Reliability Report Data 2002-2009
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 2002 through 2009.

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 2009. In addition to the major events below, IPL stated it had 13 non major storm events, and NIPSCO stated it experienced an additional 17 weather events it considered severe. It should be noted that one storm system can potentially cause multiple major event days (for example, a January ice storm caused 15 major event days for Vectren.)

Utility	Major Event Days
NIPSCO	0
IPL	1
I&M	2
Duke Energy Indiana	6
Vectren	17

Electric Reliability: Including Major Events*								
	2002	2003	2004	2005	2006	2007	2008	2009
NIPSCO								
SAIFI	1.41	1.65	1.38	1.24	1.40	2.23	1.80	0.88
SAIDI	542	498	314	258	317	1,073	882	140
CAIDI	385	302	228	208	227	480	490	158
PSI/Duke								
SAIFI	1.57	1.58	1.66	1.59	1.63	1.41	2.48	1.76
SAIDI	170	201	255	282	203	178	689	293
CAIDI	109	128	153	177	125	126	278	166
IPL								
SAIFI	1.17	0.90	0.81	0.90	1.07	0.76	1.54	1.1
SAIDI	133	98	77	67	105	47	359	158
CAIDI	113	108	94	74	98	62	233	145
Vectren								
SAIFI	1.46	1.27	2.36	2.05	1.87	1.23	2.33	2.56
SAIDI	164	111	932	376	241	89	859	2,889
CAIDI	107	87	395	185	128	72	369	1,126
I&M								
SAIFI	1.68	1.56	1.42	1.31	1.24	1.24	1.63	0.91
SAIDI	931	594	291	1,132	222	199	1,164	122
CAIDI	554	380	205	863	179	161	713	133

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 utilities do not all use the same definition for "major event."

**NIPSCO's 2007 report updated values for 2004-2006 based on accepted industry standard IEEE Std 1366 - the above values reflect the original reports.

Electric Reliability: NOT Including Major Events*								
	2002	2003	2004	2005	2006	2007	2008	2009
NIPSCO								
SAIFI	1.15	1.45	1.24	1.24	1.40	1.06	1.11	0.88
SAIDI	196	350	238	258	317	180	199	140
CAIDI	171	242	192	208	227	169	179	158
PSI/Duke								
SAIFI	1.36	1.22	1.21	1.27	1.32	1.23	1.26	1.3
SAIDI	134	127	124	138	136	133	146	133
CAIDI	98	103	102	109	103	109	116	102
IPL								
SAIFI	1.03	0.79	0.71	0.90	1.07	0.76	1.04	0.94
SAIDI	74	66	53	67	105	47	81	81
CAIDI	72	83	75	74	98	62	78	86
Vectren								
SAIFI	1.46	1.27	1.12	1.68	1.51	1.23	1.42	1.2
SAIDI	164	111	107	137	151	89	133	110
CAIDI	107	87	95	82	100	72	94	92
I&M								
SAIFI	1.12	0.95	1.25	1.00	1.12	1.11	1.12	0.83
SAIDI	179	129	194	171	147	139	144	90
CAIDI	159	135	156	171	131	126	129	109

