

Reliability Report Data 2003-2013

Investor-Owned Utilities

This report summarizes the reliability indices reports filed by each of the investor -owned utilities, in compliance with 170 IAC 4-1-23(e). Reliability data is shown for the time period 2003 through 2013.

Each utility reported its indices with and without major events. Major events are storms or weather events that are more destructive than normal storm patterns. The utilities do not all define a “major event” exactly the same; therefore some utilities will capture more of their service interruptions in the “without” category than other utilities. This is one reason why one should avoid making direct comparisons among the utilities based on the indices. Service territory geography and size and customer mix are also factors that make direct comparison of the indices among the utilities difficult.

Three separate reliability indices were reported by each of the utilities:

- System Average Interruption Frequency Index (SAIFI): the total number of customer interruptions divided by the total number of customers (average interruptions per customer).
- System Average Interruption Duration Index (SAIDI): the sum of all customer interruption durations (in minutes) divided by the total number of customers (average minutes of interruption per customer).
- Customer Average Interruption Duration Index (CAIDI): SAIDI divided by SAIFI (average minutes per interruption).

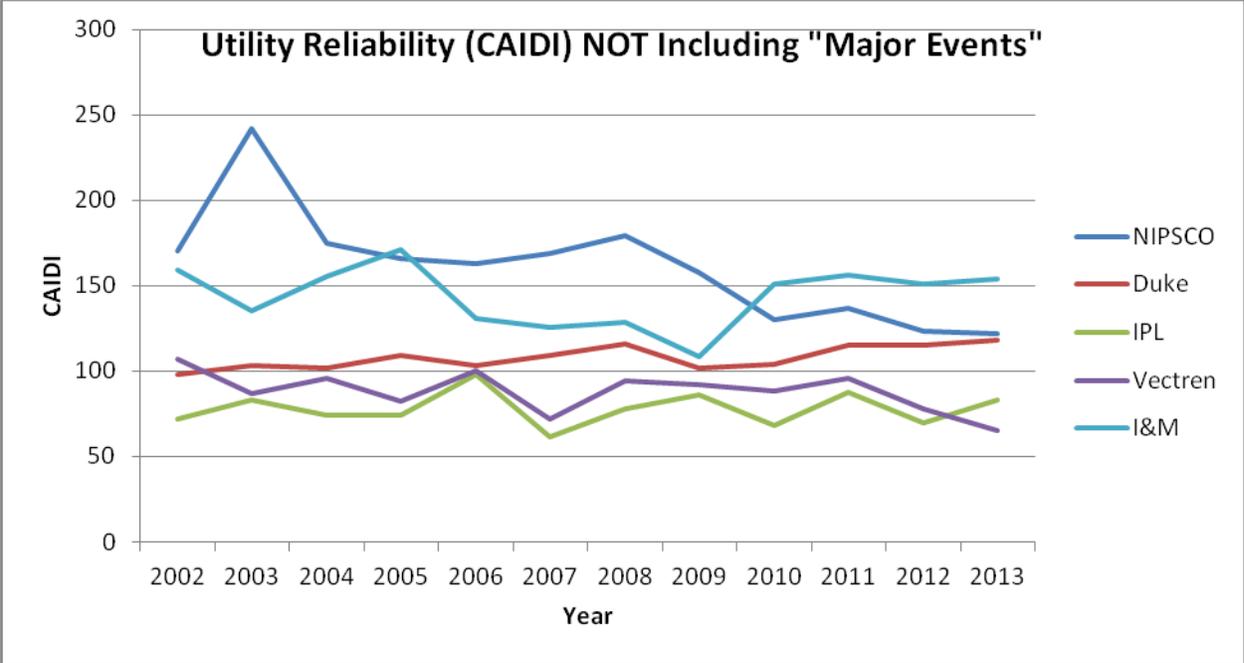
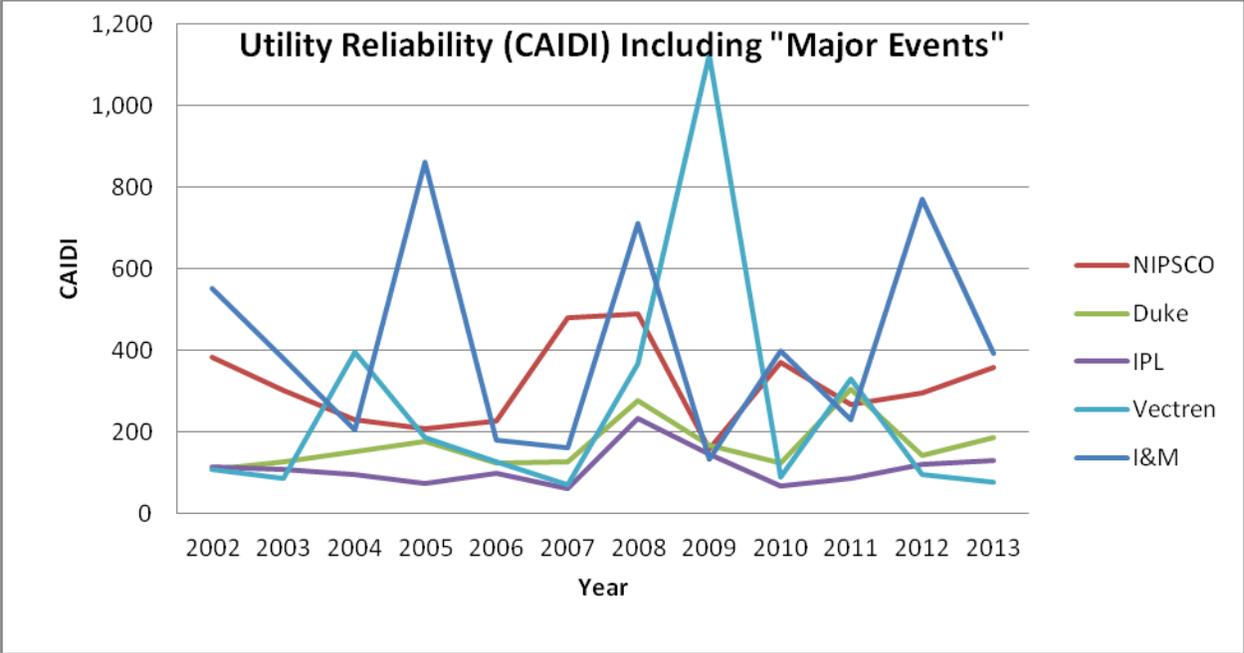
“Major Events” (Weather) Summary

