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Bismarck, ND 58501
701-222-7900

February 28, 2023

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

RE: Docket No. 2023.01.002
Annual Electric Reliability Report – 2022
ARM 38.5.8619

Dear Mr. Rosquist:

Montana-Dakota Utilities Co. (Montana-Dakota) herewith electronically submits 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 2022. Historical data for calendar years 2021 and 2020 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 categorization of the causes associated with service interruptions in 2020 through 2022 is provided in Attachment A, page 1 with a graphical presentation of the SAIFI, SAIDI and CAIDI indices for 2020-2022 shown on Attachment A, pages 2 and 3. Please refer to Attachment B, page 1 for the index data. Overall, the total number of outages decreased in 2022 by 12 percent compared to the previous year.

In calendar year 2022, 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 percent of a major town's circuits were affected.

An explanation of storm related outages not classified as major storm events is provided in Attachment B, page 2.

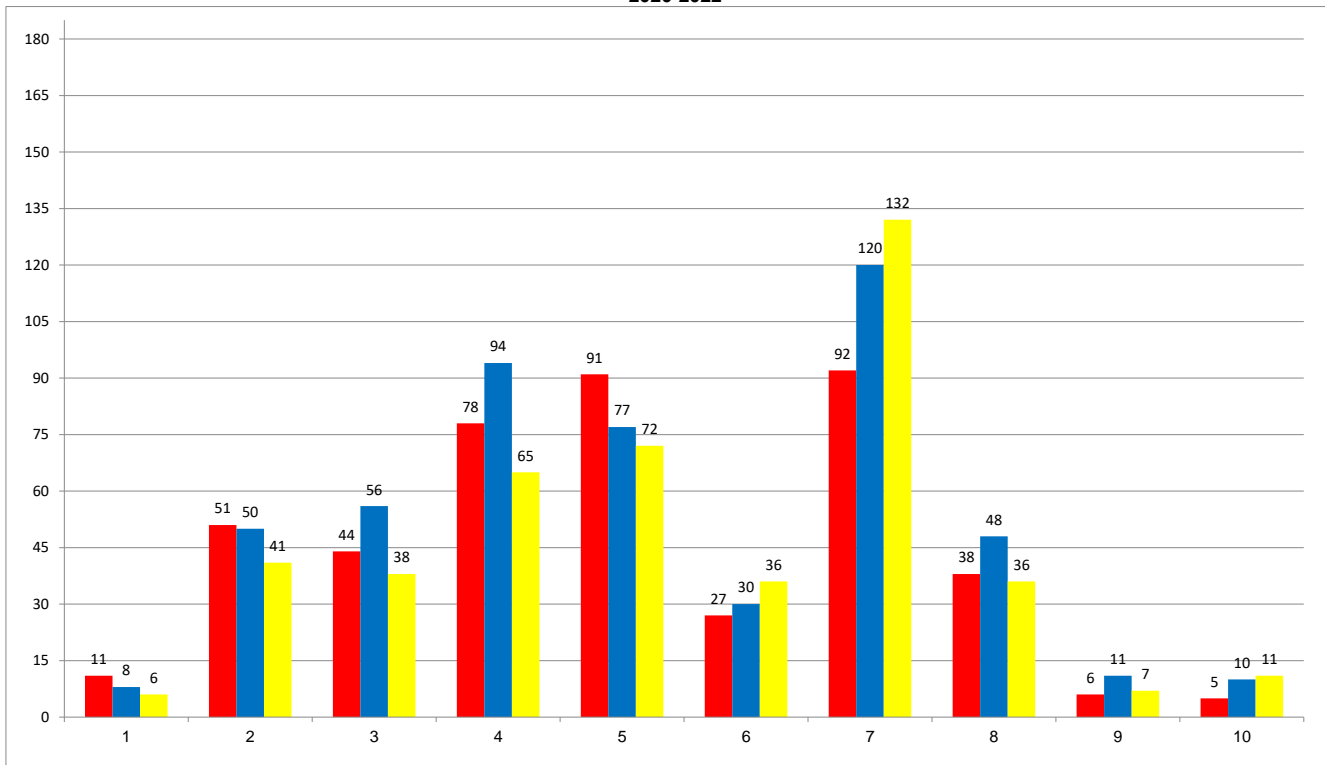
Please contact me with any questions regarding this report.

