ANNUAL ELECTRIC RELIABILITY REPORT

For Year 2022

PREPARED FOR THE CALIFORNIA PUBLIC UTILITIES COMMISSION

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EXECUTIVE SUMMARY

The reliability information contained in this report is for calendar year 2022, as required by California Public Utilities Commission (CPUC, or Commission) Decision 16-01-008. The data includes all outages (planned and unplanned) for distribution customers including and excluding Major Event Days (MEDs). Within this report, SCE explicitly notes whether data (e.g., MEDs, PSPS) has been excluded.

Unplanned outages, and their calculated reliability indices, are captured and calculated from the Outage Database and Reliability Metrics (ODRM) system.

As described in detail below, two metrics that are commonly relied on and reported in the electric utility industry are the System Average Interruption Duration Index (SAIDI) and the System Average Interruption Frequency Index (SAIFI). SAIDI measures the amount of time the average SCE customer experienced a power outage or interruption for more than five minutes (called a "sustained outage") during a given year (MEDs excluded). SAIFI is the number of times the average SCE customer experienced a sustained outage during a given year (MEDs excluded).

Beginning in 2016, SCE provided planned outage reliability indices for the Annual Reliability Report; 2016 was the first year where the entire year's planned outage information was available. Since calendar year 2021, SCE has been unable to provide planned outage data metrics due to IT system implementation issues. While we continue to enhance and refine our capabilities in the areas of planned outage reporting, SCE has created an interim planned outage metric report that will be used while SCE finalizes IT related projects and/or system updates that will allow proper disaggregation of planned outage data. The interim report is only provided for years 2020-2022 while SCE finishes enhancements related to the ongoing IT project.

The following content contained in this report is based on reliability indicators, definitions and calculations as defined below.

Major Event Day: A day in which the daily system SAIDI exceeds a threshold value. For purposes of calculating daily system SAIDI, any interruption that spans multiple calendar days is accrued to the day on which the interruption began. Statistically, days having a daily system SAIDI greater than a threshold value are days on which the energy delivery system experienced stresses beyond that normally expected (such as severe weather). Events are excluded based on the "2.5 beta method." Per IEEE Standard 1366, days are excluded from a given year's metric if their SAIDI exceeds 2.5 times the standard deviation of the natural logarithm of daily SAIDI over the previous five-year period.

ODRM: Outage Database and Reliability Metrics.

OMS: Outage Management System.

Sustained Interruption: Outage lasting longer than 5 minutes as defined in IEEE std. 1366-2003.

Momentary Interruption: Outage lasting 5 minutes or less as defined in IEEE std. 1366-2003.

SAIDI: The System Average Interruption Duration Index is the amount of time on average a customer was without power in a year due to sustained interruptions (measured in minutes per customer).

$$\text{SAIDI} = \frac{\text{sum of all "sustained" customer interruption durations}}{\text{total number of customers served}}$$

SAIFI: The System Average Interruption Frequency Index is the number of times an average customer was without power in a year due to service interruptions lasting more than 5 minutes (measured in interruptions per customer).

$$\text{SAIFI} = \frac{\text{sum of total quantity of "sustained" customer interruptions}}{\text{total number of customers served}}$$

MAIFI: The Momentary Average Interruption Frequency Index is the number of times an average customer was without power in a year due to service interruptions lasting 5 minutes or less (measured in interruptions per customer).

$$\text{MAIFI} = \frac{\text{sum of total quanity of "momentary" customer interruptions}}{\text{total number of customers served}}$$

CAIDI: The average time required to restore service for a sustained outage.

$$\text{CAIDI} = \frac{\text{sum of total quantity of "momentary" customer interruptions}}{\text{total number of customers interrupted}}$$

T_{MED}: The calculated threshold value used to determine a Major Event Day. SCE's T_{MED} value is calculated at the beginning of each year using SCE's daily SAIDI values for the prior 5 years. SCE's T_{MED} value for 2022 was 2.15 min.

SCE 2022 Performance Summary

SCE's 2022 overall reliability performance remains relatively similar to 2021. To promote system reliability and customer experience, SCE is proposing to return to historical levels of traditional infrastructure replacement work as requested in SCE's 2025 GRC A.23-.05-010.

SCE continuously looks for ways to improve reliability performance such as reducing restoration times by improving processes for operational response, lessening customer impact through real-time outage diagnostics, replacing aging and poorly performing infrastructure, installing new equipment such as covered conductor in our high fire risk areas, and enhancing circuitry via automation and equipment that identifies the faulted location and improves both isolation and restoration.

The table below summarizes SCE's 2022 performance for unplanned outages including and excluding MEDs. The table also consists of a 10-year average performance for unplanned outages including and excluding MEDs for comparison.

	Total System Indices (All Interruptions Included)				Total System Indices (Major Event Days Excluded)			
YEAR	SAIDI	SAIFI	MAIFI	CAIDI	SAIDI	SAIFI	MAIFI	CAIDI
2022	131.13	1.08	1.42	121.45	101.03	0.96	1.23	104.83
10 Year Avg (2013-2022)	143.09	1.02	1.45	139.67	94.70	0.88	1.29	107.20

SCE implements proactive de-energization known as Public Safety Power Shutoff (PSPS). PSPS is an operational protocol that SCE implements under extreme weather conditions in order to minimize the threat of wildfires and keep communities safe from potentially dangerous situations. During 2022, there were fewer PSPS events that required de-energization of one or more circuits than prior years and SAIDI and SAIFI impact was smaller than prior years.

Within this report, SCE explicitly notes whether data (e.g., MEDs, PSPS) has been excluded. In certain tables and charts, PSPS will be included in the data where "All Interruptions" or "All Outages" are noted as included.

Total System Indices excluding MED and PSPS are shown in the below table.

	Total Unplanned Indices excluding MED and PSPS			
Year	**SAIDI**	**SAIFI**	**MAIFI**	**CAIDI**
2022	99.743	0.961	1.233	103.82

In 2022, SCE experienced outage events across its service area, some of which impacted reliability to result in MEDs. In total, SCE had 5 MEDs. Please see the below summary table of Major Event Days.[1]

No.	Date	Event Cause	SAIDI	SAIFI	Sustained Customer Impacted	MAFI	Momentary Customer Impacted	Excluded per IEEE 1366
1	1/21/2022	WIND AND VEGETATION BLOWN OVERHEAD CONDUCTOR	7.474	0.015	78,104	0.026	135,286	Y
2	1/22/2022	WIND AND VEGETATION BLOWN OVERHEAD CONDUCTOR	8.890	0.014	71,868	0.032	165,835	Y
3	6/22/2022	LIGHTNING	8.375	0.045	237,696	0.062	324,784	Y
4	9/9/2022	OVERHEAD EQUIPMENT, VEGETATION BLOWN	2.897	0.016	81,533	0.023	121,323	Y
5	11/8/2022	UNKNOWN, CONDUCTOR/WIRE, VEGETATION BLOWN	2.459	0.026	138,237	0.042	218,629	Y
	Total		30.095	0.116	607,438	0.184	965,857	

[1] Not all PSPS de-energization events result in MEDs.

SECTION 1 – SYSTEM INDICES FOR THE LAST 10 YEARS

a. System Indices Tables

Table 1 below contains the required SAIDI, SAIFI, MAIFI[2] and CAIDI indices for 2013-2022 including and excluding MEDs for the SCE system unplanned outages. All calculations contained in Table 1 are based on the IEEE 1366 method for MEDs. Reliability indices are for unplanned outages only.

Table 1 – Unplanned Outage System Indices (2013-2022)

	Total System Indices (All Interruptions Included)				Total System Indices (Major Event Days Excluded)			
YEAR	SAIDI	SAIFI	MAIFI	CAIDI	SAIDI	SAIFI	MAIFI	CAIDI
2013	102.61	0.91	1.20	112.76	94.49	0.88	1.18	107.85
2014	112.25	0.97	1.36	116.28	92.40	0.86	1.23	107.12
2015	114.83	0.92	1.42	125.40	100.15	0.86	1.29	116.56
2016	134.48	1.10	1.55	122.26	109.98	0.99	1.40	110.69
2017	139.73	1.19	1.84	117.19	91.72	0.87	1.42	105.40
2018	136.82	0.87	1.43	156.61	71.25	0.72	1.27	99.58
2019	177.97	1.04	1.38	171.17	90.75	0.87	1.23	104.75
2020	201.32	1.06	1.38	190.47	91.40	0.87	1.25	105.51
2021	179.79	1.11	1.57	161.70	103.82	0.96	1.43	108.10
2022	131.13	1.08	1.42	121.45	101.03	0.96	1.23	104.83

i. Distribution Indices[3]

Table 2 – Unplanned Outage Distribution Indices (2013-2022)

	Distribution Indices (< 50KV) (All Interruptions Included)				Distribution Indices (< 50KV) (Major Event Days Excluded)			
YEAR	SAIDI	SAIFI	MAIFI	CAIDI	SAIDI	SAIFI	MAIFI	CAIDI
2013	94.33	0.86	1.14	109.27	92.52	0.85	1.12	108.46
2014	111.23	0.94	1.29	117.88	91.62	0.84	1.17	108.83
2015	111.87	0.88	1.35	127.54	98.34	0.83	1.24	118.88
2016	129.32	1.05	1.47	123.24	106.29	0.95	1.33	112.03
2017	128.74	0.99	1.56	130.69	89.99	0.84	1.37	106.71
2018	134.87	0.86	1.39	156.34	70.81	0.71	1.23	99.70
2019	170.30	1.01	1.32	169.33	89.33	0.85	1.18	105.37
2020	198.93	1.04	1.32	190.39	89.42	0.85	1.19	104.69
2021	178.01	1.08	1.51	164.72	102.15	0.93	1.38	109.69
2022	129.98	1.05	1.35	123.30	100.29	0.95	1.20	105.53

[2] SCE calculates MAIFI at the individual outage event.

[3] Distribution system outages are defined as outages that are <50kV.

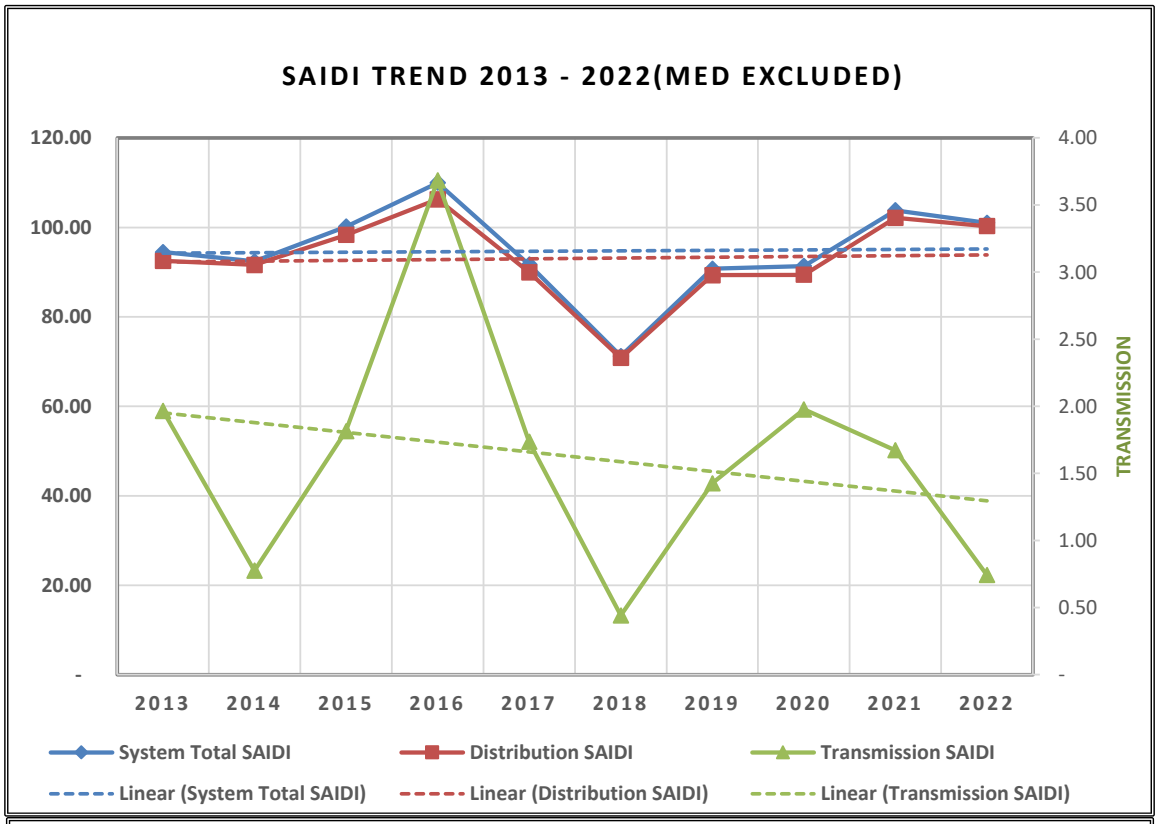
ii. Transmission Indices[4]

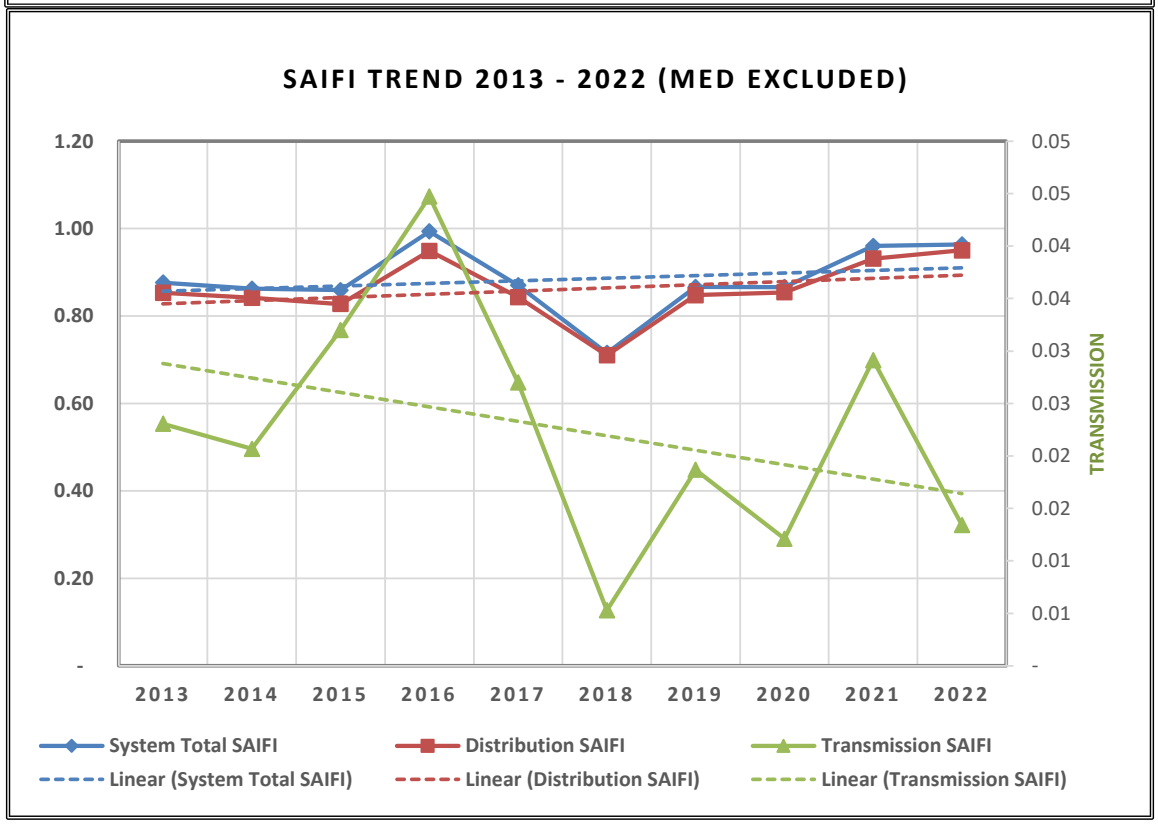
Table 3 – Unplanned Outage Transmission Indices (2013-2022)

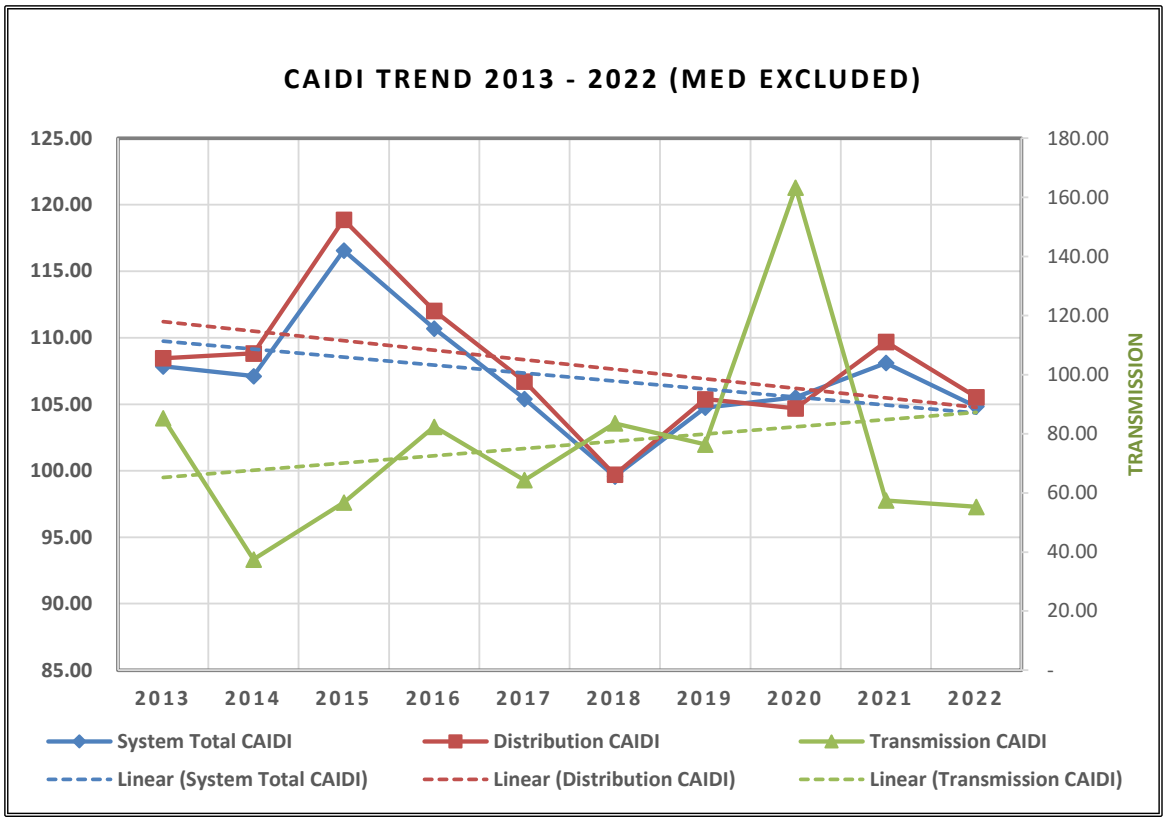
	Transmission Indices (>= 50KV) (All Interruptions Included)				Transmission Indices (>= 50KV) (Major Event Days Excluded)			
YEAR	SAIDI	SAIFI	MAIFI	CAIDI	SAIDI	SAIFI	MAIFI	CAIDI
2013	8.29	0.05	0.06	177.25	1.97	0.02	0.05	85.29
2014	1.02	0.02	0.07	46.82	0.78	0.02	0.06	37.50
2015	2.96	0.04	0.07	76.68	1.82	0.03	0.05	56.75
2016	5.15	0.05	0.08	101.92	3.68	0.04	0.07	82.39
2017	10.99	0.21	0.27	53.01	1.74	0.03	0.04	64.31
2018	1.95	0.01	0.04	177.73	0.44	0.01	0.03	83.54
2019	7.67	0.03	0.06	225.95	1.43	0.02	0.04	76.39
2020	2.39	0.01	0.06	197.46	1.98	0.01	0.06	163.29
2021	1.78	0.03	0.06	57.19	1.67	0.03	0.05	57.42
2022	1.15	0.03	0.07	45.16	0.74	0.01	0.03	55.29

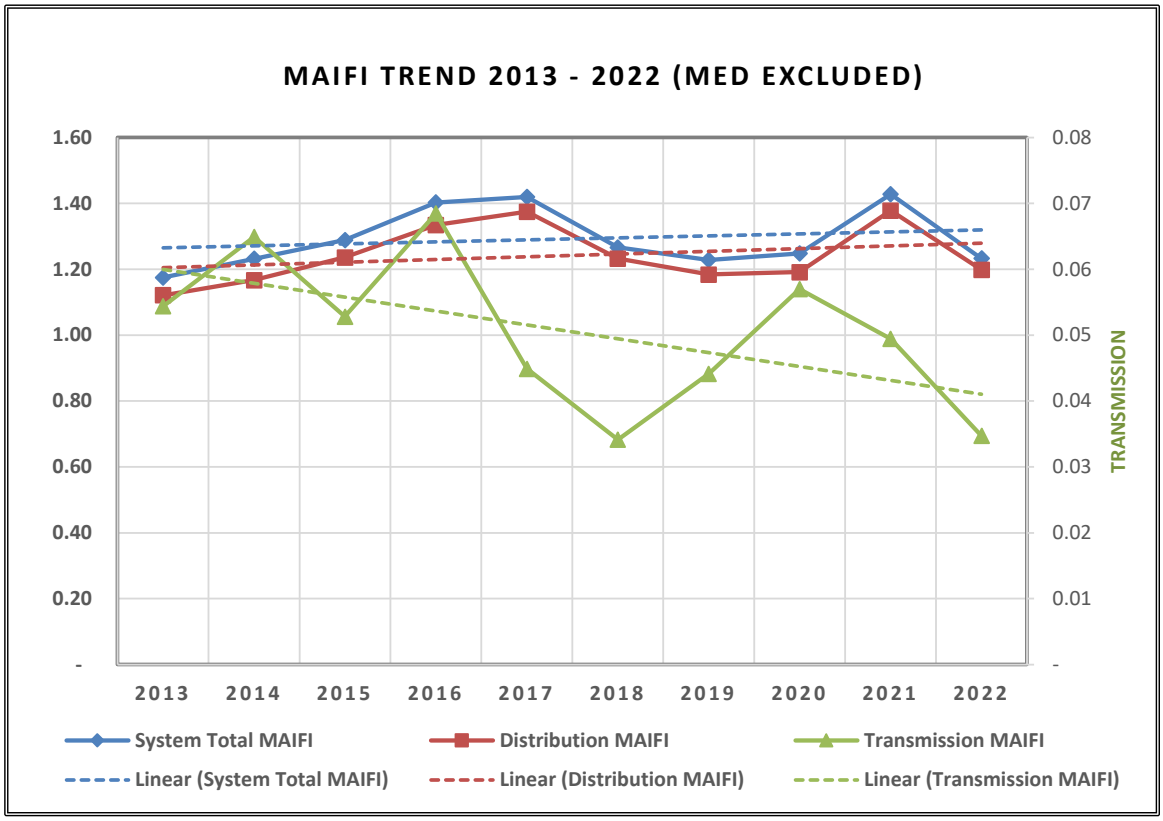
[4] Transmission system outages are defined as outages ≥ 50kV

b. Unplanned Outage System Indices Charts (MED Excluded)






CAIDI TREND 2013 - 2022 (MED EXCLUDED)
125.00
120.00
115.00
110.00
105.00
100.00
95.00
90.00
85.00
180.00
160.00
140.00
120.00
100.00
80.00
60.00
40.00
20.00
-
TRANSMISSION
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
System Total CAIDI
Distribution CAIDI
Transmission CAIDI
Linear (System Total CAIDI)
Linear (Distribution CAIDI)
Linear (Transmission CAIDI)


MAIFI TREND 2013 - 2022 (MED EXCLUDED)
1.60
1.40
1.20
1.00
0.80
0.60
0.40
0.20
-
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01
-
TRANSMISSION
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
System Total MAIFI
Distribution MAIFI
Transmission MAIFI
Linear (System Total MAIFI)
Linear (Distribution MAIFI)
Linear (Transmission MAIFI)

SECTION 2 – UNPLANNED OUTAGE DISTRICT RELIABILITY INDICES FOR THE PAST 10 YEARS INCLUDING AND EXCLUDING MEDs

a. District SAIDI, SAIFI, MAIFI and CAIDI[5] (including and excluding MEDs) for unplanned outages

Table 4 – District Indices (2013-2022)[6]

DISTRICT	All Outage				MED Excluded			
	dSAIDI	dSAIFI	dMAIFI	dCAIDI	dSAIDI	dSAIFI	dMAIFI	dCAIDI
ANTELOPE VALLEY								
2013	94.416	0.619	1.172	152.621	94.222	0.613	1.166	153.772
2014	51.050	0.594	1.153	85.980	45.689	0.549	1.070	83.218
2015	104.337	0.680	1.838	153.528	70.206	0.601	1.514	116.783
2016	107.670	0.870	1.523	123.791	101.199	0.814	1.430	124.322
2017	103.191	0.873	1.833	118.151	83.352	0.814	1.704	102.390
2018	55.614	0.608	1.258	91.517	50.419	0.534	1.097	94.498
2019	194.754	0.668	1.347	291.498	76.406	0.569	1.249	134.164
2020	287.775	1.156	2.404	249.035	154.812	0.999	2.329	154.892
2021	162.652	1.305	1.789	124.668	149.371	1.239	1.783	120.547
2022	182.859	0.973	1.418	188.015	106.100	0.719	1.072	147.613
ARROWHEAD								
2013	180.586	1.386	5.017	130.286	134.768	1.174	3.637	114.839
2014	193.249	1.590	4.018	121.532	81.968	0.898	3.035	91.277
2015	362.615	3.973	5.595	91.273	186.743	2.755	2.730	67.794
2016	659.464	2.848	5.951	231.515	200.720	1.883	4.712	106.593
2017	816.518	3.861	7.057	211.496	218.331	3.058	4.093	71.391
2018	68.595	1.527	2.980	44.924	53.422	0.712	2.919	75.065
2019	3630.637	9.592	9.883	378.500	828.270	5.814	6.160	142.452
2020	443.364	2.384	4.264	185.940	204.895	2.061	3.311	99.397
2021	1565.303	2.875	5.966	544.443	492.173	2.057	4.108	239.241
2022	282.960	1.914	3.736	147.821	231.329	1.370	2.245	168.905
BARSTOW								
2013	204.329	1.395	3.284	146.469	185.788	1.286	2.702	144.416
2014	201.526	1.343	2.536	150.058	173.680	1.240	2.410	140.098
2015	187.113	1.174	2.859	159.416	157.379	0.997	2.131	157.841
2016	134.828	1.350	2.296	99.888	130.085	1.340	2.283	97.106
2017	357.468	2.652	4.195	134.806	356.064	2.639	4.132	134.934
2018	116.698	1.373	2.110	84.988	115.274	1.342	2.077	85.929
2019	114.490	0.833	2.586	137.432	95.228	0.798	2.188	119.296
2020	105.052	1.378	2.647	76.251	100.323	1.367	2.520	73.408
2021	215.915	2.677	4.580	80.653	196.992	2.391	4.383	82.400
2022	587.752	3.080	5.571	190.852	562.810	2.867	4.962	196.310
BISHOP								
2013	104.436	0.514	1.267	203.233	104.425	0.514	1.267	203.232
2014	118.793	0.587	1.885	202.475	113.618	0.499	1.706	227.572
2015	298.106	2.218	3.332	134.431	298.106	2.218	3.272	134.431
2016	168.592	1.216	2.820	138.643	168.530	1.216	2.711	138.603
2017	190.511	1.934	3.223	98.485	172.144	1.877	3.077	91.719
2018	139.695	0.539	1.957	258.986	136.470	0.499	1.820	273.587
2019	1445.727	2.915	3.217	496.014	276.151	1.394	2.878	198.130
2020	317.986	1.935	1.637	164.372	317.814	1.933	1.619	164.423
2021	385.947	2.471	4.783	156.182	355.408	2.404	4.630	147.814
2022	236.615	1.962	3.632	120.623	235.037	1.936	3.624	121.428
BLYTHE								
2013	483.127	1.380	5.466	349.971	482.815	1.372	5.382	351.779
2014	707.545	2.419	4.658	292.513	707.301	2.387	4.433	296.272
2015	426.997	1.515	1.396	281.754	331.521	1.129	1.163	293.751
2016	396.376	2.707	6.342	146.428	302.983	1.917	4.848	158.021
2017	684.484	2.377	3.585	287.955	683.564	2.372	3.493	288.176
2018	277.723	1.571	2.198	176.833	255.608	1.321	2.168	193.449
2019	379.850	1.692	2.769	224.482	359.998	1.629	2.675	221.030
2020	211.988	1.319	1.937	160.718	174.050	1.191	1.788	146.079
2021	196.177	1.181	3.755	166.157	195.134	1.176	3.656	165.980
2022	577.440	2.830	2.625	204.056	571.426	2.808	2.625	203.483

[5] District reliability metrics are calculated utilizing district information such as number of customers served within a district.

[6] Beginning in the 2019 annual report, Catalina District indices are combined with Huntington Beach District since the Catalina District operations are merged with the Huntington Beach District.

DISTRICT	All Outage				MED Excluded			
	dSAIDI	dSAIFI	dMAIFI	dCAIDI	dSAIDI	dSAIFI	dMAIFI	dCAIDI
COVINA								
2013	100.505	0.856	1.004	117.414	100.297	0.853	0.992	117.582
2014	91.597	0.874	1.257	104.759	81.602	0.804	1.028	101.489
2015	100.085	0.815	1.164	122.866	99.838	0.813	1.152	122.755
2016	112.134	0.974	1.319	115.182	90.930	0.875	1.145	103.915
2017	117.185	0.933	1.366	125.558	106.094	0.813	1.139	130.523
2018	103.181	0.832	1.455	124.043	73.463	0.700	1.367	104.983
2019	84.296	0.864	0.999	97.598	76.846	0.800	0.923	96.037
2020	138.230	1.397	1.020	98.922	111.535	1.299	0.979	85.846
2021	99.734	1.084	1.377	92.012	91.486	1.029	1.258	88.905
2022	205.224	1.029	1.234	199.411	74.981	0.851	0.960	88.103
DOMINGUEZ HILLS								
2013	89.167	0.797	1.938	111.893	89.167	0.797	1.938	111.893
2014	82.304	0.712	1.603	115.642	73.605	0.657	1.560	112.076
2015	130.629	0.967	2.049	135.097	126.046	0.934	1.958	134.903
2016	146.384	1.107	2.537	132.203	127.155	1.010	2.229	125.937
2017	123.596	0.826	2.162	149.564	86.630	0.720	1.967	120.388
2018	93.365	0.852	2.447	109.544	66.378	0.718	2.266	92.400
2019	98.658	0.874	2.090	112.865	64.548	0.706	1.721	91.403
2020	171.377	1.234	2.918	138.916	124.521	1.083	2.774	114.952
2021	110.265	1.249	2.794	88.302	88.176	1.071	2.609	82.366
2022	95.293	0.837	1.982	113.831	81.392	0.765	1.890	106.416
FOOTHILL								
2013	85.800	0.787	0.987	109.087	85.800	0.787	0.987	109.087
2014	93.349	0.932	1.285	100.146	88.147	0.861	1.249	102.400
2015	109.637	0.947	1.304	115.764	87.796	0.890	1.230	98.673
2016	142.807	1.028	1.507	138.926	138.177	1.008	1.483	137.029
2017	110.528	1.118	1.387	98.876	88.001	0.890	1.213	98.910
2018	117.614	0.976	1.202	120.475	78.703	0.782	0.966	100.705
2019	273.472	1.050	1.108	260.359	69.021	0.796	1.069	86.733
2020	217.860	1.200	1.655	181.547	83.160	0.912	1.500	91.164
2021	304.619	1.432	1.936	212.775	137.914	1.096	1.691	125.888
2022	106.021	1.073	1.608	98.812	86.961	1.015	1.311	85.684
FULLERTON								
2013	90.572	0.793	0.910	114.158	90.572	0.793	0.910	114.158
2014	82.229	0.723	1.004	113.749	69.998	0.649	0.974	107.849
2015	76.586	0.669	1.014	114.471	75.504	0.642	0.995	117.681
2016	92.725	0.760	1.174	122.044	73.772	0.588	0.974	125.369
2017	89.287	0.676	1.211	132.085	74.154	0.584	1.084	126.996
2018	69.447	0.517	1.126	134.276	55.382	0.435	1.041	127.367
2019	82.337	0.776	1.092	106.133	73.013	0.710	1.023	102.844
2020	88.294	0.685	1.175	128.906	50.795	0.507	0.779	100.096
2021	94.847	0.613	1.222	154.787	82.599	0.574	1.097	144.024
2022	92.737	0.735	0.727	126.123	84.165	0.693	0.678	121.439
HUNTINGTON BEACH								
2013	66.914	0.703	0.839	95.123	66.914	0.703	0.839	95.123
2014	79.795	0.813	1.105	98.101	68.381	0.752	0.978	90.981
2015	97.731	0.969	1.235	100.904	93.570	0.942	1.187	99.287
2016	127.358	1.287	1.245	98.938	107.706	1.212	1.184	88.869
2017	98.780	0.972	1.458	101.647	78.932	0.852	1.190	92.648
2018	88.268	0.778	1.376	113.405	74.272	0.696	1.076	106.706
2019	97.176	1.011	1.145	96.129	81.299	0.889	0.973	91.406
2020	89.912	0.857	1.068	104.902	79.057	0.774	1.017	102.129
2021	89.097	0.959	1.430	92.943	79.712	0.873	1.247	91.327
2022	127.496	1.244	1.429	102.501	120.493	1.179	1.378	102.236
KERNVILLE								
2013	232.181	1.964	4.925	118.189	180.865	1.577	4.824	114.682
2014	178.691	1.987	1.882	89.932	142.946	1.918	1.831	74.541
2015	286.382	0.961	1.630	297.920	231.411	0.857	1.293	270.120
2016	2421.324	3.674	2.928	659.034	909.188	2.839	2.832	320.212
2017	305.533	3.286	4.508	92.982	290.601	3.148	4.210	92.311
2018	184.411	1.141	3.104	161.652	152.818	1.009	3.087	151.390
2019	320.174	1.669	3.964	191.871	317.537	1.663	3.961	190.886
2020	318.400	1.873	2.590	170.012	295.336	1.828	2.582	161.537
2021	1830.210	1.885	2.072	970.864	1059.889	1.550	1.365	683.875
2022	505.698	2.579	4.705	196.106	411.208	2.345	2.663	175.346

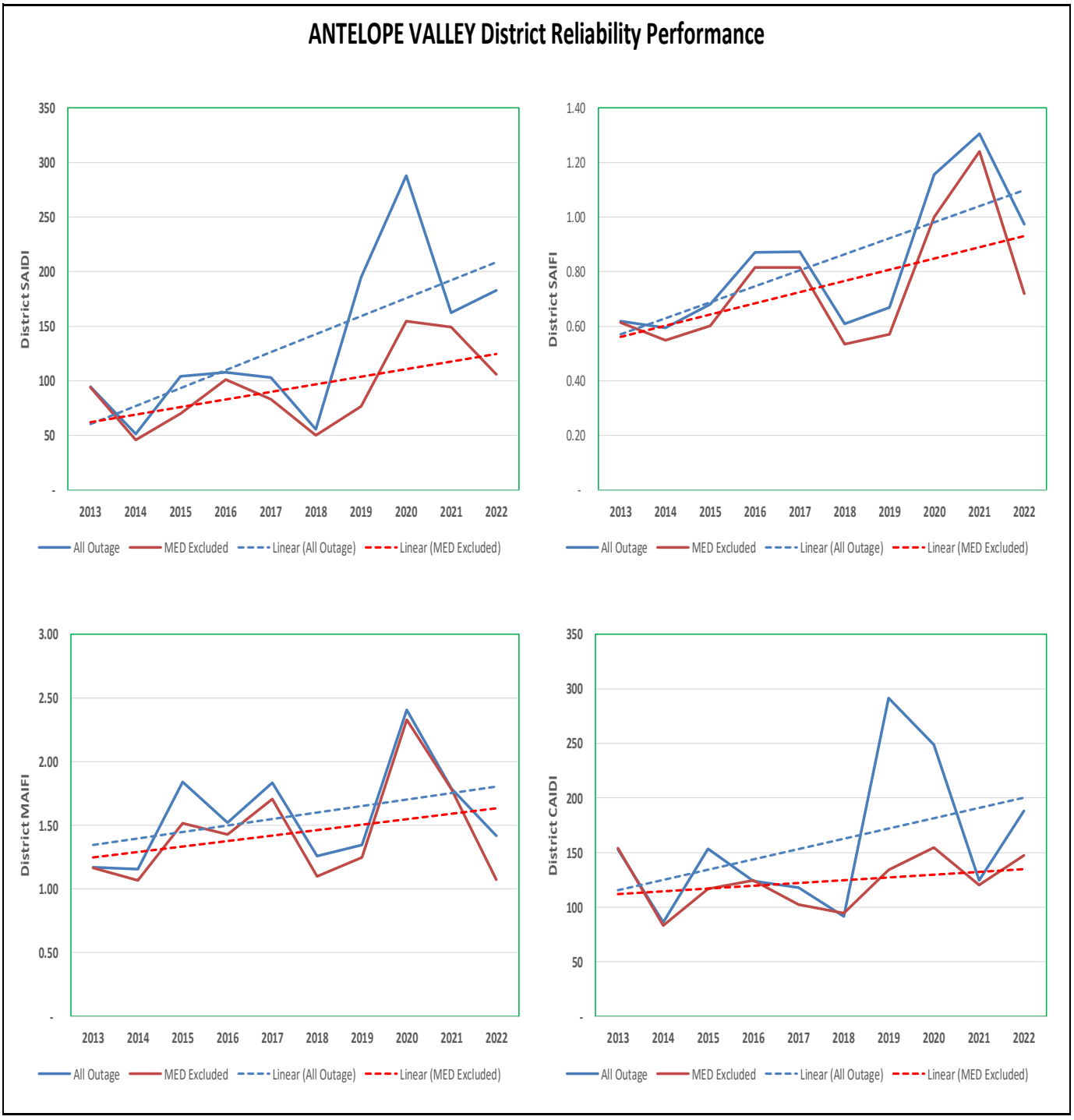
DISTRICT	All Outage				MED Excluded			
	dSAIDI	dSAIFI	dMAIFI	dCAIDI	dSAIDI	dSAIFI	dMAIFI	dCAIDI
LONG BEACH								
2013	75.107	0.699	0.779	107.497	74.628	0.694	0.775	107.551
2014	66.331	0.606	1.168	109.419	57.887	0.548	1.083	105.542
2015	164.463	0.894	1.185	183.904	89.160	0.846	1.168	105.378
2016	135.163	0.857	1.308	157.701	96.978	0.695	1.095	139.507
2017	77.173	0.708	1.177	108.967	59.503	0.590	1.017	100.881
2018	51.477	0.445	1.223	115.686	42.300	0.400	1.100	105.879
2019	78.184	0.643	0.965	121.652	60.171	0.572	0.818	105.248
2020	65.345	0.686	1.204	95.246	49.949	0.599	1.111	83.383
2021	76.168	0.810	1.287	94.014	66.128	0.737	1.138	89.773
2022	77.443	0.856	1.092	90.446	66.324	0.775	0.981	85.539
MENIFEE								
2013	107.388	1.264	0.744	84.979	106.298	1.220	0.725	87.135
2014	156.682	1.323	1.573	118.437	77.407	1.004	1.276	77.068
2015	111.460	0.978	1.302	113.971	85.322	0.876	1.067	97.393
2016	156.748	1.311	1.448	119.535	139.005	1.191	1.338	116.738
2017	130.467	0.965	1.311	135.265	72.854	0.765	1.200	95.225
2018	174.057	0.897	1.436	194.002	70.952	0.696	1.270	102.015
2019	99.483	0.859	1.027	115.814	76.890	0.750	0.860	102.488
2020	262.140	1.217	1.120	215.423	84.974	0.901	1.008	94.267
2021	171.907	1.081	0.850	158.977	88.053	0.932	0.748	94.508
2022	128.919	1.056	0.914	122.118	121.795	1.004	0.857	121.298
MONROVIA								
2013	99.116	1.017	1.322	97.496	98.965	1.015	1.311	97.500
2014	133.317	1.158	1.258	115.176	96.366	1.005	1.069	95.847
2015	96.679	0.881	1.618	109.737	95.327	0.863	1.554	110.466
2016	116.575	0.844	1.652	138.064	93.387	0.772	1.523	121.000
2017	105.003	0.982	1.797	106.955	91.997	0.925	1.699	99.414
2018	243.023	1.427	1.614	170.294	102.583	1.030	1.453	99.573
2019	86.095	0.824	1.399	104.506	75.962	0.724	1.239	104.947
2020	149.022	0.896	1.711	166.402	78.128	0.685	1.504	114.028
2021	117.879	1.152	1.397	102.292	107.597	1.110	1.295	96.948
2022	260.954	1.220	1.775	213.825	107.787	0.844	1.442	127.736
MONTEBELLO								
2013	118.078	1.174	1.890	100.609	117.713	1.169	1.890	100.660
2014	158.337	1.164	1.959	136.021	124.689	1.020	1.763	122.192
2015	150.280	1.183	2.213	126.992	145.303	1.131	2.087	128.462
2016	133.522	1.166	2.057	114.552	107.263	1.043	1.882	102.871
2017	123.980	0.989	2.181	125.388	96.853	0.877	1.873	110.467
2018	160.883	1.063	2.269	151.313	98.880	0.782	1.859	126.380
2019	127.517	1.176	1.906	108.427	108.382	1.042	1.789	104.046
2020	165.899	1.107	1.792	149.896	104.330	0.918	1.615	113.606
2021	126.295	1.041	2.051	121.296	119.771	1.013	1.909	118.273
2022	130.037	1.048	1.712	124.097	98.607	0.922	1.575	106.972
ONTARIO								
2013	77.392	0.791	0.933	97.841	74.037	0.782	0.926	94.728
2014	97.912	0.996	1.160	98.337	86.702	0.902	1.041	96.138
2015	94.043	0.744	0.926	126.432	81.608	0.709	0.867	115.156
2016	105.067	0.930	1.282	112.936	86.158	0.803	1.095	107.337
2017	100.432	1.135	1.572	88.514	91.781	1.054	1.422	87.094
2018	80.041	0.723	1.048	110.711	53.434	0.589	0.918	90.776
2019	90.157	0.943	1.211	95.597	76.942	0.864	1.145	89.046
2020	159.615	1.041	1.416	153.267	66.513	0.738	1.032	90.131
2021	104.677	0.982	1.519	106.615	70.552	0.853	1.301	82.684
2022	181.190	1.091	1.734	166.022	77.866	0.850	1.182	91.612
PALM SPRINGS								
2013	112.796	0.774	0.997	145.669	112.193	0.769	0.997	145.815
2014	107.044	0.708	0.941	151.109	95.150	0.667	0.885	142.664
2015	99.542	0.800	1.042	124.376	95.795	0.753	0.949	127.171
2016	107.581	1.066	1.281	100.909	101.363	1.010	1.133	100.351
2017	119.105	1.022	1.220	116.564	116.436	0.998	1.210	116.632
2018	73.949	0.788	1.426	93.794	60.306	0.726	1.208	83.104
2019	133.770	1.233	1.623	108.492	91.606	0.915	1.298	100.088
2020	120.336	0.902	1.218	133.482	94.018	0.783	1.146	120.044
2021	83.625	0.920	1.442	90.925	73.365	0.904	1.424	81.133
2022	84.649	0.827	1.492	102.378	75.964	0.719	1.183	105.700

DISTRICT	All Outage				MED Excluded			
	dSAIDI	dSAIFI	dMAIFI	dCAIDI	dSAIDI	dSAIFI	dMAIFI	dCAIDI
REDLANDS								
2013	96.481	1.044	0.911	92.410	95.273	1.036	0.908	91.977
2014	154.249	1.040	1.312	148.326	85.542	0.872	1.149	98.044
2015	124.519	1.012	1.467	122.990	102.289	0.935	1.247	109.365
2016	137.110	0.978	1.475	140.164	118.776	0.883	1.336	134.494
2017	142.591	1.009	1.595	141.350	112.447	0.856	1.407	131.325
2018	88.933	0.973	1.367	91.372	71.012	0.833	1.212	85.242
2019	215.229	1.275	1.407	168.810	104.260	0.970	1.243	107.496
2020	572.386	1.746	1.407	327.887	191.338	1.215	1.245	157.445
2021	363.081	2.041	1.855	177.920	213.784	1.705	1.716	125.417
2022	190.038	1.423	1.487	133.529	151.517	1.273	1.309	119.020
RIDGECREST								
2013	161.952	1.122	3.828	144.376	83.920	0.824	3.315	101.793
2014	176.844	1.573	2.193	112.413	167.794	1.509	2.180	111.207
2015	148.895	1.012	2.169	147.145	139.509	0.837	1.514	166.702
2016	254.311	1.048	1.283	242.667	249.209	0.941	1.160	264.837
2017	164.281	1.089	3.519	150.868	153.577	1.066	3.447	144.028
2018	254.588	1.099	1.287	231.588	99.802	0.732	1.278	136.389
2019	299.989	2.092	4.915	143.406	296.459	1.807	4.181	164.030
2020	118.482	1.007	1.671	117.615	112.505	0.865	1.538	129.995
2021	163.290	1.227	3.359	133.121	126.249	0.992	3.128	127.215
2022	265.335	2.232	4.261	118.871	216.681	1.424	2.591	152.164
SADDLEBACK								
2013	70.688	0.532	0.513	132.957	70.688	0.532	0.513	132.957
2014	99.074	0.745	0.556	133.025	92.899	0.708	0.549	131.230
2015	46.026	0.385	0.379	119.543	45.654	0.384	0.379	118.976
2016	65.991	0.646	0.780	102.225	62.466	0.602	0.739	103.695
2017	65.349	0.576	0.695	113.479	48.740	0.482	0.545	101.179
2018	45.805	0.377	0.413	121.548	35.830	0.316	0.364	113.487
2019	134.866	0.669	0.388	201.606	42.994	0.512	0.334	83.924
2020	98.187	0.557	0.238	176.159	60.601	0.446	0.220	136.013
2021	67.178	0.577	0.779	116.356	52.254	0.500	0.779	104.603
2022	57.339	0.588	0.483	97.516	55.892	0.552	0.432	101.316
SANTA ANA								
2013	93.345	0.742	1.019	125.854	93.345	0.742	1.019	125.854
2014	91.684	0.843	1.274	108.713	79.447	0.755	1.179	105.227
2015	67.457	0.706	1.130	95.596	66.452	0.703	1.109	94.562
2016	97.266	0.995	1.184	97.732	88.311	0.938	1.112	94.132
2017	81.900	0.712	1.269	115.087	67.193	0.609	1.118	110.346
2018	122.093	0.819	1.304	149.091	56.912	0.550	1.093	103.419
2019	62.785	0.564	0.864	111.359	58.439	0.509	0.821	114.857
2020	90.912	0.765	1.187	118.787	65.141	0.629	0.908	103.503
2021	95.589	0.761	1.062	125.613	65.017	0.604	0.861	107.663
2022	65.635	0.725	0.864	90.572	57.210	0.681	0.791	84.003
SANTA BARBARA								
2013	82.001	0.699	1.219	117.302	82.001	0.699	1.219	117.302
2014	183.780	1.378	2.549	133.326	145.280	1.142	2.012	127.225
2015	152.372	1.517	1.577	100.417	143.291	1.338	1.459	107.103
2016	156.665	1.411	1.464	111.029	130.007	1.269	1.249	102.442
2017	408.433	9.213	13.591	44.334	152.424	1.619	1.206	94.173
2018	172.898	1.022	1.201	169.205	85.566	0.908	1.000	94.285
2019	201.251	1.502	1.750	134.004	179.194	1.389	1.562	129.024
2020	141.069	1.310	1.153	107.718	118.868	1.104	1.125	107.693
2021	225.165	1.503	0.975	149.796	200.203	1.302	0.796	153.772
2022	141.764	1.362	1.949	104.072	139.568	1.343	1.890	103.938
SANTA MONICA								
2013	122.783	1.003	0.959	122.447	122.783	1.003	0.959	122.447
2014	110.763	0.992	0.852	111.620	106.677	0.943	0.772	113.143
2015	75.407	0.625	1.069	120.681	64.417	0.577	1.065	111.607
2016	91.084	0.948	1.210	96.130	89.110	0.933	1.131	95.493
2017	71.892	0.712	1.168	101.023	66.138	0.678	1.108	97.491
2018	80.242	1.045	1.352	76.789	60.403	0.716	1.320	84.334
2019	104.743	0.896	1.424	116.873	100.349	0.861	1.373	116.489
2020	86.094	1.062	1.241	81.100	76.165	0.978	1.178	77.861
2021	64.090	0.635	1.120	100.936	61.657	0.612	1.039	100.725
2022	152.722	1.768	1.591	86.370	133.076	1.486	1.532	89.569

