



INDIANA UTILITY REGULATORY COMMISSION ELECTRIC UTILITY RELIABILITY REPORT 2024

Each electric investor-owned utility (IOU) in Indiana is required to file a reliability report annually with the Indiana Utility Regulatory Commission (Commission or IURC) in compliance with 170 IAC 4-1-23(e). This document serves as a compilation of the reports filed for 2024 and provides data beginning in 2011. This Report includes a graph for each IOU to illustrate the trends in these reliability metrics through 2024. Given that there have been changes to the reliability metrics, we have truncated the tables to primarily emphasize the information from 2011 to the present.

The utilities provide the following three reliability indices in their annual reports to the IURC.

- **System Average Interruption Frequency Index (SAIFI):** This is the average number of interruptions per customer. It is calculated by dividing the total number of customer interruptions by the total number of customers.
- **System Average Interruption Duration Index (SAIDI):** SAIDI is the average minutes of interruption per customer. It is calculated by dividing the sum of all customer interruption durations (in minutes) by the total number of customers.
- **Customer Average Interruption Duration Index (CAIDI):** CAIDI is the average duration of interruptions or the time to restore service to interrupted customers. It is calculated by dividing SAIDI by SAIFI.

Each utility reports its reliability indices with and without major events days (Major Event Days or MEDs). Major events are primarily storms or weather events that are more destructive than normal storm patterns. However, major events may also include ice storms, earthquakes, floods, fires, high winds / tornados, and other disasters. The Institute of Electrical and Electronics Engineers (IEEE) Standard 1366 involves the calculation of a threshold of SAIDI minutes based on data from the previous five years. An MED occurs when the threshold is exceeded on any day. The provision of indices that exclude major events normalizes the data by eliminating interruptions over which the utility has little or no control. In addition, there can be considerable variation in a wide range of major events that result in significant damage and require time to make needed repairs. The following table summarizes the number of MEDs and Major Events for each IOU in Indiana during 2024. *Note: A single event can carry over to additional days that result in multiple MEDs.*

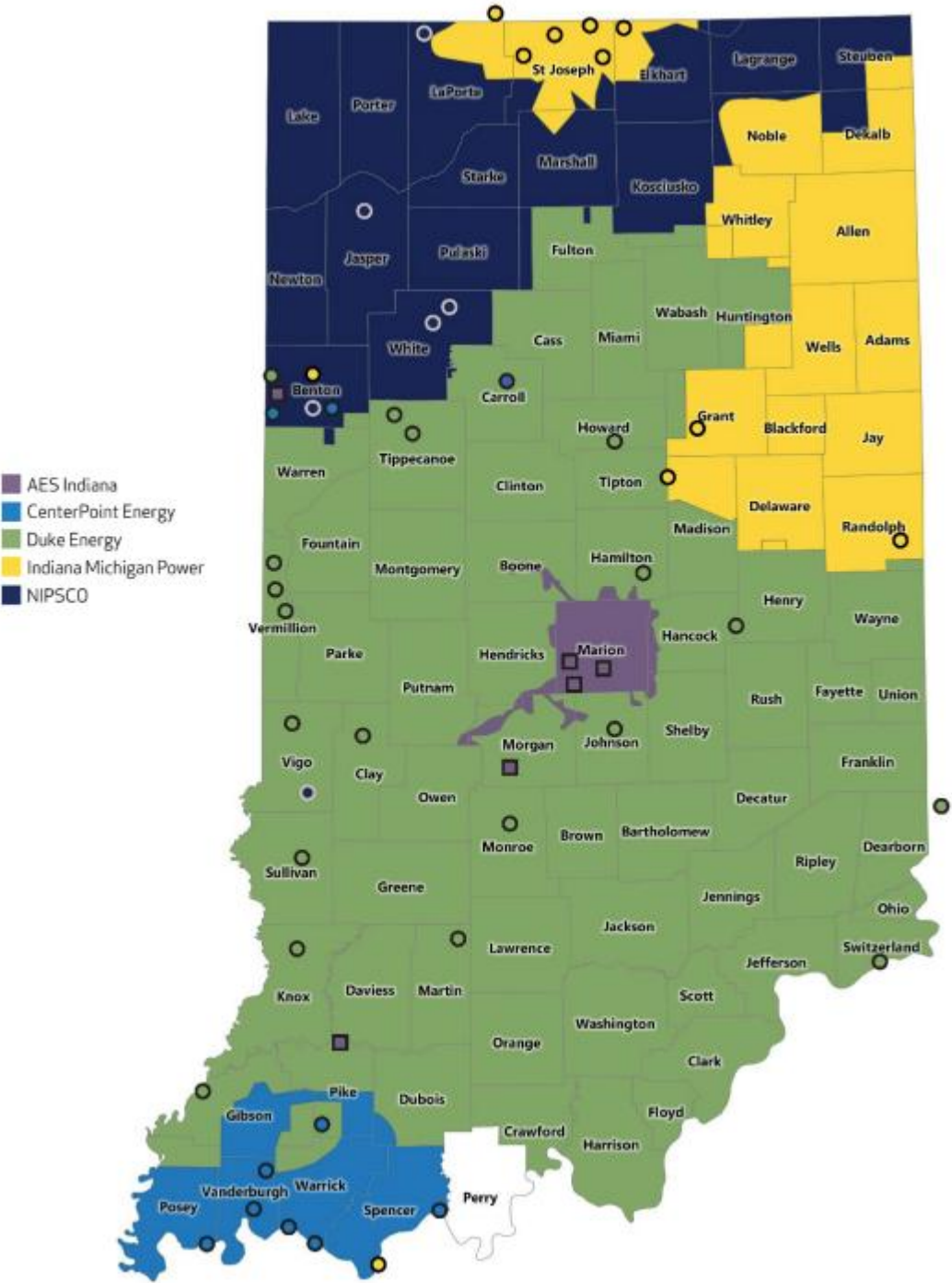
Utility Company	Major Event Days	Major Events
Indianapolis Power & Light Company (dba AES Indiana)	3	3
CenterPoint Energy Indiana	12	3
Duke Energy Indiana, LLC	4	4
Indiana Michigan Power Company	4	4
Northern Indiana Public Service Company, LLC	5	5

Reliability metrics, used appropriately, provide useful information on each utility's distribution system, especially if the metrics are considered over several years to lessen the potential that a short series of information may be atypical. Care should be taken when making comparisons between utilities because they all experience different circumstances (e.g., some serve areas that are more densely populated, some serve multistory office buildings that may be counted as a single customer, heavily forested areas may pose a greater risk of outages, weather differences, age of infrastructure). In addition to the causes of outages that were mentioned previously and are beyond the control of electric utilities, the solutions for improving future reliability are likely to be different for each utility. It is also important to note that perfect reliability is not attainable and efforts to improve these metrics are often expensive.

Consistent with the legislative direction to the Commission for utilities to maintain and enhance system reliability, such as the transmission, distribution, and storage improvement charge (TDSIC) statute, the Commission encourages utilities to continue to look for ways to detect problems, expedite repairs, and recover from major events. The Commission has also ordered the investor-owned utilities to work with their stakeholders in collaboratives that include discussions on how to improve system reliability.