Notes

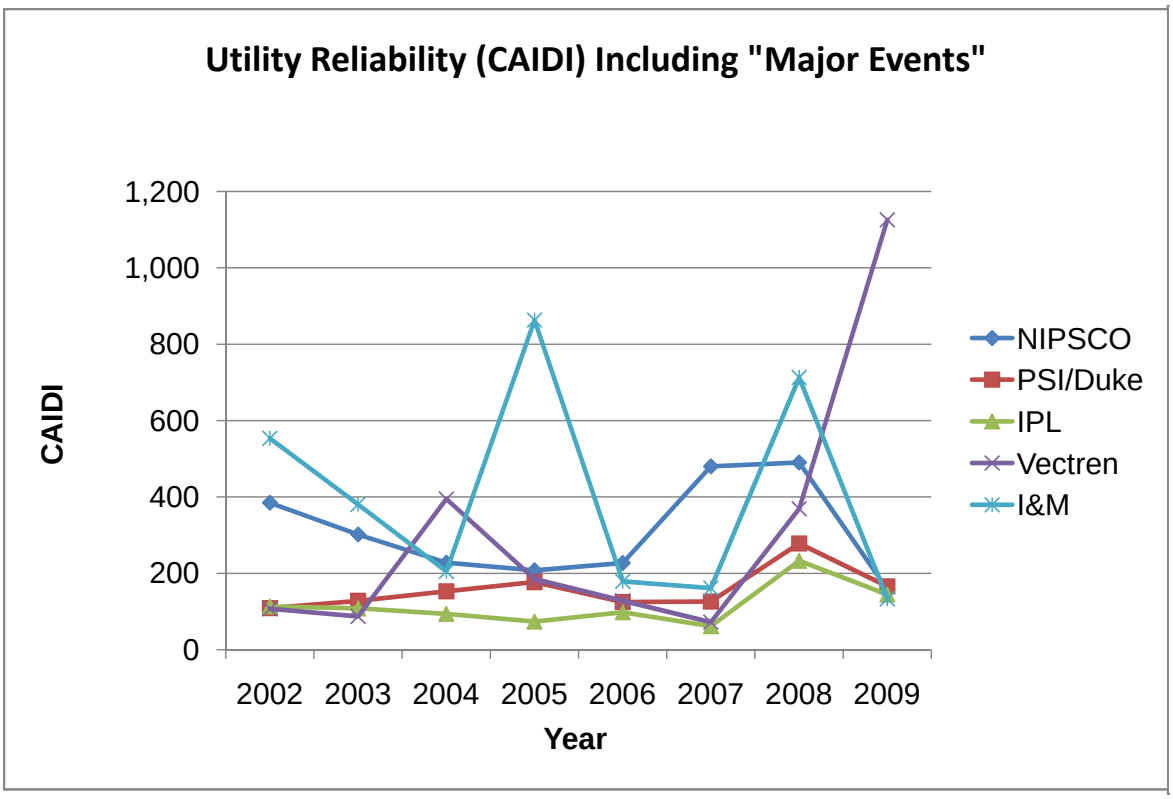
SAIFI: System Average Interruption Frequency Index; (# of customers who experience outage) / (total # of customers)

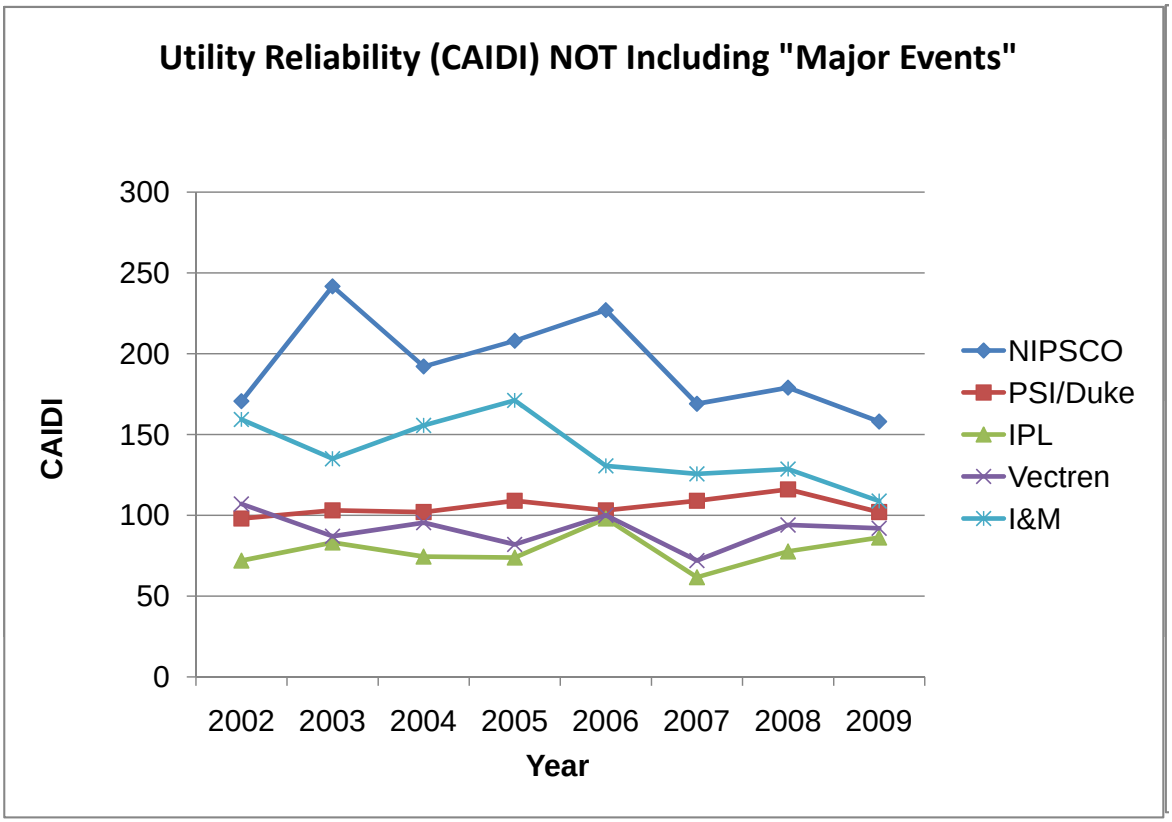
SAIDI: System Average Interruption Duration Index; (duration or time of service interruptions) / (total # of customers)

