

414 Nicollet Mall Minneapolis, MN 55401

January 19, 2021

-Via Electronic Filing-

Will Seuffert Executive Secretary Minnesota Public Utilities Commission 121 7th Place East, Suite 350 St. Paul, MN 55101

RE: 30 DAY COMPLIANCE FILING 2019 ANNUAL REPORT ON SAFETY, RELIABILITY, AND SERVICE QUALITY AND APPROVAL OF ELECTRIC RELIABILITY STANDARDS DOCKET NO. E002/M-20-406

Dear Mr. Seuffert:

Northern States Power Company, doing business as Xcel Energy, submits to the Minnesota Public Utilities Commission this Compliance Filing in response to the Commission's December 18, 2020 Order Accepting Reports, Requiring Additional Filings, and Establishing Workshop.

The Commission's Order required additional information be provided within 30 days; we provide the required information below.

Additional 2019 Electric Outage Data

Order Point 2a of the Order requires:

a. Xcel Energy: causes of sustained customer outages, by service center for 2019, as a spreadsheet.

Consistent with the information we previously provided for 2010 to 2018,¹ we provide the required information for 2019 as Attachment A. A live spreadsheet of Attachment A is also provided. We apologize for this omission in our 2019 report and will provide this information in our annual reports going forward.

¹ Docket No E002/M-19-261, February 27, 2020; 30 Day Filing.

Emergency Medical Account Outreach

Order Point 15 of the Order requires:

.....each utility must file a compliance filing in which engagement plans related to Emergency Medical Account status are explained. Otter Tail and Xcel Energy must also include a detailed description of the resolution to the reporting problems attributed to their updated Customer Information System/SAP work management system as it pertains to their Service Extension request response times.

In August 2020, the Company sent 324 letters to hospital and clinic networks in our service territory providing information on the statutory protection available to customers with medically necessary equipment and offering to partner with them to reach patients that may be in need of emergency medical-account-status protection. Additionally, our Account Manager reached out to his contacts at the major hospitals to try and further leverage our relationship to assist those in need. Through this outreach we learned that given the current pandemic, most hospitals are currently focused on COVID-related challenges. Therefore, we have explored additional platforms where we can educate customers about these programs. Recently, we contacted retail medical equipment stores in a similar partnering effort to our hospital and clinic outreach. In addition, we are working with the Minnesota Clean Energy Resource Teams to include information on their website and coordinate a social media effort. We also confirmed that Energy Cents Coalition and the Citizens Utility Board of MN included information and links regarding our medical account protections and our affordability program on their websites.

Additionally, we are working to identify other groups for outreach; including, nonprofits and faith-based social services that could direct customers to our available programs. The Company continues to promote our programs (Medical Affordability, Power On, GAP) through our call centers and Personal Assistant Representatives, as wells as referrals from outside agencies. We continue to work with customers that apply for protection and with those that receive energy assistance.

Finally, we continue to work with Minnesota Power and Ottertail Power on ways to improve outreach to our customers about emergency medical account protections.

SAP Work Management System Update

With the 2018 rollout of the SAP work management system, the Company moved from capturing data points needed to measure service extension response times from our previous system (Passport) to SAP. After analyzing the results of the work management system in 2018 (the year of its launch) and 2019 (the first year of full implementation), we recognized the need for additional refinements and training.

Service extension times increased in 2018 and 2019 for two reasons: 1) we had better data points to more accurately capture our performance, which is a common outcome when improved systems are implemented; and 2) SAP required new processes to ensure additional data capture occurred with our field staff. For example, if the final data point is not captured, it appears that a project took months or even a year to complete which can skew our data or be the reason for incomplete data for 2018 and 2019.

The Company instituted a phased approach in our Distribution organization to address these issues. In 2018, our efforts included an operations team defining the measurement of service lead times and process training around the data that needed to be captured. We continued to leverage and adapt our processes to maximize workflow management in 2019 by emphasizing continuous improvement and continued training as needed to ensure adherence to the process. For example, we focused on better handoffs from the time a customer requests an extension until completion of the work. We will continue training in 2021 and beyond. Moreover, Distribution leadership is focused on tracking service extension times throughout the year and identifying continuous improvement opportunities.

With this increased focus and strategic approach to the data related to residential and commercial services, an initial review of 2020 results show improvements in terms of completion and work closure accuracy. We believe the 2020 data we will report in our April 1, 2021 Annual Report will show improvement that will continue in the future; whereas, the 2018 and 2019 data reflect the data capture and learning curve challenges we experienced.

We have electronically filed this document with the Minnesota Public Utilities Commission, and copies have been served on the parties on the attached service list. Please contact me at <u>gail.baranko@xcelenergy.com</u> or (612-)330-6935, or Pamela Gibbs at <u>pamela.k.gibbs@xcelenergy.com</u> or (612) 330-2889 if you have any questions regarding this filing.