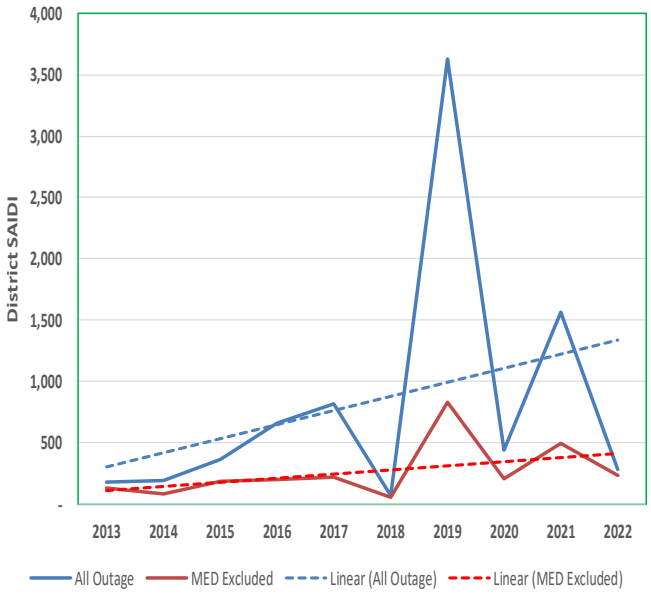
DISTRICT	All Outage				MED Excluded			
	dSAIDI	dSAIFI	dMAIFI	dCAIDI	dSAIDI	dSAIFI	dMAIFI	dCAIDI
SHAVER LAKE								
2013	176.510	3.080	4.987	57.308	176.510	3.080	4.711	57.308
2014	920.254	1.342	4.901	685.961	438.216	0.581	3.960	754.138
2015	422.768	3.415	9.298	123.785	422.768	3.415	9.298	123.785
2016	1062.011	4.993	4.157	212.703	773.999	2.795	2.165	276.874
2017	4273.522	7.947	5.220	537.732	676.224	6.039	5.197	111.971
2018	203.429	2.484	6.362	81.887	203.429	2.484	6.362	81.887
2019	1559.973	5.579	7.850	279.614	1504.825	5.206	5.339	289.066
2020	33648.979	6.479	3.744	5193.348	647.379	5.230	3.744	123.785
2021	296.256	2.189	3.009	135.328	288.714	2.171	3.008	132.959
2022	942.052	2.476	1.100	380.431	934.171	2.218	0.850	421.152
SOUTH BAY								
2013	142.153	1.490	1.448	95.391	142.153	1.490	1.448	95.391
2014	125.276	1.391	1.650	90.048	110.375	1.281	1.502	86.139
2015	164.072	1.305	1.660	125.704	160.399	1.272	1.613	126.136
2016	183.899	1.884	2.020	97.600	150.901	1.752	1.818	86.124
2017	99.194	0.931	1.460	106.532	87.355	0.818	1.328	106.765
2018	90.626	1.090	1.771	83.134	82.272	1.007	1.524	81.666
2019	79.308	1.010	1.398	78.544	71.491	0.950	1.313	75.271
2020	109.924	1.016	1.567	108.188	83.824	0.918	1.526	91.274
2021	86.117	0.990	1.832	87.012	78.134	0.919	1.721	85.004
2022	126.487	1.310	1.983	96.550	118.612	1.222	1.864	97.101
TEHACHAPI								
2013	232.672	1.121	1.661	207.634	232.333	1.102	1.638	210.815
2014	130.704	1.290	2.090	101.348	83.519	1.097	1.783	76.126
2015	298.959	1.215	3.960	246.114	236.807	1.037	2.513	228.329
2016	97.292	1.132	2.363	85.982	76.426	1.036	1.940	73.781
2017	86.514	1.048	3.126	82.573	77.927	0.890	2.946	87.574
2018	55.989	0.673	2.276	83.199	54.960	0.655	2.146	83.856
2019	2983.876	4.608	2.171	647.599	467.572	2.716	1.776	172.135
2020	1272.840	2.074	3.098	613.574	201.719	1.098	2.958	183.703
2021	458.534	1.083	0.683	423.514	154.702	0.891	0.649	173.592
2022	261.766	1.876	2.860	139.540	88.519	0.803	1.568	110.287
THOUSAND OAKS								
2013	93.860	0.914	1.164	102.735	93.846	0.913	1.154	102.755
2014	104.366	1.103	1.426	94.628	95.526	1.014	1.287	94.249
2015	106.589	0.919	1.893	115.938	103.685	0.889	1.845	116.643
2016	143.775	1.307	2.585	110.021	128.242	1.227	2.378	104.484
2017	151.735	1.427	3.270	106.304	106.392	1.063	2.903	100.056
2018	1167.537	1.480	1.634	788.966	109.945	0.967	1.354	113.663
2019	517.053	1.723	1.213	300.090	112.978	1.182	1.163	95.561
2020	624.180	1.788	1.047	349.187	139.241	1.154	0.966	120.632
2021	924.227	2.106	1.413	438.864	149.908	1.347	1.286	111.286
2022	151.958	1.446	1.108	105.096	145.999	1.363	1.010	107.148
TULARE								
2013	244.439	1.448	1.698	168.757	71.744	0.800	1.548	89.668
2014	138.247	1.172	1.540	117.915	94.167	1.005	1.323	93.711
2015	127.502	1.052	1.414	121.240	99.829	0.908	1.106	109.936
2016	108.444	1.091	1.105	99.370	101.822	1.040	1.082	97.895
2017	191.659	1.343	1.198	142.710	105.718	1.282	1.188	82.463
2018	56.234	0.685	1.077	82.150	51.292	0.652	1.017	78.639
2019	72.671	0.745	1.075	97.509	69.696	0.716	1.035	97.356
2020	186.912	0.817	0.852	228.786	73.706	0.739	0.832	99.746
2021	105.344	0.841	1.117	125.223	93.709	0.810	1.089	115.637
2022	87.948	0.612	1.109	143.696	77.897	0.571	1.049	136.409
VALENCIA								
2013	51.038	0.533	0.684	95.748	51.038	0.533	0.684	95.748
2014	79.226	0.605	0.998	130.885	63.739	0.533	0.935	119.509
2015	72.274	0.611	0.971	118.224	71.053	0.604	0.845	117.624
2016	105.087	0.968	1.549	108.594	97.405	0.846	1.522	115.187
2017	136.618	1.079	1.549	126.671	81.267	0.702	1.283	115.765
2018	92.407	1.063	1.451	86.969	79.329	0.945	1.391	83.982
2019	457.467	1.224	0.965	373.657	101.430	0.914	0.918	111.000
2020	390.048	1.350	1.131	288.959	95.421	0.985	1.109	96.865
2021	417.068	1.221	1.441	341.644	99.986	0.822	1.397	121.665
2022	106.725	1.209	0.906	88.263	106.008	1.205	0.906	87.955

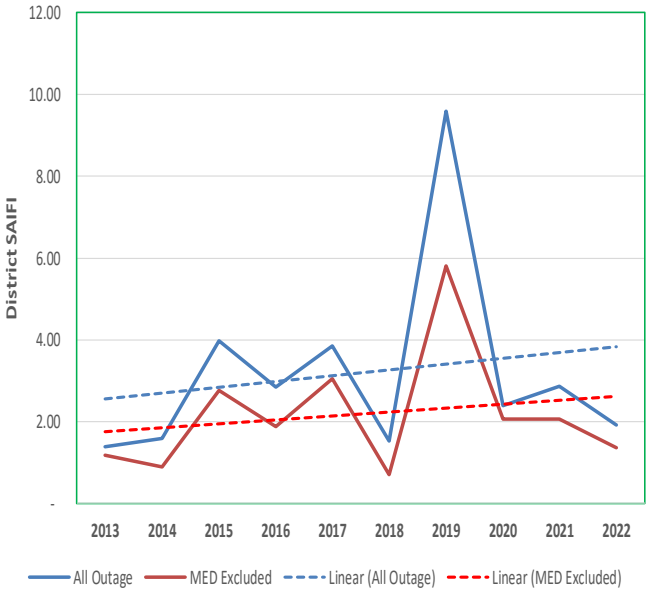
DISTRICT	All Outage				MED Excluded			
	dSAIDI	dSAIFI	dMAIFI	dCAIDI	dSAIDI	dSAIFI	dMAIFI	dCAIDI
VENTURA								
2013	100.521	1.210	1.417	83.104	100.504	1.210	1.417	83.093
2014	183.792	1.648	2.215	111.537	151.658	1.386	2.075	109.392
2015	148.848	1.190	1.447	125.112	141.430	1.149	1.375	123.110
2016	150.408	1.236	1.679	121.649	107.140	1.019	1.553	105.110
2017	520.897	3.122	2.293	166.846	114.758	1.240	1.542	92.559
2018	136.042	1.438	1.921	94.613	100.385	1.177	1.676	85.301
2019	334.957	1.647	2.610	203.369	133.541	1.364	2.407	97.920
2020	174.171	0.955	1.188	182.361	69.758	0.762	1.078	91.508
2021	370.432	2.004	2.088	184.846	124.867	1.572	1.683	79.440
2022	114.522	1.560	1.400	73.413	109.055	1.502	1.386	72.624
VICTORVILLE								
2013	61.333	0.632	1.312	97.109	61.010	0.620	1.179	98.380
2014	68.846	0.633	0.899	108.729	67.696	0.620	0.881	109.166
2015	87.026	0.906	1.839	96.063	72.897	0.812	1.551	89.751
2016	79.352	0.917	1.396	86.493	75.943	0.888	1.327	85.547
2017	84.068	0.895	2.353	93.936	73.124	0.808	1.757	90.485
2018	125.922	0.862	1.345	146.015	97.868	0.802	1.270	122.074
2019	82.422	1.102	2.008	74.767	74.675	0.986	1.667	75.770
2020	52.815	0.915	1.609	57.708	48.809	0.865	1.518	56.408
2021	83.749	0.895	2.499	93.527	78.552	0.844	2.452	93.041
2022	112.299	1.126	1.953	99.689	96.491	0.975	1.821	98.921
WHITTIER								
2013	135.043	0.859	1.055	157.172	135.043	0.859	1.055	157.172
2014	87.600	0.704	1.155	124.399	84.188	0.689	1.090	122.157
2015	114.520	0.733	1.084	156.317	104.851	0.704	0.989	148.883
2016	137.336	0.814	1.416	168.756	90.212	0.616	1.290	146.361
2017	148.909	0.896	1.872	166.103	91.911	0.750	1.655	122.501
2018	87.742	0.666	1.413	131.834	73.659	0.575	1.297	128.006
2019	84.861	0.730	1.379	116.212	73.994	0.624	1.160	118.511
2020	113.131	0.839	1.278	134.805	83.141	0.723	1.151	115.011
2021	88.389	0.803	1.578	110.074	73.757	0.712	1.387	103.523
2022	74.496	0.719	1.442	103.621	64.541	0.670	1.286	96.280
WILDOMAR								
2013	40.512	0.555	0.656	72.932	40.122	0.554	0.656	72.407
2014	118.493	0.806	0.743	147.031	112.300	0.772	0.683	145.548
2015	52.699	0.597	1.255	88.256	48.313	0.566	1.054	85.401
2016	84.010	0.866	0.951	97.031	79.151	0.839	0.861	94.378
2017	90.151	0.800	1.015	112.679	56.373	0.580	0.933	97.161
2018	60.772	0.747	0.846	81.358	51.890	0.622	0.760	83.373
2019	94.466	0.768	0.738	123.007	53.127	0.610	0.726	87.158
2020	98.114	0.765	0.961	128.226	55.953	0.641	0.960	87.246
2021	85.130	0.759	0.649	112.092	75.369	0.680	0.571	110.911
2022	87.800	0.865	0.459	101.503	82.346	0.829	0.424	99.300
YUCCA VALLEY								
2013	216.972	1.500	4.983	144.620	216.966	1.500	4.983	144.626
2014	304.249	1.490	4.856	204.152	293.730	1.407	4.851	208.756
2015	389.085	1.804	3.922	215.688	260.176	1.189	2.708	218.766
2016	463.683	3.393	3.875	136.661	440.057	3.257	3.106	135.131
2017	300.331	1.957	1.602	153.472	270.109	1.728	1.509	156.277
2018	353.832	1.937	2.747	182.664	206.580	1.488	1.832	138.842
2019	451.746	2.341	1.930	192.934	401.604	2.067	1.728	194.288
2020	237.520	2.263	2.405	104.954	211.137	2.086	2.355	101.222
2021	384.163	2.282	2.223	168.313	351.851	1.999	2.161	176.030
2022	232.163	2.080	3.614	111.636	211.406	1.863	1.699	113.447

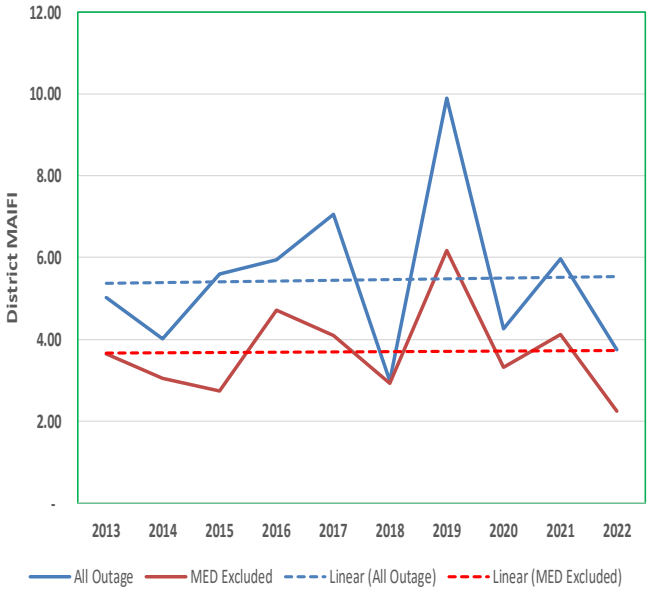
b. The linear charts below show the past 10 years of District Reliability Performance from 2013 – 2022 of dSAIDI, dSAIFI, dMAIFI and dCAIDI for all 34 districts. There are separate charts of unplanned outages including and excluding MEDs. The charts shown are listed in district name in alphabetical order.

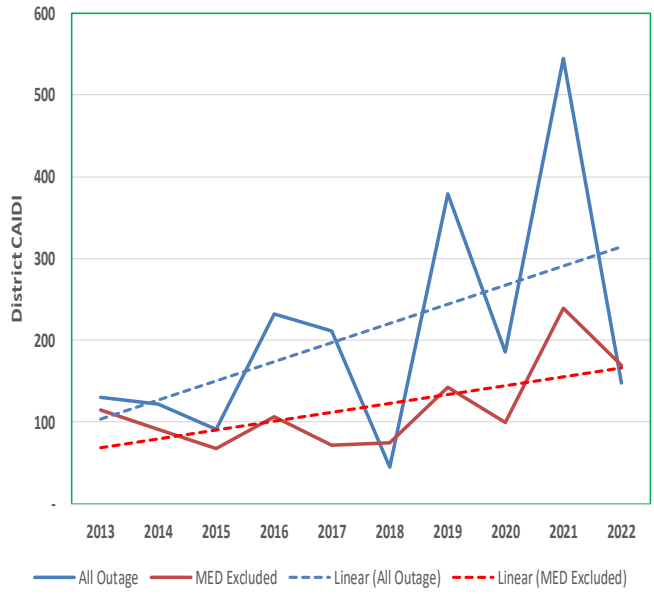


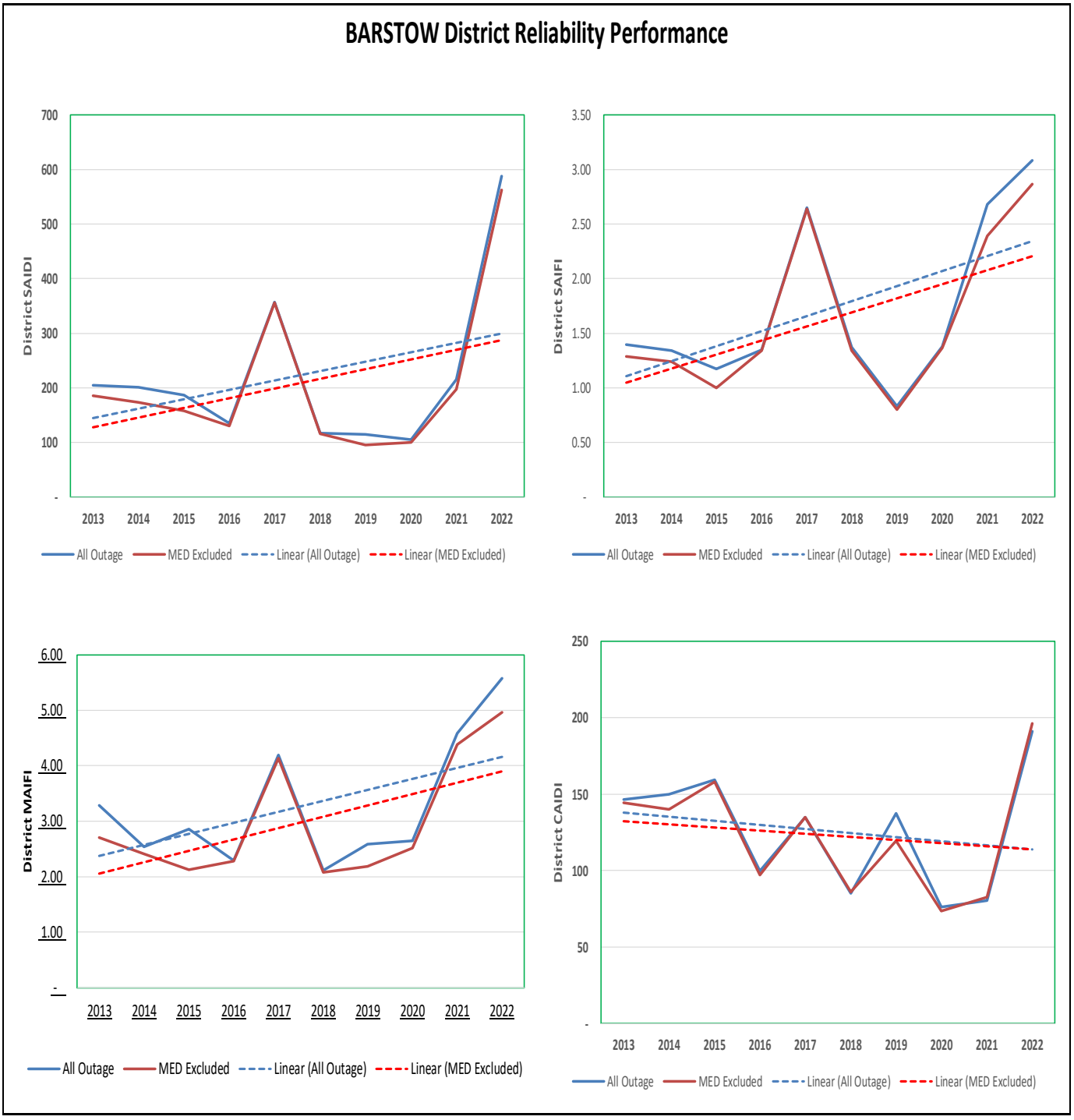
ARROWHEAD District Reliability Performance

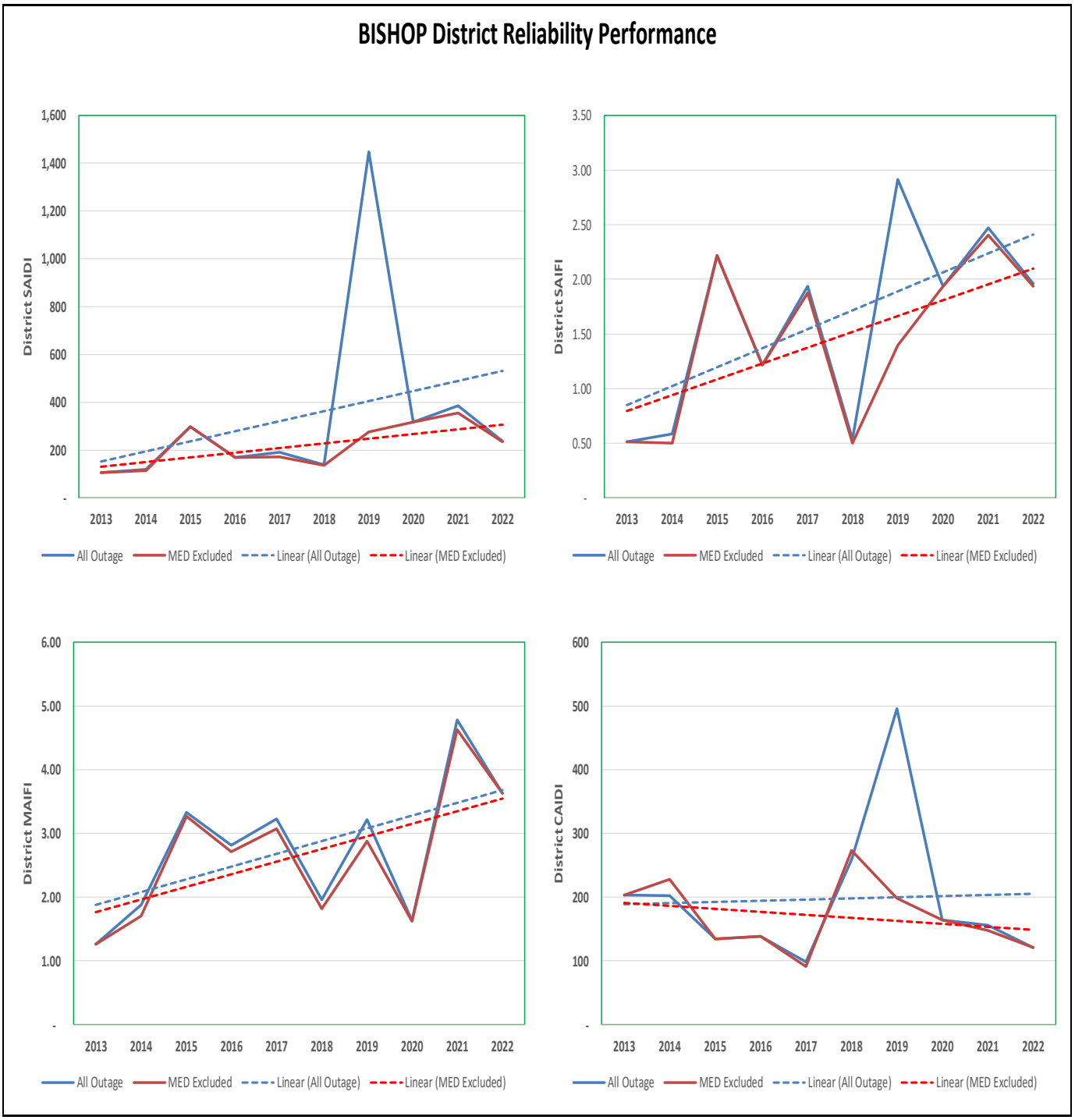




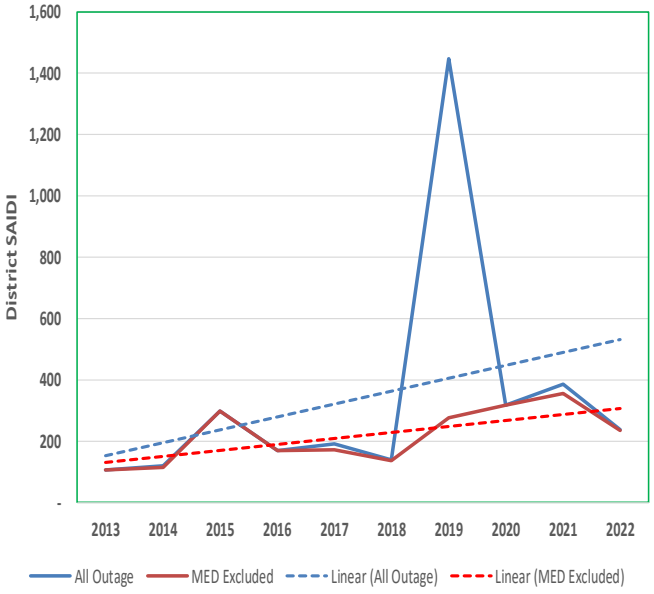


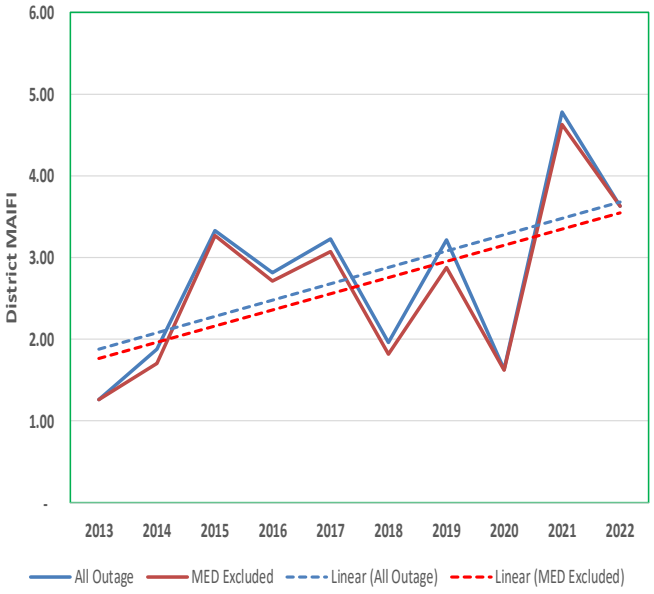


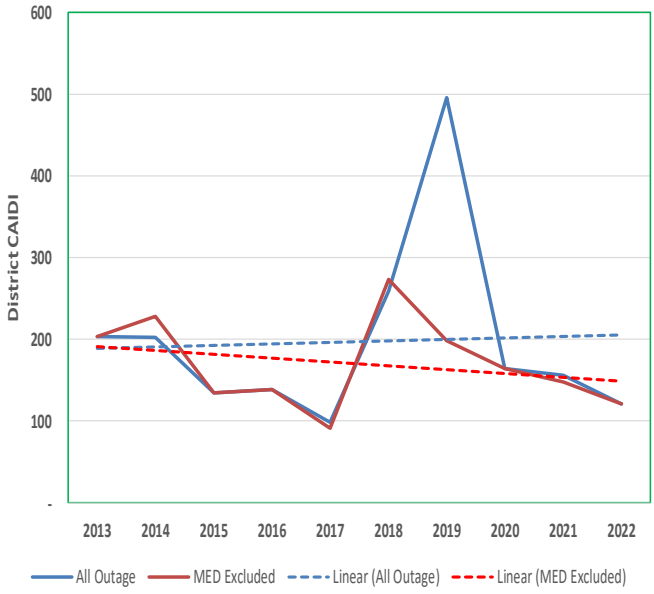

BARSTOW District Reliability Performance
District SAIDI
700
600
500
400
300
200
100
-
2013 2014 2015 2016 2017 2018 2019 2020 2021 2022
All Outage
MED Excluded
Linear (All Outage)
Linear (MED Excluded)
District SAIFI
3.50
3.00
2.50
2.00
1.50
1.00
0.50
-
2013 2014 2015 2016 2017 2018 2019 2020 2021 2022
All Outage
MED Excluded
Linear (All Outage)
Linear (MED Excluded)
District MAIFI
6.00
5.00
4.00
3.00
2.00
1.00
-
2013 2014 2015 2016 2017 2018 2019 2020 2021 2022
All Outage
MED Excluded
Linear (All Outage)
Linear (MED Excluded)
District CAIDI
250
200
150
100
50
-
2013 2014 2015 2016 2017 2018 2019 2020 2021 2022
All Outage
MED Excluded
Linear (All Outage)
Linear (MED Excluded)

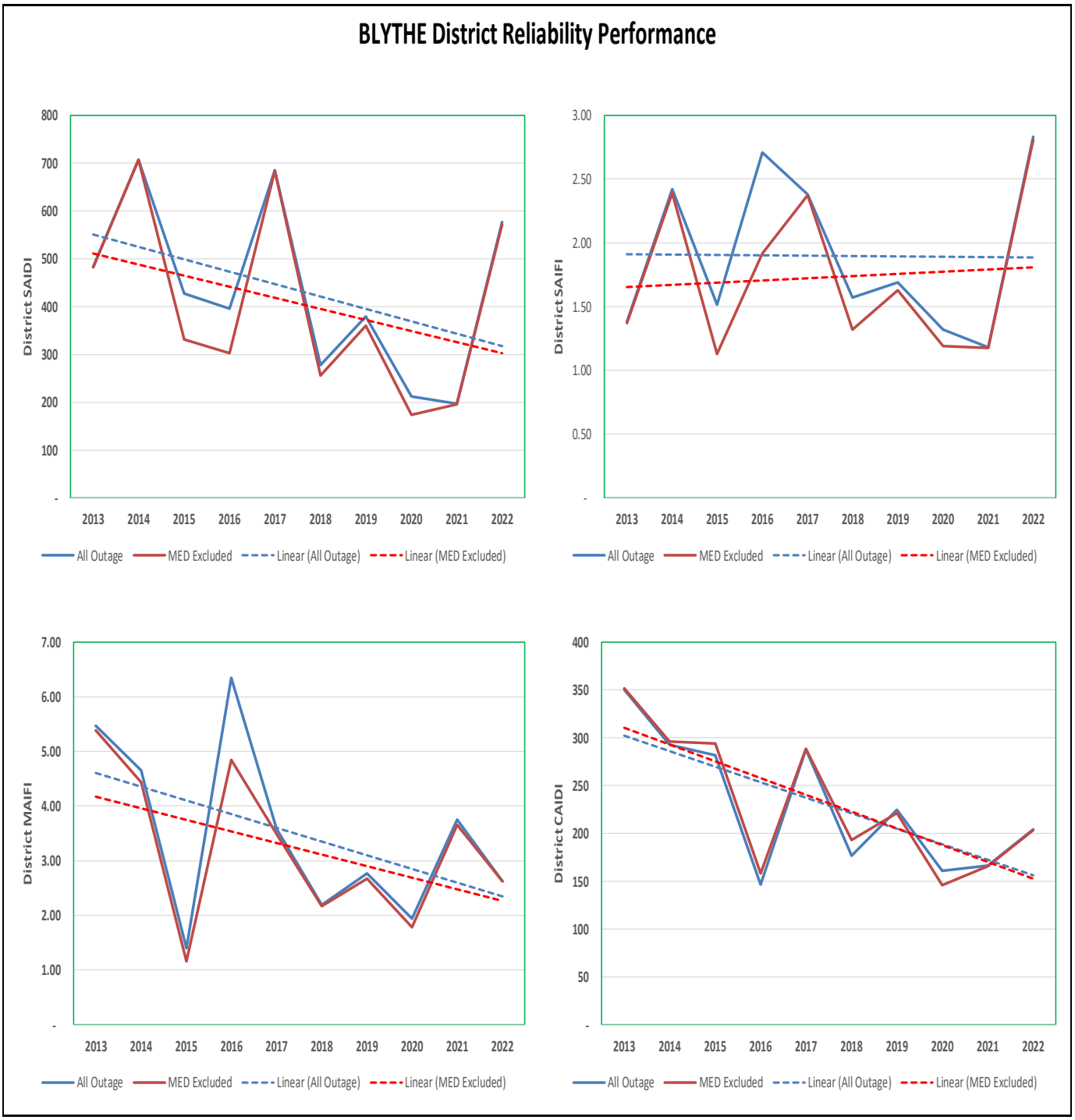

BISHOP District Reliability Performance
District SAIDI
1,600
1,400
1,200
1,000
800
600
400
200
-
2013 2014 2015 2016 2017 2018 2019 2020 2021 2022
All Outage
MED Excluded
Linear (All Outage)
Linear (MED Excluded)
District SAIFI
3.50
3.00
2.50
2.00
1.50
1.00
0.50
-
2013 2014 2015 2016 2017 2018 2019 2020 2021 2022
All Outage
MED Excluded
Linear (All Outage)
Linear (MED Excluded)
District MAIFI
6.00
5.00
4.00
3.00
2.00
1.00
-
2013 2014 2015 2016 2017 2018 2019 2020 2021 2022
All Outage
MED Excluded
Linear (All Outage)
Linear (MED Excluded)
District CAIDI
600
500
400
300
200
100
-
2013 2014 2015 2016 2017 2018 2019 2020 2021 2022
All Outage
MED Excluded
Linear (All Outage)
Linear (MED Excluded)

BISHOP District Reliability Performance



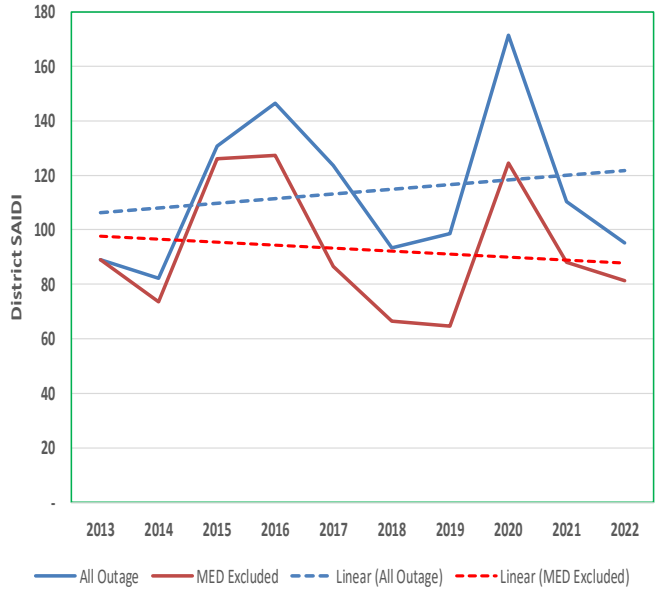


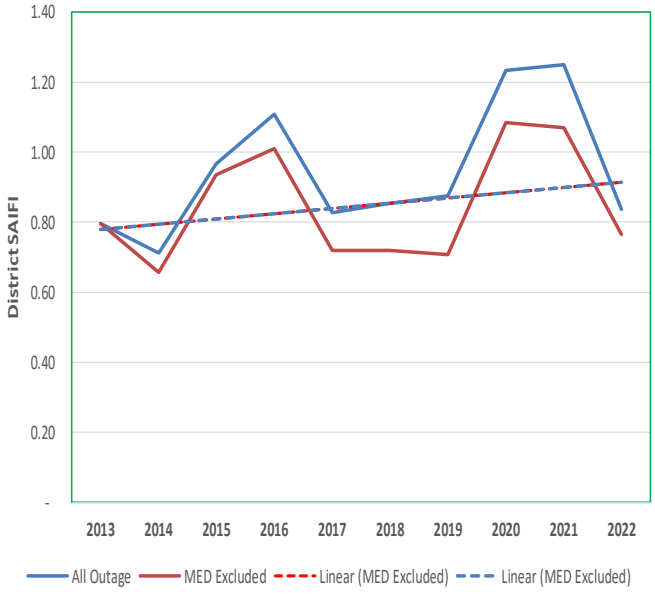


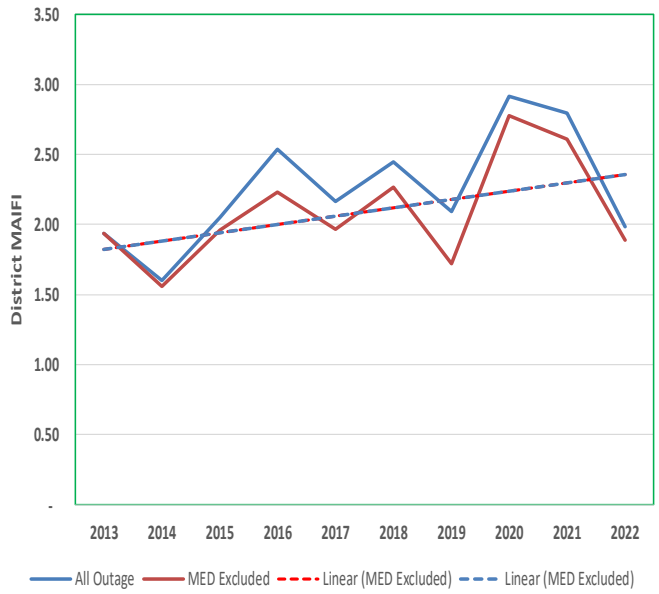

BLYTHE District Reliability Performance
District SAIDI
800
700
600
500
400
300
200
100
-
2013 2014 2015 2016 2017 2018 2019 2020 2021 2022
All Outage
MED Excluded
Linear (All Outage)
Linear (MED Excluded)
District SAIFI
3.00
2.50
2.00
1.50
1.00
0.50
-
2013 2014 2015 2016 2017 2018 2019 2020 2021 2022
All Outage
MED Excluded
Linear (All Outage)
Linear (MED Excluded)
District MAIFI
7.00
6.00
5.00
4.00
3.00
2.00
1.00
-
2013 2014 2015 2016 2017 2018 2019 2020 2021 2022
All Outage
MED Excluded
Linear (All Outage)
Linear (MED Excluded)
District CAIDI
400
350
300
250
200
150
100
50
-
2013 2014 2015 2016 2017 2018 2019 2020 2021 2022
All Outage
MED Excluded
Linear (All Outage)
Linear (MED Excluded)

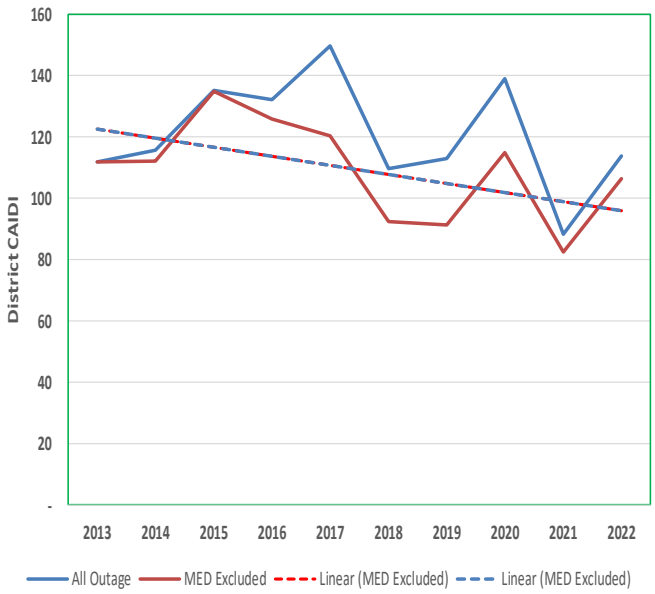
COVINA District Reliability Performance

DOMINGUEZ HILLS District Reliability Performance

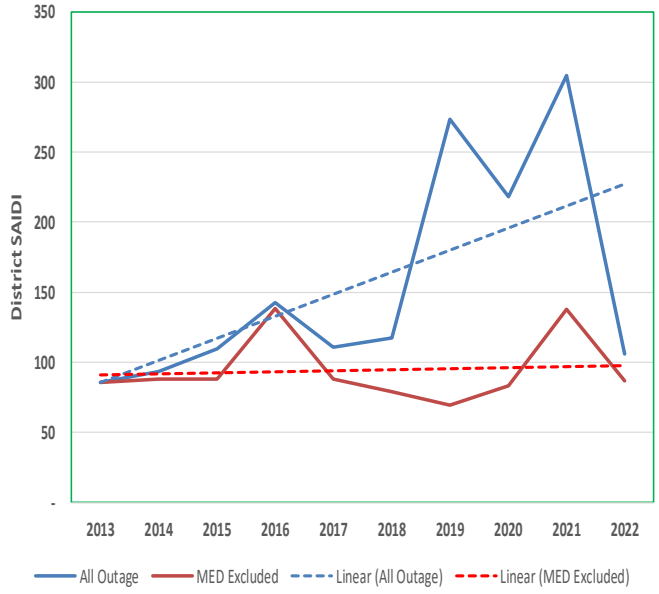


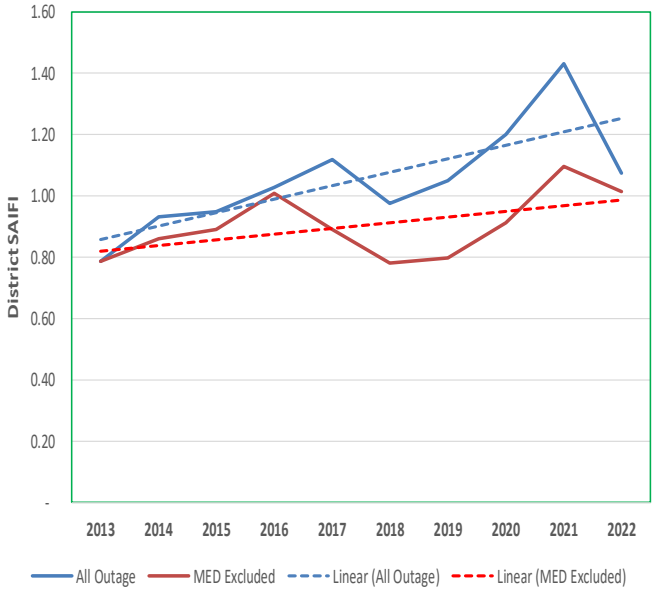


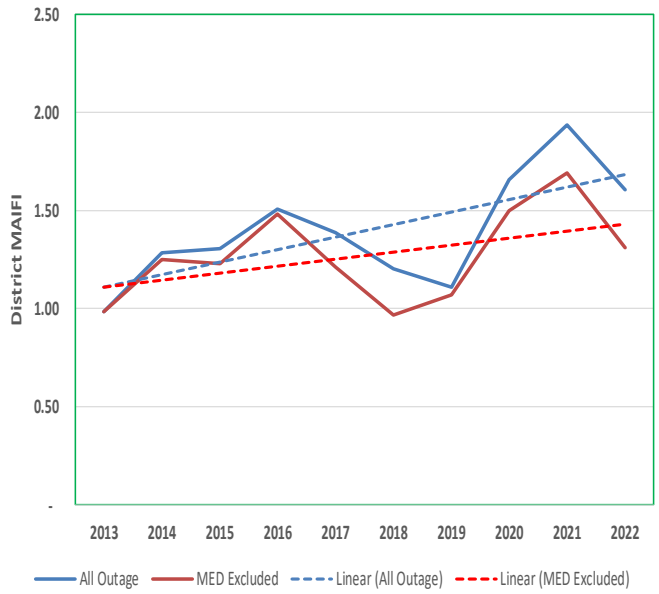


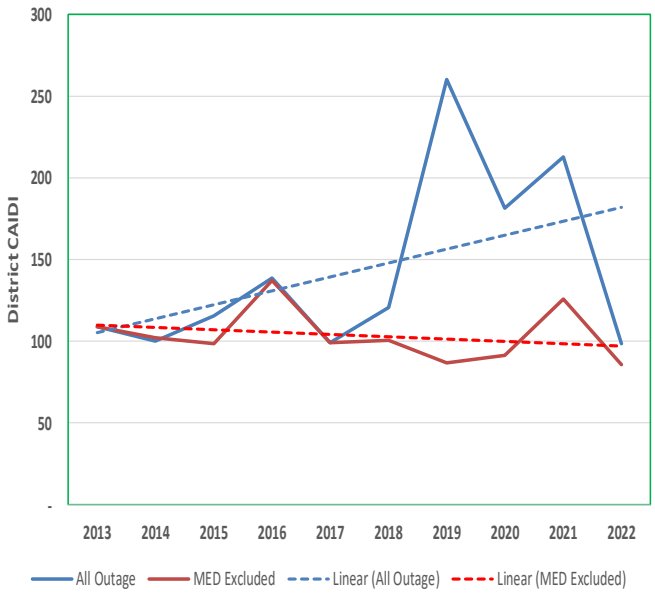


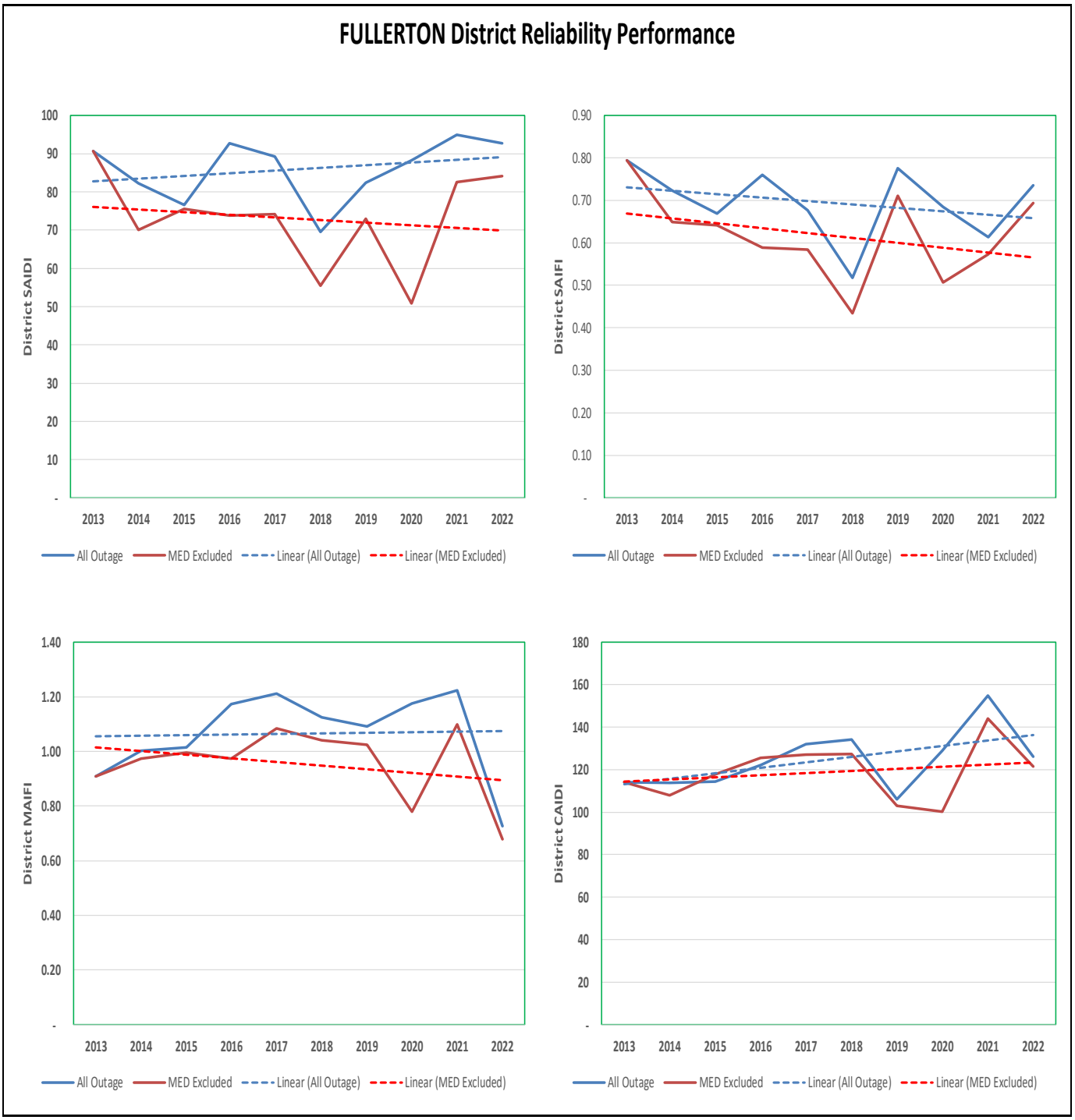
FOOTHILL District Reliability Performance



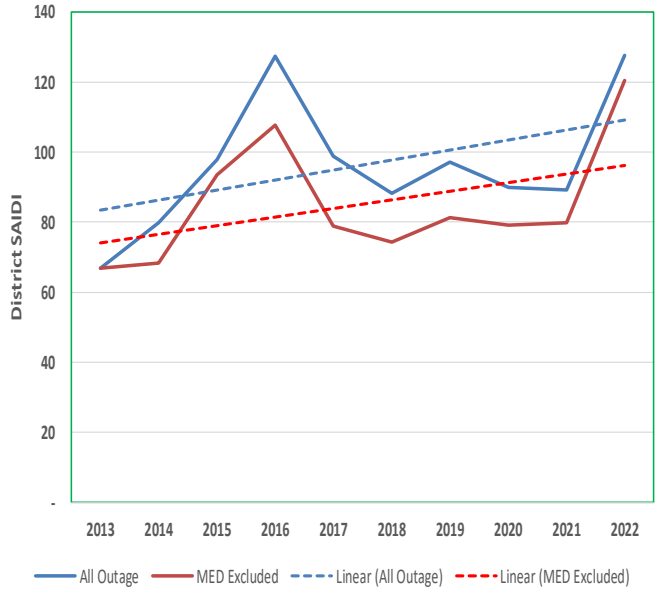


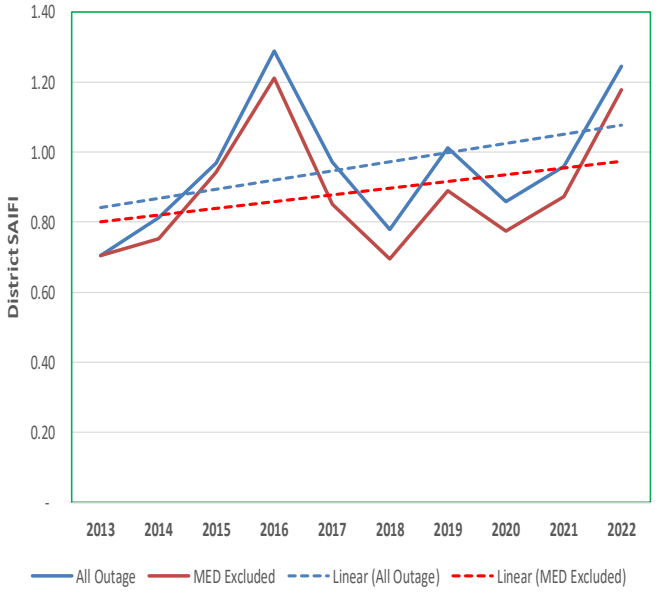


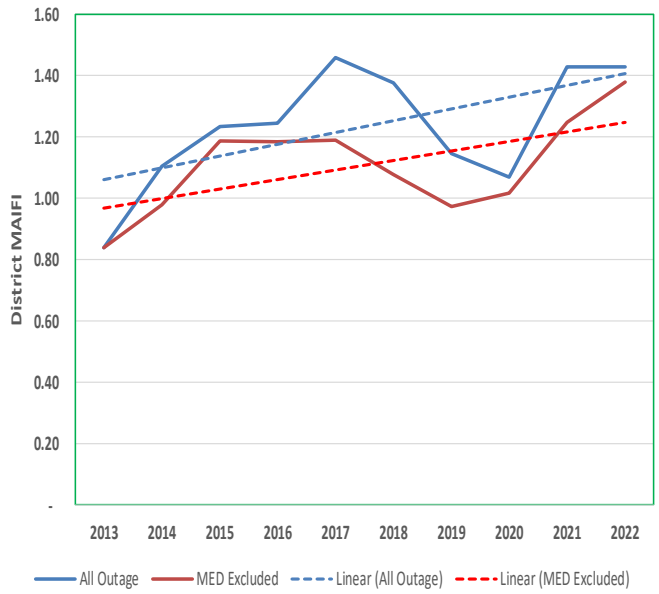


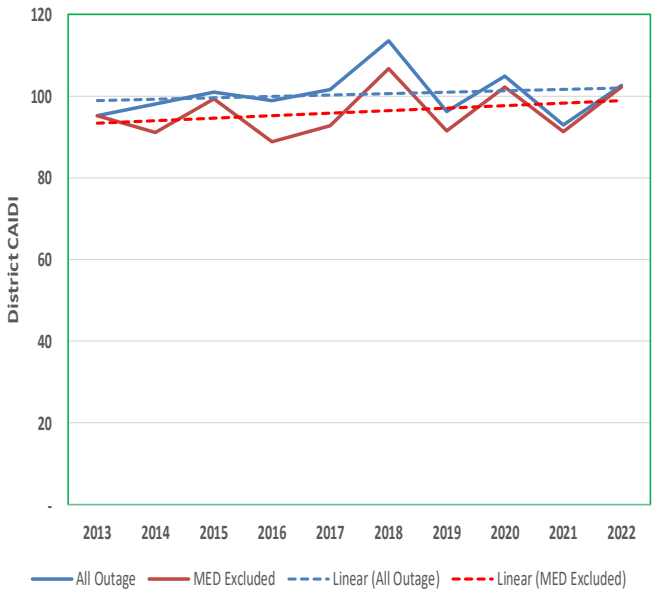

FULLERTON District Reliability Performance
District SAIDI
District SAIFI
District MAIFI
District CAIDI
All Outage
MED Excluded
Linear (All Outage)
Linear (MED Excluded)