This Report provides an opportunity for policymakers, utilities, and customers to better understand the evolution of reliability improvements. When compared to Commission ordered annual performance metric reports that cover a range of utility operations, the reliability statistics can be placed in a broader context of utility performance measured over time.

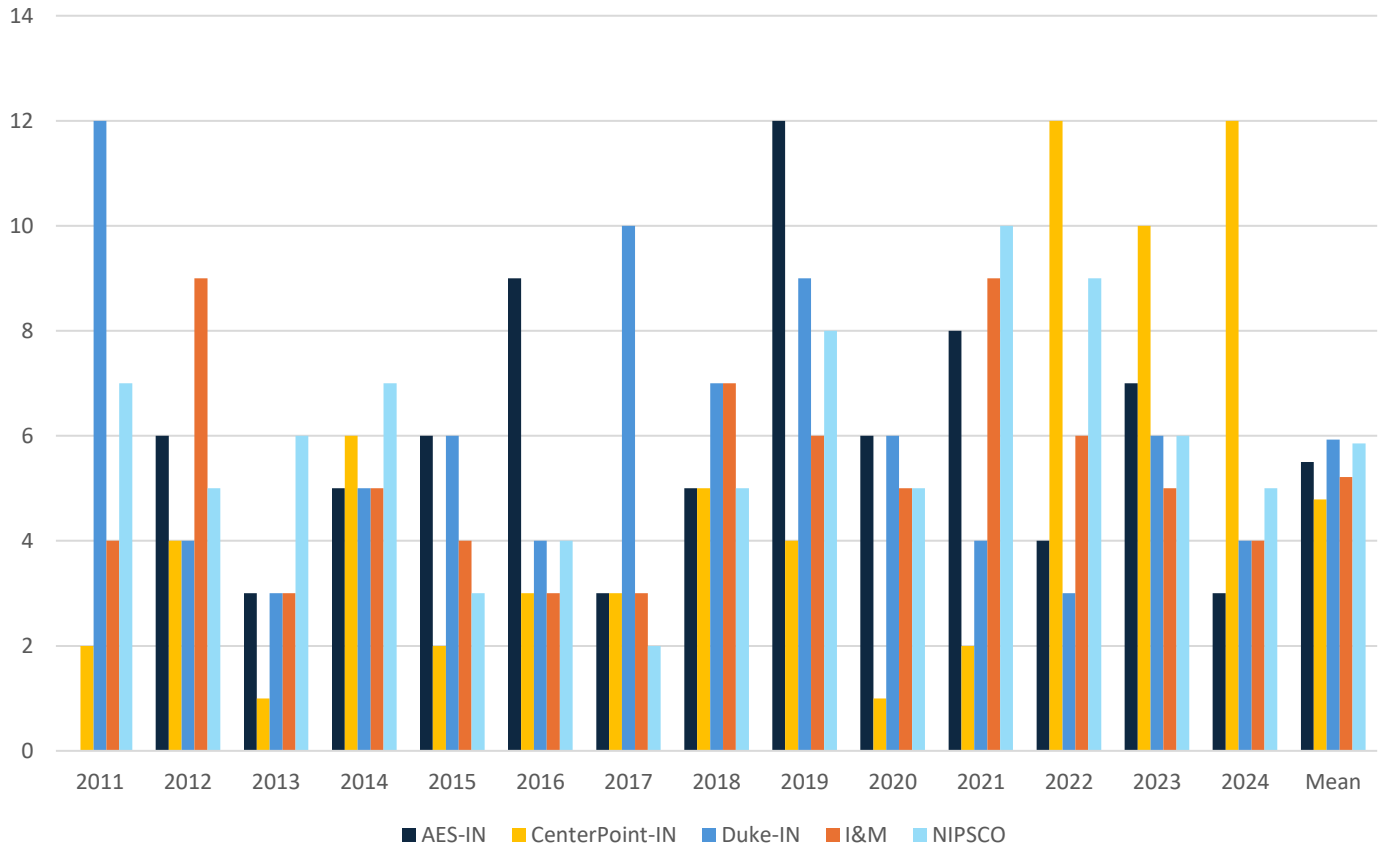
Indiana Investor-owned Electric Service Territories



History of Major Event Days for Investor-Owned Utilities in Indiana

Major Event Days for Investor-Owned Utilities (2011-2024)															
	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	Mean
AES-IN	0	6	3	5	6	9	3	5	12	6	8	4	7	3	6
CenterPoint-IN	2	4	1	6	2	3	3	5	4	1	2	12	10	12	5
Duke-IN	12	4	3	5	6	4	10	7	9	6	4	3	6	4	6
I&M	4	9	3	5	4	3	3	7	6	5	9	6	5	4	5
NIPSCO	7	5	6	7	3	4	2	5	8	5	10	9	6	5	6

Major Event Days for Investor Owned Utilities
(2011 - 2024)



Electric Reliability Including Major Events (2011-2024)														
	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
AES-IN	SAIFI	0.86	1.04	0.71	0.96	0.94	1.17	0.95	1.13	1.22	1.16	1.61	1.38	1.25
	SAIDI	75	125	92	190	219	232	80	149	213	155	176	147	247
	CAIDI	88	120	130	199	233	198	85	131	175	133	110	98	337
CenterPoint-IN	SAIFI	2.16	1.24	0.78	1.47	0.9	1.26	0.8	1.09	1.37	1	0.87	1.82	1.57
	SAIDI	711	117	60	314	81	261	86	140	174	122	79	454	451
	CAIDI	330	95	77	214	91	207	107	129	127	121	90	250	286
Duke-IN	SAIFI	2.07	1.52	1.38	1.31	1.27	1.34	1.33	1.45	1.38	1.25	1.11	1.32	1.48
	SAIDI	630	216	257	186	211	290	261	366	221	279	203	216	645
	CAIDI	304	143	187	142	166	217	196	253	160	223	182	164	435
I&M	SAIFI	1.12	1.39	0.96	0.96	1.24	1.06	1.11	1.28	1.38	1.12	1.13	1.05	0.85
	SAIDI	258	1,071	375	306	390	255	258	263	282	300	426	389	155
	CAIDI	230	773	392	318	314	241	233	206	204	268	378	371	183
NIPSCO	SAIFI	1.38	1.44	1.46	1.53	1.16	1.26	1.11	1.33	1.58	1.26	1.55	1.44	1.14
	SAIDI	371	428	524	603	248	231	153	244	359	473	529	370	534
	CAIDI	269	297	359	395	214	184	138	184	227	374	341	257	281

