692
CEMI 7	12,334
CEMI 8	4,634
CEMI 9	1,712
CEMI 10+	605

Per IEEE Definition, CEMI n represents the number of customers experiencing n or more interruptions. Hence, in the table above, each discrete CEMI level is a subset of the CEMI levels above it.

**Reliability Performance and Power Quality Resolution Process
DTE Electric Report for 2016**

Reliability Performance – Customers Experiencing Long Interruption Duration (CELID)

The CELID customer count is based on the Single Interruption Duration (rather than the Total Interruption Duration) defined in IEEE Standard 1366-2012, Section 3.2.8, Equation 15; i.e. it represents each occasion a customer was interrupted based on the CELID duration, not the total time during the year that each customer was interrupted.

CELID - Single Interruption Duration	# Customers
CELID 8 hours - MPSC Normal Conditions	266,912
CELID 16 hours - MPSC Normal Conditions	111,389
CELID 60 hours - MPSC Catastrophic Conditions	No MPSC Catastrophic
CELID 120 hours - MPSC Catastrophic Conditions	No MPSC Catastrophic

Per MPSC Case U-12270, catastrophic conditions are defined by either of the following:

- (a) severe weather conditions that result in service interruptions for 10% or more of a utility's customers
- (b) events of sufficient magnitude that result in the issuance of an official state of emergency declaration by the local, state, or federal government

Reliability Performance and Power Quality Resolution Process

DTE Electric Report for 2016

Power Quality – Inquiry Process

DTE Electric has a proven effective process in place that enables its large industrial and commercial customers typically served off the subtransmission or transmission system to obtain resolution of power quality issues. The customers contact their assigned account representative who in turn starts the process of helping the customer by engaging the appropriate engineer in Distribution Operations. DTE and ITC Holdings Corporation (ITC) have a very successful process concerning the transmission system events.

The response to the customer normally includes the following steps:

- (1) Obtain pertinent information about what is troubling the customer (old or new equipment, one device or many)
- (2) Gather the dates and times from the customer to correlate with EMS Alarm Logger events (cap switching, line trips)
- (3) Correlate the customer's experiences with the power quality meters at his service point or with power quality meters in the area
- (4) Meet with the customer about the correlation of system and customer events

Based on the correlation of *ITCTransmission* (ITCT) and DTE Electric events to customer trouble, the following outcomes or additional steps are possible:

- (1) DTE or customer installs special power quality monitoring to determine customer equipment sensitivity and source of problem as needed
- (2) ITCT and DTE will seek resolution of problems caused on their systems where the customer equipment wouldn't be expected to have ride-through capability - the rate of occurrence, system exposure and service method determine if remedies are commercially feasible
- (3) The customer is responsible for issues related to his site voltage, sensitive equipment, and internal system trouble

Reliability Performance and Power Quality Resolution Process

DTE Electric Report for 2016

Power Quality – Monitoring

DTE Electric has an array of power quality meters across its system at key industrial, subtransmission, and distribution buses that have proven to be very effective. New meters are installed at new or upgraded industrial substations and on subtransmission buses.

The power quality meters at the industrial locations allow DTE Electric to correlate the recorded voltage sags with system events from the SCADA-EMS system. This system provides DTE Electric with information unique to the customer and a tool to track the performance of the system. The system performance data is used to prioritize capital improvements and system maintenance.

The power quality meters on the subtransmission and distribution buses provide system performance data plus the ability to calculate the probable locations of faults on the lines. This information will reduce the time and cost to find causes of voltage sags and facilitate repair the system when necessary.

Also, voltage sags on the DTE Electric system can be correlated with faults on the ITCT system. The DTE Electric power quality data is shared with ITC for the benefit of resolving customer power quality issues.

The data in the following table indicate the total number of power quality issues brought to the attention of DTE Electric – Distribution Operations in 2016. Each power quality issue is categorized by service methods, power quality events, source of events and actions taken.

Reliability Performance and Power Quality Resolution Process

DTE Electric Report for 2016

Power Quality Inquiry Summary

Inquiries			Power Quality Event ¹							Source of PQ Event			Detail ⁶
Month	Total	Loc. Impacted ²	Transient	Voltage Sag	Voltage Swell	Interruption	Over voltage	Under voltage	Other	DTE ³	ITCT ⁴	Customer ⁵	Inquiry Numbers
Jan	4	5		4		1				3		2	1764, 1758, 1760, 1779
Feb	5	7		6		1				6		1	1741, 1758, 1765, 1779, 1773
Mar	1	9		9						9			1760
Apr	6	16		14		2				2	14		1738, 1774, 1782, 1786, 1737, 1761
May	8	14		9		3				10		4	1780, 1787, 1738, 1766, 1741, 1789, 1761, 1740
June	11	19		17		2				19			1765, 1787, 1738, 1741, 1761, 1780, 1766, 1790, 1783, 1795, 1775
July	9	24		21		3				22	2		1762, 1788, 1795, 1743, 1767, 1759, 1768, 1781, 1791
Aug	9	13		12		1				11	2		1795, 1743, 1742, 1769, 1781, 1790, 1770, 1788, 1744
Sept	5	13		13						9	4		1788, 1781, 1759, 1762, 1792
Oct	10	13		12		1				9	1	3	1771, 1788, 1745, 1793, 1790, 1776, 1747, 1750, 1746, 1731
Nov	10	21		21						12	6	3	1763, 1748, 1772, 1789, 1749, 1777, 1750, 1784, 1790, 1785
Dec	1	1		1								1	1778
Year	79	155		139		16				112	29	14	

1 Voltages and durations (IEEE Std 1159 Table 2 – Categories & Typical Characteristics of Power System Phenomena)

2 Number of customer locations impacted

3 Equipment owned by DTE (120, 40, 24, 13.2 and 4.8 kV)

4 Equipment owned by ITC (345, 230 and 120 kV)

5 Equipment owned by the customer or other power systems not owned by DTE or ITC

6 Inquiry numbers – event detail provided in the table below

Reliability Performance and Power Quality Resolution Process

DTE Electric Report for 2016

The number of locations impacted and identified by power quality monitors, system monitors and customers' inquiries was 155 which was less than the previous year's total of 169.

The follow-up investigations indicate that most of the power quality events were due to either voltage sags (90%) or interruptions (10%) and correlated with trouble occurring on the DTE Electric (72%) and ITCT (19%) systems. Other inquiries were determined to be the result of events occurring on customer systems (9%).

Of the events on the DTE Electric or ITCT system, 25% were attributed to adverse weather, contamination, animal, or tree interference.

System improvement projects underway would have reduced the locations impacted by 23% of the 2016 total. Along with line clearance, modifications such as operating practice changes, equipment changes, adding animal protection and/or equipment are typical actions taken to reduce the occurrences of the events.

The following table lists addition information about each inquiry.

Reliability Performance and Power Quality Resolution Process
DTE Electric Report for 2016

Power Quality Inquiries

Inquiry	Date - Time	System Event	PQ Event	Comments
1764	1/8 - 1450	Ranger - Explorer 1	Interruption	Interference - Boring
1758	1/18 - 0534	General Motors	Voltage Sag	Customer
1758	1/19 - 0509	General Motors	Voltage Sag	Customer
1760	1/22 - 1655	Lark-Saline 4512	Voltage Sag	Unknown
1779	1/28 - 1416	Bloomfield Trk 1232	Voltage Sag	Line Equipment - Pole
1741	2/11 - 0024	DTE / TEC	Interruption	Unknown
1758	2/19 - 1926	General Motors	Voltage Sag	Customer
1765	2/20 - 1426	Korte DC	Voltage Sag	Unknown
1779	2/24 - 0956	Bloomfield -Walton 40	Voltage Sag	Conductor - Overhead
1773	2/24 - 1340	Northeast Trk 416	Voltage Sag	Unknown
1773	2/24 - 1340	Northeast Trk 416	Voltage Sag	Unknown
1758	2/29 - 0033	Northeast Trk 428	Voltage Sag	Line Equipment - Arrestors
1760	3/16 - 0043	Argo-Lark-Phoenix 5513	Voltage Sag	Conductor - Overhead
1760	3/16 - 0043	Argo-Lark-Phoenix 5513	Voltage Sag	Conductor - Overhead
1760	3/17 - 1514	Superior Trk 1527	Voltage Sag	Interference - Tree
1760	3/17 - 1514	Superior Trk 1527	Voltage Sag	Interference - Tree
1760	3/18 - 1238	Superior Trk 1527	Voltage Sag	Unknown
1760	3/18 - 1238	Superior Trk 1527	Voltage Sag	Unknown
1760	3/18 - 1358	Superior Trk 1527	Voltage Sag	Unknown
1760	3/18 - 1358	Superior Trk 1527	Voltage Sag	Unknown
1760	3/23 - 1927	Argo-Superior 1540	Voltage Sag	Interference - Tree
1738	4/7 - 2359	Cato-Waterman	Voltage Sag	Line Equipment – UG Equipment
1774	4/7 - 2359	Cato-Waterman	Voltage Sag	Line Equipment – UG Equipment
1738	4/7 - 2359	Cato-Waterman	Voltage Sag	Line Equipment – UG Equipment
1738	4/7 - 2359	Cato-Waterman	Voltage Sag	Line Equipment – UG Equipment
1738	4/7 2359	Cato-Waterman	Voltage Sag	Line Equipment – UG Equipment
1782	4/7 - 2359	Cato-Waterman	Voltage Sag	Line Equipment – UG Equipment

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1786	4/7 - 2359	Cato-Waterman	Voltage Sag	Line Equipment – UG Equipment
1737	4/10 - 1742	Bad Axe-Arrowhead	Interruption	Conductor - Underground
1761	4/21 - 0851	Phoenix Trk 5510	Voltage Sag	Unknown
1774	4/26 - 0108	Frisbie-Saturn	Voltage Sag	Line Equipment – Lightning
1738	4/26 - 0108	Frisbie-Saturn	Interruption	Line Equipment – Lightning
1786	4/26 - 0108	Frisbie-Saturn	Voltage Sag	Line Equipment – Lightning
1738	4/26 - 0108	Frisbie-Saturn	Voltage Sag	Line Equipment – Lightning
1782	4/26 - 0108	Frisbie-Saturn	Voltage Sag	Line Equipment – Lightning
1738	4/26 - 0108	Frisbie-Saturn	Voltage Sag	Line Equipment – Lightning
1738	4/26 - 0108	Frisbie-Saturn	Voltage Sag	Line Equipment – Lightning
1780	5/4 - 1915	Bloomfield Trk 1276	Voltage Sag	Unknown
1787	5/6 - 0740	Newburgh-Romulus 2025	Voltage Sag	Unknown
1738	5/8 - 0945	General Motors	Voltage Sag	Customer
1766	5/11 - 1820	Brock Trk 8409	Voltage Sag	Unknown
1738	5/12 - 0551	St Antoine Bus 17	Voltage Sag	Customer
1741	5/12 - 1846	DTE / TEC	Interruption	Unknown
1741	5/16 - 1817	DTE / TEC	Interruption	Unknown
1789	5/17 - 0244	Detroit Refinery	Voltage Sag	Customer
1789	5/17 - 0453	Detroit Refinery	Voltage Sag	Customer
1761	5/23 - 2255	Phoenix DC 9846	Voltage Sag	Unknown
1761	5/23 - 2255	Phoenix DC 9846	Voltage Sag	Unknown
1740	5/27 - 0732	Dayton Trk 5239	Interruption	Unknown
1741	5/28 - 1303	DTE / TEC	Interruption	Unknown
1741	5/28 - 1345	DTE / TEC	Interruption	Unknown
1765	6/5 - 1017	Brock Trf 101	Voltage Sag	Station Equipment - Transformer
1765	6/5 - 1017	Brock Trf 101	Voltage Sag	Station Equipment - Transformer
1787	6/5 - 1017	Brock Trf 101	Voltage Sag	Station Equipment - Transformer
1738	6/5 - 1017	Brock Trf 101	Voltage Sag	Station Equipment - Transformer
1765	6/5 - 1017	Brock Trf 101	Voltage Sag	Station Equipment - Transformer

Reliability Performance and Power Quality Resolution Process
DTE Electric Report for 2016

1741	6/10 - 0252	DTE / TEC	Interruption	Unknown
1761	6/12 - 2207	Argo-Lark 4501	Voltage Sag	Unknown
1780	6/13 - 0753	Bloomfield Trk 1243	Voltage Sag	Unknown
1780	6/13 - 1237	Bloomfield Trk 1243	Voltage Sag	Unknown
1766	6/13 - 1317	Korte DC	Voltage Sag	Unknown
1787	6/13 - 1751	Newburgh-Romulus 2025	Voltage Sag	Unknown
1741	6/15 - 1232	DTE / TEC	Interruption	Unknown
1790	6/16 - 1039	Oxford-Romeo 226	Voltage Sag	Unknown
1783	6/17 - 1013	Frisbie Trk 1813	Voltage Sag	Conductor - Underground
1761	6/21 - 1314	Phoenix Trk 5522	Voltage Sag	Unknown
1761	6/21 - 1314	Phoenix Trk 5522	Voltage Sag	Unknown
1795	6/23 - 1921	Randolph-Tuscola 3318	Voltage Sag	Unknown
1775	6/25 - 1234	Northeast Trk 448	Voltage Sag	Unknown
1787	6/26 - 1449	Newburgh Trk 2016	Voltage Sag	Unknown
1762	7/8 - 0958	Pioneer-Superior 1544	Voltage Sag	Unknown
1762	7/8 - 0958	Pioneer-Superior 1544	Voltage Sag	Unknown
1788	7/8 - 1912	Newburgh-Romulus 2025	Voltage Sag	Unknown
1795	7/12 - 1657	Arrowhead-Wilmot 7504	Voltage Sag	Interference - Tree
1743	7/11 - 1830	Adams-Richman-Victor 810	Voltage Sag	Unknown - Storm
1743	7/12 - 2139	Romeo-Spokane 6907	Voltage Sag	Interference - Tree - Storm
1762	7/12 - 2152	Pioneer-Superior 1544	Voltage Sag	Conductor - Underground
1762	7/12 - 2152	Pioneer-Superior 1544	Voltage Sag	Conductor - Underground
1743	7/13 - 2016	Adams-Richman-Victor 810	Voltage Sag	Line Equipment - Lightning - Storm
1762	7/16 - 1105	Argo-Superior 1540	Voltage Sag	Unknown
1762	7/16 - 1105	Argo-Superior 1540	Voltage Sag	Unknown
1762	7/18 - 0320	Argo-Lark-Phoenix 5513	Voltage Sag	Unknown
1762	7/18 - 0320	Argo-Lark-Phoenix 5513	Voltage Sag	Unknown
1767	7/18 - 0345	Brock Trk 8414	Voltage Sag	Unknown
1795	7/21 - 0609	Pigeon-Randolph 3206	Voltage Sag	Unknown

Reliability Performance and Power Quality Resolution Process
DTE Electric Report for 2016

1762	7/21 - 1609	Piedmont-Pioneer 7430	Voltage Sag	Unknown
1788	7/21 - 1627	Newburgh-Romulus 2025	Voltage Sag	Unknown
1759	7/22 - 1813	St Antoine Trf 6	Interruption	Station Equipment - Controls
1759	7/22 - 1915	St Antoine Trf 6	Interruption	Station Equipment - Controls
1759	7/22 - 1915	St Antoine Trf 6	Interruption	Station Equipment - Controls
1768	7/26 - 1139	Sterling DC 8427	Voltage Sag	Interference - Animal
1781	7/27 - 1205	Bloomfield Trk 1276	Voltage Sag	Unknown
1788	7/31 - 0511	Kopernick-Newburgh 2	Voltage Sag	Interference - Balloons
1791	7/31 - 0511	Kopernick-Newburgh 2	Voltage Sag	Interference - Balloons
1795	8/5 - 0721	Pigeon-Randolph 3206	Voltage Sag	Interference - Animal
1743	8/10 - 2256	Adams-Richman-Victor 810	Voltage Sag	Unknown
1742	8/11 - 1149	Menlo-Lee	Interruption	Line Equipment - Lightning
1743	8/12 - 1635	Adams DC 9131	Voltage Sag	Interference - Tree - Storm
1769	8/12 - 2152	Warren Trk 688	Voltage Sag	Conductor - Underground
1781	8/17 - 1417	Bloomfield-Walton 40	Voltage Sag	Unknown
1781	8/17 - 1521	Bloomfield-Walton 40	Voltage Sag	Unknown
1790	8/17 - 1543	Adams-Richman-Victor 810	Voltage Sag	Unknown
1781	8/17 - 1611	Bloomfield-Paddock 1224	Voltage Sag	Unknown
1795	8/19 - 1432	Pigeon-Randolph 3206	Voltage Sag	Unknown
1770	8/20 - 1908	Korte DC	Voltage Sag	Unknown
1788	8/27 - 1422	Newburgh-Romulus 2025	Voltage Sag	Unknown
1744	8/27 - 1600	Bunce Creek-St Clair	Voltage Sag	Line Equipment - Lightning
1788	9/1 - 1134	Newburgh Trk 2002	Voltage Sag	Line Equipment - Shield Wire
1781	9/2 - 0813	Bloomfield Trk 1276	Voltage Sag	Unknown
1759	9/7 - 1633	Northeast Trk 462	Voltage Sag	Conductor - Underground
1759	9/7 - 2031	Northeast Trk 462	Voltage Sag	Conductor - Underground
1762	9/8 - 0842	Argo-Pheonix 5517	Voltage Sag	Unknown
1762	9/8 - 0842	Argo-Pheonix 5517	Voltage Sag	Unknown
1762	9/24 - 1526	Argo-Pheonix 5517	Voltage Sag	Unknown

Reliability Performance and Power Quality Resolution Process
DTE Electric Report for 2016

1762	9/24 - 1526	Argo-Pheonix 5517	Voltage Sag	Unknown
1781	9/24 - 1724	Bloomfield-Sunbird	Voltage Sag	Line Equipment - Shield Wire
1759	9/24 - 1724	Bloomfield-Sunbird	Voltage Sag	Line Equipment - Shield Wire
1759	9/25 - 0731	Bloomfield-Sunbird	Voltage Sag	Line Equipment - Shield Wire
1781	9/25 - 0731	Bloomfield-Sunbird	Voltage Sag	Line Equipment - Shield Wire
1792	9/28 - 1506	Bad Axe-Pigeon 3416	Voltage Sag	Unknown
1771	10/4 - 1914	Sterling Trf 1	Voltage Sag	Interference – Animal
1788	10/5 - 1306	Newburgh Trk 2002	Voltage Sag	Unknown
1745	10/7 - 2000	Ford	Voltage Sag	Customer
1793	10/15 - 2247	Majestic-Milan	Voltage Sag	Unknown
1790	10/18 - 1103	Victor SB 1-2	Voltage Sag	Station Equipment - Insulator
1776	10/23 - 1255	Alpha DC 9198	Voltage Sag	Station Equipment - Transformer
1747	10/23 - 1255	Alpha DC 9198	Voltage Sag	Station Equipment - Transformer
1747	10/23 - 1255	Alpha DC 9198	Voltage Sag	Station Equipment - Transformer
1776	10/23 - 1255	Alpha DC 9198	Voltage Sag	Station Equipment - Transformer
1750	10/23 - 1255	Alpha DC 9198	Voltage Sag	Station Equipment - Transformer
1776	10/23 - 1255	Alpha DC 9198	Voltage Sag	Station Equipment - Transformer
1746	10/24 - 0630	Ford	Voltage Sag	Customer
1731	10/31 - 1000	Ford	Interruption	Customer
1763	11/4 - 2046	Phoenix Trk 5522	Voltage Sag	Unknown
1748	11/7 - 0615	Ford	Voltage Sag	Customer
1772	11/8 - 1505	Korte DC	Voltage Sag	Unknown
1789	11/10 - 1312	Detroit Refinery	Voltage Sag	Customer
1749	11/15 - 0840	Ford	Voltage Sag	Customer
1777	11/17 - 1206	St Antoine -Waterman	Voltage Sag	Line Equipment - UG Cable
1750	11/17 - 1206	St Antoine -Waterman	Voltage Sag	Line Equipment - UG Cable
1750	11/17 - 1206	St Antoine -Waterman	Voltage Sag	Line Equipment - UG Cable
1750	11/17 - 1206	St Antoine -Waterman	Voltage Sag	Line Equipment - UG Cable
1784	11/17 - 1206	St Antoine -Waterman	Voltage Sag	Line Equipment - UG Cable

Reliability Performance and Power Quality Resolution Process
DTE Electric Report for 2016

1750	11/17 - 1206	St Antoine -Waterman	Voltage Sag	Line Equipment - UG Cable
1763	11/18 - 0458	Phoenix Trk 5510	Voltage Sag	Unknown
1763	11/18 - 0458	Phoenix Trk 5510	Voltage Sag	Unknown
1790	11/19 - 2228	Romeo-Spokane 6907	Voltage Sag	Unknown
1777	11/23 - 1557	Northeast Trk 416-17	Voltage Sag	Unknown
1784	11/24 - 1518	Frisbie-Midtown	Voltage Sag	Station Equipment – Customer’s Relay
1785	11/28 - 1228	Frisbie Trk 1809	Voltage Sag	Conductor - Underground
1763	11/28 - 1958	Argo-Superior 1531	Voltage Sag	Interference - Tree
1763	11/28 - 1958	Argo-Superior 1531	Voltage Sag	Interference - Tree
1763	11/28 - 2343	Argo-Lark-Phoenix 5513	Voltage Sag	Unknown
1763	11/28 - 2343	Argo-Lark-Phoenix 5513	Voltage Sag	Unknown
1778	12/3 - 0857	Chrysler	Voltage Sag	Customer