HUNTINGTON BEACH District Reliability Performance

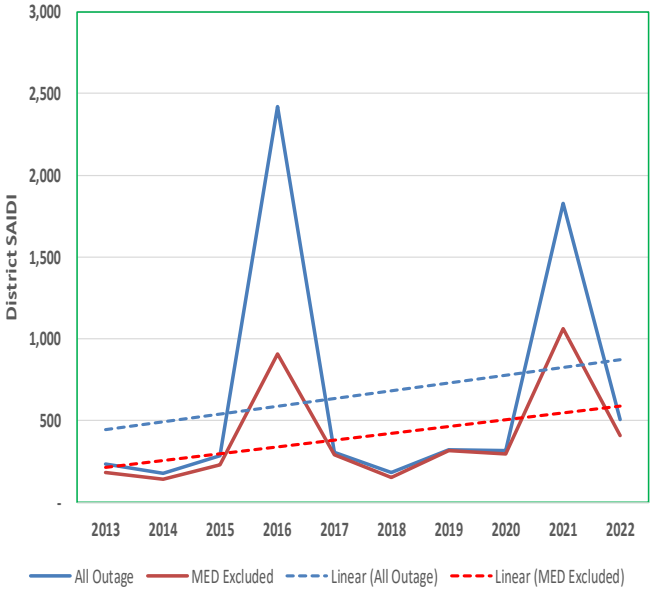


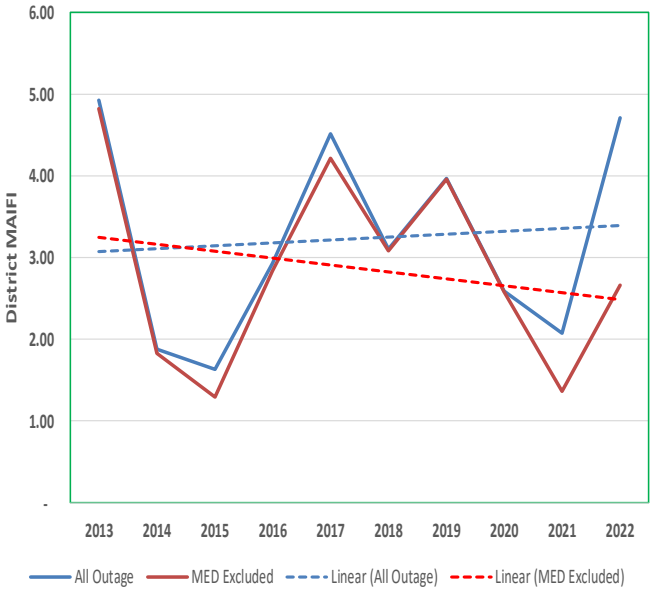


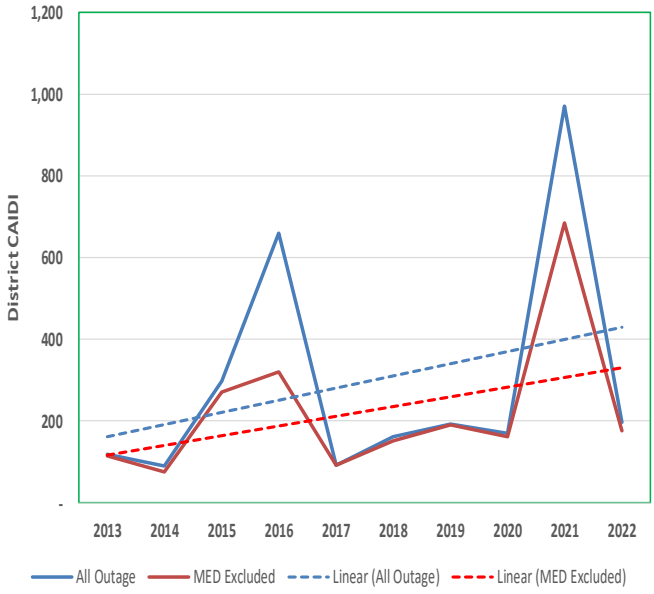




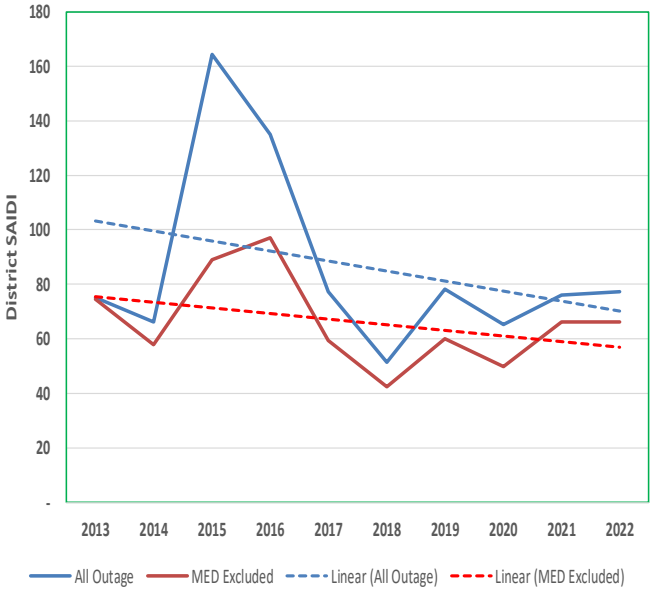
KERNVILLE District Reliability Performance

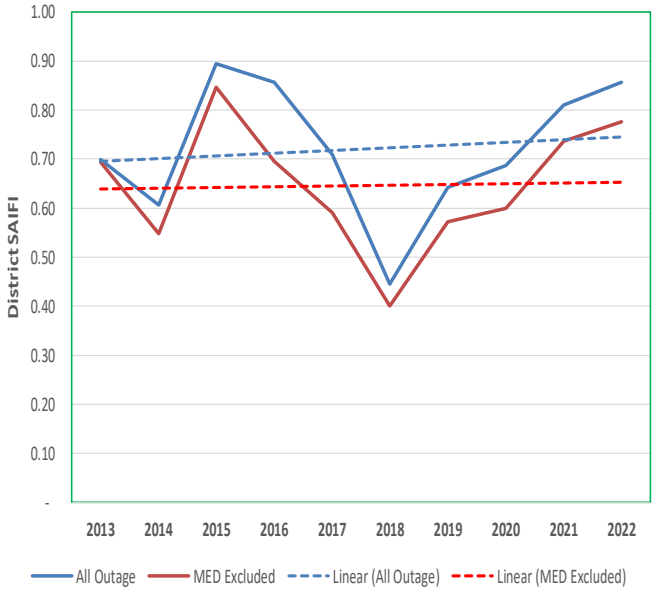


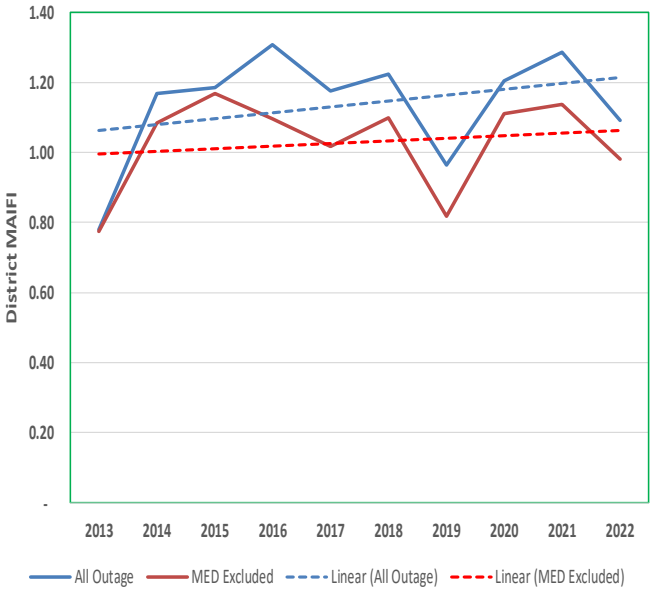


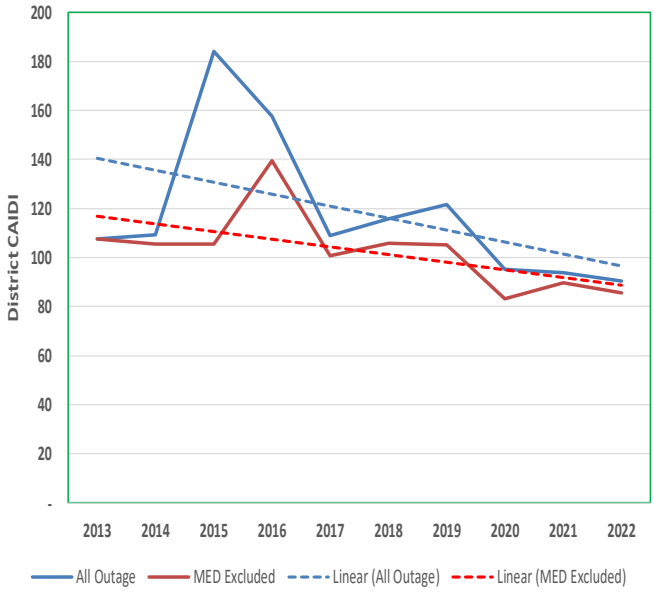


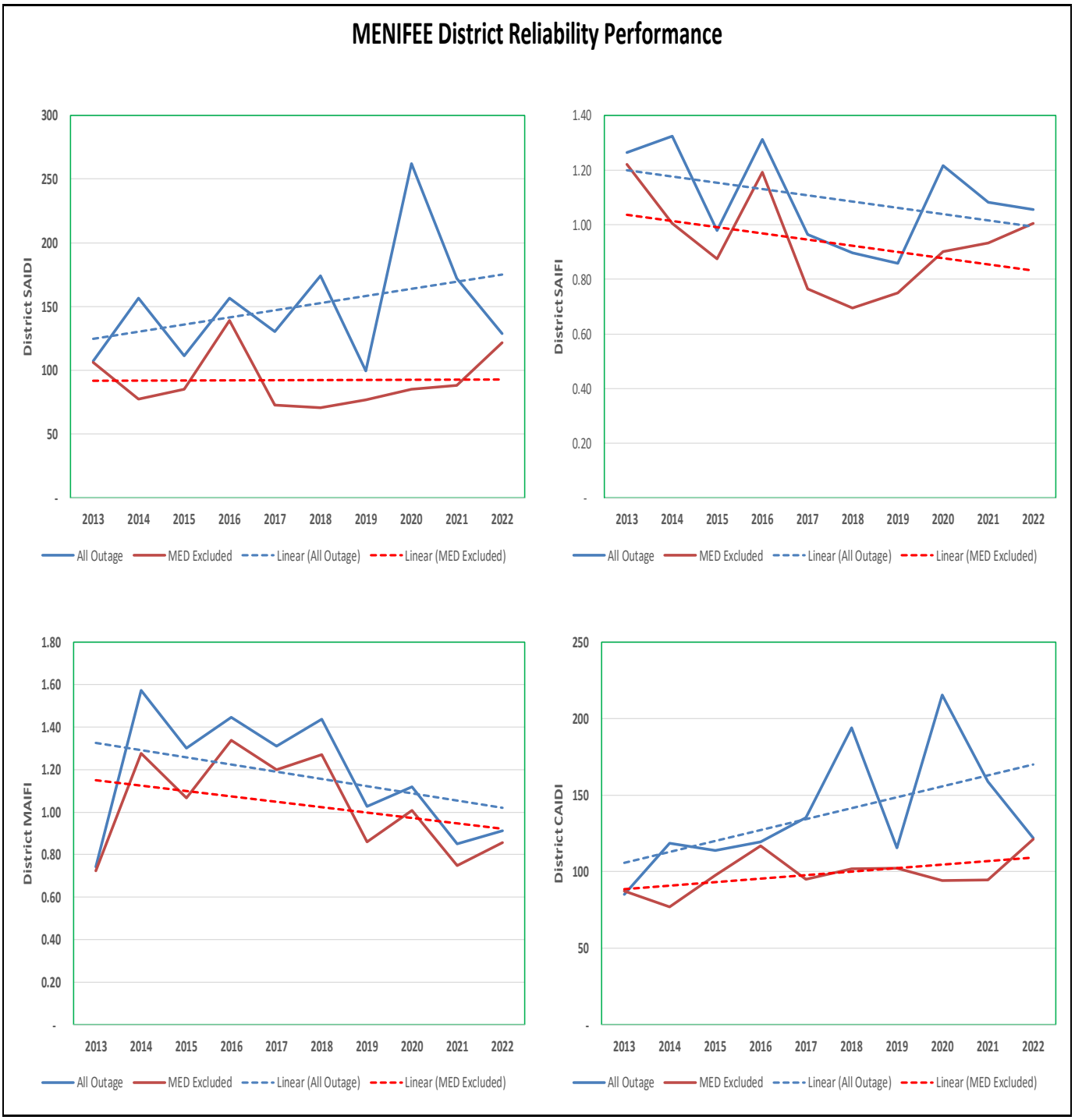
LONG BEACH District Reliability Performance



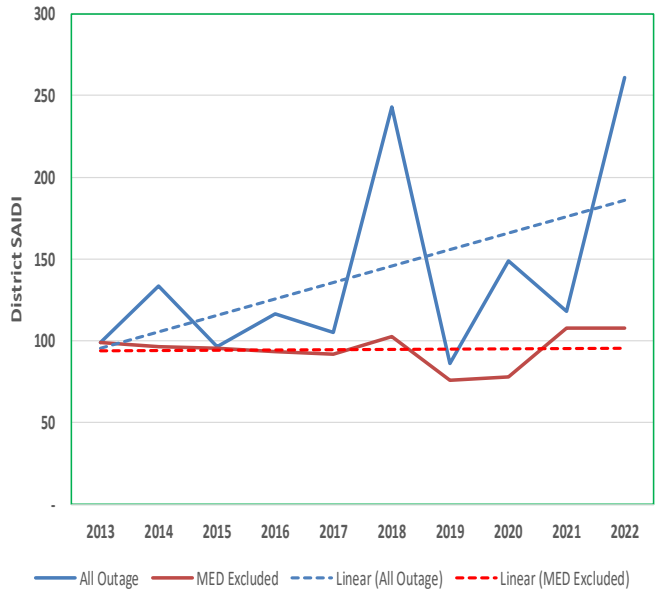


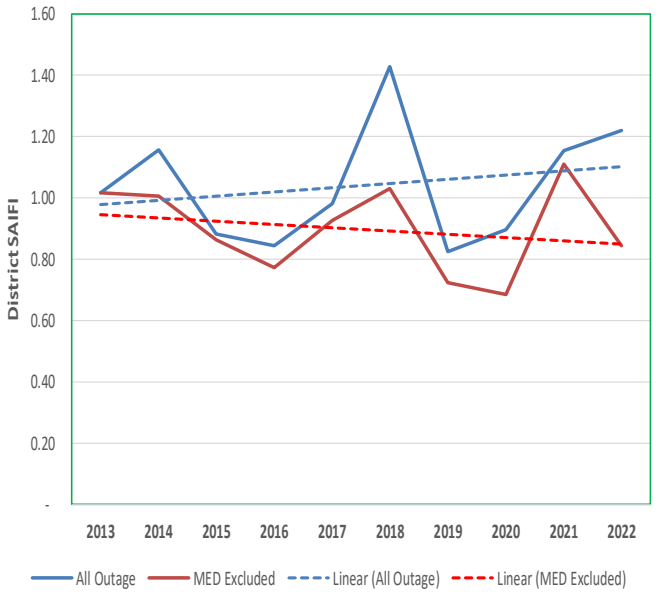


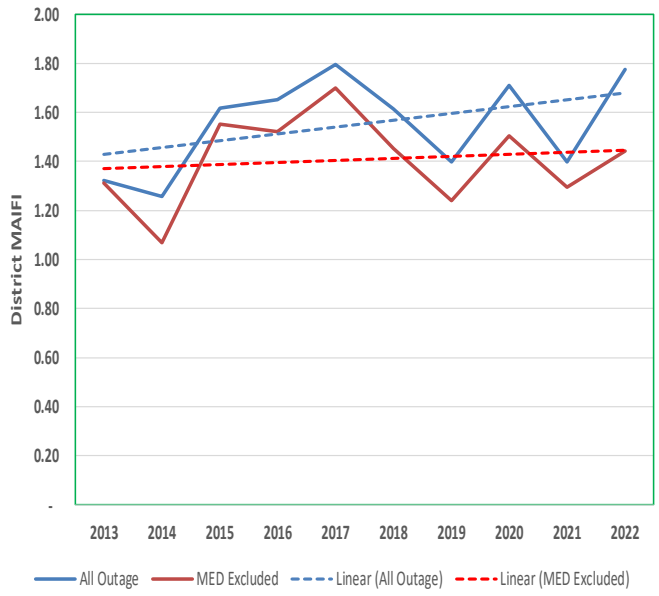


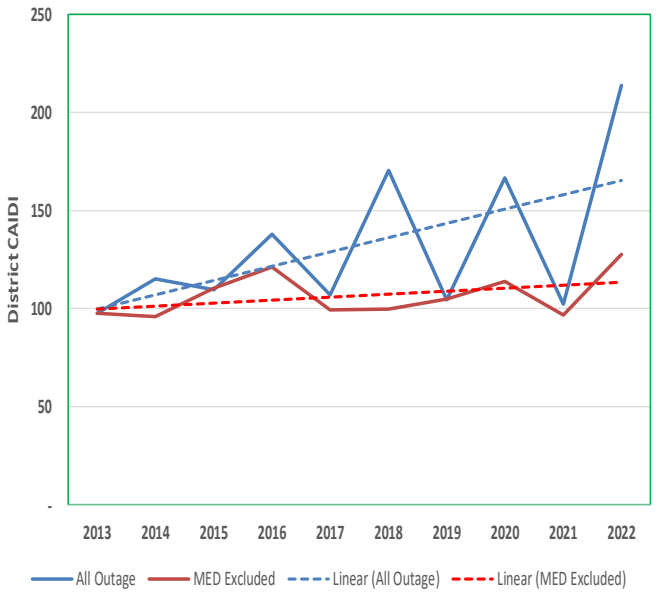

MENIFEE District Reliability Performance
District SAIDI
300
250
200
150
100
50
-
2013 2014 2015 2016 2017 2018 2019 2020 2021 2022
All Outage
MED Excluded
Linear (All Outage)
Linear (MED Excluded)
District SAIFI
1.40
1.20
1.00
0.80
0.60
0.40
0.20
-
2013 2014 2015 2016 2017 2018 2019 2020 2021 2022
All Outage
MED Excluded
Linear (All Outage)
Linear (MED Excluded)
District MAIFI
1.80
1.60
1.40
1.20
1.00
0.80
0.60
0.40
0.20
-
2013 2014 2015 2016 2017 2018 2019 2020 2021 2022
All Outage
MED Excluded
Linear (All Outage)
Linear (MED Excluded)
District CAIDI
250
200
150
100
50
-
2013 2014 2015 2016 2017 2018 2019 2020 2021 2022
All Outage
MED Excluded
Linear (All Outage)
Linear (MED Excluded)

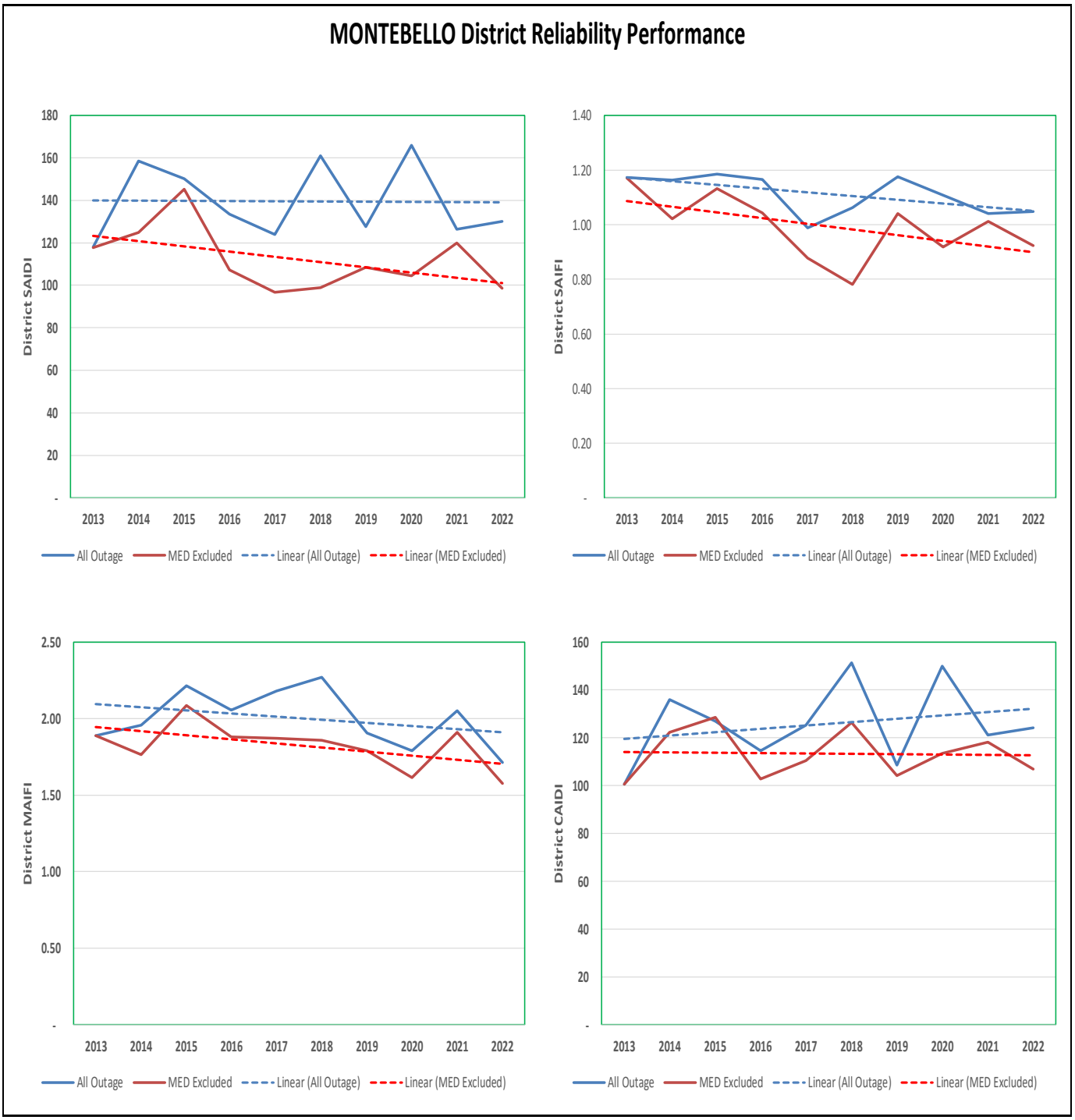
MONROVIA District Reliability Performance



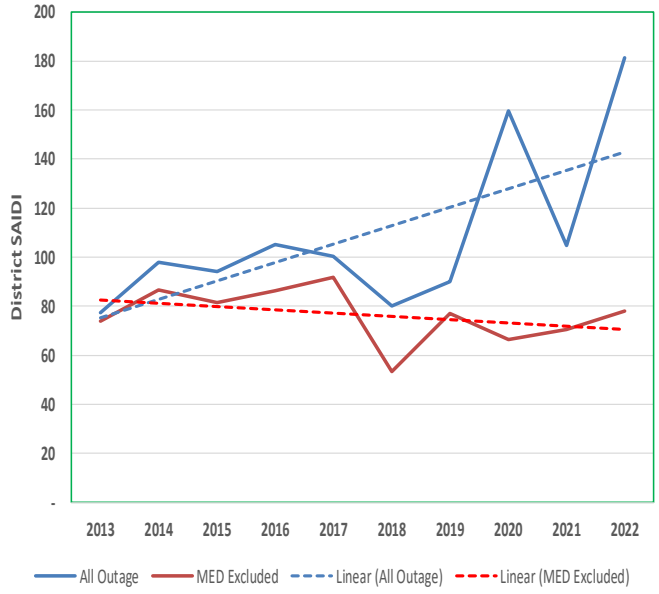


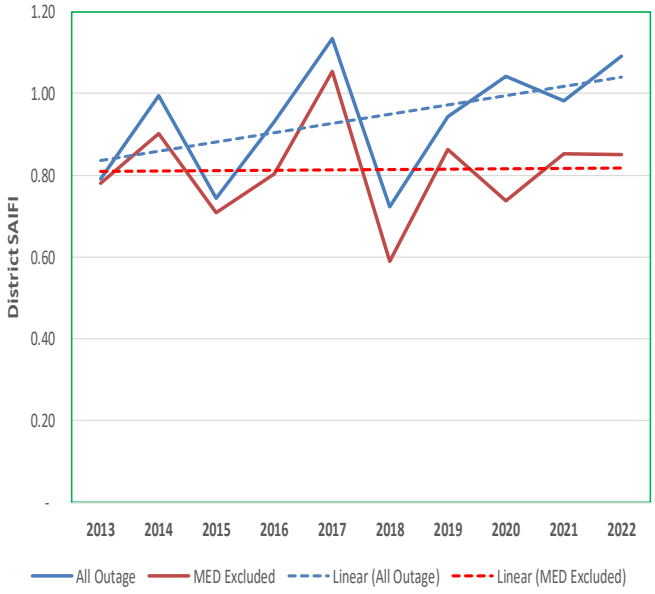


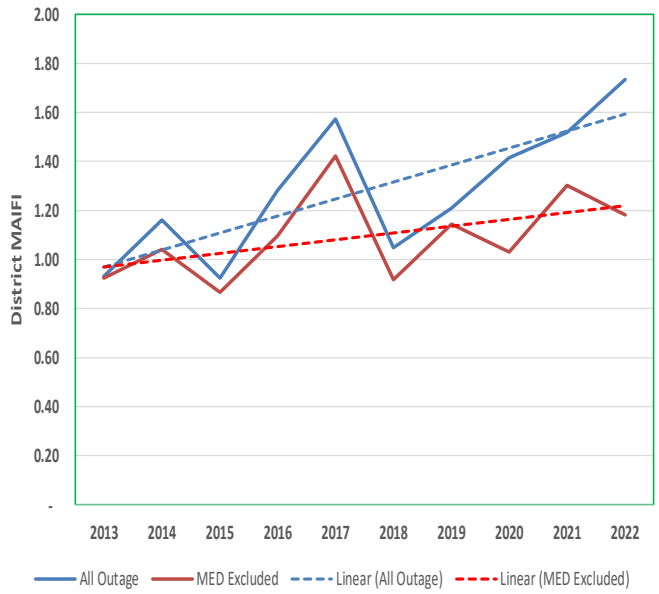


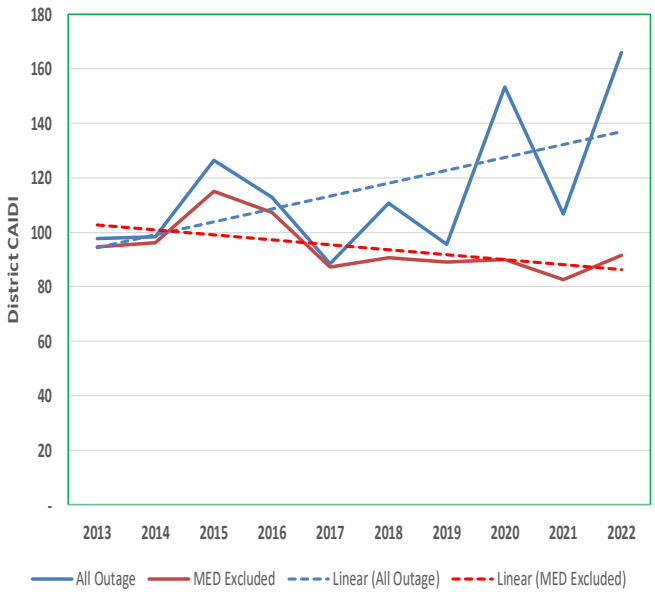

MONTEBELLO District Reliability Performance
District SAIDI
180
160
140
120
100
80
60
40
20
-
2013 2014 2015 2016 2017 2018 2019 2020 2021 2022
All Outage
MED Excluded
Linear (All Outage)
Linear (MED Excluded)
District SAIFI
1.40
1.20
1.00
0.80
0.60
0.40
0.20
-
2013 2014 2015 2016 2017 2018 2019 2020 2021 2022
All Outage
MED Excluded
Linear (All Outage)
Linear (MED Excluded)
District MAIFI
2.50
2.00
1.50
1.00
0.50
-
2013 2014 2015 2016 2017 2018 2019 2020 2021 2022
All Outage
MED Excluded
Linear (All Outage)
Linear (MED Excluded)
District CAIDI
160
140
120
100
80
60
40
20
-
2013 2014 2015 2016 2017 2018 2019 2020 2021 2022
All Outage
MED Excluded
Linear (All Outage)
Linear (MED Excluded)

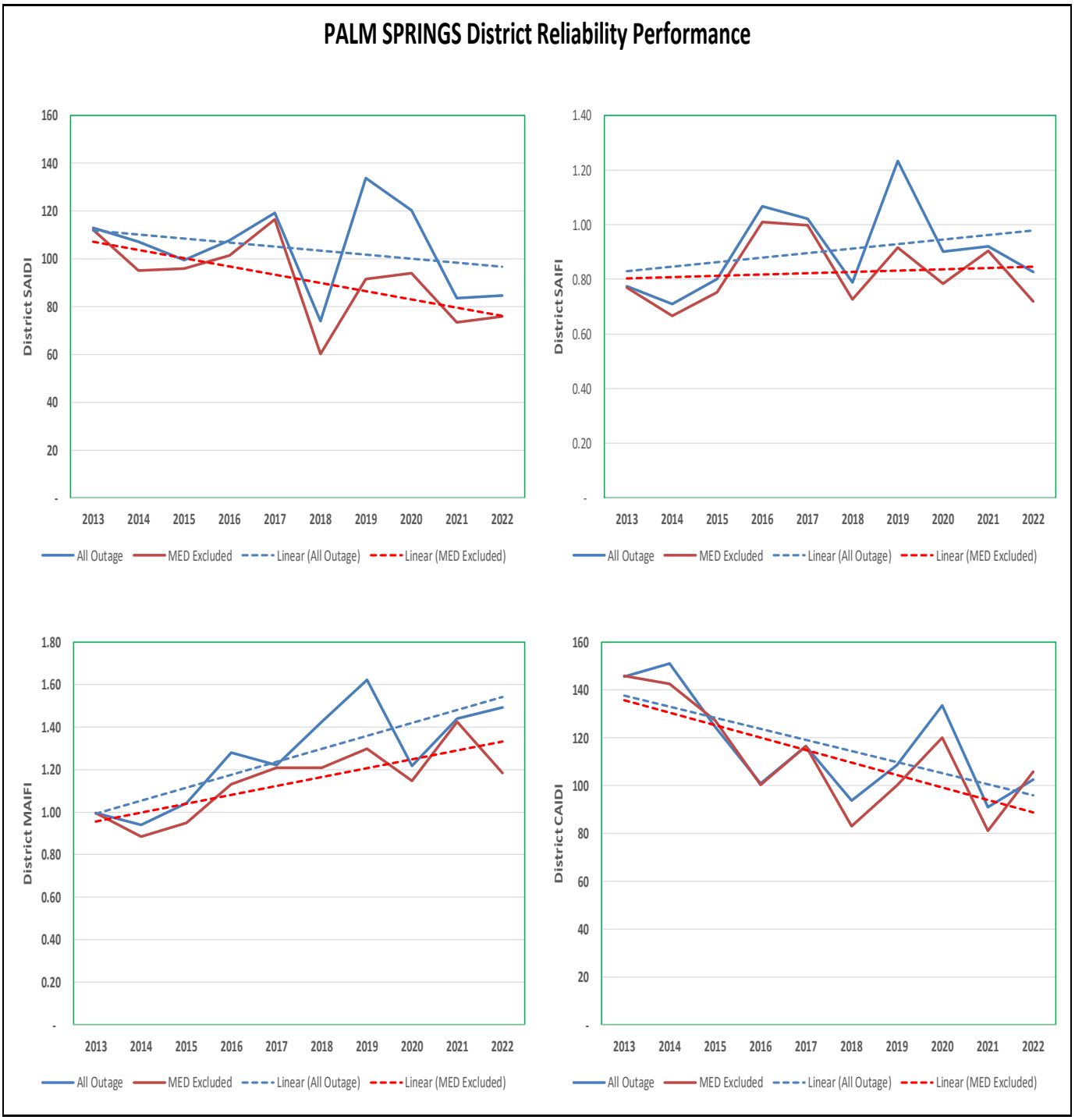
ONTARIO District Reliability Performance



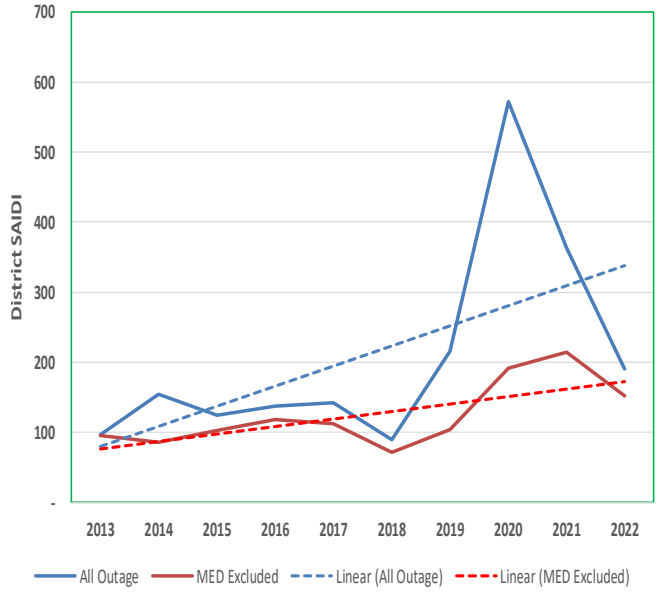


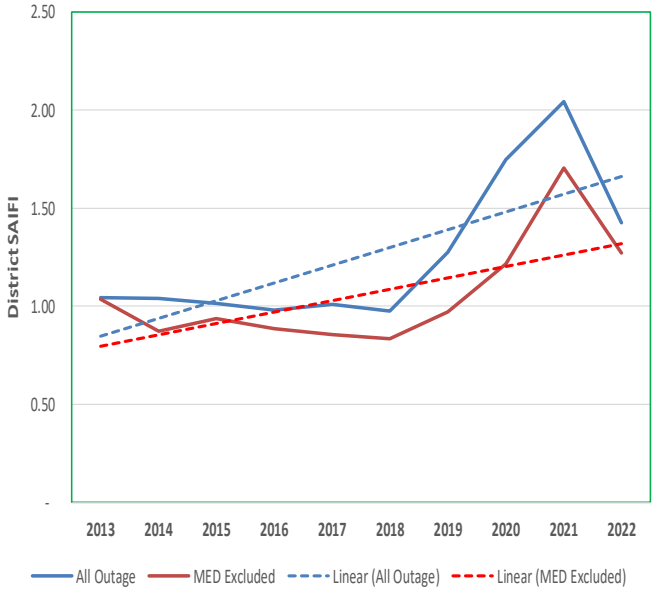


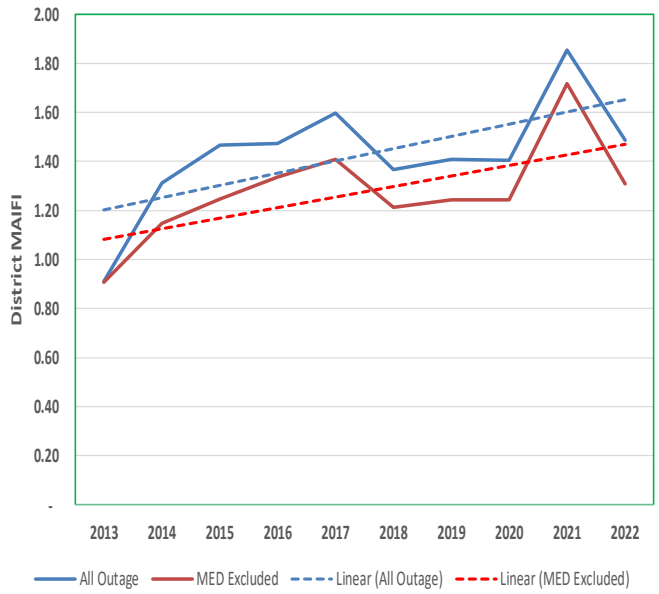


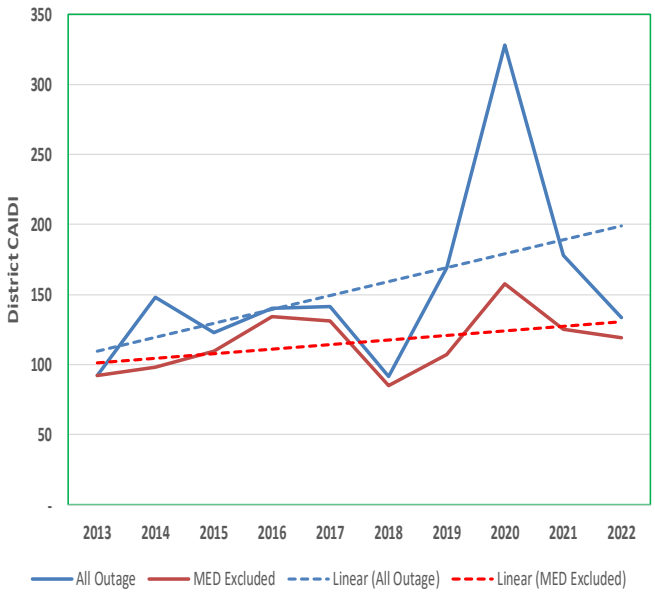

PALM SPRINGS District Reliability Performance
District SAIDI
District SAIFI
District MAIFI
District CAIDI
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
All Outage
MED Excluded
Linear (All Outage)
Linear (MED Excluded)

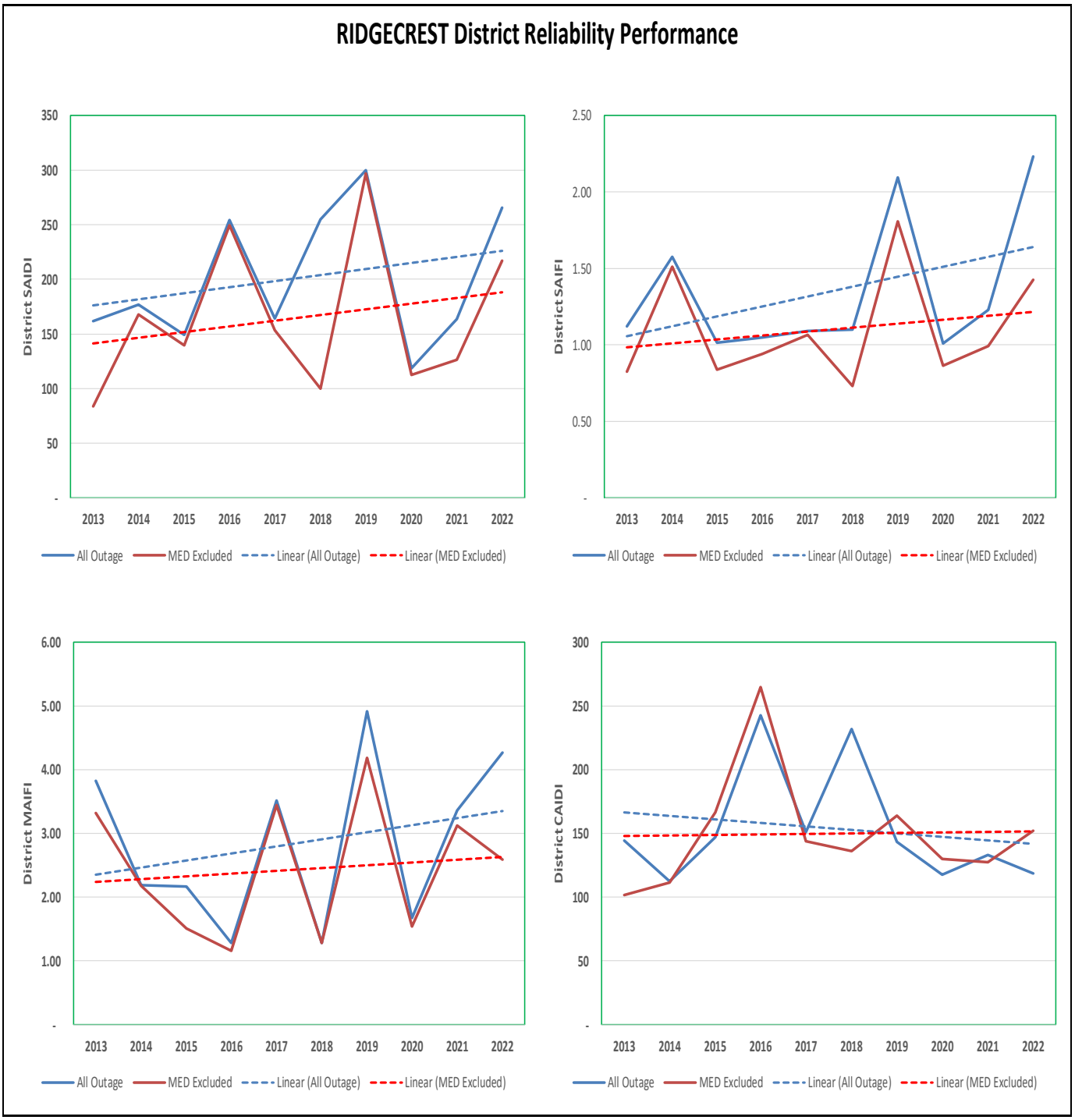
REDLANDS District Reliability Performance

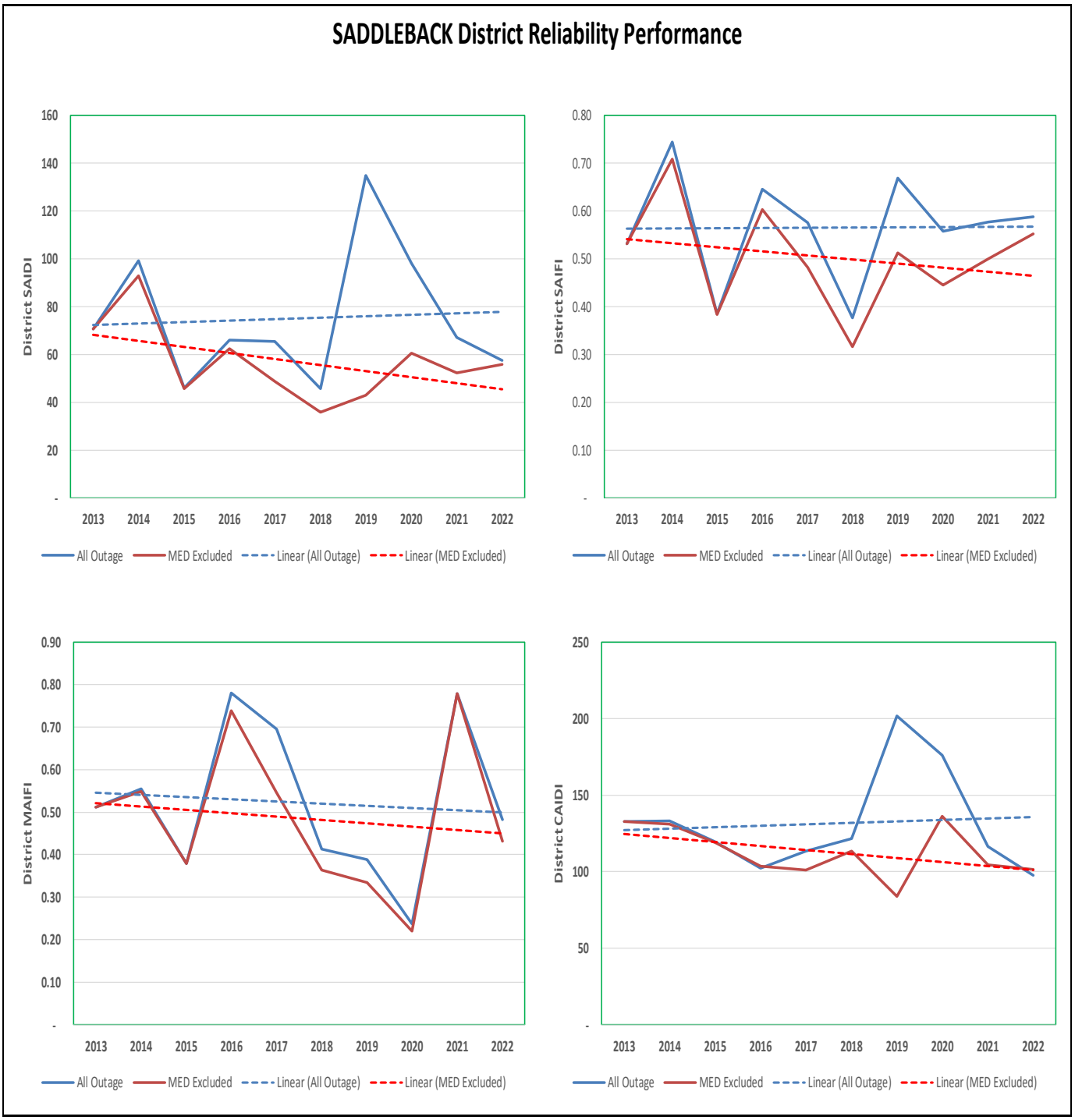


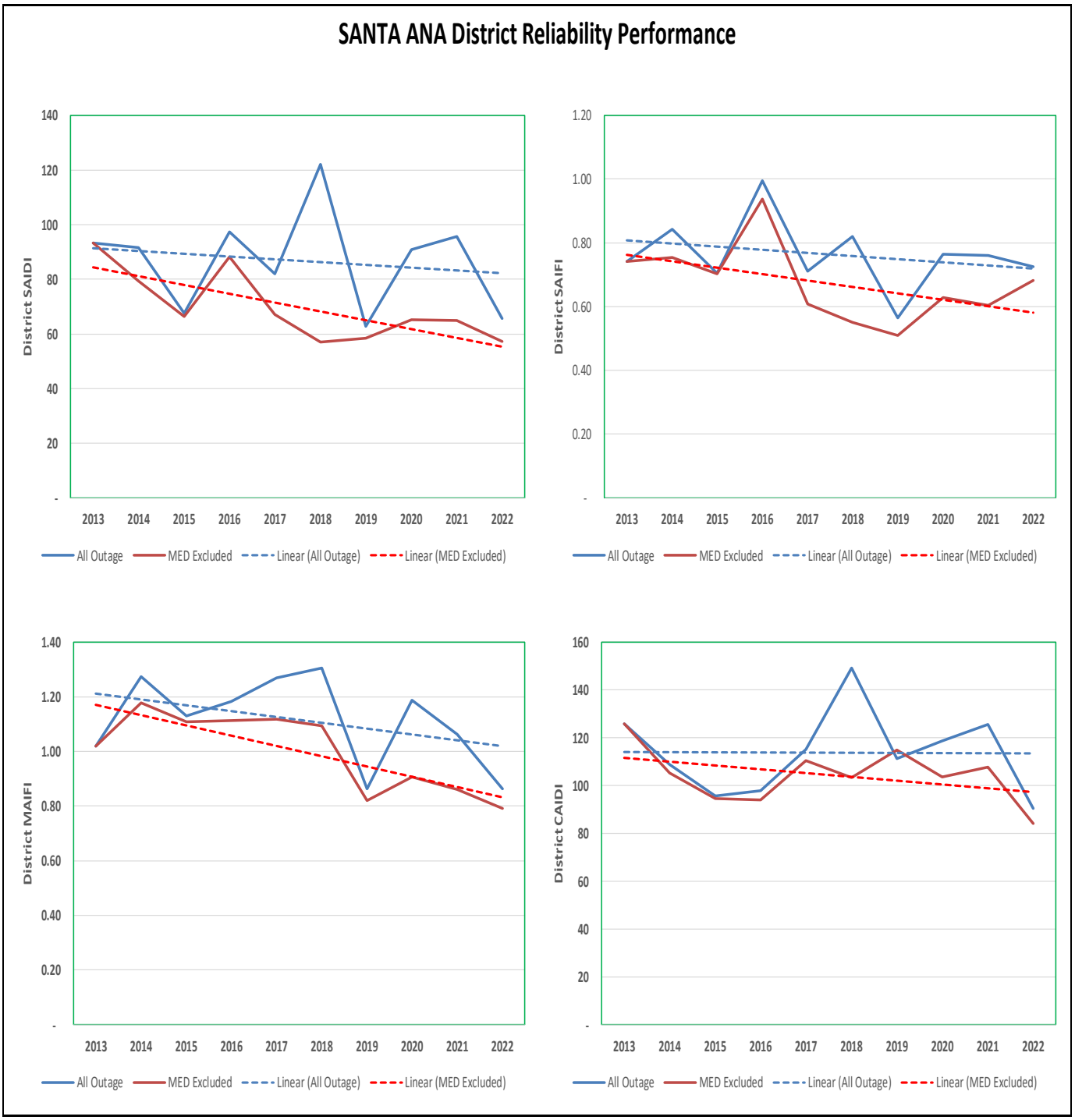




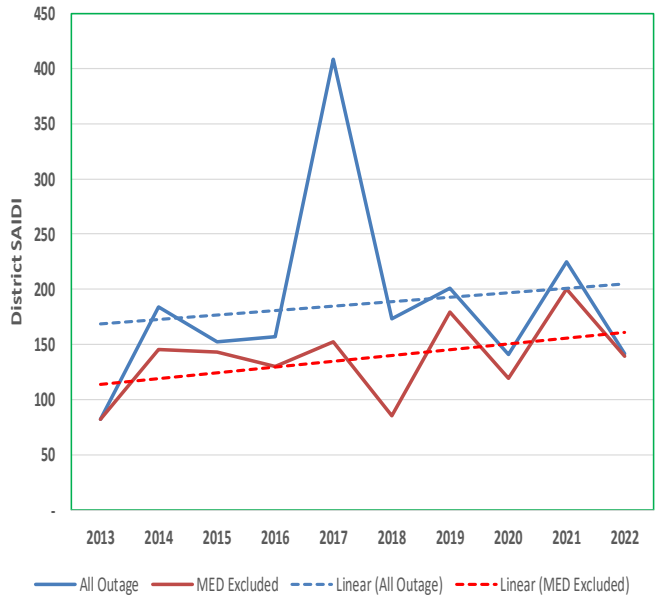


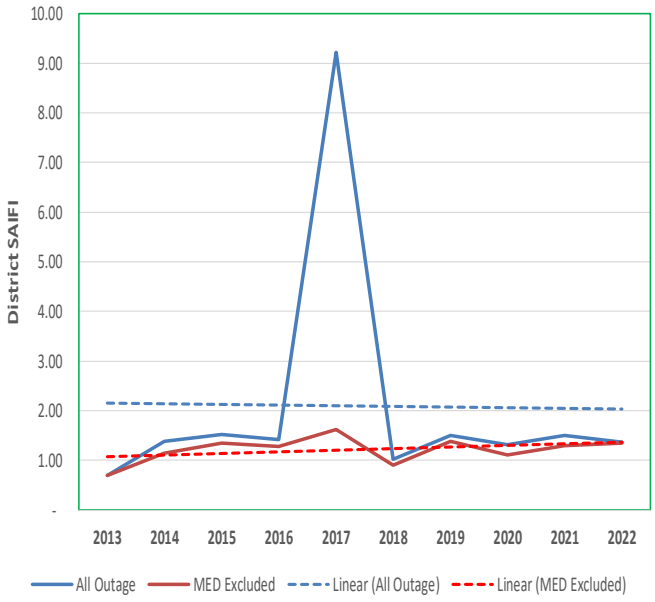

RIDGECREST District Reliability Performance
District SAIDI
350
300
250
200
150
100
50
-
2013 2014 2015 2016 2017 2018 2019 2020 2021 2022
All Outage
MED Excluded
Linear (All Outage)
Linear (MED Excluded)
District SAIFI
2.50
2.00
1.50
1.00
0.50
-
2013 2014 2015 2016 2017 2018 2019 2020 2021 2022
All Outage
MED Excluded
Linear (All Outage)
Linear (MED Excluded)
District MAIFI
6.00
5.00
4.00
3.00
2.00
1.00
-
2013 2014 2015 2016 2017 2018 2019 2020 2021 2022
All Outage
MED Excluded
Linear (All Outage)
Linear (MED Excluded)
District CAIDI
300
250
200
150
100
50
-
2013 2014 2015 2016 2017 2018 2019 2020 2021 2022
All Outage
MED Excluded
Linear (All Outage)
Linear (MED Excluded)

