

**BEFORE
THE PUBLIC UTILITIES COMMISSION OF OHIO**

In the matter of the Annual Report of)
Electric Distribution System Reliability) Case No: 24 -0992 -EL-ESS
Pursuant to Rule 4901:1-10-10(C))

Pursuant to Rule 4901:1-10-10(C) of the Ohio Administrative Code,
Ohio Power Company
hereby submits the attached annual report for the year 2023 .

I certify that the following report accurately and completely reflects the annual report requirements pursuant to Rule 4901:1-10-10 of the Ohio Administrative Code.

Ryan J. Forbes

Signature

VP Distribution Region Operations

Title

Ryan J Forbes

Printed Name

04/01/2024

Date

**Ohio Power Company
Rule 10 Report for 2023**

1. 4901:1-10-10(C)(1): CAIDI (Customer Average Interruption Duration Index)

<u>Performance Standard</u>	<u>After Exclusions</u>	<u>Before Exclusions</u>
148.00	151.06	263.79

2. 4901:1-10-10(C)(1): SAIFI (System Average Interruption Frequency Index)

<u>Performance Standard</u>	<u>After Exclusions</u>	<u>Before Exclusions</u>
1.18	0.87	1.24

3. 4901:1-10-10(C)(1): Supporting Data

Customers <u>Served</u>	CI* <u>After Exclusions</u>	CI <u>Before Exclusions</u>	CMI* <u>After Exclusions</u>	CMI <u>Before Exclusions</u>
1,524,255	1,320,985	1,884,421	199,550,801	497,089,981

Notes:

Standards and actuals use differing major event definitions

*CI = Customer Interruptions
CMI = Customer Minutes Interrupted

**Ohio Power Company
Rule 10 Report for 2023**

4. 4901:1-10-10(C)(2): Major Event Outages

Date	Description	CI	CMI	CAIDI	SAIFI
3/3/2023	A very strong low pressure system ejected northeast from the lower Mississippi Valley into the Ohio Valley on Friday, March 3. As the surface low deepened, it created record low pressure readings over many locations in southwest Indiana and western Kentucky.	61,748	47,206,017	764.49	0.04
3/25/2023	Heavy rain occurred along a stationary boundary that was in place in eastern Ohio on the 24th. Widespread rain amounts of 1 to 2 inches were reported. The most concentrated area of heavy rain was in Noble County, where up to 2.3 inches fell. This led to several flooded roads into the afternoon. The rain slackened somewhat by the 25th. However, strong surface low pressure developed further west on the front and tracked across Michigan and into eastern Canada on the 25th, along a track that is climatologically favored for strong wind events in the Upper Ohio Valley. The boundary, now an occluded front, crossed on the morning of the 25th and was the catalyst to bring strong wind to the surface. A tight pressure gradient behind the front kept gusty wind going into the early evening. Widespread instances of 50 to 60 MPH wind gusts were reported, and several wind damage reports were received.	180,479	149,671,429	829.30	0.12
4/1/2023	A cold front crossed the Ohio Valley in the early morning hours of April 1. Strong low level winds mixed down after daybreak, and a secondary cold front passed over the region in the later morning. Winds across the area gusted 40 to 55 mph, with a few measured gusts near 60 mph.	109,289	54,490,912	498.59	0.07
7/20/2023	Thunderstorms developed during the afternoon and evening hours ahead of a cold front moving into the region.	31,594	8,886,439	281.27	0.02

**Ohio Power Company
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4. 4901:1-10-10(C)(2): Major Event Outages

Date	Description	CI	CMI	CAIDI	SAIFI
7/24/2023	<p>A mid/upper-level trough lingered over the Great Lakes and Middle to Upper OH Valley during the afternoon of the 23rd through early evening of the 25th as embedded shortwave disturbances traversed northern OH generally from west to east. Multiple surface trough axes associated with the disturbances moved generally eastward across northern OH. Low-level convergence and associated ascent along surface trough axes acted as a focus for scattered thunderstorm development during the early evening of the 23rd. These multicell thunderstorms generated isolated straight-line convective wind damage as they persisted northeastward and encountered moderate MUCAPE and marginally-moderate effective bulk shear. Low-level convergence and associated ascent along a Lake Erie lake breeze front generated scattered thunderstorms in the Cleveland metro area during the afternoon of the 25th. The pulse thunderstorms produced isolated severe hail and straight-line convective wind damage as they persisted generally southward and encountered strong MUCAPE and weak to marginally-moderate effective bulk shear.</p>	37,986	11,861,105	312.25	0.03
Totals:		421,096	272,115,902		

Notes: Transmission outages included

**Ohio Power Company
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5a. 4901:1-10-10(C)(2): Transmission Outages

Outage Start Date	Transmission Circuit Impacted	Outage Start Time	Circuit kV	Outage Cause	Outage Length (minutes)
1/3/2023	St. Mary's - New Matamoras	9:05 AM	23	VEHICLE ACCIDENT (NON AEP)	141
1/5/2023	2944: East Lancaster - Ralston - West Lancaster	5:33 PM	69	TREE OUT OF ROW	162
1/12/2023	812: Lazelle - Sawmill	1:06 PM	69	TREE OUT OF ROW	157
1/19/2023	5541: Carrothers - Greenlawn	5:14 PM	69	EQUIPMENT FAILURE	154
1/25/2023	24937: Bane - Hammondsville	8:57 PM	69	UNKNOWN (NON WEATHER)	163
1/27/2023	8271: East Beaver - North Portsmouth	4:11 PM	69	TREE OUT OF ROW	187
1/27/2023	24937: Bane - Hammondsville	4:31 PM	69	SCHEDULED COMPANY	9
2/1/2023	961: Payne - South Hicksville	4:31 PM	69	EQUIPMENT FAILURE	323
2/9/2023	9937: East Logan - Hocking	4:22 PM	69	TREE OUT OF ROW	308
2/10/2023	13197: Berlin - West Millersburg	11:30 AM	69	WEATHER - UNKNOWN	177
2/17/2023	2267: Pomeroy - Rutland	6:28 AM	34	TREE OUT OF ROW	132
2/27/2023	4161: Dunkirk (OP) - Kenton	4:48 PM	69	WEATHER - LIGHTNING	136
3/4/2023	40819: McComb - Wilson Road	1:04 PM	40	EQUIPMENT FAILURE	6
3/18/2023	930: Minerva - Wagenhals	5:51 PM	69	UNKNOWN (NON WEATHER)	157
3/19/2023	833: Bucyrus - Howard # 2	5:59 AM	69	SCHEDULED COMPANY	346
3/23/2023	1068: New Philadelphia - West New Philadelphia	10:22 AM	34	EQUIPMENT FAILURE	70
3/26/2023	22397: North Bellville - Ohio Central	4:23 PM	138	TREE OUT OF ROW	37
3/27/2023	867: East Logan - New Lexington	9:35 AM	69	TREE OUT OF ROW	140
3/28/2023	18537: Newcomerstown - Newport	4:11 PM	69	TREE OUT OF ROW	184
4/3/2023	902: Haviland - Payne	3:06 PM	69	FIRE - AEP, OR AFFECTING > 1 CUSTOMER	126
4/15/2023	18537: Newcomerstown - Newport	7:12 AM	69	ANIMAL - OTHER	189