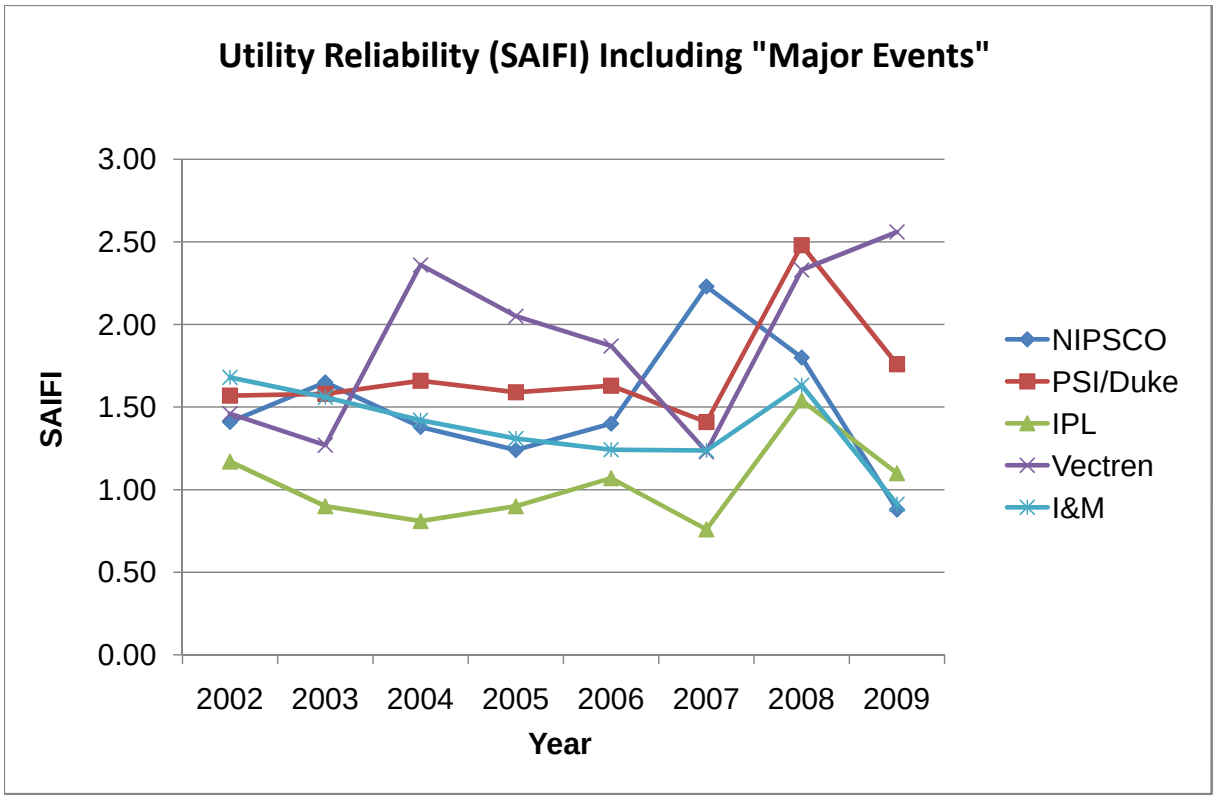
CAIDI: Customer Average Interruption Duration Index; (SAIDI) / (SAIFI)