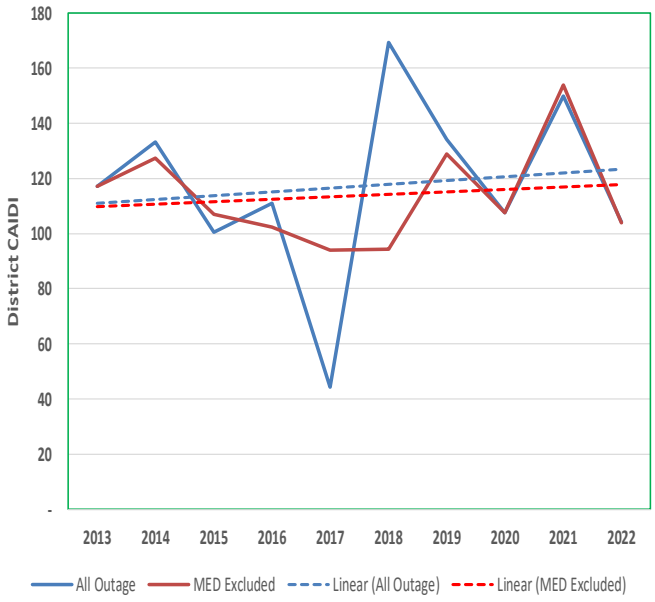

SADDLEBACK District Reliability Performance
District SAIDI
160
140
120
100
80
60
40
20
-
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
All Outage
MED Excluded
Linear (All Outage)
Linear (MED Excluded)
District SAIFI
0.80
0.70
0.60
0.50
0.40
0.30
0.20
0.10
-
District MAIFI
0.90
0.80
0.70
0.60
0.50
0.40
0.30
0.20
0.10
-
District CAIDI
250
200
150
100
50
-

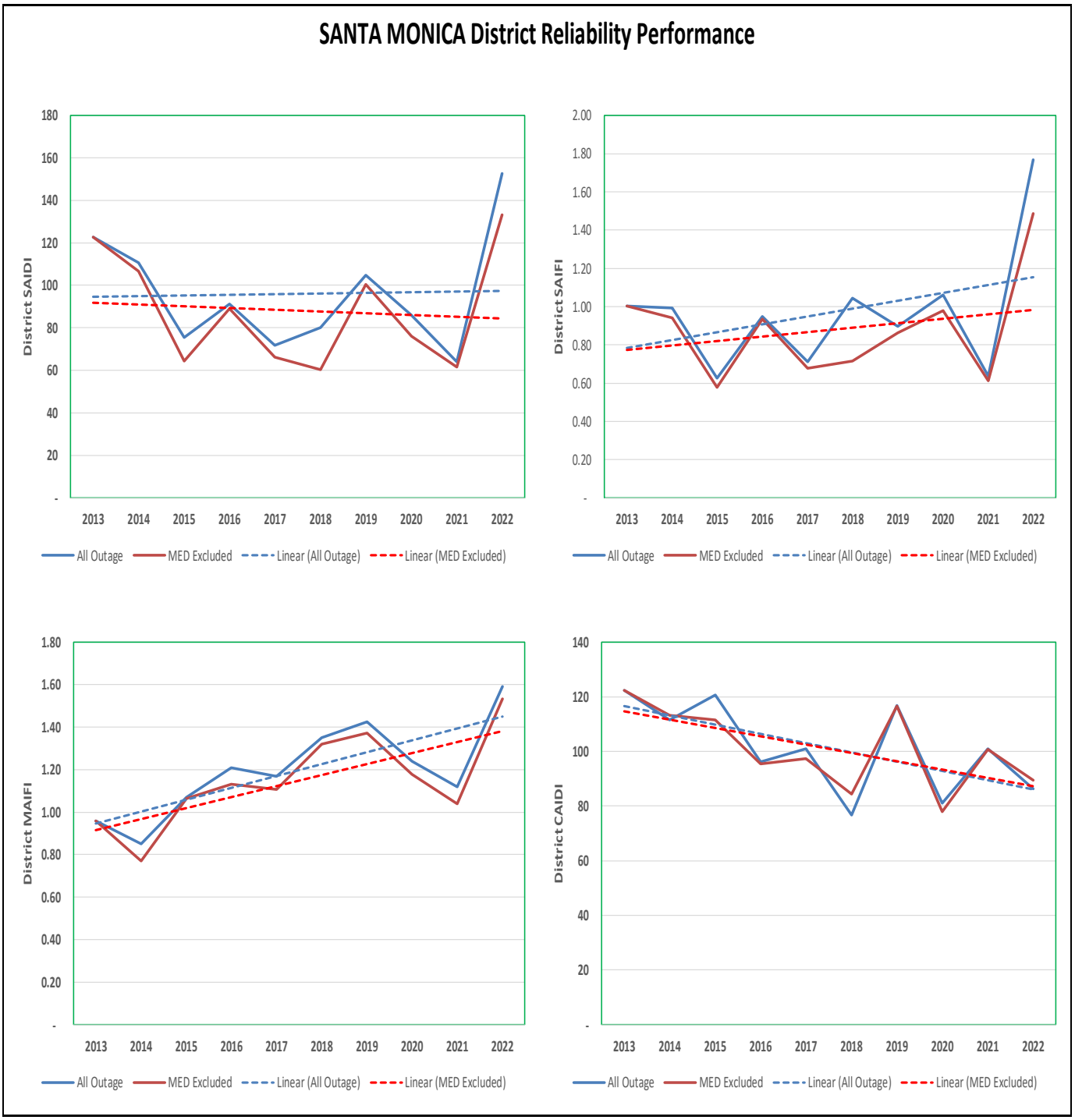

SANTA ANA District Reliability Performance
District SAIDI
140
120
100
80
60
40
20
-
2013 2014 2015 2016 2017 2018 2019 2020 2021 2022
All Outage
MED Excluded
Linear (All Outage)
Linear (MED Excluded)
District SAIFI
1.20
1.00
0.80
0.60
0.40
0.20
-
2013 2014 2015 2016 2017 2018 2019 2020 2021 2022
All Outage
MED Excluded
Linear (All Outage)
Linear (MED Excluded)
District MAIFI
1.40
1.20
1.00
0.80
0.60
0.40
0.20
-
2013 2014 2015 2016 2017 2018 2019 2020 2021 2022
All Outage
MED Excluded
Linear (All Outage)
Linear (MED Excluded)
District CAIDI
160
140
120
100
80
60
40
20
-
2013 2014 2015 2016 2017 2018 2019 2020 2021 2022
All Outage
MED Excluded
Linear (All Outage)
Linear (MED Excluded)

SANTA BARBARA District Reliability Performance

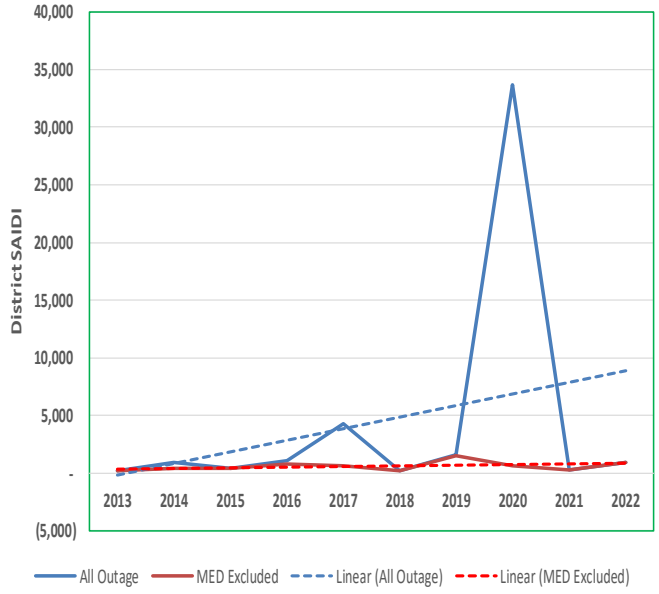


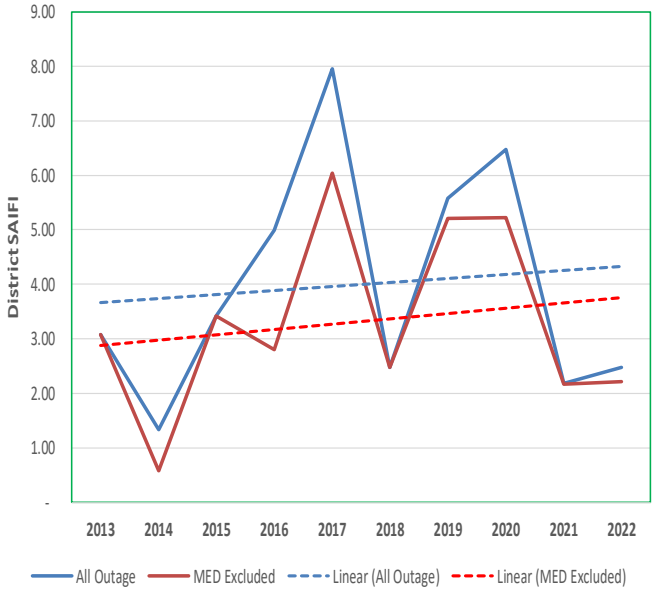


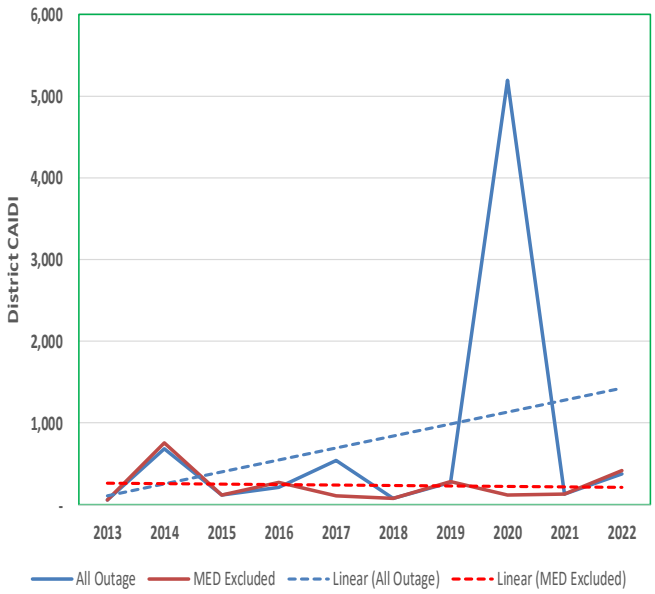



SANTA MONICA District Reliability Performance
District SAIDI
180
160
140
120
100
80
60
40
20
-
2013 2014 2015 2016 2017 2018 2019 2020 2021 2022
All Outage
MED Excluded
Linear (All Outage)
Linear (MED Excluded)
District SAIFI
2.00
1.80
1.60
1.40
1.20
1.00
0.80
0.60
0.40
0.20
-
2013 2014 2015 2016 2017 2018 2019 2020 2021 2022
All Outage
MED Excluded
Linear (All Outage)
Linear (MED Excluded)
District MAIFI
1.80
1.60
1.40
1.20
1.00
0.80
0.60
0.40
0.20
-
2013 2014 2015 2016 2017 2018 2019 2020 2021 2022
All Outage
MED Excluded
Linear (All Outage)
Linear (MED Excluded)
District CAIDI
140
120
100
80
60
40
20
-
2013 2014 2015 2016 2017 2018 2019 2020 2021 2022
All Outage
MED Excluded
Linear (All Outage)
Linear (MED Excluded)

SHAVER LAKE District Reliability Performance

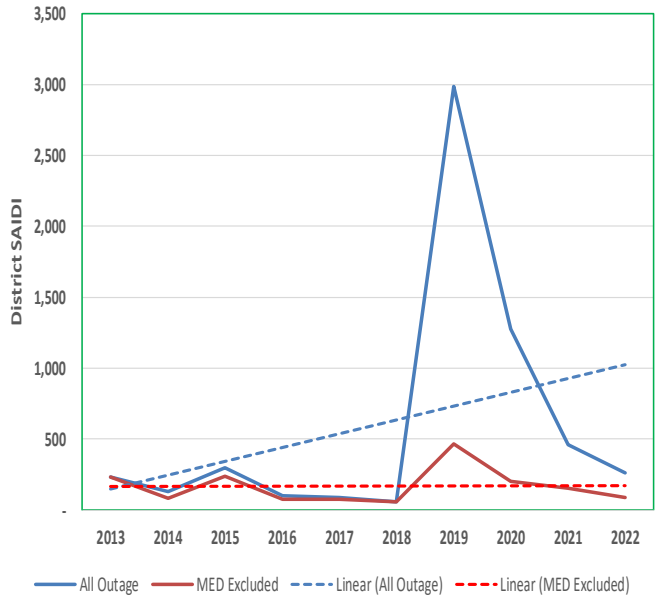


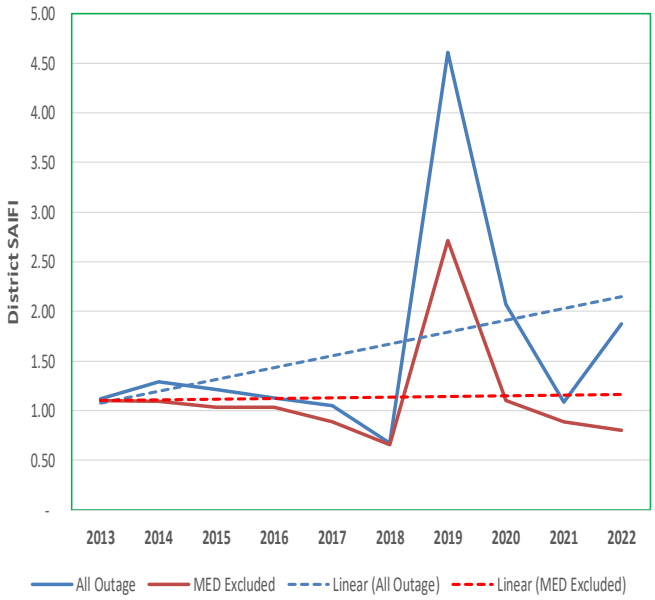


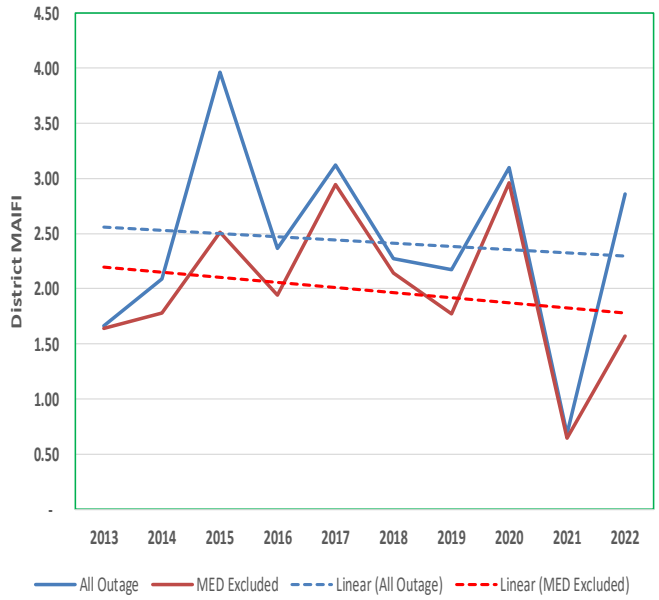


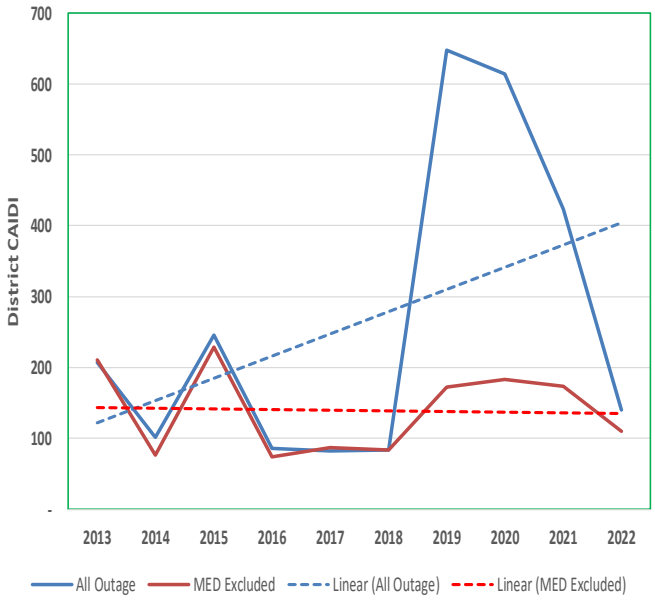

SOUTH BAY District Reliability Performance
District SAIDI
District SAIFI
District MAIFI
District CAIDI
All Outage
MED Excluded
Linear (All Outage)
Linear (MED Excluded)

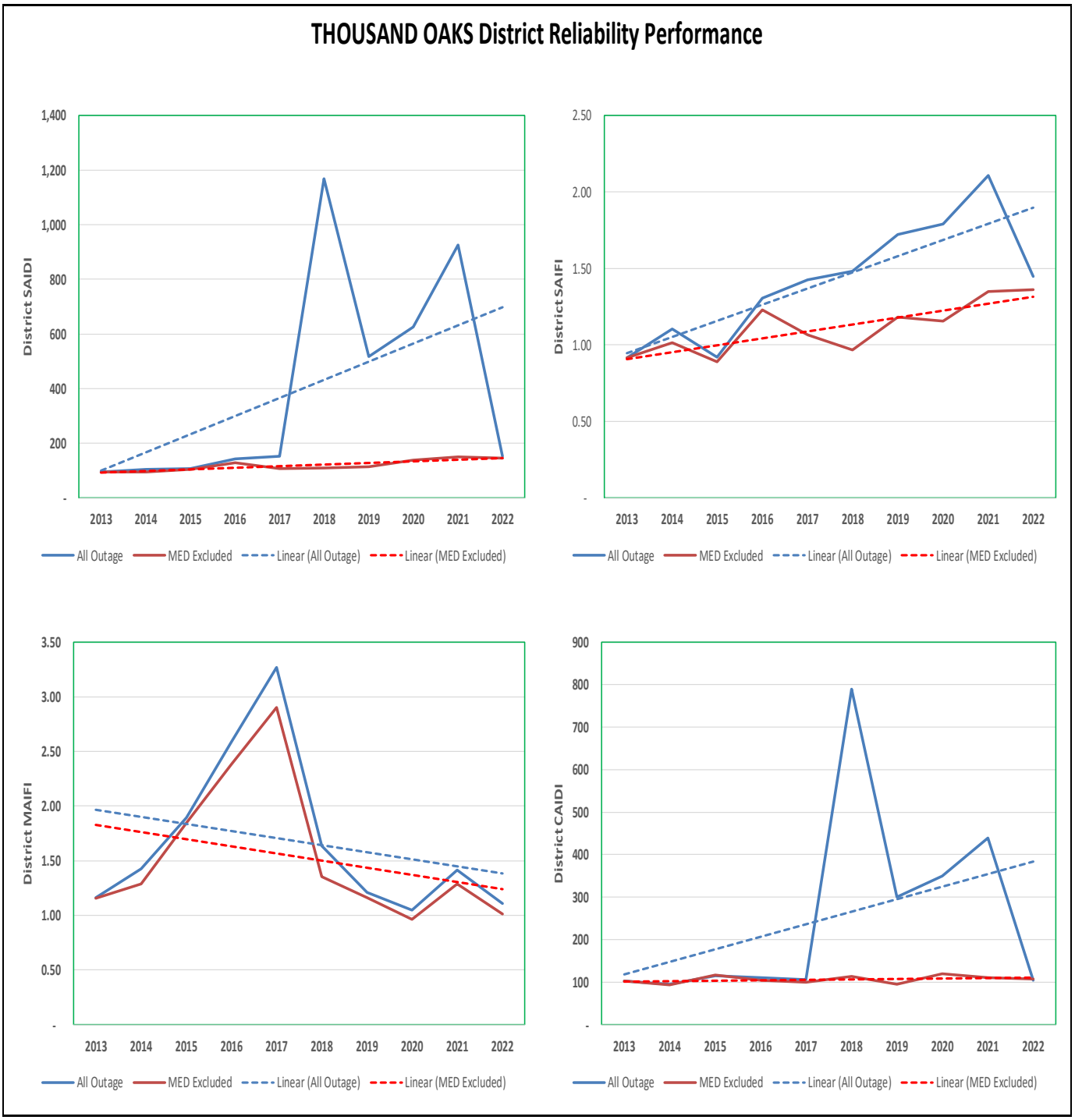
TEHACHAPI District Reliability Performance

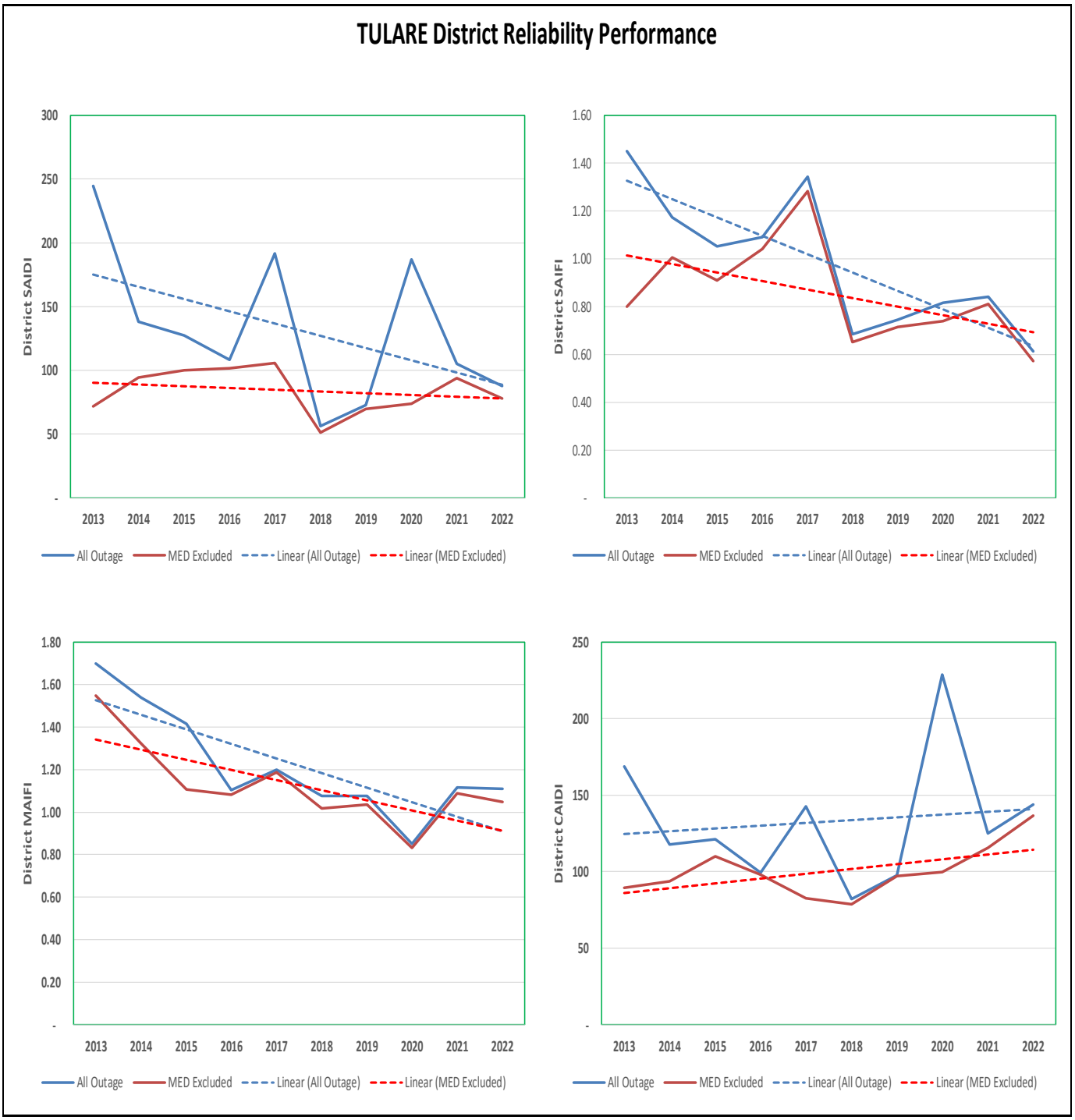




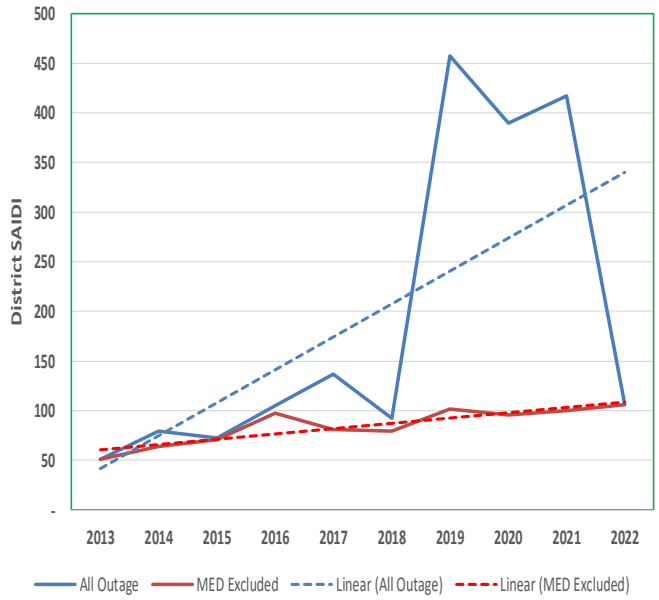


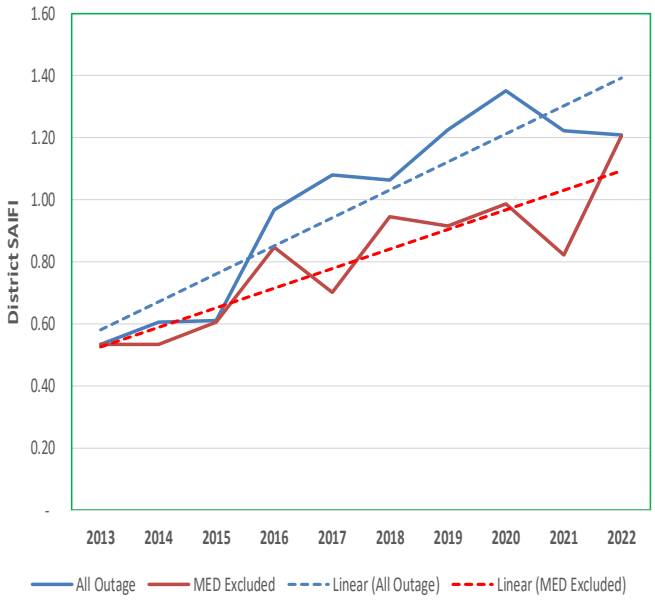


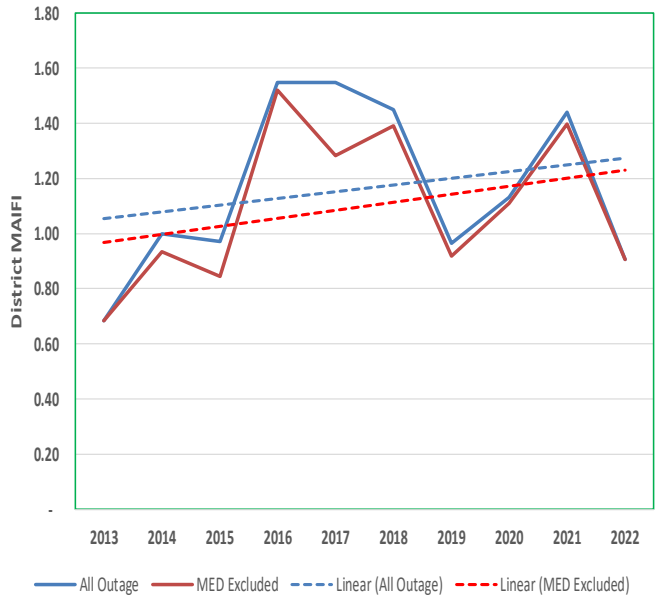

THOUSAND OAKS District Reliability Performance
District SAIDI
1,400
1,200
1,000
800
600
400
200
-
2013 2014 2015 2016 2017 2018 2019 2020 2021 2022
All Outage
MED Excluded
Linear (All Outage)
Linear (MED Excluded)
District SAIFI
2.50
2.00
1.50
1.00
0.50
-
2013 2014 2015 2016 2017 2018 2019 2020 2021 2022
All Outage
MED Excluded
Linear (All Outage)
Linear (MED Excluded)
District MAIFI
3.50
3.00
2.50
2.00
1.50
1.00
0.50
-
2013 2014 2015 2016 2017 2018 2019 2020 2021 2022
All Outage
MED Excluded
Linear (All Outage)
Linear (MED Excluded)
District CAIDI
900
800
700
600
500
400
300
200
100
-
2013 2014 2015 2016 2017 2018 2019 2020 2021 2022
All Outage
MED Excluded
Linear (All Outage)
Linear (MED Excluded)

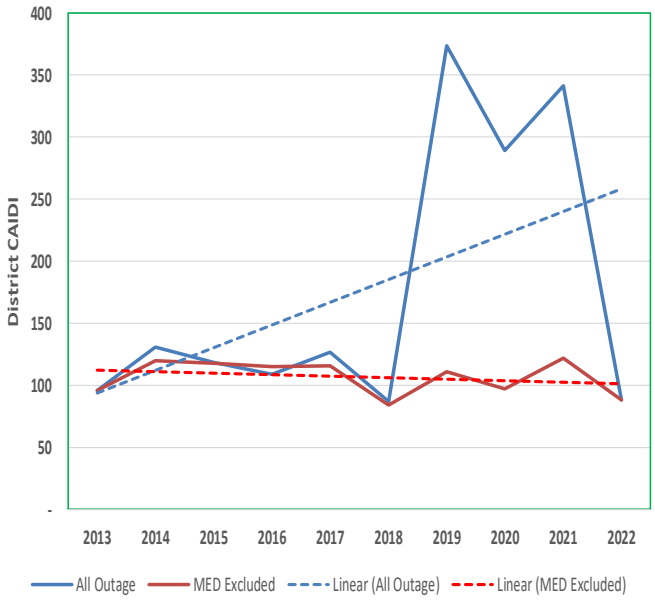

TULARE District Reliability Performance
District SAIDI
District SAIFI
District MAIFI
District CAIDI
All Outage
MED Excluded
Linear (All Outage)
Linear (MED Excluded)

VALENCIA District Reliability Performance

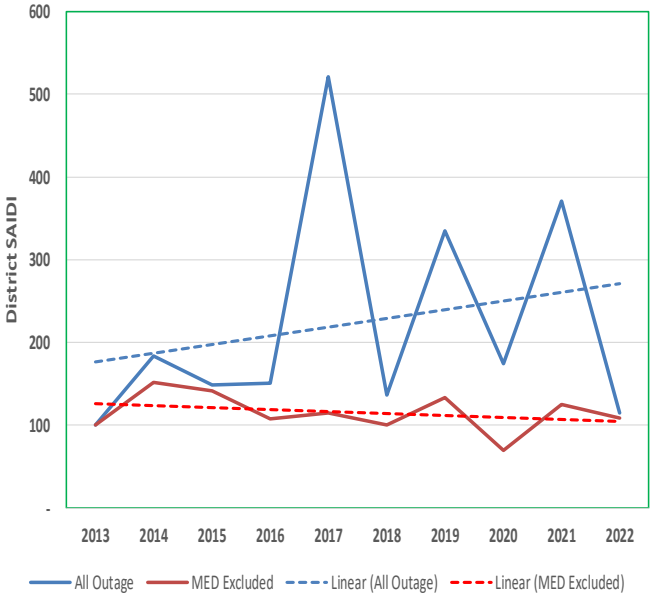


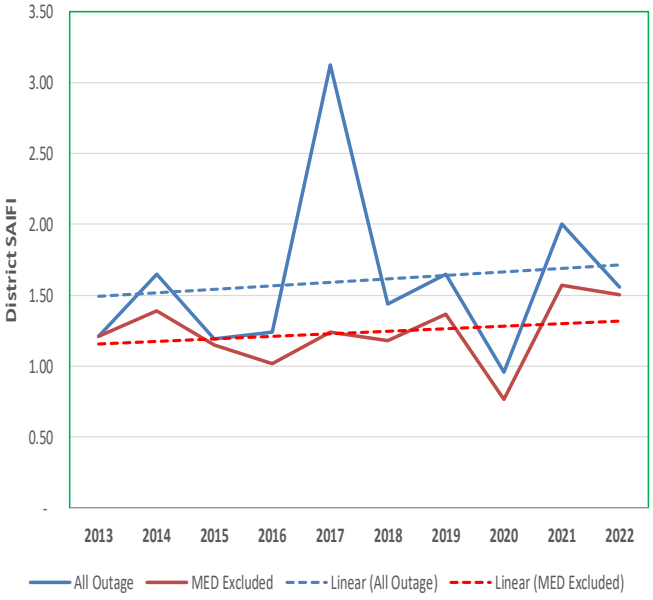


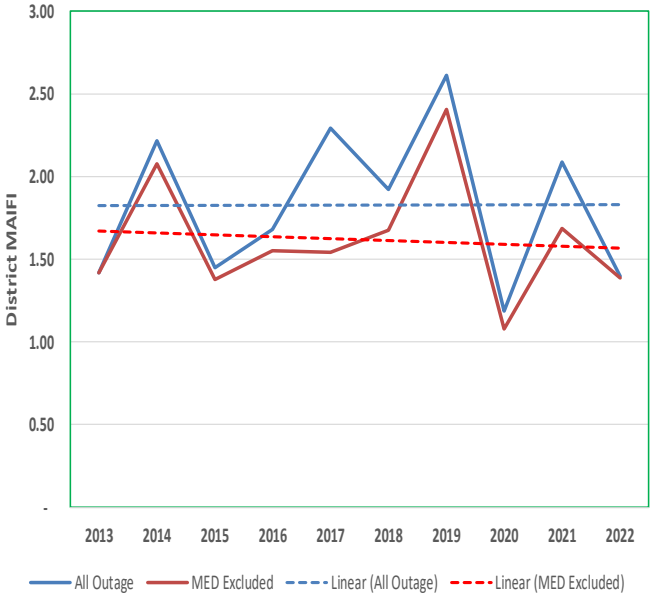


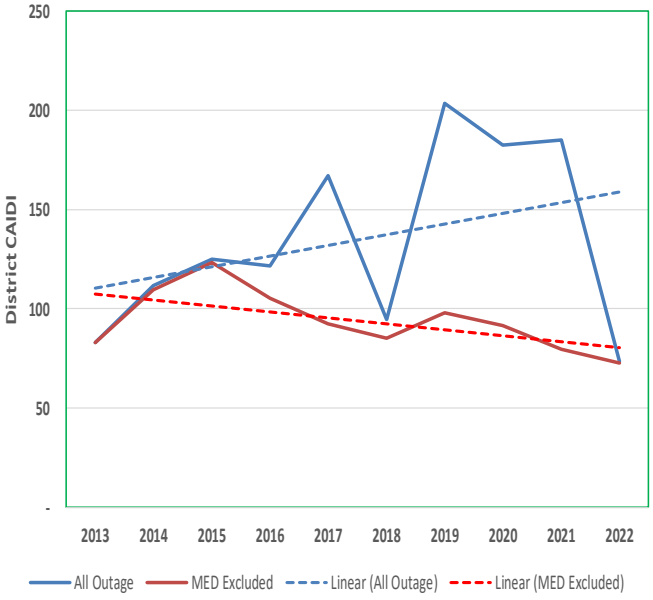


VENTURA District Reliability Performance





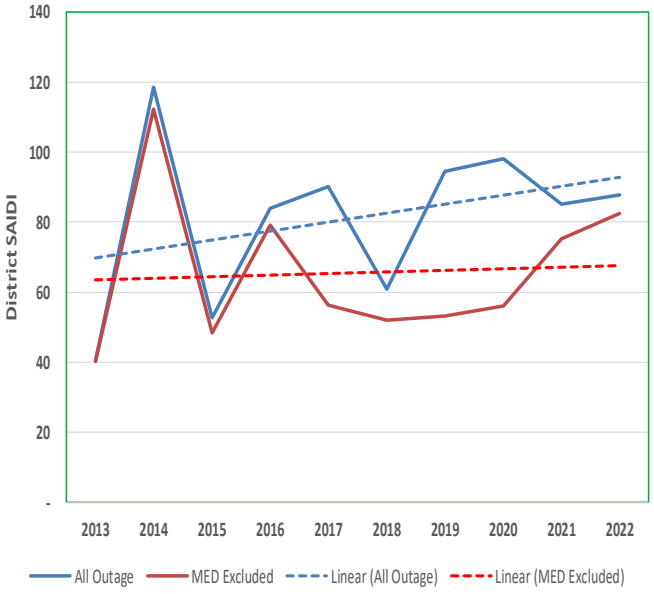


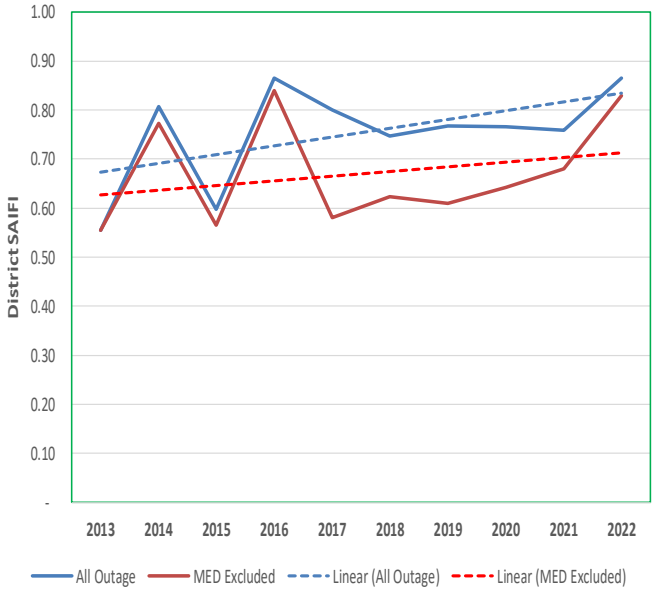


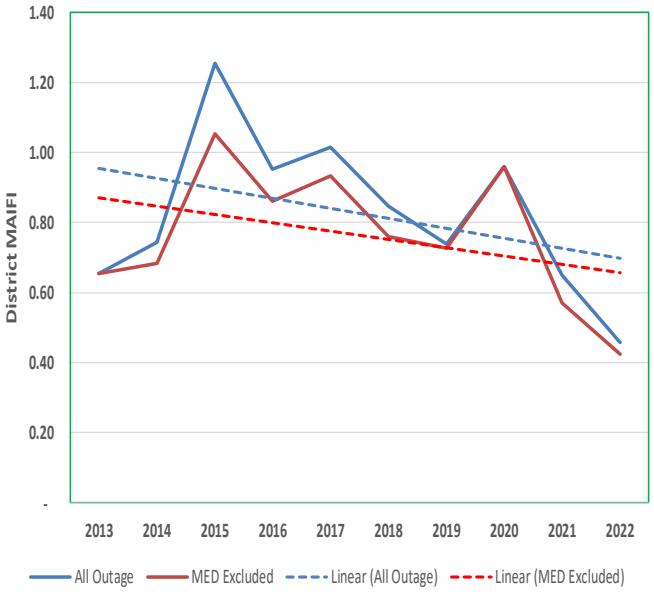

VICTORVILLE District Reliability Performance
District SAIDI
140
120
100
80
60
40
20
-
2013 2014 2015 2016 2017 2018 2019 2020 2021 2022
All Outage
MED Excluded
Linear (All Outage)
Linear (MED Excluded)
District SAIFI
1.20
1.00
0.80
0.60
0.40
0.20
-
2013 2014 2015 2016 2017 2018 2019 2020 2021 2022
All Outage
MED Excluded
Linear (All Outage)
Linear (MED Excluded)
District MAIFI
3.00
2.50
2.00
1.50
1.00
0.50
-
2013 2014 2015 2016 2017 2018 2019 2020 2021 2022
All Outage
MED Excluded
Linear (All Outage)
Linear (MED Excluded)
District CAIDI
160
140
120
100
80
60
40
20
-
2013 2014 2015 2016 2017 2018 2019 2020 2021 2022
All Outage
MED Excluded
Linear (All Outage)
Linear (MED Excluded)

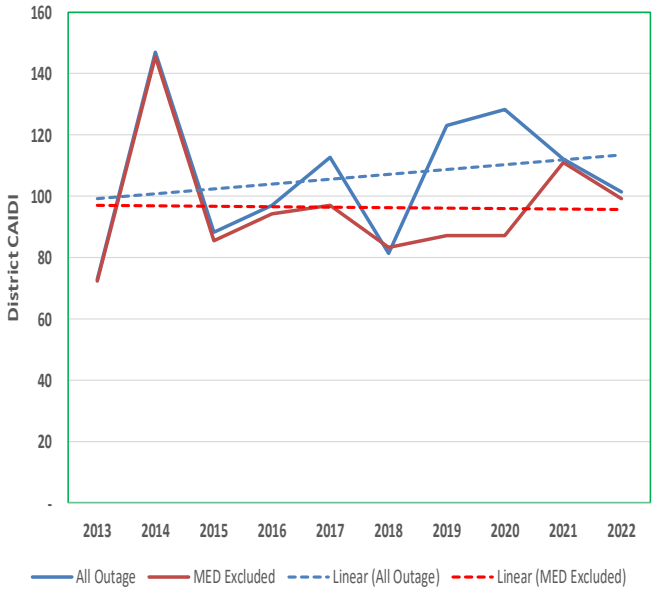
WHITTIER District Reliability Performance

WILDOMAR District Reliability Performance










YUCCA VALLEY District Reliability Performance
District SAIDI
500
450
400
350
300
250
200
150
100
50
-
2013 2014 2015 2016 2017 2018 2019 2020 2021 2022
All Outage
MED Excluded
Linear (All Outage)
Linear (MED Excluded)
District SAIFI
4.00
3.50
3.00
2.50
2.00
1.50
1.00
0.50
-
2013 2014 2015 2016 2017 2018 2019 2020 2021 2022
All Outage
MED Excluded
Linear (All Outage)
Linear (MED Excluded)
District MAIFI
6.00
5.00
4.00
3.00
2.00
1.00
-
2013 2014 2015 2016 2017 2018 2019 2020 2021 2022
All Outage
MED Excluded
Linear (All Outage)
Linear (MED Excluded)
District CAIDI
250
200
150
100
50
-
2013 2014 2015 2016 2017 2018 2019 2020 2021 2022
All Outage
MED Excluded
Linear (All Outage)
Linear (MED Excluded)

SECTION 3 – SYSTEM AND DISTRICT INDICES BASED ON IEEE 1366 FOR THE PAST 10 YEARS INCLUDING PLANNED AND UNPLANNED OUTAGES AND INCLUDING AND EXCLUDING MEDs

Table 5 below contains the required SAIDI, SAIFI, MAIFI[7] and CAIDI indices for 2013-2022 including and excluding MEDs for the SCE System, Planned and Unplanned outages combined. All calculations contained in the table are based on the IEEE 1366 method for MEDs.

Planned outages are not excluded on MEDs. Planned outages are only accounted for in years 2020, 2021, and 2022 throughout this section and within this report.

Table 5 – System Indices (2013-2022) Planned and Unplanned

	Total System Indices (All Interruptions Included)				Total System Indices (Major Event Days Excluded)			
YEAR	SAIDI	SAIFI	MAIFI	CAIDI	SAIDI	SAIFI	MAIFI	CAIDI
2013	102.61	0.91	1.20	112.76	94.49	0.88	1.18	107.85
2014	112.25	0.97	1.36	116.28	92.40	0.86	1.23	107.12
2015	114.83	0.92	1.42	125.40	100.15	0.86	1.29	116.56
2016	134.48	1.10	1.55	122.26	109.98	0.99	1.40	110.69
2017	139.73	1.19	1.84	117.19	91.72	0.87	1.42	105.40
2018	136.82	0.87	1.43	156.61	71.25	0.72	1.27	99.58
2019	177.97	1.04	1.38	171.17	90.75	0.87	1.23	104.75
2020	328.50	1.39	1.38	237.05	218.58	1.19	1.25	182.91
2021	395.87	1.55	1.58	255.64	319.90	1.40	1.43	228.98
2022	386.49	1.58	1.42	244.47	356.40	1.47	1.24	243.27

[7] SCE calculates MAIFI at the individual outage event.

Table 6 below contains the District SAIDI, SAIFI, MAIFI and CAIDI (including and excluding MED).

Table 6 – District Indices (2013-2022) Planned and Unplanned [8]

DISTRICT	All Outage				MED Excluded			
	dSAIDI	dSAIFI	dMAIFI	dCAIDI	dSAIDI	dSAIFI	dMAIFI	dCAIDI
ANTELOPE VALLEY								
2013	94.416	0.619	1.172	152.621	94.222	0.613	1.166	153.772
2014	51.050	0.594	1.153	85.980	45.689	0.549	1.070	83.218
2015	104.337	0.680	1.838	153.528	70.206	0.601	1.514	116.783
2016	107.670	0.870	1.523	123.791	101.199	0.814	1.430	124.322
2017	103.191	0.873	1.833	118.151	83.352	0.814	1.704	102.390
2018	55.614	0.608	1.258	91.517	50.419	0.534	1.097	94.498
2019	194.754	0.668	1.347	291.498	76.406	0.569	1.249	134.164
2020	587.591	1.661	2.415	353.708	454.628	1.505	2.340	302.048
2021	379.958	1.855	1.797	204.781	366.677	1.790	1.791	204.863
2022	346.951	1.389	1.428	249.743	270.192	1.135	1.082	237.966
ARROWHEAD								
2013	180.586	1.386	5.017	130.286	134.768	1.174	3.637	114.839
2014	193.249	1.590	4.018	121.532	81.968	0.898	3.035	91.277
2015	362.615	3.973	5.595	91.273	186.743	2.755	2.730	67.794
2016	659.464	2.848	5.951	231.515	200.720	1.883	4.712	106.593
2017	816.518	3.861	7.057	211.496	218.331	3.058	4.093	71.391
2018	68.595	1.527	2.980	44.924	53.422	0.712	2.919	75.065
2019	3630.637	9.592	9.883	378.500	828.270	5.814	6.160	142.452
2020	1362.548	4.172	4.272	326.569	1124.080	3.849	3.320	292.026
2021	4358.477	7.666	6.007	568.545	3285.347	6.848	4.149	479.739
2022	7224.543	7.675	3.742	941.306	7172.911	7.130	2.251	1005.962
BARSTOW								
2013	204.329	1.395	3.284	146.469	185.788	1.286	2.702	144.416
2014	201.526	1.343	2.536	150.058	173.680	1.240	2.410	140.098
2015	187.113	1.174	2.859	159.416	157.379	0.997	2.131	157.841
2016	134.828	1.350	2.296	99.888	130.085	1.340	2.283	97.106
2017	357.468	2.652	4.195	134.806	356.064	2.639	4.132	134.934
2018	116.698	1.373	2.110	84.988	115.274	1.342	2.077	85.929
2019	114.490	0.833	2.586	137.432	95.228	0.798	2.188	119.296
2020	196.669	1.562	2.648	125.883	191.939	1.551	2.521	123.731
2021	331.931	2.924	4.586	113.536	313.007	2.637	4.389	118.691
2022	643.277	3.217	5.573	199.931	618.335	3.005	4.964	205.781
BISHOP								
2013	104.436	0.514	1.267	203.233	104.425	0.514	1.267	203.232
2014	118.793	0.587	1.885	202.475	113.618	0.499	1.706	227.572
2015	298.106	2.218	3.332	134.431	298.106	2.218	3.272	134.431
2016	168.592	1.216	2.820	138.643	168.530	1.216	2.711	138.603
2017	190.511	1.934	3.223	98.485	172.144	1.877	3.077	91.719
2018	139.695	0.539	1.957	258.986	136.470	0.499	1.820	273.587
2019	1445.727	2.915	3.217	496.014	276.151	1.394	2.878	198.130
2020	540.194	2.440	1.638	221.378	540.022	2.438	1.620	221.458
2021	538.678	2.935	4.783	183.517	508.139	2.869	4.630	177.139
2022	646.402	2.983	3.634	216.711	644.824	2.957	3.626	218.084
BLYTHE								
2013	483.127	1.380	5.466	349.971	482.815	1.372	5.382	351.779
2014	707.545	2.419	4.658	292.513	707.301	2.387	4.433	296.272
2015	426.997	1.515	1.396	281.754	331.521	1.129	1.163	293.751
2016	396.376	2.707	6.342	146.428	302.983	1.917	4.848	158.021
2017	684.484	2.377	3.585	287.955	683.564	2.372	3.493	288.176
2018	277.723	1.571	2.198	176.833	255.608	1.321	2.168	193.449
2019	379.850	1.692	2.769	224.482	359.998	1.629	2.675	221.030
2020	482.214	2.229	1.937	216.383	444.276	2.101	1.788	211.460
2021	774.478	2.381	3.820	325.277	773.435	2.376	3.720	325.525
2022	956.094	3.946	2.626	242.302	950.079	3.924	2.626	242.102

[8] Beginning in the 2019 annual report, Catalina District charts are combined with Huntington Beach District since the Catalina District operations have merged with the Huntington Beach District.