Sincerely,

/s/ Travis R. Jacobson

Travis R. Jacobson
Director of Regulatory Affairs

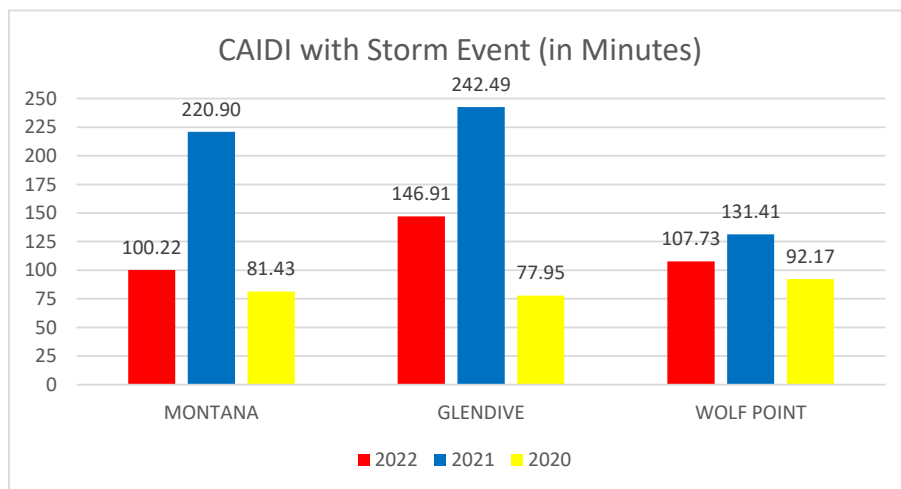
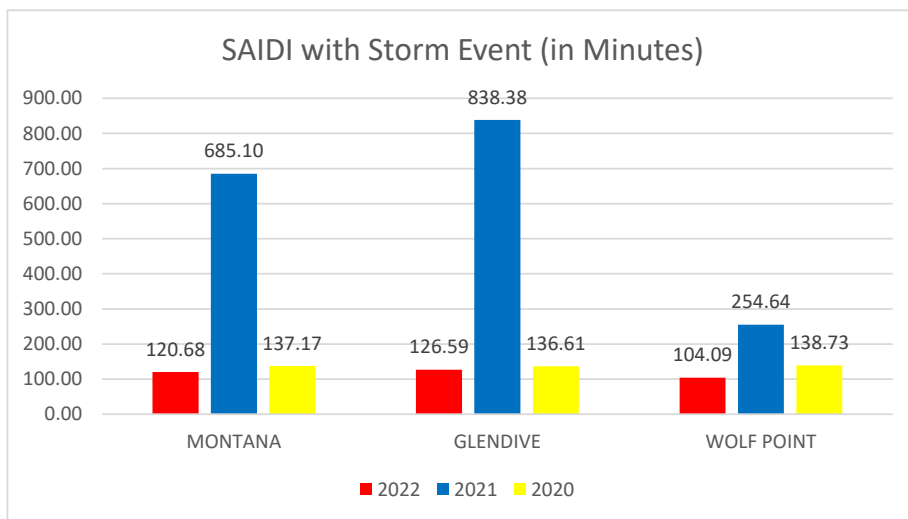
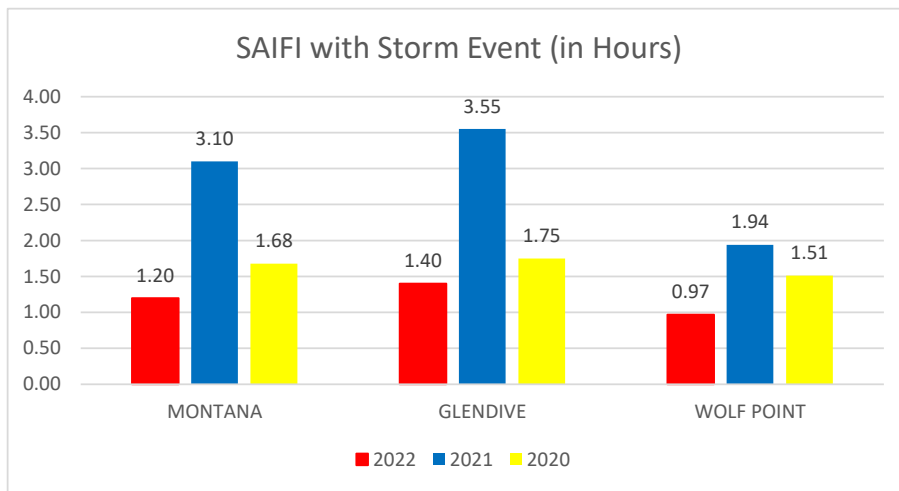
MONTANA-DAKOTA UTILITIES CO.
ELECTRIC UTILITY MONTANA
OUTAGES BY CAUSE
2020-2022