**Ohio Power Company
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5a. 4901:1-10-10(C)(2): Transmission Outages

Outage Start Date	Transmission Circuit Impacted	Outage Start Time	Circuit kV	Outage Cause	Outage Length (minutes)
4/21/2023	11542: Corner - Riverview	1:25 AM	138	EQUIPMENT FAILURE	612
4/21/2023	5541: Carrothers - Greenlawn	8:48 AM	69	VEHICLE ACCIDENT (NON AEP)	357
4/29/2023	8271: East Beaver - North Portsmouth	7:05 AM	69	SCHEDULED COMPANY	199
4/30/2023	785: Seaman - Stuart	5:56 PM	69	TREE OUT OF ROW	250
5/2/2023	20800: Hemlock - Meigs Station 170	5:00 AM	69	SCHEDULED COMPANY	17
5/3/2023	8271: East Beaver - North Portsmouth	5:43 AM	69	TREE OUT OF ROW	103
5/4/2023	936: Muskingum River - South Rokeby Sw.	1:45 PM	69	FOREIGN OBJECT (NON ANIMAL)	128
5/23/2023	25417: Harrison - Madison	2:16 PM	69	VEHICLE ACCIDENT (NON AEP)	109
5/25/2023	18537: Newcomerstown - Newport	8:32 AM	69	VEHICLE ACCIDENT (NON AEP)	384
5/29/2023	936: Muskingum River - South Rokeby Sw.	2:10 PM	69	EQUIPMENT FAILURE	140
5/31/2023	20800: Hemlock - Meigs Station 170	5:01 AM	69	SCHEDULED COMPANY	14
5/31/2023	936: Muskingum River - South Rokeby Sw.	9:18 AM	69	SCHEDULED COMPANY	44
6/3/2023	35779: East Beaver - Lick	6:35 AM	138	SCHEDULED COMPANY	30
6/3/2023	34177: Flushing - Lundy	8:59 AM		SCHEDULED COMPANY	30
6/4/2023	833: Bucyrus - Howard # 2	5:59 AM	69	SCHEDULED COMPANY	89
6/4/2023	35779: East Beaver - Lick	10:15 AM	138	SCHEDULED COMPANY	46
6/4/2023	846: Crooksville - New Lexington	8:05 PM	69	TREE OUT OF ROW	91
6/11/2023	2283: Addison - Haners	1:16 PM	69	ANIMAL - OTHER	107
6/11/2023	26978: Killbuck - South Coshocton	2:02 PM	34	WEATHER - LIGHTNING	181
6/12/2023	846: Crooksville - New Lexington	9:00 AM	69	TREE OUT OF ROW	594

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5a. 4901:1-10-10(C)(2): Transmission Outages

Outage Start Date	Transmission Circuit Impacted	Outage Start Time	Circuit kV	Outage Cause	Outage Length (minutes)
6/14/2023	14617: East Dover - Zoarville	12:39 AM	69	TREE OUT OF ROW	739
6/15/2023	11959: South Greenwich - Willard	8:22 PM	69	TREE OUT OF ROW	225
6/26/2023	4861: Belleville - Rutland	7:50 PM	138	WEATHER - LIGHTNING	137
7/2/2023	13197: Berlin - West Millersburg	12:57 PM	69	TREE OUT OF ROW	234
7/5/2023	Multiple 138 & 69 kV	1:39 PM		TREE INSIDE ROW	362
7/10/2023	959: Oakwood Road - West Canton	4:07 PM	69	ERROR - OPERATIONS	64
7/22/2023	3421: North Baltimore - Portage	2:21 PM	34	TREE OUT OF ROW	338
8/1/2023	24238: Dennison - Yager	7:01 AM	69	SCHEDULED COMPANY	92
8/4/2023	24232: Leesville - Yager	2:30 PM	138	SCHEDULED COMPANY	199
8/8/2023	St. Mary's - New Matamoras	11:21 AM	23	EQUIPMENT FAILURE	329
8/8/2023	24238: Dennison - Yager	4:17 PM	69	SCHEDULED COMPANY	94
8/9/2023	2121: East Amsterdam - Miller	7:52 AM	69	VANDALISM	423
8/12/2023	1064: Newcomerstown - West New Philadelphia	7:04 PM	34	TREE INSIDE ROW	184
8/13/2023	16957: Beartown-Moreland Sw	1:07 PM	69	SCHEDULED COMPANY	149
8/14/2023	30237: Moundsville - West Bellaire	5:38 PM	69	EQUIPMENT FAILURE	592
8/15/2023	24238: Dennison - Yager	4:08 PM	69	SCHEDULED COMPANY	135
8/20/2023	1099: Arlington - Dunkirk	12:00 AM	34	SCHEDULED COMPANY	99
8/24/2023	14838: Broom Road - Newcomerstown	7:53 AM	69	TREE OUT OF ROW	236
8/24/2023	4181: Fort Steuben - South Toronto	6:04 PM	69	TREE OUT OF ROW	59
8/24/2023	34181: Lundy - Robyville	6:41 PM	69	EQUIPMENT FAILURE	311
8/25/2023	24937: Bane - Hammondsville	1:13 AM	69	WEATHER - LIGHTNING	188

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5a. 4901:1-10-10(C)(2): Transmission Outages