Electric Reliability Not Including Major Events (2011-2024)														
	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
AES-IN	SAIFI	0.86	0.82	0.58	0.71	0.66	0.74	0.86	0.95	0.88	0.93	1.32	1.37	0.98
	SAIDI	75.08	56.71	48.33	56.71	48.70	61.64	59.64	67.46	75.60	73.00	104.44	112.49	86.69
	CAIDI	87.63	69.57	82.78	80.24	73.70	82.85	69.05	71.08	85.52	79.00	79.42	82.41	88.19
CenterPoint-IN	SAIFI	1.43	1.07	0.73	0.92	0.85	0.82	0.64	0.80	1.08	0.86	0.82	1.01	0.83
	SAIDI	137.00	83.00	47.50	67.20	70.90	61.30	58.80	78.30	100.40	78.00	69.70	103.40	79.80
	CAIDI	95.70	77.50	65.10	73.00	82.90	74.40	91.60	97.60	92.80	91.00	85.30	102.10	96.60
Duke-IN	SAIFI	1.27	1.29	1.17	1.16	1.03	1.10	0.99	1.06	1.07	0.95	0.94	1.16	0.89
	SAIDI	146.00	149.00	138.00	140.00	121.00	142.49	138.30	156.20	140.40	121.00	127.10	160.40	98.00
	CAIDI	115.00	115.00	118.00	121.00	117.50	129.60	139.60	148.00	131.60	127.20	135.90	138.40	109.90
I&M	SAIFI	0.99	0.91	0.74	0.77	1.05	0.95	0.98	1.10	1.19	0.94	0.86	0.77	0.70
	SAIDI	153.70	136.70	113.70	127.50	160.10	152.90	166.30	175.70	189.40	154.10	148.40	120.70	94.60
	CAIDI	156.10	151.10	154.00	165.40	152.60	160.80	170.20	159.70	159.80	164.50	173.20	156.50	136.20
NIPSCO	SAIFI	1.03	0.95	0.84	0.89	0.93	1.01	1.01	1.09	1.07	0.90	1.06	0.95	0.87
	SAIDI	156.00	137.00	116.00	109.00	128.00	141.00	131.00	151.00	155.00	138.00	175.00	143.00	149.00
	CAIDI	151.00	145.00	138.00	122.00	137.00	139.00	130.00	139.00	145.00	153.00	165.00	150.00	171.00

Notes:

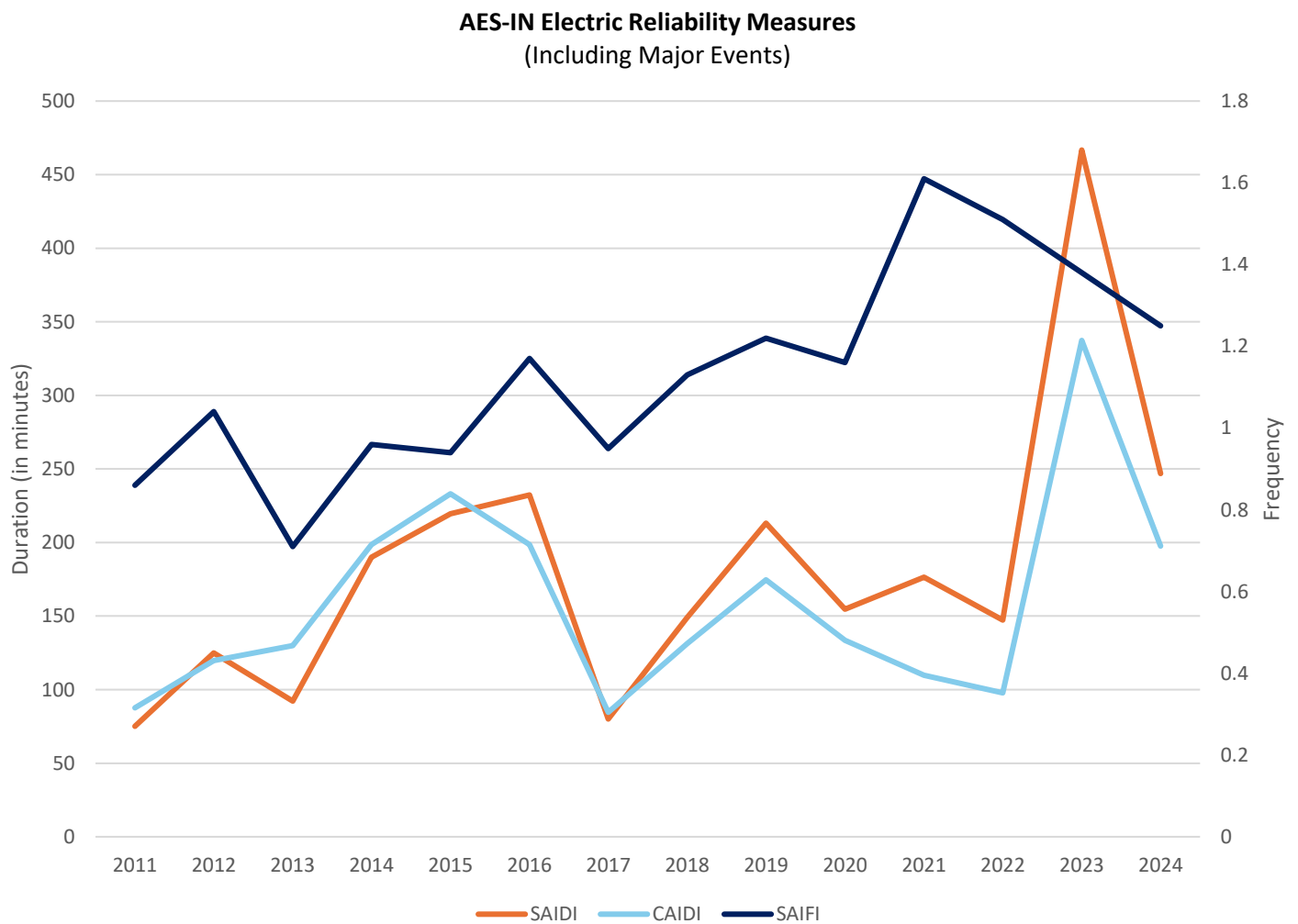
SAIFI: System Average Interruption Frequency Index; (# of customers who experience outage) / (total # of customers)

SAIDI: System Average Interruption Duration Index; (duration or time of service interruptions) / (total # of customers)