Appendix 1A

Outage and Cause Listing - SAIFI - System Basis

Grey shading indicates single customer outage

	Circuit Name and Number	Metric	Rank	MED	Storm	Interruption Date/Time	Customers Interrupted	Customer Minutes Interrupted	Cause
1A-1	BALDW8014	SAIFI	1			01/17/16 17:41	1	47	Other
1A-1	BALDW8014	SAIFI	1			01/24/16 08:54	3	243	Animal or Bird
1A-1	BALDW8014	SAIFI	1			02/04/16 10:31	1	117	Other
1A-1	BALDW8014	SAIFI	1			02/14/16 14:59	1	121	Equipment
1A-1	BALDW8014	SAIFI	1			02/16/16 09:52	5	680	Equipment
1A-1	BALDW8014	SAIFI	1		DTE Catastrophic	02/22/16 12:15	1	423	Equipment
1A-1	BALDW8014	SAIFI	1		DTE Small Storm	02/25/16 11:56	1	124	Equipment
1A-1	BALDW8014	SAIFI	1			02/28/16 10:24	1	430	Animal or Bird
1A-1	BALDW8014	SAIFI	1			03/02/16 18:04	1	539	Equipment
1A-1	BALDW8014	SAIFI	1			03/07/16 06:42	107	12,412	Tree / Wind
1A-1	BALDW8014	SAIFI	1			03/07/16 15:31	14	826	Other
1A-1	BALDW8014	SAIFI	1			03/08/16 11:38	3	156	Other
1A-1	BALDW8014	SAIFI	1			04/17/16 09:16	1	62	Animal or Bird
1A-1	BALDW8014	SAIFI	1			05/31/16 15:42	1	35	Other
1A-1	BALDW8014	SAIFI	1		DTE Small Storm	06/05/16 00:43	1	703	Equipment
1A-1	BALDW8014	SAIFI	1		DTE Small Storm	06/07/16 08:15	1	287	Equipment
1A-1	BALDW8014	SAIFI	1			06/10/16 12:54	42	3,906	Animal or Bird
1A-1	BALDW8014	SAIFI	1		DTE Small Storm	06/11/16 16:00	2,974	710,786	Tree / Wind
1A-1	BALDW8014	SAIFI	1		DTE Small Storm	06/12/16 09:13	1	442	Animal or Bird
1A-1	BALDW8014	SAIFI	1			06/13/16 17:11	494	104,234	Equipment
1A-1	BALDW8014	SAIFI	1		DTE Small Storm	06/19/16 18:48	1	446	Equipment
1A-1	BALDW8014	SAIFI	1			06/23/16 08:05	2,991	449,494	Equipment
1A-1	BALDW8014	SAIFI	1			06/24/16 13:35	177	9,204	Intentional
1A-1	BALDW8014	SAIFI	1			06/25/16 09:05	2	284	Equipment
1A-1	BALDW8014	SAIFI	1			06/28/16 10:23	2	184	Animal or Bird
1A-1	BALDW8014	SAIFI	1			06/30/16 15:17	1	778	Equipment
1A-1	BALDW8014	SAIFI	1			07/04/16 04:09	39	3,315	Animal or Bird
1A-1	BALDW8014	SAIFI	1			07/04/16 04:09	1	70	Animal or Bird
1A-1	BALDW8014	SAIFI	1			07/04/16 23:20	1	383	Other
1A-1	BALDW8014	SAIFI	1			07/07/16 01:22	1	182	Equipment
1A-1	BALDW8014	SAIFI	1		DTE Small Storm	07/22/16 06:39	2,791	188,082	Other
1A-1	BALDW8014	SAIFI	1		DTE Small Storm	07/22/16 08:01	148	35,964	Equipment
1A-1	BALDW8014	SAIFI	1		DTE Small Storm	08/12/16 15:59	1	2,423	Lightning
1A-1	BALDW8014	SAIFI	1			08/23/16 18:42	2,980	375,480	Equipment
1A-1	BALDW8014	SAIFI	1			08/24/16 13:42	1	138	Other
1A-1	BALDW8014	SAIFI	1			08/31/16 13:13	162	2,754	Equipment
1A-1	BALDW8014	SAIFI	1			09/01/16 17:53	1	130	Other

Appendix 1A

Outage and Cause Listing - SAIFI - System Basis

Grey shading indicates single customer outage

	Circuit Name and Number	Metric	Rank	MED	Storm	Interruption Date/Time	Customers Interrupted	Customer Minutes Interrupted	Cause
1A-1	BALDW8014	SAIFI	1		DTE Small Storm	09/08/16 14:01	1	147	Lightning
1A-1	BALDW8014	SAIFI	1			09/23/16 10:46	1	178	Other
1A-1	BALDW8014	SAIFI	1			09/24/16 19:03	4	100	Other
1A-1	BALDW8014	SAIFI	1		DTE Small Storm	09/29/16 13:43	1	228	Tree / Wind
1A-1	BALDW8014	SAIFI	1			10/06/16 18:24	1	65	Animal or Bird
1A-1	BALDW8014	SAIFI	1			10/06/16 19:00	1	28	Animal or Bird
1A-1	BALDW8014	SAIFI	1			10/19/16 09:11	28	3,220	Equipment
1A-1	BALDW8014	SAIFI	1			11/10/16 09:51	1	1,438	Other
1A-1	BALDW8014	SAIFI	1			11/14/16 22:52	1	330	Other
1A-1	BALDW8014	SAIFI	1			11/15/16 07:18	1	193	Other
1A-1	BALDW8014	SAIFI	1			11/15/16 19:14	1	110	Other
1A-1	BALDW8014	SAIFI	1		DTE Small Storm	11/19/16 12:51	567	38,556	Other

Appendix 1A

Outage and Cause Listing - SAIFI - System Basis

Grey shading indicates single customer outage

	Circuit Name and Number	Metric	Rank	MED	Storm	Interruption Date/Time	Customers Interrupted	Customer Minutes Interrupted	Cause
1A-2	GODSN8134	SAIFI	2			01/21/16 11:51	1	68	Equipment
1A-2	GODSN8134	SAIFI	2			01/25/16 16:33	2,365	132,440	Equipment
1A-2	GODSN8134	SAIFI	2			01/26/16 19:39	1	76	Equipment
1A-2	GODSN8134	SAIFI	2			01/27/16 07:53	4	655	Equipment
1A-2	GODSN8134	SAIFI	2			02/03/16 00:10	6	330	Equipment
1A-2	GODSN8134	SAIFI	2			02/08/16 11:33	6	1,062	Other
1A-2	GODSN8134	SAIFI	2	MED	DTE Catastrophic	02/19/16 14:19	28	840	Tree / Wind
1A-2	GODSN8134	SAIFI	2	MED	DTE Catastrophic	02/19/16 20:18	11	27,654	Tree / Wind
1A-2	GODSN8134	SAIFI	2		DTE Small Storm	02/26/16 12:35	1	25	Equipment
1A-2	GODSN8134	SAIFI	2			03/03/16 11:55	1	560	Equipment
1A-2	GODSN8134	SAIFI	2			03/07/16 09:30	3	279	Equipment
1A-2	GODSN8134	SAIFI	2		DTE Small Storm	03/13/16 21:12	2,357	219,201	Tree / Wind
1A-2	GODSN8134	SAIFI	2		DTE Small Storm	03/16/16 16:39	8	9,800	Tree / Wind
1A-2	GODSN8134	SAIFI	2		DTE Small Storm	03/16/16 17:43	11	6,204	Tree / Wind
1A-2	GODSN8134	SAIFI	2			03/26/16 19:25	1	195	Equipment
1A-2	GODSN8134	SAIFI	2			03/27/16 12:36	1	260	Equipment
1A-2	GODSN8134	SAIFI	2			04/23/16 10:54	199	7,562	Equipment
1A-2	GODSN8134	SAIFI	2			05/02/16 06:00	1	200	Animal or Bird
1A-2	GODSN8134	SAIFI	2			05/02/16 12:46	1	305	Public Interference
1A-2	GODSN8134	SAIFI	2			05/11/16 09:52	3	171	Intentional
1A-2	GODSN8134	SAIFI	2			05/12/16 20:45	1	250	Equipment
1A-2	GODSN8134	SAIFI	2			05/17/16 13:23	80	7,760	Tree / Wind
1A-2	GODSN8134	SAIFI	2			05/18/16 11:03	27	3,132	Equipment
1A-2	GODSN8134	SAIFI	2			05/24/16 07:56	9	651	Animal or Bird
1A-2	GODSN8134	SAIFI	2			05/29/16 12:19	1	418	Public Interference
1A-2	GODSN8134	SAIFI	2			05/30/16 09:50	1	867	Other
1A-2	GODSN8134	SAIFI	2			06/11/16 08:37	1,123	96,566	Other
1A-2	GODSN8134	SAIFI	2		DTE Small Storm	06/21/16 11:58	1	2,193	Public Interference
1A-2	GODSN8134	SAIFI	2			06/22/16 15:24	1	81	Other
1A-2	GODSN8134	SAIFI	2			06/22/16 19:41	5	230	Animal or Bird
1A-2	GODSN8134	SAIFI	2			06/23/16 17:28	1	152	Tree / Wind
1A-2	GODSN8134	SAIFI	2			06/27/16 08:53	1	81	Animal or Bird
1A-2	GODSN8134	SAIFI	2			06/27/16 18:04	1	30	Other
1A-2	GODSN8134	SAIFI	2			06/27/16 19:39	1	30	Tree / Wind
1A-2	GODSN8134	SAIFI	2			06/27/16 19:53	1	31	Tree / Wind
1A-2	GODSN8134	SAIFI	2			06/27/16 19:53	58	2,146	Intentional
1A-2	GODSN8134	SAIFI	2			07/03/16 08:41	14	868	Other

Appendix 1A

Outage and Cause Listing - SAIFI - System Basis

Grey shading indicates single customer outage

	Circuit Name and Number	Metric	Rank	MED	Storm	Interruption Date/Time	Customers Interrupted	Customer Minutes Interrupted	Cause
1A-2	GODSN8134	SAIFI	2			07/04/16 10:58	1	196	Animal or Bird
1A-2	GODSN8134	SAIFI	2			07/04/16 19:18	3	705	Equipment
1A-2	GODSN8134	SAIFI	2			07/06/16 14:29	1	196	Public Interference
1A-2	GODSN8134	SAIFI	2			07/07/16 17:05	1	84	Equipment
1A-2	GODSN8134	SAIFI	2	MED	DTE Catastrophic	07/08/16 06:07	7	2,877	Tree / Wind
1A-2	GODSN8134	SAIFI	2		DTE Small Storm	07/13/16 19:46	60	5,700	Lightning
1A-2	GODSN8134	SAIFI	2		DTE Small Storm	07/14/16 05:51	3	1,602	Equipment
1A-2	GODSN8134	SAIFI	2		DTE Small Storm	07/14/16 11:04	1	50	Equipment
1A-2	GODSN8134	SAIFI	2		DTE Small Storm	07/14/16 13:47	1	88	Tree / Wind
1A-2	GODSN8134	SAIFI	2			07/16/16 15:35	1	84	Tree / Wind
1A-2	GODSN8134	SAIFI	2		DTE Small Storm	07/19/16 12:50	1	125	Other
1A-2	GODSN8134	SAIFI	2		DTE Small Storm	07/23/16 05:21	1	74	Tree / Wind
1A-2	GODSN8134	SAIFI	2		DTE Small Storm	07/30/16 05:08	1	145	Tree / Wind
1A-2	GODSN8134	SAIFI	2			08/12/16 08:57	35	2,170	Equipment
1A-2	GODSN8134	SAIFI	2		DTE Small Storm	08/12/16 16:19	145	15,805	Tree / Wind
1A-2	GODSN8134	SAIFI	2		DTE Small Storm	08/12/16 18:15	221	7,500	Tree / Wind
1A-2	GODSN8134	SAIFI	2		DTE Small Storm	08/12/16 21:20	83	11,371	Lightning
1A-2	GODSN8134	SAIFI	2		DTE Small Storm	08/16/16 03:34	1	641	Equipment
1A-2	GODSN8134	SAIFI	2		DTE Small Storm	08/16/16 11:53	11	1,056	Tree / Wind
1A-2	GODSN8134	SAIFI	2		DTE Small Storm	09/08/16 14:24	1	303	Other
1A-2	GODSN8134	SAIFI	2		DTE Small Storm	09/10/16 14:53	76	13,072	Equipment
1A-2	GODSN8134	SAIFI	2			09/26/16 16:41	1	143	Tree / Wind
1A-2	GODSN8134	SAIFI	2			09/27/16 10:32	1	627	Equipment
1A-2	GODSN8134	SAIFI	2		DTE Small Storm	09/29/16 17:24	4	508	Equipment
1A-2	GODSN8134	SAIFI	2		DTE Small Storm	09/29/16 20:49	107	16,920	Tree / Wind
1A-2	GODSN8134	SAIFI	2			10/03/16 19:00	2	28	Tree / Wind
1A-2	GODSN8134	SAIFI	2			10/03/16 19:00	16	224	Tree / Wind
1A-2	GODSN8134	SAIFI	2			10/05/16 19:26	1	637	Other
1A-2	GODSN8134	SAIFI	2			10/10/16 13:16	21	1,785	Equipment
1A-2	GODSN8134	SAIFI	2			10/10/16 20:23	1	157	Equipment
1A-2	GODSN8134	SAIFI	2			10/13/16 06:43	1	107	Other
1A-2	GODSN8134	SAIFI	2			10/18/16 01:58	2,378	242,755	Tree / Wind
1A-2	GODSN8134	SAIFI	2			10/18/16 13:16	40	16,440	Equipment
1A-2	GODSN8134	SAIFI	2			10/27/16 16:30	76	3,344	Tree / Wind
1A-2	GODSN8134	SAIFI	2			10/27/16 18:55	1	19	Tree / Wind
1A-2	GODSN8134	SAIFI	2			11/01/16 12:01	50	4,350	Other
1A-2	GODSN8134	SAIFI	2			11/02/16 10:36	1	344	Other

Appendix 1A

Outage and Cause Listing - SAIFI - System Basis

Grey shading indicates single customer outage

	Circuit Name and Number	Metric	Rank	MED	Storm	Interruption Date/Time	Customers Interrupted	Customer Minutes Interrupted	Cause
1A-2	GODSN8134	SAIFI	2			11/11/16 11:07	1	107	Equipment
1A-2	GODSN8134	SAIFI	2		DTE Small Storm	11/21/16 10:36	2	560	Tree / Wind
1A-2	GODSN8134	SAIFI	2		DTE Small Storm	11/21/16 18:51	64	1,344	Tree / Wind
1A-2	GODSN8134	SAIFI	2		DTE Small Storm	11/21/16 18:51	4	84	Tree / Wind
1A-2	GODSN8134	SAIFI	2			11/23/16 17:09	1	157	Tree / Wind
1A-2	GODSN8134	SAIFI	2			11/23/16 19:49	8	208	Tree / Wind
1A-2	GODSN8134	SAIFI	2		DTE Small Storm	11/28/16 22:07	240	84,960	Equipment
1A-2	GODSN8134	SAIFI	2		DTE Small Storm	11/29/16 03:02	989	58,351	Tree / Wind
1A-2	GODSN8134	SAIFI	2			12/01/16 13:55	219	20,367	Equipment
1A-2	GODSN8134	SAIFI	2			12/01/16 14:26	1	59	Equipment
1A-2	GODSN8134	SAIFI	2			12/01/16 15:14	966	13,524	Equipment
1A-2	GODSN8134	SAIFI	2			12/02/16 12:24	215	15,265	Equipment
1A-2	GODSN8134	SAIFI	2			12/02/16 12:35	1	60	Other
1A-2	GODSN8134	SAIFI	2			12/02/16 12:54	1	41	Other
1A-2	GODSN8134	SAIFI	2			12/02/16 13:21	956	13,384	Equipment
1A-2	GODSN8134	SAIFI	2		DTE Small Storm	12/27/16 09:18	1	205	Tree / Wind

Appendix 1A

Outage and Cause Listing - SAIFI - System Basis

Grey shading indicates single customer outage

	Circuit Name and Number	Metric	Rank	MED	Storm	Interruption Date/Time	Customers Interrupted	Customer Minutes Interrupted	Cause
1A-3	MOTT 9789	SAIFI	3			01/08/16 17:23	1	220	Equipment
1A-3	MOTT 9789	SAIFI	3		DTE Small Storm	01/11/16 03:54	10	5,960	Tree / Wind
1A-3	MOTT 9789	SAIFI	3		DTE Small Storm	01/11/16 11:23	2	294	Tree / Wind
1A-3	MOTT 9789	SAIFI	3		DTE Small Storm	01/11/16 16:15	1	104	Tree / Wind
1A-3	MOTT 9789	SAIFI	3		DTE Small Storm	01/11/16 18:24	1	170	Tree / Wind
1A-3	MOTT 9789	SAIFI	3			01/19/16 03:11	747	210,375	Equipment
1A-3	MOTT 9789	SAIFI	3			01/19/16 06:57	1,496	83,184	Equipment
1A-3	MOTT 9789	SAIFI	3			01/19/16 09:33	1	16	Equipment
1A-3	MOTT 9789	SAIFI	3			01/20/16 10:31	1	149	Other
1A-3	MOTT 9789	SAIFI	3			01/24/16 12:07	1	323	Equipment
1A-3	MOTT 9789	SAIFI	3			01/28/16 12:35	1	227	Equipment
1A-3	MOTT 9789	SAIFI	3		DTE Small Storm	02/28/16 20:40	9	8,073	Tree / Wind
1A-3	MOTT 9789	SAIFI	3			03/03/16 21:21	4,060	722,680	Equipment
1A-3	MOTT 9789	SAIFI	3			03/03/16 21:50	1	149	Equipment
1A-3	MOTT 9789	SAIFI	3			03/08/16 12:51	1	196	Tree / Wind
1A-3	MOTT 9789	SAIFI	3			03/08/16 14:10	11	1,298	Tree / Wind
1A-3	MOTT 9789	SAIFI	3			03/11/16 19:47	1	62	Public Interference
1A-3	MOTT 9789	SAIFI	3		DTE Small Storm	03/17/16 13:44	12	3,420	Tree / Wind
1A-3	MOTT 9789	SAIFI	3		DTE Small Storm	03/17/16 14:25	5	1,670	Tree / Wind
1A-3	MOTT 9789	SAIFI	3		DTE Small Storm	03/17/16 15:04	1	207	Tree / Wind
1A-3	MOTT 9789	SAIFI	3			03/24/16 11:11	1	24	Other
1A-3	MOTT 9789	SAIFI	3			03/31/16 19:15	73	25,769	Tree / Wind
1A-3	MOTT 9789	SAIFI	3			04/01/16 00:41	1	76	Tree / Wind
1A-3	MOTT 9789	SAIFI	3			04/11/16 13:22	1	124	Equipment
1A-3	MOTT 9789	SAIFI	3			04/13/16 17:46	1	128	Equipment
1A-3	MOTT 9789	SAIFI	3			04/29/16 10:15	10	260	Equipment
1A-3	MOTT 9789	SAIFI	3			04/29/16 10:15	9	234	Equipment
1A-3	MOTT 9789	SAIFI	3			05/02/16 12:33	3	180	Other
1A-3	MOTT 9789	SAIFI	3			05/10/16 18:35	1	159	Other
1A-3	MOTT 9789	SAIFI	3			05/10/16 21:20	5	405	Equipment
1A-3	MOTT 9789	SAIFI	3			05/19/16 09:23	2	260	Intentional
1A-3	MOTT 9789	SAIFI	3			05/22/16 15:19	1	210	Other
1A-3	MOTT 9789	SAIFI	3			05/30/16 10:08	1	472	Public Interference
1A-3	MOTT 9789	SAIFI	3			06/01/16 16:50	1	18	Other
1A-3	MOTT 9789	SAIFI	3			06/04/16 05:00	100	62,200	Public Interference
1A-3	MOTT 9789	SAIFI	3			06/09/16 11:44	1	78	Other
1A-3	MOTT 9789	SAIFI	3			06/13/16 14:26	61	16,819	Equipment

Appendix 1A

Outage and Cause Listing - SAIFI - System Basis

Grey shading indicates single customer outage

	Circuit Name and Number	Metric	Rank	MED	Storm	Interruption Date/Time	Customers Interrupted	Customer Minutes Interrupted	Cause
1A-3	MOTT 9789	SAIFI	3			06/13/16 17:58	38	1,178	Equipment
1A-3	MOTT 9789	SAIFI	3			06/14/16 15:17	1	73	Other
1A-3	MOTT 9789	SAIFI	3		DTE Small Storm	06/19/16 21:53	851	220,074	Equipment
1A-3	MOTT 9789	SAIFI	3			06/27/16 19:36	65	35,381	Other
1A-3	MOTT 9789	SAIFI	3			06/28/16 01:20	48	1,248	Equipment
1A-3	MOTT 9789	SAIFI	3			06/30/16 05:27	1	302	Tree / Wind
1A-3	MOTT 9789	SAIFI	3			07/02/16 14:07	1	226	Other
1A-3	MOTT 9789	SAIFI	3			07/05/16 11:27	1	148	Animal or Bird
1A-3	MOTT 9789	SAIFI	3	MED	DTE Catastrophic	07/08/16 00:05	62	38,988	Tree / Wind
1A-3	MOTT 9789	SAIFI	3	MED	DTE Catastrophic	07/08/16 19:17	101	87,769	Tree / Wind
1A-3	MOTT 9789	SAIFI	3		DTE Catastrophic	07/11/16 18:24	1	118	Tree / Wind
1A-3	MOTT 9789	SAIFI	3			07/12/16 15:41	1	1,328	Tree / Wind
1A-3	MOTT 9789	SAIFI	3		DTE Small Storm	07/13/16 06:53	29	5,655	Equipment
1A-3	MOTT 9789	SAIFI	3		DTE Small Storm	07/13/16 07:53	143	24,024	Other
1A-3	MOTT 9789	SAIFI	3			07/19/16 21:13	1	81	Animal or Bird
1A-3	MOTT 9789	SAIFI	3			07/20/16 00:21	22	5,094	Equipment
1A-3	MOTT 9789	SAIFI	3			07/20/16 11:47	1	133	Other
1A-3	MOTT 9789	SAIFI	3		DTE Small Storm	07/21/16 16:16	4,136	1,301,980	Tree / Wind
1A-3	MOTT 9789	SAIFI	3		DTE Small Storm	07/21/16 16:54	8	2,264	Other
1A-3	MOTT 9789	SAIFI	3		DTE Small Storm	07/21/16 18:07	30	29,310	Tree / Wind
1A-3	MOTT 9789	SAIFI	3		DTE Small Storm	07/22/16 13:37	1	1,348	Equipment
1A-3	MOTT 9789	SAIFI	3			07/27/16 15:11	1	327	Public Interference
1A-3	MOTT 9789	SAIFI	3			07/28/16 19:48	1	507	Other
1A-3	MOTT 9789	SAIFI	3			08/01/16 04:53	1	349	Equipment
1A-3	MOTT 9789	SAIFI	3			08/04/16 09:06	1	98	Intentional
1A-3	MOTT 9789	SAIFI	3			08/04/16 21:40	1	409	Tree / Wind
1A-3	MOTT 9789	SAIFI	3			08/10/16 08:20	1	159	Animal or Bird
1A-3	MOTT 9789	SAIFI	3			08/11/16 09:10	1	104	Animal or Bird
1A-3	MOTT 9789	SAIFI	3		DTE Small Storm	08/16/16 03:50	12	11,352	Tree / Wind
1A-3	MOTT 9789	SAIFI	3		DTE Small Storm	08/16/16 03:56	1	96	Equipment
1A-3	MOTT 9789	SAIFI	3		DTE Small Storm	08/16/16 04:01	1	918	Equipment
1A-3	MOTT 9789	SAIFI	3		DTE Small Storm	08/16/16 04:03	1	916	Equipment
1A-3	MOTT 9789	SAIFI	3		DTE Small Storm	08/16/16 05:04	1	920	Equipment
1A-3	MOTT 9789	SAIFI	3		DTE Small Storm	08/16/16 06:12	1	853	Equipment
1A-3	MOTT 9789	SAIFI	3		DTE Small Storm	08/16/16 08:41	1	638	Equipment
1A-3	MOTT 9789	SAIFI	3		DTE Small Storm	08/16/16 08:57	6	3,732	Equipment
1A-3	MOTT 9789	SAIFI	3		DTE Small Storm	08/17/16 01:48	1	26	Equipment