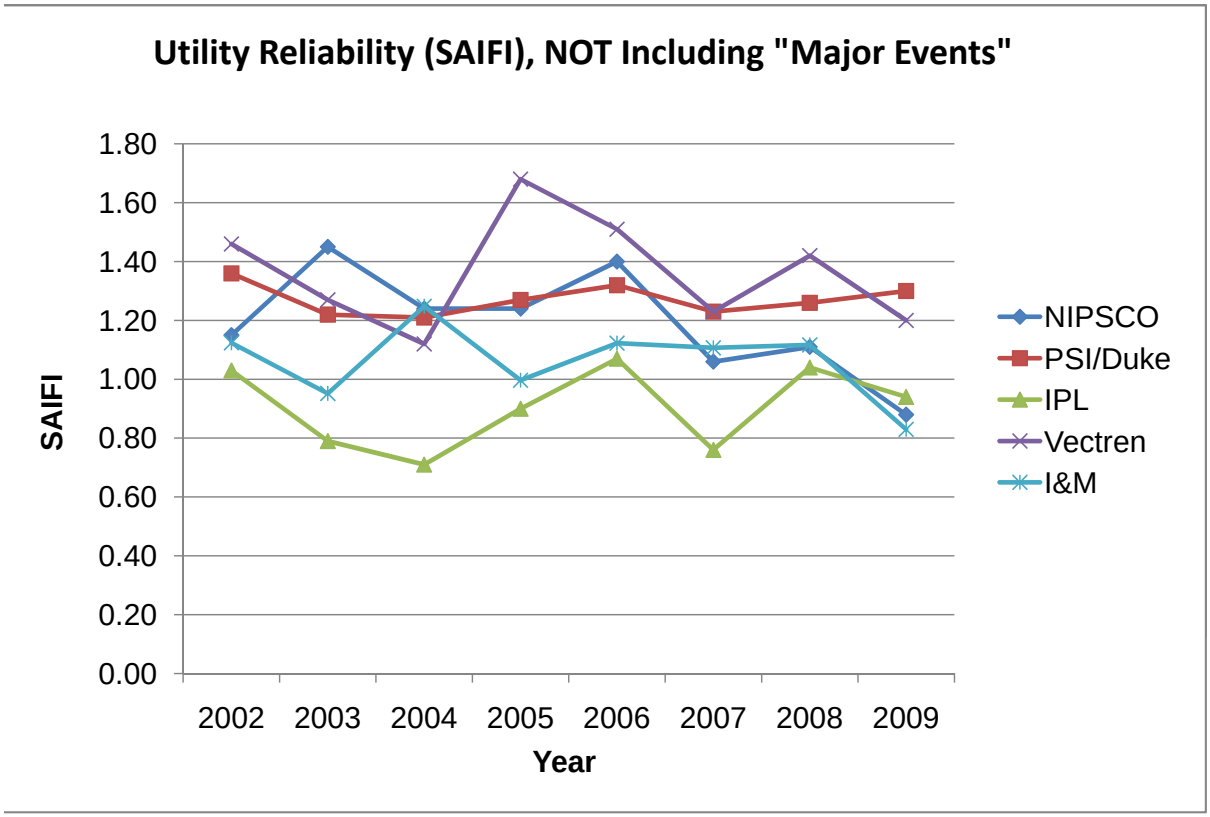
*Major events are storms or weather events that are more destructive than normal storm patterns. The utilities do not all use the same definition for "major event."