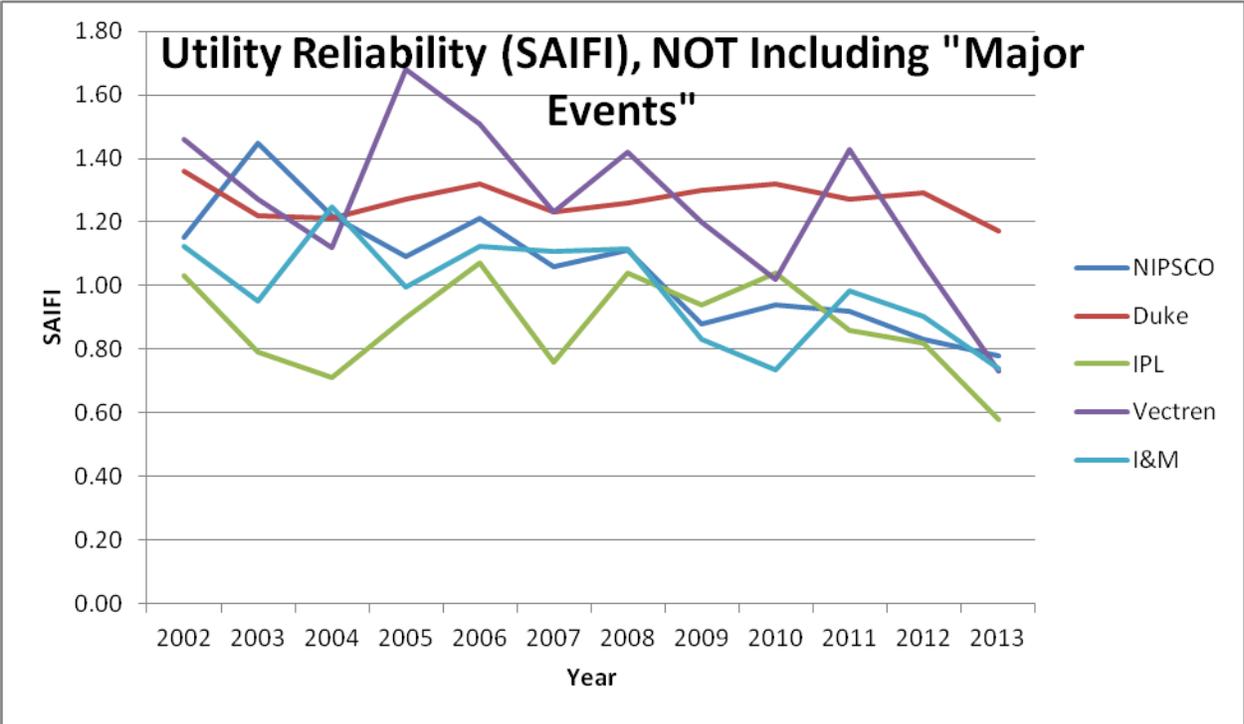
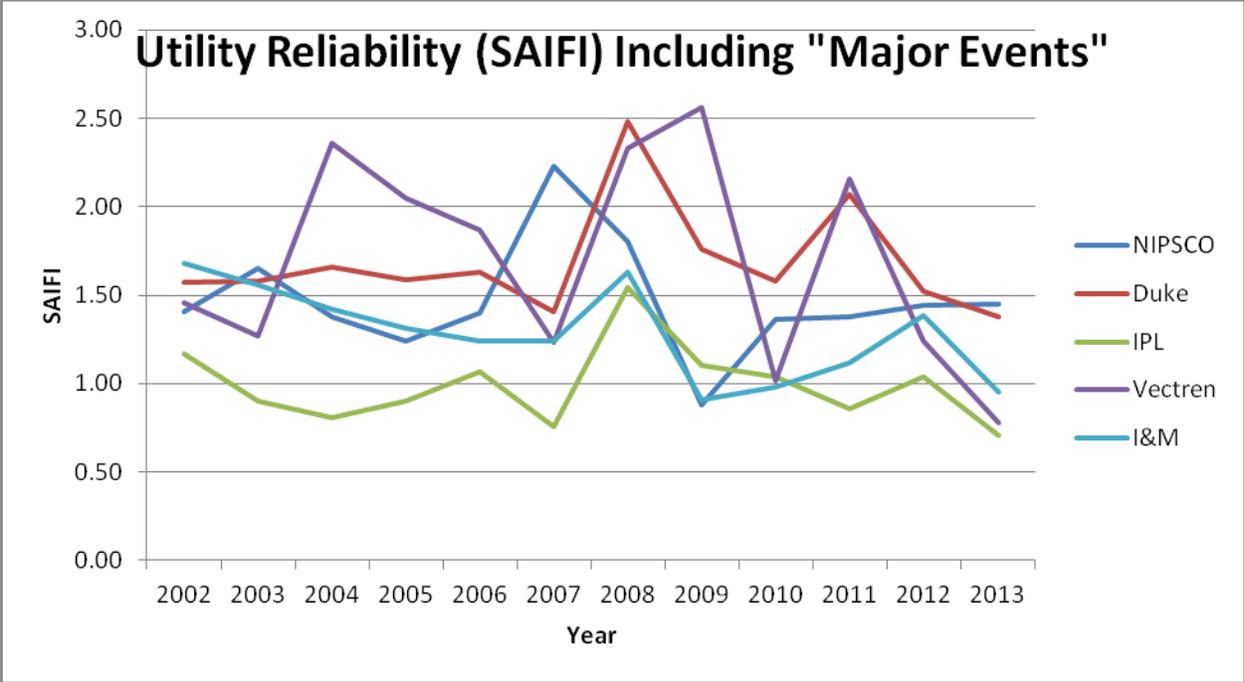
The following table summarizes the number of major event days each utility reported having in 2013. In addition to the major events below, NIPSCO stated it experienced an additional 52 weather events it considered severe. It should be noted that one storm system can potentially cause multiple major event days.