Appendix 1A

Outage and Cause Listing - SAIFI - System Basis

Grey shading indicates single customer outage

	Circuit Name and Number	Metric	Rank	MED	Storm	Interruption Date/Time	Customers Interrupted	Customer Minutes Interrupted	Cause
1A-3	MOTT 9789	SAIFI	3		DTE Small Storm	08/17/16 07:59	1	236	Tree / Wind
1A-3	MOTT 9789	SAIFI	3			08/21/16 10:35	14	2,456	Equipment
1A-3	MOTT 9789	SAIFI	3			08/25/16 10:06	8	1,000	Other
1A-3	MOTT 9789	SAIFI	3			09/03/16 15:20	1	49	Equipment
1A-3	MOTT 9789	SAIFI	3			09/06/16 14:37	1	51	Other
1A-3	MOTT 9789	SAIFI	3			09/07/16 12:43	2	102	Other
1A-3	MOTT 9789	SAIFI	3			09/07/16 12:43	5	250	Equipment
1A-3	MOTT 9789	SAIFI	3		DTE Small Storm	09/07/16 17:08	72	17,168	Tree / Wind
1A-3	MOTT 9789	SAIFI	3			09/17/16 09:12	37	3,219	Other
1A-3	MOTT 9789	SAIFI	3			09/23/16 14:21	1	1,392	Tree / Wind
1A-3	MOTT 9789	SAIFI	3			09/27/16 12:06	104	33,072	Tree / Wind
1A-3	MOTT 9789	SAIFI	3			09/28/16 16:42	1	115	Equipment
1A-3	MOTT 9789	SAIFI	3		DTE Small Storm	10/01/16 12:58	53	18,656	Equipment
1A-3	MOTT 9789	SAIFI	3			10/02/16 14:30	1	86	Equipment
1A-3	MOTT 9789	SAIFI	3			10/07/16 15:56	15	1,380	Public Interference
1A-3	MOTT 9789	SAIFI	3			10/13/16 13:22	1	503	Other
1A-3	MOTT 9789	SAIFI	3			10/28/16 11:14	1	167	Tree / Wind
1A-3	MOTT 9789	SAIFI	3			11/03/16 04:54	5	455	Tree / Wind
1A-3	MOTT 9789	SAIFI	3			11/03/16 06:08	12	204	Tree / Wind
1A-3	MOTT 9789	SAIFI	3			11/09/16 10:34	1	622	Other
1A-3	MOTT 9789	SAIFI	3			11/23/16 20:07	248	30,752	Equipment
1A-3	MOTT 9789	SAIFI	3			12/03/16 11:01	1	106	Tree / Wind
1A-3	MOTT 9789	SAIFI	3			12/09/16 12:46	4	176	Intentional

Appendix 1A

Outage and Cause Listing - SAIFI - System Basis

Grey shading indicates single customer outage

	Circuit Name and Number	Metric	Rank	MED	Storm	Interruption Date/Time	Customers Interrupted	Customer Minutes Interrupted	Cause
1A-4	WAREN8362	SAIFI	4		DTE Small Storm	01/10/16 08:05	3,831	674,069	Equipment
1A-4	WAREN8362	SAIFI	4			01/21/16 12:47	1	117	Intentional
1A-4	WAREN8362	SAIFI	4			01/31/16 20:07	1	268	Equipment
1A-4	WAREN8362	SAIFI	4			02/12/16 05:23	6,166	80,158	Intentional
1A-4	WAREN8362	SAIFI	4			02/12/16 19:03	1	888	Equipment
1A-4	WAREN8362	SAIFI	4	MED	DTE Catastrophic	02/19/16 23:07	29	19,082	Tree / Wind
1A-4	WAREN8362	SAIFI	4	MED	DTE Catastrophic	02/19/16 23:07	45	29,565	Tree / Wind
1A-4	WAREN8362	SAIFI	4		DTE Catastrophic	02/20/16 08:54	1	1,529	Equipment
1A-4	WAREN8362	SAIFI	4		DTE Catastrophic	02/20/16 09:40	1	1,454	Equipment
1A-4	WAREN8362	SAIFI	4		DTE Catastrophic	02/20/16 17:05	1	2,124	Tree / Wind
1A-4	WAREN8362	SAIFI	4		DTE Catastrophic	02/21/16 17:56	1	1,223	Equipment
1A-4	WAREN8362	SAIFI	4		DTE Small Storm	02/29/16 10:30	1	678	Equipment
1A-4	WAREN8362	SAIFI	4			03/02/16 16:17	1	71	Equipment
1A-4	WAREN8362	SAIFI	4			03/03/16 10:37	1	85	Equipment
1A-4	WAREN8362	SAIFI	4			03/11/16 16:06	1	322	Equipment
1A-4	WAREN8362	SAIFI	4			03/11/16 20:52	1	537	Equipment
1A-4	WAREN8362	SAIFI	4		DTE Small Storm	03/13/16 17:53	281	46,927	Equipment
1A-4	WAREN8362	SAIFI	4		DTE Small Storm	03/13/16 23:47	1	582	Equipment
1A-4	WAREN8362	SAIFI	4		DTE Small Storm	03/14/16 10:02	34	1,700	Intentional
1A-4	WAREN8362	SAIFI	4		DTE Small Storm	03/16/16 15:27	1	131	Equipment
1A-4	WAREN8362	SAIFI	4		DTE Small Storm	03/17/16 09:12	1	378	Equipment
1A-4	WAREN8362	SAIFI	4		DTE Small Storm	03/17/16 10:03	1	226	Equipment
1A-4	WAREN8362	SAIFI	4		DTE Small Storm	03/17/16 15:30	47	16,873	Tree / Wind
1A-4	WAREN8362	SAIFI	4		DTE Small Storm	03/17/16 15:56	30	9,990	Tree / Wind
1A-4	WAREN8362	SAIFI	4		DTE Small Storm	03/18/16 20:44	1	437	Equipment
1A-4	WAREN8362	SAIFI	4			04/01/16 10:13	1	136	Equipment
1A-4	WAREN8362	SAIFI	4			04/25/16 21:04	1	808	Equipment
1A-4	WAREN8362	SAIFI	4			05/15/16 19:44	1	849	Other
1A-4	WAREN8362	SAIFI	4			05/25/16 08:14	1	266	Other
1A-4	WAREN8362	SAIFI	4		DTE Small Storm	06/06/16 10:45	3	507	Tree / Wind
1A-4	WAREN8362	SAIFI	4			06/13/16 23:40	1	193	Other
1A-4	WAREN8362	SAIFI	4			06/14/16 04:49	3	72	Equipment
1A-4	WAREN8362	SAIFI	4			06/14/16 18:18	21	2,163	Animal or Bird
1A-4	WAREN8362	SAIFI	4			06/15/16 20:34	1	532	Other
1A-4	WAREN8362	SAIFI	4			06/17/16 23:55	73	40,953	Equipment
1A-4	WAREN8362	SAIFI	4			06/30/16 18:58	1	345	Other
1A-4	WAREN8362	SAIFI	4			07/06/16 17:04	1	1,312	Equipment

Appendix 1A

Outage and Cause Listing - SAIFI - System Basis

Grey shading indicates single customer outage

	Circuit Name and Number	Metric	Rank	MED	Storm	Interruption Date/Time	Customers Interrupted	Customer Minutes Interrupted	Cause
1A-4	WAREN8362	SAIFI	4			07/07/16 14:03	64	5,476	Equipment
1A-4	WAREN8362	SAIFI	4			07/07/16 14:35	1	163	Other
1A-4	WAREN8362	SAIFI	4		DTE Small Storm	07/12/16 18:13	1	1,620	Other
1A-4	WAREN8362	SAIFI	4		DTE Small Storm	07/13/16 20:07	207	233,496	Tree / Wind
1A-4	WAREN8362	SAIFI	4		DTE Small Storm	07/13/16 23:48	199	204,174	Tree / Wind
1A-4	WAREN8362	SAIFI	4		DTE Small Storm	07/14/16 11:17	24	4,752	Tree / Wind
1A-4	WAREN8362	SAIFI	4		DTE Small Storm	07/30/16 05:55	1	246	Tree / Wind
1A-4	WAREN8362	SAIFI	4			08/05/16 15:07	1	232	Tree / Wind
1A-4	WAREN8362	SAIFI	4			08/06/16 15:52	1	182	Equipment
1A-4	WAREN8362	SAIFI	4			08/11/16 09:26	30	3,240	Tree / Wind
1A-4	WAREN8362	SAIFI	4		DTE Small Storm	08/13/16 09:29	1	1,613	Animal or Bird
1A-4	WAREN8362	SAIFI	4		DTE Small Storm	08/14/16 19:21	16	5,904	Equipment
1A-4	WAREN8362	SAIFI	4		DTE Small Storm	08/16/16 17:15	1	3,264	Tree / Wind
1A-4	WAREN8362	SAIFI	4			08/19/16 15:49	1	1,240	Equipment
1A-4	WAREN8362	SAIFI	4			08/27/16 15:33	65	8,970	Tree / Wind
1A-4	WAREN8362	SAIFI	4			09/01/16 17:40	1	150	Equipment
1A-4	WAREN8362	SAIFI	4		DTE Small Storm	09/07/16 17:28	31	16,926	Tree / Wind
1A-4	WAREN8362	SAIFI	4		DTE Small Storm	09/08/16 12:23	18	7,290	Tree / Wind
1A-4	WAREN8362	SAIFI	4		DTE Small Storm	10/01/16 13:53	1	41	Intentional
1A-4	WAREN8362	SAIFI	4			10/03/16 19:11	40	3,120	Equipment
1A-4	WAREN8362	SAIFI	4			10/08/16 04:21	15	6,240	Tree / Wind
1A-4	WAREN8362	SAIFI	4			10/20/16 08:44	1	226	Other
1A-4	WAREN8362	SAIFI	4			11/14/16 22:36	1	849	Equipment
1A-4	WAREN8362	SAIFI	4			11/16/16 12:10	1	47	Other
1A-4	WAREN8362	SAIFI	4			11/22/16 08:16	1	256	Other
1A-4	WAREN8362	SAIFI	4			11/22/16 10:50	1	104	Other
1A-4	WAREN8362	SAIFI	4			12/08/16 18:51	1	141	Other
1A-4	WAREN8362	SAIFI	4			12/16/16 19:46	29	5,017	Equipment
1A-4	WAREN8362	SAIFI	4			12/16/16 19:49	1	170	Other
1A-4	WAREN8362	SAIFI	4			12/20/16 09:10	1	153	Other
1A-4	WAREN8362	SAIFI	4			12/30/16 10:09	1	66	Equipment

Appendix 1A

Outage and Cause Listing - SAIFI - System Basis

Grey shading indicates single customer outage

	Circuit Name and Number	Metric	Rank	MED	Storm	Interruption Date/Time	Customers Interrupted	Customer Minutes Interrupted	Cause
1A-5	WHMLK8099	SAIFI	5			01/05/16 16:16	1	97	Animal or Bird
1A-5	WHMLK8099	SAIFI	5			01/14/16 15:00	371	59,360	Tree / Wind
1A-5	WHMLK8099	SAIFI	5			01/14/16 17:29	1,295	14,245	Equipment
1A-5	WHMLK8099	SAIFI	5			01/14/16 19:41	1	558	Equipment
1A-5	WHMLK8099	SAIFI	5			01/31/16 12:34	1	118	Equipment
1A-5	WHMLK8099	SAIFI	5			02/01/16 23:11	27	3,820	Tree / Wind
1A-5	WHMLK8099	SAIFI	5			02/02/16 07:58	2	274	Equipment
1A-5	WHMLK8099	SAIFI	5			02/03/16 11:18	1	312	Equipment
1A-5	WHMLK8099	SAIFI	5	MED	DTE Catastrophic	02/19/16 21:19	687	983,097	Tree / Wind
1A-5	WHMLK8099	SAIFI	5		DTE Catastrophic	02/20/16 21:24	7	4,592	Tree / Wind
1A-5	WHMLK8099	SAIFI	5		DTE Catastrophic	02/20/16 21:26	1	734	Tree / Wind
1A-5	WHMLK8099	SAIFI	5		DTE Catastrophic	02/20/16 21:48	7	1,547	Tree / Wind
1A-5	WHMLK8099	SAIFI	5		DTE Catastrophic	02/20/16 21:49	1	718	Tree / Wind
1A-5	WHMLK8099	SAIFI	5		DTE Catastrophic	02/20/16 22:43	1	616	Tree / Wind
1A-5	WHMLK8099	SAIFI	5		DTE Catastrophic	02/20/16 22:50	1	605	Tree / Wind
1A-5	WHMLK8099	SAIFI	5		DTE Catastrophic	02/21/16 04:41	1	305	Tree / Wind
1A-5	WHMLK8099	SAIFI	5			02/23/16 15:39	1	204	Equipment
1A-5	WHMLK8099	SAIFI	5		DTE Small Storm	02/25/16 03:30	27	15,363	Tree / Wind
1A-5	WHMLK8099	SAIFI	5		DTE Small Storm	02/28/16 20:37	2,535	816,270	Other
1A-5	WHMLK8099	SAIFI	5		DTE Small Storm	02/29/16 07:02	1	283	Tree / Wind
1A-5	WHMLK8099	SAIFI	5		DTE Small Storm	02/29/16 07:12	1	158	Equipment
1A-5	WHMLK8099	SAIFI	5		DTE Small Storm	03/16/16 15:36	13	2,574	Tree / Wind
1A-5	WHMLK8099	SAIFI	5		DTE Small Storm	03/17/16 16:55	1	195	Tree / Wind
1A-5	WHMLK8099	SAIFI	5			03/20/16 07:24	1	514	Equipment
1A-5	WHMLK8099	SAIFI	5			03/26/16 19:28	2	424	Equipment
1A-5	WHMLK8099	SAIFI	5			04/25/16 12:16	27	918	Intentional
1A-5	WHMLK8099	SAIFI	5			05/14/16 19:01	1	192	Equipment
1A-5	WHMLK8099	SAIFI	5			05/16/16 13:16	1	286	Other
1A-5	WHMLK8099	SAIFI	5			05/19/16 17:56	1	259	Tree / Wind
1A-5	WHMLK8099	SAIFI	5			05/31/16 11:26	24	1,656	Public Interference
1A-5	WHMLK8099	SAIFI	5			05/31/16 12:25	223	3,345	Public Interference
1A-5	WHMLK8099	SAIFI	5			06/07/16 11:06	125	14,375	Other
1A-5	WHMLK8099	SAIFI	5		DTE Small Storm	06/11/16 14:11	3	657	Equipment
1A-5	WHMLK8099	SAIFI	5			06/18/16 22:33	2	314	Other
1A-5	WHMLK8099	SAIFI	5			06/28/16 12:57	1	158	Tree / Wind
1A-5	WHMLK8099	SAIFI	5			07/01/16 01:40	1	74	Animal or Bird
1A-5	WHMLK8099	SAIFI	5	MED	DTE Catastrophic	07/08/16 00:57	265	27,201	Lightning

Appendix 1A

Outage and Cause Listing - SAIFI - System Basis

Grey shading indicates single customer outage

	Circuit Name and Number	Metric	Rank	MED	Storm	Interruption Date/Time	Customers Interrupted	Customer Minutes Interrupted	Cause
1A-5	WHMLK8099	SAIFI	5	MED	DTE Catastrophic	07/08/16 18:44	78	54,054	Other
1A-5	WHMLK8099	SAIFI	5		DTE Catastrophic	07/09/16 10:58	20	12,640	Equipment
1A-5	WHMLK8099	SAIFI	5		DTE Catastrophic	07/10/16 16:03	1	116	Tree / Wind
1A-5	WHMLK8099	SAIFI	5		DTE Small Storm	07/12/16 20:48	1	1,241	Tree / Wind
1A-5	WHMLK8099	SAIFI	5		DTE Small Storm	07/12/16 20:49	27	13,905	Tree / Wind
1A-5	WHMLK8099	SAIFI	5		DTE Small Storm	07/13/16 15:52	1	97	Animal or Bird
1A-5	WHMLK8099	SAIFI	5		DTE Small Storm	07/14/16 06:28	108	19,332	Tree / Wind
1A-5	WHMLK8099	SAIFI	5		DTE Small Storm	07/14/16 17:11	1	1,438	Other
1A-5	WHMLK8099	SAIFI	5		DTE Small Storm	07/14/16 20:33	1	1,343	Other
1A-5	WHMLK8099	SAIFI	5		DTE Small Storm	07/30/16 13:03	1,199	191,840	Tree / Wind
1A-5	WHMLK8099	SAIFI	5		DTE Small Storm	07/30/16 16:01	1	7	Equipment
1A-5	WHMLK8099	SAIFI	5			08/11/16 07:58	1	41	Animal or Bird
1A-5	WHMLK8099	SAIFI	5			08/11/16 08:34	2	12	Other
1A-5	WHMLK8099	SAIFI	5		DTE Small Storm	08/12/16 18:43	1	25	Other
1A-5	WHMLK8099	SAIFI	5		DTE Small Storm	08/16/16 07:32	3	393	Tree / Wind
1A-5	WHMLK8099	SAIFI	5			08/17/16 15:33	97	30,641	Other
1A-5	WHMLK8099	SAIFI	5			08/17/16 20:32	1	91	Equipment
1A-5	WHMLK8099	SAIFI	5			08/17/16 22:14	6	1,548	Other
1A-5	WHMLK8099	SAIFI	5			08/17/16 22:20	5	1,260	Other
1A-5	WHMLK8099	SAIFI	5			08/18/16 05:46	4	3,836	Tree / Wind
1A-5	WHMLK8099	SAIFI	5			08/18/16 07:21	1	863	Tree / Wind
1A-5	WHMLK8099	SAIFI	5			08/18/16 08:46	1	778	Tree / Wind
1A-5	WHMLK8099	SAIFI	5			08/18/16 09:10	1	754	Tree / Wind
1A-5	WHMLK8099	SAIFI	5			08/23/16 09:10	1	80	Other
1A-5	WHMLK8099	SAIFI	5			09/02/16 12:33	4	468	Tree / Wind
1A-5	WHMLK8099	SAIFI	5			09/05/16 12:41	14	896	Other
1A-5	WHMLK8099	SAIFI	5		DTE Small Storm	09/10/16 17:54	4	1,532	Tree / Wind
1A-5	WHMLK8099	SAIFI	5			09/12/16 17:12	1	144	Equipment
1A-5	WHMLK8099	SAIFI	5			09/12/16 18:55	1	188	Equipment
1A-5	WHMLK8099	SAIFI	5			09/18/16 10:13	1	557	Equipment
1A-5	WHMLK8099	SAIFI	5			09/27/16 19:33	1	151	Equipment
1A-5	WHMLK8099	SAIFI	5		DTE Small Storm	09/29/16 14:18	81	22,275	Tree / Wind
1A-5	WHMLK8099	SAIFI	5		DTE Small Storm	09/29/16 14:44	1	249	Equipment
1A-5	WHMLK8099	SAIFI	5		DTE Small Storm	09/29/16 20:16	1	64	Equipment
1A-5	WHMLK8099	SAIFI	5		DTE Small Storm	09/30/16 07:36	150	21,900	Tree / Wind
1A-5	WHMLK8099	SAIFI	5		DTE Small Storm	09/30/16 08:55	1	710	Other
1A-5	WHMLK8099	SAIFI	5			10/06/16 09:44	1	135	Intentional

Appendix 1A

Outage and Cause Listing - SAIFI - System Basis

Grey shading indicates single customer outage

	Circuit Name and Number	Metric	Rank	MED	Storm	Interruption Date/Time	Customers Interrupted	Customer Minutes Interrupted	Cause
1A-5	WHMLK8099	SAIFI	5			10/06/16 09:57	9	972	Intentional
1A-5	WHMLK8099	SAIFI	5			10/06/16 09:57	50	5,400	Intentional
1A-5	WHMLK8099	SAIFI	5			10/06/16 09:57	77	8,316	Intentional
1A-5	WHMLK8099	SAIFI	5			10/06/16 10:39	16	1,120	Intentional
1A-5	WHMLK8099	SAIFI	5			10/06/16 11:00	1	45	Intentional
1A-5	WHMLK8099	SAIFI	5			10/06/16 11:29	1	16	Intentional
1A-5	WHMLK8099	SAIFI	5			10/06/16 12:59	1	60	Intentional
1A-5	WHMLK8099	SAIFI	5			10/06/16 13:13	1	46	Intentional
1A-5	WHMLK8099	SAIFI	5			10/06/16 13:29	1	30	Intentional
1A-5	WHMLK8099	SAIFI	5			10/13/16 02:01	3	1,887	Equipment
1A-5	WHMLK8099	SAIFI	5			10/13/16 02:04	1	655	Equipment
1A-5	WHMLK8099	SAIFI	5			10/13/16 02:18	2	1,254	Equipment
1A-5	WHMLK8099	SAIFI	5			10/13/16 05:19	1	655	Equipment
1A-5	WHMLK8099	SAIFI	5			10/13/16 05:51	1	412	Equipment
1A-5	WHMLK8099	SAIFI	5			10/13/16 05:57	371	150,626	Equipment
1A-5	WHMLK8099	SAIFI	5			10/15/16 19:49	1	266	Equipment
1A-5	WHMLK8099	SAIFI	5			10/19/16 12:28	1	30	Equipment
1A-5	WHMLK8099	SAIFI	5			10/21/16 11:17	1	123	Tree / Wind
1A-5	WHMLK8099	SAIFI	5			10/23/16 16:24	1	98	Tree / Wind
1A-5	WHMLK8099	SAIFI	5			10/27/16 01:38	106	10,982	Equipment
1A-5	WHMLK8099	SAIFI	5			11/03/16 13:11	2	52	Equipment
1A-5	WHMLK8099	SAIFI	5			11/13/16 17:41	1	54	Equipment
1A-5	WHMLK8099	SAIFI	5			11/25/16 12:36	1	118	Equipment
1A-5	WHMLK8099	SAIFI	5			12/08/16 18:49	56	1,904	Tree / Wind
1A-5	WHMLK8099	SAIFI	5			12/08/16 18:52	1	31	Tree / Wind
1A-5	WHMLK8099	SAIFI	5			12/23/16 23:42	1	155	Tree / Wind
1A-5	WHMLK8099	SAIFI	5			12/24/16 01:52	1	93	Tree / Wind
1A-5	WHMLK8099	SAIFI	5		DTE Small Storm	12/26/16 22:26	2,537	532,770	Equipment
1A-5	WHMLK8099	SAIFI	5		DTE Small Storm	12/27/16 08:00	1	274	Other
1A-5	WHMLK8099	SAIFI	5		DTE Small Storm	12/27/16 09:19	1	170	Equipment