DISTRICT	All Outage				MED Excluded			
	dSAIDI	dSAIFI	dMAIFI	dCAIDI	dSAIDI	dSAIFI	dMAIFI	dCAIDI
COVINA								
2013	100.505	0.856	1.004	117.414	100.297	0.853	0.992	117.582
2014	91.597	0.874	1.257	104.759	81.602	0.804	1.028	101.489
2015	100.085	0.815	1.164	122.866	99.838	0.813	1.152	122.755
2016	112.134	0.974	1.319	115.182	90.930	0.875	1.145	103.915
2017	117.185	0.933	1.366	125.558	106.094	0.813	1.139	130.523
2018	103.181	0.832	1.455	124.043	73.463	0.700	1.367	104.983
2019	84.296	0.864	0.999	97.598	76.846	0.800	0.923	96.037
2020	224.566	1.651	1.020	136.000	197.871	1.553	0.979	127.404
2021	257.017	1.454	1.379	176.751	248.769	1.399	1.260	177.791
2022	402.708	1.417	1.235	284.237	272.465	1.239	0.960	219.959
DOMINGUEZ HILLS								
2013	89.167	0.797	1.938	111.893	89.167	0.797	1.938	111.893
2014	82.304	0.712	1.603	115.642	73.605	0.657	1.560	112.076
2015	130.629	0.967	2.049	135.097	126.046	0.934	1.958	134.903
2016	146.384	1.107	2.537	132.203	127.155	1.010	2.229	125.937
2017	123.596	0.826	2.162	149.564	86.630	0.720	1.967	120.388
2018	93.365	0.852	2.447	109.544	66.378	0.718	2.266	92.400
2019	98.658	0.874	2.090	112.865	64.548	0.706	1.721	91.403
2020	267.414	1.457	2.918	183.541	220.558	1.307	2.774	168.810
2021	371.671	1.539	2.795	241.537	349.582	1.361	2.610	256.935
2022	266.268	1.212	1.983	219.688	252.367	1.140	1.891	221.426
FOOTHILL								
2013	85.800	0.787	0.987	109.087	85.800	0.787	0.987	109.087
2014	93.349	0.932	1.285	100.146	88.147	0.861	1.249	102.400
2015	109.637	0.947	1.304	115.764	87.796	0.890	1.230	98.673
2016	142.807	1.028	1.507	138.926	138.177	1.008	1.483	137.029
2017	110.528	1.118	1.387	98.876	88.001	0.890	1.213	98.910
2018	117.614	0.976	1.202	120.475	78.703	0.782	0.966	100.705
2019	273.472	1.050	1.108	260.359	69.021	0.796	1.069	86.733
2020	357.697	1.636	1.656	218.590	222.997	1.349	1.501	165.360
2021	443.104	1.795	1.936	246.895	276.399	1.459	1.692	189.498
2022	313.255	1.517	1.609	206.473	294.195	1.459	1.311	201.626
FULLERTON								
2013	90.572	0.793	0.910	114.158	90.572	0.793	0.910	114.158
2014	82.229	0.723	1.004	113.749	69.998	0.649	0.974	107.849
2015	76.586	0.669	1.014	114.471	75.504	0.642	0.995	117.681
2016	92.725	0.760	1.174	122.044	73.772	0.588	0.974	125.369
2017	89.287	0.676	1.211	132.085	74.154	0.584	1.084	126.996
2018	69.447	0.517	1.126	134.276	55.382	0.435	1.041	127.367
2019	82.337	0.776	1.092	106.133	73.013	0.710	1.023	102.844
2020	139.505	0.841	1.177	165.924	102.006	0.663	0.780	153.788
2021	187.727	0.878	1.230	213.779	175.479	0.839	1.105	209.181
2022	223.456	1.129	0.729	197.916	214.884	1.087	0.681	197.718
HUNTINGTON BEACH								
2013	66.914	0.703	0.839	95.123	66.914	0.703	0.839	95.123
2014	79.795	0.813	1.105	98.101	68.381	0.752	0.978	90.981
2015	97.731	0.969	1.235	100.904	93.570	0.942	1.187	99.287
2016	127.358	1.287	1.245	98.938	107.706	1.212	1.184	88.869
2017	98.780	0.972	1.458	101.647	78.932	0.852	1.190	92.648
2018	88.268	0.778	1.376	113.405	74.272	0.696	1.076	106.706
2019	97.176	1.011	1.145	96.129	81.299	0.889	0.973	91.406
2020	157.334	1.092	1.070	144.063	146.479	1.009	1.019	145.158
2021	158.516	1.176	1.432	134.745	149.131	1.091	1.250	136.739
2022	281.134	1.674	1.435	167.914	274.131	1.609	1.384	170.374
KERNVILLE								
2013	232.181	1.964	4.925	118.189	180.865	1.577	4.824	114.682
2014	178.691	1.987	1.882	89.932	142.946	1.918	1.831	74.541
2015	286.382	0.961	1.630	297.920	231.411	0.857	1.293	270.120
2016	2421.324	3.674	2.928	659.034	909.188	2.839	2.832	320.212
2017	305.533	3.286	4.508	92.982	290.601	3.148	4.210	92.311
2018	184.411	1.141	3.104	161.652	152.818	1.009	3.087	151.390
2019	320.174	1.669	3.964	191.871	317.537	1.663	3.961	190.886
2020	849.438	3.747	2.722	226.676	826.374	3.703	2.715	223.172
2021	2528.357	3.317	2.098	762.174	1758.036	2.982	1.391	589.551
2022	2479.589	5.795	4.706	427.907	2385.099	5.561	2.665	428.888

DISTRICT	All Outage				MED Excluded			
	dSAIDI	dSAIFI	dMAIFI	dCAIDI	dSAIDI	dSAIFI	dMAIFI	dCAIDI
LONG BEACH								
2013	75.107	0.699	0.779	107.497	74.628	0.694	0.775	107.551
2014	66.331	0.606	1.168	109.419	57.887	0.548	1.083	105.542
2015	164.463	0.894	1.185	183.904	89.160	0.846	1.168	105.378
2016	135.163	0.857	1.308	157.701	96.978	0.695	1.095	139.507
2017	77.173	0.708	1.177	108.967	59.503	0.590	1.017	100.881
2018	51.477	0.445	1.223	115.686	42.300	0.400	1.100	105.879
2019	78.184	0.643	0.965	121.652	60.171	0.572	0.818	105.248
2020	173.762	0.895	1.229	194.141	158.366	0.808	1.136	195.999
2021	208.805	1.096	1.290	190.572	198.765	1.022	1.141	194.465
2022	229.653	1.231	1.093	186.587	218.535	1.150	0.982	190.040
MENIFEE								
2013	107.388	1.264	0.744	84.979	106.298	1.220	0.725	87.135
2014	156.682	1.323	1.573	118.437	77.407	1.004	1.276	77.068
2015	111.460	0.978	1.302	113.971	85.322	0.876	1.067	97.393
2016	156.748	1.311	1.448	119.535	139.005	1.191	1.338	116.738
2017	130.467	0.965	1.311	135.265	72.854	0.765	1.200	95.225
2018	174.057	0.897	1.436	194.002	70.952	0.696	1.270	102.015
2019	99.483	0.859	1.027	115.814	76.890	0.750	0.860	102.488
2020	372.446	1.579	1.124	235.842	195.280	1.264	1.012	154.522
2021	394.953	1.621	0.853	243.643	311.099	1.471	0.750	211.430
2022	330.954	1.546	0.935	214.003	323.830	1.495	0.878	216.623
MONROVIA								
2013	99.116	1.017	1.322	97.496	98.965	1.015	1.311	97.500
2014	133.317	1.158	1.258	115.176	96.366	1.005	1.069	95.847
2015	96.679	0.881	1.618	109.737	95.327	0.863	1.554	110.466
2016	116.575	0.844	1.652	138.064	93.387	0.772	1.523	121.000
2017	105.003	0.982	1.797	106.955	91.997	0.925	1.699	99.414
2018	243.023	1.427	1.614	170.294	102.583	1.030	1.453	99.573
2019	86.095	0.824	1.399	104.506	75.962	0.724	1.239	104.947
2020	345.676	1.377	1.713	251.066	274.782	1.166	1.505	235.572
2021	418.970	1.715	1.402	244.227	408.688	1.673	1.300	244.291
2022	469.731	1.699	1.776	276.405	316.563	1.323	1.443	239.306
MONTEBELLO								
2013	118.078	1.174	1.890	100.609	117.713	1.169	1.890	100.660
2014	158.337	1.164	1.959	136.021	124.689	1.020	1.763	122.192
2015	150.280	1.183	2.213	126.992	145.303	1.131	2.087	128.462
2016	133.522	1.166	2.057	114.552	107.263	1.043	1.882	102.871
2017	123.980	0.989	2.181	125.388	96.853	0.877	1.873	110.467
2018	160.883	1.063	2.269	151.313	98.880	0.782	1.859	126.380
2019	127.517	1.176	1.906	108.427	108.382	1.042	1.789	104.046
2020	300.075	1.432	1.792	209.519	238.507	1.244	1.616	191.756
2021	327.533	1.418	2.057	230.925	321.009	1.390	1.914	230.973
2022	888.511	1.588	1.719	559.498	857.081	1.462	1.582	586.243
ONTARIO								
2013	77.392	0.791	0.933	97.841	74.037	0.782	0.926	94.728
2014	97.912	0.996	1.160	98.337	86.702	0.902	1.041	96.138
2015	94.043	0.744	0.926	126.432	81.608	0.709	0.867	115.156
2016	105.067	0.930	1.282	112.936	86.158	0.803	1.095	107.337
2017	100.432	1.135	1.572	88.514	91.781	1.054	1.422	87.094
2018	80.041	0.723	1.048	110.711	53.434	0.589	0.918	90.776
2019	90.157	0.943	1.211	95.597	76.942	0.864	1.145	89.046
2020	248.936	1.290	1.417	192.925	155.835	0.987	1.033	157.907
2021	196.445	1.199	1.524	163.810	162.320	1.071	1.305	151.606
2022	310.845	1.380	1.738	225.257	207.521	1.139	1.186	182.268
PALM SPRINGS								
2013	112.796	0.774	0.997	145.669	112.193	0.769	0.997	145.815
2014	107.044	0.708	0.941	151.109	95.150	0.667	0.885	142.664
2015	99.542	0.800	1.042	124.376	95.795	0.753	0.949	127.171
2016	107.581	1.066	1.281	100.909	101.363	1.010	1.133	100.351
2017	119.105	1.022	1.220	116.564	116.436	0.998	1.210	116.632
2018	73.949	0.788	1.426	93.794	60.306	0.726	1.208	83.104
2019	133.770	1.233	1.623	108.492	91.606	0.915	1.298	100.088
2020	267.896	1.258	1.219	212.890	241.578	1.140	1.147	211.899
2021	246.427	1.337	1.447	184.263	236.167	1.322	1.430	178.656
2022	276.696	1.310	1.492	211.296	268.011	1.201	1.184	223.088

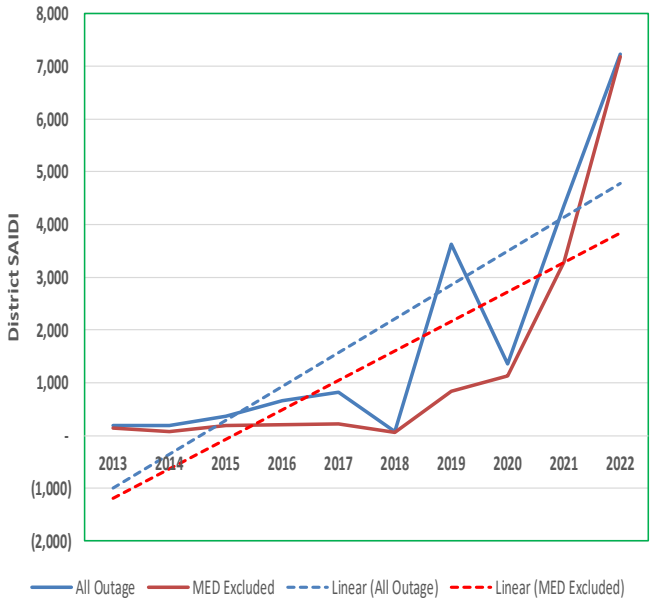
DISTRICT	All Outage				MED Excluded			
	dSAIDI	dSAIFI	dMAIFI	dCAIDI	dSAIDI	dSAIFI	dMAIFI	dCAIDI
REDLANDS								
2013	96.481	1.044	0.911	92.410	95.273	1.036	0.908	91.977
2014	154.249	1.040	1.312	148.326	85.542	0.872	1.149	98.044
2015	124.519	1.012	1.467	122.990	102.289	0.935	1.247	109.365
2016	137.110	0.978	1.475	140.164	118.776	0.883	1.336	134.494
2017	142.591	1.009	1.595	141.350	112.447	0.856	1.407	131.325
2018	88.933	0.973	1.367	91.372	71.012	0.833	1.212	85.242
2019	215.229	1.275	1.407	168.810	104.260	0.970	1.243	107.496
2020	741.540	2.190	1.407	338.528	360.492	1.660	1.245	217.154
2021	707.241	2.763	1.864	255.942	557.944	2.427	1.725	229.874
2022	751.241	2.290	1.497	328.022	712.720	2.140	1.318	333.037
RIDGECREST								
2013	161.952	1.122	3.828	144.376	83.920	0.824	3.315	101.793
2014	176.844	1.573	2.193	112.413	167.794	1.509	2.180	111.207
2015	148.895	1.012	2.169	147.145	139.509	0.837	1.514	166.702
2016	254.311	1.048	1.283	242.667	249.209	0.941	1.160	264.837
2017	164.281	1.089	3.519	150.868	153.577	1.066	3.447	144.028
2018	254.588	1.099	1.287	231.588	99.802	0.732	1.278	136.389
2019	299.989	2.092	4.915	143.406	296.459	1.807	4.181	164.030
2020	219.091	1.254	1.683	174.747	213.114	1.112	1.550	191.674
2021	295.638	1.579	3.375	187.214	258.597	1.345	3.144	192.276
2022	688.212	3.106	4.298	221.570	639.558	2.298	2.628	278.320
SADDLEBACK								
2013	70.688	0.532	0.513	132.957	70.688	0.532	0.513	132.957
2014	99.074	0.745	0.556	133.025	92.899	0.708	0.549	131.230
2015	46.026	0.385	0.379	119.543	45.654	0.384	0.379	118.976
2016	65.991	0.646	0.780	102.225	62.466	0.602	0.739	103.695
2017	65.349	0.576	0.695	113.479	48.740	0.482	0.545	101.179
2018	45.805	0.377	0.413	121.548	35.830	0.316	0.364	113.487
2019	134.866	0.669	0.388	201.606	42.994	0.512	0.334	83.924
2020	149.995	0.730	0.241	205.582	112.409	0.618	0.223	181.954
2021	131.438	0.748	0.782	175.739	116.515	0.670	0.782	173.872
2022	85.868	0.691	0.485	124.177	84.421	0.655	0.434	128.856
SANTA ANA								
2013	93.345	0.742	1.019	125.854	93.345	0.742	1.019	125.854
2014	91.684	0.843	1.274	108.713	79.447	0.755	1.179	105.227
2015	67.457	0.706	1.130	95.596	66.452	0.703	1.109	94.562
2016	97.266	0.995	1.184	97.732	88.311	0.938	1.112	94.132
2017	81.900	0.712	1.269	115.087	67.193	0.609	1.118	110.346
2018	122.093	0.819	1.304	149.091	56.912	0.550	1.093	103.419
2019	62.785	0.564	0.864	111.359	58.439	0.509	0.821	114.857
2020	130.992	0.894	1.188	146.600	105.221	0.758	0.909	138.894
2021	203.877	0.993	1.065	205.213	173.304	0.836	0.865	207.203
2022	186.608	1.040	0.867	179.451	178.184	0.996	0.794	178.853
SANTA BARBARA								
2013	82.001	0.699	1.219	117.302	82.001	0.699	1.219	117.302
2014	183.780	1.378	2.549	133.326	145.280	1.142	2.012	127.225
2015	152.372	1.517	1.577	100.417	143.291	1.338	1.459	107.103
2016	156.665	1.411	1.464	111.029	130.007	1.269	1.249	102.442
2017	408.433	9.213	13.591	44.334	152.424	1.619	1.206	94.173
2018	172.898	1.022	1.201	169.205	85.566	0.908	1.000	94.285
2019	201.251	1.502	1.750	134.004	179.194	1.389	1.562	129.024
2020	599.221	2.240	1.162	267.557	577.020	2.034	1.134	283.722
2021	652.818	2.359	0.981	276.756	627.856	2.158	0.803	290.993
2022	751.148	2.763	1.951	271.887	748.952	2.743	1.892	273.006
SANTA MONICA								
2013	122.783	1.003	0.959	122.447	122.783	1.003	0.959	122.447
2014	110.763	0.992	0.852	111.620	106.677	0.943	0.772	113.143
2015	75.407	0.625	1.069	120.681	64.417	0.577	1.065	111.607
2016	91.084	0.948	1.210	96.130	89.110	0.933	1.131	95.493
2017	71.892	0.712	1.168	101.023	66.138	0.678	1.108	97.491
2018	80.242	1.045	1.352	76.789	60.403	0.716	1.320	84.334
2019	104.743	0.896	1.424	116.873	100.349	0.861	1.373	116.489
2020	331.108	1.369	1.258	241.799	321.179	1.286	1.196	249.751
2021	157.781	0.834	1.121	189.239	155.348	0.811	1.039	191.565
2022	323.762	2.120	1.592	152.738	304.117	1.837	1.532	165.531

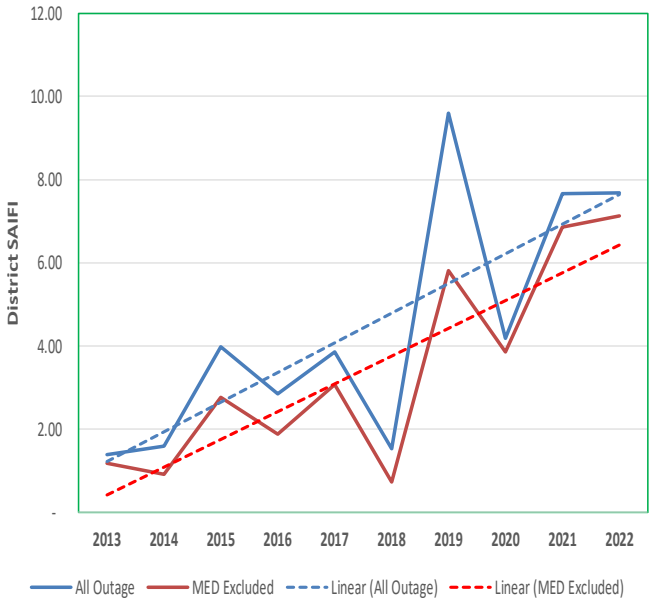
DISTRICT	All Outage				MED Excluded			
	dSAIDI	dSAIFI	dMAIFI	dCAIDI	dSAIDI	dSAIFI	dMAIFI	dCAIDI
SHAVER LAKE								
2013	176.510	3.080	4.987	57.308	176.510	3.080	4.711	57.308
2014	920.254	1.342	4.901	685.961	438.216	0.581	3.960	754.138
2015	422.768	3.415	9.298	123.785	422.768	3.415	9.298	123.785
2016	1062.011	4.993	4.157	212.703	773.999	2.795	2.165	276.874
2017	4273.522	7.947	5.220	537.732	676.224	6.039	5.197	111.971
2018	203.429	2.484	6.362	81.887	203.429	2.484	6.362	81.887
2019	1559.973	5.579	7.850	279.614	1504.825	5.206	5.339	289.066
2020	35394.090	10.732	3.837	3297.850	2392.490	9.483	3.837	252.290
2021	1487.279	3.346	3.018	444.483	1479.737	3.328	3.017	444.583
2022	1606.908	4.296	1.110	374.014	1599.027	4.038	0.859	395.971
SOUTH BAY								
2013	142.153	1.490	1.448	95.391	142.153	1.490	1.448	95.391
2014	125.276	1.391	1.650	90.048	110.375	1.281	1.502	86.139
2015	164.072	1.305	1.660	125.704	160.399	1.272	1.613	126.136
2016	183.899	1.884	2.020	97.600	150.901	1.752	1.818	86.124
2017	99.194	0.931	1.460	106.532	87.355	0.818	1.328	106.765
2018	90.626	1.090	1.771	83.134	82.272	1.007	1.524	81.666
2019	79.308	1.010	1.398	78.544	71.491	0.950	1.313	75.271
2020	232.928	1.353	1.570	172.178	206.828	1.255	1.529	164.782
2021	308.662	1.501	1.834	205.607	300.678	1.431	1.722	210.163
2022	293.588	1.744	1.985	168.350	285.712	1.655	1.866	172.598
TEHACHAPI								
2013	232.672	1.121	1.661	207.634	232.333	1.102	1.638	210.815
2014	130.704	1.290	2.090	101.348	83.519	1.097	1.783	76.126
2015	298.959	1.215	3.960	246.114	236.807	1.037	2.513	228.329
2016	97.292	1.132	2.363	85.982	76.426	1.036	1.940	73.781
2017	86.514	1.048	3.126	82.573	77.927	0.890	2.946	87.574
2018	55.989	0.673	2.276	83.199	54.960	0.655	2.146	83.856
2019	2983.876	4.608	2.171	647.599	467.572	2.716	1.776	172.135
2020	1611.175	3.055	3.141	527.367	540.054	2.079	3.001	259.800
2021	994.733	2.265	0.965	439.226	690.901	2.073	0.931	333.247
2022	825.299	3.347	2.860	246.546	652.052	2.274	1.569	286.724
THOUSAND OAKS								
2013	93.860	0.914	1.164	102.735	93.846	0.913	1.154	102.755
2014	104.366	1.103	1.426	94.628	95.526	1.014	1.287	94.249
2015	106.589	0.919	1.893	115.938	103.685	0.889	1.845	116.643
2016	143.775	1.307	2.585	110.021	128.242	1.227	2.378	104.484
2017	151.735	1.427	3.270	106.304	106.392	1.063	2.903	100.056
2018	1167.537	1.480	1.634	788.966	109.945	0.967	1.354	113.663
2019	517.053	1.723	1.213	300.090	112.978	1.182	1.163	95.561
2020	793.985	2.386	1.051	332.796	309.046	1.753	0.971	176.342
2021	1226.024	3.058	1.451	400.883	451.705	2.299	1.324	196.445
2022	378.081	2.109	1.118	179.299	372.122	2.025	1.020	183.732
TULARE								
2013	244.439	1.448	1.698	168.757	71.744	0.800	1.548	89.668
2014	138.247	1.172	1.540	117.915	94.167	1.005	1.323	93.711
2015	127.502	1.052	1.414	121.240	99.829	0.908	1.106	109.936
2016	108.444	1.091	1.105	99.370	101.822	1.040	1.082	97.895
2017	191.659	1.343	1.198	142.710	105.718	1.282	1.188	82.463
2018	56.234	0.685	1.077	82.150	51.292	0.652	1.017	78.639
2019	72.671	0.745	1.075	97.509	69.696	0.716	1.035	97.356
2020	250.117	1.018	0.880	245.621	136.911	0.940	0.860	145.608
2021	745.682	1.115	1.123	668.970	734.047	1.084	1.094	677.296
2022	222.199	1.022	1.130	217.325	212.148	0.981	1.070	216.160
VALENCIA								
2013	51.038	0.533	0.684	95.748	51.038	0.533	0.684	95.748
2014	79.226	0.605	0.998	130.885	63.739	0.533	0.935	119.509
2015	72.274	0.611	0.971	118.224	71.053	0.604	0.845	117.624
2016	105.087	0.968	1.549	108.594	97.405	0.846	1.522	115.187
2017	136.618	1.079	1.549	126.671	81.267	0.702	1.283	115.765
2018	92.407	1.063	1.451	86.969	79.329	0.945	1.391	83.982
2019	457.467	1.224	0.965	373.657	101.430	0.914	0.918	111.000
2020	468.143	1.586	1.131	295.179	173.515	1.221	1.109	142.084
2021	615.536	1.732	1.452	355.344	298.454	1.333	1.407	223.850
2022	257.428	1.518	0.911	169.633	256.711	1.514	0.911	169.600

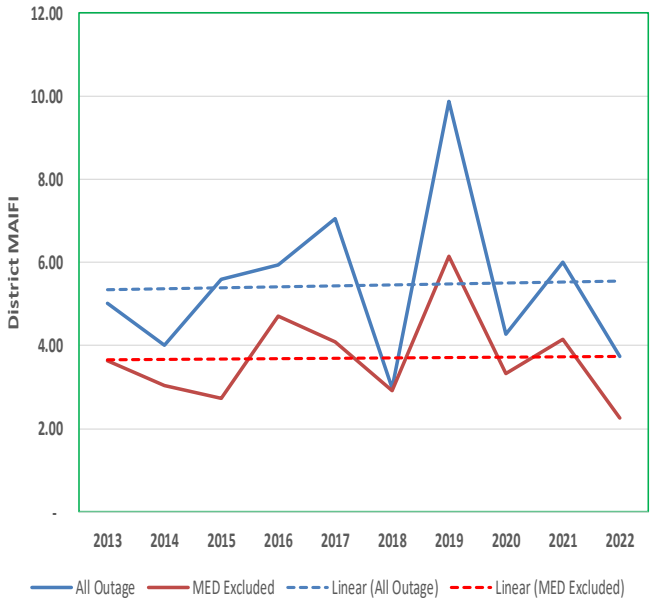
DISTRICT	All Outage				MED Excluded			
	dSAIDI	dSAIFI	dMAIFI	dCAIDI	dSAIDI	dSAIFI	dMAIFI	dCAIDI
VENTURA								
2013	100.521	1.210	1.417	83.104	100.504	1.210	1.417	83.093
2014	183.792	1.648	2.215	111.537	151.658	1.386	2.075	109.392
2015	148.848	1.190	1.447	125.112	141.430	1.149	1.375	123.110
2016	150.408	1.236	1.679	121.649	107.140	1.019	1.553	105.110
2017	520.897	3.122	2.293	166.846	114.758	1.240	1.542	92.559
2018	136.042	1.438	1.921	94.613	100.385	1.177	1.676	85.301
2019	334.957	1.647	2.610	203.369	133.541	1.364	2.407	97.920
2020	351.864	1.420	1.198	247.732	247.450	1.228	1.088	201.578
2021	653.983	2.761	2.093	236.833	408.419	2.329	1.688	175.346
2022	374.834	2.268	1.408	165.265	369.367	2.210	1.394	167.154
VICTORVILLE								
2013	61.333	0.632	1.312	97.109	61.010	0.620	1.179	98.380
2014	68.846	0.633	0.899	108.729	67.696	0.620	0.881	109.166
2015	87.026	0.906	1.839	96.063	72.897	0.812	1.551	89.751
2016	79.352	0.917	1.396	86.493	75.943	0.888	1.327	85.547
2017	84.068	0.895	2.353	93.936	73.124	0.808	1.757	90.485
2018	125.922	0.862	1.345	146.015	97.868	0.802	1.270	122.074
2019	82.422	1.102	2.008	74.767	74.675	0.986	1.667	75.770
2020	128.155	1.180	1.611	108.614	124.149	1.130	1.520	109.867
2021	204.719	1.247	2.514	164.162	199.522	1.196	2.467	166.842
2022	307.928	1.726	2.012	178.445	292.120	1.575	1.881	185.523
WHITTIER								
2013	135.043	0.859	1.055	157.172	135.043	0.859	1.055	157.172
2014	87.600	0.704	1.155	124.399	84.188	0.689	1.090	122.157
2015	114.520	0.733	1.084	156.317	104.851	0.704	0.989	148.883
2016	137.336	0.814	1.416	168.756	90.212	0.616	1.290	146.361
2017	148.909	0.896	1.872	166.103	91.911	0.750	1.655	122.501
2018	87.742	0.666	1.413	131.834	73.659	0.575	1.297	128.006
2019	84.861	0.730	1.379	116.212	73.994	0.624	1.160	118.511
2020	202.439	1.075	1.279	188.243	172.449	0.959	1.151	179.805
2021	305.516	1.297	1.588	235.526	290.883	1.207	1.396	241.069
2022	340.227	1.331	1.446	255.679	330.272	1.282	1.291	257.602
WILDOMAR								
2013	40.512	0.555	0.656	72.932	40.122	0.554	0.656	72.407
2014	118.493	0.806	0.743	147.031	112.300	0.772	0.683	145.548
2015	52.699	0.597	1.255	88.256	48.313	0.566	1.054	85.401
2016	84.010	0.866	0.951	97.031	79.151	0.839	0.861	94.378
2017	90.151	0.800	1.015	112.679	56.373	0.580	0.933	97.161
2018	60.772	0.747	0.846	81.358	51.890	0.622	0.760	83.373
2019	94.466	0.768	0.738	123.007	53.127	0.610	0.726	87.158
2020	187.289	1.078	0.961	173.679	145.128	0.955	0.960	152.042
2021	225.719	1.116	0.663	202.303	215.958	1.036	0.585	208.488
2022	317.778	1.383	0.472	229.769	312.324	1.347	0.438	231.815
YUCCA VALLEY								
2013	216.972	1.500	4.983	144.620	216.966	1.500	4.983	144.626
2014	304.249	1.490	4.856	204.152	293.730	1.407	4.851	208.756
2015	389.085	1.804	3.922	215.688	260.176	1.189	2.708	218.766
2016	463.683	3.393	3.875	136.661	440.057	3.257	3.106	135.131
2017	300.331	1.957	1.602	153.472	270.109	1.728	1.509	156.277
2018	353.832	1.937	2.747	182.664	206.580	1.488	1.832	138.842
2019	451.746	2.341	1.930	192.934	401.604	2.067	1.728	194.288
2020	490.272	2.896	2.409	169.300	463.889	2.719	2.359	170.632
2021	891.022	3.272	2.225	272.318	858.710	2.988	2.163	287.350
2022	686.702	2.895	3.617	237.210	665.945	2.679	1.703	248.604

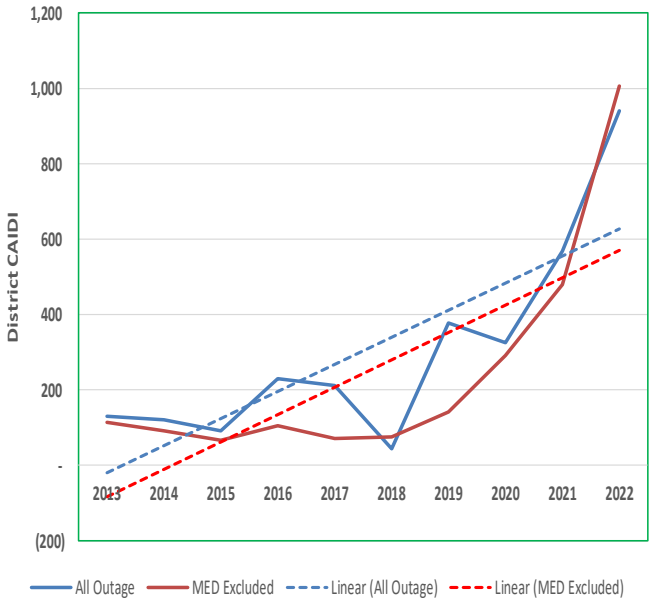
a. The linear charts below show the past 10 years of District Reliability Performance from 2013 – 2022 of dSAIDI, dSAIFI, dMAIFI and dCAIDI for all 34 districts. There are separate charts including and excluding MEDs. The charts shown are listed in alphabetical order by the district name.

ARROWHEAD District Reliability Performance

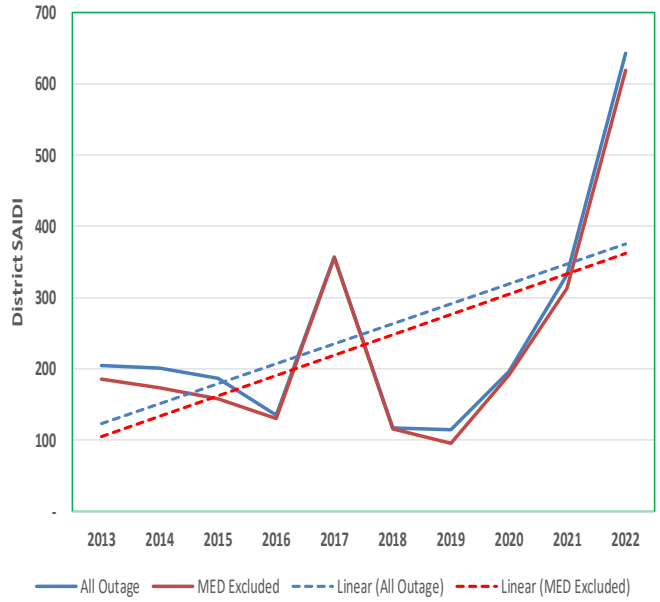


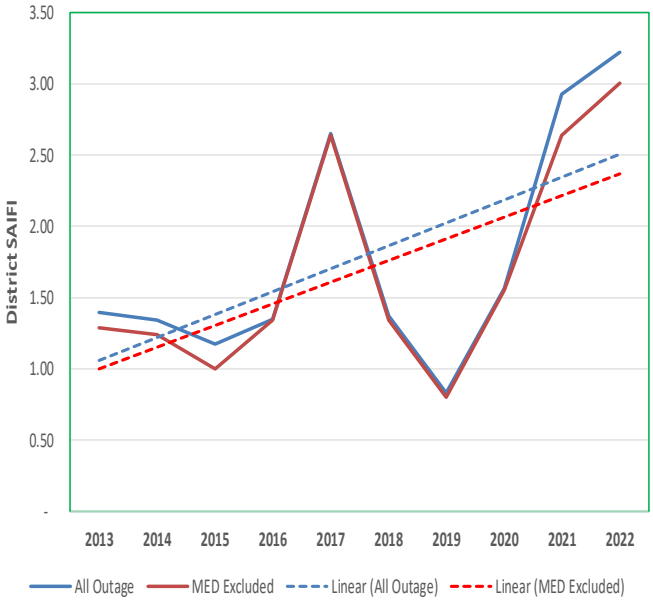






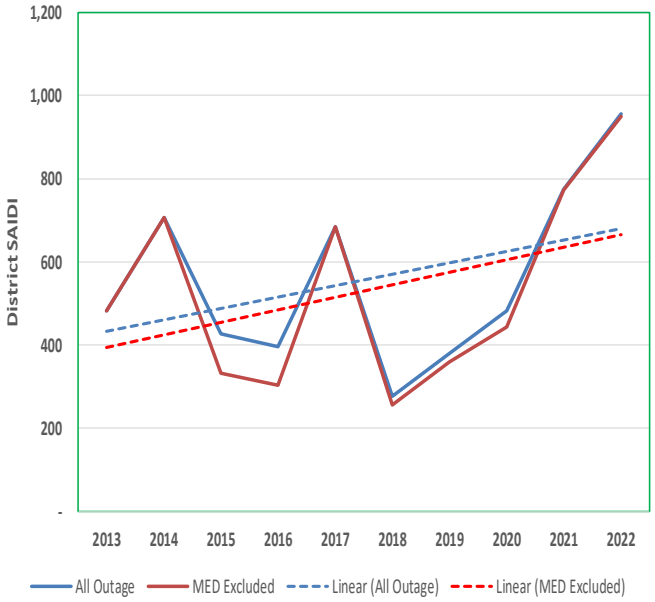
BARSTOW District Reliability Performance

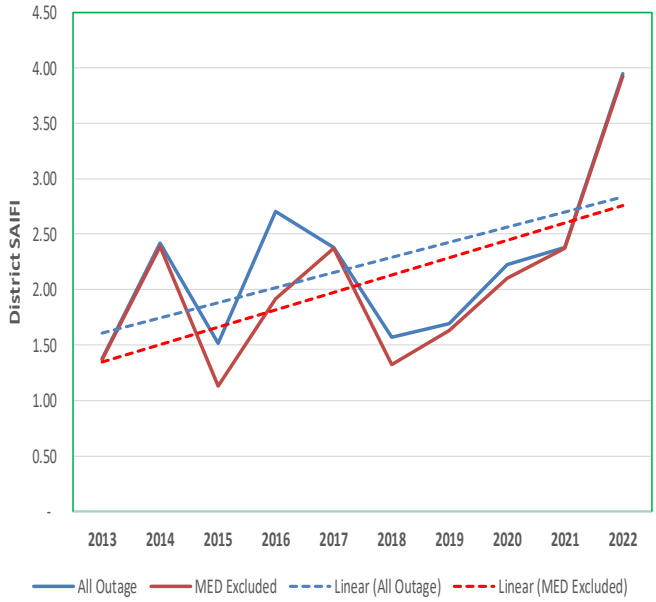


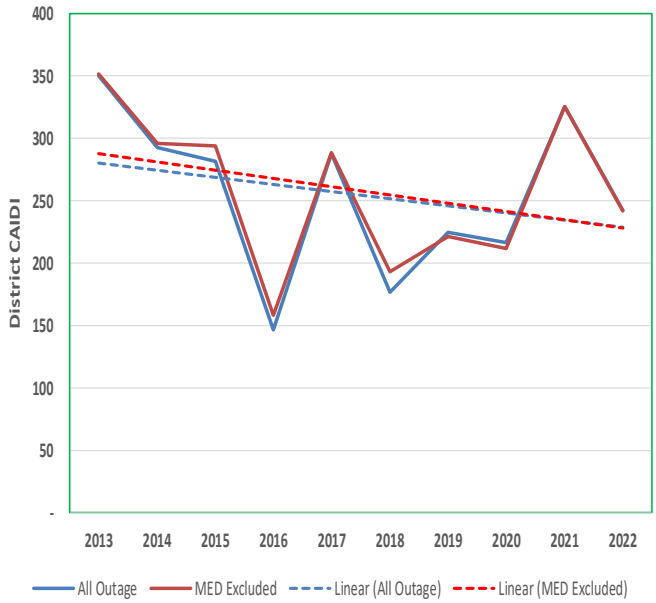



BISHOP District Reliability Performance
District SAIDI
1,600
1,400
1,200
1,000
800
600
400
200
-
2013 2014 2015 2016 2017 2018 2019 2020 2021 2022
All Outage
MED Excluded
Linear (All Outage)
Linear (MED Excluded)
District SAIFI
3.50
3.00
2.50
2.00
1.50
1.00
0.50
-
2013 2014 2015 2016 2017 2018 2019 2020 2021 2022
All Outage
MED Excluded
Linear (All Outage)
Linear (MED Excluded)
District MAIFI
6.00
5.00
4.00
3.00
2.00
1.00
-
2013 2014 2015 2016 2017 2018 2019 2020 2021 2022
All Outage
MED Excluded
Linear (All Outage)
Linear (MED Excluded)
District CAIDI
600
500
400
300
200
100
-
2013 2014 2015 2016 2017 2018 2019 2020 2021 2022
All Outage
MED Excluded
Linear (All Outage)
Linear (MED Excluded)