Outage Start Date	Transmission Circuit Impacted	Outage Start Time	Circuit kV	Outage Cause	Outage Length (minutes)
8/25/2023	900: Hammondsville - South Toronto	1:29 AM	69	WEATHER - LIGHTNING	87
8/25/2023	1017: East Broad Street - Etna (CSP)	12:05 PM	40	EQUIPMENT FAILURE	301
8/26/2023	18958: Continental - Roselms	6:19 AM	69	SCHEDULED COMPANY	112
8/27/2023	7711: East Leipsic - East Ottawa	5:00 AM	69	SCHEDULED COMPANY	152
8/30/2023	40317: Dexter SW - Lee	2:55 PM	138	EQUIPMENT FAILURE	71
9/1/2023	34177: Flushing - Lundy	8:00 AM		SCHEDULED COMPANY	23
9/2/2023	18958: Continental - Roselms	6:00 AM	69	SCHEDULED COMPANY	112
9/2/2023	22117: Adams - Seaman	10:25 AM	138	ERROR - FIELD	19
9/5/2023	729: Muskingum River - West Cambridge	4:55 PM	138	TREE INSIDE ROW	469
9/26/2023	29377: Dennison - Schoenbrunn	7:58 PM	69	TREE OUT OF ROW	126
10/1/2023	980: Stanton Street - West Alikanna	6:14 AM	69	FOREIGN OBJECT (NON ANIMAL)	168
10/8/2023	2062: East Lima - Haviland	11:33 AM	138	EQUIPMENT FAILURE	90
10/10/2023	34181: Lundy - Robyville	8:04 AM	69	SCHEDULED COMPANY	274
10/30/2023	4621: South Van Wert - Van Wert	6:55 AM	69	EQUIPMENT FAILURE	132
11/3/2023	804: Huntley - Westerville	3:33 PM	69	EQUIPMENT FAILURE	106
11/7/2023	18958: Continental - Roselms	3:53 PM	69	VEHICLE ACCIDENT (NON AEP)	262
11/12/2023	901: Haviland - Paulding	5:29 AM	69	SCHEDULED COMPANY	156
12/3/2023	36963: Arboles - South Lucasville	10:09 PM	138	SCHEDULED COMPANY	7
12/10/2023	833: Bucyrus - Howard # 2	3:59 AM	69	SCHEDULED COMPANY	100

Notes: Excludes major event outages

**Ohio Power Company
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5b. 4901:1-10-10(C)(2): Distribution Circuits Impacted by Transmission Outages

Outage Start Date	CI per Outage	CMI per Outage	# of Impacted Circuits	IDs for Impacted Circuits	CI per Circuit	CMI per Circuit
1/3/2023	690	97,290	2	0033971	544	76,704
1/3/2023	690	97,290	2	0033972	146	20,586
1/5/2023	286	46,332	1	7415701	286	46,332
1/12/2023	1,671	239,595	1	0009801	1,671	239,595
1/19/2023	790	121,660	1	7200401	790	121,660
1/25/2023	815	132,845	2	7336501	66	10,758
1/25/2023	815	132,845	2	7336502	749	122,087
1/27/2023	1,728	298,340	2	7427101	828	130,040
1/27/2023	1,728	298,340	2	7427102	900	168,300
1/27/2023	814	6,578	2	7336501	66	594
1/27/2023	814	6,578	2	7336502	748	5,984
2/1/2023	2,112	606,216	4	7209501	1,433	427,639
2/1/2023	2,112	606,216	4	7209502	477	125,451
2/1/2023	2,112	606,216	4	7209901	201	52,863
2/1/2023	2,112	606,216	4	7209902	1	263
2/9/2023	853	107,087	3	7424301	2	616
2/9/2023	853	107,087	3	7424301	4	904
2/9/2023	853	107,087	3	7424301	847	105,567
2/10/2023	514	90,711	2	7357001	267	46,992
2/10/2023	514	90,711	2	7357002	247	43,719

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**Ohio Power Company
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5b. 4901:1-10-10(C)(2): Distribution Circuits Impacted by Transmission Outages

Outage Start Date	CI per Outage	CMI per Outage	# of Impacted Circuits	IDs for Impacted Circuits	CI per Circuit	CMI per Circuit
2/17/2023	1,193	157,476	1	7409602	1,193	157,476
2/27/2023	1,607	218,423	2	7201608	1,606	218,416
3/2/2023	1,607	218,423	2	7361201	1	7
3/4/2023	719	4,314	1	0007505	719	4,314
3/18/2023	5,301	538,353	4	7101701	1,219	191,383
3/18/2023	5,301	538,353	4	7102101	1,488	126,480
3/18/2023	5,301	538,353	4	7102102	550	46,750
3/18/2023	5,301	538,353	4	7102103	2,044	173,740
3/19/2023	1,069	369,044	2	7233402	239	82,694
3/19/2023	1,069	369,044	2	7233401	830	286,350
3/23/2023	151	10,570	1	7104007	151	10,570
3/26/2023	961	26,471	2	7407403	548	20,276
3/26/2023	961	26,471	2	7407401	413	6,195
3/27/2023	110	15,400	1	7401203	110	15,400
3/28/2023	1,369	250,928	2	7105901	401	73,784
3/28/2023	1,369	250,928	2	7105902	968	177,144
4/3/2023	2,482	312,732	7	7206801	292	36,792
4/3/2023	2,482	312,732	7	7206802	85	10,710
4/3/2023	2,482	312,732	7	7207801	688	86,688
4/3/2023	2,482	312,732	7	7207802	87	10,962

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**Ohio Power Company
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5b. 4901:1-10-10(C)(2): Distribution Circuits Impacted by Transmission Outages

Outage Start Date	CI per Outage	CMI per Outage	# of Impacted Circuits	IDs for Impacted Circuits	CI per Circuit	CMI per Circuit
4/3/2023	2,482	312,732	7	7207802	70	8,820
4/3/2023	2,482	312,732	7	7209501	583	73,458
4/3/2023	2,482	312,732	7	7209502	477	60,102
4/3/2023	2,482	312,732	7	7209901	200	25,200
4/15/2023	734	138,726	1	7106001	734	138,726
4/21/2023	62	12,308	1	0033473	62	12,308
4/21/2023	260	92,820	1	7227501	260	92,820
4/29/2023	282	56,118	1	7507201	282	56,118
4/30/2023	3,435	691,211	5	0011101	37	9,250
4/30/2023	3,435	691,211	5	0011102	1,039	258,711
4/30/2023	3,435	691,211	5	0011103	1,027	256,750
4/30/2023	3,435	691,211	5	0017701	489	61,125
4/30/2023	3,435	691,211	5	0017702	843	105,375
5/2/2023	3,209	52,878	2	0017001	1,534	26,078
5/2/2023	3,209	52,878	2	0017002	1,675	26,800
5/3/2023	1,724	157,724	2	7427101	827	65,333
5/3/2023	1,724	157,724	2	7427102	897	92,391
5/4/2023	2,015	257,920	2	7421701	534	68,352
5/4/2023	2,015	257,920	2	7421702	1,481	189,568
5/23/2023	1,501	163,609	2	0000801	587	63,983