Sincerely,

/s/

GAIL BARANKO Regulatory Manager

Enclosures c: Service List

Metro East Work Region

All Days	Customer	Interrup	tions - Ac	tuals							10-19	15-19	17-19	Custor	ner Int	erruptio	ons - P	ercent 7	Гotal					10-19	15-19	17-19
Primary Cause	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	10 Yr Avg	5 Yr Avg	3 Yr Avg	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	10 Yr Avg	5 Yr Avg	3 Yr Avg
Equipment - OH	112,830	81,711	90,870	105,822	104,542	104,407	99,377	87,802	122,575	48,988	95,892	92,630	86,455	18%	21%	19%	21%	26%	24%	22%	22%	31%	14%	22%	23%	22%
Equipment - UG	63,330	58,868	64,631	70,679	56,541	72,080	74,356	56,261	47,324	48,396	61,247	59,683	50,660	10%	15%	13%	14%	14%	17%	17%	14%	12%	13%	14%	15%	13%
Lightning	17,371	16,266	23,956	13,389	14,925	11,221	8,895	4,171	11,769	8,648	13,061	8,941	8,196	3%	4%	5%	3%	4%	3%	2%	1%	3%	2%	3%	2%	2%
Other	43,792	28,521	24,711	24,987	27,016	14,266	18,950	12,645	11,012	31,028	23,693	17,580	18,228	7%	7%	5%	5%	7%	3%	4%	3%	3%	9%	5%	4%	5%
Power Supply	12,314	15,930	9 <i>,</i> 556	10,785	17,992	1,294	1,745	7,060	3,687	13,633	9,400	5,484	8,127	2%	4%	2%	2%	5%	0%	0%	2%	1%	4%	2%	1%	2%
Planned	36,695	35,780	45,845	29,786	44,422	43,391	30,208	19,294	35,927	33,058	35,441	32,376	29,426	6%	9%	10%	6%	11%	10%	7%	5%	9%	9%	8%	8%	8%
Public	24,807	16,133	27,810	19,105	28,270	34,457	27,205	44,143	30,942	30,213	28,309	33,392	35,099	4%	4%	6%	4%	7%	8%	6%	11%	8%	8%	7%	8%	9%
Unknown	59,410	31,985	39,470	50,852	23,330	33,705	31,291	17,581	18,029	13,405	31,906	22,802	16,338	9%	8%	8%	10%	6%	8%	7%	4%	4%	4%	7%	6%	4%
Vegetation	199,167	71,571	138,987	167,293	57,500	90,945	124,949	114,174	96,735	114,058	117,538	108,172	108,322	32%	19%	29%	33%	14%	21%	28%	29%	24%	32%	26%	27%	28%
Weather - Non Lightning)	1,195	9	328	41	115	0	7	5	1	178	188	38	61	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Wildlife	58,647	26,048	15,608	17,941	23,986	20,777	27,806	27,969	22,923	17,507	25,921	23,396	22,800	9%	7%	3%	4%	6%	5%	6%	7%	6%	5%	6%	6%	6%
All Causes	629,558	382,822	481,772	510,680	398,639	426,543	444,789	391,105	400,924	359,112				100%	100%	100%	100%	100%	100%	100%	100%	100%	100%			

Metro East Work Region

Wello East work Region																										
IEEE MN Reg Normalized	Customer	[.] Interrup	tions - Ac	tuals							10-19	15-19	17-19	Custor	ner Int	errupti	ons - P	ercent [·]	Γotal					10-19	15-19	17-19
Primary Cause	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	10 Yr Avg	5 Yr Avg	3 Yr Avg	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	10 Yr Avg	5 Yr Avg	3 Yr Avg
Equipment - OH	102,842	76,878	76,027	87,666	96,847	103,475	92,077	85,311	119,216	42,129	88,247	88,442	82,219	21%	23%	20%	25%	28%	28%	26%	27%	31%	13%	24%	25%	24%
Equipment - UG	61,466	54,761	64,439	51,078	56,197	72,008	72,815	55,917	47,266	48,175	58,412	59,236	50,453	13%	16%	17%	15%	16%	20%	20%	18%	12%	15%	16%	17%	15%
Lightning	10,770	14,947	18,446	3,453	9,046	7,588	3,884	2,612	11,246	4,829	8,682	6,032	6,229	2%	4%	5%	1%	3%	2%	1%	1%	3%	2%	2%	2%	2%
Other	42,563	25,300	23,902	24,442	26,873	13,186	18,439	9,120	10,923	27,022	22,177	15,738	15,688	9%	7%	6%	7%	8%	4%	5%	3%	3%	9%	6%	5%	5%
Power Supply	8,214	15,930	9,556	10,785	17,992	1,294	1,336	3,181	3,687	13,633	8,561	4,626	6,834	2%	5%	2%	3%	5%	0%	0%	1%	1%	4%	2%	1%	2%
Planned	34,166	33,434	37,751	29,069	43,133	42,950	30,046	17,285	35,458	30,376	33,367	31,223	27,706	7%	10%	10%	8%	12%	12%	8%	6%	9%	10%	9%	9%	8%
Public	24,753	15,237	27,788	19,087	28,262	32,425	27,192	44,142	25,981	30,211	27,508	31,990	33,445	5%	4%	7%	6%	8%	9%	8%	14%	7%	10%	8%	9%	10%
Unknown	47,522	28,050	35,433	38,424	22,221	25,024	24,092	13,601	16,175	13,393	26,394	18,457	14,390	10%	8%	9%	11%	6%	7%	7%	4%	4%	4%	7%	5%	4%
Vegetation	91,012	49,924	77,135	63,937	26,025	49,102	65,649	54,831	94,347	88,539	66,050	70,494	79,239	19%	15%	20%	18%	7%	13%	18%	17%	24%	28%	18%	20%	23%
Weather - Non Lightning)	1,104	9	328	41	44	0	7	5	1	178	172	38	61	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Wildlife	58,628	26,040	15,424	17,725	23,925	20,673	22,658	27,823	22,912	17,500	25,331	22,313	22,745	12%	8%	4%	5%	7%	6%	6%	9%	6%	6%	7%	6%	7%
All Causes	483,040	340,510	386,229	345,707	350,565	367,725	358,195	313,828	387,212	315,985				100%	100%	100%	100%	100%	100%	100%	100%	100%	100%			