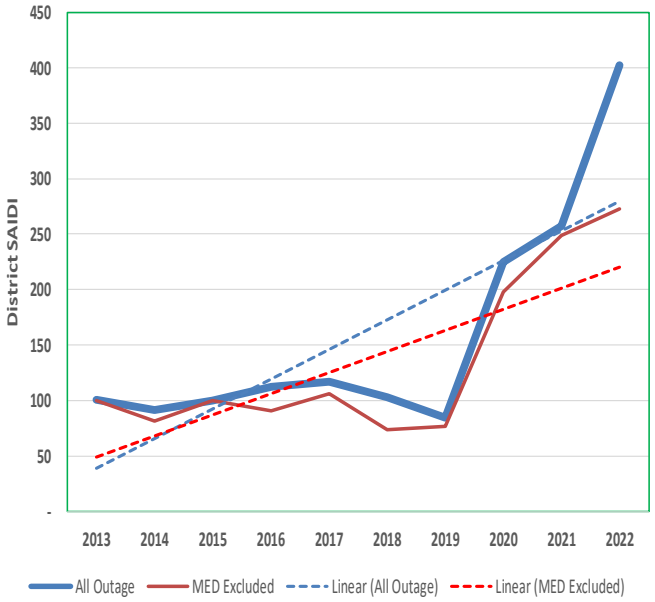
BLYTHE District Reliability Performance

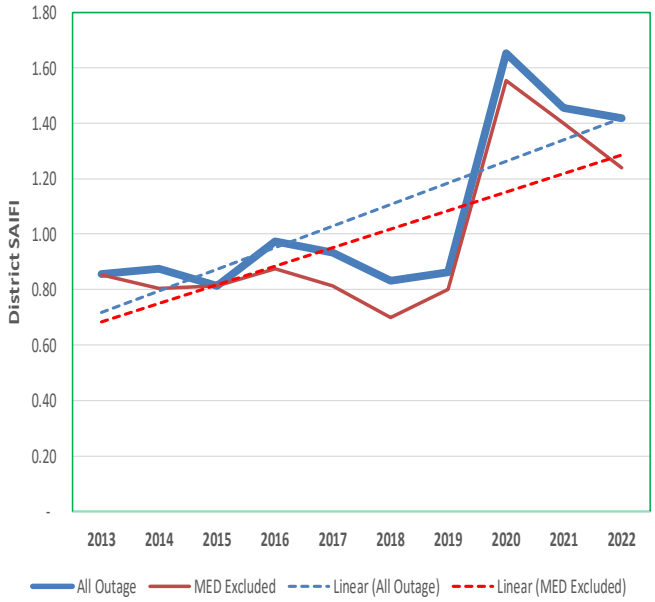


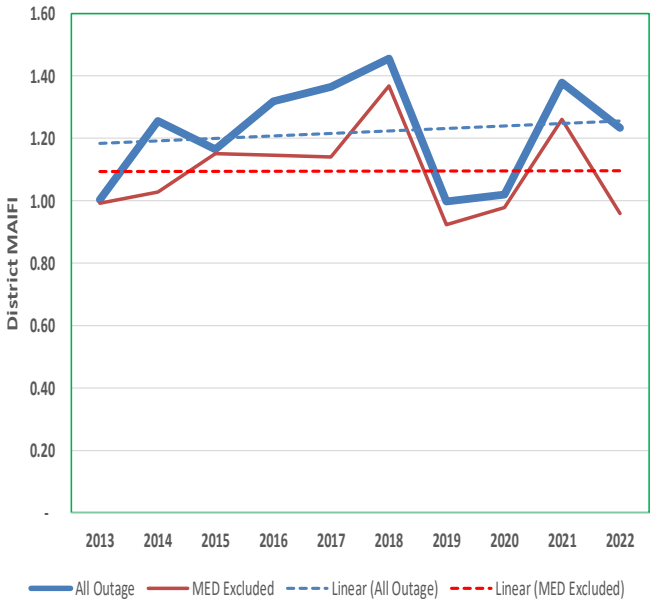


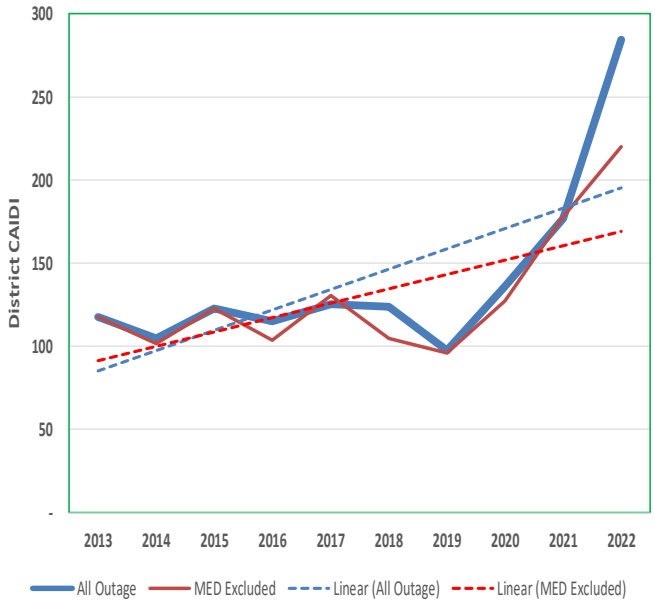


COVINA District Reliability Performance

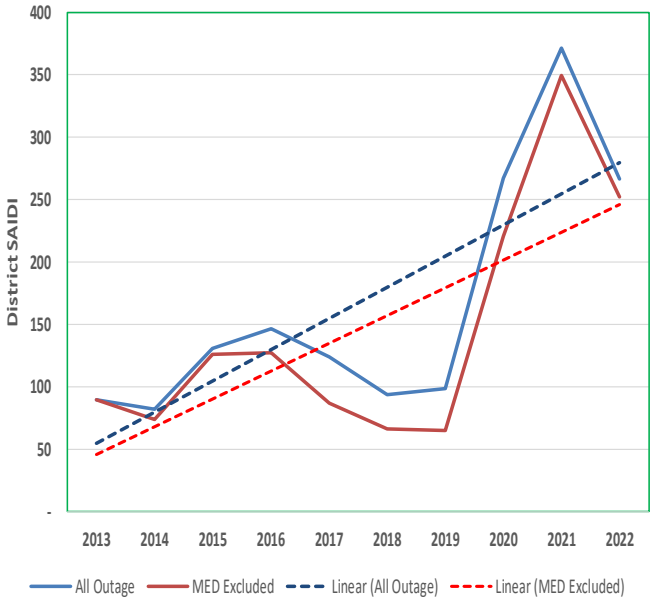


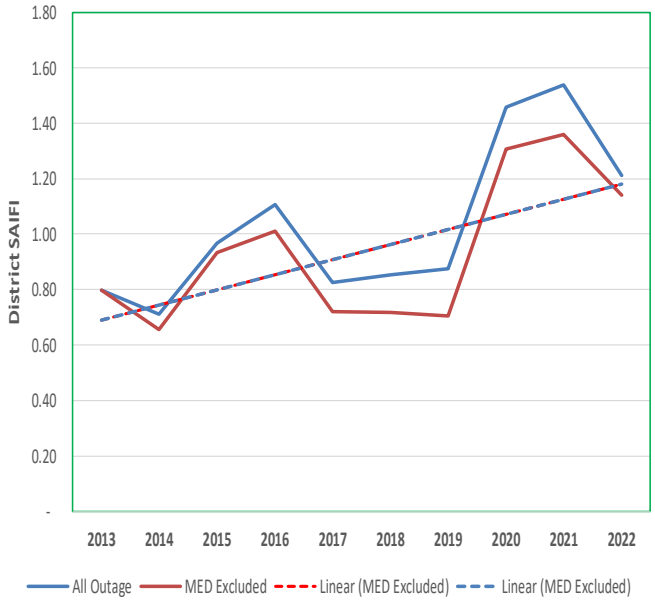


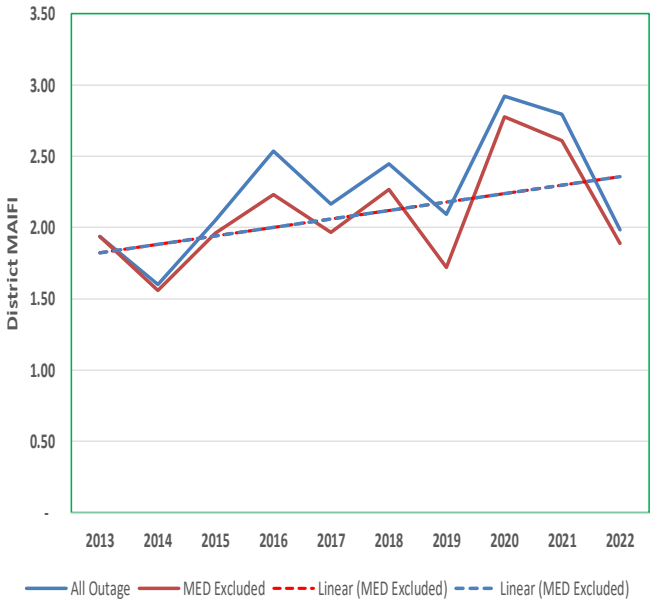


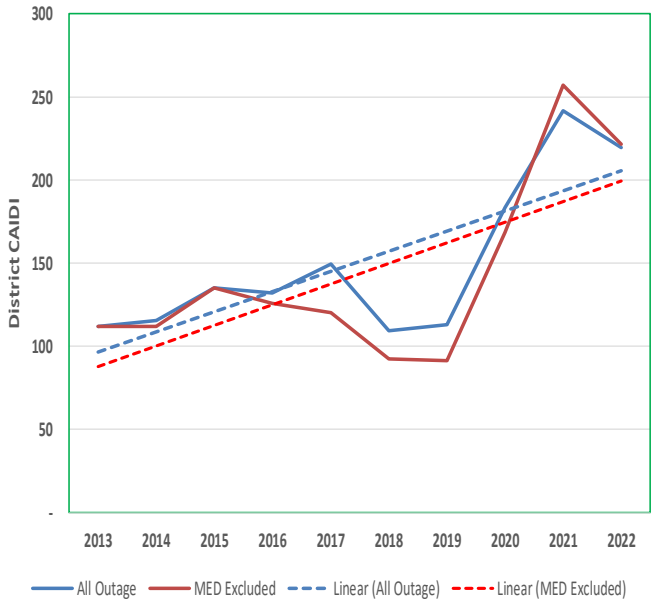


DOMINGUEZ HILLS District Reliability Performance

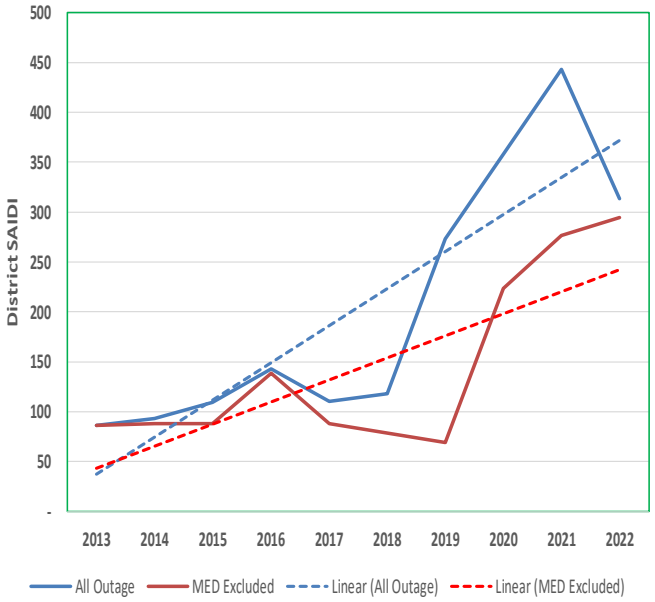


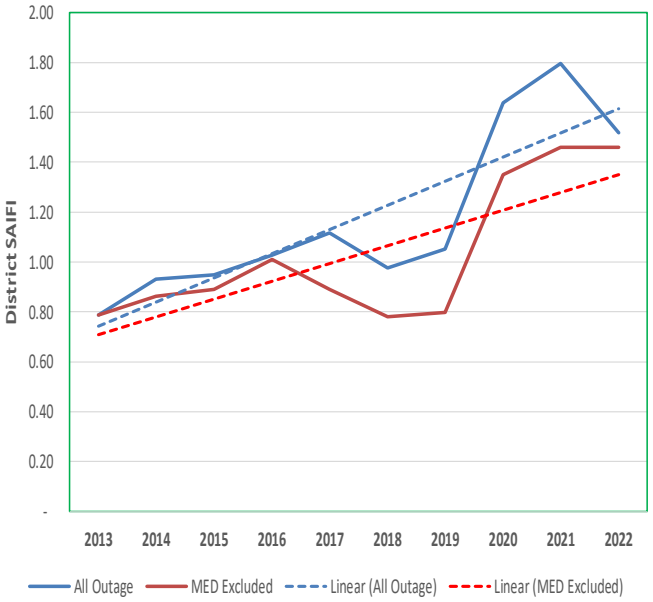


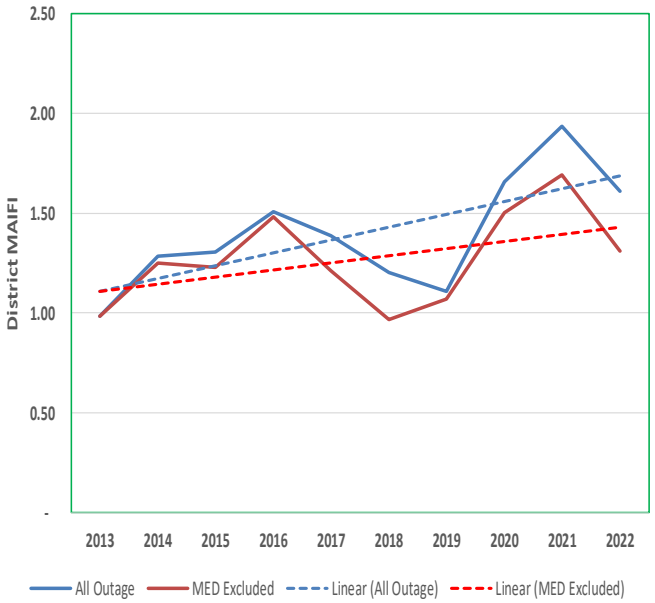


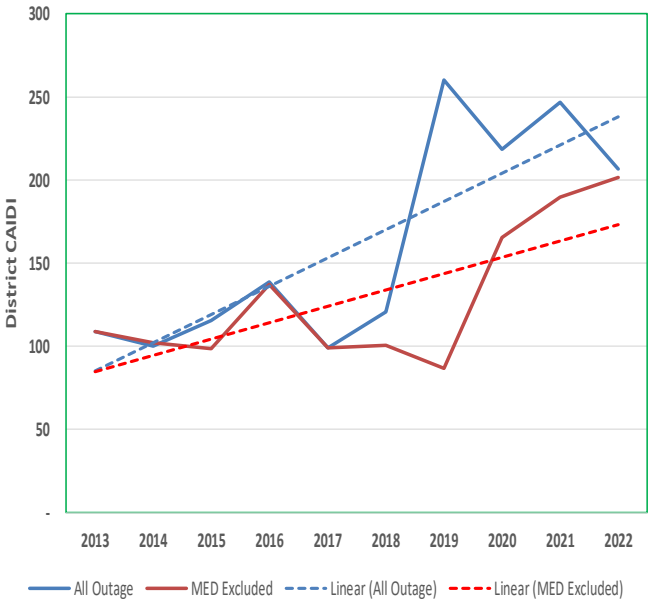


FOOTHILL District Reliability Performance

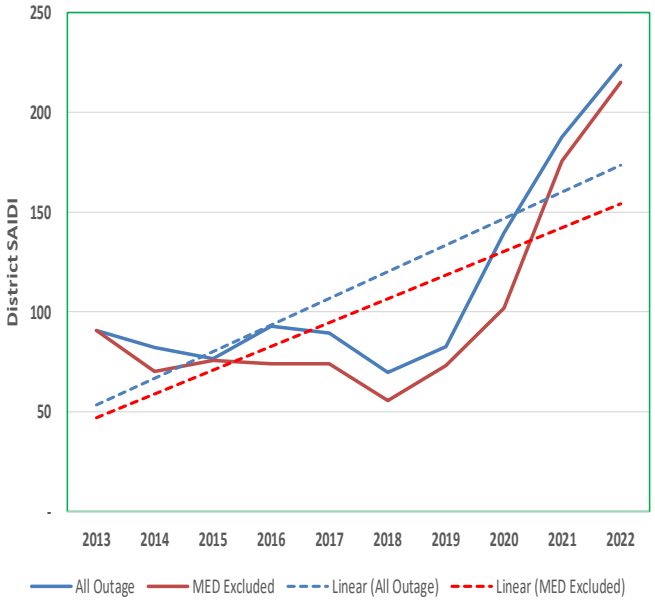


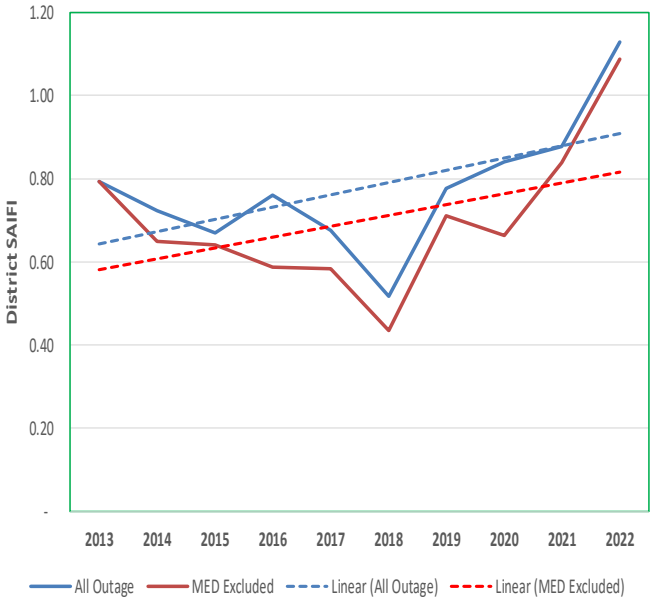


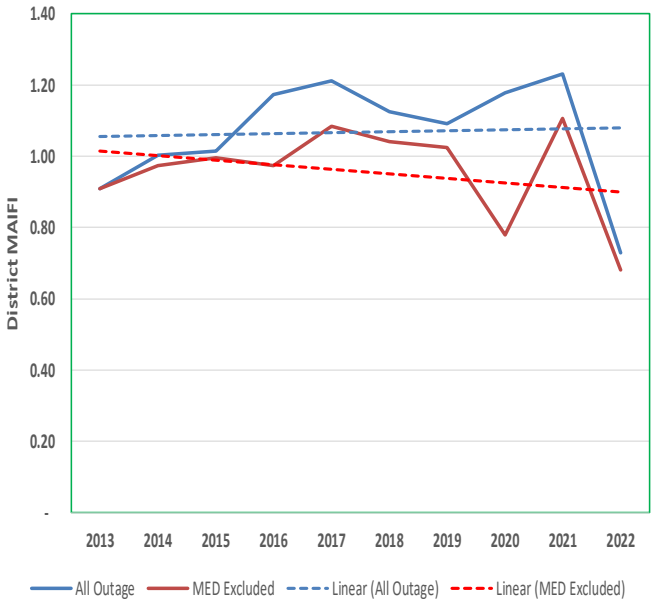




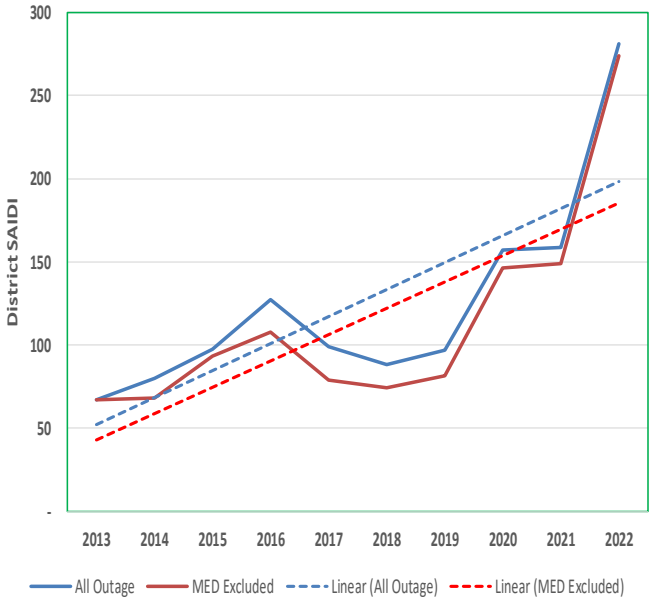
FULLERTON District Reliability Performance

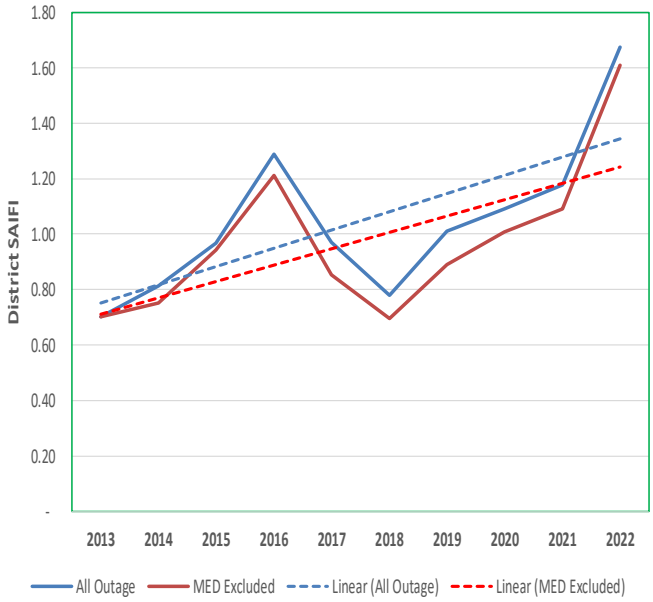


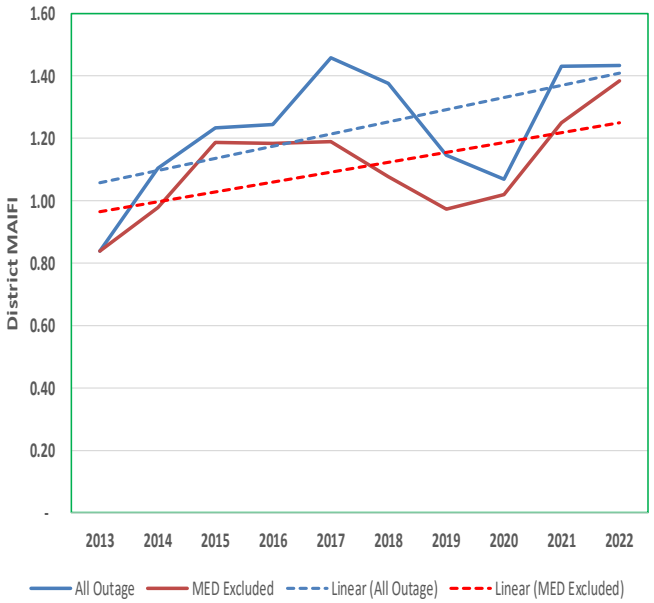


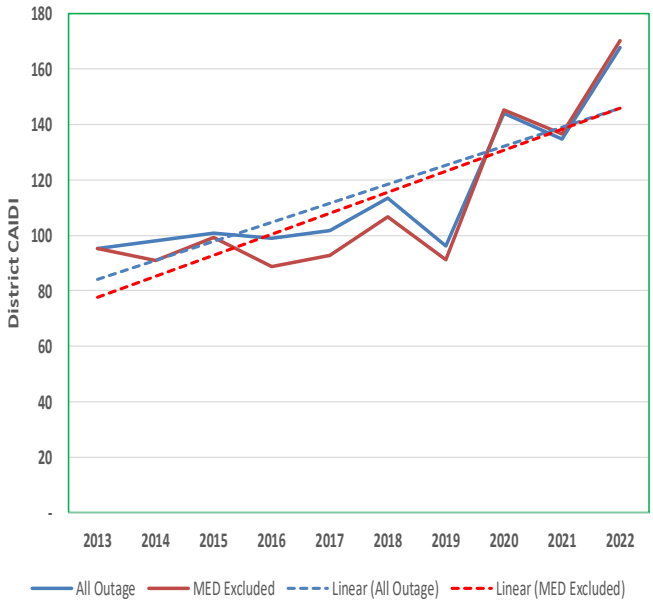


HUNTINGTON BEACH District Reliability Performance

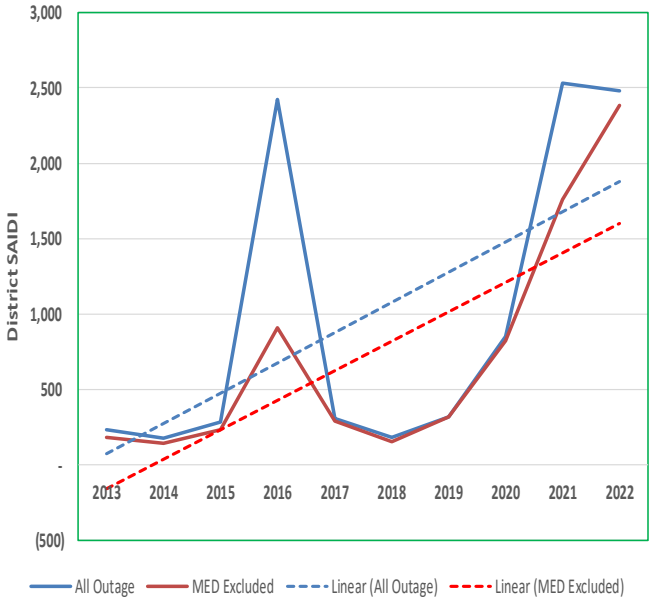


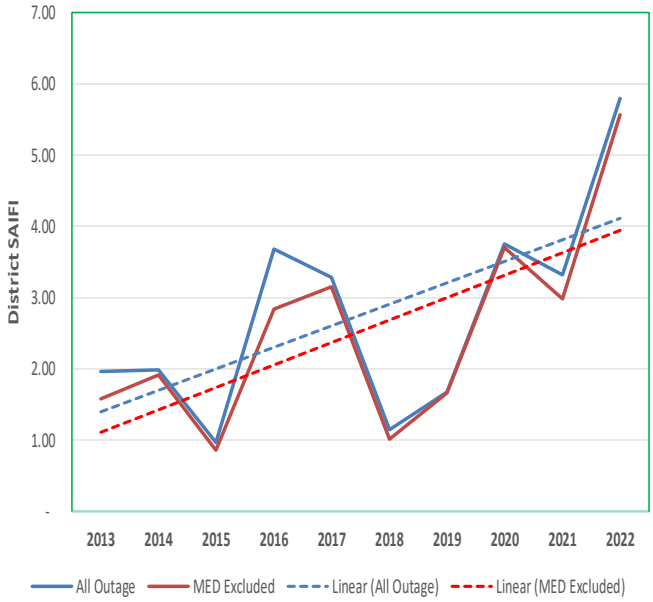




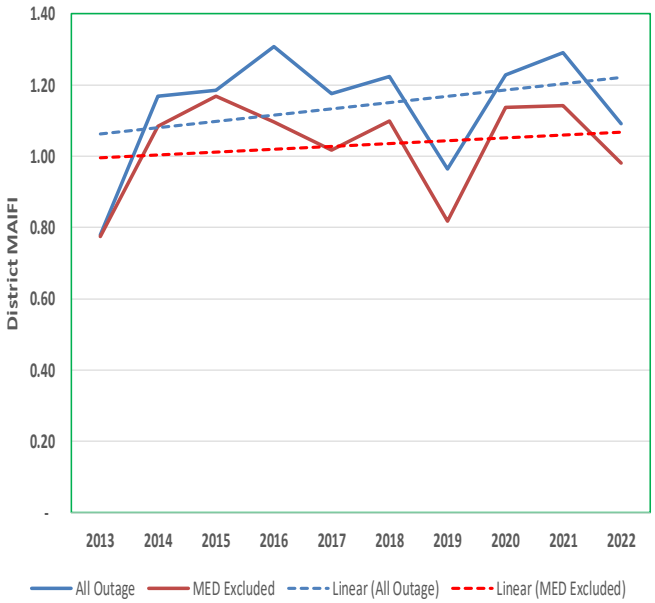


KERNVILLE District Reliability Performance

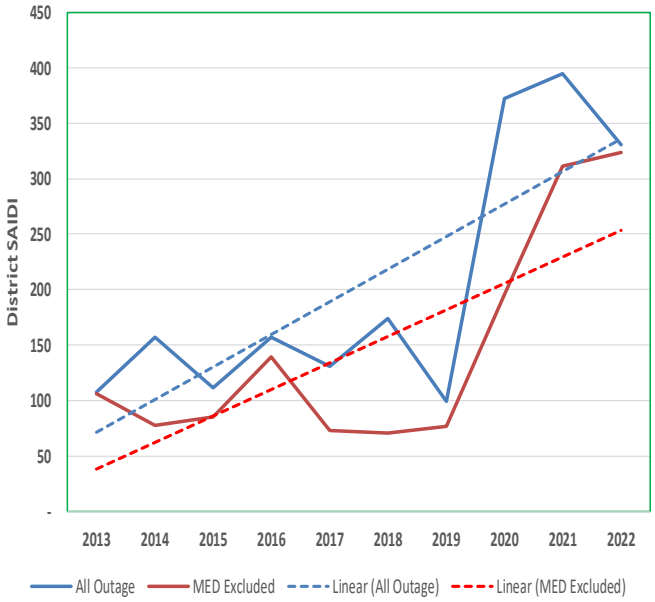


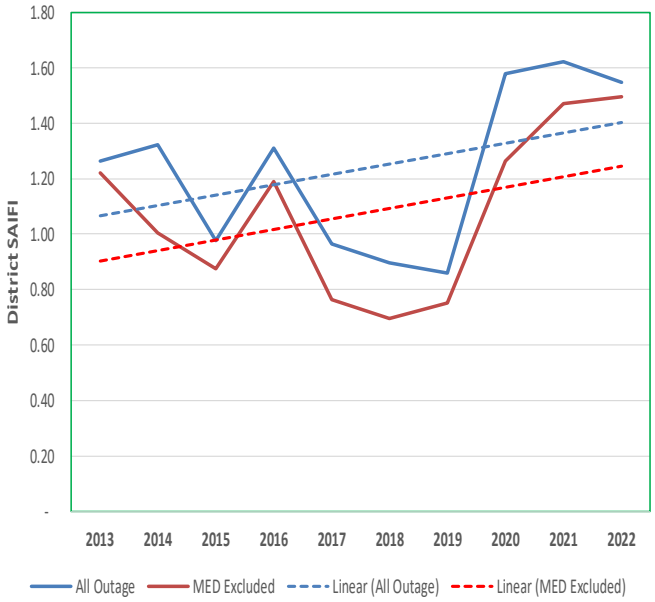


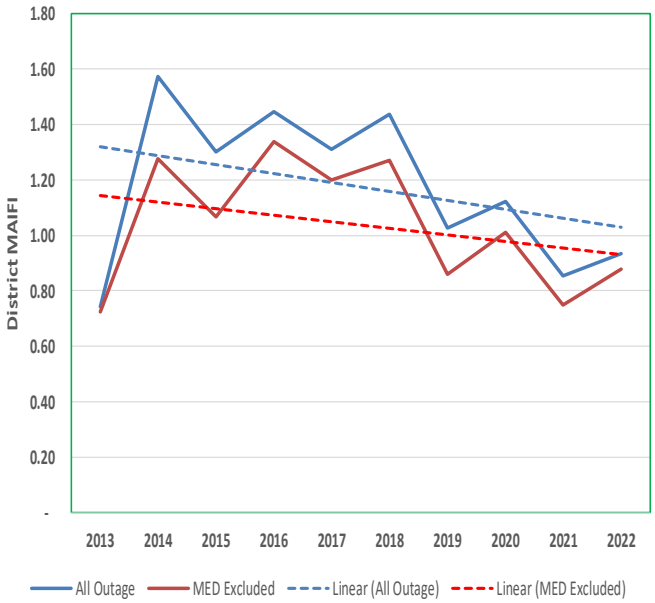
LONG BEACH District Reliability Performance

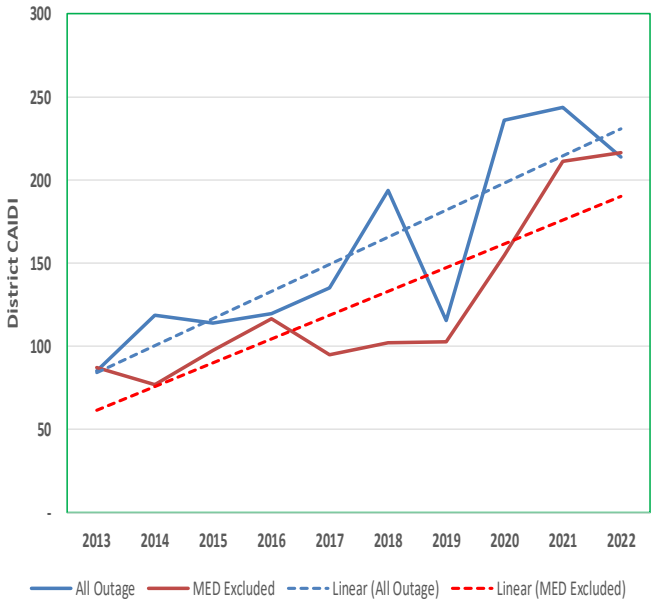


MENIFEE District Reliability Performance

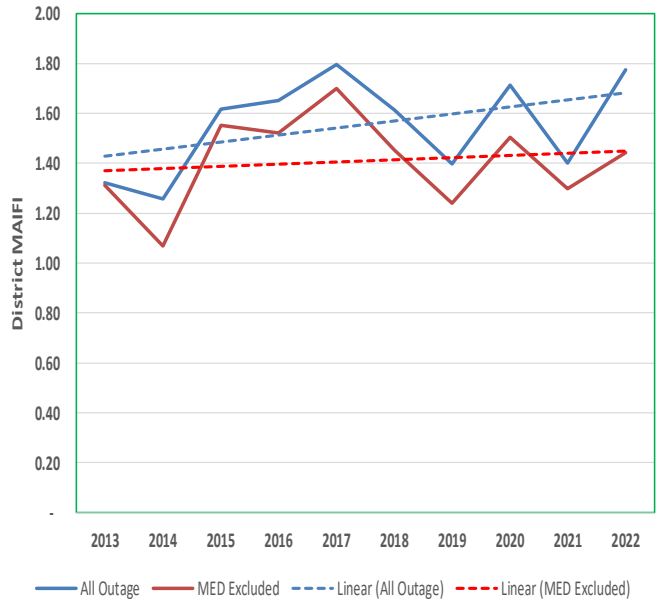


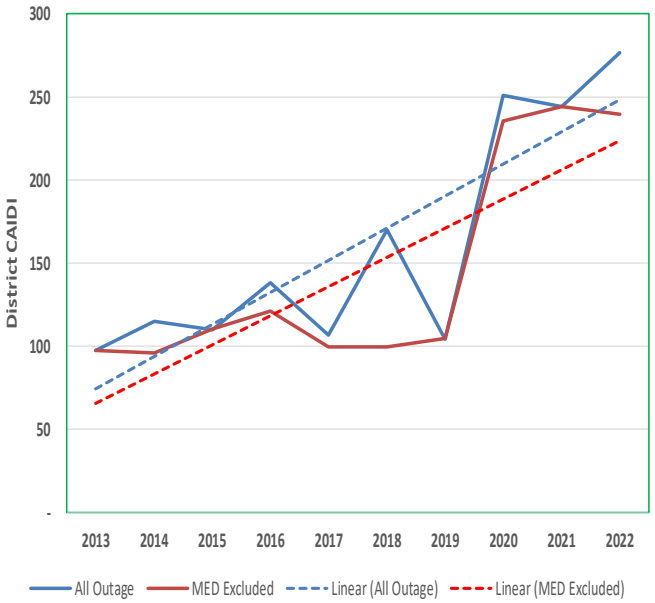




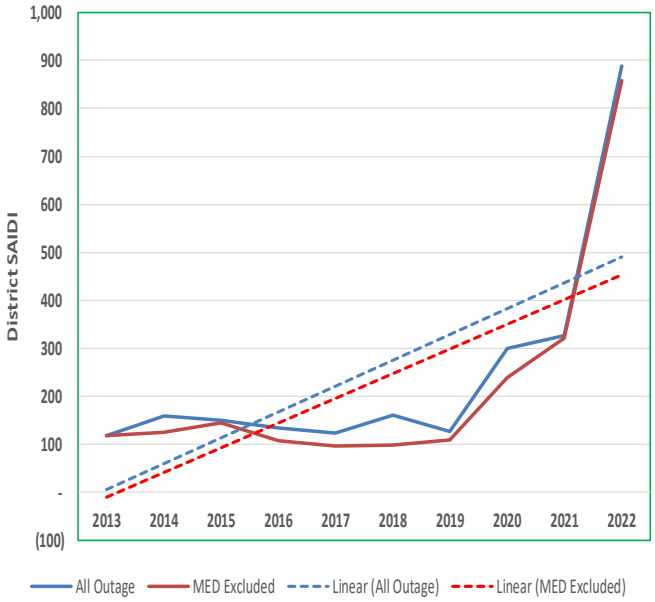


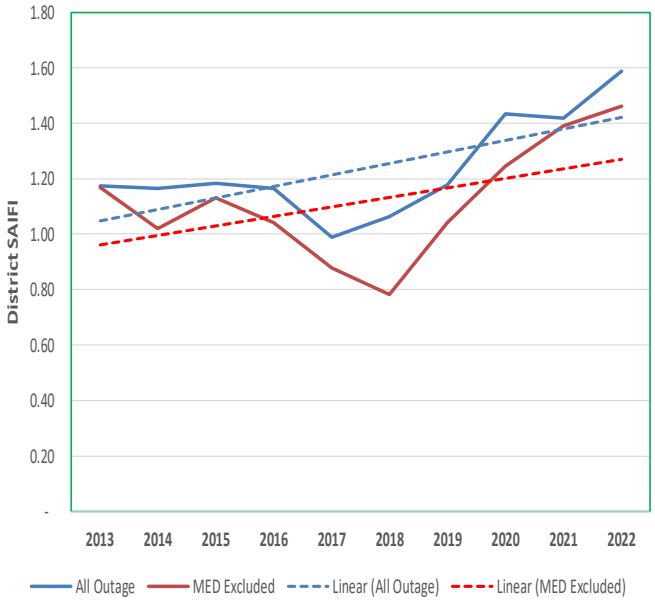
MONROVIA District Reliability Performance

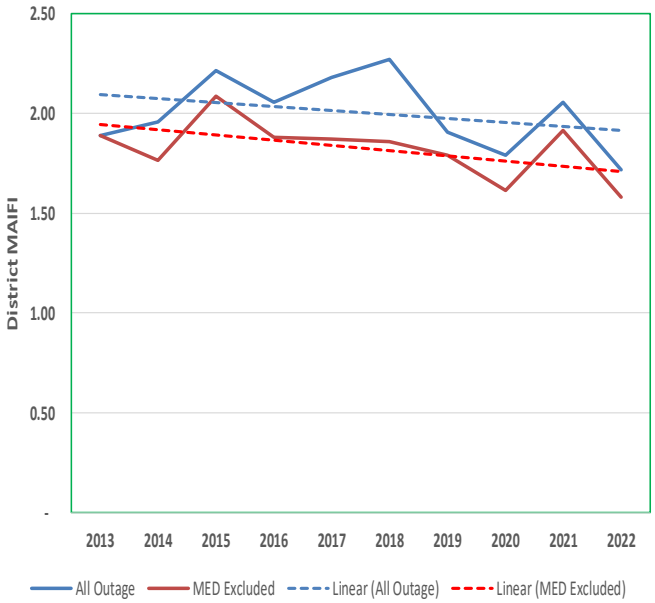


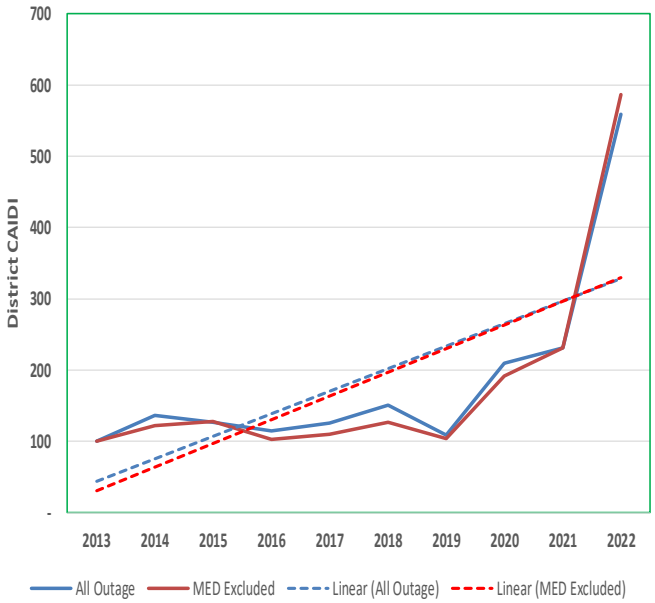


MONTEBELLO District Reliability Performance

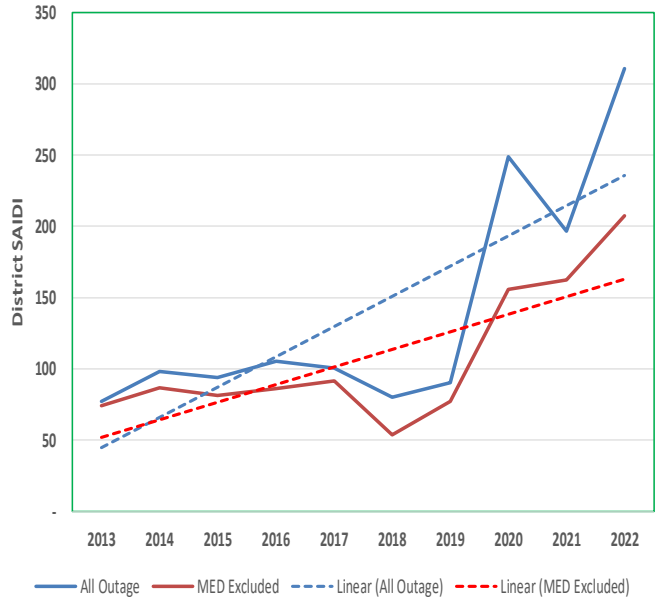


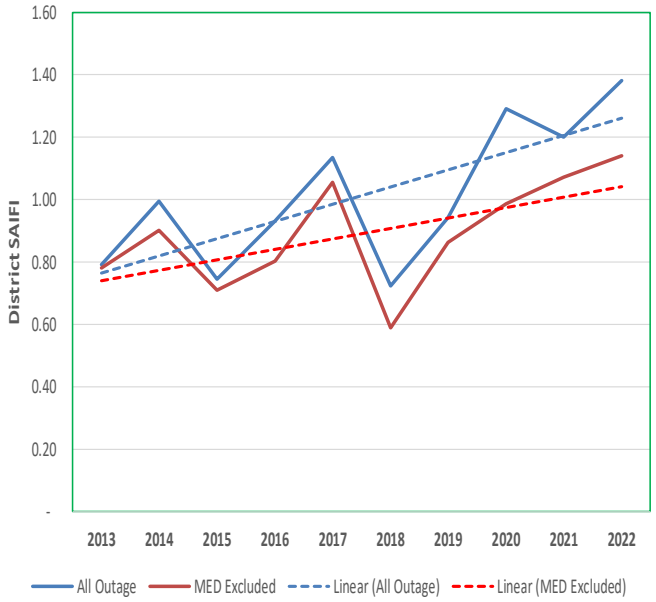


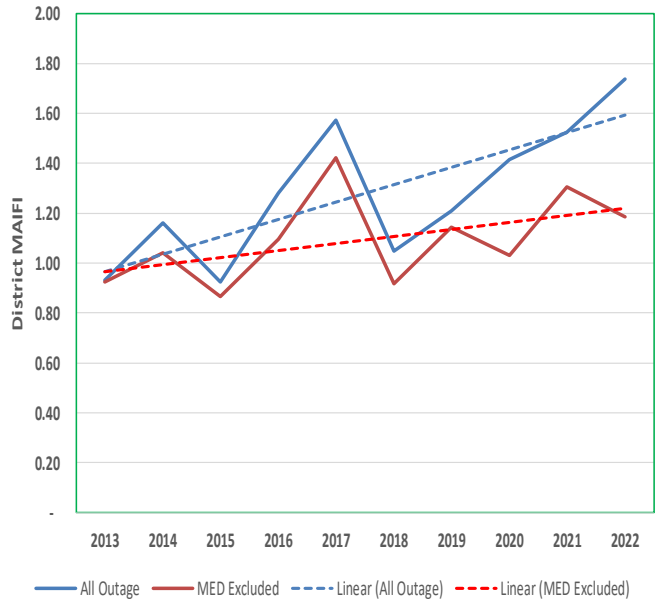


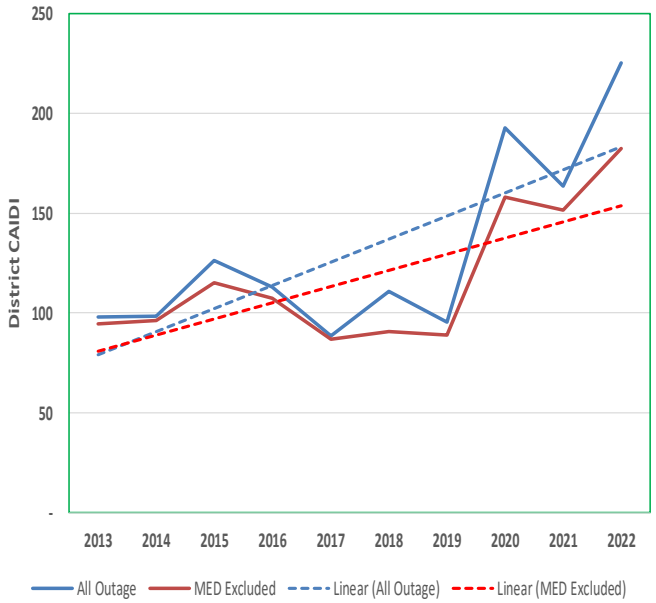


ONTARIO District Reliability Performance

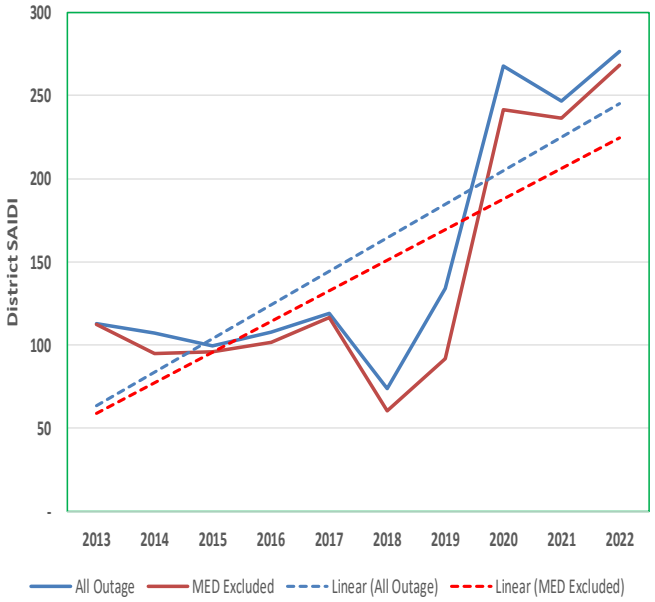


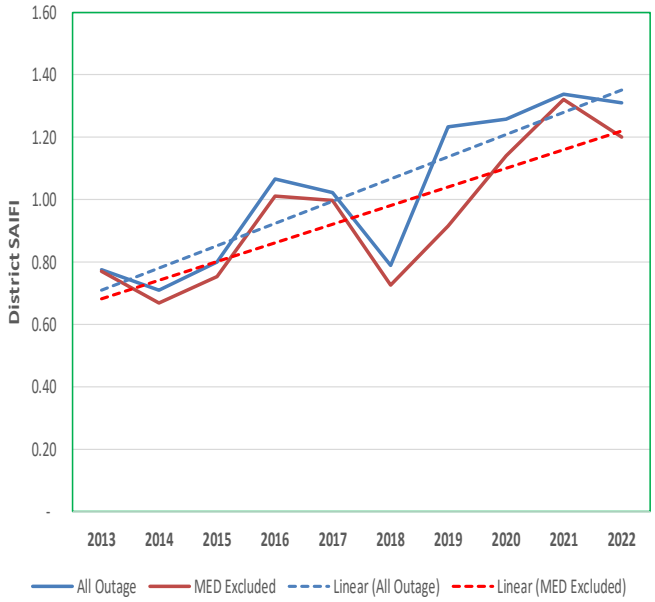


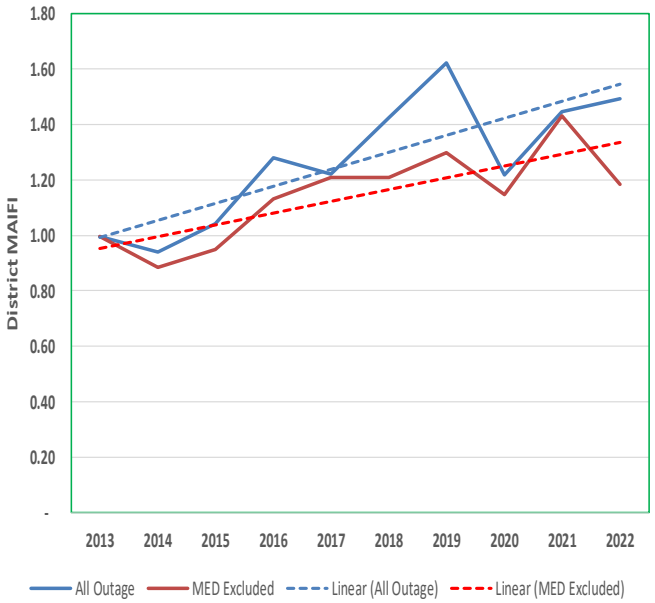




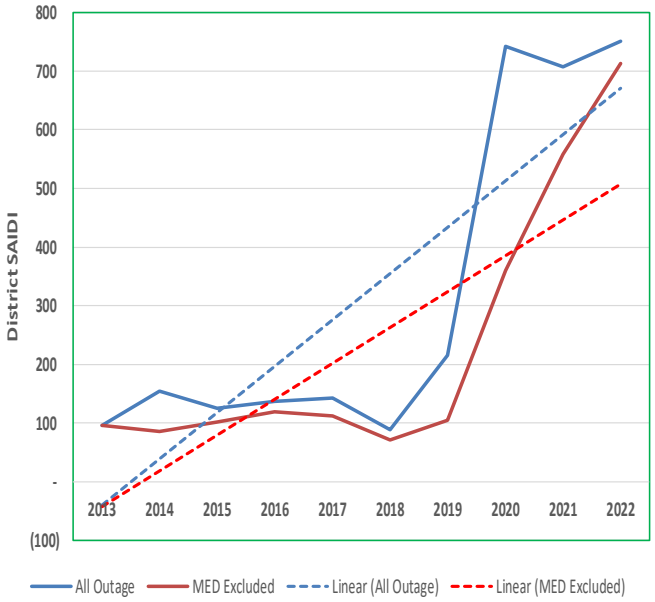
PALM SPRINGS District Reliability Performance

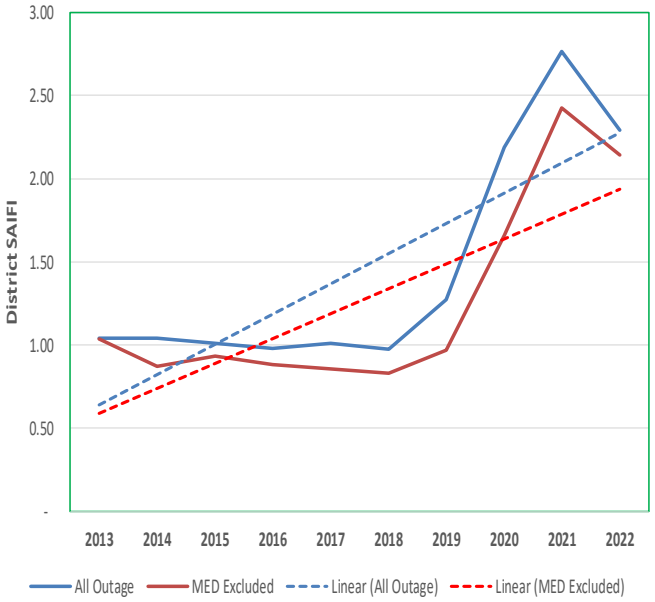


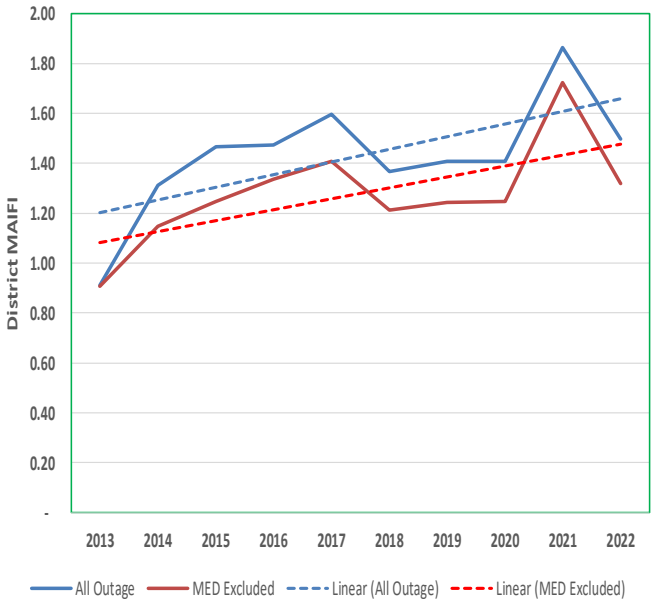


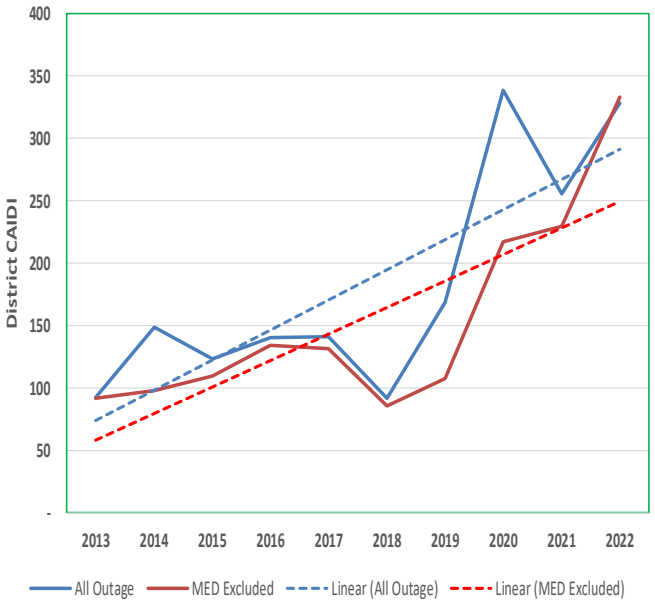


REDLANDS District Reliability Performance

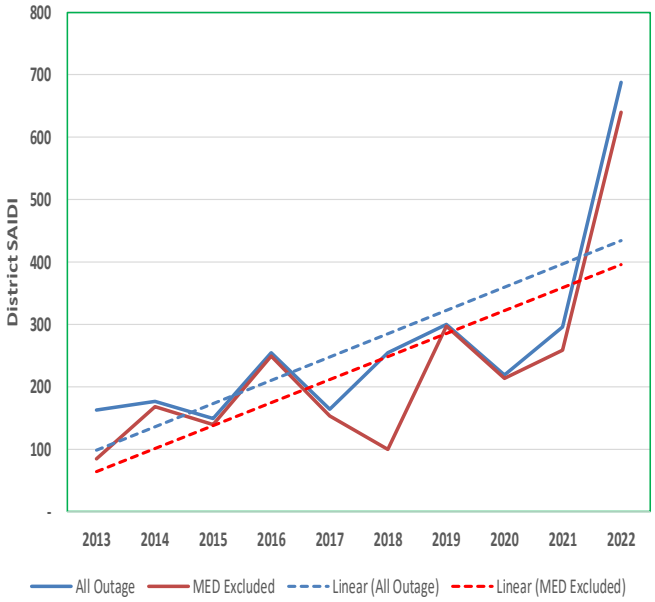


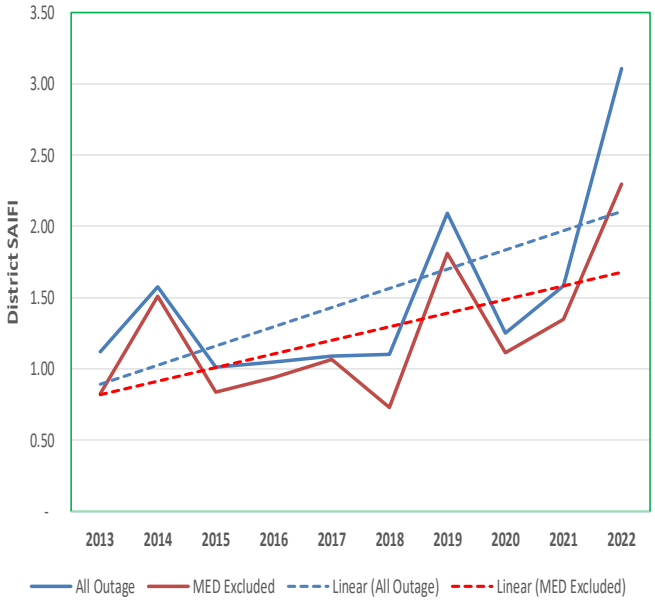


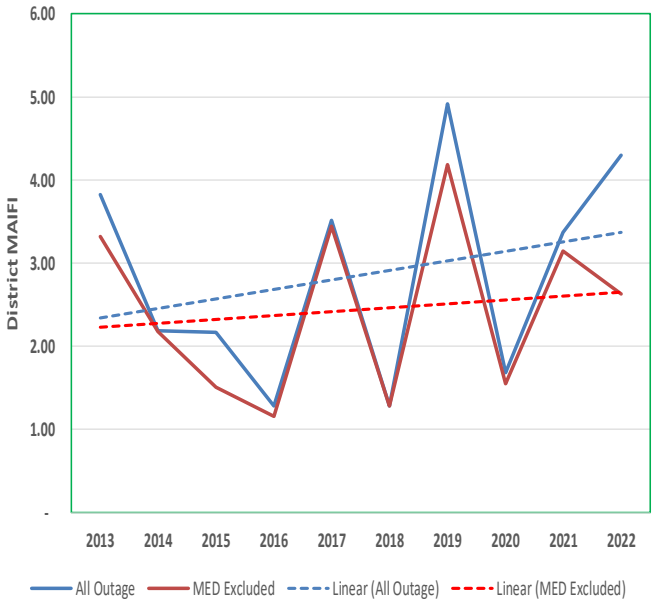


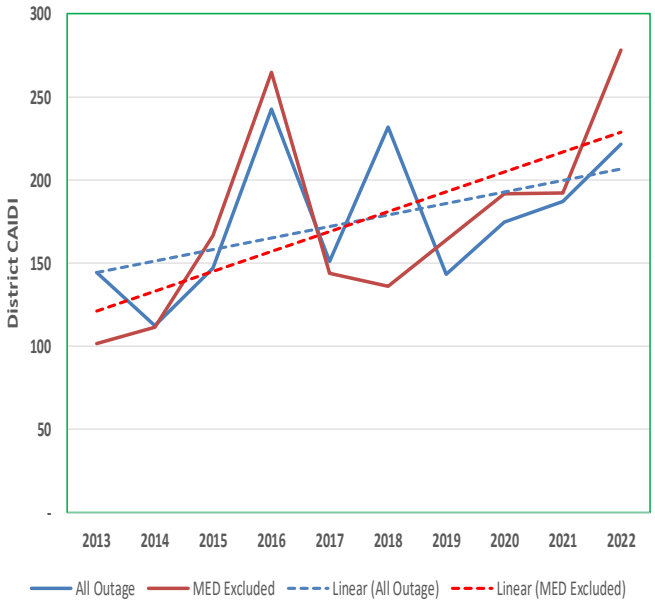


RIDGECREST District Reliability Performance

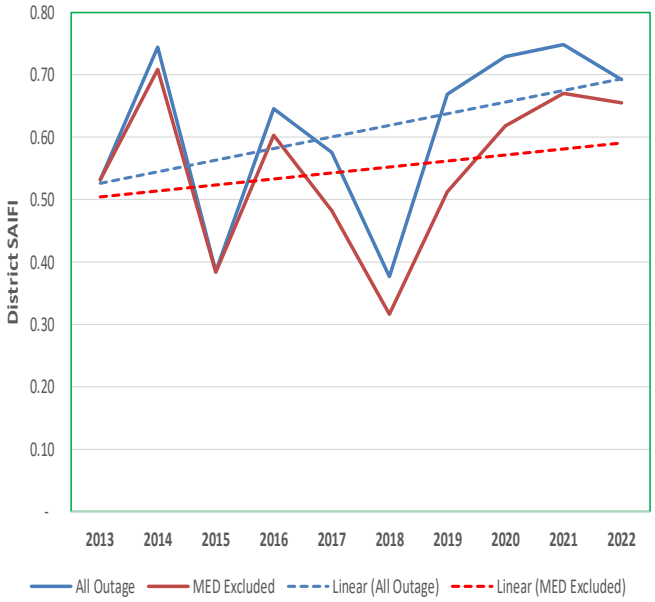




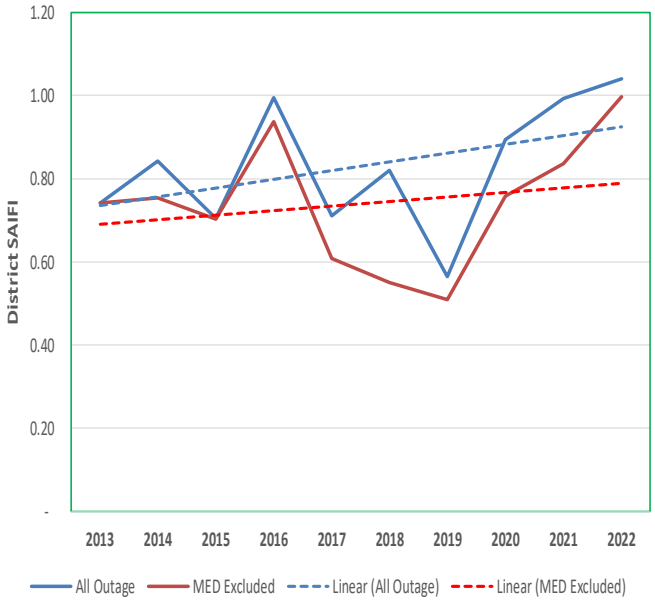


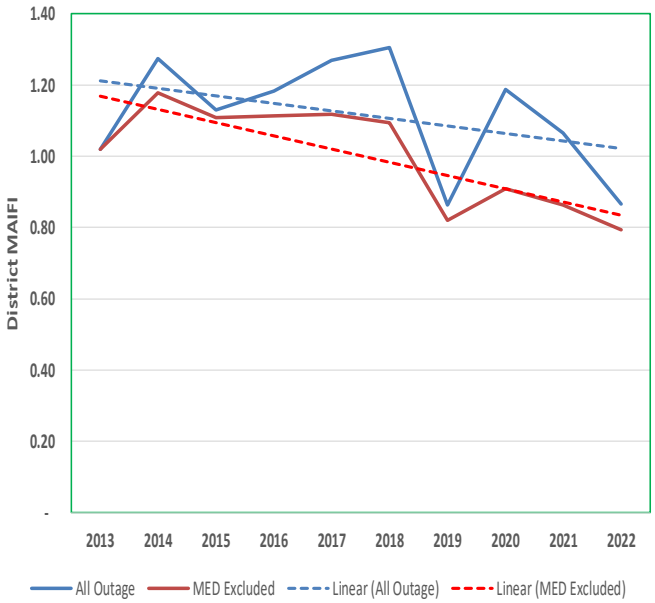


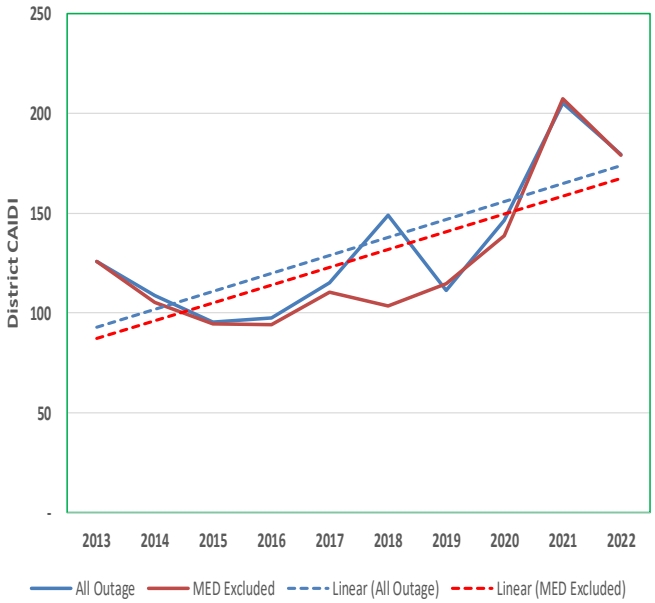
SADDLEBACK District Reliability Performance