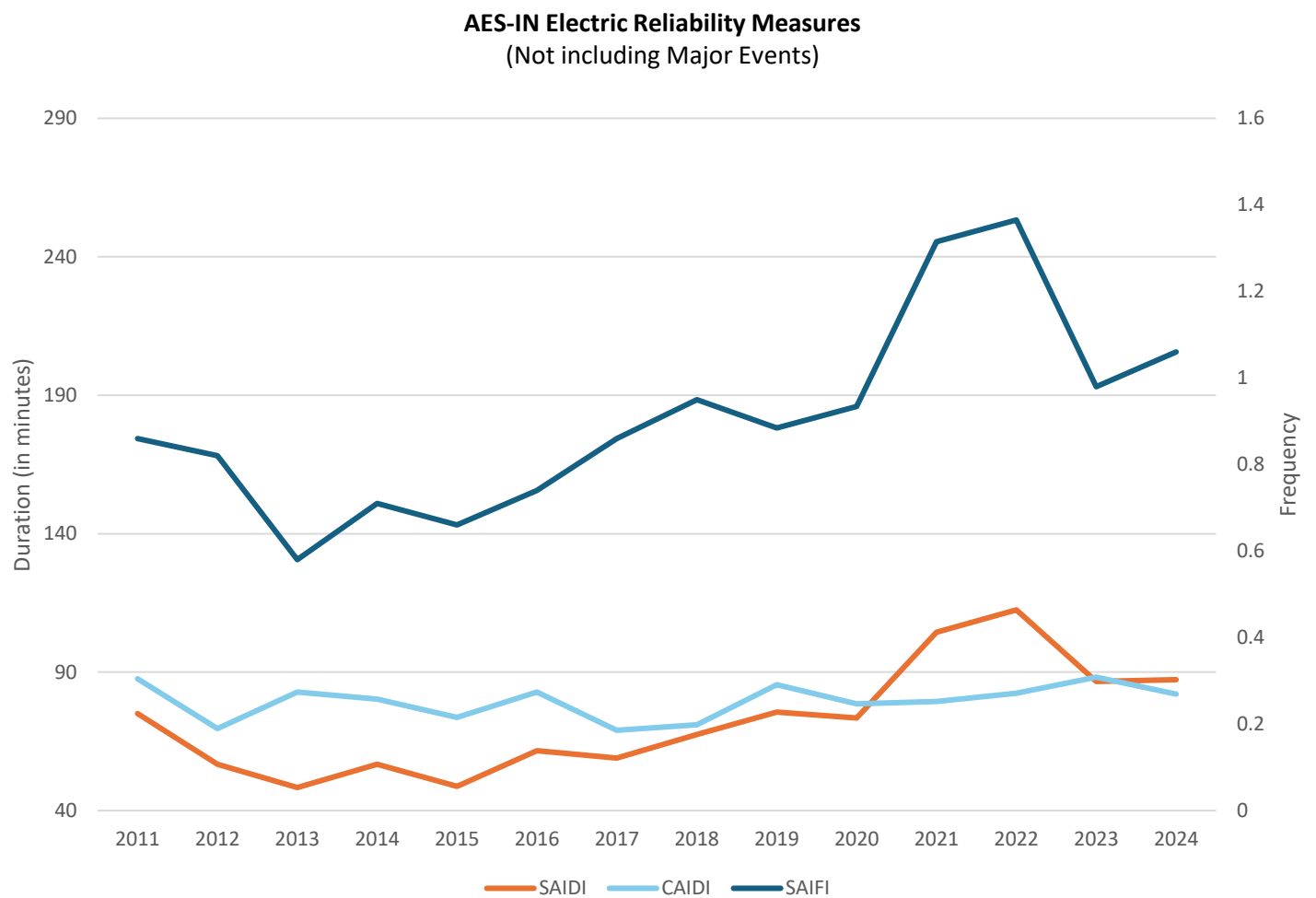
CAIDI: Customer Average Interruption Duration Index; (SAIDI) / (SAIFI)

AES Indiana

Electric Reliability Including Major Events														
AES-IN	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
SAIFI	0.86	1.04	0.71	0.96	0.94	1.17	0.95	1.13	1.22	1.16	1.61	1.51	1.38	1.25
SAIDI	75	125	92	190	219	232	80	149	213	155	176	147	467	247
CAIDI	88	120	130	199	233	198	85	131	175	133	110	98	337	197

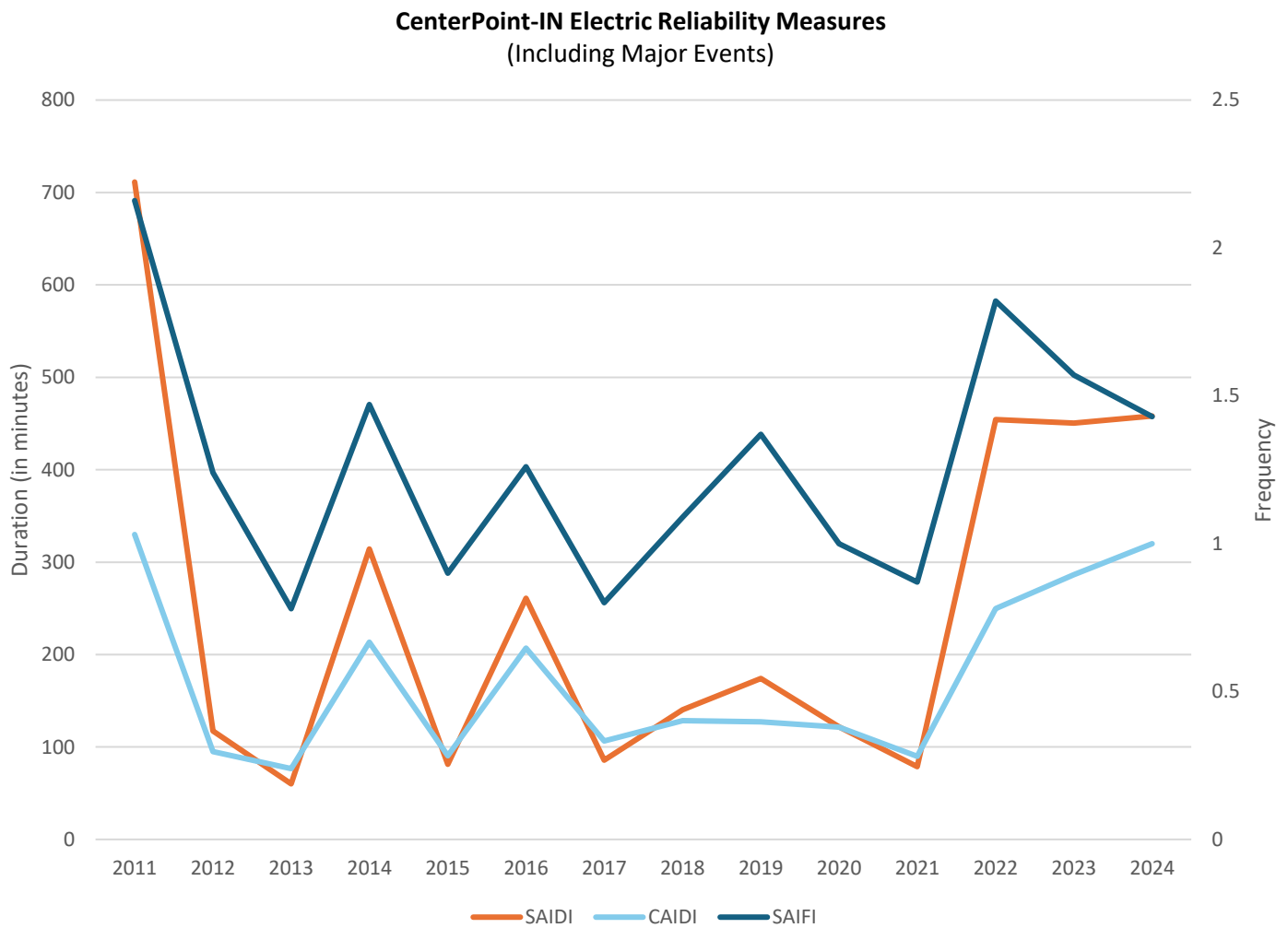


Electric Reliability Not Including Major Events														
AES-IN	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
SAIFI	0.86	0.82	0.58	0.71	0.66	0.74	0.86	0.95	0.88	0.93	1.32	1.37	0.98	1.06
SAIDI	75.08	56.71	48.33	56.71	48.70	61.64	59.64	67.46	75.60	73.00	104.44	112.49	86.69	87.30
CAIDI	87.63	69.57	82.78	80.24	73.70	82.85	69.05	71.08	85.52	79.00	79.42	82.41	88.19	82.07