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**Ohio Power Company
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5b. 4901:1-10-10(C)(2): Distribution Circuits Impacted by Transmission Outages

Outage Start Date	CI per Outage	CMI per Outage	# of Impacted Circuits	IDs for Impacted Circuits	CI per Circuit	CMI per Circuit
5/23/2023	1,501	163,609	2	0000802	914	99,626
5/25/2023	1,358	523,390	2	7105901	399	153,216
5/25/2023	1,358	523,390	2	7105902	959	370,174
5/29/2023	2,025	282,940	3	7421702	1,481	207,340
5/29/2023	2,025	282,940	3	7421701	536	74,504
5/29/2023	2,025	282,940	3	7407201	8	1,096
5/31/2023	3,208	44,912	2	0017001	1,532	21,448
5/31/2023	3,208	44,912	2	0017002	1,676	23,464
5/31/2023	8	352	1	7407201	8	352
6/3/2023	1,816	47,236	2	0024201	1,811	47,086
6/3/2023	1,816	47,236	2	0024204	5	150
6/3/2023	2,294	68,820	2	7513901	865	25,950
6/3/2023	2,294	68,820	2	7513902	1,429	42,870
6/4/2023	1,303	111,165	2	7233402	475	38,301
6/4/2023	1,303	111,165	2	7233401	828	72,864
6/4/2023	5	230	1	0024204	2	92
6/4/2023	5	230	1	0024204	3	138
6/4/2023	958	87,178	1	7412301	958	87,178
6/11/2023	1,366	146,162	2	0013801	2	214
6/11/2023	1,366	146,162	2	0013803	1,364	145,948

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**Ohio Power Company
Rule 10 Report for 2023**

5b. 4901:1-10-10(C)(2): Distribution Circuits Impacted by Transmission Outages

Outage Start Date	CI per Outage	CMI per Outage	# of Impacted Circuits	IDs for Impacted Circuits	CI per Circuit	CMI per Circuit
6/11/2023	1,154	208,459	2	7118401	739	133,759
6/11/2023	1,154	208,459	2	7118402	415	74,700
6/12/2023	958	527,500	1	7412301	958	527,500
6/14/2023	1,738	1,284,382	2	7108801	438	323,682
6/14/2023	1,738	1,284,382	2	7108802	1,300	960,700
6/15/2023	1,179	265,275	1	7231601	1,179	265,275
6/26/2023	1,010	138,370	1	7409702	1,010	138,370
7/2/2023	785	158,942	3	7114701	1	142
7/2/2023	785	158,942	3	7357001	535	100,534
7/2/2023	785	158,942	3	7357002	249	58,266
7/5/2023	22,071	6,408,504	27	7436801	14	1,120
7/5/2023	22,071	6,408,504	27	7436802	1,315	105,200
7/5/2023	22,071	6,408,504	27	7365901	48	14,016
7/5/2023	22,071	6,408,504	27	7365902	268	77,184
7/5/2023	22,071	6,408,504	27	7401101	921	331,560
7/5/2023	22,071	6,408,504	27	7401102	819	295,659
7/5/2023	22,071	6,408,504	27	7401106	408	147,696
7/5/2023	22,071	6,408,504	27	7401107	970	345,320
7/5/2023	22,071	6,408,504	27	7401109	489	174,573
7/5/2023	22,071	6,408,504	27	7408101	15	4,845

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5b. 4901:1-10-10(C)(2): Distribution Circuits Impacted by Transmission Outages

Outage Start Date	CI per Outage	CMI per Outage	# of Impacted Circuits	IDs for Impacted Circuits	CI per Circuit	CMI per Circuit
7/5/2023	22,071	6,408,504	27	7408102	799	255,680
7/5/2023	22,071	6,408,504	27	7408103	372	119,412
7/5/2023	22,071	6,408,504	27	7420401	1,185	226,335
7/5/2023	22,071	6,408,504	27	7420401	1,185	195,087
7/5/2023	22,071	6,408,504	27	7420402	178	31,506
7/5/2023	22,071	6,408,504	27	7420403	1,318	246,466
7/5/2023	22,071	6,408,504	27	7420801	1,080	373,680
7/5/2023	22,071	6,408,504	27	7420802	2,256	778,320
7/5/2023	22,071	6,408,504	27	7424401	610	212,890
7/5/2023	22,071	6,408,504	27	7424402	564	196,836
7/5/2023	22,071	6,408,504	27	7426901	255	78,285
7/5/2023	22,071	6,408,504	27	7426902	863	258,900
7/5/2023	22,071	6,408,504	27	7426903	51	15,912
7/5/2023	22,071	6,408,504	27	7436201	1,772	593,620
7/5/2023	22,071	6,408,504	27	7436202	901	296,429
7/5/2023	22,071	6,408,504	27	7407403	1,591	522,650
7/5/2023	22,071	6,408,504	27	7407401	427	119,560
7/5/2023	22,071	6,408,504	27	7407402	1,397	389,763
7/10/2023	1,262	80,768	1	7108705	1,262	80,768
7/22/2023	612	194,760	1	7216201	612	194,760