Appendix 1B

Outage and Cause Listing - SAIFI - Circuit Basis

Grey shading indicates single customer outage

	Circuit Name and Number	Metric	Rank	MED	Storm	Interruption Date/Time	Customers Interrupted	Customer Minutes Interrupted	Cause
1B-1	WMSTN8033	SAIFI	1		DTE Small Storm	01/10/16 16:55	1	255	Other
1B-1	WMSTN8033	SAIFI	1			01/27/16 17:59	1	242	Equipment
1B-1	WMSTN8033	SAIFI	1			02/09/16 18:37	27	2,484	Equipment
1B-1	WMSTN8033	SAIFI	1	MED	DTE Catastrophic	02/19/16 18:07	1,146	123,768	Other
1B-1	WMSTN8033	SAIFI	1	MED	DTE Catastrophic	02/19/16 19:07	1	3,921	Equipment
1B-1	WMSTN8033	SAIFI	1	MED	DTE Catastrophic	02/19/16 21:22	6	21,642	Tree / Wind
1B-1	WMSTN8033	SAIFI	1		DTE Small Storm	02/24/16 18:59	97	14,162	Other
1B-1	WMSTN8033	SAIFI	1		DTE Small Storm	02/25/16 09:31	1	125	Equipment
1B-1	WMSTN8033	SAIFI	1		DTE Small Storm	02/25/16 11:55	1	350	Equipment
1B-1	WMSTN8033	SAIFI	1		DTE Small Storm	02/25/16 15:10	1	275	Equipment
1B-1	WMSTN8033	SAIFI	1		DTE Small Storm	02/26/16 12:27	58	2,494	Tree / Wind
1B-1	WMSTN8033	SAIFI	1			02/26/16 13:30	1	154	Equipment
1B-1	WMSTN8033	SAIFI	1		DTE Small Storm	02/28/16 22:34	1	779	Tree / Wind
1B-1	WMSTN8033	SAIFI	1		DTE Small Storm	02/28/16 22:45	2	1,470	Tree / Wind
1B-1	WMSTN8033	SAIFI	1		DTE Small Storm	03/16/16 15:15	1,147	205,313	Tree / Wind
1B-1	WMSTN8033	SAIFI	1			04/08/16 16:27	1	153	Other
1B-1	WMSTN8033	SAIFI	1			04/09/16 00:01	2	308	Tree / Wind
1B-1	WMSTN8033	SAIFI	1			04/21/16 02:57	1	222	Equipment
1B-1	WMSTN8033	SAIFI	1			05/26/16 17:51	1	86	Other
1B-1	WMSTN8033	SAIFI	1			06/17/16 18:38	1	81	Other
1B-1	WMSTN8033	SAIFI	1	MED	DTE Catastrophic	07/08/16 17:24	7	1,715	Tree / Wind
1B-1	WMSTN8033	SAIFI	1		DTE Small Storm	07/13/16 14:23	1	312	Tree / Wind
1B-1	WMSTN8033	SAIFI	1			07/17/16 11:44	25	4,150	Equipment
1B-1	WMSTN8033	SAIFI	1		DTE Small Storm	07/21/16 12:15	1	180	Equipment
1B-1	WMSTN8033	SAIFI	1		DTE Small Storm	07/31/16 14:53	1	151	Animal or Bird
1B-1	WMSTN8033	SAIFI	1		DTE Small Storm	08/12/16 20:06	453	265,005	Tree / Wind
1B-1	WMSTN8033	SAIFI	1		DTE Small Storm	08/13/16 00:23	1	538	Lightning
1B-1	WMSTN8033	SAIFI	1		DTE Small Storm	08/13/16 05:15	1	405	Lightning
1B-1	WMSTN8033	SAIFI	1		DTE Small Storm	08/13/16 06:30	1	824	Lightning
1B-1	WMSTN8033	SAIFI	1		DTE Small Storm	08/13/16 07:53	1	769	Equipment
1B-1	WMSTN8033	SAIFI	1		DTE Small Storm	08/16/16 07:57	27	4,131	Tree / Wind
1B-1	WMSTN8033	SAIFI	1		DTE Small Storm	08/16/16 08:23	1	195	Other
1B-1	WMSTN8033	SAIFI	1			08/17/16 14:33	44	7,568	Lightning
1B-1	WMSTN8033	SAIFI	1			08/17/16 16:13	16	11,312	Equipment
1B-1	WMSTN8033	SAIFI	1			08/17/16 16:25	176	10,560	Lightning
1B-1	WMSTN8033	SAIFI	1			08/18/16 08:24	1	116	Equipment
1B-1	WMSTN8033	SAIFI	1			08/19/16 12:24	1	396	Other

Appendix 1B

Outage and Cause Listing - SAIFI - Circuit Basis

Grey shading indicates single customer outage

	Circuit Name and Number	Metric	Rank	MED	Storm	Interruption Date/Time	Customers Interrupted	Customer Minutes Interrupted	Cause
1B-1	WMSTN8033	SAIFI	1			08/26/16 16:46	1	593	Equipment
1B-1	WMSTN8033	SAIFI	1			09/02/16 18:03	1	41	Equipment
1B-1	WMSTN8033	SAIFI	1			10/14/16 15:16	1	74	Equipment
1B-1	WMSTN8033	SAIFI	1			10/20/16 13:37	30	4,650	Other
1B-1	WMSTN8033	SAIFI	1			11/02/16 14:49	1	101	Tree / Wind
1B-1	WMSTN8033	SAIFI	1			11/10/16 15:33	193	22,967	Tree / Wind
1B-1	WMSTN8033	SAIFI	1			11/10/16 18:19	1	10	Equipment
1B-1	WMSTN8033	SAIFI	1			11/12/16 09:45	1	284	Equipment
1B-1	WMSTN8033	SAIFI	1		DTE Small Storm	11/19/16 07:27	1	573	Lightning
1B-1	WMSTN8033	SAIFI	1		DTE Small Storm	11/20/16 01:14	1	1,125	Equipment
1B-1	WMSTN8033	SAIFI	1		DTE Small Storm	11/29/16 09:57	1	182	Tree / Wind
1B-1	WMSTN8033	SAIFI	1		DTE Small Storm	11/29/16 12:35	12	888	Animal or Bird
1B-1	WMSTN8033	SAIFI	1			12/14/16 12:16	1	133	Equipment

Appendix 1B

Outage and Cause Listing - SAIFI - Circuit Basis

Grey shading indicates single customer outage

	Circuit Name and Number	Metric	Rank	MED	Storm	Interruption Date/Time	Customers Interrupted	Customer Minutes Interrupted	Cause
1B-2	PATON8870	SAIFI	2	MED	DTE Catastrophic	02/19/16 21:09	3	8,694	Tree / Wind
1B-2	PATON8870	SAIFI	2			03/31/16 14:59	17	2,355	Equipment
1B-2	PATON8870	SAIFI	2			06/01/16 19:49	1	83	Other
1B-2	PATON8870	SAIFI	2			06/27/16 08:09	1	214	Other
1B-2	PATON8870	SAIFI	2		DTE Small Storm	07/18/16 10:06	309	9,270	Intentional
1B-2	PATON8870	SAIFI	2			08/05/16 16:54	302	31,106	Public Interference
1B-2	PATON8870	SAIFI	2			08/05/16 19:29	1	615	Other
1B-2	PATON8870	SAIFI	2			08/06/16 01:37	4	412	Equipment
1B-2	PATON8870	SAIFI	2			08/06/16 04:24	304	75,984	Tree / Wind
1B-2	PATON8870	SAIFI	2			08/06/16 05:24	2,159	363,089	Tree / Wind
1B-2	PATON8870	SAIFI	2			08/06/16 09:40	2,363	21,267	Tree / Wind
1B-2	PATON8870	SAIFI	2			08/27/16 15:52	14	3,682	Equipment

Appendix 1B

Outage and Cause Listing - SAIFI - Circuit Basis

Grey shading indicates single customer outage

	Circuit Name and Number	Metric	Rank	MED	Storm	Interruption Date/Time	Customers Interrupted	Customer Minutes Interrupted	Cause
1B-3	WMSTN9857	SAIFI	3		DTE Small Storm	01/10/16 06:08	21	5,397	Tree / Wind
1B-3	WMSTN9857	SAIFI	3			01/14/16 14:43	1	467	Equipment
1B-3	WMSTN9857	SAIFI	3			01/29/16 10:26	1	110	Equipment
1B-3	WMSTN9857	SAIFI	3			02/06/16 10:05	6	720	Equipment
1B-3	WMSTN9857	SAIFI	3			02/10/16 11:16	512	4,608	Equipment
1B-3	WMSTN9857	SAIFI	3			02/10/16 13:49	1	116	Animal or Bird
1B-3	WMSTN9857	SAIFI	3			02/17/16 08:56	1	184	Equipment
1B-3	WMSTN9857	SAIFI	3	MED	DTE Catastrophic	02/19/16 16:00	1	120	Equipment
1B-3	WMSTN9857	SAIFI	3	MED	DTE Catastrophic	02/19/16 18:02	1	1,496	Equipment
1B-3	WMSTN9857	SAIFI	3	MED	DTE Catastrophic	02/19/16 21:00	216	165,672	Tree / Wind
1B-3	WMSTN9857	SAIFI	3	MED	DTE Catastrophic	02/19/16 22:23	8	5,568	Tree / Wind
1B-3	WMSTN9857	SAIFI	3	MED	DTE Catastrophic	02/19/16 22:29	1	515	Tree / Wind
1B-3	WMSTN9857	SAIFI	3	MED	DTE Catastrophic	02/19/16 23:00	1	484	Tree / Wind
1B-3	WMSTN9857	SAIFI	3	MED	DTE Catastrophic	02/19/16 23:09	10	6,500	Tree / Wind
1B-3	WMSTN9857	SAIFI	3	MED	DTE Catastrophic	02/19/16 23:15	7	4,508	Tree / Wind
1B-3	WMSTN9857	SAIFI	3		DTE Catastrophic	02/20/16 02:48	6	2,586	Tree / Wind
1B-3	WMSTN9857	SAIFI	3		DTE Catastrophic	02/20/16 06:22	1	197	Tree / Wind
1B-3	WMSTN9857	SAIFI	3		DTE Catastrophic	02/20/16 06:56	1	163	Tree / Wind
1B-3	WMSTN9857	SAIFI	3		DTE Catastrophic	02/20/16 07:16	1	143	Tree / Wind
1B-3	WMSTN9857	SAIFI	3		DTE Catastrophic	02/20/16 07:35	14	1,582	Tree / Wind
1B-3	WMSTN9857	SAIFI	3		DTE Catastrophic	02/20/16 07:39	5	700	Tree / Wind
1B-3	WMSTN9857	SAIFI	3		DTE Catastrophic	02/20/16 10:50	35	2,275	Tree / Wind
1B-3	WMSTN9857	SAIFI	3		DTE Small Storm	02/25/16 00:26	49	30,282	Tree / Wind
1B-3	WMSTN9857	SAIFI	3		DTE Small Storm	02/25/16 11:23	1	82	Tree / Wind
1B-3	WMSTN9857	SAIFI	3		DTE Small Storm	02/25/16 11:28	1	91	Tree / Wind
1B-3	WMSTN9857	SAIFI	3		DTE Small Storm	02/29/16 07:09	1	440	Tree / Wind
1B-3	WMSTN9857	SAIFI	3			03/01/16 15:15	41	3,198	Tree / Wind
1B-3	WMSTN9857	SAIFI	3		DTE Small Storm	03/16/16 16:16	25	2,850	Tree / Wind
1B-3	WMSTN9857	SAIFI	3			04/12/16 10:08	1	231	Equipment
1B-3	WMSTN9857	SAIFI	3			04/13/16 22:39	1	125	Other
1B-3	WMSTN9857	SAIFI	3			04/29/16 10:37	1	98	Equipment
1B-3	WMSTN9857	SAIFI	3			05/03/16 08:24	1	87	Equipment
1B-3	WMSTN9857	SAIFI	3			05/05/16 04:08	49	13,438	Tree / Wind
1B-3	WMSTN9857	SAIFI	3			05/13/16 05:15	1	205	Lightning
1B-3	WMSTN9857	SAIFI	3			05/15/16 16:07	2,453	426,822	Tree / Wind
1B-3	WMSTN9857	SAIFI	3			05/16/16 21:22	2	506	Equipment
1B-3	WMSTN9857	SAIFI	3			05/19/16 06:26	54	4,766	Equipment

Appendix 1B

Outage and Cause Listing - SAIFI - Circuit Basis

Grey shading indicates single customer outage

	Circuit Name and Number	Metric	Rank	MED	Storm	Interruption Date/Time	Customers Interrupted	Customer Minutes Interrupted	Cause
1B-3	WMSTN9857	SAIFI	3			05/26/16 08:12	1	48	Other
1B-3	WMSTN9857	SAIFI	3		DTE Small Storm	06/05/16 17:44	1	225	Equipment
1B-3	WMSTN9857	SAIFI	3			06/07/16 13:01	1	130	Animal or Bird
1B-3	WMSTN9857	SAIFI	3			06/16/16 12:32	3	426	Animal or Bird
1B-3	WMSTN9857	SAIFI	3			06/29/16 12:45	1	374	Equipment
1B-3	WMSTN9857	SAIFI	3			07/01/16 04:57	167	10,521	Tree / Wind
1B-3	WMSTN9857	SAIFI	3			07/01/16 08:33	1	141	Animal or Bird
1B-3	WMSTN9857	SAIFI	3			07/05/16 16:58	3	306	Animal or Bird
1B-3	WMSTN9857	SAIFI	3			07/07/16 12:35	1	115	Intentional
1B-3	WMSTN9857	SAIFI	3	MED	DTE Catastrophic	07/08/16 09:05	9	1,161	Tree / Wind
1B-3	WMSTN9857	SAIFI	3	MED	DTE Catastrophic	07/08/16 17:16	341	86,614	Tree / Wind
1B-3	WMSTN9857	SAIFI	3	MED	DTE Catastrophic	07/08/16 17:20	49	11,025	Tree / Wind
1B-3	WMSTN9857	SAIFI	3	MED	DTE Catastrophic	07/08/16 17:36	1	709	Other
1B-3	WMSTN9857	SAIFI	3	MED	DTE Catastrophic	07/08/16 17:50	1	695	Tree / Wind
1B-3	WMSTN9857	SAIFI	3		DTE Catastrophic	07/09/16 09:33	1	506	Other
1B-3	WMSTN9857	SAIFI	3		DTE Catastrophic	07/10/16 16:10	1	306	Other
1B-3	WMSTN9857	SAIFI	3		DTE Small Storm	07/12/16 18:49	1	1,316	Tree / Wind
1B-3	WMSTN9857	SAIFI	3		DTE Small Storm	07/12/16 20:22	10	8,020	Tree / Wind
1B-3	WMSTN9857	SAIFI	3		DTE Small Storm	07/13/16 16:05	1	114	Lightning
1B-3	WMSTN9857	SAIFI	3		DTE Small Storm	07/15/16 19:53	32	4,576	Equipment
1B-3	WMSTN9857	SAIFI	3		DTE Small Storm	07/18/16 08:24	1	126	Public Interference
1B-3	WMSTN9857	SAIFI	3		DTE Small Storm	07/19/16 15:53	1	197	Other
1B-3	WMSTN9857	SAIFI	3		DTE Small Storm	07/22/16 12:13	1	90	Other
1B-3	WMSTN9857	SAIFI	3		DTE Small Storm	07/23/16 10:27	1	162	Equipment
1B-3	WMSTN9857	SAIFI	3			07/27/16 13:00	1	59	Animal or Bird
1B-3	WMSTN9857	SAIFI	3			08/15/16 13:46	1	114	Animal or Bird
1B-3	WMSTN9857	SAIFI	3			08/15/16 23:53	22	2,706	Equipment
1B-3	WMSTN9857	SAIFI	3		DTE Small Storm	08/16/16 13:42	4	1,308	Equipment
1B-3	WMSTN9857	SAIFI	3			08/22/16 10:11	1	169	Tree / Wind
1B-3	WMSTN9857	SAIFI	3			08/23/16 11:15	10	1,250	Intentional
1B-3	WMSTN9857	SAIFI	3			09/05/16 16:12	1	111	Tree / Wind
1B-3	WMSTN9857	SAIFI	3		DTE Small Storm	09/07/16 13:34	1	115	Tree / Wind
1B-3	WMSTN9857	SAIFI	3		DTE Small Storm	09/07/16 14:36	1	84	Lightning
1B-3	WMSTN9857	SAIFI	3			09/21/16 14:03	25	2,400	Other
1B-3	WMSTN9857	SAIFI	3			09/25/16 15:55	26	1,898	Animal or Bird
1B-3	WMSTN9857	SAIFI	3		DTE Small Storm	09/29/16 14:27	1	142	Equipment
1B-3	WMSTN9857	SAIFI	3		DTE Small Storm	09/29/16 15:40	17	4,390	Tree / Wind

Appendix 1B

Outage and Cause Listing - SAIFI - Circuit Basis

Grey shading indicates single customer outage

	Circuit Name and Number	Metric	Rank	MED	Storm	Interruption Date/Time	Customers Interrupted	Customer Minutes Interrupted	Cause
1B-3	WMSTN9857	SAIFI	3			10/04/16 07:06	1	189	Tree / Wind
1B-3	WMSTN9857	SAIFI	3			10/06/16 20:38	1	184	Other
1B-3	WMSTN9857	SAIFI	3			10/07/16 15:40	5	130	Intentional
1B-3	WMSTN9857	SAIFI	3			10/19/16 16:05	26	1,820	Animal or Bird
1B-3	WMSTN9857	SAIFI	3			10/21/16 15:25	1	185	Public Interference
1B-3	WMSTN9857	SAIFI	3			10/25/16 13:34	1	100	Equipment
1B-3	WMSTN9857	SAIFI	3			10/26/16 11:33	1	81	Equipment
1B-3	WMSTN9857	SAIFI	3			11/02/16 14:42	30	3,600	Tree / Wind
1B-3	WMSTN9857	SAIFI	3			11/09/16 21:29	1	111	Equipment
1B-3	WMSTN9857	SAIFI	3		DTE Small Storm	11/18/16 19:42	97	137,061	Tree / Wind
1B-3	WMSTN9857	SAIFI	3		DTE Small Storm	11/19/16 08:37	1	173	Public Interference
1B-3	WMSTN9857	SAIFI	3		DTE Small Storm	11/19/16 21:05	1	444	Tree / Wind
1B-3	WMSTN9857	SAIFI	3		DTE Small Storm	11/20/16 07:55	1	489	Lightning
1B-3	WMSTN9857	SAIFI	3			11/23/16 19:33	84	10,584	Tree / Wind
1B-3	WMSTN9857	SAIFI	3			11/24/16 05:23	1	261	Tree / Wind
1B-3	WMSTN9857	SAIFI	3			11/25/16 16:34	1	175	Equipment
1B-3	WMSTN9857	SAIFI	3		DTE Small Storm	11/29/16 00:39	23	690	Tree / Wind
1B-3	WMSTN9857	SAIFI	3		DTE Small Storm	11/29/16 01:12	379	127,344	Tree / Wind
1B-3	WMSTN9857	SAIFI	3		DTE Small Storm	11/29/16 05:50	78	15,210	Equipment
1B-3	WMSTN9857	SAIFI	3		DTE Small Storm	11/29/16 07:03	15	4,200	Lightning
1B-3	WMSTN9857	SAIFI	3		DTE Small Storm	11/29/16 08:43	20	220	Other
1B-3	WMSTN9857	SAIFI	3		DTE Small Storm	11/29/16 08:48	1	10	Other
1B-3	WMSTN9857	SAIFI	3		DTE Small Storm	11/29/16 11:45	1	28	Other
1B-3	WMSTN9857	SAIFI	3			12/06/16 17:05	1	75	Equipment
1B-3	WMSTN9857	SAIFI	3			12/08/16 15:57	1	168	Equipment
1B-3	WMSTN9857	SAIFI	3			12/15/16 16:46	1	281	Other
1B-3	WMSTN9857	SAIFI	3			12/21/16 10:44	1	118	Other
1B-3	WMSTN9857	SAIFI	3			12/30/16 11:22	1	347	Other
1B-3	WMSTN9857	SAIFI	3			12/30/16 16:56	1	139	Other