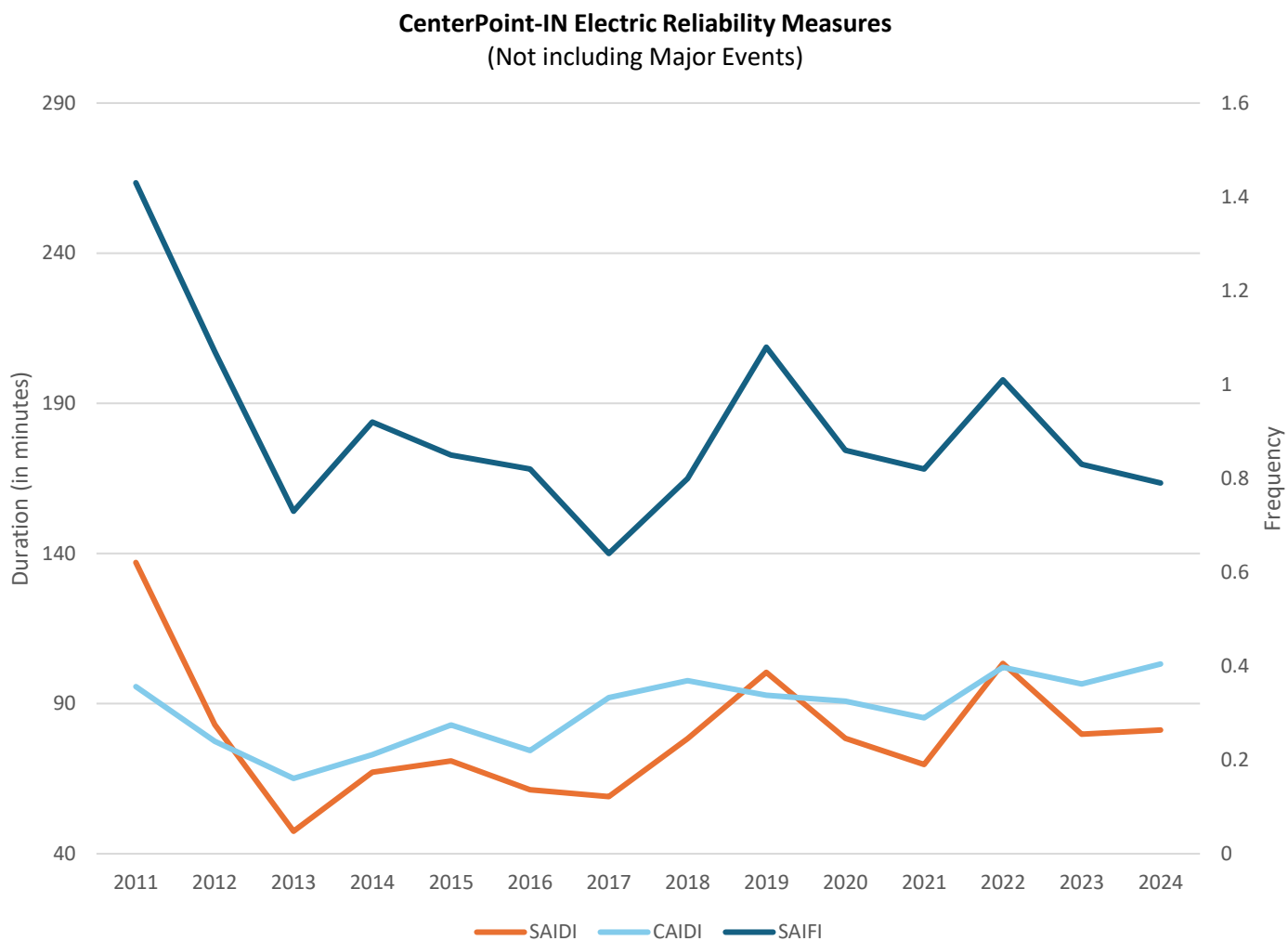


CenterPoint-IN

Electric Reliability Including Major Events														
CenterPoint-IN	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
SAIFI	2.16	1.24	0.78	1.47	0.90	1.26	0.8	1.09	1.37	1.00	0.87	1.82	1.57	1.43
SAIDI	711	117	60	314	81	261	86	140	174	122	79	454	451	458
CAIDI	330	95	77	214	91	207	107	129	127	121	90	250	286	320