Metro West Work Region

	1	Intornus	tions Ac											Custom	on Inte				Total							17.10
All Days	Customer	interrup	tions - At	tuals							10-19	15-19	17-19	Custon	ier inte	errupti	ons - Pe	ercent	Total					10-19	15-19	17-19
Primary Cause	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	10 Yr Avg	5 Yr Avg	3 Yr Avg	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	10 Yr Avg	5 Yr Avg	3 Yr Avg
Equipment - OH	182,572	134,668	115,798	158,638	142,807	135,273	93,257	77,038	136,996	85,591	126,264	105,631	99,875	21%	20%	18%	18%	27%	23%	16%	15%	25%	19%	20%	20%	20%
Equipment - UG	158,533	132,981	149,542	145,366	97,445	101,069	98,644	84,843	93,990	79,495	114,191	91,608	86,109	18%	19%	24%	16%	19%	17%	17%	17%	17%	18%	18%	17%	17%
Lightning	34,654	32,028	29,945	14,203	19,034	10,031	31,625	16,592	21,743	12,518	22,237	18,502	16,951	4%	5%	5%	2%	4%	2%	5%	3%	4%	3%	4%	3%	3%
Other	46,935	37,028	24,009	38,502	28,086	51,053	30,069	32,685	28,585	16,430	33 <i>,</i> 338	31,764	25,900	5%	5%	4%	4%	5%	9%	5%	6%	5%	4%	5%	6%	5%
Power Supply	14,650	36,586	7,823	2,972	15,114	15,354	4,713	3,828	18,800	18,979	13,882	12,335	13,869	2%	5%	1%	0%	3%	3%	1%	1%	3%	4%	2%	2%	3%
Planned	53,862	45,351	62,469	56,075	43,142	41,494	42,934	39,224	32,239	37,810	45,460	38,740	36,424	6%	7%	10%	6%	8%	7%	7%	8%	6%	8%	7%	7%	7%
Public	36,160	33,372	31,246	35,054	36,791	30,440	50,431	40,854	30,507	44,979	36,983	39,442	38,780	4%	5%	5%	4%	7%	5%	9%	8%	6%	10%	6%	7%	8%
Unknown	78,088	57,732	52,538	69,975	38,675	44,066	50,520	40,918	44,857	27,857	50,523	41,644	37,877	9%	8%	8%	8%	7%	7%	9%	8%	8%	6%	8%	8%	7%
Vegetation	178,328	115,928	104,722	335,314	71,458	106,797	133,354	123,525	100,997	90,773	136,120	111,089	105,098	20%	17%	17%	37%	14%	18%	23%	24%	18%	20%	21%	21%	21%
Weather - Non Lightning)	958	7,706	7	151	501	1	2	37	1,322	1,289	1,197	530	883	0%	1%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Wildlife	87,078	49,933	53 <i>,</i> 832	40,245	29,115	54,126	55 <i>,</i> 855	50,836	43,092	34,962	49,907	47,774	42,963	10%	7%	9%	4%	6%	9%	9%	10%	8%	8%	8%	9%	9%
All Causes	871,818	683,313	631,931	896 <i>,</i> 495	522,168	589,704	591,404	510,380	553 <i>,</i> 128	450,683				100%	100%	100%	100%	100%	100%	100%	100%	100%	100%			