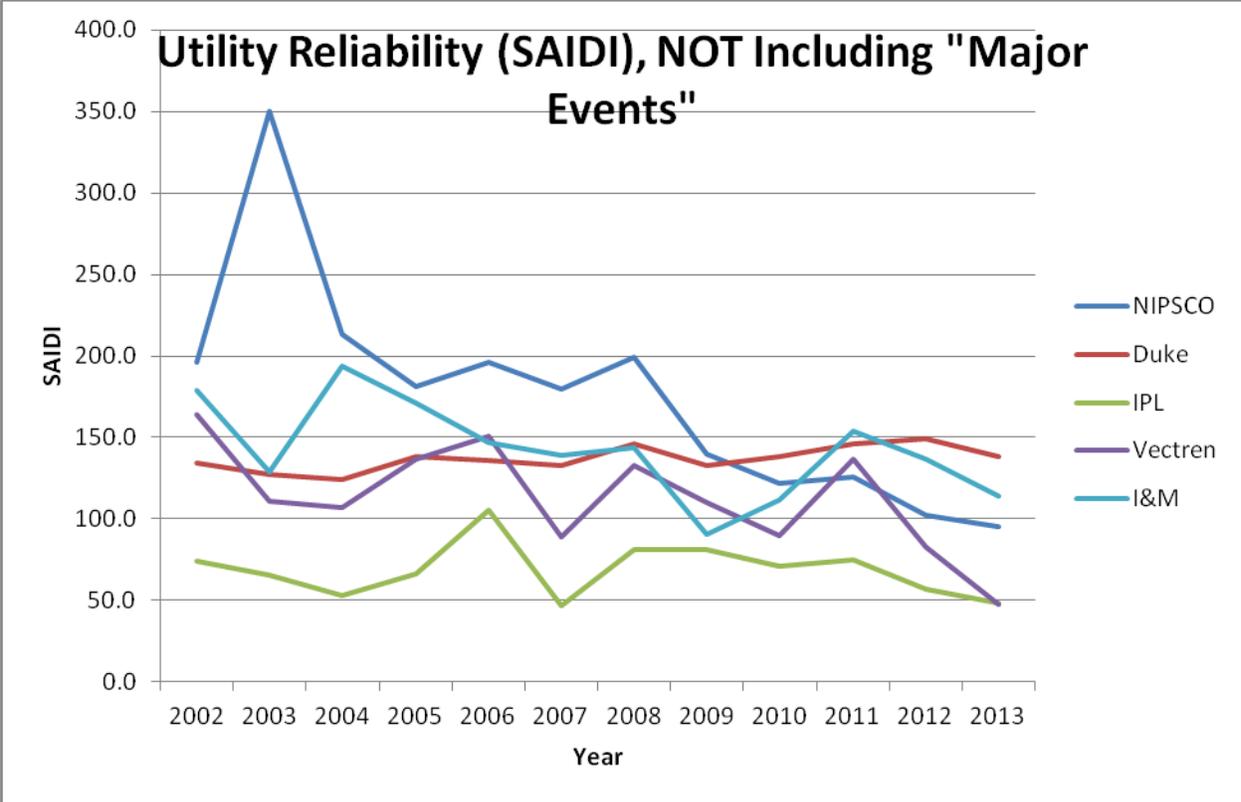
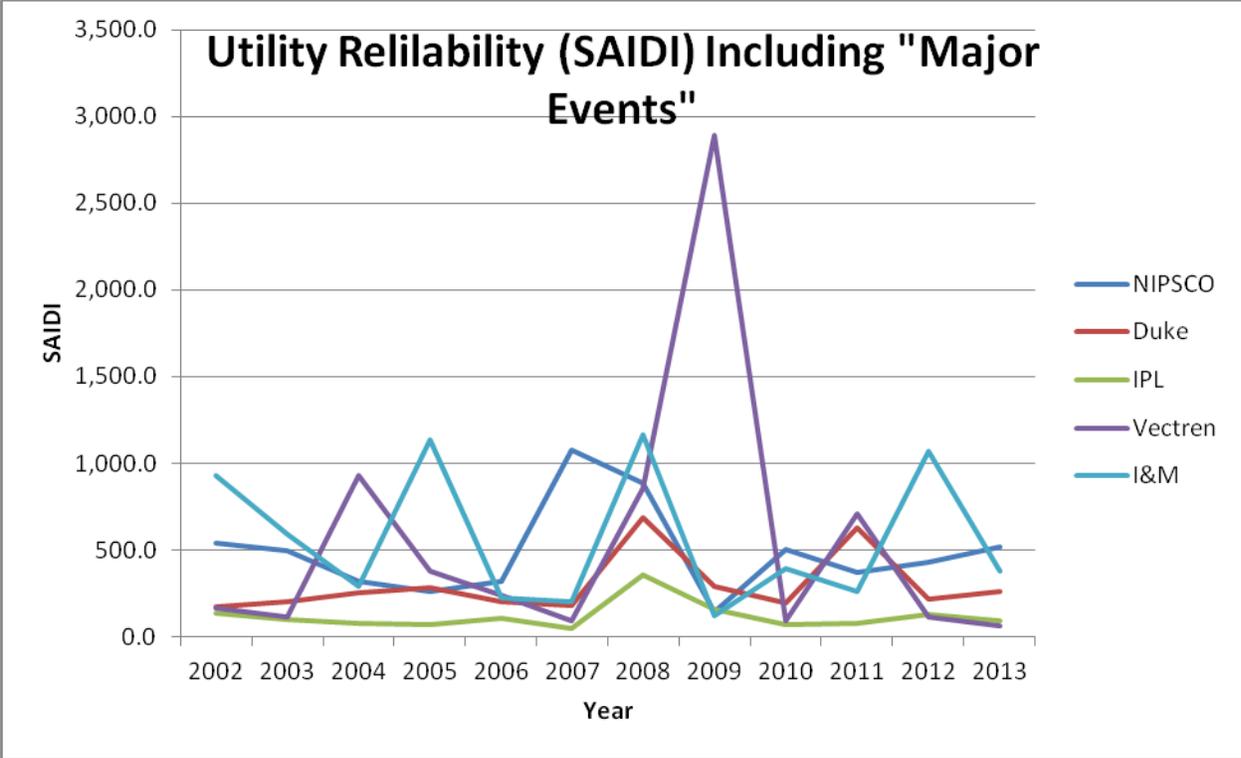
Utility	Major Event Days
NIPSCO	3
IPL	3
I&M	3
Duke Energy Indiana	3
Vectren	1