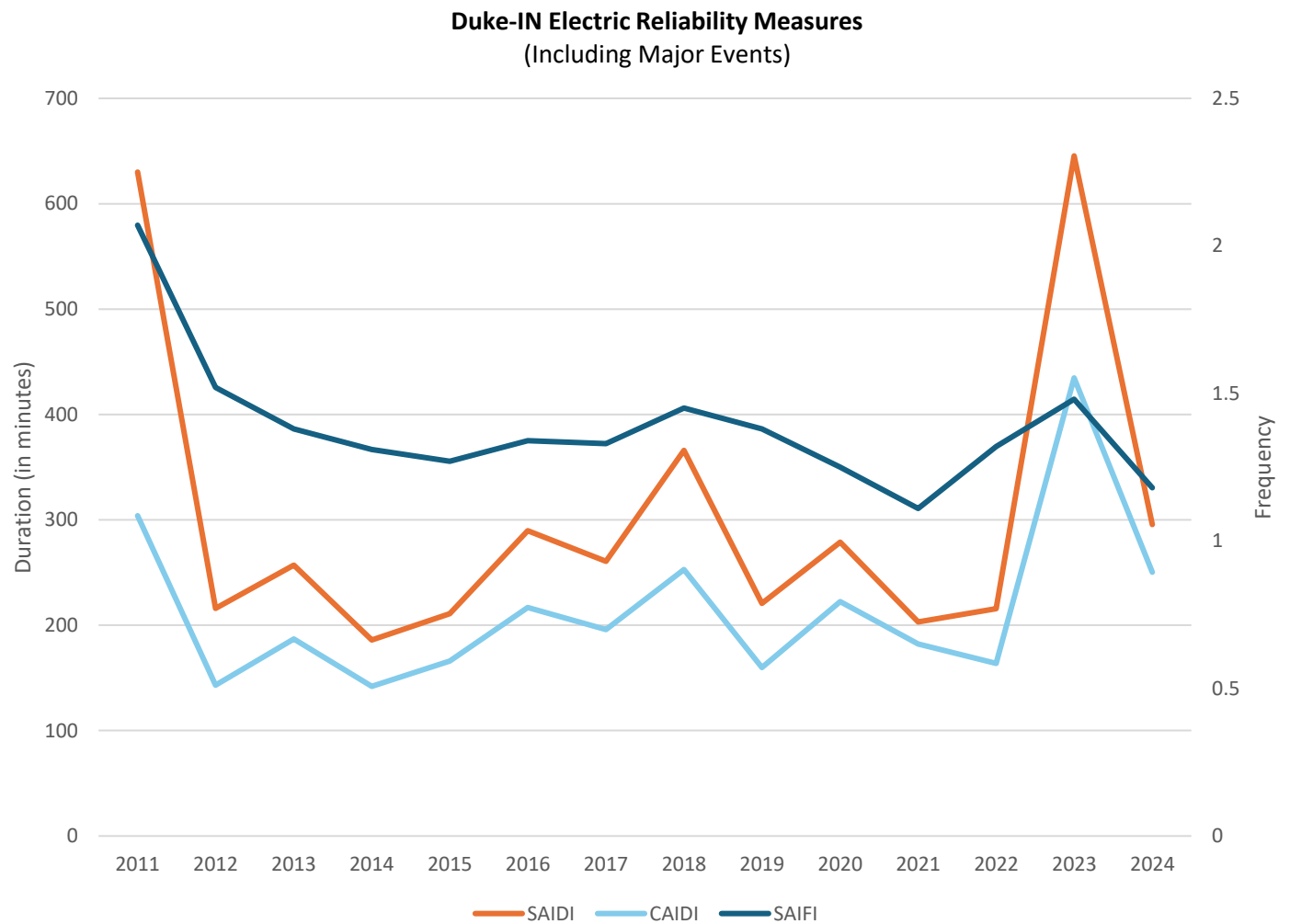


Electric Reliability Not Including Major Events														
CenterPoint-IN	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
SAIFI	1.43	1.07	0.73	0.92	0.85	0.82	0.64	0.80	1.08	0.86	0.82	1.01	0.83	0.79
SAIDI	137.00	83.00	47.50	67.20	70.90	61.30	58.80	78.30	100.40	78.00	69.70	103.40	79.80	81.20
CAIDI	95.70	77.50	65.10	73.00	82.90	74.40	91.60	97.60	92.80	91.00	85.30	102.10	96.60	103.20

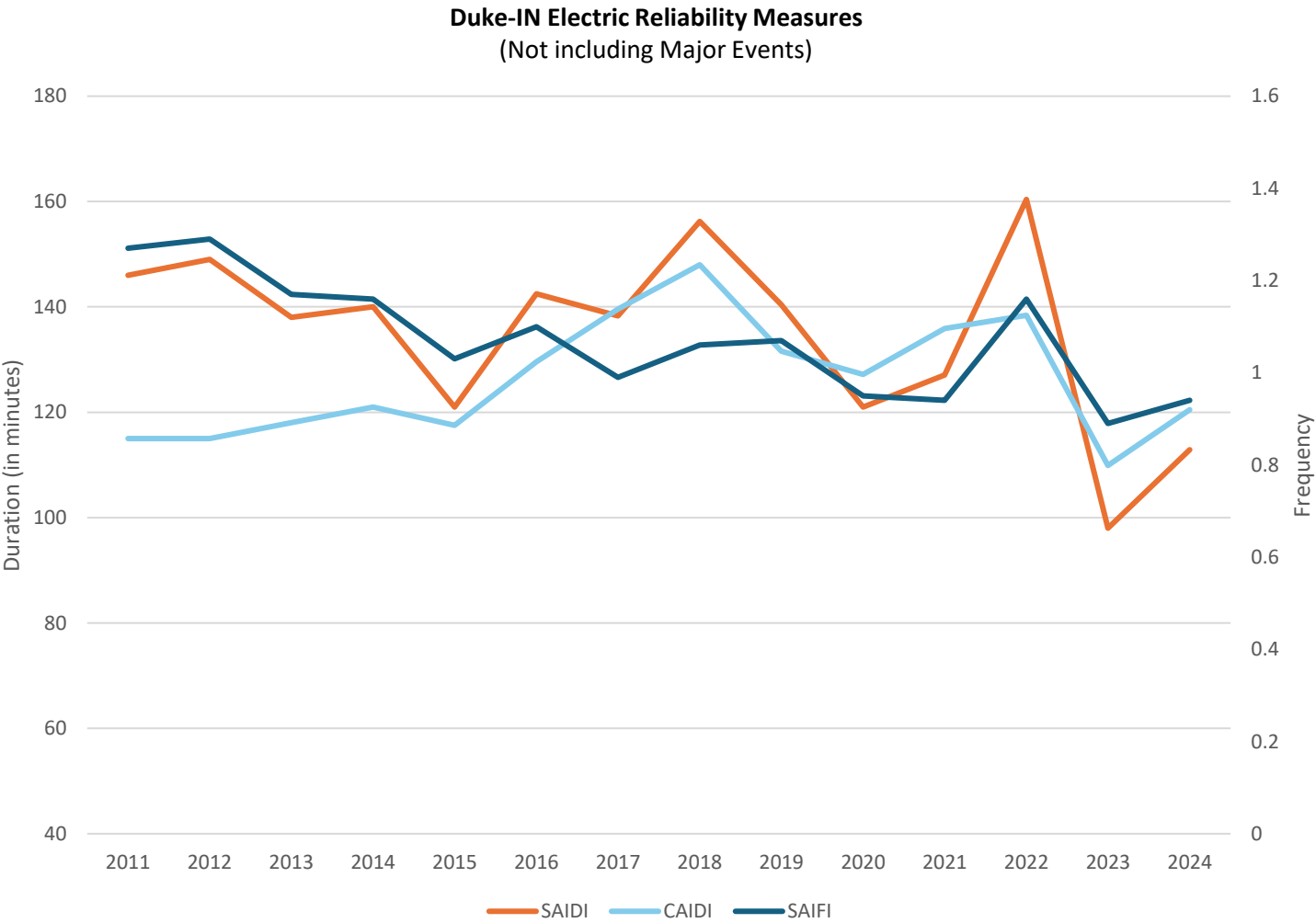


Duke-IN

Electric Reliability Including Major Events														
Duke-IN	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
SAIFI	2.07	1.52	1.38	1.31	1.27	1.34	1.33	1.45	1.38	1.25	1.11	1.32	1.48	1.18
SAIDI	630	216	257	186	211	290	261	366	221	279	203	216	645	296
CAIDI	304	143	187	142	166	217	196	253	160	223	182	164	435	250