Metro West Work Region

IEEE MN Reg Normalized	Customer	Interrup	tions - Ac	tuals							10-19	15-19	17-19	Custom	ner Int	errupti	ons - Pe	ercent	Гotal					10-19	15-19	17-19
Primary Cause	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	10 Yr Avg	5 Yr Avg	3 Yr Avg	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	10 Yr Avg	5 Yr Avg	3 Yr Avg
Equipment - OH	145,288	114,725	105,833	136,097	140,547	121,227	81,157	72,124	119,400	82,501	111,890	95,282	91,342	21%	22%	19%	24%	29%	24%	17%	17%	23%	19%	22%	20%	20%
Equipment - UG	153,892	118,726	148,670	144,435	95 <i>,</i> 666	99,454	92,711	79,086	93,654	72,018	109,831	87,385	81,586	22%	23%	26%	26%	19%	20%	19%	19%	18%	17%	21%	19%	18%
Lightning	32,049	8,217	24,450	4,898	16,157	7,054	24,977	9,860	21,669	11,499	16,083	15,012	14,343	5%	2%	4%	1%	3%	1%	5%	2%	4%	3%	3%	3%	3%
Other	43,564	27,945	23,507	31,733	27,645	49,944	22,379	30,482	28,584	15,085	30,087	29,295	24,717	6%	5%	4%	6%	6%	10%	5%	7%	5%	4%	6%	6%	5%
Power Supply	0	19,207	7,823	2,972	15,114	12,860	4,713	3,828	18,800	18,979	10,430	11,836	13,869	0%	4%	1%	1%	3%	3%	1%	1%	4%	4%	2%	3%	3%
Planned	48,571	43,150	61,223	48,210	42,981	41,377	40,629	31,920	32,176	35,708	42,595	36,362	33,268	7%	8%	11%	9%	9%	8%	8%	8%	6%	8%	8%	8%	7%
Public	35,970	31,384	30,998	34,925	36,786	29,870	50,401	39,297	30,507	44,899	36,504	38,995	38,234	5%	6%	5%	6%	7%	6%	10%	9%	6%	11%	7%	8%	9%
Unknown	59,217	46,084	50,168	51,910	37,238	35,046	40,166	36,677	44,418	27,099	42,802	36,681	36,065	9%	9%	9%	9%	8%	7%	8%	9%	8%	6%	8%	8%	8%
Vegetation	86,151	57,522	59,076	62,361	51,534	44,064	76,560	69,179	89,488	80,889	67,682	72,036	79,852	12%	11%	10%	11%	10%	9%	16%	16%	17%	19%	13%	15%	18%
Weather - Non Lightning)	31	115	1	151	501	1	2	37	1,322	1,289	345	530	883	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Wildlife	86,851	49,792	53 <i>,</i> 659	39,908	28,940	54,104	55,416	50,372	43,052	34,765	49,686	47,542	42,730	13%	10%	9%	7%	6%	11%	11%	12%	8%	8%	10%	10%	9%
All Causes	691,584	516,867	565,408	557,600	493,109	495,001	489,111	422,862	523 <i>,</i> 070	424,731				100%	100%	100%	100%	100%	100%	100%	100%	100%	100%			

Northwest Work Region(Includes ND region custs/outs in state of MN)

All Days	Customer	Interrup	tions - Ac	tuals							10-19	15-19	17-19	Custon	ner Int	errupti	<mark>ons</mark> - Pe	ercent ⁻	Total					10-19	15-19	17-19
Primary Cause	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	10 Yr Avg	5 Yr Avg	3 Yr Avg	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	10 Yr Avg	5 Yr Avg	3 Yr Avg
Equipment - OH	32,992	35,449	23,803	29,564	26,410	21,813	44,277	36,176	34,499	28,206	31,319	32,994	32,960	23%	22%	23%	18%	27%	28%	35%	31%	33%	25%	27%	30%	30%
Equipment - UG	5,174	7,423	4,380	10,161	6,093	7,440	6,503	5,193	7,335	5,022	6,472	6,299	5,850	4%	5%	4%	6%	6%	10%	5%	4%	7%	4%	6%	6%	5%
Lightning	7,200	4,871	2,304	5,163	3,526	5,786	3,891	2,027	5,552	13,639	5,396	6,179	7,073	5%	3%	2%	3%	4%	7%	3%	2%	5%	12%	5%	6%	6%
Other	3,576	6,370	3,396	15,011	7,016	1,227	3,368	7,502	2,698	2,283	5,245	3,416	4,161	2%	4%	3%	9%	7%	2%	3%	6%	3%	2%	4%	3%	4%
Power Supply	27,378	26,230	15,814	31,648	25,062	9,680	27,614	17,539	16,817	20,318	21,810	18,394	18,225	19%	16%	16%	19%	26%	13%	22%	15%	16%	18%	18%	17%	16%
Planned	7,824	9,864	14,690	15,041	10,955	11,895	6,816	8,750	10,729	7,363	10,393	9,111	8,947	5%	6%	14%	9%	11%	15%	5%	7%	10%	6%	9%	9%	8%
Public	14,274	13,460	9,645	16,506	10,306	4,155	9 <i>,</i> 563	6,115	5,945	12,273	10,224	7,610	8,111	10%	8%	10%	10%	11%	5%	8%	5%	6%	11%	8%	7%	7%
Unknown	8,720	7,278	10,990	7,885	1,325	1,594	8,571	5,696	3,970	1,426	5,746	4,251	3,697	6%	4%	11%	5%	1%	2%	7%	5%	4%	1%	5%	4%	3%
Vegetation	28,286	45,851	12,007	29,555	2,036	12,611	14,584	24,517	13,926	19,873	20,325	17,102	19,439	19%	28%	12%	18%	2%	16%	12%	21%	13%	17%	16%	16%	17%
Weather - Non Lightning)	3	5	1,079	4	2	0	140	0	73	8	131	44	27	0%	0%	1%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Wildlife	10,669	6,180	3,236	2,621	3 <i>,</i> 655	1,167	1,178	3,197	2,442	3,197	3,754	2,236	2,945	7%	4%	3%	2%	4%	2%	1%	3%	2%	3%	3%	2%	3%
All Causes	146,096	162,981	101,344	163,159	96,386	77,368	126,505	116,712	103,986	113,608				100%	100%	100%	100%	100%	100%	100%	100%	100%	100%			