Appendix 1B

Outage and Cause Listing - SAIFI - Circuit Basis

Grey shading indicates single customer outage

	Circuit Name and Number	Metric	Rank	MED	Storm	Interruption Date/Time	Customers Interrupted	Customer Minutes Interrupted	Cause
1B-4	SCOTN2042	SAIFI	4		DTE Small Storm	01/10/16 09:16	8	3,712	Tree / Wind
1B-4	SCOTN2042	SAIFI	4			02/05/16 16:24	1	155	Equipment
1B-4	SCOTN2042	SAIFI	4	MED	DTE Catastrophic	02/19/16 22:19	457	393,389	Tree / Wind
1B-4	SCOTN2042	SAIFI	4		DTE Catastrophic	02/20/16 13:04	15	18,375	Tree / Wind
1B-4	SCOTN2042	SAIFI	4		DTE Catastrophic	02/22/16 08:06	1	343	Equipment
1B-4	SCOTN2042	SAIFI	4			02/28/16 15:10	1	1,037	Equipment
1B-4	SCOTN2042	SAIFI	4			02/28/16 18:21	1	846	Equipment
1B-4	SCOTN2042	SAIFI	4			02/28/16 18:25	1	842	Equipment
1B-4	SCOTN2042	SAIFI	4			03/28/16 07:37	1,206	154,368	Equipment
1B-4	SCOTN2042	SAIFI	4			03/28/16 10:45	1	135	Tree / Wind
1B-4	SCOTN2042	SAIFI	4			05/16/16 10:34	1	83	Other
1B-4	SCOTN2042	SAIFI	4			05/20/16 18:56	449	161,640	Public Interference
1B-4	SCOTN2042	SAIFI	4			05/21/16 03:14	87	1,827	Public Interference
1B-4	SCOTN2042	SAIFI	4			05/21/16 03:28	10	2,380	Public Interference
1B-4	SCOTN2042	SAIFI	4			05/21/16 20:35	449	4,490	Public Interference
1B-4	SCOTN2042	SAIFI	4			05/25/16 08:39	1	110	Equipment
1B-4	SCOTN2042	SAIFI	4		DTE Small Storm	06/06/16 14:06	1	293	Tree / Wind
1B-4	SCOTN2042	SAIFI	4		DTE Small Storm	06/06/16 14:56	1	63	Tree / Wind
1B-4	SCOTN2042	SAIFI	4		DTE Small Storm	06/06/16 18:32	17	1,581	Tree / Wind
1B-4	SCOTN2042	SAIFI	4		DTE Small Storm	06/06/16 18:32	24	2,232	Tree / Wind
1B-4	SCOTN2042	SAIFI	4		DTE Small Storm	06/06/16 18:32	55	5,115	Tree / Wind
1B-4	SCOTN2042	SAIFI	4			06/15/16 13:25	1	195	Public Interference
1B-4	SCOTN2042	SAIFI	4			06/30/16 11:59	2	24	Intentional
1B-4	SCOTN2042	SAIFI	4			07/01/16 11:25	4	264	Intentional
1B-4	SCOTN2042	SAIFI	4		DTE Small Storm	07/17/16 17:53	107	87,249	Tree / Wind
1B-4	SCOTN2042	SAIFI	4		DTE Small Storm	07/21/16 12:46	117	11,817	Other
1B-4	SCOTN2042	SAIFI	4		DTE Small Storm	07/21/16 14:58	14	3,934	Tree / Wind
1B-4	SCOTN2042	SAIFI	4		DTE Small Storm	07/22/16 14:37	1	88	Public Interference
1B-4	SCOTN2042	SAIFI	4			07/28/16 08:40	1	85	Public Interference
1B-4	SCOTN2042	SAIFI	4			08/01/16 16:49	1	161	Equipment
1B-4	SCOTN2042	SAIFI	4			08/03/16 10:28	1	72	Intentional
1B-4	SCOTN2042	SAIFI	4			08/06/16 10:55	1	378	Other
1B-4	SCOTN2042	SAIFI	4			08/06/16 10:59	4	320	Tree / Wind
1B-4	SCOTN2042	SAIFI	4			08/11/16 18:32	12	1,092	Equipment
1B-4	SCOTN2042	SAIFI	4		DTE Small Storm	08/14/16 21:43	736	262,752	Equipment
1B-4	SCOTN2042	SAIFI	4			08/17/16 19:54	1	145	Other
1B-4	SCOTN2042	SAIFI	4		DTE Small Storm	09/08/16 12:17	1	19	Other

Appendix 1B

Outage and Cause Listing - SAIFI - Circuit Basis

Grey shading indicates single customer outage

	Circuit Name and Number	Metric	Rank	MED	Storm	Interruption Date/Time	Customers Interrupted	Customer Minutes Interrupted	Cause
1B-4	SCOTN2042	SAIFI	4		DTE Small Storm	09/10/16 18:31	3	1,632	Tree / Wind
1B-4	SCOTN2042	SAIFI	4			09/17/16 11:17	1	100	Tree / Wind
1B-4	SCOTN2042	SAIFI	4			09/17/16 11:26	1	96	Other
1B-4	SCOTN2042	SAIFI	4			09/26/16 14:19	1	150	Other
1B-4	SCOTN2042	SAIFI	4			09/27/16 16:40	4	692	Tree / Wind
1B-4	SCOTN2042	SAIFI	4			10/04/16 15:07	1	175	Tree / Wind
1B-4	SCOTN2042	SAIFI	4			10/10/16 15:20	1	190	Other
1B-4	SCOTN2042	SAIFI	4			10/18/16 20:20	1	240	Tree / Wind
1B-4	SCOTN2042	SAIFI	4			10/28/16 10:41	1	239	Tree / Wind
1B-4	SCOTN2042	SAIFI	4			10/28/16 10:50	3	69	Intentional
1B-4	SCOTN2042	SAIFI	4		DTE Small Storm	11/20/16 13:58	1	216	Tree / Wind
1B-4	SCOTN2042	SAIFI	4			11/26/16 17:44	1	162	Other
1B-4	SCOTN2042	SAIFI	4			11/26/16 17:51	8	504	Equipment
1B-4	SCOTN2042	SAIFI	4			12/09/16 13:19	1	61	Intentional
1B-4	SCOTN2042	SAIFI	4			12/09/16 14:10	3	510	Equipment
1B-4	SCOTN2042	SAIFI	4			12/12/16 10:04	28	728	Intentional
1B-4	SCOTN2042	SAIFI	4			12/20/16 09:50	30	2,580	Intentional
1B-4	SCOTN2042	SAIFI	4			12/20/16 19:41	44	4,972	Tree / Wind

Appendix 1B

Outage and Cause Listing - SAIFI - Circuit Basis

Grey shading indicates single customer outage

	Circuit Name and Number	Metric	Rank	MED	Storm	Interruption Date/Time	Customers Interrupted	Customer Minutes Interrupted	Cause
1B-5	TFANY8172	SAIFI	5		DTE Small Storm	01/10/16 12:45	299	140,231	Tree / Wind
1B-5	TFANY8172	SAIFI	5			01/15/16 17:25	331	70,503	Tree / Wind
1B-5	TFANY8172	SAIFI	5			01/15/16 19:22	207	19,872	Tree / Wind
1B-5	TFANY8172	SAIFI	5			02/03/16 14:38	838	129,093	Tree / Wind
1B-5	TFANY8172	SAIFI	5			02/03/16 19:31	1	929	Equipment
1B-5	TFANY8172	SAIFI	5		DTE Small Storm	02/25/16 11:41	1	152	Equipment
1B-5	TFANY8172	SAIFI	5		DTE Small Storm	03/17/16 18:46	1	1,275	Equipment
1B-5	TFANY8172	SAIFI	5			04/13/16 20:16	1	279	Equipment
1B-5	TFANY8172	SAIFI	5			05/06/16 14:30	1	123	Equipment
1B-5	TFANY8172	SAIFI	5			05/06/16 18:35	1	346	Equipment
1B-5	TFANY8172	SAIFI	5			05/21/16 09:58	4	748	Intentional
1B-5	TFANY8172	SAIFI	5		DTE Small Storm	06/05/16 14:45	3	42	Equipment
1B-5	TFANY8172	SAIFI	5		DTE Small Storm	06/05/16 17:20	14	16,212	Other
1B-5	TFANY8172	SAIFI	5			06/15/16 20:12	1	471	Other
1B-5	TFANY8172	SAIFI	5			06/25/16 21:57	1	482	Other
1B-5	TFANY8172	SAIFI	5			06/26/16 07:50	78	33,306	Intentional
1B-5	TFANY8172	SAIFI	5			06/26/16 14:28	1,440	44,131	Intentional
1B-5	TFANY8172	SAIFI	5			07/01/16 14:49	1,550	387,500	Public Interference
1B-5	TFANY8172	SAIFI	5	MED	DTE Catastrophic	07/08/16 19:22	1,502	2,350,630	Tree / Wind
1B-5	TFANY8172	SAIFI	5	MED	DTE Catastrophic	07/08/16 22:06	1	2,362	Other
1B-5	TFANY8172	SAIFI	5		DTE Catastrophic	07/09/16 08:28	1	829	Other
1B-5	TFANY8172	SAIFI	5		DTE Catastrophic	07/09/16 10:08	1	1,451	Other
1B-5	TFANY8172	SAIFI	5		DTE Catastrophic	07/09/16 10:10	1	1,712	Other
1B-5	TFANY8172	SAIFI	5		DTE Catastrophic	07/09/16 21:27	545	638,611	Tree / Wind
1B-5	TFANY8172	SAIFI	5		DTE Catastrophic	07/10/16 01:19	1,015	1,059,660	Tree / Wind
1B-5	TFANY8172	SAIFI	5		DTE Catastrophic	07/10/16 10:20	1	221	Other
1B-5	TFANY8172	SAIFI	5		DTE Catastrophic	07/10/16 15:11	1	1,805	Other
1B-5	TFANY8172	SAIFI	5		DTE Catastrophic	07/10/16 20:30	1	1,486	Other
1B-5	TFANY8172	SAIFI	5		DTE Catastrophic	07/10/16 21:38	34	43,554	Equipment
1B-5	TFANY8172	SAIFI	5		DTE Catastrophic	07/10/16 21:39	7	8,960	Equipment
1B-5	TFANY8172	SAIFI	5		DTE Catastrophic	07/10/16 21:55	25	23,600	Tree / Wind
1B-5	TFANY8172	SAIFI	5		DTE Catastrophic	07/10/16 22:04	1	1,375	Equipment
1B-5	TFANY8172	SAIFI	5		DTE Catastrophic	07/10/16 23:45	7	8,078	Equipment
1B-5	TFANY8172	SAIFI	5		DTE Catastrophic	07/11/16 10:05	1	474	Equipment
1B-5	TFANY8172	SAIFI	5		DTE Catastrophic	07/11/16 11:07	1	526	Equipment
1B-5	TFANY8172	SAIFI	5		DTE Catastrophic	07/11/16 12:44	15	825	Tree / Wind
1B-5	TFANY8172	SAIFI	5			07/11/16 21:31	31	24,056	Tree / Wind

Appendix 1B

Outage and Cause Listing - SAIFI - Circuit Basis

Grey shading indicates single customer outage

	Circuit Name and Number	Metric	Rank	MED	Storm	Interruption Date/Time	Customers Interrupted	Customer Minutes Interrupted	Cause
1B-5	TFANY8172	SAIFI	5		DTE Small Storm	07/12/16 18:33	1	1,406	Other
1B-5	TFANY8172	SAIFI	5		DTE Small Storm	07/13/16 10:31	6	1,440	Equipment
1B-5	TFANY8172	SAIFI	5		DTE Small Storm	07/13/16 17:10	1	992	Other
1B-5	TFANY8172	SAIFI	5		DTE Small Storm	07/13/16 19:57	1	908	Tree / Wind
1B-5	TFANY8172	SAIFI	5		DTE Small Storm	07/13/16 20:17	1	888	Tree / Wind
1B-5	TFANY8172	SAIFI	5		DTE Small Storm	07/14/16 00:26	1	2,054	Other
1B-5	TFANY8172	SAIFI	5		DTE Small Storm	07/14/16 10:20	1	429	Other
1B-5	TFANY8172	SAIFI	5		DTE Small Storm	07/14/16 22:41	1	531	Other
1B-5	TFANY8172	SAIFI	5			07/24/16 14:52	1	252	Other
1B-5	TFANY8172	SAIFI	5		DTE Small Storm	07/31/16 06:47	44	11,704	Tree / Wind
1B-5	TFANY8172	SAIFI	5			08/02/16 10:12	176	22,000	Equipment
1B-5	TFANY8172	SAIFI	5			08/03/16 09:16	1	1,514	Other
1B-5	TFANY8172	SAIFI	5			08/19/16 15:14	1	166	Other
1B-5	TFANY8172	SAIFI	5		DTE Small Storm	09/10/16 06:03	6	4,836	Animal or Bird
1B-5	TFANY8172	SAIFI	5			09/25/16 17:38	1	67	Other
1B-5	TFANY8172	SAIFI	5			09/26/16 11:22	1	188	Other
1B-5	TFANY8172	SAIFI	5			10/10/16 09:29	14	1,694	Animal or Bird
1B-5	TFANY8172	SAIFI	5			10/17/16 01:47	1	803	Other
1B-5	TFANY8172	SAIFI	5			11/12/16 20:46	1	215	Other
1B-5	TFANY8172	SAIFI	5			11/27/16 15:13	1	338	Other
1B-5	TFANY8172	SAIFI	5			12/02/16 16:51	1	158	Other
1B-5	TFANY8172	SAIFI	5			12/04/16 14:00	1	117	Tree / Wind
1B-5	TFANY8172	SAIFI	5			12/11/16 21:26	960	122,984	Equipment
1B-5	TFANY8172	SAIFI	5			12/29/16 12:38	829	38,134	Intentional
1B-5	TFANY8172	SAIFI	5			12/29/16 12:46	715	27,170	Intentional

Appendix 2A

Outage and Cause Listing - SAIDI - System Basis

Grey shading indicates single customer outage

	Circuit Name and Number	Metric	Rank	MED	Storm	Interruption Date/Time	Customers Interrupted	Customer Minutes Interrupted	Cause
2A-1	TFANY8172	SAIDI	1		DTE Small Storm	01/10/16 12:45	299	140,231	Tree / Wind
2A-1	TFANY8172	SAIDI	1			01/15/16 17:25	331	70,503	Tree / Wind
2A-1	TFANY8172	SAIDI	1			01/15/16 19:22	207	19,872	Tree / Wind
2A-1	TFANY8172	SAIDI	1			02/03/16 14:38	838	129,093	Tree / Wind
2A-1	TFANY8172	SAIDI	1			02/03/16 19:31	1	929	Equipment
2A-1	TFANY8172	SAIDI	1		DTE Small Storm	02/25/16 11:41	1	152	Equipment
2A-1	TFANY8172	SAIDI	1		DTE Small Storm	03/17/16 18:46	1	1,275	Equipment
2A-1	TFANY8172	SAIDI	1			04/13/16 20:16	1	279	Equipment
2A-1	TFANY8172	SAIDI	1			05/06/16 14:30	1	123	Equipment
2A-1	TFANY8172	SAIDI	1			05/06/16 18:35	1	346	Equipment
2A-1	TFANY8172	SAIDI	1			05/21/16 09:58	4	748	Intentional
2A-1	TFANY8172	SAIDI	1		DTE Small Storm	06/05/16 14:45	3	42	Equipment
2A-1	TFANY8172	SAIDI	1		DTE Small Storm	06/05/16 17:20	14	16,212	Other
2A-1	TFANY8172	SAIDI	1			06/15/16 20:12	1	471	Other
2A-1	TFANY8172	SAIDI	1			06/25/16 21:57	1	482	Other
2A-1	TFANY8172	SAIDI	1			06/26/16 07:50	78	33,306	Intentional
2A-1	TFANY8172	SAIDI	1			06/26/16 14:28	1,440	44,131	Intentional
2A-1	TFANY8172	SAIDI	1			07/01/16 14:49	1,550	387,500	Public Interference
2A-1	TFANY8172	SAIDI	1	MED	DTE Catastrophic	07/08/16 19:22	1,502	2,350,630	Tree / Wind
2A-1	TFANY8172	SAIDI	1	MED	DTE Catastrophic	07/08/16 22:06	1	2,362	Other
2A-1	TFANY8172	SAIDI	1		DTE Catastrophic	07/09/16 08:28	1	829	Other
2A-1	TFANY8172	SAIDI	1		DTE Catastrophic	07/09/16 10:08	1	1,451	Other
2A-1	TFANY8172	SAIDI	1		DTE Catastrophic	07/09/16 10:10	1	1,712	Other
2A-1	TFANY8172	SAIDI	1		DTE Catastrophic	07/09/16 21:27	545	638,611	Tree / Wind
2A-1	TFANY8172	SAIDI	1		DTE Catastrophic	07/10/16 01:19	1,015	1,059,660	Tree / Wind
2A-1	TFANY8172	SAIDI	1		DTE Catastrophic	07/10/16 10:20	1	221	Other
2A-1	TFANY8172	SAIDI	1		DTE Catastrophic	07/10/16 15:11	1	1,805	Other
2A-1	TFANY8172	SAIDI	1		DTE Catastrophic	07/10/16 20:30	1	1,486	Other
2A-1	TFANY8172	SAIDI	1		DTE Catastrophic	07/10/16 21:38	34	43,554	Equipment
2A-1	TFANY8172	SAIDI	1		DTE Catastrophic	07/10/16 21:39	7	8,960	Equipment
2A-1	TFANY8172	SAIDI	1		DTE Catastrophic	07/10/16 21:55	25	23,600	Tree / Wind
2A-1	TFANY8172	SAIDI	1		DTE Catastrophic	07/10/16 22:04	1	1,375	Equipment
2A-1	TFANY8172	SAIDI	1		DTE Catastrophic	07/10/16 23:45	7	8,078	Equipment
2A-1	TFANY8172	SAIDI	1		DTE Catastrophic	07/11/16 10:05	1	474	Equipment
2A-1	TFANY8172	SAIDI	1		DTE Catastrophic	07/11/16 11:07	1	526	Equipment
2A-1	TFANY8172	SAIDI	1		DTE Catastrophic	07/11/16 12:44	15	825	Tree / Wind
2A-1	TFANY8172	SAIDI	1			07/11/16 21:31	31	24,056	Tree / Wind

Appendix 2A

Outage and Cause Listing - SAIDI - System Basis

Grey shading indicates single customer outage

	Circuit Name and Number	Metric	Rank	MED	Storm	Interruption Date/Time	Customers Interrupted	Customer Minutes Interrupted	Cause
2A-1	TFANY8172	SAIDI	1		DTE Small Storm	07/12/16 18:33	1	1,406	Other
2A-1	TFANY8172	SAIDI	1		DTE Small Storm	07/13/16 10:31	6	1,440	Equipment
2A-1	TFANY8172	SAIDI	1		DTE Small Storm	07/13/16 17:10	1	992	Other
2A-1	TFANY8172	SAIDI	1		DTE Small Storm	07/13/16 19:57	1	908	Tree / Wind
2A-1	TFANY8172	SAIDI	1		DTE Small Storm	07/13/16 20:17	1	888	Tree / Wind
2A-1	TFANY8172	SAIDI	1		DTE Small Storm	07/14/16 00:26	1	2,054	Other
2A-1	TFANY8172	SAIDI	1		DTE Small Storm	07/14/16 10:20	1	429	Other
2A-1	TFANY8172	SAIDI	1		DTE Small Storm	07/14/16 22:41	1	531	Other
2A-1	TFANY8172	SAIDI	1			07/24/16 14:52	1	252	Other
2A-1	TFANY8172	SAIDI	1		DTE Small Storm	07/31/16 06:47	44	11,704	Tree / Wind
2A-1	TFANY8172	SAIDI	1			08/02/16 10:12	176	22,000	Equipment
2A-1	TFANY8172	SAIDI	1			08/03/16 09:16	1	1,514	Other
2A-1	TFANY8172	SAIDI	1			08/19/16 15:14	1	166	Other
2A-1	TFANY8172	SAIDI	1		DTE Small Storm	09/10/16 06:03	6	4,836	Animal or Bird
2A-1	TFANY8172	SAIDI	1			09/25/16 17:38	1	67	Other
2A-1	TFANY8172	SAIDI	1			09/26/16 11:22	1	188	Other
2A-1	TFANY8172	SAIDI	1			10/10/16 09:29	14	1,694	Animal or Bird
2A-1	TFANY8172	SAIDI	1			10/17/16 01:47	1	803	Other
2A-1	TFANY8172	SAIDI	1			11/12/16 20:46	1	215	Other
2A-1	TFANY8172	SAIDI	1			11/27/16 15:13	1	338	Other
2A-1	TFANY8172	SAIDI	1			12/02/16 16:51	1	158	Other
2A-1	TFANY8172	SAIDI	1			12/04/16 14:00	1	117	Tree / Wind
2A-1	TFANY8172	SAIDI	1			12/11/16 21:26	960	122,984	Equipment
2A-1	TFANY8172	SAIDI	1			12/29/16 12:38	829	38,134	Intentional
2A-1	TFANY8172	SAIDI	1			12/29/16 12:46	715	27,170	Intentional