Electric Reliability: Including Major Events*												
	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
NIPSCO												
SAIFI	1.41	1.65	1.38	1.24	1.40	2.23	1.8	0.88	1.36	1.38	1.440	1.45
SAIDI	542.4	498.0	317	258	317	1073	882	140	505	371	428.000	520
CAIDI	384.7	301.8	229	208	227	480	490	158	372	269	297.000	359
PSI/Duke												
SAIFI	1.57	1.58	1.66	1.59	1.63	1.41	2.48	1.76	1.58	2.07	1.520	1.38
SAIDI	170.0	201.0	255.0	282.0	203.0	178	689	293	195	630	216.000	257
CAIDI	109.0	128.0	153.0	177.0	125.0	126	278	166	124	304	143.000	187
IPL												
SAIFI	1.17	0.90	0.81	0.90	1.07	0.76	1.54	1.1	1.04	0.86	1.040	0.71
SAIDI	132.9	98.0	76.7	66.5	105.2	46.99	358.98	158	71	75	124.920	92.3
CAIDI	113.3	108.4	94.1	73.9	98.0	61.7	232.96	145	68	88	119.660	130.01
Vectren												
SAIFI	1.46	1.27	2.36	2.05	1.87	1.23	2.33	2.56	1.02	2.16	1.240	0.78
SAIDI	164.0	111.0	932.4	376.0	241.0	89	859	2,889	90	711	117.300	60.1
CAIDI	107.0	87.0	394.7	185.0	128.0	72	369	1,126	88	330	94.900	76.6
I&M												
SAIFI	1.68	1.56	1.42	1.31	1.242	1.237	1.633	0.91	0.98	1.12	1.387	0.955
SAIDI	930.6	594.2	291.4	1,131.6	222.0	199.4	1164.3	122	392	258	1071.200	374.5
CAIDI	553.5	380.2	204.7	863.0	178.7	161.2	712.8	133	400	230	772.500	392
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)												
*Major events are storms or weather events that are more destructive than normal storm patterns. The same definition of "major event" is not used by all utilities.												
**NIPSCO's 2007 report updated values for 2004-2006 based on accepted industry standard IEEE Std 1366 - however, the above values reflect the original reports.												

