



400 North Fourth Street
Bismarck, ND 58501
(701) 222-7900

February 27, 2020

Mr. Will Rosquist
Utility Division
Montana Public Service Commission
1701 Prospect Avenue
Helena, MT 59620

RE: Annual Electric Reliability Report – 2019
ARM 38.5.8619

Dear Mr. Rosquist:

Montana-Dakota Utilities Co., (Montana-Dakota) herewith submits an original and ten copies of its Annual Report of Montana Electric Reliability Indices pursuant to ARM 38.5.8619.

The Reliability Indices provided in this report include the System Average Interruption Frequency Index (SAIFI), the System Average Interruption Duration Index (SAIDI) and the Customer Average Interruption Duration Index (CAIDI) for the state of Montana and by major district served by Montana-Dakota in Montana for calendar year 2019. Historical data for calendar years 2018 and 2017 is also included. All indices in this report include outage data for both the distribution system and the transmission system and the SAIDI and CAIDI indices are reported in minutes.

A graphical presentation of the SAIFI, SAIDI and CAIDI indices for 2017-2019 is provided in Attachment A, pages 1 and 2 with a categorization of the causes associated with service interruptions in 2017 through 2019 shown on Attachment A, page 3. Overall, outages decreased in 2019 from the previous two years. Please refer to Attachment B, page 1 for the index data.

In calendar year 2019, Montana-Dakota did not have an outage on the distribution or transmission system that was classified as a major storm event where more than 10% of a major town's circuits were affected. However, storms did impact the system. An explanation of storm related outages not classified as major storm events is provided in Attachment B, page 2.

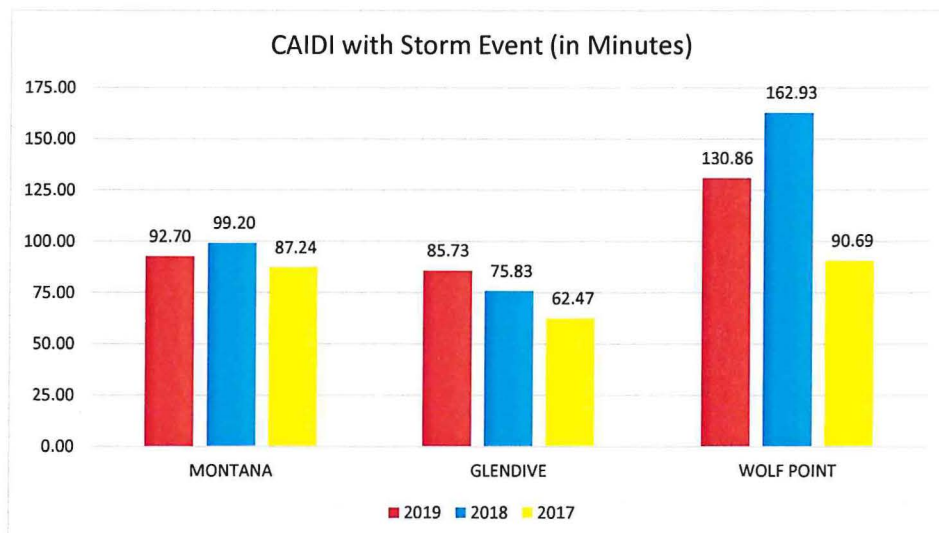
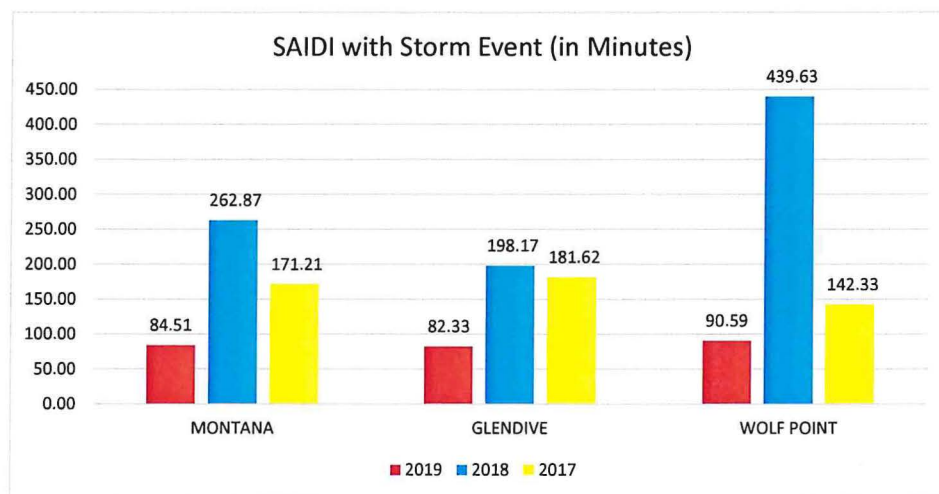
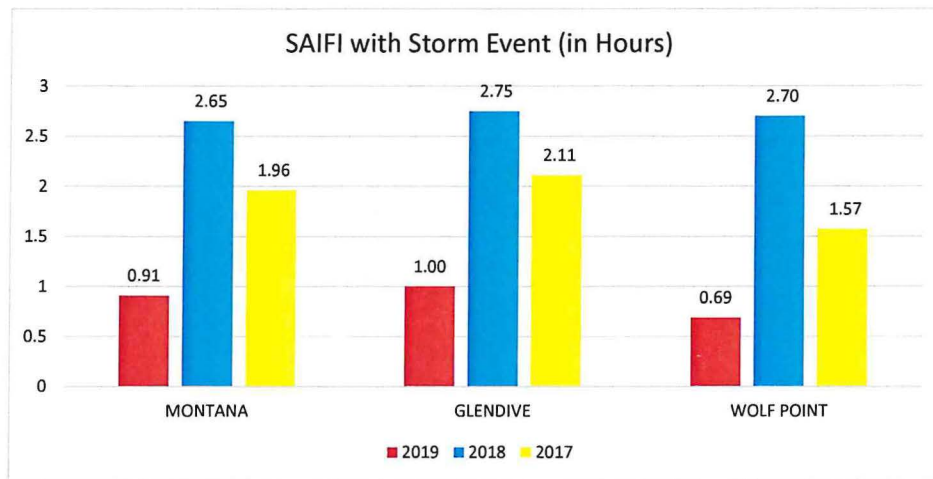
Please contact me with any questions regarding this report