Appendix 2A

Outage and Cause Listing - SAIDI - System Basis

Grey shading indicates single customer outage

	Circuit Name and Number	Metric	Rank	MED	Storm	Interruption Date/Time	Customers Interrupted	Customer Minutes Interrupted	Cause
2A-2	CONRD8130	SAIDI	2		DTE Small Storm	01/11/16 04:01	461	53,476	Equipment
2A-2	CONRD8130	SAIDI	2		DTE Small Storm	01/11/16 04:03	94	40,232	Equipment
2A-2	CONRD8130	SAIDI	2		DTE Small Storm	01/11/16 10:15	1	55	Equipment
2A-2	CONRD8130	SAIDI	2		DTE Small Storm	01/11/16 11:15	1	289	Other
2A-2	CONRD8130	SAIDI	2			01/17/16 10:55	1	305	Equipment
2A-2	CONRD8130	SAIDI	2			01/26/16 02:26	13	2,197	Equipment
2A-2	CONRD8130	SAIDI	2			01/31/16 20:38	1	52	Other
2A-2	CONRD8130	SAIDI	2			02/01/16 08:17	1	113	Equipment
2A-2	CONRD8130	SAIDI	2	MED	DTE Catastrophic	02/19/16 19:14	614	853,460	Tree / Wind
2A-2	CONRD8130	SAIDI	2	MED	DTE Catastrophic	02/19/16 19:27	1	782	Tree / Wind
2A-2	CONRD8130	SAIDI	2		DTE Catastrophic	02/20/16 08:31	1	2,114	Equipment
2A-2	CONRD8130	SAIDI	2		DTE Catastrophic	02/20/16 08:37	1	2,095	Tree / Wind
2A-2	CONRD8130	SAIDI	2		DTE Catastrophic	02/20/16 13:44	2	1,298	Tree / Wind
2A-2	CONRD8130	SAIDI	2		DTE Catastrophic	02/20/16 18:37	10	15,170	Tree / Wind
2A-2	CONRD8130	SAIDI	2		DTE Catastrophic	02/20/16 18:40	1	103	Tree / Wind
2A-2	CONRD8130	SAIDI	2		DTE Catastrophic	02/20/16 18:51	1	1,241	Tree / Wind
2A-2	CONRD8130	SAIDI	2		DTE Small Storm	02/25/16 00:38	58	8,236	Tree / Wind
2A-2	CONRD8130	SAIDI	2		DTE Small Storm	02/28/16 23:30	1	449	Other
2A-2	CONRD8130	SAIDI	2		DTE Small Storm	02/29/16 05:36	1	353	Equipment
2A-2	CONRD8130	SAIDI	2			03/02/16 21:38	1	172	Equipment
2A-2	CONRD8130	SAIDI	2			03/07/16 17:12	1	228	Equipment
2A-2	CONRD8130	SAIDI	2			03/10/16 07:29	3	363	Animal or Bird
2A-2	CONRD8130	SAIDI	2		DTE Small Storm	03/16/16 17:17	1	1,032	Tree / Wind
2A-2	CONRD8130	SAIDI	2			03/22/16 10:36	6	918	Animal or Bird
2A-2	CONRD8130	SAIDI	2			03/26/16 15:35	1	85	Equipment
2A-2	CONRD8130	SAIDI	2			03/28/16 09:19	1	102	Lightning
2A-2	CONRD8130	SAIDI	2			04/08/16 22:54	1	102	Equipment
2A-2	CONRD8130	SAIDI	2			04/15/16 08:24	1	65	Animal or Bird
2A-2	CONRD8130	SAIDI	2			04/17/16 06:33	5	835	Equipment
2A-2	CONRD8130	SAIDI	2			04/17/16 20:47	286	29,458	Tree / Wind
2A-2	CONRD8130	SAIDI	2			04/17/16 20:49	1	71	Tree / Wind
2A-2	CONRD8130	SAIDI	2			04/21/16 08:25	13	1,755	Animal or Bird
2A-2	CONRD8130	SAIDI	2			04/21/16 12:56	9	567	Equipment
2A-2	CONRD8130	SAIDI	2			04/23/16 04:29	391	41,446	Equipment
2A-2	CONRD8130	SAIDI	2			04/23/16 06:56	1	30	Equipment
2A-2	CONRD8130	SAIDI	2			04/23/16 09:05	1,067	48,015	Equipment
2A-2	CONRD8130	SAIDI	2			04/23/16 09:09	15	615	Equipment

Appendix 2A

Outage and Cause Listing - SAIDI - System Basis

Grey shading indicates single customer outage

	Circuit Name and Number	Metric	Rank	MED	Storm	Interruption Date/Time	Customers Interrupted	Customer Minutes Interrupted	Cause
2A-2	CONRD8130	SAIDI	2			04/23/16 09:10	72	2,880	Equipment
2A-2	CONRD8130	SAIDI	2			04/23/16 10:19	1	40	Equipment
2A-2	CONRD8130	SAIDI	2			04/25/16 11:29	1	151	Equipment
2A-2	CONRD8130	SAIDI	2			04/26/16 02:23	1	416	Lightning
2A-2	CONRD8130	SAIDI	2			05/01/16 08:31	1	164	Animal or Bird
2A-2	CONRD8130	SAIDI	2			05/02/16 08:03	1	132	Equipment
2A-2	CONRD8130	SAIDI	2			05/02/16 10:58	72	7,704	Other
2A-2	CONRD8130	SAIDI	2			05/05/16 09:22	1	57	Animal or Bird
2A-2	CONRD8130	SAIDI	2			05/05/16 18:53	1	97	Equipment
2A-2	CONRD8130	SAIDI	2			05/24/16 15:16	1	104	Other
2A-2	CONRD8130	SAIDI	2			05/24/16 16:51	1	98	Equipment
2A-2	CONRD8130	SAIDI	2			05/26/16 04:34	55	11,330	Tree / Wind
2A-2	CONRD8130	SAIDI	2			05/26/16 10:27	1	108	Equipment
2A-2	CONRD8130	SAIDI	2		DTE Small Storm	06/05/16 05:03	11	561	Equipment
2A-2	CONRD8130	SAIDI	2		DTE Small Storm	06/06/16 12:35	1	233	Animal or Bird
2A-2	CONRD8130	SAIDI	2			06/09/16 16:17	1	65	Animal or Bird
2A-2	CONRD8130	SAIDI	2			06/14/16 16:19	2	142	Animal or Bird
2A-2	CONRD8130	SAIDI	2			06/16/16 08:28	13	936	Animal or Bird
2A-2	CONRD8130	SAIDI	2			06/16/16 12:11	1	184	Animal or Bird
2A-2	CONRD8130	SAIDI	2			06/17/16 16:28	1	36	Equipment
2A-2	CONRD8130	SAIDI	2			06/19/16 08:08	2	284	Animal or Bird
2A-2	CONRD8130	SAIDI	2			06/19/16 13:06	1	114	Animal or Bird
2A-2	CONRD8130	SAIDI	2			06/22/16 08:39	1	116	Animal or Bird
2A-2	CONRD8130	SAIDI	2			06/22/16 10:38	1	134	Animal or Bird
2A-2	CONRD8130	SAIDI	2			06/23/16 08:17	1	72	Animal or Bird
2A-2	CONRD8130	SAIDI	2			06/23/16 11:39	1	150	Animal or Bird
2A-2	CONRD8130	SAIDI	2			06/25/16 07:55	1	164	Animal or Bird
2A-2	CONRD8130	SAIDI	2			06/26/16 10:05	1	155	Animal or Bird
2A-2	CONRD8130	SAIDI	2			06/28/16 08:57	2	206	Animal or Bird
2A-2	CONRD8130	SAIDI	2			06/28/16 16:22	1	117	Animal or Bird
2A-2	CONRD8130	SAIDI	2			07/03/16 10:07	1	112	Tree / Wind
2A-2	CONRD8130	SAIDI	2			07/04/16 00:06	1	143	Other
2A-2	CONRD8130	SAIDI	2			07/04/16 20:13	2	244	Equipment
2A-2	CONRD8130	SAIDI	2			07/04/16 22:26	1	153	Equipment
2A-2	CONRD8130	SAIDI	2		DTE Small Storm	07/19/16 07:55	13	2,795	Other
2A-2	CONRD8130	SAIDI	2		DTE Small Storm	07/23/16 14:40	1	112	Animal or Bird
2A-2	CONRD8130	SAIDI	2			07/25/16 11:08	1	52	Animal or Bird

Appendix 2A

Outage and Cause Listing - SAIDI - System Basis

Grey shading indicates single customer outage

	Circuit Name and Number	Metric	Rank	MED	Storm	Interruption Date/Time	Customers Interrupted	Customer Minutes Interrupted	Cause
2A-2	CONRD8130	SAIDI	2			07/27/16 16:45	1	165	Other
2A-2	CONRD8130	SAIDI	2			07/29/16 13:40	33	3,300	Public Interference
2A-2	CONRD8130	SAIDI	2		DTE Small Storm	07/31/16 07:28	1	329	Other
2A-2	CONRD8130	SAIDI	2		DTE Small Storm	07/31/16 18:22	2	672	Equipment
2A-2	CONRD8130	SAIDI	2		DTE Small Storm	07/31/16 23:25	1	214	Equipment
2A-2	CONRD8130	SAIDI	2			08/10/16 08:32	1	84	Animal or Bird
2A-2	CONRD8130	SAIDI	2			08/11/16 14:10	1	110	Animal or Bird
2A-2	CONRD8130	SAIDI	2		DTE Small Storm	08/12/16 19:47	15	15,630	Tree / Wind
2A-2	CONRD8130	SAIDI	2		DTE Small Storm	08/13/16 08:45	16	1,664	Tree / Wind
2A-2	CONRD8130	SAIDI	2		DTE Small Storm	08/13/16 08:53	1	146	Tree / Wind
2A-2	CONRD8130	SAIDI	2		DTE Small Storm	08/13/16 13:26	1	844	Equipment
2A-2	CONRD8130	SAIDI	2		DTE Small Storm	08/16/16 03:26	36	16,056	Tree / Wind
2A-2	CONRD8130	SAIDI	2			08/19/16 12:45	1	180	Equipment
2A-2	CONRD8130	SAIDI	2			08/20/16 05:58	62	10,024	Other
2A-2	CONRD8130	SAIDI	2			08/22/16 05:21	1	128	Animal or Bird
2A-2	CONRD8130	SAIDI	2			08/22/16 15:28	110	15,070	Public Interference
2A-2	CONRD8130	SAIDI	2			08/24/16 16:21	53	3,127	Other
2A-2	CONRD8130	SAIDI	2			08/25/16 08:36	1	226	Other
2A-2	CONRD8130	SAIDI	2			08/26/16 08:38	1	122	Equipment
2A-2	CONRD8130	SAIDI	2			08/28/16 14:33	2,397	19,176	Equipment
2A-2	CONRD8130	SAIDI	2			08/29/16 08:29	1	60	Equipment
2A-2	CONRD8130	SAIDI	2			08/29/16 09:18	1	79	Other
2A-2	CONRD8130	SAIDI	2			08/31/16 13:26	19	2,223	Equipment
2A-2	CONRD8130	SAIDI	2			09/01/16 08:52	1	98	Other
2A-2	CONRD8130	SAIDI	2			09/01/16 12:32	1	86	Animal or Bird
2A-2	CONRD8130	SAIDI	2			09/04/16 19:04	1	121	Animal or Bird
2A-2	CONRD8130	SAIDI	2		DTE Small Storm	09/07/16 18:29	1	645	Tree / Wind
2A-2	CONRD8130	SAIDI	2		DTE Small Storm	09/08/16 16:04	1	175	Other
2A-2	CONRD8130	SAIDI	2			09/09/16 13:42	1	123	Equipment
2A-2	CONRD8130	SAIDI	2			09/09/16 16:30	1	134	Equipment
2A-2	CONRD8130	SAIDI	2			09/17/16 08:37	6	1,104	Tree / Wind
2A-2	CONRD8130	SAIDI	2			09/22/16 18:42	1	93	Other
2A-2	CONRD8130	SAIDI	2			09/23/16 14:02	1	265	Other
2A-2	CONRD8130	SAIDI	2			09/26/16 12:45	1	194	Equipment
2A-2	CONRD8130	SAIDI	2		DTE Small Storm	09/30/16 07:26	2	546	Equipment
2A-2	CONRD8130	SAIDI	2		DTE Small Storm	09/30/16 15:22	9	1,629	Equipment
2A-2	CONRD8130	SAIDI	2			10/01/16 21:33	1	206	Other

Appendix 2A

Outage and Cause Listing - SAIDI - System Basis

Grey shading indicates single customer outage

	Circuit Name and Number	Metric	Rank	MED	Storm	Interruption Date/Time	Customers Interrupted	Customer Minutes Interrupted	Cause
2A-2	CONRD8130	SAIDI	2			10/05/16 11:21	1	114	Tree / Wind
2A-2	CONRD8130	SAIDI	2			10/09/16 00:10	19	4,859	Equipment
2A-2	CONRD8130	SAIDI	2			10/11/16 09:29	1	171	Equipment
2A-2	CONRD8130	SAIDI	2			10/16/16 14:17	1	67	Tree / Wind
2A-2	CONRD8130	SAIDI	2			10/20/16 09:26	1	39	Other
2A-2	CONRD8130	SAIDI	2			10/27/16 11:38	1	129	Equipment
2A-2	CONRD8130	SAIDI	2			11/05/16 11:27	45	4,545	Equipment
2A-2	CONRD8130	SAIDI	2			11/09/16 03:45	56	9,352	Equipment
2A-2	CONRD8130	SAIDI	2			11/12/16 07:13	1	155	Equipment
2A-2	CONRD8130	SAIDI	2			11/16/16 05:08	1	252	Public Interference
2A-2	CONRD8130	SAIDI	2		DTE Small Storm	11/18/16 19:42	2,303	2,887,962	Lightning
2A-2	CONRD8130	SAIDI	2		DTE Small Storm	11/19/16 09:30	1	2,113	Other
2A-2	CONRD8130	SAIDI	2		DTE Small Storm	11/19/16 10:57	1	422	Other
2A-2	CONRD8130	SAIDI	2		DTE Small Storm	11/19/16 13:06	1	1,900	Other
2A-2	CONRD8130	SAIDI	2		DTE Small Storm	11/19/16 13:51	13	15,639	Tree / Wind
2A-2	CONRD8130	SAIDI	2		DTE Small Storm	11/19/16 17:19	10	1,600	Tree / Wind
2A-2	CONRD8130	SAIDI	2		DTE Small Storm	11/19/16 17:32	11	957	Tree / Wind
2A-2	CONRD8130	SAIDI	2		DTE Small Storm	11/19/16 23:57	2	1,228	Tree / Wind
2A-2	CONRD8130	SAIDI	2		DTE Small Storm	11/20/16 00:28	4	4,196	Tree / Wind
2A-2	CONRD8130	SAIDI	2		DTE Small Storm	11/20/16 09:27	1	561	Tree / Wind
2A-2	CONRD8130	SAIDI	2		DTE Small Storm	11/20/16 09:56	1	374	Tree / Wind
2A-2	CONRD8130	SAIDI	2		DTE Small Storm	11/20/16 15:57	1	334	Other
2A-2	CONRD8130	SAIDI	2		DTE Small Storm	11/21/16 16:02	1	147	Equipment
2A-2	CONRD8130	SAIDI	2		DTE Small Storm	11/21/16 17:12	1	137	Other
2A-2	CONRD8130	SAIDI	2			11/22/16 17:17	1	66	Other
2A-2	CONRD8130	SAIDI	2			12/02/16 01:41	1	150	Equipment
2A-2	CONRD8130	SAIDI	2			12/05/16 17:20	1	69	Equipment
2A-2	CONRD8130	SAIDI	2			12/05/16 17:49	1	40	Equipment
2A-2	CONRD8130	SAIDI	2			12/09/16 18:54	1	190	
2A-2	CONRD8130	SAIDI	2			12/12/16 10:41	1	169	Equipment
2A-2	CONRD8130	SAIDI	2			12/18/16 09:10	1	163	Equipment
2A-2	CONRD8130	SAIDI	2			12/23/16 13:26	1	323	Public Interference
2A-2	CONRD8130	SAIDI	2			12/23/16 13:32	1	318	Public Interference
2A-2	CONRD8130	SAIDI	2			12/23/16 16:12	1	157	Public Interference
2A-2	CONRD8130	SAIDI	2			12/24/16 23:45	4	2,786	Equipment
2A-2	CONRD8130	SAIDI	2			12/31/16 10:28	2	172	Animal or Bird

Appendix 2A

Outage and Cause Listing - SAIDI - System Basis

Grey shading indicates single customer outage

	Circuit Name and Number	Metric	Rank	MED	Storm	Interruption Date/Time	Customers Interrupted	Customer Minutes Interrupted	Cause
2A-3	WHMLK8099	SAIDI	3			01/05/16 16:16	1	97	Animal or Bird
2A-3	WHMLK8099	SAIDI	3			01/14/16 15:00	371	59,360	Tree / Wind
2A-3	WHMLK8099	SAIDI	3			01/14/16 17:29	1,295	14,245	Equipment
2A-3	WHMLK8099	SAIDI	3			01/14/16 19:41	1	558	Equipment
2A-3	WHMLK8099	SAIDI	3			01/31/16 12:34	1	118	Equipment
2A-3	WHMLK8099	SAIDI	3			02/01/16 23:11	27	3,820	Tree / Wind
2A-3	WHMLK8099	SAIDI	3			02/02/16 07:58	2	274	Equipment
2A-3	WHMLK8099	SAIDI	3			02/03/16 11:18	1	312	Equipment
2A-3	WHMLK8099	SAIDI	3	MED	DTE Catastrophic	02/19/16 21:19	687	983,097	Tree / Wind
2A-3	WHMLK8099	SAIDI	3		DTE Catastrophic	02/20/16 21:24	7	4,592	Tree / Wind
2A-3	WHMLK8099	SAIDI	3		DTE Catastrophic	02/20/16 21:26	1	734	Tree / Wind
2A-3	WHMLK8099	SAIDI	3		DTE Catastrophic	02/20/16 21:48	7	1,547	Tree / Wind
2A-3	WHMLK8099	SAIDI	3		DTE Catastrophic	02/20/16 21:49	1	718	Tree / Wind
2A-3	WHMLK8099	SAIDI	3		DTE Catastrophic	02/20/16 22:43	1	616	Tree / Wind
2A-3	WHMLK8099	SAIDI	3		DTE Catastrophic	02/20/16 22:50	1	605	Tree / Wind
2A-3	WHMLK8099	SAIDI	3		DTE Catastrophic	02/21/16 04:41	1	305	Tree / Wind
2A-3	WHMLK8099	SAIDI	3			02/23/16 15:39	1	204	Equipment
2A-3	WHMLK8099	SAIDI	3		DTE Small Storm	02/25/16 03:30	27	15,363	Tree / Wind
2A-3	WHMLK8099	SAIDI	3		DTE Small Storm	02/28/16 20:37	2,535	816,270	Other
2A-3	WHMLK8099	SAIDI	3		DTE Small Storm	02/29/16 07:02	1	283	Tree / Wind
2A-3	WHMLK8099	SAIDI	3		DTE Small Storm	02/29/16 07:12	1	158	Equipment
2A-3	WHMLK8099	SAIDI	3		DTE Small Storm	03/16/16 15:36	13	2,574	Tree / Wind
2A-3	WHMLK8099	SAIDI	3		DTE Small Storm	03/17/16 16:55	1	195	Tree / Wind
2A-3	WHMLK8099	SAIDI	3			03/20/16 07:24	1	514	Equipment
2A-3	WHMLK8099	SAIDI	3			03/26/16 19:28	2	424	Equipment
2A-3	WHMLK8099	SAIDI	3			04/25/16 12:16	27	918	Intentional
2A-3	WHMLK8099	SAIDI	3			05/14/16 19:01	1	192	Equipment
2A-3	WHMLK8099	SAIDI	3			05/16/16 13:16	1	286	Other
2A-3	WHMLK8099	SAIDI	3			05/19/16 17:56	1	259	Tree / Wind
2A-3	WHMLK8099	SAIDI	3			05/31/16 11:26	24	1,656	Public Interference
2A-3	WHMLK8099	SAIDI	3			05/31/16 12:25	223	3,345	Public Interference
2A-3	WHMLK8099	SAIDI	3			06/07/16 11:06	125	14,375	Other
2A-3	WHMLK8099	SAIDI	3		DTE Small Storm	06/11/16 14:11	3	657	Equipment
2A-3	WHMLK8099	SAIDI	3			06/18/16 22:33	2	314	Other
2A-3	WHMLK8099	SAIDI	3			06/28/16 12:57	1	158	Tree / Wind
2A-3	WHMLK8099	SAIDI	3			07/01/16 01:40	1	74	Animal or Bird
2A-3	WHMLK8099	SAIDI	3	MED	DTE Catastrophic	07/08/16 00:57	265	27,201	Lightning

Appendix 2A

Outage and Cause Listing - SAIDI - System Basis

Grey shading indicates single customer outage

	Circuit Name and Number	Metric	Rank	MED	Storm	Interruption Date/Time	Customers Interrupted	Customer Minutes Interrupted	Cause
2A-3	WHMLK8099	SAIDI	3	MED	DTE Catastrophic	07/08/16 18:44	78	54,054	Other
2A-3	WHMLK8099	SAIDI	3		DTE Catastrophic	07/09/16 10:58	20	12,640	Equipment
2A-3	WHMLK8099	SAIDI	3		DTE Catastrophic	07/10/16 16:03	1	116	Tree / Wind
2A-3	WHMLK8099	SAIDI	3		DTE Small Storm	07/12/16 20:48	1	1,241	Tree / Wind
2A-3	WHMLK8099	SAIDI	3		DTE Small Storm	07/12/16 20:49	27	13,905	Tree / Wind
2A-3	WHMLK8099	SAIDI	3		DTE Small Storm	07/13/16 15:52	1	97	Animal or Bird
2A-3	WHMLK8099	SAIDI	3		DTE Small Storm	07/14/16 06:28	108	19,332	Tree / Wind
2A-3	WHMLK8099	SAIDI	3		DTE Small Storm	07/14/16 17:11	1	1,438	Other
2A-3	WHMLK8099	SAIDI	3		DTE Small Storm	07/14/16 20:33	1	1,343	Other
2A-3	WHMLK8099	SAIDI	3		DTE Small Storm	07/30/16 13:03	1,199	191,840	Tree / Wind
2A-3	WHMLK8099	SAIDI	3		DTE Small Storm	07/30/16 16:01	1	7	Equipment
2A-3	WHMLK8099	SAIDI	3			08/11/16 07:58	1	41	Animal or Bird
2A-3	WHMLK8099	SAIDI	3			08/11/16 08:34	2	12	Other
2A-3	WHMLK8099	SAIDI	3		DTE Small Storm	08/12/16 18:43	1	25	Other
2A-3	WHMLK8099	SAIDI	3		DTE Small Storm	08/16/16 07:32	3	393	Tree / Wind
2A-3	WHMLK8099	SAIDI	3			08/17/16 15:33	97	30,641	Other
2A-3	WHMLK8099	SAIDI	3			08/17/16 20:32	1	91	Equipment
2A-3	WHMLK8099	SAIDI	3			08/17/16 22:14	6	1,548	Other
2A-3	WHMLK8099	SAIDI	3			08/17/16 22:20	5	1,260	Other
2A-3	WHMLK8099	SAIDI	3			08/18/16 05:46	4	3,836	Tree / Wind
2A-3	WHMLK8099	SAIDI	3			08/18/16 07:21	1	863	Tree / Wind
2A-3	WHMLK8099	SAIDI	3			08/18/16 08:46	1	778	Tree / Wind
2A-3	WHMLK8099	SAIDI	3			08/18/16 09:10	1	754	Tree / Wind
2A-3	WHMLK8099	SAIDI	3			08/23/16 09:10	1	80	Other
2A-3	WHMLK8099	SAIDI	3			09/02/16 12:33	4	468	Tree / Wind
2A-3	WHMLK8099	SAIDI	3			09/05/16 12:41	14	896	Other
2A-3	WHMLK8099	SAIDI	3		DTE Small Storm	09/10/16 17:54	4	1,532	Tree / Wind
2A-3	WHMLK8099	SAIDI	3			09/12/16 17:12	1	144	Equipment
2A-3	WHMLK8099	SAIDI	3			09/12/16 18:55	1	188	Equipment
2A-3	WHMLK8099	SAIDI	3			09/18/16 10:13	1	557	Equipment
2A-3	WHMLK8099	SAIDI	3			09/27/16 19:33	1	151	Equipment
2A-3	WHMLK8099	SAIDI	3		DTE Small Storm	09/29/16 14:18	81	22,275	Tree / Wind
2A-3	WHMLK8099	SAIDI	3		DTE Small Storm	09/29/16 14:44	1	249	Equipment
2A-3	WHMLK8099	SAIDI	3		DTE Small Storm	09/29/16 20:16	1	64	Equipment
2A-3	WHMLK8099	SAIDI	3		DTE Small Storm	09/30/16 07:36	150	21,900	Tree / Wind
2A-3	WHMLK8099	SAIDI	3		DTE Small Storm	09/30/16 08:55	1	710	Other
2A-3	WHMLK8099	SAIDI	3			10/06/16 09:44	1	135	Intentional