**Ohio Power Company
Rule 10 Report for 2023**

5b. 4901:1-10-10(C)(2): Distribution Circuits Impacted by Transmission Outages

Outage Start Date	CI per Outage	CMI per Outage	# of Impacted Circuits	IDs for Impacted Circuits	CI per Circuit	CMI per Circuit
8/1/2023	793	72,956	2	7104102	541	49,772
8/1/2023	793	72,956	2	7104104	252	23,184
8/4/2023	1,627	323,773	2	7108501	451	89,749
8/4/2023	1,627	323,773	2	7108502	1,176	234,024
8/8/2023	1,461	169,777	4	0033171	639	92,509
8/8/2023	1,461	169,777	4	0033172	136	12,784
8/8/2023	1,461	169,777	4	0033971	540	50,760
8/8/2023	1,461	169,777	4	0033972	146	13,724
8/8/2023	795	74,730	2	7104102	542	50,948
8/8/2023	795	74,730	2	7104104	253	23,782
8/9/2023	1,855	131,942	4	7504401	616	21,560
8/9/2023	1,855	131,942	4	7504402	859	30,065
8/9/2023	1,855	131,942	4	7507201	282	68,361
8/9/2023	1,855	131,942	4	7507202	98	11,956
8/12/2023	182	33,488	2	7105401	141	25,944
8/12/2023	182	33,488	2	7105402	41	7,544
8/13/2023	1,195	178,055	2	7114801	108	16,092
8/13/2023	1,195	178,055	2	7114802	1,087	161,963
8/14/2023	5,557	1,972,880	10	7502601	1,519	180,761
8/14/2023	5,557	1,972,880	10	7511001	227	53,345

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**Ohio Power Company
Rule 10 Report for 2023**

5b. 4901:1-10-10(C)(2): Distribution Circuits Impacted by Transmission Outages

Outage Start Date	CI per Outage	CMI per Outage	# of Impacted Circuits	IDs for Impacted Circuits	CI per Circuit	CMI per Circuit
8/14/2023	5,557	1,972,880	10	7511004	451	105,985
8/14/2023	5,557	1,972,880	10	7392701	93	54,126
8/14/2023	5,557	1,972,880	10	7502602	639	73,485
8/14/2023	5,557	1,972,880	10	7511001	34	16,932
8/14/2023	5,557	1,972,880	10	7511001	133	78,204
8/14/2023	5,557	1,972,880	10	7511101	1,132	658,824
8/14/2023	5,557	1,972,880	10	7511102	895	496,026
8/14/2023	5,557	1,972,880	10	7511103	434	255,192
8/15/2023	793	107,055	2	7104102	542	73,170
8/15/2023	793	107,055	2	7104104	251	33,885
8/20/2023	1,394	132,063	2	7373302	545	53,955
8/20/2023	1,394	132,063	2	7373301	849	78,108
8/24/2023	415	97,940	1	7405601	415	97,940
8/24/2023	2,785	161,774	3	7507701	224	12,992
8/24/2023	2,785	161,774	3	7507702	2,317	134,386
8/24/2023	2,785	161,774	3	7507703	244	14,396
8/24/2023	1,653	318,623	2	7517101	984	299,891
8/24/2023	1,653	318,623	2	7503101	669	18,732
8/25/2023	811	250,873	2	7336501	65	12,220
8/25/2023	811	250,873	2	7336502	746	238,653

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**Ohio Power Company
Rule 10 Report for 2023**

5b. 4901:1-10-10(C)(2): Distribution Circuits Impacted by Transmission Outages

Outage Start Date	CI per Outage	CMI per Outage	# of Impacted Circuits	IDs for Impacted Circuits	CI per Circuit	CMI per Circuit
8/25/2023	339	29,493	2	7503701	42	3,654
8/25/2023	339	29,493	2	7503702	297	25,839
8/25/2023	9,498	2,701,167	8	0001008	5	1,120
8/25/2023	9,498	2,701,167	8	0007001	1,435	411,845
8/25/2023	9,498	2,701,167	8	0007001	996	294,288
8/25/2023	9,498	2,701,167	8	0007002	2,454	655,571
8/25/2023	9,498	2,701,167	8	0007003	1,866	546,738
8/25/2023	9,498	2,701,167	8	0007004	548	160,016
8/25/2023	9,498	2,701,167	8	0007005	1,557	446,859
8/25/2023	9,498	2,701,167	8	0007006	637	184,730
8/26/2023	545	61,040	1	7234901	545	61,040
8/27/2023	1,265	192,280	3	7234702	550	83,600
8/27/2023	1,265	192,280	3	7234704	240	36,480
8/27/2023	1,265	192,280	3	7234701	475	72,200
8/30/2023	1,807	127,376	2	0011001	921	64,470
8/30/2023	1,807	127,376	2	0011002	886	62,906
9/1/2023	2,296	52,808	2	7513901	863	19,849
9/1/2023	2,296	52,808	2	7513902	1,433	32,959
9/2/2023	541	60,592	1	7234901	541	60,592
9/2/2023	2,883	52,649	3	0015801	882	15,876

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**Ohio Power Company
Rule 10 Report for 2023**

5b. 4901:1-10-10(C)(2): Distribution Circuits Impacted by Transmission Outages

Outage Start Date	CI per Outage	CMI per Outage	# of Impacted Circuits	IDs for Impacted Circuits	CI per Circuit	CMI per Circuit
9/2/2023	2,883	52,649	3	0015802	1,246	22,428
9/2/2023	2,883	52,649	3	0015803	755	14,345
9/5/2023	1,396	425,008	2	7421501	709	102,805
9/5/2023	1,396	425,008	2	7421502	687	322,203
9/26/2023	7,734	949,475	5	7104003	2,100	256,200
9/26/2023	7,734	949,475	5	7104006	2,629	318,109
9/26/2023	7,734	949,475	5	7104007	149	18,178
9/26/2023	7,734	949,475	5	7121801	1,422	179,172
9/26/2023	7,734	949,475	5	7121802	1,434	177,816
10/1/2023	5	840	1	7509401	5	840
10/8/2023	4	360	1	7207902	4	360
10/10/2023	983	269,342	1	7517101	983	269,342
10/30/2023	2,410	316,356	5	7207301	720	95,040
10/30/2023	2,410	316,356	5	7207302	435	56,985
10/30/2023	2,410	316,356	5	7207303	651	85,281
10/30/2023	2,410	316,356	5	7207304	339	44,070
10/30/2023	2,410	316,356	5	7207306	265	34,980
11/3/2023	2,247	130,856	2	0005501	2,044	125,984
11/3/2023	2,247	130,856	2	0005502	203	4,872
11/7/2023	160	41,920	1	7234901	160	41,920

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**Ohio Power Company
Rule 10 Report for 2023**