Sincerely,

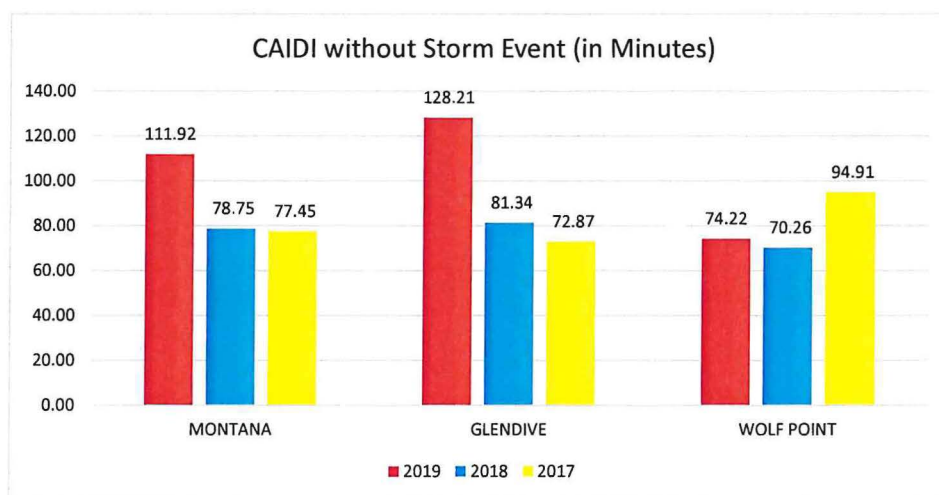
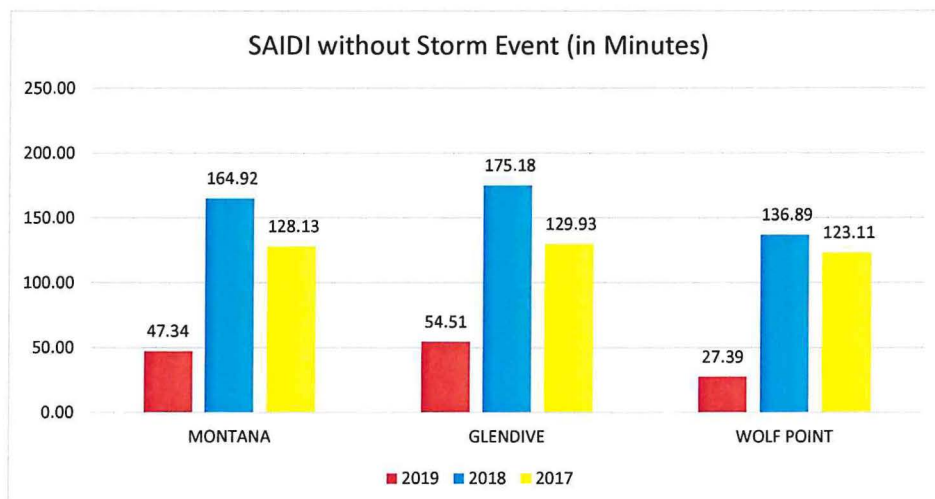
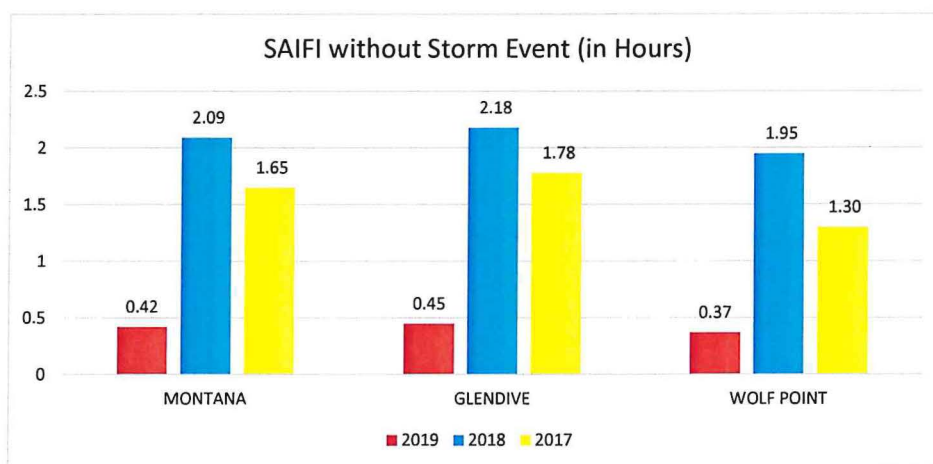
A handwritten signature in black ink, appearing to read 'Tamie A. Aberle', is written over a horizontal line.