Electric Reliability: NOT Including Major Events*												
	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
NIPSCO												
SAIFI	1.15	1.45	1.22	1.09	1.21	1.06	1.11	0.88	0.94	0.92	0.83	0.78
SAIDI	196.2	350.4	213	181	196	180	199	140	122	126	102	95
CAIDI	170.6	241.7	175	166	163	169	179	158	130	137	123	122
PSI/Duke												
SAIFI	1.36	1.22	1.21	1.27	1.32	1.23	1.26	1.3	1.32	1.27	1.29	1.17
SAIDI	134.0	127.0	124.0	138.0	136.0	133	146	133	138	146	149	138
CAIDI	98.0	103.0	102.0	109.0	103.0	109	116	102	104	115	115	118
IPL												
SAIFI	1.03	0.79	0.71	0.90	1.07	0.76	1.04	0.94	1.04	0.86	0.82	0.58
SAIDI	73.8	65.7	53.2	66.5	105.2	46.99	80.84	81	71	75	57	48.33
CAIDI	72.0	83.2	74.5	73.9	98.0	61.7	77.68	86	68	88	70	82.78
Vectren												
SAIFI	1.46	1.27	1.12	1.68	1.51	1.23	1.42	1.2	1.02	1.43	1.07	0.73
SAIDI	164.0	111.0	106.8	137.0	151.0	89	133	110	90	137	83	47.5
CAIDI	107.0	87.0	95.4	82.0	100.0	72	94	92	88	96	78	65.1
I&M												
SAIFI	1.12	0.95	1.25	1.00	1.123	1.107	1.117	0.83	0.74	0.99	0.91	0.739
SAIDI	179.1	128.5	194.1	170.7	146.7	139.1	143.7	90	111	154	137	113.7
CAIDI	159.3	135.0	155.6	171.1	130.6	125.6	128.6	109	151	156	151	154
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)												
*Major events are storms or weather events that are more destructive than normal storm patterns. The same definition of "major event" is not used by all utilities.												
**NIPSCO's 2007 report updated values for 2004-2006 based on accepted industry standard IEEE Std 1366 - however, the above values reflect the original reports.												







Comparison of 2013 Indices with 2003-2012 Average Indices (Without Major Events)				
	2013	2003-2012 Avg.	2013 Diff Vs Avg	2013% Diff Vs Avg
NIPSCO*				
SAIFI	0.78	1.08	-0.30	-28%
SAIDI	95	182	-87	-48%
CAIDI	122	165	-43	-26%
PSI/Duke				
SAIFI	1.17	1.28	-0.11	-8%
SAIDI	138	137	1	1%
CAIDI	118	107	11	10%
IPL				
SAIFI	0.58	0.91	-0.33	-36%
SAIDI	48	71	-22	-32%
CAIDI	83	78	5	7%
Vectren				
SAIFI	0.73	1.31	-0.58	-44%
SAIDI	48	119	-72	-60%
CAIDI	65	90	-25	-28%
I&M				
SAIFI	0.74	1.01	-0.27	-27%
SAIDI	114	145	-31	-22%
CAIDI	154	143	11	8%
*NIPSCO's 2007 report updated values for 2004-2006 based on accepted industry standard IEEE Std 1366. The averages above reflect these revisions.				