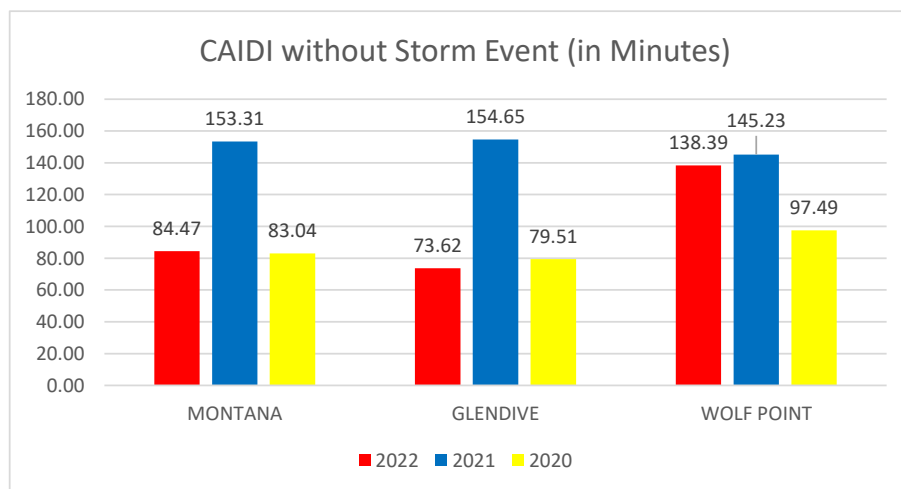
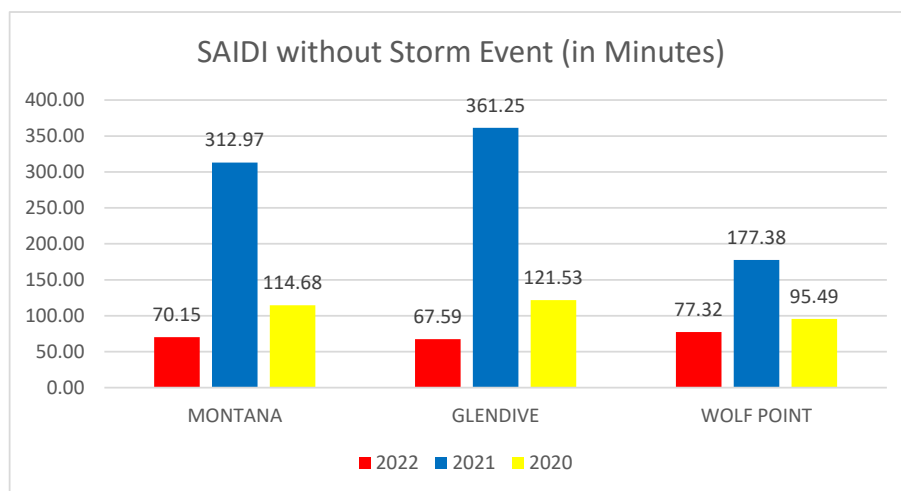
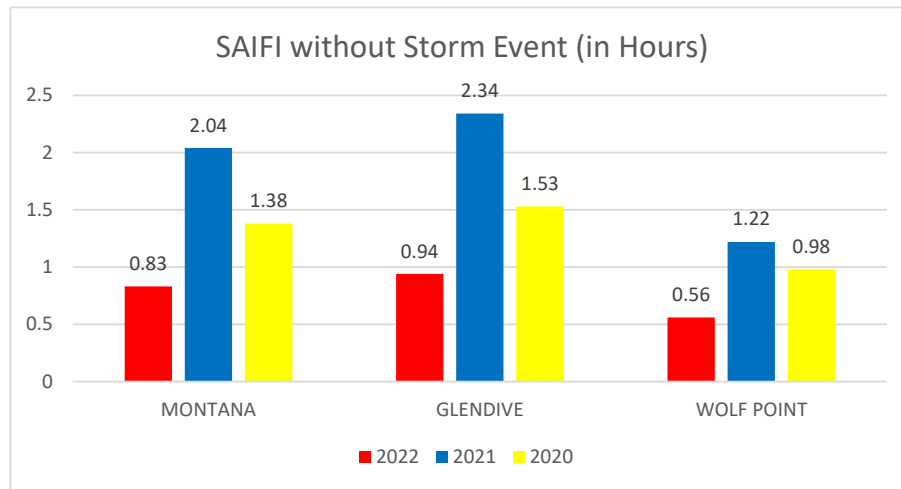
Distribution and Transmission Outages:

	2022	2021	2020
1) Customer	11	8	6
2) Equipment	51	50	41
3) Other	44	56	38
4) Planned	78	94	65
5) Storms	91	77	72
6) Trees/Vegetation	27	30	36
7) Unknown	92	120	132
8) Wildlife	38	48	36
9) Vehicle Collison	6	11	7
10) Improper Construction/Dig In	5	10	11
	<u>443</u>	<u>504</u>	<u>444</u>

**MONTANA-DAKOTA UTILITIES CO.
RELIABILITY INDEX WITH IDENTIFIED STORM EVENT(S)
ELECTRIC UTILITY - MONTANA
2020-2022**



**MONTANA-DAKOTA UTILITIES CO.
RELIABILITY INDEX WITHOUT IDENTIFIED STORM EVENT(S)
ELECTRIC UTILITY - MONTANA
2020-2022**



**MONTANA-DAKOTA UTILITIES CO.
ANNUAL ELECTRIC RELIABILITY REPORT-MONTANA
CALENDAR YEAR 2022
MONTANA RULE 38.5.8619**

	Montana			Glendive District			Wolf Point District		
	2022	2021	2020	2022	2021	2020	2022	2021	2020
* Reliability Index with all Identified Storm Event(s)									
SAIFI (System Average Interruption Frequency Index)	1.20	3.10	1.68	1.40	3.55	1.75	0.97	1.94	1.51
SAIDI (System Average Interruption Duration Index)	120.68	685.10	137.17	126.59	838.38	136.61	104.09	254.64	138.73
CAIDI (Customer Average Interruption Duration Index)	100.22	220.90	81.43	146.91	242.49	77.95	107.73	131.41	92.17
	Montana			Glendive District			Wolf Point District		
	2022	2021	2020	2022	2021	2020	2022	2021	2020
Reliability Index-Without Identified Storm Event(s)									
SAIFI (System Average Interruption Frequency Index)	0.83	2.04	1.38	0.94	2.34	1.53	0.56	1.22	0.98
SAIDI (System Average Interruption Duration Index)	70.15	312.97	114.68	67.59	361.25	121.53	77.32	177.38	95.49
CAIDI (Customer Average Interruption Duration Index)	84.47	153.31	83.04	73.62	154.65	79.51	138.39	145.23	97.49

2022 had no Major Storm Events

**Montana-Dakota Utilities Co.
Electric Utility – Montana
Outage Data Information
2022**

The following storm outages, while not classified as a major storm event by definition, did affect reliability indices in calendar year 2022.

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

- 04/23/2022 – Cedar Creek, Gas City, Glendive, Herigstad Ranch, Phillip, Shell Severson, West Glendive & Wibaux
- 04/26/2022 – Pine 2
- 05/23/2022 – Hathaway & Rosebud
- 07/03/2022 – Cabin Creek 1 & 2, Hiland Crude, Plevna-Ismay, Sandstone Term & Sandstone 2
- 07/10/2022 – Cabin Creek 3, Pine 1 & 2 & Smith Ranch
- 09/22/2022 – Fairview

Storm Related Weather and Wind – Wolf Point District

- 04/24/2022 – Antelope, Brockton, Froid, Homestead, Medicine Lake, Reserve & Sprole
- 07/09/2022 – Poplar Oil Field
- 07/18/2022 – Poplar Oil Field
- 09/22/2022 – Bainville & Culbertson