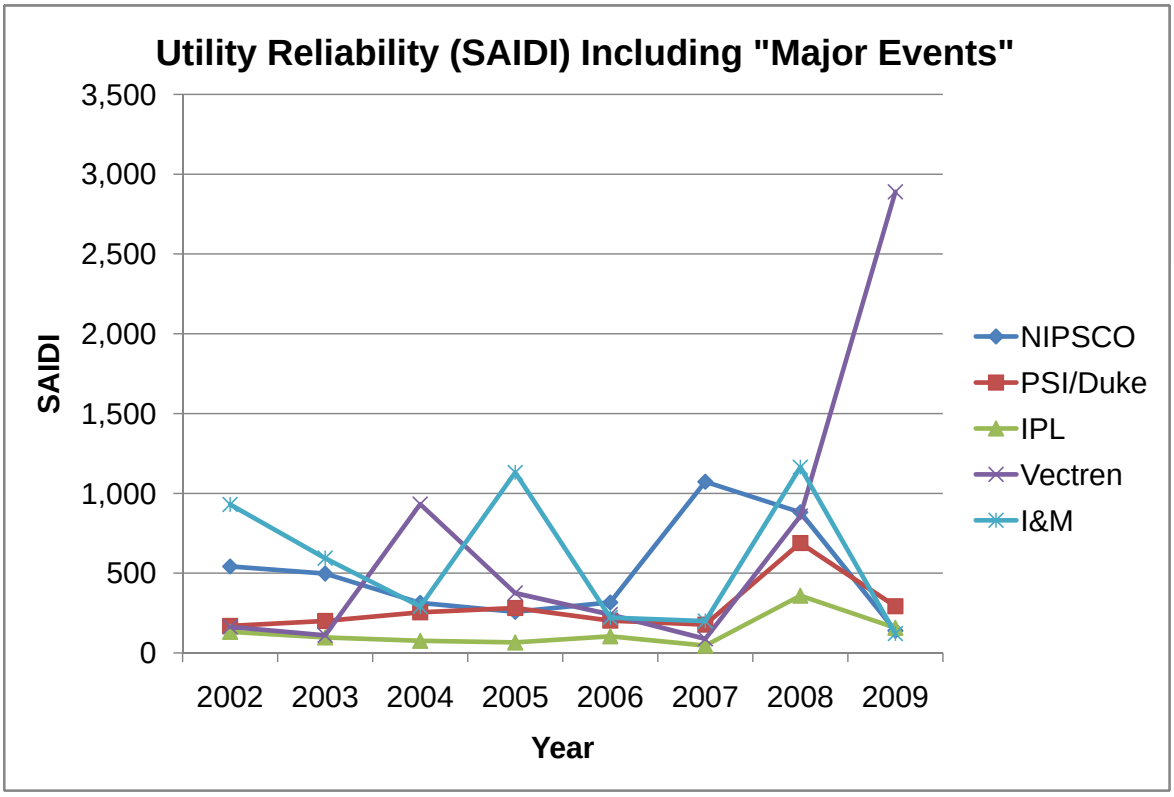
**NIPSCO's 2007 report updated values for 2004-2006 based on accepted industry standard IEEE Std 1366 - the above values reflect the original reports.