5b. 4901:1-10-10(C)(2): Distribution Circuits Impacted by Transmission Outages

Outage Start Date	CI per Outage	CMI per Outage	# of Impacted Circuits	IDs for Impacted Circuits	CI per Circuit	CMI per Circuit
11/12/2023	4	624	1	7207902	4	624
12/3/2023	2,037	14,259	2	7411301	662	4,634
12/3/2023	2,037	14,259	2	7411302	1,375	9,625
12/10/2023	1,303	117,880	2	7233402	475	47,500
12/10/2023	1,303	117,880	2	7233401	828	70,380

Notes: Excludes major event outages

**Ohio Power Company
Rule 10 Report for 2023**

5c. 4901:1-10-10(C)(2): Index values during transmission outages

Outage start date	CAIDI during outage	SAIFI during outage
1/3/2023	141	0.0000
1/5/2023	162	0.0000
1/12/2023	143	0.0010
1/19/2023	154	0.0010
1/25/2023	163	0.0010
1/27/2023	173	0.0010
1/27/2023	8	0.0010
2/1/2023	287	0.0010
2/9/2023	126	0.0010
2/10/2023	176	0.0000
2/17/2023	132	0.0010
2/27/2023	136	0.0010
3/4/2023	6	0.0000
3/18/2023	102	0.0030
3/19/2023	345	0.0010
3/23/2023	70	0.0000
3/26/2023	28	0.0010
3/27/2023	140	0.0000
3/28/2023	183	0.0010
4/3/2023	126	0.0020
4/15/2023	189	0.0000
4/21/2023	199	0.0000
4/21/2023	357	0.0000
4/29/2023	199	0.0000
4/30/2023	201	0.0020
5/2/2023	16	0.0020
5/3/2023	91	0.0010
5/4/2023	128	0.0010
5/23/2023	109	0.0010

**Ohio Power Company
Rule 10 Report for 2023**

5c. 4901:1-10-10(C)(2): Index values during transmission outages

Outage start date	CAIDI during outage	SAIFI during outage
5/25/2023	385	0.0010
5/29/2023	140	0.0010
5/31/2023	14	0.0020
5/31/2023	44	0.0000
6/3/2023	26	0.0010
6/3/2023	30	0.0020
6/4/2023	85	0.0010
6/4/2023	46	0.0000
6/4/2023	91	0.0010
6/11/2023	107	0.0010
6/11/2023	181	0.0010
6/12/2023	551	0.0010
6/14/2023	739	0.0010
6/15/2023	225	0.0010
6/26/2023	137	0.0010
7/2/2023	202	0.0010
7/5/2023	290	0.0140
7/10/2023	64	0.0010
7/22/2023	318	0.0000
8/1/2023	92	0.0010
8/4/2023	199	0.0010
8/8/2023	116	0.0010
8/8/2023	94	0.0010
8/9/2023	71	0.0010
8/12/2023	184	0.0000
8/13/2023	149	0.0010
8/14/2023	355	0.0040
8/15/2023	135	0.0010
8/20/2023	95	0.0010

**Ohio Power Company
Rule 10 Report for 2023**

5c. 4901:1-10-10(C)(2): Index values during transmission outages

Outage start date	CAIDI during outage	SAIFI during outage
8/24/2023	236	0.0000
8/24/2023	58	0.0020
8/24/2023	193	0.0010
8/25/2023	309	0.0010
8/25/2023	87	0.0000
8/25/2023	284	0.0060
8/26/2023	112	0.0000
8/27/2023	152	0.0010
8/30/2023	70	0.0010
9/1/2023	23	0.0020
9/2/2023	33	0.0020
9/2/2023	112	0.0000
9/5/2023	18	0.0020
9/26/2023	123	0.0050
10/1/2023	168	0.0000
10/8/2023	90	0.0000
10/10/2023	274	0.0010
10/30/2023	131	0.0020
11/3/2023	58	0.0010
11/7/2023	262	0.0000
11/12/2023	156	0.0000
12/3/2023	7	0.0010
12/10/2023	90	0.0010

Notes: Excludes major event outages

**Ohio Power Company
Rule 10 Report for 2023**

6a. 4901:1-10-10(C)(3)(a): Data excluding major events and transmission outages

Outage Cause	Events	Customers Interrupted	Customers Minutes Interrupted
Abnormal Feed	78	34,316	5,281,248
Accidental Ground	149	23,061	938,682
Animal	5,106	98,248	8,320,315
Contamination/Flashover	1	1	126
Corrosion	265	2,575	402,421
Customer Equipment	51	1,112	109,802
Distribution Station	165	118,105	20,343,985
Equipment Hardware Failure	7,028	314,855	40,562,843
Facilitation of Work	123	13,231	511,050
Fire/Police	84	2,140	265,103
Flooding/Slide	6	173	25,545
High Winds	145	4,835	1,695,623
Lightning	338	7,052	1,385,563
Object in Line	83	9,103	714,800
Operations Incident	22	2,435	228,881
Other	154	3,063	546,538
Other Utility	20	879	192,670
Overload	68	1,046	111,135
Scheduled/Planned	8,617	108,090	10,517,377
Tree/Vegetation Removal	149	5,795	652,970
Trees Inside RoW	746	24,939	4,823,187
Trees Outside RoW	5,196	238,855	60,890,793
UG, Const/Dig-ins	368	9,836	1,323,960

**Ohio Power Company
Rule 10 Report for 2023**

6a. 4901:1-10-10(C)(3)(a): Data excluding major events and transmission outages

Outage Cause	Events	Customers Interrupted	Customers Minutes Interrupted
Unbalance	2	311	25,639
Unknown	2,881	103,349	10,492,237
Unknown By Weather	587	32,638	5,701,941
Vandalism	64	2,279	217,867
Vehicle Accident/Auto Damage	939	158,663	23,268,500
Totals:	33,435	1,320,985	199,550,801

Notes: Metrics excluding transmission and major event days

**Ohio Power Company
Rule 10 Report for 2023**

6b. 4901:1-10-10(C)(3)(b): Data for major events only

Outage Cause	Events	Customers Interrupted	Customers Minutes Interrupted
Abnormal Feed	4	2,771	696,041
Animal	40	7,891	570,716
Corrosion	16	71	81,124
Customer Equipment	10	210	205,558
Equipment Hardware Failure	422	42,488	20,254,139
Facilitation of Work	8	4,039	993,150
Fire/Police	2	98	6,227
Flooding/Slide	1	44	38,852
High Winds	583	67,312	53,356,360
Ice/Sleet/Snow	1	105	173,985
Lightning	78	20,364	3,027,715
Object in Line	22	1,136	334,143
Other	15	210	132,067
Overload	3	35	6,509
Scheduled/Planned	104	1,886	1,848,029
Tree/Vegetation Removal	9	331	468,348
Trees Inside RoW	265	17,926	12,534,026
Trees Outside RoW	2,129	190,513	140,350,438
UG, Const/Dig-ins	3	11	1,243
Unknown	82	6,308	3,954,544
Unknown By Weather	307	50,185	29,224,752
Vandalism	1	1	61
Vehicle Accident/Auto Damage	19	7,161	3,857,875