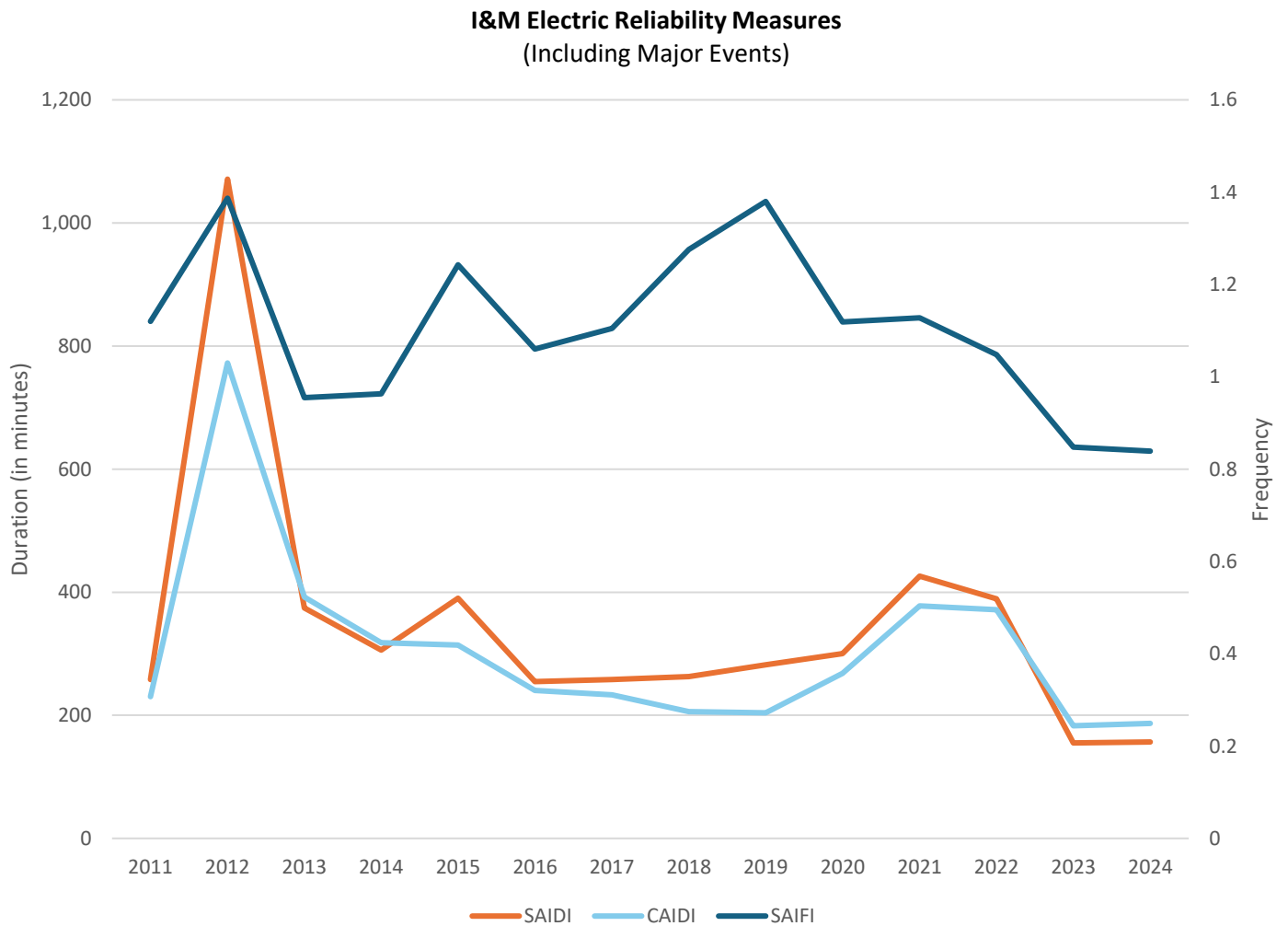


Electric Reliability Not Including Major Events														
Duke-IN	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
SAIFI	1.27	1.29	1.17	1.16	1.03	1.10	0.99	1.06	1.07	0.95	0.94	1.16	0.89	0.94
SAIDI	146.00	149.00	138.00	140.00	121.00	142.49	138.30	156.20	140.40	121.00	127.10	160.40	98.00	112.90
CAIDI	115.00	115.00	118.00	121.00	117.50	129.60	139.60	148.00	131.60	127.20	135.90	138.40	109.90	120.50