Tamie A. Aberle
Director of Regulatory Affairs

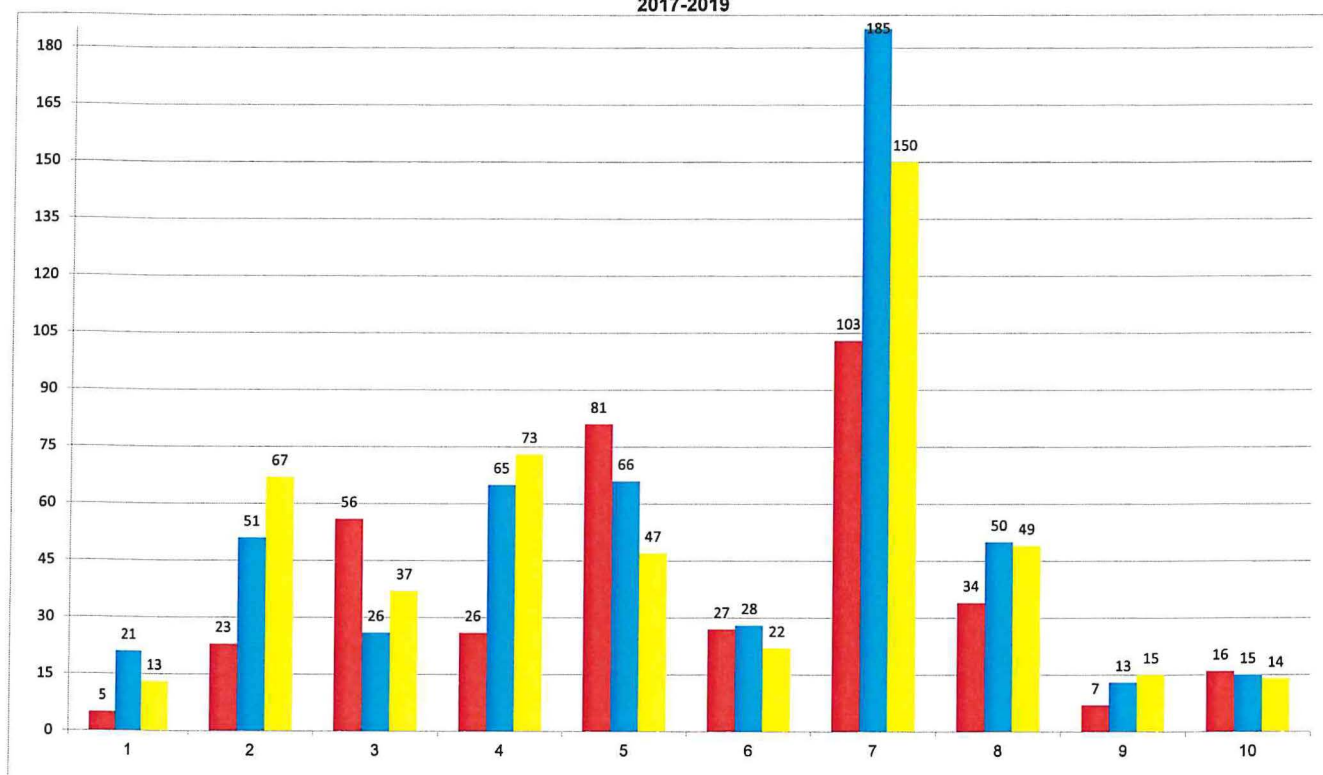
MONTANA-DAKOTA UTILITIES CO.
RELIABILITY INDEX WITH IDENTIFIED STORM EVENT(S)
ELECTRIC UTILITY - MONTANA
2017-2019