**Ohio Power Company
Rule 10 Report for 2023**

6b. 4901:1-10-10(C)(3)(b): Data for major events only

Outage Cause	Events	Customers Interrupted	Customers Minutes Interrupted
Totals:	4,124	421,096	272,115,902

Notes: Metrics on major event days, including transmission

**Ohio Power Company
Rule 10 Report for 2023**

6c. 4901:1-10-10(C)(3)(c): Data for transmission outages only

Outage Cause	Events	Customers Interrupted	Customers Minutes Interrupted
Abnormal Feed	5	1,322	215,442
Accidental Ground	3	2,883	52,649
Animal	3	2,100	284,888
Equipment Hardware Failure	44	30,127	6,675,402
Facilitation of Work	1	203	4,872
Fire/Police	7	2,395	301,770
Lightning	8	4,920	845,611
Object in Line	3	2,020	258,760
Operations Incident	1	1,262	80,768
Scheduled/Planned	41	28,511	2,305,446
Trees Inside RoW	32	23,649	6,867,000
Trees Outside RoW	38	30,494	5,717,790
Unknown	6	6,116	671,198
Unknown By Weather	2	514	90,711
Vandalism	4	1,855	131,942
Vehicle Accident/Auto Damage	8	3,969	919,029
Totals:	206	142,340	25,423,278

Notes: Metrics for transmission only, excluding major event days

AEP OHIO RULE 10 ACTION PLAN

On April 1, 2024, Ohio Power Company (“AEP Ohio” or “The Company”) filed its annual Rule 10 Report (“Report”) for performance year 2023. The reported values indicate that AEP Ohio did not meet its annual CAIDI standard, and thus an Action Plan is required to be submitted pursuant to Ohio Adm. Code 4901:1-10-10(D).

The Company’s present SAIFI and CAIDI standards were established in Case 16-1511-EL-ESS with the Commission’s February 7, 2018 Opinion and Order approving the Stipulation and Recommendation filed on October 30, 2017. Since that Order, the Electric Service Standards (OAC 4901:1-10) have been revised, creating a mismatch between the reporting approach considered during settlement discussions creating the present standards and the new reporting requirements. Specifically, the definition of “major event” was modified to no longer exclude transmission outages, which became effective November 1, 2021. This is a material consideration for AEP Ohio’s 2023 performance year, because there were five days during 2023 that are considered excludable major event days (“MEDs”) under the current reporting rules. However, an event on August 24, 2023, would have been considered an additional (sixth) MED under the old definition. If the Company were to use the MED definition in effect at the time the current standards were set, the Company would have met the CAIDI standard with a reported CAIDI of 147.998. And the Company’s reported 2023 SAIFI would have been 0.853 interruptions per customer served which still would meet the standard of 1.18.

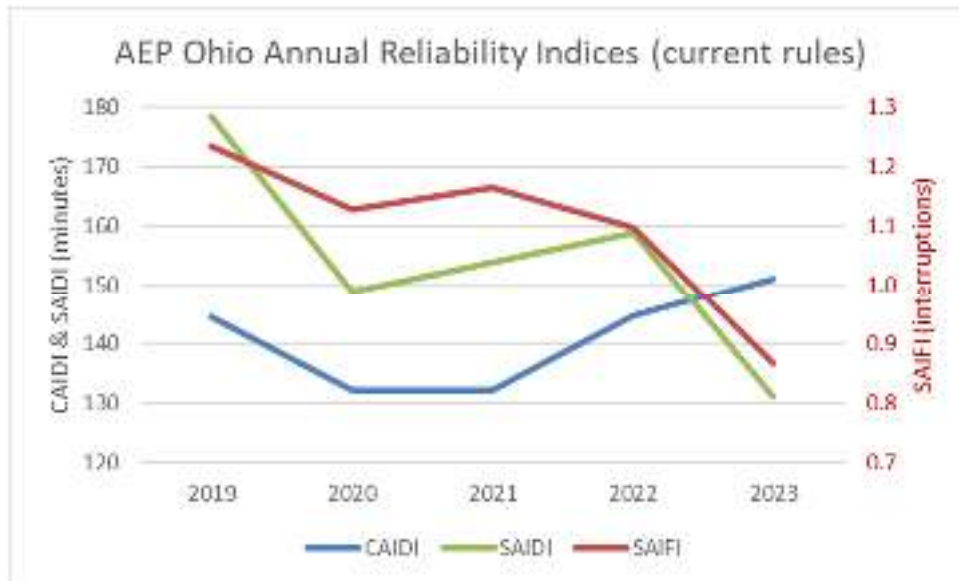
	SAIFI	CAIDI
Present standards set during old MED methodology	1.18	148.00
Year 2023 actual using old MED methodology	0.853	147.998
Year 2023 actual using revised/current MED methodology	0.87	151.06

Nevertheless, AEP Ohio submits the following action plan to address the factors that contributed to the 2023 CAIDI performance (under the new applicable rules) with proposed actions intended to achieve a CAIDI performance that meets or exceeds the current performance standard target of 148.00 minutes for the 2024 performance year.

FACTORS CONTRIBUTING TO AEP OHIO'S 2023 CAIDI PERFORMANCE

AEP Ohio's 2023 reported SAIFI was 0.87 interruptions per customer served with a reported CAIDI of 151.06 minutes. The associated SAIDI (average total time without service for each customer served) of 130.96 minutes surpassed the 174.64 SAIDI associated with AEP Ohio's currently approved metrics (CAIDI of 148.00 multiplied by SAIFI of 1.18) by over 25%. As set forth in Figure 1, AEP Ohio's SAIFI and SAIDI have had a remarkable improvement over the past couple of years, in large testament to the expenses and investments made via the Enhanced Service Reliability Rider ("ESRR"), Distribution Investment Rider ("DIR"), and gridSMART Rider. Despite this marked improvement in overall reliability performance, AEP Ohio did not meet the CAIDI performance standard for the 2023 performance year, much of which is due to the reliability improvements that AEP Ohio has made over recent years, which have a counterintuitive impact on CAIDI.