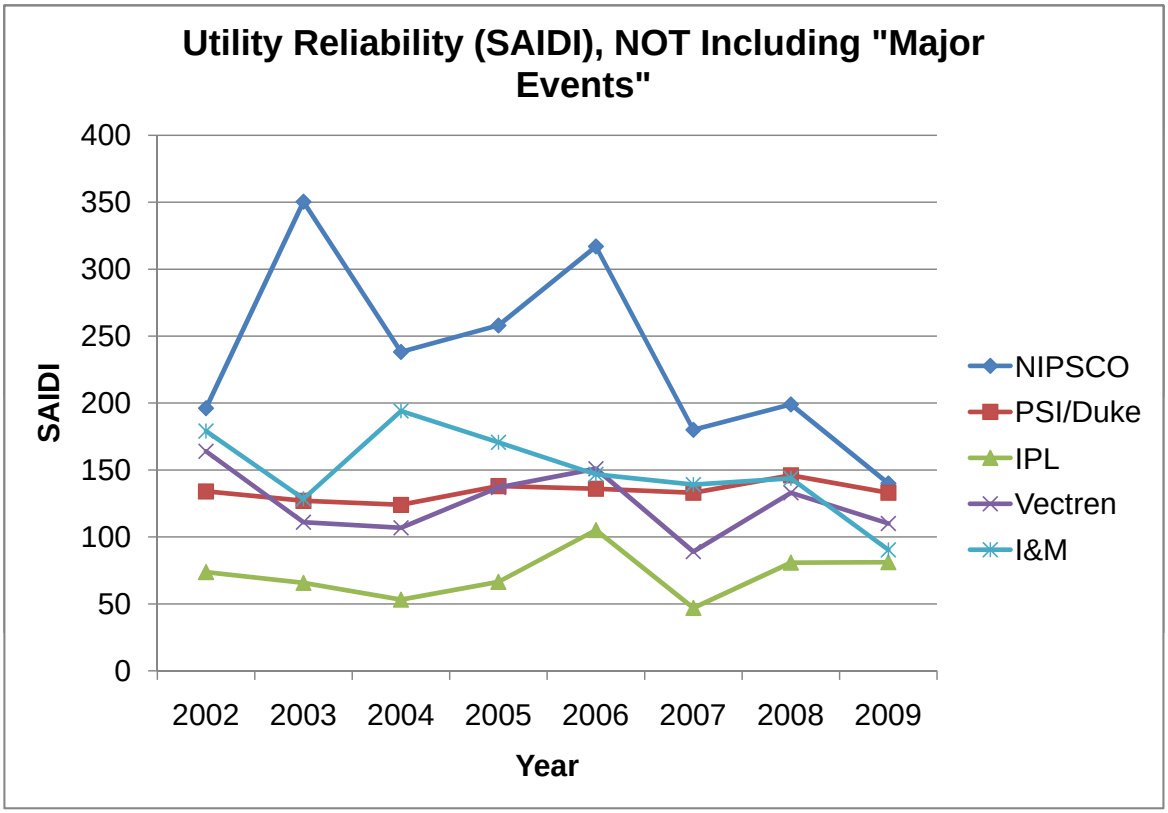

Utility Reliability (CAIDI) Including "Major Events"
CAIDI
1,200
1,000
800
600
400
200
0
2002
2003
2004
2005
2006
2007
2008
2009
Year
NIPSCO
PSI/Duke
IPL
Vectren
I&M


Utility Reliability (CAIDI) NOT Including "Major Events"
CAIDI
300
250
200
150
100
50
0
2002
2003
2004
2005
2006
2007
2008
2009
Year
NIPSCO
PSI/Duke
IPL
Vectren
I&M


Utility Reliability (SAIFI) Including "Major Events"
3.00
2.50
2.00
1.50
1.00
0.50
0.00
SAIFI
2002
2003
2004
2005
2006
2007
2008
2009
Year
NIPSCO
PSI/Duke
IPL
Vectren
I&M


Utility Reliability (SAIFI), NOT Including "Major Events"
1.80
1.60
1.40
1.20
1.00
0.80
0.60
0.40
0.20
0.00
SAIFI
2002
2003
2004
2005
2006
2007
2008
2009
Year
NIPSCO
PSI/Duke
IPL
Vectren
I&M


Utility Reliability (SAIDI) Including "Major Events"
SAIDI
3,500
3,000
2,500
2,000
1,500
1,000
500
0
2002
2003
2004
2005
2006
2007
2008
2009
Year
NIPSCO
PSI/Duke
IPL
Vectren
I&M


Utility Reliability (SAIDI), NOT Including "Major Events"
SAIDI
400
350
300
250
200
150
100
50
0
2002
2003
2004
2005
2006
2007
2008
2009
Year
NIPSCO
PSI/Duke
IPL
Vectren
I&M

Comparison of 2009 Indices with 2002-2008 Average Indices (Without Major Events)				
	2009	***2002-2008 Avg.***	**2009 Diff Vs Avg**	**2009 % Diff Vs Avg**
NIPSCO				
SAIFI	0.88	1.24	-0.36	-29%
SAIDI	140	248	-108	-44%
CAIDI	158	198	-40	-20%
PSI/Duke				
SAIFI	1.30	1.27	0.03	3%
SAIDI	133	134	-1	-1%
CAIDI	102	106	-4	-4%
IPL				
SAIFI	0.94	0.90	0.04	4%
SAIDI	81	70	11	15%
CAIDI	86	77	9	12%
Vectren				
SAIFI	1.20	1.38	-0.18	-13%
SAIDI	110	127	-17	-14%
CAIDI	92	91	1	1%
I&M				
SAIFI	0.83	1.10	-0.27	-24%
SAIDI	90	157	-67	-43%
CAIDI	109	144	-35	-24%