Northwest Work Region(Includes ND region custs/outs in state of MN)

IEEE MN Reg Normalized	Customer	Interrup	tions - Ac	tuals							10-19	15-19	17-19	Custom	er Inte	errupti	ons - Pe	ercent	Total					10-19	15-19	17-19
Primary Cause	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	10 Yr Avg	5 Yr Avg	3 Yr Avg	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	10 Yr Avg	5 Yr Avg	3 Yr Avg
Equipment - OH	25,891	19,769	23,790	24,240	26,410	21,813	21,737	30,810	34,499	24,035	25,299	26,579	29,781	23%	21%	25%	22%	27%	28%	26%	34%	33%	25%	27%	29%	31%
Equipment - UG	4,392	7,359	4,380	10,100	6,093	7,440	6,434	5,193	7,335	4,968	6,369	6,274	5,832	4%	8%	5%	9%	6%	10%	8%	6%	7%	5%	7%	7%	6%
Lightning	6,580	1,706	2,281	2,150	3,526	5,786	3,808	1,786	5,552	11,144	4,432	5,615	6,161	6%	2%	2%	2%	4%	7%	5%	2%	5%	12%	5%	6%	6%
Other	3,552	6,271	3,396	8,426	7,016	1,227	3,216	7,451	2,698	1,490	4,474	3,216	3,880	3%	7%	4%	8%	7%	2%	4%	8%	3%	2%	5%	4%	4%
Power Supply	19,909	15,661	12,375	21,822	25,062	9,680	17,791	14,015	16,817	16,331	16,946	14,927	15,721	18%	16%	13%	20%	26%	13%	21%	16%	16%	17%	18%	17%	16%
Planned	7,732	9,782	14,690	14,732	10,955	11,895	6,816	8,393	10,729	7,246	10,297	9,016	8,789	7%	10%	15%	13%	11%	15%	8%	9%	10%	8%	11%	10%	9%
Public	13,969	13,426	9,645	16,499	10,306	4,155	9,563	6,114	5,945	12,273	10,190	7,610	8,111	13%	14%	10%	15%	11%	5%	12%	7%	6%	13%	10%	8%	8%
Unknown	8,418	6,146	10,990	4,028	1,325	1,594	7,174	4,488	3,970	773	4,891	3,600	3,077	8%	6%	11%	4%	1%	2%	9%	5%	4%	1%	5%	4%	3%
Vegetation	10,175	8,755	10,314	5,314	2,036	12,611	5,414	8,656	13,926	14,174	9,138	10,956	12,252	9%	9%	11%	5%	2%	16%	7%	10%	13%	15%	10%	12%	13%
Weather - Non Lightning)	3	5	1,079	4	2	0	0	0	73	8	117	16	27	0%	0%	1%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Wildlife	10,668	6,097	3,236	2,608	3 <i>,</i> 655	1,167	1,169	3,195	2,442	2,573	3,681	2,109	2,737	10%	6%	3%	2%	4%	2%	1%	4%	2%	3%	4%	2%	3%
All Causes	111,289	94,977	96,176	109,923	96,386	77,368	83,122	90,101	103,986	95,015				100%	100%	100%	100%	100%	100%	100%	100%	100%	100%			

Southeast Work Region(Includes SD region custs/outs in state of MN)

Customer Interruptions - Actuals All Days 10-19 15-19 17-19 **Primary Cause** 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 10 Yr Avg 5 Yr Avg 3 Yr Av 46,620 31, Equipment - OH 26,071 20,005 29,616 24,365 22,957 23,436 16,191 14,678 26,555 25,049 28,713 Equipment - UG 9,470 8,623 7,705 8,970 5,027 5,118 6,416 7,082 7,405 7,144 7,296 6,633 7, Lightning 8,215 3,309 1,457 4,593 3,219 9,308 5,282 5,9 4,209 3,109 9,960 5,444 6,208 Other 7,642 2,230 3,965 5,175 8,594 480 3,450 9,214 9,403 6,190 5,634 5,747 8,2 40,405 25, Power Supply 44,885 25,209 9,266 28,547 27,608 30,364 9,619 9,972 26,832 25,271 23,438 6,732 13,116 5,957 12,525 10,799 5,632 6,049 5,279 5,799 10,939 8,283 6,740 7,3 Planned 2,849 10,9 Public 9,405 3,449 4,824 8,894 4,645 8,249 7,871 13,309 16,802 8,030 9,816 9,486 7,368 12,198 6,631 5,391 3,080 3,124 19,240 3,576 8,297 7,839 8,745 7,3 Unknown 25,9 23,954 22,281 29,963 23,810 34,741 15,922 35,074 26,804 24,253 Vegetation 18,146 11,831 24,874 1,828 184 829 82 1,610 454 340 Weather - Non Lightning) 0 0 4 0 6 Wildlife 10,284 14,855 9,491 5,299 8,683 11,380 18,735 12,817 11,639 8,393 11,158 12,593 10,9 All Causes 153,219 118,226 88,107 132,960 123,739 99,296 145,697 106,986 147,129 170,128