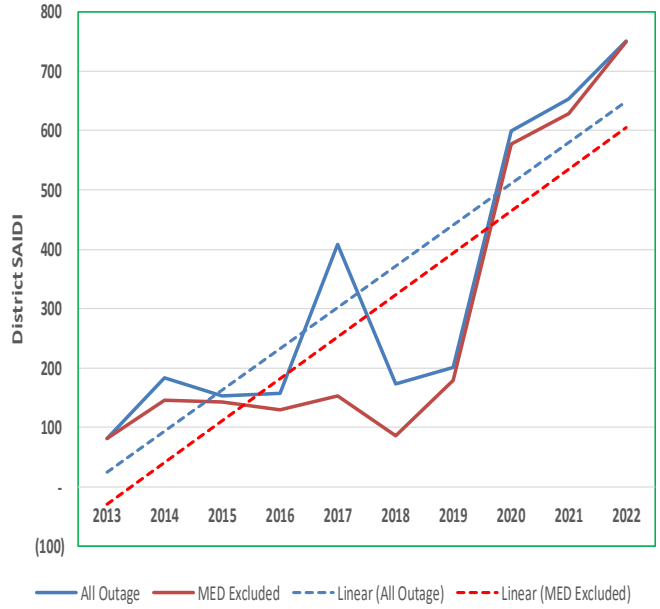
SANTA ANA District Reliability Performance

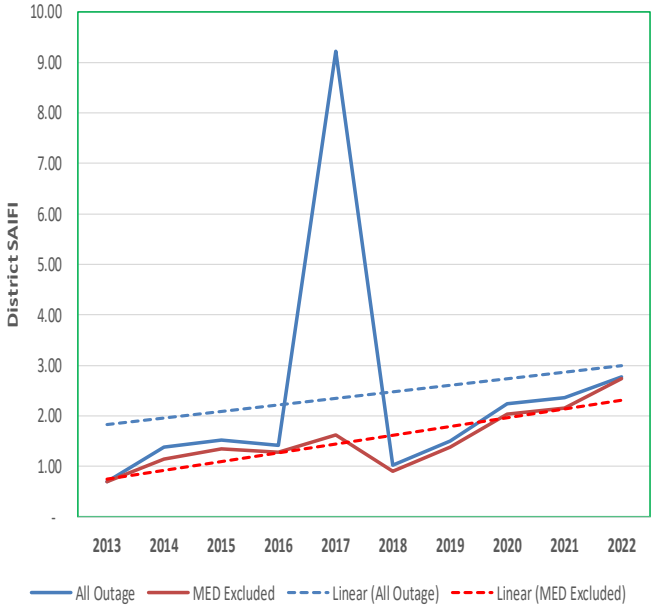


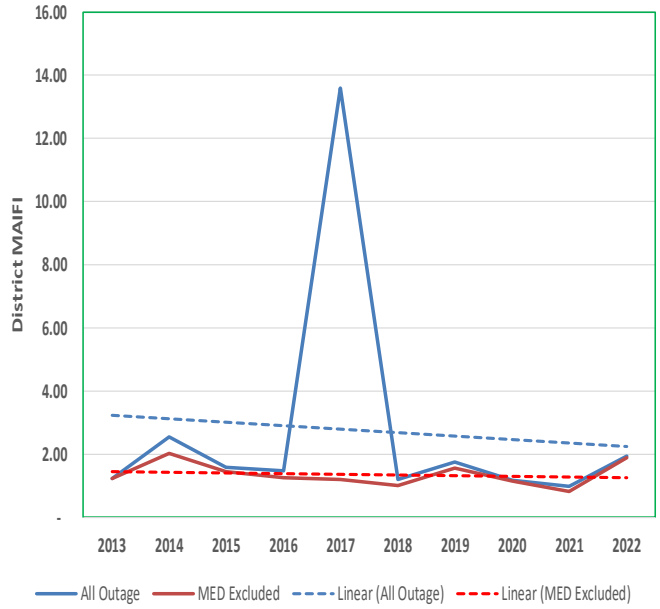


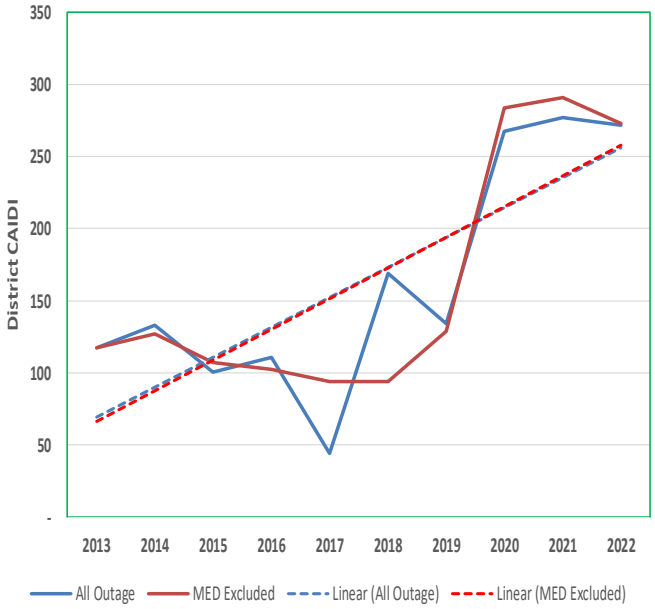


SANTA BARBARA District Reliability Performance

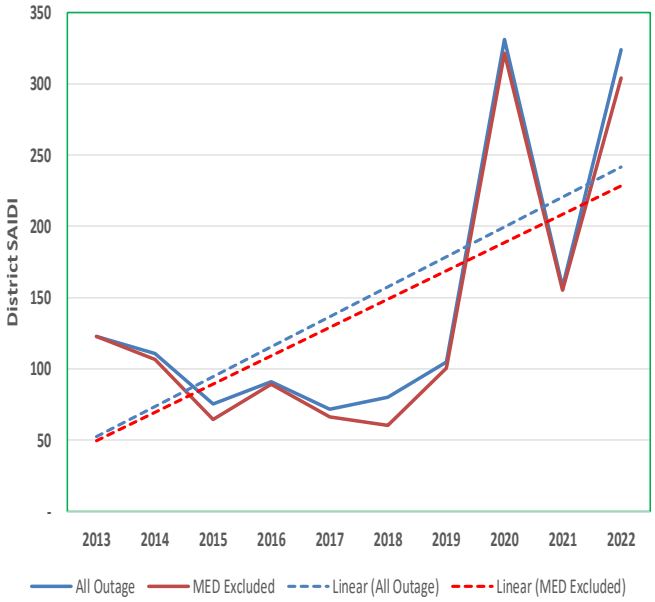


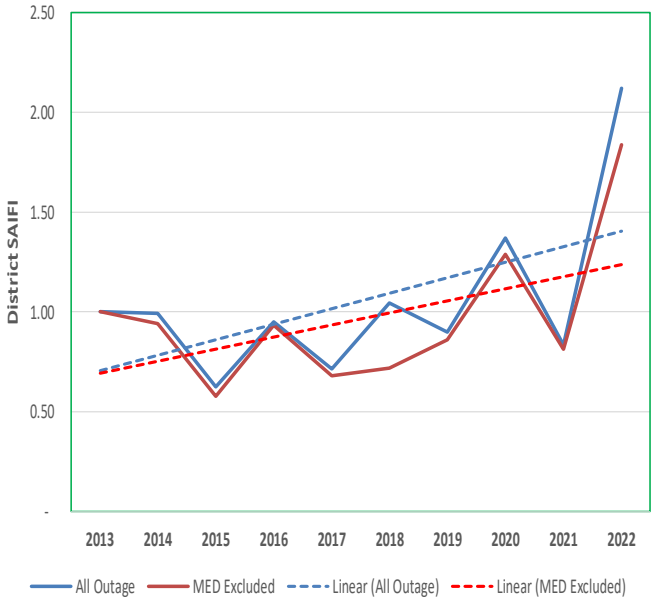


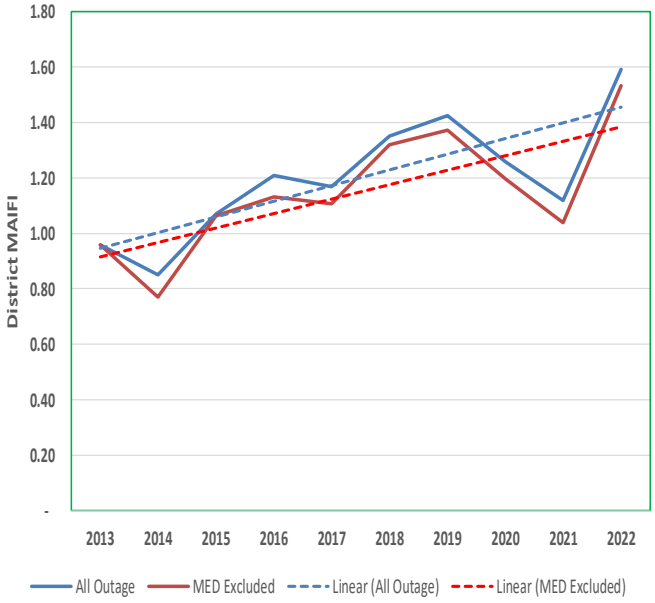




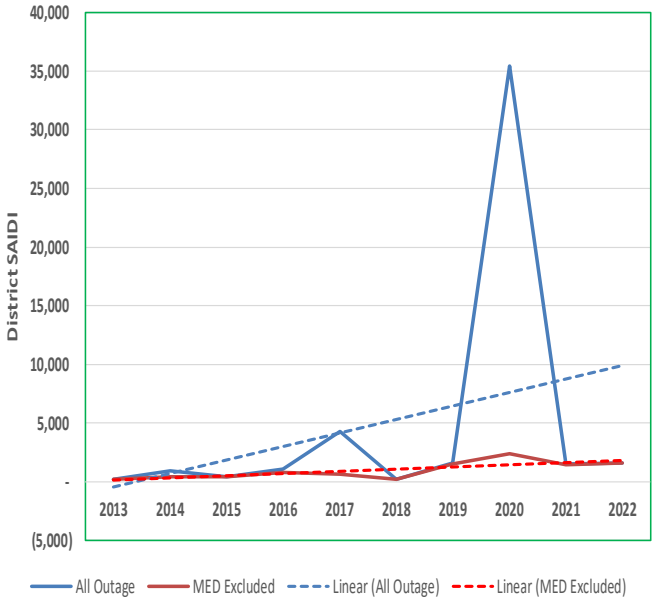
SANTA MONICA District Reliability Performance

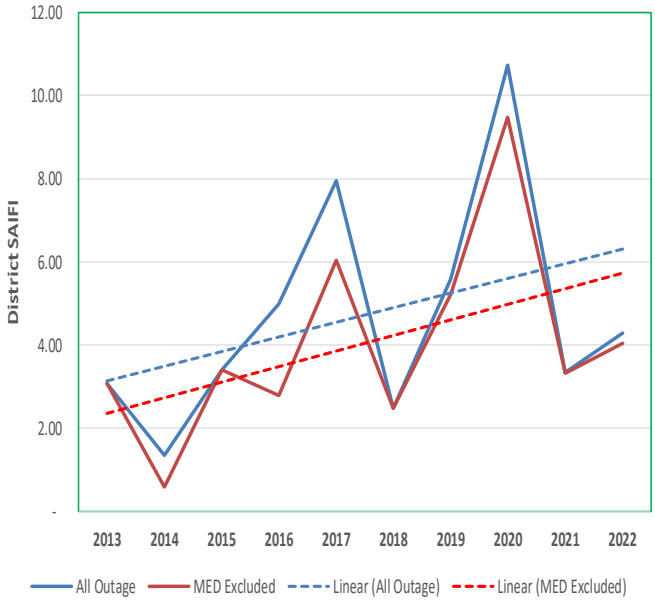


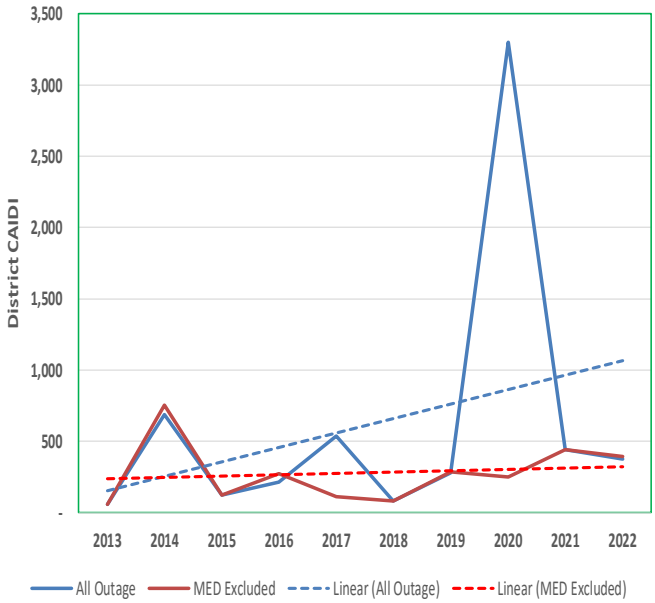




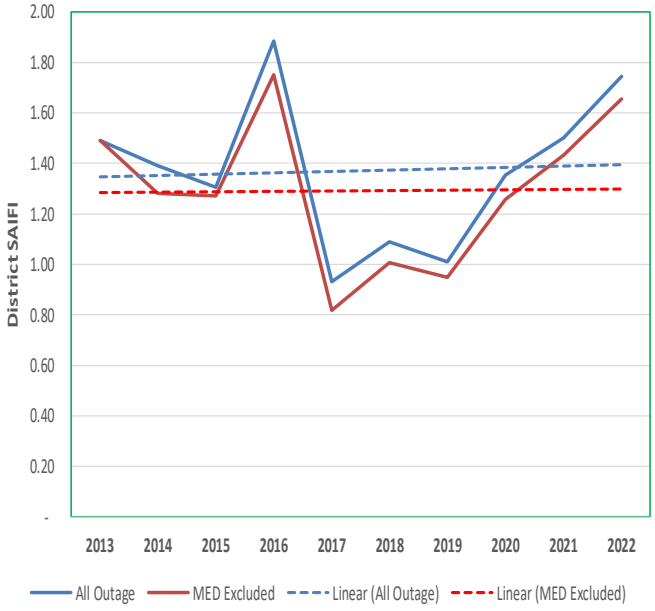
SHAVER LAKE District Reliability Performance

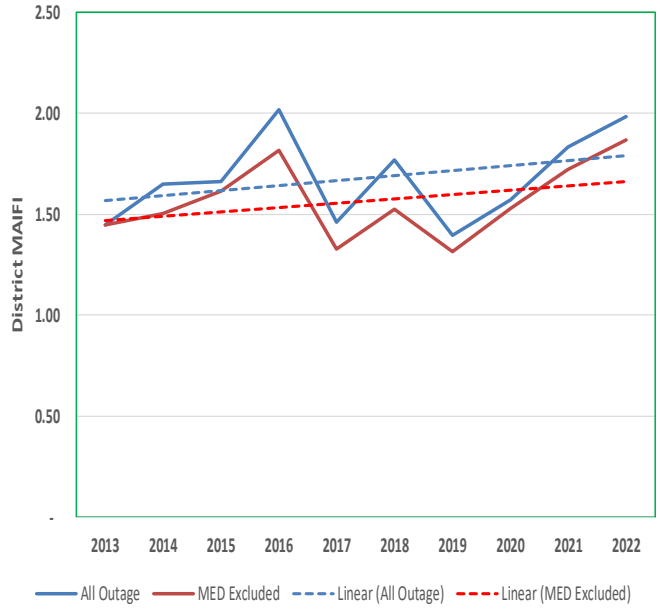


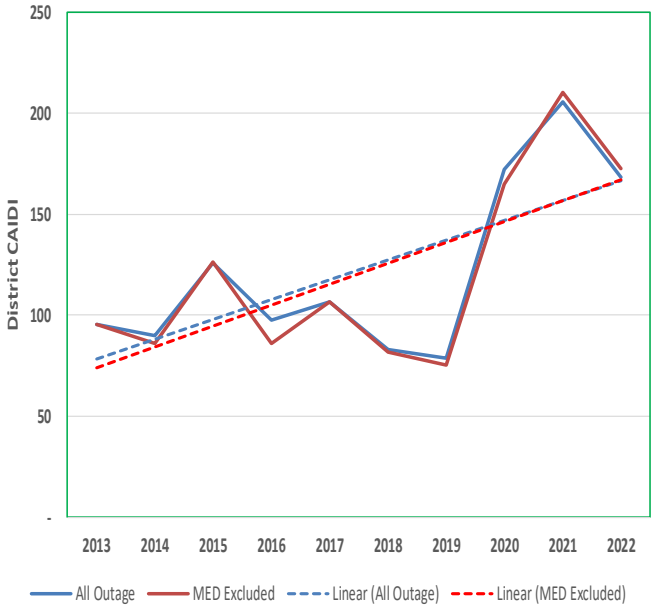




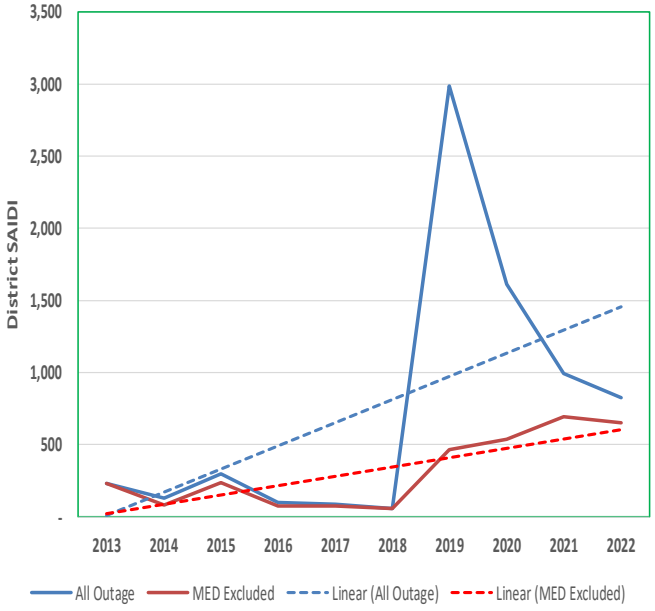
SOUTH BAY District Reliability Performance

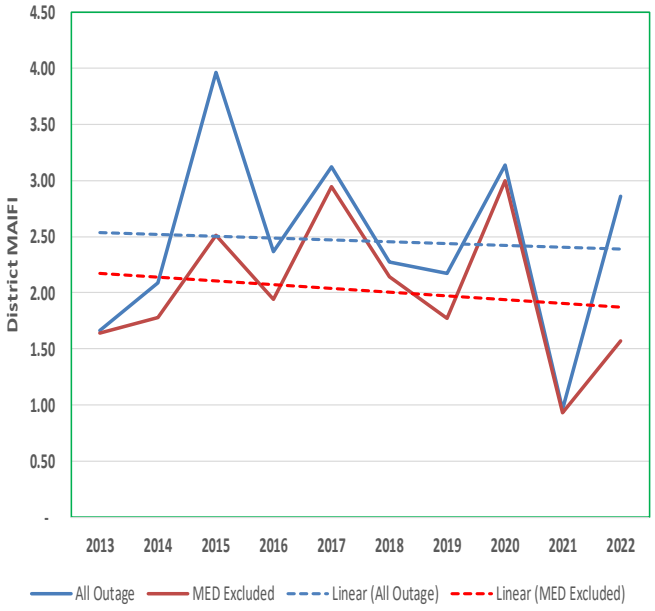


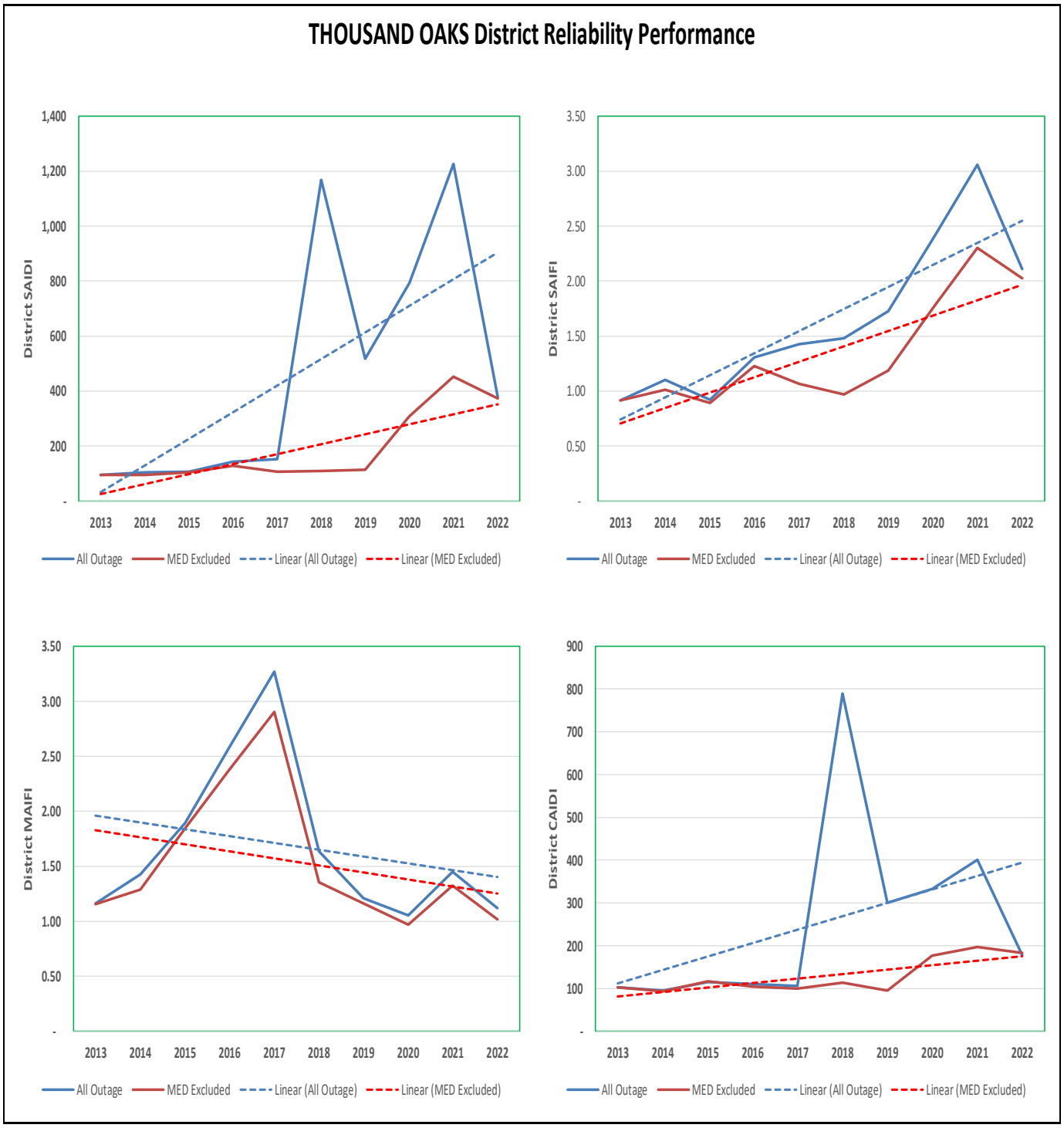




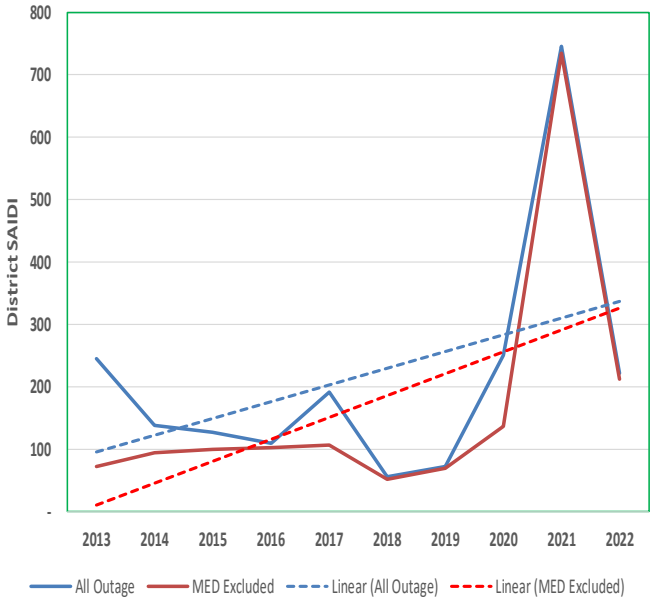
TEHACHAPI District Reliability Performance

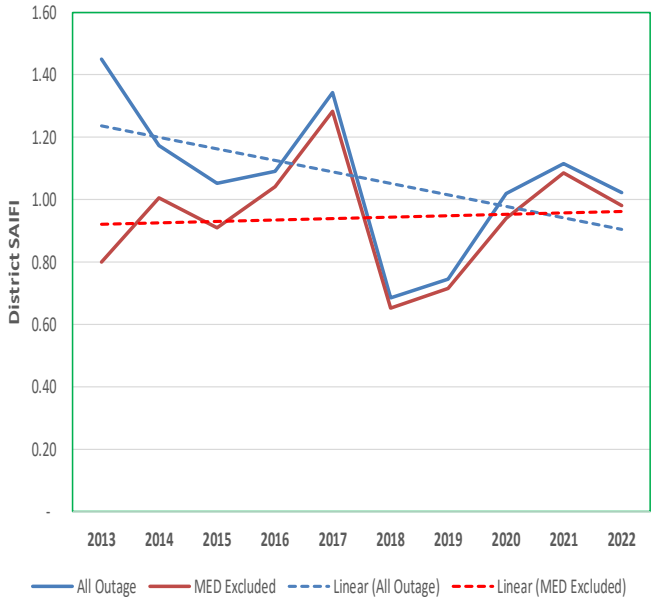


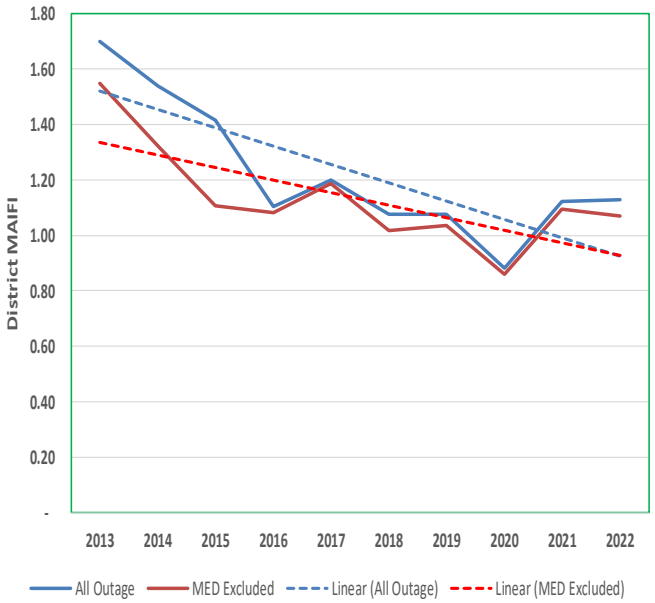


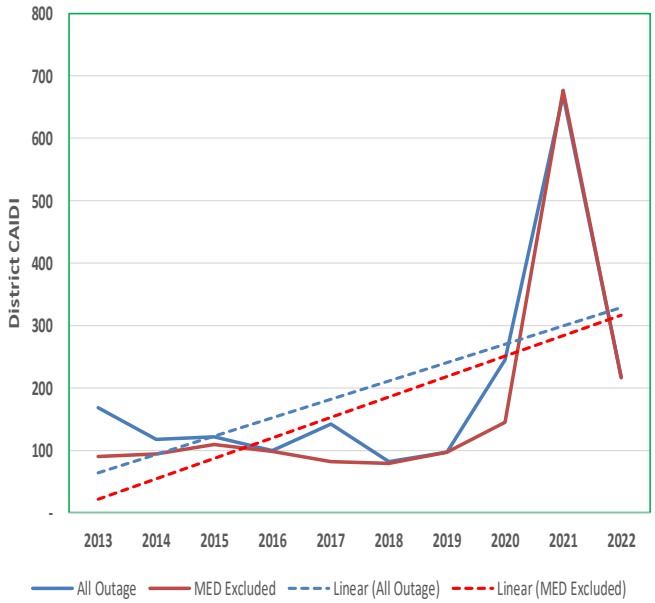

THOUSAND OAKS District Reliability Performance
District SAIDI
1,400
1,200
1,000
800
600
400
200
-
2013 2014 2015 2016 2017 2018 2019 2020 2021 2022
All Outage
MED Excluded
Linear (All Outage)
Linear (MED Excluded)
District SAIFI
3.50
3.00
2.50
2.00
1.50
1.00
0.50
-
2013 2014 2015 2016 2017 2018 2019 2020 2021 2022
All Outage
MED Excluded
Linear (All Outage)
Linear (MED Excluded)
District MAIFI
3.50
3.00
2.50
2.00
1.50
1.00
0.50
-
2013 2014 2015 2016 2017 2018 2019 2020 2021 2022
All Outage
MED Excluded
Linear (All Outage)
Linear (MED Excluded)
District CAIDI
900
800
700
600
500
400
300
200
100
-
2013 2014 2015 2016 2017 2018 2019 2020 2021 2022
All Outage
MED Excluded
Linear (All Outage)
Linear (MED Excluded)

TULARE District Reliability Performance

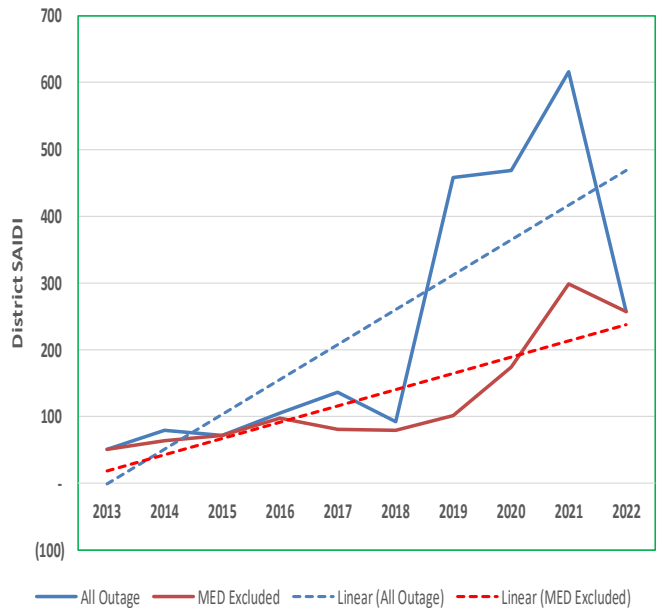


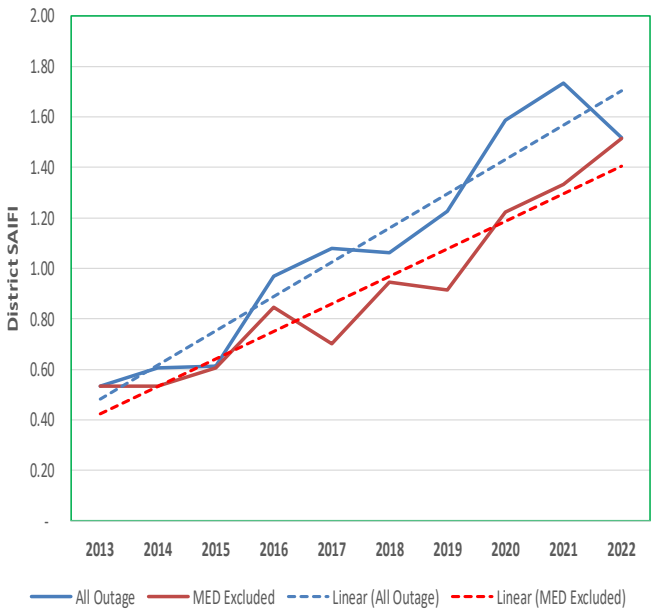


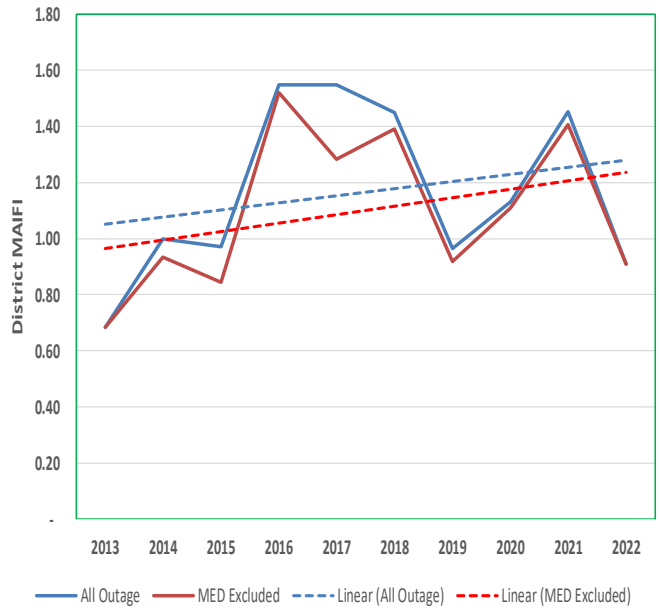


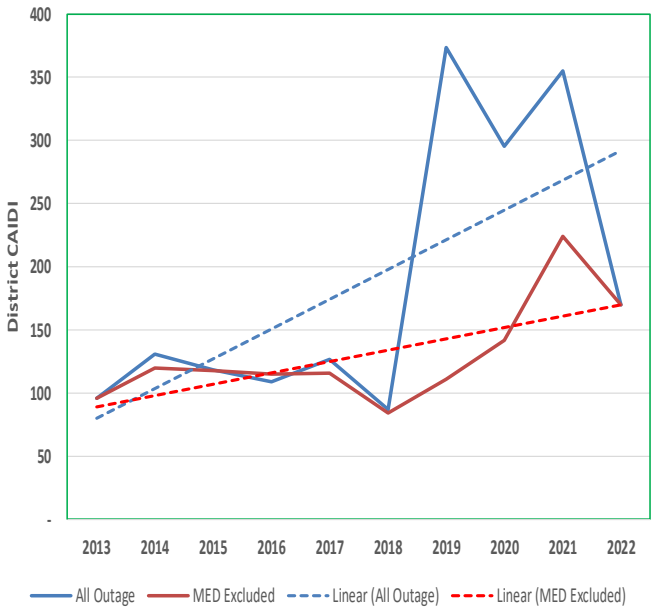


VALENCIA District Reliability Performance

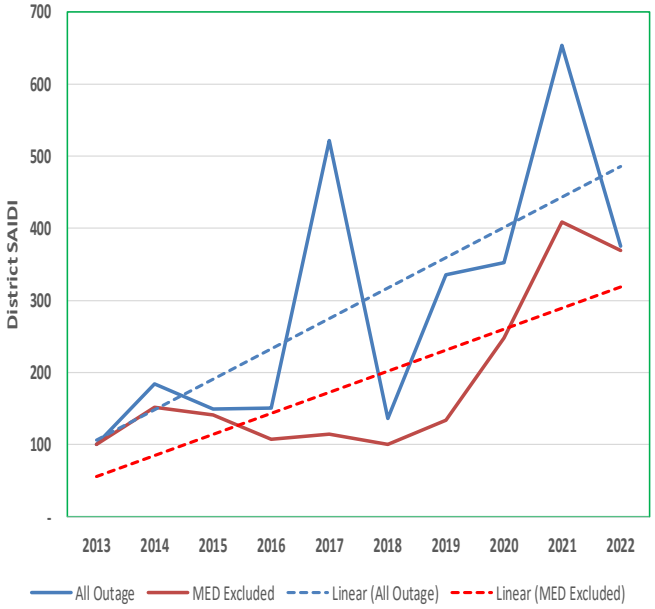


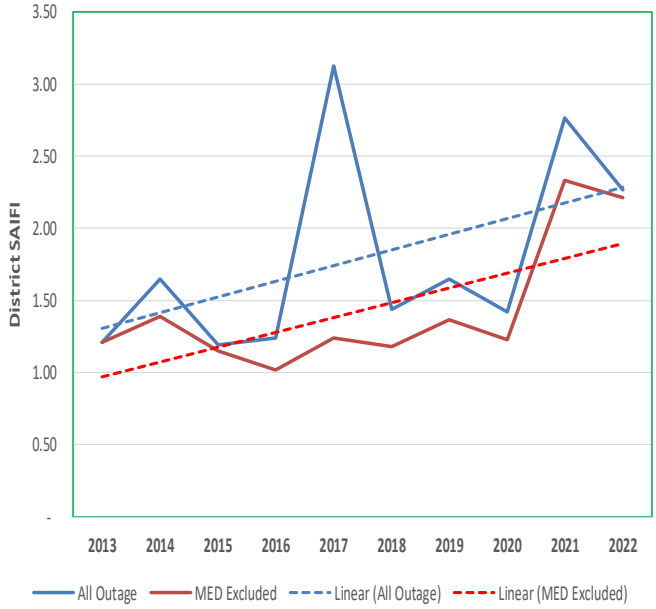


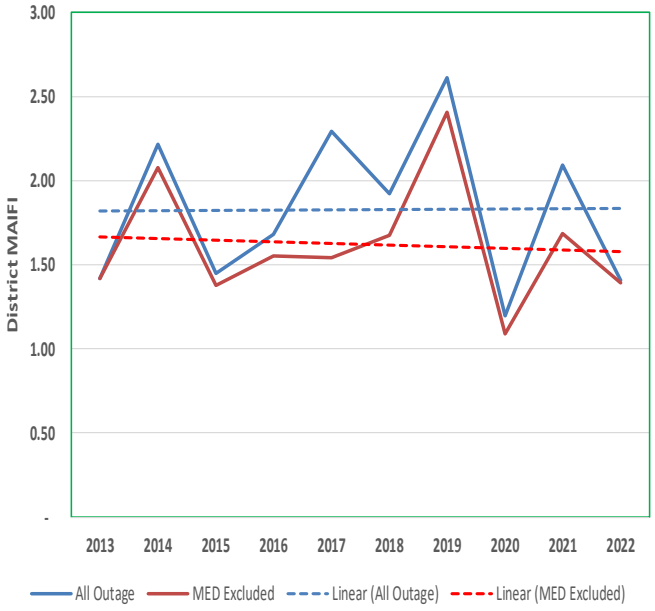


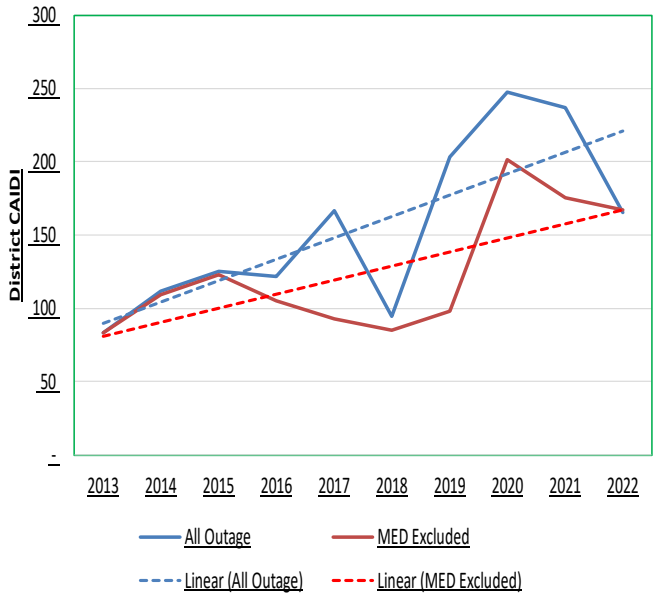


VENTURA District Reliability Performance

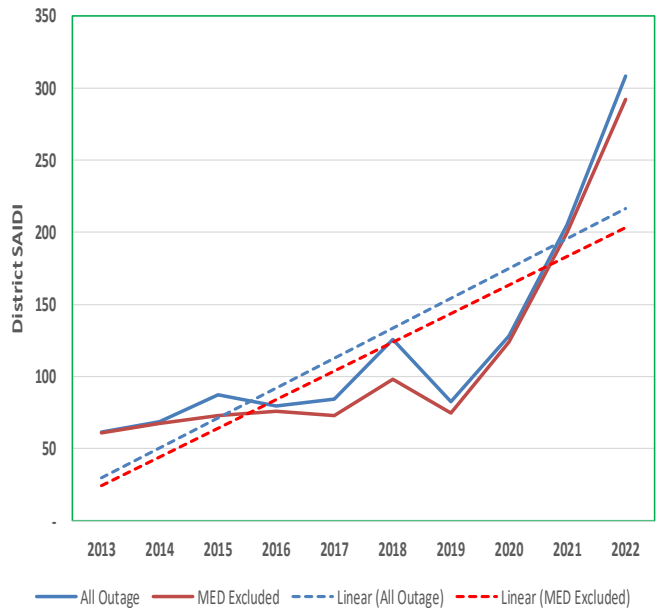


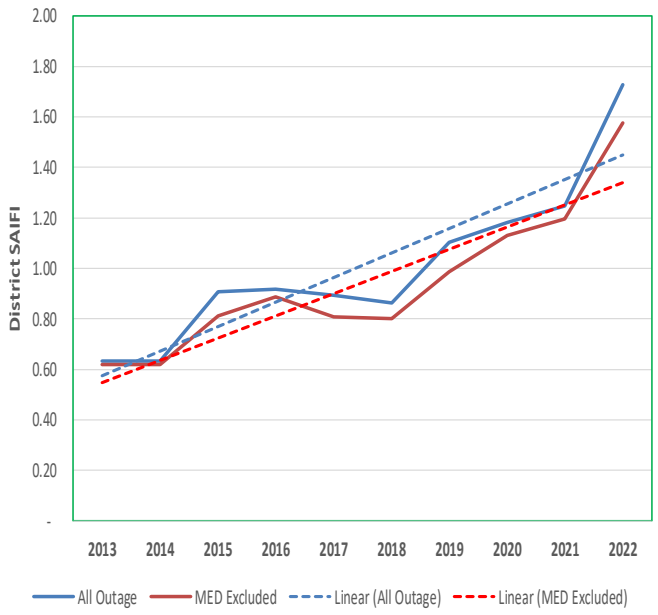


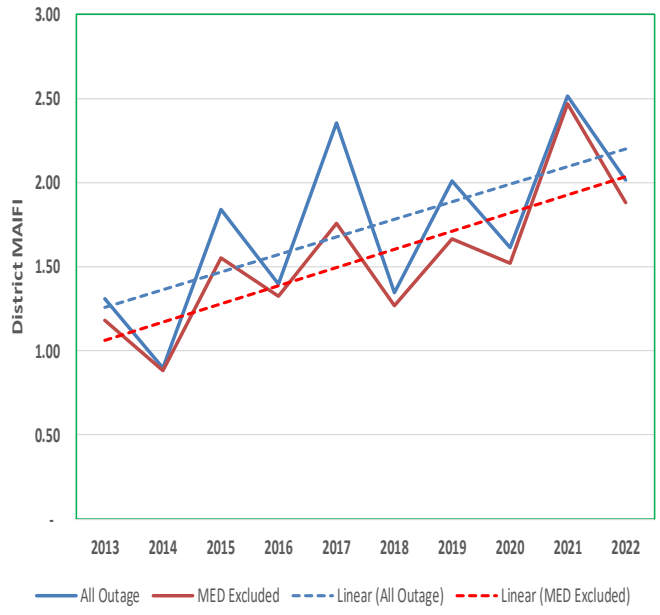


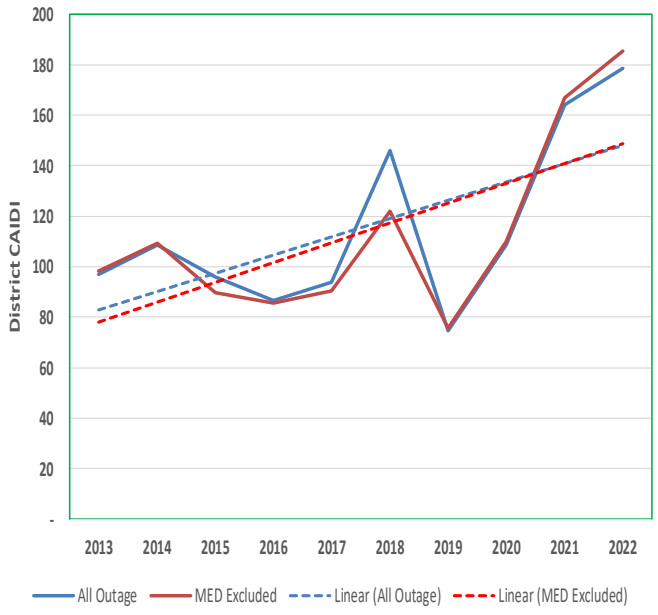


VICTORVILLE District Reliability Performance

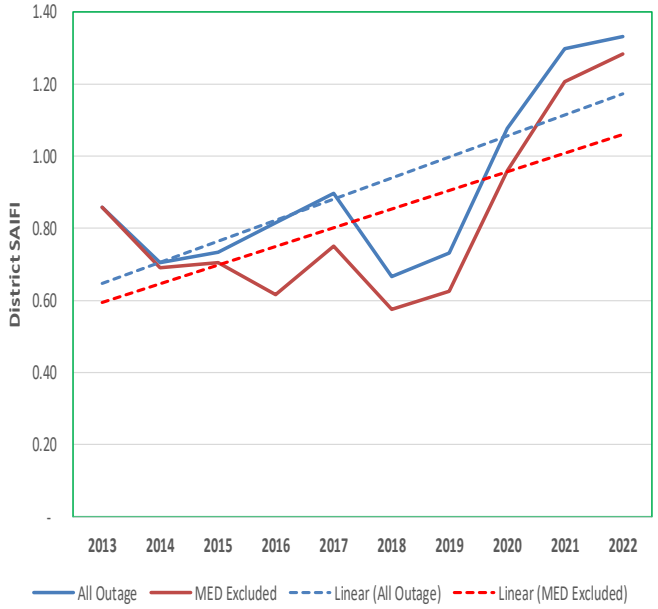


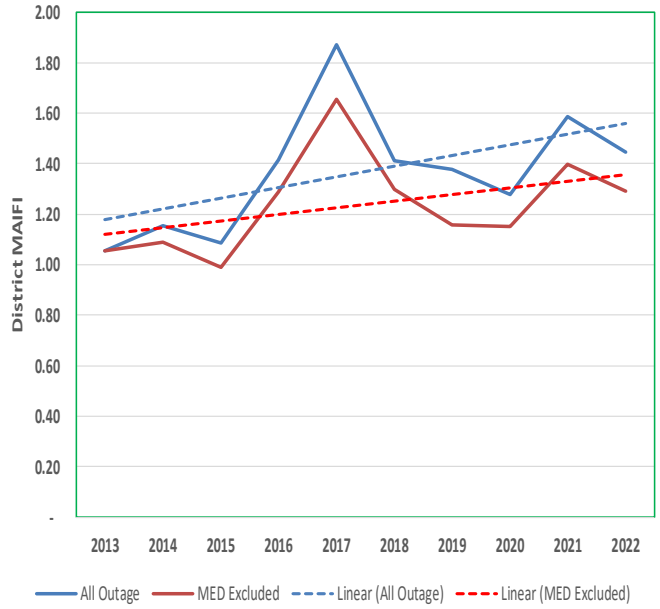


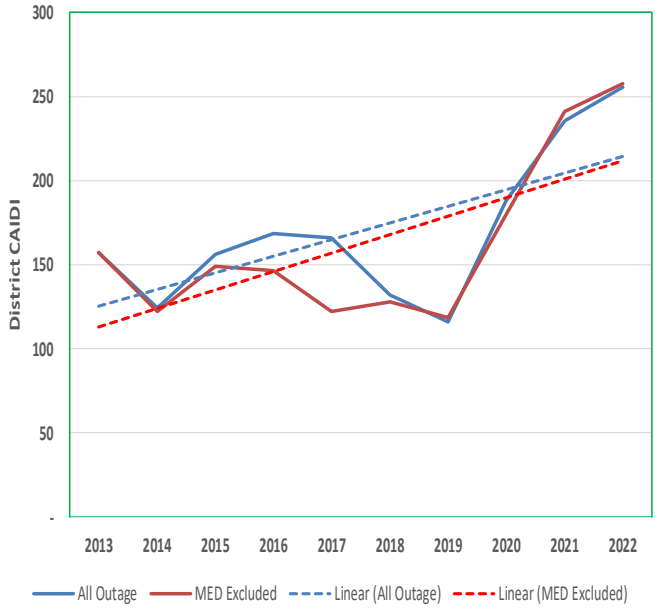




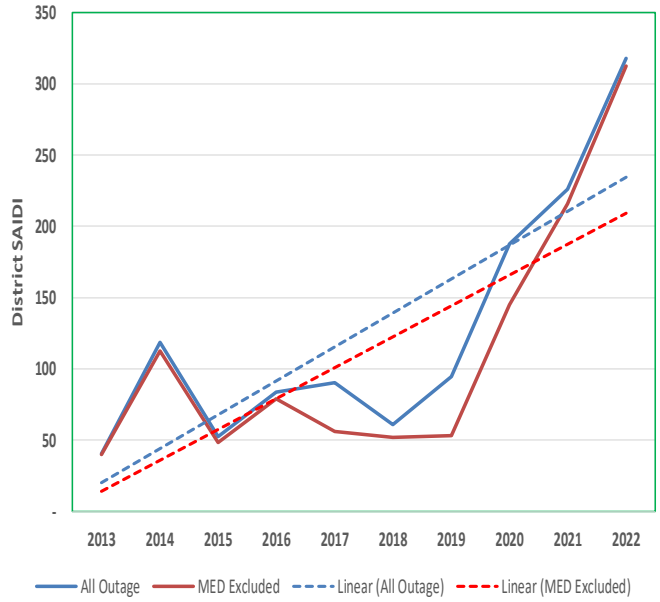
WHITTIER District Reliability Performance