Figure 1



AEP Ohio's investments over the past several years reduced the number of customer interruptions and the amount of time during the year in which customers are without electric service. These savings are often outage types that are shorter durations relative to historical CAIDI. The Company's reliability investments in programs like circuit automation, sectionalizing, and asset renewal seek to reduce the number of outages that occur and to reduce the number of customers impacted when they do occur. While this results in overall improvement in reliability for

customers; unfortunately, these investments and improvements can have a negative influence on the Company's CAIDI metric depending on the types of outages that are avoided. This is a result of the mathematics of CAIDI, which measures the *average length of an interruption* (i.e., customer-minutes of interruption divided by customers interrupted). Even though certain investments (e.g. circuit automation, sectionalizing) cause fewer customers to be interrupted and fewer customer-minutes of interruption, the *average length of interruption* as shown by CAIDI is higher. Thus, CAIDI becomes a mathematical result of the remaining population of outages. Removing these shorter duration outages from the population and placing more weight on longer outages, inflates the CAIDI calculations. These longer outage types include items like trees outside rights-of-way ("TOR") and the manually restored remnants of outages in distribution automation circuit reconfiguration ("DACR") areas. The number of customers interrupted (and SAIFI) due to TOR improved during 2023 compared to the prior three years, but not by as much as many other outage causes. Their weighting in the 2023 CAIDI calculation is then heavier and this outage type increased CAIDI, but its estimated impact is more difficult to quantify.

There were fewer feeder breaker related outages in 2023. These types of outages are prioritized when they occur resulting in quick restorations that reduce the overall CAIDI. The Company also had fewer planned outages and outages related to clearing devices being placed on a non-reclose setting in 2023. These outages are generally shorter in nature (their CAIDI is lower than overall CAIDI); accordingly, their absence creates upward pressure on CAIDI.

Although the overall reliability for 2023 was the best in fifteen years, the Company still missed the CAIDI standard under the current rules. AEP Ohio has implemented a plan to help mitigate the CAIDI constraints. AEP Ohio's Action Plan focuses on controllable factors that are designed to help with CAIDI metric while still continuing the plans that contributed to the overall reliability success of 2023. The Company will focus on review of operational practices, ESP V investments and expenditures, and utilizing drone technology.

AEP OHIO'S CAIDI IMPROVEMENT ACTION PLAN

Review of Operational Practices

AEP Ohio Operations has a culture of continuous improvement that continuously reviews its operational practices that prioritizes the safety of its workers above all else and no action taken is

worth the life of crew member. The focus of typical response times to outages can vary based on a number of factors, which AEP Ohio will continue to review. This includes reviewing service crew scheduling and dispatching, types of crews/makeup of crews, and location of crews to determine whether there can be further improvement of restoration times with efficient use of costs. The Company will further review whether there can be improvements to initial setup of restoration activities as well as on-site repair work without sacrificing safety. Finally, the Company will review the process of administratively closing out a restoration to best align with the actual restoration of power, which will minimize the amount of lag that can increase the reported duration of an outage.

Electric Security Plan

On September 6, 2023, the Company entered into a Stipulation and Recommendation to resolve the Company's fifth electric security plan ("ESP V"), which was filed January 6, 2023. Two key areas in this Stipulation may help improve CAIDI.

First, the ESRR will have increased caps for the last 7 months of 2024. Outages due to TOR, which averaged 255 minutes in 2023, were the statistically longest duration outages because they generally require added tree removal and sometimes additional specialized crews to supplement the normal electric facility repairs. These longer duration outages increase CAIDI. It is the hope of AEP Ohio that some of the additional ESRR funds can be focused on TOR to have a downward pressure on CAIDI. The significant amount of inflation that the country has experienced over the past year has increased all costs associated with tree trimming, which will limit the amount of resources that can be utilized for TOR beyond what is required for trees inside of right-of-way. Additionally, since 2020, the vast majority of outages caused by TOR were from live trees. Identifying and removing trees that are alive is more difficult and expensive than solely removing dead and/or dying trees. These factors will limit the amount of additional funding that will be available for TOR even with the increased caps, but this has the potential to help.

Second, the DIR will have increased caps for the last 7 months of 2024. The Company's DIR is designed to cost effectively maintain and improve the reliability of the distribution system from what it otherwise would have been, provide for distribution capacity and infrastructure additions driven by customer demand, and enable customer and distribution utility expectations to be

aligned. It is the hope of AEP Ohio that some of these additional funds will be able to be focused on key areas that will help improve reliability. However, AEP Ohio is battling rising costs of labor and materials. Moreover, AEP Ohio must meet customer needs and the Company's obligation to serve customers resulting from the unprecedented growth in central Ohio. While the investment in new customer growth can have a positive impact on reliability, it is not as beneficial as spending solely on reliability needs. New circuit ties that become available due to growth will allow for step restoration in some cases during loading periods that allow for switching; thereby, reducing CAIDI.

It goes without saying, the approval of the ESRR and DIR as set forth in the ESP V Stipulation is imperative to the Company being able to meet the reliability metrics for the 2024 year and beyond.

Drone Technology

AEP Ohio is exploring increasing the use of drones as part of its operational practices. Drones provide an effective and efficient means for the Company to inspect power lines for regular maintenance, survey damage after storms, and provide low-cost vegetation management in hard-to-reach terrain. AEP Ohio's drone program is intricately linked to its smart grid infrastructure – by harnessing real-time data from the smart grid, drone pilots perform critical tasks efficiently and effectively. From inspecting power lines to assessing storm damage, these aerial devices allow the Company to move quickly to reduce downtime and prioritize restoration resources.

CONCLUSION

In 2023, the overall customer reliability experience was 25% better than that required by the combined standards. Additionally, AEP Ohio would have met the reliability requirements under Ohio Adm. Code 4901:1-10-10 that was in place at the time the standards were set. AEP Ohio is aware of the upward pressure on its CAIDI and has been taking the necessary steps to focus on the resulting mathematical challenge without inadvertently negatively impacting the customer experience or materially adding to customer bills. The Action Plan laid out above will be a cost-effective way to improve CAIDI to meet the Company's approved standards going forward.

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