Southeast Work Region(Includes SD region custs/outs in state of MN)

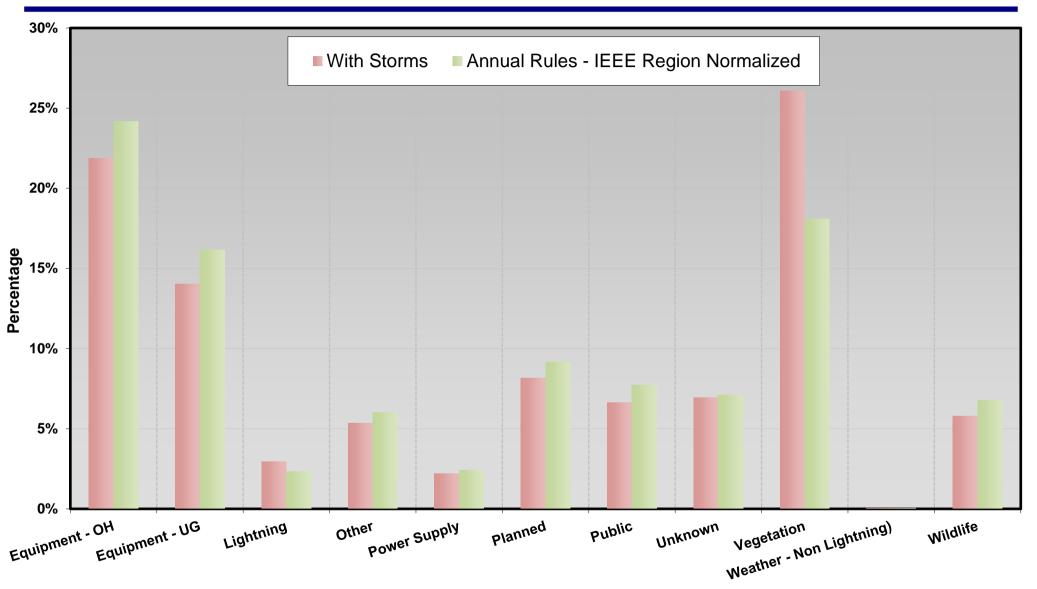
IEEE MN Reg Normalized	Customer	Interrup	tions - Ac	tuals							10-19	15-19	17-19	Custom	ner Int	errupti	<mark>ons</mark> - Pe	ercent	Гotal					10-19	15-19	17-19
Primary Cause	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	10 Yr Avg	5 Yr Avg	3 Yr Avg	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	10 Yr Avg	5 Yr Avg	3 Yr Avg
Equipment - OH	15,005	16,141	14,666	18,591	19,991	19,743	26,180	24,365	18,769	29,074	20,253	23,626	24,069	12%	14%	18%	20%	20%	21%	24%	23%	16%	24%	19%	22%	21%
Equipment - UG	9,376	8,623	7,653	8,969	5,025	5,116	5,992	7,082	7,365	7,103	7,230	6,532	7,183	8%	8%	9%	10%	5%	5%	6%	7%	6%	6%	7%	6%	6%
Lightning	5,709	4,185	3,261	1,057	4,532	3,034	4,514	5,444	3,210	4,525	3,947	4,145	4,393	5%	4%	4%	1%	4%	3%	4%	5%	3%	4%	4%	4%	4%
Other	7,388	2,205	3,965	4,935	8,584	451	3,307	9,214	5,252	5,431	5,073	4,731	6,632	6%	2%	5%	5%	9%	0%	3%	9%	4%	5%	5%	4%	6%
Power Supply	37,117	21,920	9,266	22,685	19,106	29,795	5,266	9,972	35,247	15,276	20,565	19,111	20,165	30%	20%	11%	25%	19%	31%	5%	9%	30%	13%	19%	18%	17%
Planned	6,288	13,116	5,760	10,497	10,747	5,632	5,997	5,279	5,199	9,652	7,817	6,352	6,710	5%	12%	7%	11%	11%	6%	6%	5%	4%	8%	7%	6%	6%
Public	9,405	3,449	4,824	8,893	4,491	8,249	7,859	13,309	2,849	14,574	7,790	9,368	10,244	8%	3%	6%	10%	4%	9%	7%	12%	2%	12%	7%	9%	9%
Unknown	5,517	11,410	5,146	4,586	3,001	3,087	17,083	3,576	6,366	6,002	6,577	7,223	5,315	5%	10%	6%	5%	3%	3%	16%	3%	5%	5%	6%	7%	5%
Vegetation	15,398	16,384	19,534	7,761	16,188	8,488	12,840	15,922	21,518	18,614	15,265	15,476	18,685	13%	15%	23%	8%	16%	9%	12%	15%	18%	16%	14%	14%	16%
Weather - Non Lightning)	1,632	0	0	4	577	4	0	6	82	1,145	345	247	411	1%	0%	0%	0%	1%	0%	0%	0%	0%	1%	0%	0%	0%
Wildlife	8,958	14,855	9,489	3,622	8,616	11,377	18,689	12,817	11,639	8,368	10,843	12,578	10,941	7%	13%	11%	4%	9%	12%	17%	12%	10%	7%	10%	12%	10%
All Causes	121,793	112,288	83,564	91,600	100,858	94,976	107,727	106,986	117,496	119,764				100%	100%	100%	100%	100%	100%	100%	100%	100%	100%			