MONTANA-DAKOTA UTILITIES CO.
RELIABILITY INDEX WITHOUT IDENTIFIED STORM EVENT(S)
ELECTRIC UTILITY - MONTANA
2017-2019



**MONTANA-DAKOTA UTILITIES CO.
ELECTRIC UTILITY MONTANA
OUTAGES BY CAUSE
2017-2019**



Distribution and Transmission Outages:

	2019	2018	2017
1) Customer	5	21	13
2) Equipment	23	51	67
3) Other	56	26	37
4) Planned	26	65	73
5) Storms	81	66	47
6) Trees/Vegetation	27	28	22
7) Unknown	103	185	150
8) Wildlife	34	50	49
9) Vehicle Collision	7	13	15
10) Improper Construction/Dig In	16	15	14
	378	520	487

MONTANA-DAKOTA UTILITIES CO.
ANNUAL ELECTRIC RELIABILITY REPORT-MONTANA
CALENDAR YEAR 2019
MONTANA RULE 38.5.8619

Reliability Index with Identified Storm Event(s)	Montana			Glendive District			Wolf Point District		
	2019	2018	2017	2019	2018	2017	2019	2018	2017
SAIFI (System Average Interruption Frequency Index)	0.91	2.65	1.96	1.00	2.75	2.16	0.69	2.70	1.57
SAIDI (System Average Interruption Duration Index)	84.51	262.87	171.21	82.33	198.17	181.62	90.59	439.63	142.33
CAIDI (Customer Average Interruption Duration Index)	92.70	99.20	87.24	85.73	75.83	62.47	130.86	162.93	90.69

Reliability Index-Without Identified Storm Event(s)	Montana			Glendive District			Wolf Point District		
	2019	2018	2017	2019	2018	2017	2019	2018	2017
SAIFI (System Average Interruption Frequency Index)	0.42	2.09	1.65	0.45	2.18	1.78	0.37	1.95	1.3
SAIDI (System Average Interruption Duration Index)	47.34	164.92	128.13	54.51	175.18	129.93	27.39	136.89	123.11
CAIDI (Customer Average Interruption Duration Index)	111.92	78.75	77.45	128.21	81.34	72.87	74.22	70.26	94.91

2019 had no Major Storm Events

**Montana-Dakota Utilities Co.
Electric Utility – Montana
Outage Data Information
2019**

The following storm outages, while not classified as a major storm events by definition, did affect reliability indices in calendar year 2019.

Specific storm related outages on the transmission system not classified as a major storm event affecting distribution substations included:

Storm Related Weather and Wind – Glendive District

- 06/05/2019 – Cenex Pumping, Forsyth 12kV & 14kV, Hathaway, MC Radar Base, Rosebud & Ulmer
- 07/08/2019 – Coral Creek, Fertile Prairie, Little Beaver 1&2, & Lookout Butte
- 07/09/2019 – Coral Creek & Lookout Butte
- 07/15/2019 – OneOK Booster
- 07/28/2019 – Pennel
- 09/11/2019 – Baker, Baker Gas Comp, Butte Pipeline 1 & 2, Coral Creek, Encore Air Comp, Fertile Prairie, Little Beaver 1 & 2, Lookout Butte, ODonnell and Pennel
- 09/17/2019 – Fletcher, Hi-Line Truck, Holly Sugar 1534 & 1539, Intake, KRMC Savage, Savage & Sidney East

Storm Related Weather and Wind – Wolf Point District

- 03/26/2019 – Poplar Oil Field
- 06/28/2019 – Froid, Homestead & Medicine Lake
- 07/24/2019 – Poplar Oil Field
- 08/14/2019 – Froid, Homestead & Medicine Lake