Appendix 2A

Outage and Cause Listing - SAIDI - System Basis

Grey shading indicates single customer outage

	Circuit Name and Number	Metric	Rank	MED	Storm	Interruption Date/Time	Customers Interrupted	Customer Minutes Interrupted	Cause
2A-3	WHMLK8099	SAIDI	3			10/06/16 09:57	50	5,400	Intentional
2A-3	WHMLK8099	SAIDI	3			10/06/16 09:57	77	8,316	Intentional
2A-3	WHMLK8099	SAIDI	3			10/06/16 09:57	9	972	Intentional
2A-3	WHMLK8099	SAIDI	3			10/06/16 10:39	16	1,120	Intentional
2A-3	WHMLK8099	SAIDI	3			10/06/16 11:00	1	45	Intentional
2A-3	WHMLK8099	SAIDI	3			10/06/16 11:29	1	16	Intentional
2A-3	WHMLK8099	SAIDI	3			10/06/16 12:59	1	60	Intentional
2A-3	WHMLK8099	SAIDI	3			10/06/16 13:13	1	46	Intentional
2A-3	WHMLK8099	SAIDI	3			10/06/16 13:29	1	30	Intentional
2A-3	WHMLK8099	SAIDI	3			10/13/16 02:01	3	1,887	Equipment
2A-3	WHMLK8099	SAIDI	3			10/13/16 02:04	1	655	Equipment
2A-3	WHMLK8099	SAIDI	3			10/13/16 02:18	2	1,254	Equipment
2A-3	WHMLK8099	SAIDI	3			10/13/16 05:19	1	655	Equipment
2A-3	WHMLK8099	SAIDI	3			10/13/16 05:51	1	412	Equipment
2A-3	WHMLK8099	SAIDI	3			10/13/16 05:57	371	150,626	Equipment
2A-3	WHMLK8099	SAIDI	3			10/15/16 19:49	1	266	Equipment
2A-3	WHMLK8099	SAIDI	3			10/19/16 12:28	1	30	Equipment
2A-3	WHMLK8099	SAIDI	3			10/21/16 11:17	1	123	Tree / Wind
2A-3	WHMLK8099	SAIDI	3			10/23/16 16:24	1	98	Tree / Wind
2A-3	WHMLK8099	SAIDI	3			10/27/16 01:38	106	10,982	Equipment
2A-3	WHMLK8099	SAIDI	3			11/03/16 13:11	2	52	Equipment
2A-3	WHMLK8099	SAIDI	3			11/13/16 17:41	1	54	Equipment
2A-3	WHMLK8099	SAIDI	3			11/25/16 12:36	1	118	Equipment
2A-3	WHMLK8099	SAIDI	3			12/08/16 18:49	56	1,904	Tree / Wind
2A-3	WHMLK8099	SAIDI	3			12/08/16 18:52	1	31	Tree / Wind
2A-3	WHMLK8099	SAIDI	3			12/23/16 23:42	1	155	Tree / Wind
2A-3	WHMLK8099	SAIDI	3			12/24/16 01:52	1	93	Tree / Wind
2A-3	WHMLK8099	SAIDI	3		DTE Small Storm	12/26/16 22:26	2,537	532,770	Equipment
2A-3	WHMLK8099	SAIDI	3		DTE Small Storm	12/27/16 08:00	1	274	Other
2A-3	WHMLK8099	SAIDI	3		DTE Small Storm	12/27/16 09:19	1	170	Equipment

Appendix 2A

Outage and Cause Listing - SAIDI - System Basis

Grey shading indicates single customer outage

	Circuit Name and Number	Metric	Rank	MED	Storm	Interruption Date/Time	Customers Interrupted	Customer Minutes Interrupted	Cause
2A-4	MOTT 9789	SAIDI	4			01/08/16 17:23	1	220	Equipment
2A-4	MOTT 9789	SAIDI	4		DTE Small Storm	01/11/16 03:54	10	5,960	Tree / Wind
2A-4	MOTT 9789	SAIDI	4		DTE Small Storm	01/11/16 11:23	2	294	Tree / Wind
2A-4	MOTT 9789	SAIDI	4		DTE Small Storm	01/11/16 16:15	1	104	Tree / Wind
2A-4	MOTT 9789	SAIDI	4		DTE Small Storm	01/11/16 18:24	1	170	Tree / Wind
2A-4	MOTT 9789	SAIDI	4			01/19/16 03:11	747	210,375	Equipment
2A-4	MOTT 9789	SAIDI	4			01/19/16 06:57	1,496	83,184	Equipment
2A-4	MOTT 9789	SAIDI	4			01/19/16 09:33	1	16	Equipment
2A-4	MOTT 9789	SAIDI	4			01/20/16 10:31	1	149	Other
2A-4	MOTT 9789	SAIDI	4			01/24/16 12:07	1	323	Equipment
2A-4	MOTT 9789	SAIDI	4			01/28/16 12:35	1	227	Equipment
2A-4	MOTT 9789	SAIDI	4		DTE Small Storm	02/28/16 20:40	9	8,073	Tree / Wind
2A-4	MOTT 9789	SAIDI	4			03/03/16 21:21	4,060	722,680	Equipment
2A-4	MOTT 9789	SAIDI	4			03/03/16 21:50	1	149	Equipment
2A-4	MOTT 9789	SAIDI	4			03/08/16 12:51	1	196	Tree / Wind
2A-4	MOTT 9789	SAIDI	4			03/08/16 14:10	11	1,298	Tree / Wind
2A-4	MOTT 9789	SAIDI	4			03/11/16 19:47	1	62	Public Interference
2A-4	MOTT 9789	SAIDI	4		DTE Small Storm	03/17/16 13:44	12	3,420	Tree / Wind
2A-4	MOTT 9789	SAIDI	4		DTE Small Storm	03/17/16 14:25	5	1,670	Tree / Wind
2A-4	MOTT 9789	SAIDI	4		DTE Small Storm	03/17/16 15:04	1	207	Tree / Wind
2A-4	MOTT 9789	SAIDI	4			03/24/16 11:11	1	24	Other
2A-4	MOTT 9789	SAIDI	4			03/31/16 19:15	73	25,769	Tree / Wind
2A-4	MOTT 9789	SAIDI	4			04/01/16 00:41	1	76	Tree / Wind
2A-4	MOTT 9789	SAIDI	4			04/11/16 13:22	1	124	Equipment
2A-4	MOTT 9789	SAIDI	4			04/13/16 17:46	1	128	Equipment
2A-4	MOTT 9789	SAIDI	4			04/29/16 10:15	9	234	Equipment
2A-4	MOTT 9789	SAIDI	4			04/29/16 10:15	10	260	Equipment
2A-4	MOTT 9789	SAIDI	4			05/02/16 12:33	3	180	Other
2A-4	MOTT 9789	SAIDI	4			05/10/16 18:35	1	159	Other
2A-4	MOTT 9789	SAIDI	4			05/10/16 21:20	5	405	Equipment
2A-4	MOTT 9789	SAIDI	4			05/19/16 09:23	2	260	Intentional
2A-4	MOTT 9789	SAIDI	4			05/22/16 15:19	1	210	Other
2A-4	MOTT 9789	SAIDI	4			05/30/16 10:08	1	472	Public Interference
2A-4	MOTT 9789	SAIDI	4			06/01/16 16:50	1	18	Other
2A-4	MOTT 9789	SAIDI	4			06/04/16 05:00	100	62,200	Public Interference
2A-4	MOTT 9789	SAIDI	4			06/09/16 11:44	1	78	Other
2A-4	MOTT 9789	SAIDI	4			06/13/16 14:26	61	16,819	Equipment

Appendix 2A

Outage and Cause Listing - SAIDI - System Basis

Grey shading indicates single customer outage

	Circuit Name and Number	Metric	Rank	MED	Storm	Interruption Date/Time	Customers Interrupted	Customer Minutes Interrupted	Cause
2A-4	MOTT 9789	SAIDI	4			06/13/16 17:58	38	1,178	Equipment
2A-4	MOTT 9789	SAIDI	4			06/14/16 15:17	1	73	Other
2A-4	MOTT 9789	SAIDI	4		DTE Small Storm	06/19/16 21:53	851	220,074	Equipment
2A-4	MOTT 9789	SAIDI	4			06/27/16 19:36	65	35,381	Other
2A-4	MOTT 9789	SAIDI	4			06/28/16 01:20	48	1,248	Equipment
2A-4	MOTT 9789	SAIDI	4			06/30/16 05:27	1	302	Tree / Wind
2A-4	MOTT 9789	SAIDI	4			07/02/16 14:07	1	226	Other
2A-4	MOTT 9789	SAIDI	4			07/05/16 11:27	1	148	Animal or Bird
2A-4	MOTT 9789	SAIDI	4	MED	DTE Catastrophic	07/08/16 00:05	62	38,988	Tree / Wind
2A-4	MOTT 9789	SAIDI	4	MED	DTE Catastrophic	07/08/16 19:17	101	87,769	Tree / Wind
2A-4	MOTT 9789	SAIDI	4		DTE Catastrophic	07/11/16 18:24	1	118	Tree / Wind
2A-4	MOTT 9789	SAIDI	4			07/12/16 15:41	1	1,328	Tree / Wind
2A-4	MOTT 9789	SAIDI	4		DTE Small Storm	07/13/16 06:53	29	5,655	Equipment
2A-4	MOTT 9789	SAIDI	4		DTE Small Storm	07/13/16 07:53	143	24,024	Other
2A-4	MOTT 9789	SAIDI	4			07/19/16 21:13	1	81	Animal or Bird
2A-4	MOTT 9789	SAIDI	4			07/20/16 00:21	22	5,094	Equipment
2A-4	MOTT 9789	SAIDI	4			07/20/16 11:47	1	133	Other
2A-4	MOTT 9789	SAIDI	4		DTE Small Storm	07/21/16 16:16	4,136	1,301,980	Tree / Wind
2A-4	MOTT 9789	SAIDI	4		DTE Small Storm	07/21/16 16:54	8	2,264	Other
2A-4	MOTT 9789	SAIDI	4		DTE Small Storm	07/21/16 18:07	30	29,310	Tree / Wind
2A-4	MOTT 9789	SAIDI	4		DTE Small Storm	07/22/16 13:37	1	1,348	Equipment
2A-4	MOTT 9789	SAIDI	4			07/27/16 15:11	1	327	Public Interference
2A-4	MOTT 9789	SAIDI	4			07/28/16 19:48	1	507	Other
2A-4	MOTT 9789	SAIDI	4			08/01/16 04:53	1	349	Equipment
2A-4	MOTT 9789	SAIDI	4			08/04/16 09:06	1	98	Intentional
2A-4	MOTT 9789	SAIDI	4			08/04/16 21:40	1	409	Tree / Wind
2A-4	MOTT 9789	SAIDI	4			08/10/16 08:20	1	159	Animal or Bird
2A-4	MOTT 9789	SAIDI	4			08/11/16 09:10	1	104	Animal or Bird
2A-4	MOTT 9789	SAIDI	4		DTE Small Storm	08/16/16 03:50	12	11,352	Tree / Wind
2A-4	MOTT 9789	SAIDI	4		DTE Small Storm	08/16/16 03:56	1	96	Equipment
2A-4	MOTT 9789	SAIDI	4		DTE Small Storm	08/16/16 04:01	1	918	Equipment
2A-4	MOTT 9789	SAIDI	4		DTE Small Storm	08/16/16 04:03	1	916	Equipment
2A-4	MOTT 9789	SAIDI	4		DTE Small Storm	08/16/16 05:04	1	920	Equipment
2A-4	MOTT 9789	SAIDI	4		DTE Small Storm	08/16/16 06:12	1	853	Equipment
2A-4	MOTT 9789	SAIDI	4		DTE Small Storm	08/16/16 08:41	1	638	Equipment
2A-4	MOTT 9789	SAIDI	4		DTE Small Storm	08/16/16 08:57	6	3,732	Equipment
2A-4	MOTT 9789	SAIDI	4		DTE Small Storm	08/17/16 01:48	1	26	Equipment

Appendix 2A

Outage and Cause Listing - SAIDI - System Basis

Grey shading indicates single customer outage

	Circuit Name and Number	Metric	Rank	MED	Storm	Interruption Date/Time	Customers Interrupted	Customer Minutes Interrupted	Cause
2A-4	MOTT 9789	SAIDI	4		DTE Small Storm	08/17/16 07:59	1	236	Tree / Wind
2A-4	MOTT 9789	SAIDI	4			08/21/16 10:35	14	2,456	Equipment
2A-4	MOTT 9789	SAIDI	4			08/25/16 10:06	8	1,000	Other
2A-4	MOTT 9789	SAIDI	4			09/03/16 15:20	1	49	Equipment
2A-4	MOTT 9789	SAIDI	4			09/06/16 14:37	1	51	Other
2A-4	MOTT 9789	SAIDI	4			09/07/16 12:43	5	250	Equipment
2A-4	MOTT 9789	SAIDI	4			09/07/16 12:43	2	102	Other
2A-4	MOTT 9789	SAIDI	4		DTE Small Storm	09/07/16 17:08	72	17,168	Tree / Wind
2A-4	MOTT 9789	SAIDI	4			09/17/16 09:12	37	3,219	Other
2A-4	MOTT 9789	SAIDI	4			09/23/16 14:21	1	1,392	Tree / Wind
2A-4	MOTT 9789	SAIDI	4			09/27/16 12:06	104	33,072	Tree / Wind
2A-4	MOTT 9789	SAIDI	4			09/28/16 16:42	1	115	Equipment
2A-4	MOTT 9789	SAIDI	4		DTE Small Storm	10/01/16 12:58	53	18,656	Equipment
2A-4	MOTT 9789	SAIDI	4			10/02/16 14:30	1	86	Equipment
2A-4	MOTT 9789	SAIDI	4			10/07/16 15:56	15	1,380	Public Interference
2A-4	MOTT 9789	SAIDI	4			10/13/16 13:22	1	503	Other
2A-4	MOTT 9789	SAIDI	4			10/28/16 11:14	1	167	Tree / Wind
2A-4	MOTT 9789	SAIDI	4			11/03/16 04:54	5	455	Tree / Wind
2A-4	MOTT 9789	SAIDI	4			11/03/16 06:08	12	204	Tree / Wind
2A-4	MOTT 9789	SAIDI	4			11/09/16 10:34	1	622	Other
2A-4	MOTT 9789	SAIDI	4			11/23/16 20:07	248	30,752	Equipment
2A-4	MOTT 9789	SAIDI	4			12/03/16 11:01	1	106	Tree / Wind
2A-4	MOTT 9789	SAIDI	4			12/09/16 12:46	4	176	Intentional

Appendix 2A

Outage and Cause Listing - SAIDI - System Basis

Grey shading indicates single customer outage

	Circuit Name and Number	Metric	Rank	MED	Storm	Interruption Date/Time	Customers Interrupted	Customer Minutes Interrupted	Cause
2A-5	CONRD9792	SAIDI	5			01/14/16 15:28	1	402	Equipment
2A-5	CONRD9792	SAIDI	5	MED	DTE Catastrophic	02/19/16 19:05	677	77,855	Tree / Wind
2A-5	CONRD9792	SAIDI	5	MED	DTE Catastrophic	02/19/16 21:33	1	2,073	Tree / Wind
2A-5	CONRD9792	SAIDI	5		DTE Small Storm	02/29/16 11:23	1	117	Equipment
2A-5	CONRD9792	SAIDI	5			03/27/16 17:54	52	5,909	Equipment
2A-5	CONRD9792	SAIDI	5			03/27/16 17:59	3	1,968	Equipment
2A-5	CONRD9792	SAIDI	5			05/12/16 17:36	295	12,095	Other
2A-5	CONRD9792	SAIDI	5			05/14/16 00:30	295	23,305	Equipment
2A-5	CONRD9792	SAIDI	5			05/16/16 16:55	1	185	Tree / Wind
2A-5	CONRD9792	SAIDI	5			05/25/16 01:24	55	11,055	Other
2A-5	CONRD9792	SAIDI	5			06/04/16 09:51	162	6,318	Animal or Bird
2A-5	CONRD9792	SAIDI	5			06/13/16 08:26	1	333	Tree / Wind
2A-5	CONRD9792	SAIDI	5			07/06/16 13:39	1	281	Equipment
2A-5	CONRD9792	SAIDI	5		DTE Small Storm	07/23/16 07:54	39	2,613	Equipment
2A-5	CONRD9792	SAIDI	5		DTE Small Storm	08/13/16 09:55	1	1,474	Lightning
2A-5	CONRD9792	SAIDI	5			08/17/16 19:02	291	13,677	Animal or Bird
2A-5	CONRD9792	SAIDI	5			08/20/16 13:06	2,243	131,362	Animal or Bird
2A-5	CONRD9792	SAIDI	5			08/22/16 18:19	151	8,003	Animal or Bird
2A-5	CONRD9792	SAIDI	5			08/24/16 16:17	160	4,320	Other
2A-5	CONRD9792	SAIDI	5			08/25/16 14:10	1,879	87,041	Equipment
2A-5	CONRD9792	SAIDI	5			08/25/16 14:33	1	79	Equipment
2A-5	CONRD9792	SAIDI	5			08/28/16 14:33	1,809	14,472	Equipment
2A-5	CONRD9792	SAIDI	5		DTE Small Storm	09/10/16 16:52	10	1,870	Tree / Wind
2A-5	CONRD9792	SAIDI	5			09/17/16 16:01	1	65	Equipment
2A-5	CONRD9792	SAIDI	5		DTE Small Storm	11/18/16 19:38	1,989	2,502,162	Lightning
2A-5	CONRD9792	SAIDI	5		DTE Small Storm	11/19/16 12:33	1	243	Other
2A-5	CONRD9792	SAIDI	5		DTE Small Storm	11/19/16 22:50	45	32,175	Tree / Wind
2A-5	CONRD9792	SAIDI	5		DTE Small Storm	11/20/16 05:56	52	19,175	Tree / Wind
2A-5	CONRD9792	SAIDI	5		DTE Small Storm	11/20/16 08:03	1	536	Equipment
2A-5	CONRD9792	SAIDI	5			11/24/16 21:50	24	2,880	Equipment
2A-5	CONRD9792	SAIDI	5			12/09/16 18:54	1	112	Other
2A-5	CONRD9792	SAIDI	5			12/12/16 10:18	1	178	Equipment
2A-5	CONRD9792	SAIDI	5			12/13/16 06:46	1	185	Other
2A-5	CONRD9792	SAIDI	5			12/13/16 14:30	1	156	Other
2A-5	CONRD9792	SAIDI	5			12/28/16 10:24	1	126	Equipment

Appendix 2B

Outage and Cause Listing - SAIDI - Circuit Basis

Grey shading indicates single customer outage

	Circuit Name and Number	Metric	Rank	MED	Storm	Interruption Date/Time	Customers Interrupted	Customer Minutes Interrupted	Cause
2B-1	TFANY8172	SAIDI	1		DTE Small Storm	01/10/16 12:45	299	140,231	Tree / Wind
2B-1	TFANY8172	SAIDI	1			01/15/16 17:25	331	70,503	Tree / Wind
2B-1	TFANY8172	SAIDI	1			01/15/16 19:22	207	19,872	Tree / Wind
2B-1	TFANY8172	SAIDI	1			02/03/16 14:38	838	129,093	Tree / Wind
2B-1	TFANY8172	SAIDI	1			02/03/16 19:31	1	929	Equipment
2B-1	TFANY8172	SAIDI	1		DTE Small Storm	02/25/16 11:41	1	152	Equipment
2B-1	TFANY8172	SAIDI	1		DTE Small Storm	03/17/16 18:46	1	1,275	Equipment
2B-1	TFANY8172	SAIDI	1			04/13/16 20:16	1	279	Equipment
2B-1	TFANY8172	SAIDI	1			05/06/16 14:30	1	123	Equipment
2B-1	TFANY8172	SAIDI	1			05/06/16 18:35	1	346	Equipment
2B-1	TFANY8172	SAIDI	1			05/21/16 09:58	4	748	Intentional
2B-1	TFANY8172	SAIDI	1		DTE Small Storm	06/05/16 14:45	3	42	Equipment
2B-1	TFANY8172	SAIDI	1		DTE Small Storm	06/05/16 17:20	14	16,212	Other
2B-1	TFANY8172	SAIDI	1			06/15/16 20:12	1	471	Other
2B-1	TFANY8172	SAIDI	1			06/25/16 21:57	1	482	Other
2B-1	TFANY8172	SAIDI	1			06/26/16 07:50	78	33,306	Intentional
2B-1	TFANY8172	SAIDI	1			06/26/16 14:28	1,440	44,131	Intentional
2B-1	TFANY8172	SAIDI	1			07/01/16 14:49	1,550	387,500	Public Interference
2B-1	TFANY8172	SAIDI	1	MED	DTE Catastrophic	07/08/16 19:22	1,502	2,350,630	Tree / Wind
2B-1	TFANY8172	SAIDI	1	MED	DTE Catastrophic	07/08/16 22:06	1	2,362	Other
2B-1	TFANY8172	SAIDI	1		DTE Catastrophic	07/09/16 08:28	1	829	Other
2B-1	TFANY8172	SAIDI	1		DTE Catastrophic	07/09/16 10:08	1	1,451	Other
2B-1	TFANY8172	SAIDI	1		DTE Catastrophic	07/09/16 10:10	1	1,712	Other
2B-1	TFANY8172	SAIDI	1		DTE Catastrophic	07/09/16 21:27	545	638,611	Tree / Wind
2B-1	TFANY8172	SAIDI	1		DTE Catastrophic	07/10/16 01:19	1,015	1,059,660	Tree / Wind
2B-1	TFANY8172	SAIDI	1		DTE Catastrophic	07/10/16 10:20	1	221	Other
2B-1	TFANY8172	SAIDI	1		DTE Catastrophic	07/10/16 15:11	1	1,805	Other
2B-1	TFANY8172	SAIDI	1		DTE Catastrophic	07/10/16 20:30	1	1,486	Other
2B-1	TFANY8172	SAIDI	1		DTE Catastrophic	07/10/16 21:38	34	43,554	Equipment
2B-1	TFANY8172	SAIDI	1		DTE Catastrophic	07/10/16 21:39	7	8,960	Equipment
2B-1	TFANY8172	SAIDI	1		DTE Catastrophic	07/10/16 21:55	25	23,600	Tree / Wind
2B-1	TFANY8172	SAIDI	1		DTE Catastrophic	07/10/16 22:04	1	1,375	Equipment
2B-1	TFANY8172	SAIDI	1		DTE Catastrophic	07/10/16 23:45	7	8,078	Equipment
2B-1	TFANY8172	SAIDI	1		DTE Catastrophic	07/11/16 10:05	1	474	Equipment
2B-1	TFANY8172	SAIDI	1		DTE Catastrophic	07/11/16 11:07	1	526	Equipment
2B-1	TFANY8172	SAIDI	1		DTE Catastrophic	07/11/16 12:44	15	825	Tree / Wind
2B-1	TFANY8172	SAIDI	1			07/11/16 21:31	31	24,056	Tree / Wind