19	Custon	ner Int	errupti	ons - Pe	ercent ⁻	Total					10-19	15-19	17-19
Avg	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	10 Yr Avg	5 Yr Avg	3 Yr Avg
1,314	15%	14%	17%	20%	21%	20%	20%	23%	16%	27%	19%	21%	22%
7,210	6%	7%	9%	7%	4%	5%	4%	7%	5%	4%	6%	5%	5%
5,990	5%	4%	4%	1%	4%	3%	7%	5%	2%	5%	4%	5%	4%
8,269	5%	2%	5%	4%	7%	0%	2%	9%	6%	4%	4%	4%	6%
5,736	29%	21%	11%	21%	22%	31%	7%	9%	27%	16%	19%	18%	18%
7,339	4%	11%	7%	9%	9%	6%	4%	5%	4%	6%	7%	5%	5%
0,987	6%	3%	5%	7%	4%	8%	5%	12%	2%	10%	6%	8%	8%
7,120	5%	10%	8%	4%	2%	3%	13%	3%	6%	6%	6%	6%	5%
5,933	16%	15%	25%	23%	19%	12%	24%	15%	24%	16%	19%	18%	18%
566	1%	0%	0%	0%	1%	0%	0%	0%	0%	1%	0%	0%	0%
0,950	7%	13%	11%	4%	7%	11%	13%	12%	8%	5%	9%	10%	8%
	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%			

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Metro East Workregion Outage Causes

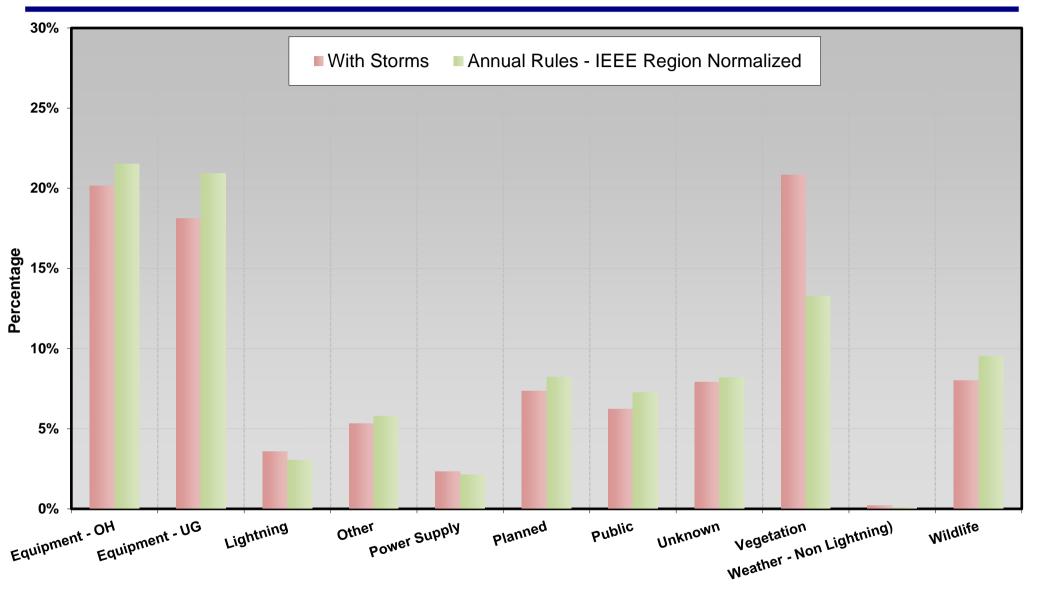
2010-2019 Average Annual Customer Interruption Percentages - All Levels



Annual Rules based on sustained outagess(>5 minutes), including All Levels and All Cause codes, IEEE 1366 Region normalized using 5 year rolling data including outliers