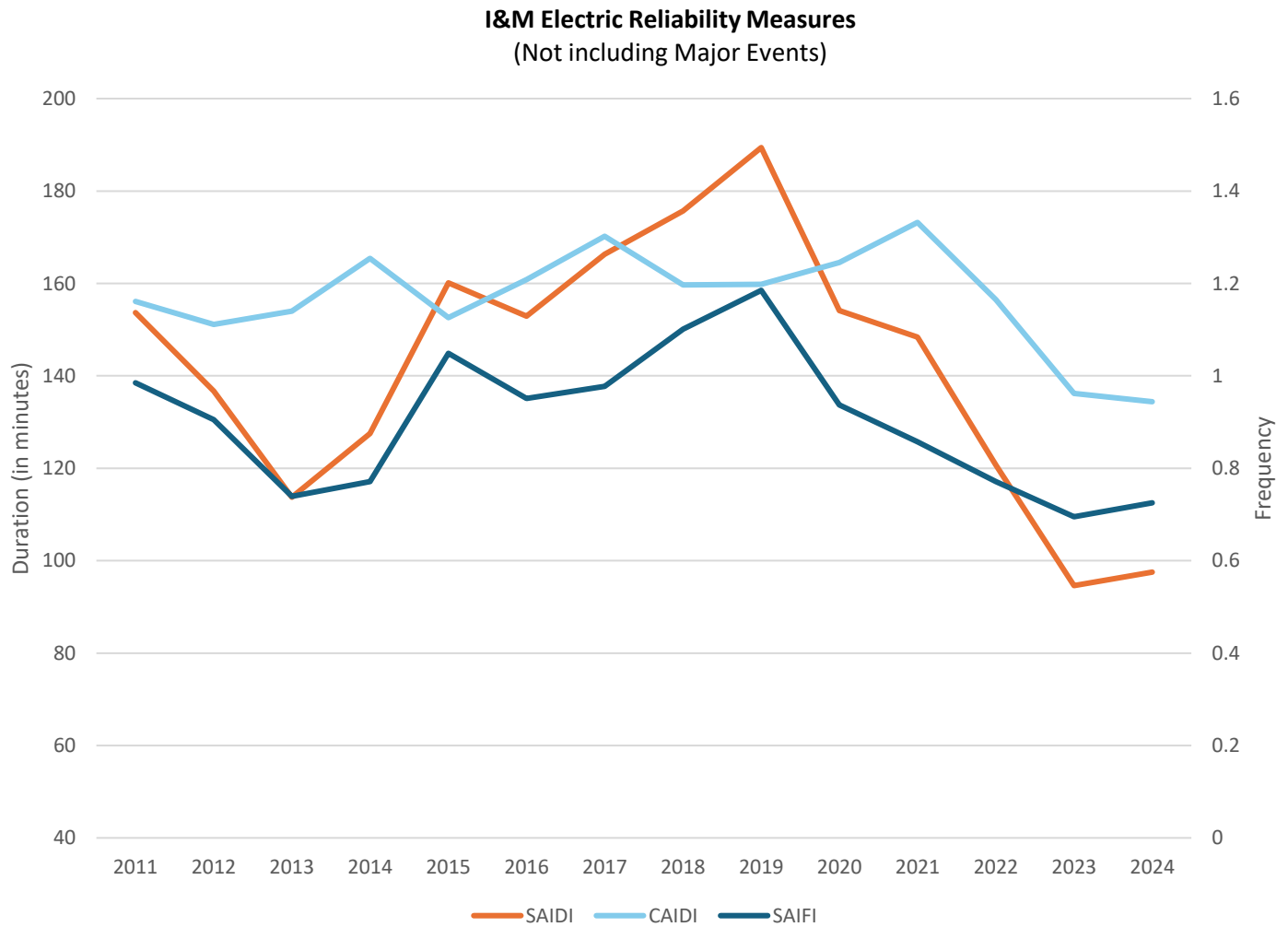


I&M

Electric Reliability Including Major Events														
I&M	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
SAIFI	1.12	1.39	0.96	0.96	1.24	1.06	1.11	1.28	1.38	1.12	1.13	1.05	0.85	0.84
SAIDI	258	1,071	375	306	390	255	258	263	282	300	426	389	155	157
CAIDI	230	773	392	318	314	241	233	206	204	268	378	371	183	187



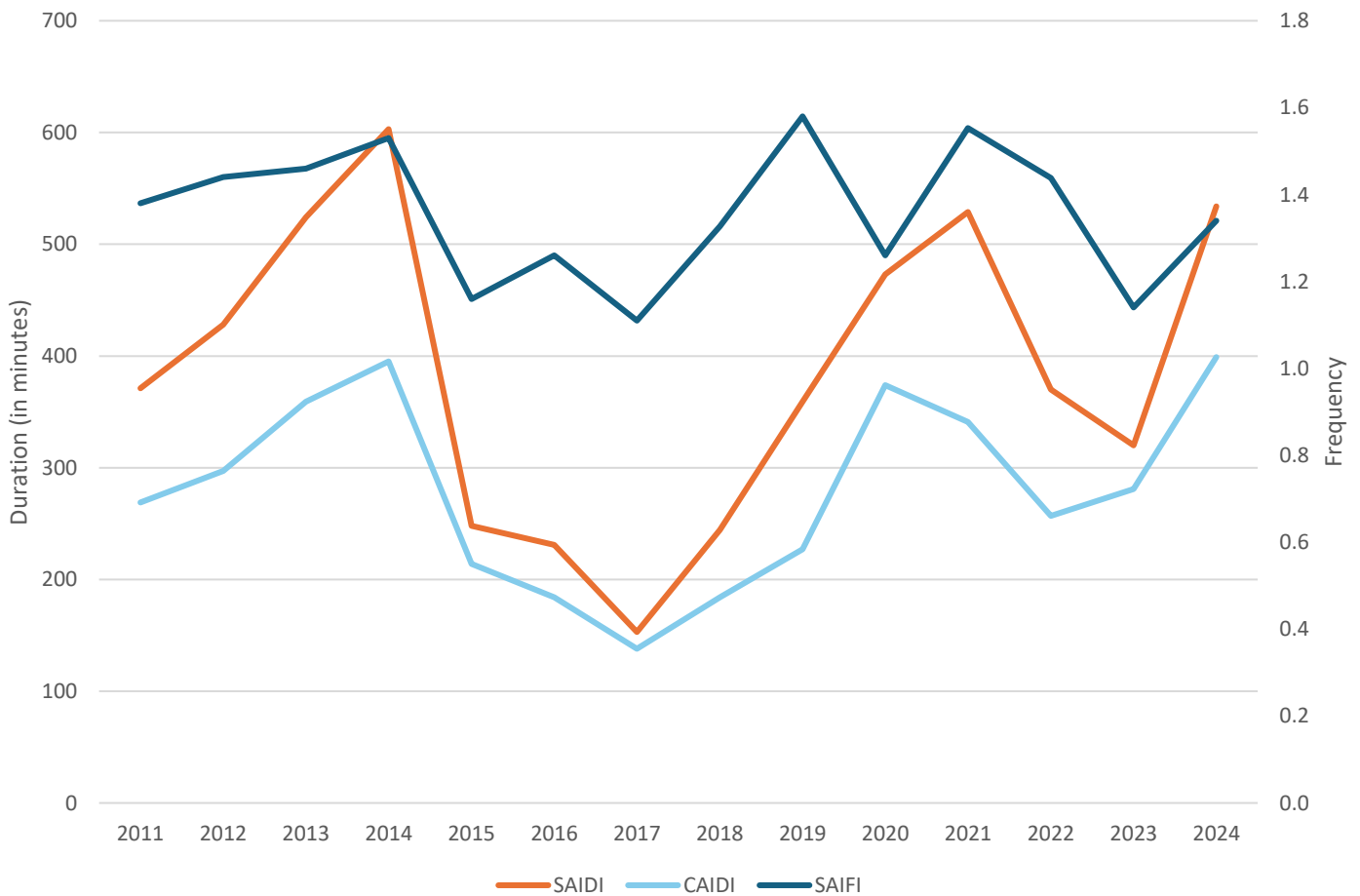
Electric Reliability Not Including Major Events														
I&M	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
SAIFI	0.99	0.91	0.74	0.77	1.05	0.95	0.98	1.10	1.19	0.94	0.86	0.77	0.70	0.73
SAIDI	153.70	136.70	113.70	127.50	160.10	152.90	166.30	175.70	189.40	154.10	148.40	120.70	94.60	97.50
CAIDI	156.10	151.10	154.00	165.40	152.60	160.80	170.20	159.70	159.80	164.50	173.20	156.50	136.20	134.40



NIPSCO

Electric Reliability Including Major Events														
NIPSCO	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
SAIFI	1.38	1.44	1.46	1.53	1.16	1.26	1.11	1.33	1.58	1.26	1.55	1.44	1.14	1.34
SAIDI	371	428	524	603	248	231	153	244	359	473	529	370	320	534
CAIDI	269	297	359	395	214	184	138	184	227	374	341	257	281	399

**NIPSCO Electric Reliability Measures
(Including Major Events)**



Electric Reliability Not Including Major Events														
NIPSCO	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
SAIFI	1.03	0.95	0.84	0.89	0.93	1.01	1.01	1.09	1.07	0.90	1.06	0.95	0.87	0.96
SAIDI	156.00	137.00	116.00	109.00	128.00	141.00	131.00	151.00	155.00	138.00	175.00	143.00	149.00	169.00
CAIDI	151.00	145.00	138.00	122.00	137.00	139.00	130.00	139.00	145.00	153.00	165.00	150.00	171.00	175.00