Appendix 2B

Outage and Cause Listing - SAIDI - Circuit Basis

Grey shading indicates single customer outage

	Circuit Name and Number	Metric	Rank	MED	Storm	Interruption Date/Time	Customers Interrupted	Customer Minutes Interrupted	Cause
2B-1	TFANY8172	SAIDI	1		DTE Small Storm	07/12/16 18:33	1	1,406	Other
2B-1	TFANY8172	SAIDI	1		DTE Small Storm	07/13/16 10:31	6	1,440	Equipment
2B-1	TFANY8172	SAIDI	1		DTE Small Storm	07/13/16 17:10	1	992	Other
2B-1	TFANY8172	SAIDI	1		DTE Small Storm	07/13/16 19:57	1	908	Tree / Wind
2B-1	TFANY8172	SAIDI	1		DTE Small Storm	07/13/16 20:17	1	888	Tree / Wind
2B-1	TFANY8172	SAIDI	1		DTE Small Storm	07/14/16 00:26	1	2,054	Other
2B-1	TFANY8172	SAIDI	1		DTE Small Storm	07/14/16 10:20	1	429	Other
2B-1	TFANY8172	SAIDI	1		DTE Small Storm	07/14/16 22:41	1	531	Other
2B-1	TFANY8172	SAIDI	1			07/24/16 14:52	1	252	Other
2B-1	TFANY8172	SAIDI	1		DTE Small Storm	07/31/16 06:47	44	11,704	Tree / Wind
2B-1	TFANY8172	SAIDI	1			08/02/16 10:12	176	22,000	Equipment
2B-1	TFANY8172	SAIDI	1			08/03/16 09:16	1	1,514	Other
2B-1	TFANY8172	SAIDI	1			08/19/16 15:14	1	166	Other
2B-1	TFANY8172	SAIDI	1		DTE Small Storm	09/10/16 06:03	6	4,836	Animal or Bird
2B-1	TFANY8172	SAIDI	1			09/25/16 17:38	1	67	Other
2B-1	TFANY8172	SAIDI	1			09/26/16 11:22	1	188	Other
2B-1	TFANY8172	SAIDI	1			10/10/16 09:29	14	1,694	Animal or Bird
2B-1	TFANY8172	SAIDI	1			10/17/16 01:47	1	803	Other
2B-1	TFANY8172	SAIDI	1			11/12/16 20:46	1	215	Other
2B-1	TFANY8172	SAIDI	1			11/27/16 15:13	1	338	Other
2B-1	TFANY8172	SAIDI	1			12/02/16 16:51	1	158	Other
2B-1	TFANY8172	SAIDI	1			12/04/16 14:00	1	117	Tree / Wind
2B-1	TFANY8172	SAIDI	1			12/11/16 21:26	960	122,984	Equipment
2B-1	TFANY8172	SAIDI	1			12/29/16 12:38	829	38,134	Intentional
2B-1	TFANY8172	SAIDI	1			12/29/16 12:46	715	27,170	Intentional

Appendix 2B

Outage and Cause Listing - SAIDI - Circuit Basis

Grey shading indicates single customer outage

	Circuit Name and Number	Metric	Rank	MED	Storm	Interruption Date/Time	Customers Interrupted	Customer Minutes Interrupted	Cause
2B-2	TAYLR8286	SAIDI	2			01/01/16 12:24	1	1,347	Equipment
2B-2	TAYLR8286	SAIDI	2			01/28/16 18:48	1	76	Equipment
2B-2	TAYLR8286	SAIDI	2			02/05/16 09:11	1	55	Equipment
2B-2	TAYLR8286	SAIDI	2	MED	DTE Catastrophic	02/19/16 16:03	1	266	Equipment
2B-2	TAYLR8286	SAIDI	2			03/10/16 15:14	18	432	Intentional
2B-2	TAYLR8286	SAIDI	2			04/13/16 22:55	1	156	Equipment
2B-2	TAYLR8286	SAIDI	2			05/01/16 07:20	2	420	Equipment
2B-2	TAYLR8286	SAIDI	2			05/21/16 14:54	1	129	Tree / Wind
2B-2	TAYLR8286	SAIDI	2		DTE Small Storm	06/20/16 17:46	6	618	Tree / Wind
2B-2	TAYLR8286	SAIDI	2			06/27/16 10:36	1	286	Other
2B-2	TAYLR8286	SAIDI	2	MED	DTE Catastrophic	07/08/16 19:26	1	4,150	Other
2B-2	TAYLR8286	SAIDI	2	MED	DTE Catastrophic	07/08/16 19:26	1	1,216	Other
2B-2	TAYLR8286	SAIDI	2	MED	DTE Catastrophic	07/08/16 19:27	1	4,028	Other
2B-2	TAYLR8286	SAIDI	2	MED	DTE Catastrophic	07/08/16 19:27	1	1,362	Other
2B-2	TAYLR8286	SAIDI	2	MED	DTE Catastrophic	07/08/16 19:28	776	293,328	Tree / Wind
2B-2	TAYLR8286	SAIDI	2		DTE Catastrophic	07/09/16 01:54	1	2,223	Other
2B-2	TAYLR8286	SAIDI	2		DTE Catastrophic	07/09/16 01:54	1	128	Other
2B-2	TAYLR8286	SAIDI	2		DTE Catastrophic	07/09/16 01:57	1	3,850	Other
2B-2	TAYLR8286	SAIDI	2		DTE Catastrophic	07/09/16 09:39	1	2,172	Other
2B-2	TAYLR8286	SAIDI	2		DTE Catastrophic	07/09/16 10:50	1	1,793	Other
2B-2	TAYLR8286	SAIDI	2		DTE Catastrophic	07/09/16 16:08	1	1,411	Other
2B-2	TAYLR8286	SAIDI	2		DTE Catastrophic	07/09/16 22:19	1	2,629	Other
2B-2	TAYLR8286	SAIDI	2		DTE Catastrophic	07/09/16 22:30	1	1,264	Other
2B-2	TAYLR8286	SAIDI	2		DTE Catastrophic	07/09/16 23:33	776	912,576	Tree / Wind
2B-2	TAYLR8286	SAIDI	2		DTE Catastrophic	07/09/16 23:49	1	1,003	Other
2B-2	TAYLR8286	SAIDI	2		DTE Catastrophic	07/10/16 00:45	1	1,010	Other
2B-2	TAYLR8286	SAIDI	2		DTE Catastrophic	07/10/16 09:08	1	567	Other
2B-2	TAYLR8286	SAIDI	2		DTE Catastrophic	07/10/16 12:37	1	343	Other
2B-2	TAYLR8286	SAIDI	2		DTE Catastrophic	07/10/16 13:24	734	983,560	Equipment
2B-2	TAYLR8286	SAIDI	2		DTE Catastrophic	07/10/16 13:35	1	191	Other
2B-2	TAYLR8286	SAIDI	2		DTE Catastrophic	07/10/16 17:19	1	128	Other
2B-2	TAYLR8286	SAIDI	2		DTE Catastrophic	07/10/16 23:16	1	1,131	Other
2B-2	TAYLR8286	SAIDI	2		DTE Catastrophic	07/11/16 10:44	1	549	Other
2B-2	TAYLR8286	SAIDI	2		DTE Catastrophic	07/11/16 11:06	1	527	Other
2B-2	TAYLR8286	SAIDI	2		DTE Catastrophic	07/11/16 13:13	2	108	Equipment
2B-2	TAYLR8286	SAIDI	2			07/12/16 05:57	1	538	Other
2B-2	TAYLR8286	SAIDI	2			07/12/16 08:54	1	306	Tree / Wind

Appendix 2B

Outage and Cause Listing - SAIDI - Circuit Basis

Grey shading indicates single customer outage

	Circuit Name and Number	Metric	Rank	MED	Storm	Interruption Date/Time	Customers Interrupted	Customer Minutes Interrupted	Cause
2B-2	TAYLR8286	SAIDI	2		DTE Small Storm	07/12/16 18:43	1	3,015	Other
2B-2	TAYLR8286	SAIDI	2		DTE Small Storm	07/13/16 08:47	1	1,813	Equipment
2B-2	TAYLR8286	SAIDI	2		DTE Small Storm	07/13/16 13:43	1	337	Other
2B-2	TAYLR8286	SAIDI	2		DTE Small Storm	07/13/16 19:52	6	8,214	Equipment
2B-2	TAYLR8286	SAIDI	2		DTE Small Storm	07/13/16 20:01	1	1,385	Other
2B-2	TAYLR8286	SAIDI	2		DTE Small Storm	07/13/16 20:04	1	1,382	Other
2B-2	TAYLR8286	SAIDI	2			08/04/16 06:46	509	114,488	Animal or Bird
2B-2	TAYLR8286	SAIDI	2			08/04/16 12:08	1	326	Equipment
2B-2	TAYLR8286	SAIDI	2			08/10/16 10:17	1	219	Other
2B-2	TAYLR8286	SAIDI	2		DTE Small Storm	08/14/16 09:10	1	359	Other
2B-2	TAYLR8286	SAIDI	2		DTE Small Storm	08/16/16 02:55	11	6,633	Tree / Wind
2B-2	TAYLR8286	SAIDI	2		DTE Small Storm	08/16/16 02:55	10	6,030	Tree / Wind
2B-2	TAYLR8286	SAIDI	2		DTE Small Storm	08/16/16 02:55	19	11,457	Tree / Wind
2B-2	TAYLR8286	SAIDI	2		DTE Small Storm	08/16/16 02:58	14	8,414	Tree / Wind
2B-2	TAYLR8286	SAIDI	2		DTE Small Storm	08/16/16 03:00	1	599	Tree / Wind
2B-2	TAYLR8286	SAIDI	2			08/20/16 13:59	1	1,721	Other
2B-2	TAYLR8286	SAIDI	2		DTE Small Storm	09/07/16 18:39	1	1,149	Other
2B-2	TAYLR8286	SAIDI	2			10/13/16 12:40	1	275	Other
2B-2	TAYLR8286	SAIDI	2			10/28/16 11:33	8	584	Animal or Bird
2B-2	TAYLR8286	SAIDI	2			10/31/16 15:23	1	146	Other
2B-2	TAYLR8286	SAIDI	2			11/24/16 15:12	1	218	Other
2B-2	TAYLR8286	SAIDI	2			12/20/16 16:23	1	208	Tree / Wind

Appendix 2B

Outage and Cause Listing - SAIDI - Circuit Basis

Grey shading indicates single customer outage

	Circuit Name and Number	Metric	Rank	MED	Storm	Interruption Date/Time	Customers Interrupted	Customer Minutes Interrupted	Cause
2B-3	WMSTN8033	SAIDI	3		DTE Small Storm	01/10/16 16:55	1	255	Other
2B-3	WMSTN8033	SAIDI	3			01/27/16 17:59	1	242	Equipment
2B-3	WMSTN8033	SAIDI	3			02/09/16 18:37	27	2,484	Equipment
2B-3	WMSTN8033	SAIDI	3	MED	DTE Catastrophic	02/19/16 18:07	1,146	123,768	Other
2B-3	WMSTN8033	SAIDI	3	MED	DTE Catastrophic	02/19/16 19:07	1	3,921	Equipment
2B-3	WMSTN8033	SAIDI	3	MED	DTE Catastrophic	02/19/16 21:22	6	21,642	Tree / Wind
2B-3	WMSTN8033	SAIDI	3		DTE Small Storm	02/24/16 18:59	97	14,162	Other
2B-3	WMSTN8033	SAIDI	3		DTE Small Storm	02/25/16 09:31	1	125	Equipment
2B-3	WMSTN8033	SAIDI	3		DTE Small Storm	02/25/16 11:55	1	350	Equipment
2B-3	WMSTN8033	SAIDI	3		DTE Small Storm	02/25/16 15:10	1	275	Equipment
2B-3	WMSTN8033	SAIDI	3		DTE Small Storm	02/26/16 12:27	58	2,494	Tree / Wind
2B-3	WMSTN8033	SAIDI	3			02/26/16 13:30	1	154	Equipment
2B-3	WMSTN8033	SAIDI	3		DTE Small Storm	02/28/16 22:34	1	779	Tree / Wind
2B-3	WMSTN8033	SAIDI	3		DTE Small Storm	02/28/16 22:45	2	1,470	Tree / Wind
2B-3	WMSTN8033	SAIDI	3		DTE Small Storm	03/16/16 15:15	1,147	205,313	Tree / Wind
2B-3	WMSTN8033	SAIDI	3			04/08/16 16:27	1	153	Other
2B-3	WMSTN8033	SAIDI	3			04/09/16 00:01	2	308	Tree / Wind
2B-3	WMSTN8033	SAIDI	3			04/21/16 02:57	1	222	Equipment
2B-3	WMSTN8033	SAIDI	3			05/26/16 17:51	1	86	Other
2B-3	WMSTN8033	SAIDI	3			06/17/16 18:38	1	81	Other
2B-3	WMSTN8033	SAIDI	3	MED	DTE Catastrophic	07/08/16 17:24	7	1,715	Tree / Wind
2B-3	WMSTN8033	SAIDI	3		DTE Small Storm	07/13/16 14:23	1	312	Tree / Wind
2B-3	WMSTN8033	SAIDI	3			07/17/16 11:44	25	4,150	Equipment
2B-3	WMSTN8033	SAIDI	3		DTE Small Storm	07/21/16 12:15	1	180	Equipment
2B-3	WMSTN8033	SAIDI	3		DTE Small Storm	07/31/16 14:53	1	151	Animal or Bird
2B-3	WMSTN8033	SAIDI	3		DTE Small Storm	08/12/16 20:06	453	265,005	Tree / Wind
2B-3	WMSTN8033	SAIDI	3		DTE Small Storm	08/13/16 00:23	1	538	Lightning
2B-3	WMSTN8033	SAIDI	3		DTE Small Storm	08/13/16 05:15	1	405	Lightning
2B-3	WMSTN8033	SAIDI	3		DTE Small Storm	08/13/16 06:30	1	824	Lightning
2B-3	WMSTN8033	SAIDI	3		DTE Small Storm	08/13/16 07:53	1	769	Equipment
2B-3	WMSTN8033	SAIDI	3		DTE Small Storm	08/16/16 07:57	27	4,131	Tree / Wind
2B-3	WMSTN8033	SAIDI	3		DTE Small Storm	08/16/16 08:23	1	195	Other
2B-3	WMSTN8033	SAIDI	3			08/17/16 14:33	44	7,568	Lightning
2B-3	WMSTN8033	SAIDI	3			08/17/16 16:13	16	11,312	Equipment
2B-3	WMSTN8033	SAIDI	3			08/17/16 16:25	176	10,560	Lightning
2B-3	WMSTN8033	SAIDI	3			08/18/16 08:24	1	116	Equipment
2B-3	WMSTN8033	SAIDI	3			08/19/16 12:24	1	396	Other

Appendix 2B

Outage and Cause Listing - SAIDI - Circuit Basis

Grey shading indicates single customer outage

	Circuit Name and Number	Metric	Rank	MED	Storm	Interruption Date/Time	Customers Interrupted	Customer Minutes Interrupted	Cause
2B-3	WMSTN8033	SAIDI	3			08/26/16 16:46	1	593	Equipment
2B-3	WMSTN8033	SAIDI	3			09/02/16 18:03	1	41	Equipment
2B-3	WMSTN8033	SAIDI	3			10/14/16 15:16	1	74	Equipment
2B-3	WMSTN8033	SAIDI	3			10/20/16 13:37	30	4,650	Other
2B-3	WMSTN8033	SAIDI	3			11/02/16 14:49	1	101	Tree / Wind
2B-3	WMSTN8033	SAIDI	3			11/10/16 15:33	193	22,967	Tree / Wind
2B-3	WMSTN8033	SAIDI	3			11/10/16 18:19	1	10	Equipment
2B-3	WMSTN8033	SAIDI	3			11/12/16 09:45	1	284	Equipment
2B-3	WMSTN8033	SAIDI	3		DTE Small Storm	11/19/16 07:27	1	573	Lightning
2B-3	WMSTN8033	SAIDI	3		DTE Small Storm	11/20/16 01:14	1	1,125	Equipment
2B-3	WMSTN8033	SAIDI	3		DTE Small Storm	11/29/16 09:57	1	182	Tree / Wind
2B-3	WMSTN8033	SAIDI	3		DTE Small Storm	11/29/16 12:35	12	888	Animal or Bird
2B-3	WMSTN8033	SAIDI	3			12/14/16 12:16	1	133	Equipment

Appendix 2B

Outage and Cause Listing - SAIDI - Circuit Basis

Grey shading indicates single customer outage

	Circuit Name and Number	Metric	Rank	MED	Storm	Interruption Date/Time	Customers Interrupted	Customer Minutes Interrupted	Cause
2B-4	GAY 1773	SAIDI	4			02/03/16 06:24	1	332	Other
2B-4	GAY 1773	SAIDI	4			03/02/16 07:38	1	126	Equipment
2B-4	GAY 1773	SAIDI	4			03/02/16 11:21	1	188	Equipment
2B-4	GAY 1773	SAIDI	4			03/28/16 06:38	1	307	Equipment
2B-4	GAY 1773	SAIDI	4			04/02/16 14:12	5	875	Tree / Wind
2B-4	GAY 1773	SAIDI	4			04/02/16 20:00	1	596	Equipment
2B-4	GAY 1773	SAIDI	4			04/03/16 14:31	3	327	Equipment
2B-4	GAY 1773	SAIDI	4			04/11/16 18:02	1	229	Equipment
2B-4	GAY 1773	SAIDI	4			04/30/16 07:06	1	363	Equipment
2B-4	GAY 1773	SAIDI	4			05/05/16 08:53	1	210	Equipment
2B-4	GAY 1773	SAIDI	4			05/26/16 09:55	1	678	Other
2B-4	GAY 1773	SAIDI	4			05/29/16 16:18	775	151,900	Tree / Wind
2B-4	GAY 1773	SAIDI	4			05/29/16 16:18	1	197	Tree / Wind
2B-4	GAY 1773	SAIDI	4			05/29/16 17:35	299	35,880	Tree / Wind
2B-4	GAY 1773	SAIDI	4			06/03/16 16:16	1	116	Other
2B-4	GAY 1773	SAIDI	4	MED	DTE Catastrophic	07/08/16 20:10	1	2,714	Tree / Wind
2B-4	GAY 1773	SAIDI	4	MED	DTE Catastrophic	07/08/16 20:13	695	1,969,431	Tree / Wind
2B-4	GAY 1773	SAIDI	4	MED	DTE Catastrophic	07/08/16 20:43	1	1,221	Other
2B-4	GAY 1773	SAIDI	4	MED	DTE Catastrophic	07/08/16 20:55	1	2,534	Other
2B-4	GAY 1773	SAIDI	4		DTE Catastrophic	07/10/16 20:12	1	812	Lightning
2B-4	GAY 1773	SAIDI	4		DTE Catastrophic	07/11/16 12:11	1	229	Other
2B-4	GAY 1773	SAIDI	4			07/11/16 19:40	1	1,549	Other
2B-4	GAY 1773	SAIDI	4		DTE Small Storm	07/18/16 03:44	17	10,404	Equipment
2B-4	GAY 1773	SAIDI	4		DTE Small Storm	07/18/16 21:15	1	48	Other
2B-4	GAY 1773	SAIDI	4			07/25/16 20:27	1	763	Other
2B-4	GAY 1773	SAIDI	4			08/04/16 12:18	1	697	Other
2B-4	GAY 1773	SAIDI	4			08/04/16 12:18	1	488	Other
2B-4	GAY 1773	SAIDI	4			08/09/16 13:13	1	1,201	Tree / Wind
2B-4	GAY 1773	SAIDI	4			08/26/16 13:24	1	366	Other
2B-4	GAY 1773	SAIDI	4			09/28/16 21:37	2	3,900	Other
2B-4	GAY 1773	SAIDI	4		DTE Small Storm	11/18/16 20:20	757	92,354	Tree / Wind
2B-4	GAY 1773	SAIDI	4			11/23/16 16:15	1	1,426	Tree / Wind
2B-4	GAY 1773	SAIDI	4			12/01/16 09:21	1	145	Other
2B-4	GAY 1773	SAIDI	4			12/13/16 12:21	17	221	Tree / Wind

Appendix 2B

Outage and Cause Listing - SAIDI - Circuit Basis

Grey shading indicates single customer outage

	Circuit Name and Number	Metric	Rank	MED	Storm	Interruption Date/Time	Customers Interrupted	Customer Minutes Interrupted	Cause
2B-5	CENTR0805	SAIDI	5	MED	DTE Catastrophic	02/19/16 21:27	260	699,660	Tree / Wind
2B-5	CENTR0805	SAIDI	5		DTE Catastrophic	02/21/16 19:19	1	956	Tree / Wind
2B-5	CENTR0805	SAIDI	5		DTE Small Storm	07/19/16 14:49	1	131	Other
2B-5	CENTR0805	SAIDI	5			08/12/16 07:23	260	60,320	Equipment
2B-5	CENTR0805	SAIDI	5		DTE Small Storm	08/12/16 16:19	1	565	Equipment