Metro West Workregion Outage Causes

2010-2019 Average Annual Customer Interruption Percentages - All Levels



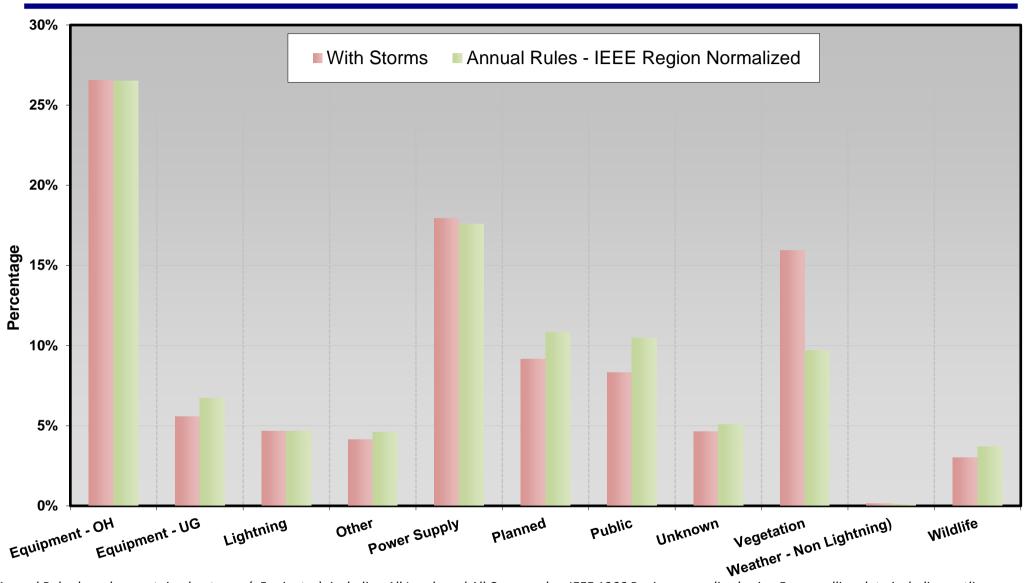
Annual Rules based on sustained outagess(>5 minutes), including All Levels and All Cause codes, IEEE 1366 Region normalized using 5 year rolling data including outliers

1/19/2021

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Northwest Workregion Outage Causes

2010-2019 Average Annual Customer Interruption Percentages - All Levels

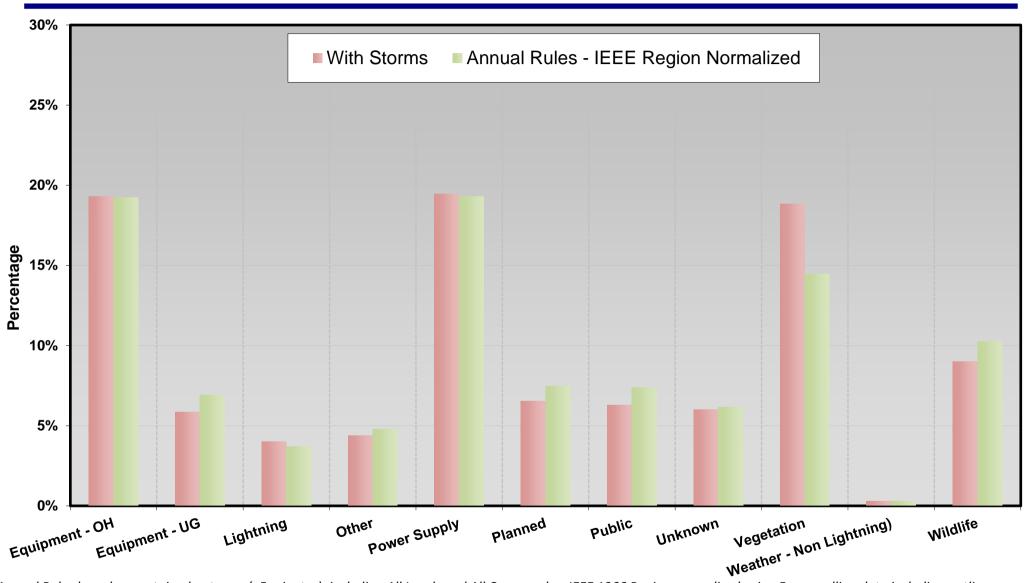


Annual Rules based on sustained outagess(>5 minutes), including All Levels and All Cause codes, IEEE 1366 Region normalized using 5 year rolling data including outliers Northwest Region includes customers/outages in the North Dakota work region that are in the state of Minnesota

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Southeast Workregion Outage Causes

2010-2019 Average Annual Customer Interruption Percentages - All Levels



Annual Rules based on sustained outagess(>5 minutes), including All Levels and All Cause codes, IEEE 1366 Region normalized using 5 year rolling data including outliers Southeast Region includes customers/outages in the South Dakota work region that are in the state of Minnesota

1/19/2021

CERTIFICATE OF SERVICE

I, Mustafa Adam, hereby certify that I have this day served copies of the foregoing document on the attached list of persons.

- <u>xx</u> by depositing a true and correct copy thereof, properly enveloped with postage paid in the United States mail at Minneapolis, Minnesota; or
- \underline{xx} by electronic filing.

MPUC Docket No: E002/M-20-406

Dated this 19th day of January 2021.

/s/

Mustafa Adam Regulatory Administrator

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