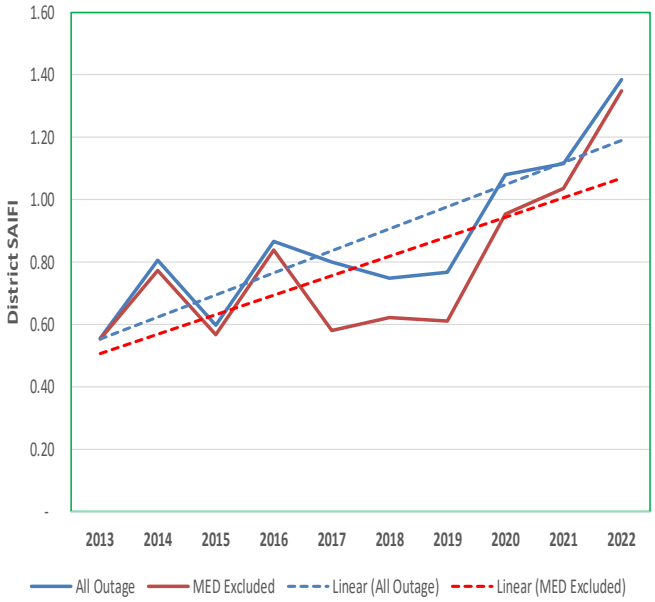


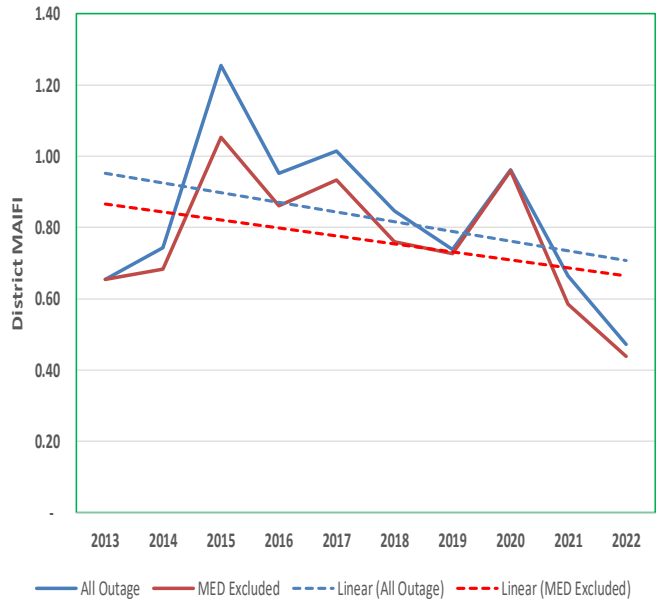




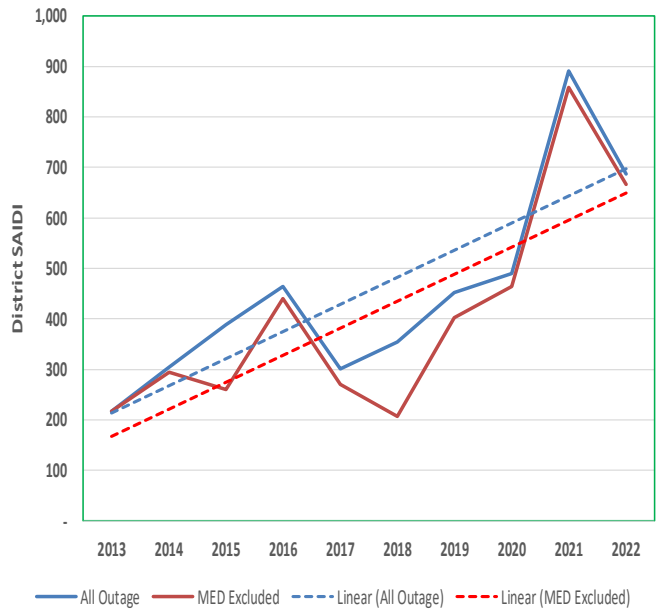
WILDOMAR District Reliability Performance

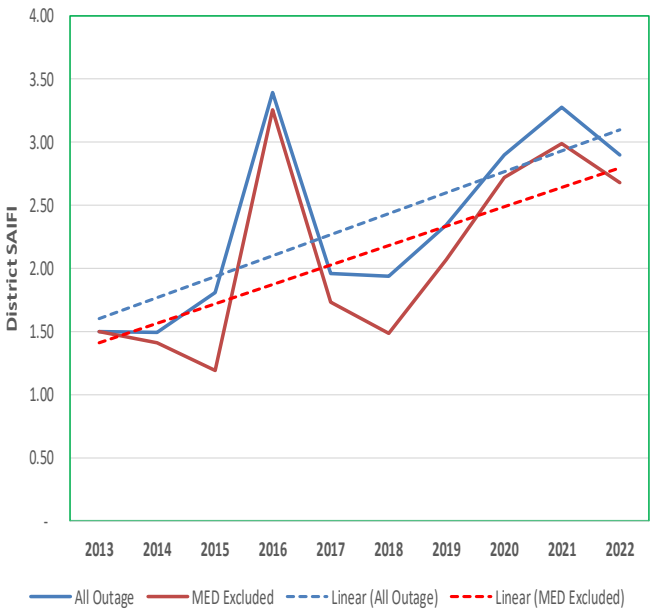


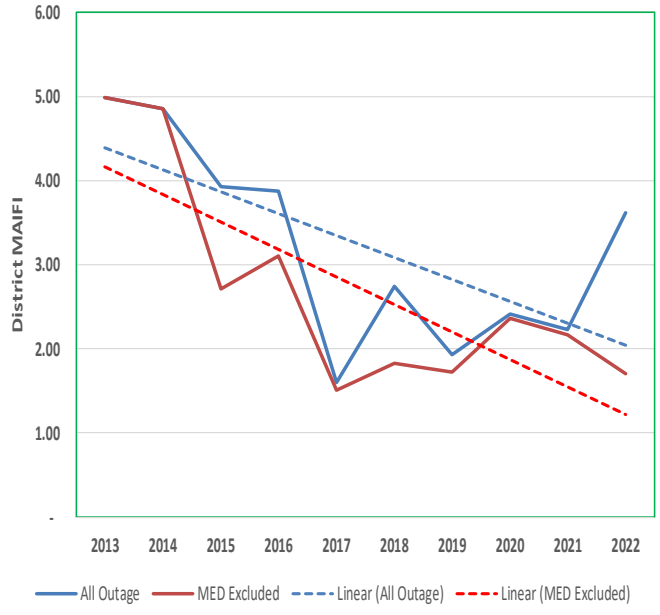




YUCCA VALLEY District Reliability Performance





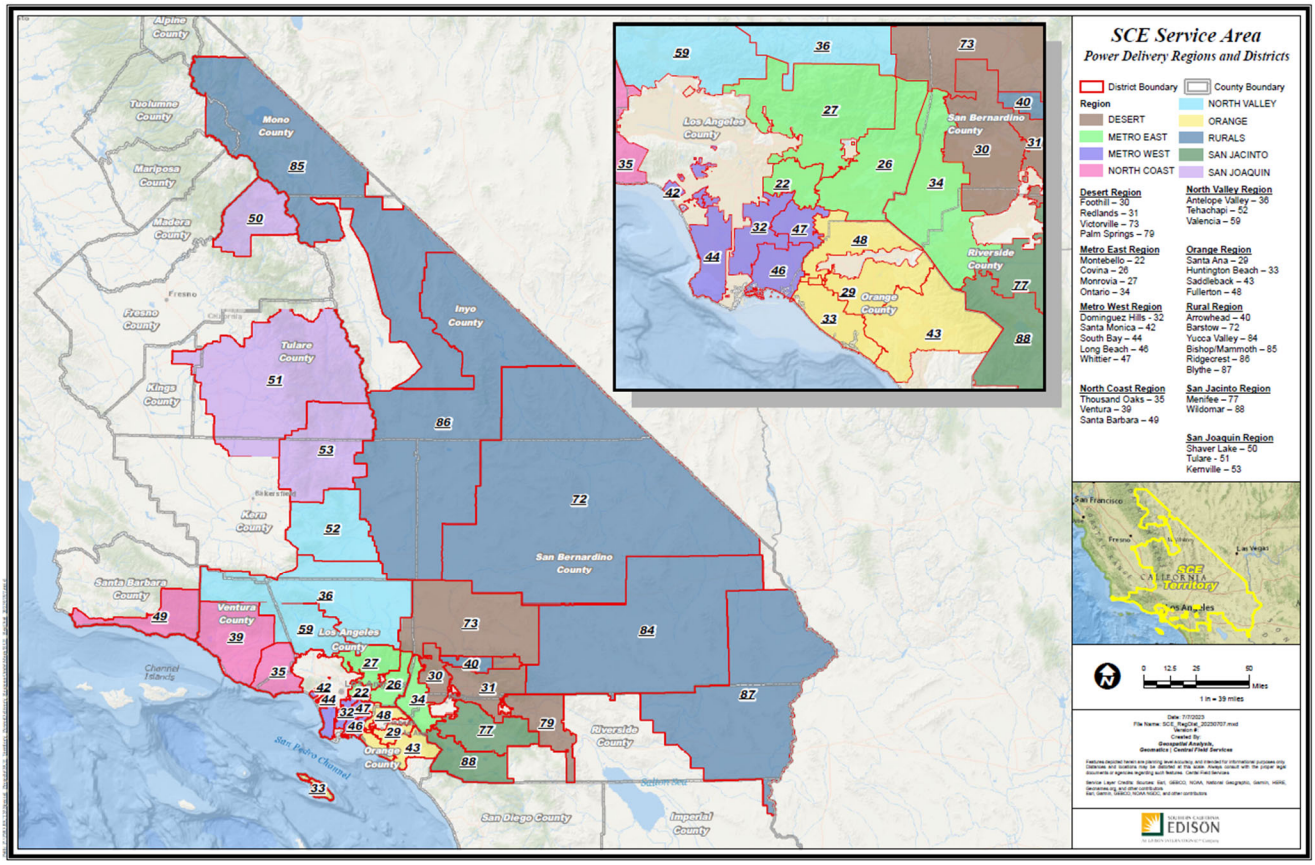


b. The information on the number, date, and location of planned outages is currently unavailable to provide in a separate report to the Directors of the Energy Division and the Safety Enforcement Division[9].

[9] While SCE has provided macro-level metric data for planned outages for 2020-2022, SCE is currently refining this process to provide more granular and digestible data to the Commission.

SECTION 4 – SCE SERVICE AREA MAP

The below map shows SCE's Service area with Power Delivery Regions and Districts. The map contains both SCE district boundaries and county boundaries. SCE has 9 regions and 34 districts.[10]



[10] Beginning in the 2019 annual report, Catalina District indices were combined with Hungtinton Beach since the Catalina District operations have merged with the Huntington Beach District. SCE no longer shows Catalina as a standalone District and Region in SCE's service area map. SCE has updated its Regions with a split of the North Coast Region into North Coast and North Valley Regions.

SECTION 5 – TOP 1% OF WORST PERFORMING CIRCUITS (WPC) EXCLUDING MAJOR EVENT DAYS (MEDs)

Worst Performing Circuits (WPC)[11] activity is part of the Worst Circuit Rehabilitation (WCR) program and targets the top 1% worst performing circuits, measured using IEEE indices SAIDI and SAIFI. The WCR program is used to promote SCE's system reliability, broken into two major activities: Worst Performing Circuits (WPC) and proactive Cable Replacement. For the purposes of this report, only the WPC portion of the WCR program is be covered.

WPCs are identified by using three years of System outage history excluding MEDs and planned events. A weighted factor is applied to the System outage data (e.g., SAIDI and SAIFI), where the most recent year's performance receives a higher weighted factor than the subsequent previous years, as follows: 61%, 28%, and 11%, respectively. The weighted results are summed per circuit and then ranked. SCE reports the top 46 WPCs between SAIDI and SAIFI; naturally some circuits overlap between indices. SCE identified 76 unique WPCs where 37 are asterisk* WPCs. An asterisked circuit is a circuit that appeared on the previous year's list and would be considered "deficient".

Below, Table 7 contains the Top 1% WPC using the SAIDI metric and Table 8 contains the Top 1% WPC using the SAIFI metric. The tables provide (1) circuit name, (2) district, (3) customer count, (4) substation name, (5) circuit miles, (6) %UG, (7) %OH, (8) number of main line outages resulting in the operation of a circuit breaker or automatic re-closer, (9) System-Level reliability metric, and (10) Circuit-Level reliability metric.

[11] In the 2025 GRC, SCE has separated WCR into two separate programs: Worst Performing Circuit (WPC) and Underground Cable Replacement (UCR). For the purpose of this document, SCE has elected to retain the activity and programs naming conventions (and relationships) noted within the 2021 GRC since they were still active for the 2022 calendar year.

Table 7 – Top 1% Worst Performing Circuits Based on SAIDI (Excluding MEDs)

Circuit	District	2022 Customer Count	Substation	Circuit Miles (d)	%UG	%OH	2022 Circuit Breaker or Auto-Recloser Operation (a)	Sys-SAIDI Rank	Sys-SAIDI (b)	Ckt-SAIDI Rank	Ckt SAIDI (c)
Huevos 12kV	72	2,495	Tortilla	24.90	48%	52%	3	1	0.4531	95	952
Camp Nelson 4kV*	51	434	Camp Nelson P.T.	8.84	1%	99%	3	2	0.4167	12	4,834
Tenneco 12kV*	36	4,717	Frazier Park	122.37	21%	79%	1	3	0.3965	225	461
Cronin 12kV	33	4,503	Hamilton	32.65	51%	49%	3	4	0.3466	261	404
Deegan 12kV	77	1,249	Nelson	11.64	76%	24%	1	5	0.3463	63	1,457
Surfside 16kV	39	5,718	Channel Island	31.64	62%	38%	5	6	0.3413	370	313
Roi-Tan 12kV*	31	2,519	Shandin	34.50	27%	73%	6	7	0.3322	135	696
Big Pines 12kV*	36	2,264	Little Rock	68.85	47%	53%	5	8	0.3308	118	768
Erskine 12kV	53	3,126	Isabella	70.73	5%	95%	8	9	0.3236	181	546
January 12kV*	33	4,057	Lafayette	19.90	93%	7%	3	10	0.3003	288	378
Topoc 16kV	87	867	Landing	27.10	48%	52%	5	11	0.2969	46	1,796
Driskill 16kV*	49	4,127	San Marcos	68.54	41%	59%	6	12	0.2908	296	370
Corsair 12kV	77	2,075	Stetson	110.43	23%	77%	4	13	0.2841	125	740
Mustang 12kV*	53	2,177	Isabella	51.53	4%	96%	1	14	0.2833	134	699
Sewell 12kV	33	4,075	Hamilton	29.36	60%	40%	6	15	0.2791	306	359
Brennan 16kV	35	2,486	Moorpark	32.52	76%	24%	5	16	0.2635	176	556
Cuthbert 16kV*	35	2,390	Latigo	41.97	40%	60%	3	17	0.2566	165	586
Melody 25kV*	84	1,945	Hi Desert	320.42	0%	100%	7	18	0.2532	142	677
Mcbean 16kV	59	2,920	Newhall	21.52	72%	28%	6	19	0.2512	228	449
Karen 12kV*	48	2,375	Marion	18.17	15%	85%	3	20	0.2507	179	552
Morganstein 16kV	35	2,015	Moorpark	70.68	69%	31%	5	21	0.2472	146	642
Atento 12kV*	43	2,854	Viejo	57.02	53%	47%	3	22	0.2471	218	472
Fantail 16kV	42	5,438	Tahiti	12.80	87%	13%	4	23	0.2469	597	223
Northpark 12kV	31	2,048	Shandin	47.59	30%	70%	6	24	0.2467	132	705
Mahogany 12kV	51	288	Tule (Pgae)	27.95	0%	100%	4	25	0.2443	13	4,577
Speaker 12kV	33	4,886	Hamilton	32.47	61%	39%	3	26	0.2435	466	262
Pascoe 2.4kV*	53	393	Greenhorn	9.27	10%	90%	-	27	0.2374	25	3,025
Power 4kV*	31	532	Muscoy	3.04	0%	100%	7	28	0.2220	48	1,737
Sugarloaf 2.4kV	53	103	Sugarloaf P.T.	4.80	0%	100%	-	29	0.2178	6	10,805
Yogi 12kV	33	2,422	Hamilton	19.46	63%	37%	2	30	0.2156	221	468
Linnet 2.4kV	73	739	Wrightwood	6.67	9%	91%	3	31	0.2132	57	1,523
Sago 16kV	44	4,615	Torrance	22.48	26%	74%	3	32	0.2131	513	243
Titan 12kV	36	1,413	Little Rock	128.42	5%	95%	8	33	0.2125	114	796
Kay 16kV*	22	2,309	Alhambra	15.04	32%	68%	4	34	0.2082	213	478
Big Rock 16kV*	35	3,166	Chatsworth	30.08	44%	56%	3	35	0.2059	310	357
Agate 12kV*	43	4,180	Morro	35.06	70%	30%	2	36	0.2033	497	250
Ryan 16kV	44	7,624	Lennox	27.07	19%	81%	3	37	0.2029	990	145
Autumn 12kV*	85	2,139	Skiland	27.62	77%	23%	6	38	0.1946	214	478
Riptide 16kV	42	4,753	Santa Monica	11.28	70%	30%	1	39	0.1942	650	208
Test 16kV	22	3,408	Alhambra	16.96	28%	72%	2	40	0.1907	396	295
Peso 12kV	72	2,018	Tortilla	26.24	28%	72%	2	41	0.1876	209	488
Landers 25kV*	84	1,782	Nugget	144.54	1%	99%	8	42	0.1855	188	538
Cachuma 16kV*	49	2,484	Vegas	69.13	17%	83%	3	43	0.1854	277	390
Vallecito 16kV*	49	4,360	Carpinteria	54.99	47%	53%	1	44	0.1847	601	222
Alaska 16kV	44	2,867	Yukon	20.68	25%	75%	5	45	0.1806	340	337
Trochu 16kV*	32	2,010	Bullis	15.62	22%	78%	3	46	0.1792	215	477

Circuits that have appeared in this report that were in last year's report are marked with an asterisk (*) per D. 16-01-008 Annual Electric Report.

(a) Includes Sustained and Momentary outages that affected the circuit breaker.
(b) SAIDI is based on a three-year weighted average.
(c) Ckt SAIDI is based on a three-year weighted factor (average customer experience on circuit).
(d) Starting 2021 "Circuit Mile" field is using geospatial data moving away from legacy software.

Table 8 – Top 1% Worst Performing Circuits Based on SAIFI (Excluding MEDs)

Circuit	District	2022 Customer Count	Substation	Circuit Miles (d)	%UG	%OH	2022 Circuit Breaker or Auto-Recloser Operation (a)	Sys-SAIFI Rank	Sys-SAIFI (b)	Ckt-SAIFI Rank	Ckt SAIFI (c)
Asteroid 16kV*	22	4,463	Alhambra	20.31	0	1	5	1	0.0035	104	4
Fantail 16kV*	42	5,438	Marina Del Rey	12.80	1	0	4	2	0.0034	224	3
Driskill 16kV*	49	4,127	Santa Barbara	68.54	0	1	6	3	0.0034	92	4
Ryan 16kV*	44	7,624	Inglewood	27.07	0	1	3	4	0.0034	394	2
Corsica 16kV*	39	6,738	Oxnard	47.36	1	0	3	5	0.0034	311	3
Mcbean 16kV	59	2,920	Newhall	21.52	1	0	6	6	0.0033	36	6
Roi-Tan 12kV*	31	2,519	San Bernardino	34.50	0	1	6	7	0.0032	26	7
January 12kV*	33	4,057	Costa Mesa	19.90	1	0	3	8	0.0030	123	4
Surfside 16kV*	39	5,718	Oxnard	31.64	1	0	5	9	0.0030	283	3
Campanula 25kV*	84	2,018	Landers	137.07	0	1	23	10	0.0029	21	8
Marshall 16kV	42	3,419	Santa Monica	12.50	0	1	5	11	0.0028	98	4
Enterprise 16kV	39	3,501	Oxnard	33.75	1	0	4	12	0.0026	115	4
Sago 16kV	44	4,615	Torrance	22.48	0	1	3	13	0.0026	242	3
Gowan 12kV	30	1,395	Glen Avon	25.84	1	0	7	14	0.0025	15	9
Speaker 12kV*	33	4,886	Huntington Beach	32.47	1	0	3	15	0.0024	310	3
Preston 12kV	31	2,420	Colton	36.87	1	0	5	16	0.0024	56	5
Navy 16kV	42	3,248	Santa Monica	16.98	1	0	2	17	0.0024	120	4
Sewell 12kV	33	4,075	Huntington Beach	29.36	1	0	6	18	0.0023	232	3
Exline 16kV*	22	4,072	El Monte	17.52	0	1	3	19	0.0023	251	3
Atmore 16kV	39	2,956	Santa Paula	39.44	0	1	10	20	0.0022	118	4
Spinnaker 16kV*	39	5,097	Oxnard	34.23	0	1	2	21	0.0022	439	2
Hooligan 16kV*	35	3,216	Conejo	47.69	1	0	4	22	0.0021	158	4
Gringo 16kV*	39	4,792	Ventura	27.67	1	0	1	23	0.0021	400	2
Tenneco 12kV*	36	4,717	Frazier Park	122.37	0	1	1	24	0.0021	379	2
Carnelian 16kV	44	5,108	Redondo Beach	18.25	1	0	3	25	0.0021	471	2
Rosa 16kV	39	3,834	Camarillo	43.29	1	0	6	26	0.0021	256	3
Storke 16kV	49	4,741	Goleta	46.10	0	1	3	27	0.0021	411	2
Erskine 12kV	53	3,126	Isabella	70.73	0	1	8	28	0.0021	157	4
Tri City 16kV*	22	3,190	Alhambra	16.94	0	1	5	29	0.0021	166	3
Gizmo 16kV	39	4,344	Oxnard	27.81	1	0	4	30	0.0021	348	2
Windjammer 16kV*	39	7,690	Oxnard	44.89	0	1	4	31	0.0021	883	1
Huskie 12kV	43	3,421	Lake Forest	24.69	1	0	3	32	0.0020	222	3
Salmon 16kV*	44	4,140	Hawthorne	19.68	0	1	1	33	0.0020	290	3
Butane 16kV	44	5,134	El Segundo	20.74	0	1	2	34	0.0019	587	2
Silicone 16kV	44	2,223	Rancho Palos Verdes	27.40	1	0	4	35	0.0018	91	4
Landers 25kV	84	1,782	Landers	144.54	0	1	8	36	0.0018	58	5
Big Rock 16kV*	35	3,166	Chatsworth	30.08	0	1	3	37	0.0017	227	3
Snead 12kV	33	3,589	Costa Mesa	19.90	1	0	3	38	0.0017	352	2
Cubic 12kV	34	2,873	Upland	20.78	0	1	8	39	0.0017	215	3
Alaska 16kV	44	2,867	Hawthorne	20.68	0	1	5	40	0.0017	219	3
Brickyard 16kV	32	3,039	Commerce	14.97	0	1	3	41	0.0017	262	3
Bushard 12kV	33	3,453	Huntington Beach	26.44	0	1	2	42	0.0017	340	3
Margaret 16kV*	44	5,242	Hawthorne	16.02	0	1	2	43	0.0016	730	2
Thornburg 12kV	36	1,831	Palmdale	21.44	1	0	6	44	0.0016	72	5
Paloma 16kV	27	2,053	Pasadena	14.62	0	1	6	45	0.0016	95	4
Karen 12kV	48	2,375	Cypress	18.17	0	1	3	46	0.0016	153	4

Circuits that have appeared in this report that were in last year's report are marked with an asterisk (*) per D. 16-01-008 Annual Electric Report.

(a) Includes Sustained and Momentary outages that affected the circuit breaker.
(b) SAIFI is based on a three-year weighted average.
(c) Ckt SAIFI is based on a three-year weighted factor (average customer experience on circuit).
(d) Starting 2021, "Circuit Mile" field is using Geospatial data moving away from legacy software.

Tables 9 and 10 below identify the circuits that are top 1% WPC (by SAIDI or SAIFI this year) *and* were top 1% circuits by SAIDI or SAIFI on SCE's WPC list in 2025. These tables provide the following information:

i) An explanation of why it was ranked as a "deficient" circuit, i.e., the value of the metric used to indicate its performance.
ii) A historical record of the metric.
iii) An explanation of why it was on the deficiency list again.
iv) An explanation of what is being done to improve the circuit's future performance and the anticipated timeline for completing those activities (or an explanation why remediation is not being planned).
v) A quantitative description of the utility's expectation for that circuit's future performance.

Table 9 – (SAIDI Preferred Metric – "Repeat Deficient" List)

	i.		ii.		iii.	iv.		
Circuit	2022 Sys-SAIDI Rank	2022 Sys-SAIDI	2021 Sys-SAIDI Rank	2021 Sys-SAIDI	Explanation of Repeat Deficiency	Submitted	Engineering Scope	Anticipated Completion Year
Camp Nelson 4kV*	2	0.416723894	44	0.19142	2022 high impact interruption on Camp Nelson was a PSPS event on Mahogany which is the source feed for Camp Nelson.	5/6/2020	Grid Resiliency Reconductor 2.6 circuit miles to OH Aerial bundled cable Camp Nelson being cutover to Mahogany 12kV	2024
Tenneco 12kV*	3	0.39648877	2	0.57172	2022 high impact interruption on the Tenneco was due to a car hit pole impacting the transmission line feeding sub.	2/22/2019	Grid Resiliency Reconductor 90 circuit miles to OH covered condutor installed between 2020 through 2022. Engineering will continue to monitor and evaluate circuit performance for additional circuit enhancements (i.e FI's and automation) to minimize CMI and CI.	Pending Review
Roi-Tan 12kV*	7	0.33223468	29	0.23372	Roi-Tan experienced seven high impact interruptions in 2022, three due to foreign material in OH lines, three Red Flag warnings and one event was due to a transmission interruption.	1/6/2023	Grid Resiliency Reconductor 1.4 circuit miles to OH covered condutor Engineering will continue to monitor and evaluate circuit performance for additional circuit enhancements (i.e FI's and automation) to minimize CMI and CI.	2024
Big Pines 12kV*	8	0.330838781	31	0.22612	All three high impact outages in 2022 on Big Pines were UG equipment failures.	-	Engineering is monitoring and evaluating UG cable for replacement, looking for opportunities to create box loops. Reviewing circuit for additional automation to minimize CMI and CI.	Pending Review
January 12kV*	10	0.300331055	35	0.21806	2022 leading interruptions for reliability deficiency were two UG equipment failures, one OH equipment failure.Circuit traverse along Newport Beach Balboa Peninsula congested intersections and structures need to pump to begin troubleshooting.	2/17/2023	District is piloting two locations for Eco sump pumps.	2023
Driskill 16kV*	12	0.290762352	28	0.23386	Driskill had five high impact interruptions in 2022 which are three operation driven, UG equipment, and critter.	9/30/2022	Grid Resiliency Reconductor 5.6 circuit miles to OH covered condutor Installing 10 BLF location	2024
Mustang 12kV*	14	0.283344825	1	0.58420	Mustang had one source interruption in 2022 that was a impact outages leading to the reliability deficiency.Subtrans source was Interrupted due to weather.	2/16/2021	Grid Resiliency Reconductor 22.9 circuit miles to OH Covered Condut Installing 7 BLF location	2023
Cuthbert 16kV*	17	0.256579116	4	0.45143	Cuthbert had two high impact interruptions in 2022 which was caused by OH equipment and operations.	7/29/2022	Grid Resiliency Reconductor 3.7 circuit miles to OH covered conductor Installing 10 BLF location	2024
Melody 25kV*	18	0.253195437	5	0.45007	Melody had one OH equipment interruption in 2022 that were high impact outages leading to the reliability deficiency.	4/30/2019	WCR Installing 220 BLF locations	Postponed due to resouces.
Karen 12kV*	20	0.25065698	46	0.18865	Karen experienced three high impact interruptions in 2022 leading to the circuit's reliability deficiency. The interruptions were the following vehicle hit pole, mylar balloon contacting OH lines, and critter in substation equipment.	10/31/2022	Grid Mod Installing 2 Automated Switches	2023
Atento 12kV*	22	0.247127879	9	0.31997	Atento had two UG equipment interruptions in 2022 that resulted in high impact outages leading to the reliability deficiency.	1/29/2021	Grid Resiliency Reconductor 32 circuit miles to OH covered condutor between 2021 through 2022. Engineering will continue to monitor and evaluate circuit performance for additional circuit enhancements (i.e FI's and automation) to minimize CMI and CI.	Pending Review
Pascoe 2.4kV*	27	0.237410606	3	0.49997	Pascoe had no impact outage but had four OH equipment interruptions that were isolated by a fuses.	2/26/2020	Grid Resiliency Reconductor 8.3 circuit miles to aerial cable	2024
Power 4kV*	28	0.222029779	11	0.31528	2022 leading interruptions for Power's reliability deficiency was two OH equipment failures and operation driven interruption. Circuit recently has been performing welll compared to past, no additional projects needed at this time	3/30/2017	Power 4kV cutover to12kV Converting 150 4kV transformers to 12kV	Pending Permits
Kay 16kV*	34	0.208220933	38	0.20195	Kay experienced three high impact interruptions in 2022 leading to the circuit's reliability deficiency. The interruptions were two critter events and a mylar balloon.	1/19/2021	Grid Mod Installing 2 Automated Switches	2022
Big Rock 16kV*	35	0.205869378	27	0.23550	Big Rock experienced three high impact interruptions in 2022 leading to the circuit's reliability deficiency. The interruptions were OH equipment and two operations driven.	9/3/2021	Grid Resiliency Reconductor 10.6 circuit miles to covered conductor	2021
Agate 12kV*	36	0.203268847	13	0.29980	Agate had one high impact interruption in 2022 from a UG equipment failure leading to the circuit's relaibility deficiency.	8/31/2018	Grid Resiliency Reconductor 1.04 circuit miles to covered conductor	2023
Autumn 12kV*	38	0.19462344	34	0.21826	2022 high impact interruptions on the Autumn ckt were two source interruptions from Chateau 33kV and one weather.	11/30/2022	Grid Resiliency Reconductor 7.8 circuit miles to covered conductor	2024
Landers 25kV*	42	0.185499929	26	0.23555	Pinto 33kV source circuit feeding Campanula and Landers had four interruptions contributing to reliability deficiency. The high impact outages on the Pinto were mylar balloon in OH ines, operation, vehicle hit pole, UG equipment.	-	Engineering will continue to monitor and evaluate circuit performance for additional circuit enhancements (i.e FI's and automation) to minimize CMI and CI.	Pending Review
Cachuma 16kV*	43	0.185395044	10	0.31646	Cachuma had two high impact interruptions in 2022 which were caused weather and UG equipment.	2/22/2019	Grid Resiliency Reconductor 7.8 Circuit Miles of covered conductor Reconductor 38.9 Circuit Miles of covered conductor installed between 2020 through 2022. 15 CLF locations	2023
Vallecito 16kV*	44	0.184745498	36	0.21671	2022 high impact interruptions for Vallecito's reliability deficiency was two UG equipment failures.	8/31/2018	Grid Resiliency Reconductor 13.4 Circuit Miles of covered conductor	??
Trochu 16kV*	46	0.179211597	15	0.29025	Trochue experienced two high impact interruptions in 2022. The events were vehicle hit pole and OH equipment.	10/31/2022	Grid Mod Installing 2 Automated Switches	2023

v. SCE does not have a quantitative description for its circuit future performance since SCE designs reliabilty improvements for WCR projects at the system level rather than at the individual circuit level. For additional details, please refer to the discussion in SCE's 2018 General Rate Case Testimony, as shown in Exhibit SCE-02, Volume 08, page 23 ("quantitative benefits").

Table 10 – (SAIFI Preferred Metric – "Repeat Deficient" List)

	i.		ii.		iii.	iv.		
Circuit	2022 Sys-SAIFI Rank	2022 Sys-SAIFI	2021 Sys-SAIFI Rank	2021 Sys-SAIFI	Explanation of Repeat Deficiency	Submitted	Engineering Scope	Anticipated Completion Year
Asteroid 16kV*	1	0.00345	35	0.00165	Asteroid experienced five high impact interruptions in 2022. The high impact outages were two OH equipment, two lightning driven, and one event driven by operations.	7/31/2018	OCP Reconductor 5.5 Condutor Miles of OH bare conductor	Postphone due to resouces
Fantail 16kV*	2	0.00339	21	0.00195	Structures need to be pump to begin troubleshooting. 2022 leading interruptions for reliability deficiency were three UG equipment failures.	-	Engineering is monitoring and evaluating circuit for additional circuit enhancements (i.e FI's and automation) to minimize CMI and CI.	Pending Review
Driskill 16kV*	3	0.00337	10	0.00209	Driskill had five high impact interruptions in 2022 which are three operation driven, UG equipment, and critter.	9/30/2022	Grid Resiliency Reconductor 5.6 circuit miles to OH covered condutor Installing 10 BLF location	2024
Ryan 16kV*	4	0.00336	28	0.00185	Ryan experienced two high impact interruptions in 2022 leading to the circuit's reliability deficiency. The interruptions were a critter events and vegetation.	1/31/2018	OCP Reconductor 5 Circuit Miles of OH bare conductor	2023
Corsica 16kV*	5	0.00335	2	0.00329	Two UG equipment failues that were high impacted outages which lead to Corsica's reliability performace.	10/31/2017	WCR Installing 5 Fis 20 BLFs locations Replacing 8 OH Switches Grid Mod 3 Automated Switches	2023
Roi-Tan 12kV*	7	0.00322	9	0.00219	Roi-Tan experienced seven high impact interruptions in 2022, three due to foreign material in OH lines, three Red Flag warnings and one event was due to a transmission interruption.	1/6/2023	Grid Resiliency Reconductor 1.4 circuit miles to OH covered condutor Engineering will continue to monitor and evaluate circuit performance for additional circuit enhancements (i.e FI's and automation) to minimize CMI and CI.	2024
January 12kV*	8	0.00303	4	0.00286	2022 leading interruptions for reliability deficiency were two UG equipment failures, one OH equipment failure.Circuit traverse along Newport Beach Balboa Peninsula congested intersections and structures need to pump to begin troubleshooting.	2/17/2023	District is piloting two locations for Eco sump pumps.	2023
Surfside 16kV*	9	0.00299	32	0.00171	Surfside experienced three high impact interruptions in 2022 leading to the circuit's reliability deficiency. The interruption events were OH equipment, vehicle hit pole, and critter.	-	WCR Recable 2.7 UG conductor miles Installing 1 PME	Postphone due to resouces
Campanula 25kV*	10	0.00293	26	0.00187	Pinto 33kV source circuit feeding Campanula and Landers had four interruptions contributing to reliability deficiency. The high impact outages on the Pinto were mylar balloon in OH ines, operation, vehicle hit pole, UG equipment.	1/31/2022	Grid Resiliency Reconductor 19.7 circuit miles of OH bare conductor	2023?
Speaker 12kV*	15	0.00244	44	0.00151	Speaker had five impact interruptions in 2022 the outages were three UG equipment and 2 OH equipment.	1/31/2022	Grid Mod Installing 2 Automated Switches	2023
Exline 16kV*	19	0.00227	19	0.00198	Exline had the following high impacted events which lead to it's reliability deficiency. Vegetation in OH lines, 2 events caused by vandalism, lightning, 2 OH equipment events, and 1 UG equipment event.	-	Engineering is monitoring and evaluating circuit for additional circuit enhancements (i.e FI's and automation) to minimize CMI and CI.	Pending Review
Spinnaker 16kV*	21	0.00219	8	0.00219	2022 high impact interruptions Spinnaker's reliability deficiency was two OH equipment events.	10/27/2016	WCR Installing .17 Conductor mile of UG cable for a boxloop WCR Installing 4 Automated Switches Installing 22 BLFs locations Project completed	Postponed due to resources
Hooligan 16kV*	22	0.00214	24	0.00192	Hooligan experienced two high impact interruptions in 2022 leading to the circuit's reliability deficiency. The interruptions events were OH and UG equipment failures.	11/30/2022	Grid Resiliency Reconductor 2.98 Circuit Miles of covered conductor	2025
Gringo 16kV*	23	0.00214	16	0.00203	Gringo had one UG equipment which was a high impact interruptions in 2022 leading to the circuit's reliability deficiency.	-	Engineering is monitoring and evaluating circuit for additional circuit enhancements (i.e FI's and automation) to minimize CMI and CI.	Pending Review
Tenneco 12kV*	24	0.00211	1	0.00374	2022 high impact interruption on the Tenneco was due to a car hit pole impacting the transmission line feeding sub.	2/22/2019	Grid Resiliency Reconductor 90 circuit miles to OH covered condutor installed between 2020 through 2022. Engineering will continue to monitor and evaluate circuit performance for additional circuit enhancements (i.e FI's and automation) to minimize CMI and CI.	Pending Review
Tri City 16kV*	29	0.00208	18	0.00200	Tri City expericenced four high impact interruptions events in 2022. The events were vegetation in OH lines, OH equipment, and two events driven by operations.	-	Engineering is monitoring and evaluating circuit for additional circuit enhancements (i.e FI's and automation) to minimize CMI and CI.	Pending Review
Windjammer 16kV*	31	0.00206	3	0.00306	Windjammer expericenced two high impact interruptions events in 2022 which were OH equipment events.	-	Engineering is monitoring and evaluating circuit for additional circuit enhancements (i.e FI's and automation) to minimize CMI and CI.	Pending Review
Salmon 16kV*	33	0.00196	7	0.00227	2022 high impact interruptions for Salmon's reliability deficiency was a UG equipment failure and critter driven interruption.	-	Engineering is monitoring and evaluating circuit for additional circuit enhancements (i.e FI's and automation) to minimize CMI and CI.	Pending Review
Big Rock 16kV*	37	0.00175	36	0.00164	Big Rock experienced three high impact interruptions in 2022 leading to the circuit's reliability deficiency. The interruptions were OH equipment and two operations driven.	9/3/2021	Grid Resiliency Reconductor 10.6 circuit miles to covered conductor	2021
Margaret 16kV*	43	0.00164	6	0.00227	Margaret experienced one UG equipment high impact interruptions in 2022 leading to the circuit's reliability deficiency.	-	Engineering is monitoring and evaluating circuit for additional circuit enhancements (i.e FI's and automation) to minimize CMI and CI.	Pending Review

v. SCE does not have a quantitative description for its circuit future performance since SCE designs reliabilty improvements for WCR projects at the system level rather than at the individual circuit level. For additional details, please refer to the discussion in SCE's 2018 General Rate Case Testimony, as shown in Exhibit SCE-02, Volume 08, page 23 ("quantitative benefits").

WORST PERFORMING CIRCUITS (WPC) Evaluation

Per CPUC guidance, the top 1% circuits are the SCE's WPC and are assigned to the area Distribution Engineer to evaluate.

The WPC evaluation begins by reviewing outages exceeding thresholds of 100,000 Customer Minutes of Interruption (CMI) or 1,100 Customer Interrupted (CI). These thresholds are used to identify the severity of the outage and target specific areas with reliability concerns. SCE Outage Logs, ODRM reports, and repair orders are used as part of the outage evaluation and provide additional details such as switching procedures and operational obstacles such as access to structures to operate equipment. After the outages have been evaluated, Distribution Engineering can start determining WPC scopes.

Distribution Engineering focuses on proposing the most cost-effective overhead (OH) and/or underground (UG) enhancements to improve the customer experience by limiting outage impact and by installing equipment to improve isolation capabilities or reduce outage durations. Distribution Engineering's initial review may propose additional Branch Line Fuses (BLFs) to minimize impact of outage to a small subset of customers or Fault Indicators (FIs) to improve operation response time. These solutions are inexpensive and can be constructed quick if field conditions allow. The next layer of circuit improvement is overhead/underground automation which cost more than BLFs and FIs, but can greatly reduce duration of the outage by converting sustained interruption events into momentary events. Underground improvements or overhead re-conductoring tend to be costly and have longer lead times than the previous two options described but can provide additional reliability benefits. The underground and overhead re-conductoring options require significantly more resources to plan and construct than more cost-effective solutions. SCE Planning needs to field verify proposed locations to determine if work can be constructed and the resource needs (e.g., multiple crews) to construct these types of projects.

As mentioned in SCE's 2025 GRC proposal, SCE is returning to historical levels of traditional infrastructure replacement work to enhance and maintain system reliability and promote safety.

SECTION 6 – TOP 10 MAJOR UNPLANNED POWER OUTAGE EVENTS WITHIN A REPORTING YEAR

Table 11 below captures the top 10 major unplanned outage events for 2022 including the cause and location of the outage. Table 12 captures the number of customers without power in hourly intervals for the 2022 Top 10 outages.

Table 11 – Top 10 Major Unplanned Outage Events (2022)

Rank	System Outage ID	Date	Switching Center	Cause Description	SAIDI	Number of Customers Affected	Longest Individual Customer Interruption (minutes)	Customer interrupted due to restoration (Standard Operations)	Customer with Repeated power interruptions Due to Weather, equipment, etc other than standard operations
1	392533	1/22/2022	MIRA LOMA	UNKNOWN|OVERHEAD EQUIPMENT|SPLICE/CONNECTOR/TAP	1.03	5,138	2,529		2,569
2	405076	8/15/2022	RECTOR	DE-ENERGIZE FOR PUB. AGENCY|PUB. SAFETY|SWITCH/DISCONNEC	0.95	873	5,769		
3	391947	1/21/2022	MESA	VEGETATION BLOWN|OVERHEAD EQUIPMENT|CONDUCTOR/WIRE	0.80	2,813	3,841	10	
4	400741	6/16/2022	LUGO	OPEN FOR REPAIRS|STANDARD OPERATION|OPERATOR/CREW	0.72	2,589	1,472	2,589	
5	400713	6/22/2022	VINCENT	LIGHTNING|OVERHEAD EQUIPMENT|FUSE/BLF/CUTOUT	0.63	2,512	1,322		
6	403187	7/19/2022	EL NIDO	OTHER-SEE NOTES|SUBSTATION EQUIPMENT|CIRCUIT BREAKER	0.58	25,460	218		8,923
7	392509	1/21/2022	MIRA LOMA	VEGETATION BLOWN|OVERHEAD EQUIPMENT|CONDUCTOR/WIRE	0.56	2,837	4,048		1,034
8	403999	8/8/2022	ELDORADO	OTHER-SEE NOTES|STRUCTURE|POLE	0.56	2,354	1,890		
9	392236	1/21/2022	MIRA LOMA	WIND|OVERHEAD EQUIPMENT|CONDUCTOR/WIRE	0.55	23,753	4,582		2,145
10	392495	1/21/2022	MIRA LOMA	WIND|OVERHEAD EQUIPMENT|CONDUCTOR/WIRE	0.55	1,564	3,810		46

Table 12 – Number of Customers without Power in Hourly Intervals

Ranking	1	2	3	4	5	6	7	8	9	10
System Outage ID	392533	405076	391947	400741	400713	403187	392509	403999	392236	392495
Outage Start Hour	1/22/2022 12 AM	8/15/2022 04 PM	1/21/2022 10 PM	6/16/2022 08 AM	6/22/2022 01 AM	7/19/2022 06 AM	1/21/2022 10 PM	8/8/2022 03 PM	1/21/2022 10 PM	1/21/2022 10 PM
0 - 1 Hour	5138	873	2803	2589	2512	25460	1803	2354	4448	1476
1 - 2 Hour	2569	873	2803	2589	2512	16537	1803	2354	158	1476
2 - 3 Hour	2569	873	2803	2589	2512	13222	1803	2354	2303	1476
3 - 4 Hour	2569	873	2803	2589	2512	13222	1803	2354	8738	1476
4 - 5 Hour	2569	864	2803	2589	2512	0	1803	2354	8738	1476
5 - 6 hour	2569	864	2803	2589	2512	0	1803	2354	1409	1476
6 - 7 Hour	2569	864	2803	2589	2512	0	1803	2354	1409	1476
7 - 8 Hour	2569	864	2803	2589	2512	0	1803	1339	1409	1534
8 - 9 Hour	2569	864	2803	2589	2512	0	1803	1339	1409	1534
9 - 10 Hour	2569	864	2803	2589	2512	0	1803	1339	1409	1534
10 - 11 Hour	2569	864	2803	2589	2512	0	1803	1339	1409	1534
11 - 12 Hour	2569	864	2803	2589	2512	0	1803	1339	1409	1534
12 - 13 Hour	2569	864	2803	2589	2512	0	1803	1339	1409	1534
13 - 14 Hour	2569	864	2803	2589	2512	0	1803	1339	1409	1534
14 - 15 Hour	2569	864	2803	2589	2512	0	1803	1339	1409	1534
15 - 16 Hour	2569	864	2803	2589	2512	0	769	1339	1409	1534
16 - 17 Hour	2569	864	2803	2589	2512	0	769	1339	1409	621
17 - 18 Hour	2569	864	2803	2589	2512	0	769	1339	1409	621
18 - 19 Hour	2569	864	2803	2589	2512	0	769	1339	1409	621
19 - 20 Hour	2011	864	2803	2589	2512	0	769	1339	1409	621
20 - 21 Hour	2011	864	2803	2589	2512	0	769	1339	1409	621
21 - 22 Hour	2011	864	2803	2589	2512	0	1803	1339	1409	621
22 - 23 Hour	2011	864	2803	2589	2512	0	746	1339	1409	621
23 - 24 Hour	2011	864	2803	2589	0	0	746	1339	1409	621
After24Hour (includes interruptions started at later days/Hours)	2011	864	2813	2589	0	0	746	1339	1409	651

SECTION 7 – SUMMARY LIST OF MEDs PER IEEE 1366

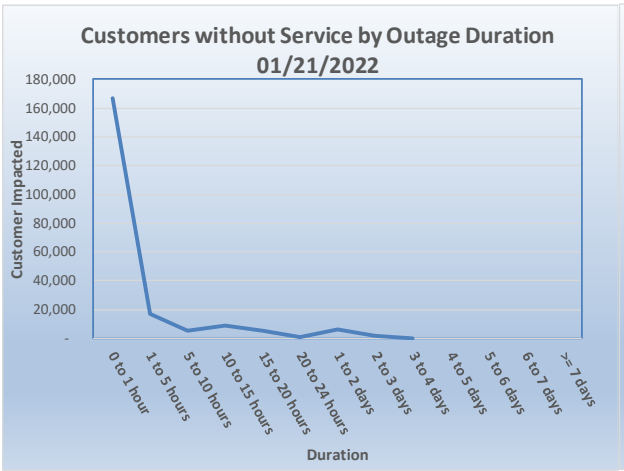
Table 13 below captures all MEDs occurring in 2022 per IEEE 1366 definition of MEDs. The information includes the number of customers without service at periodic intervals, the cause, and the location of each Major Event.

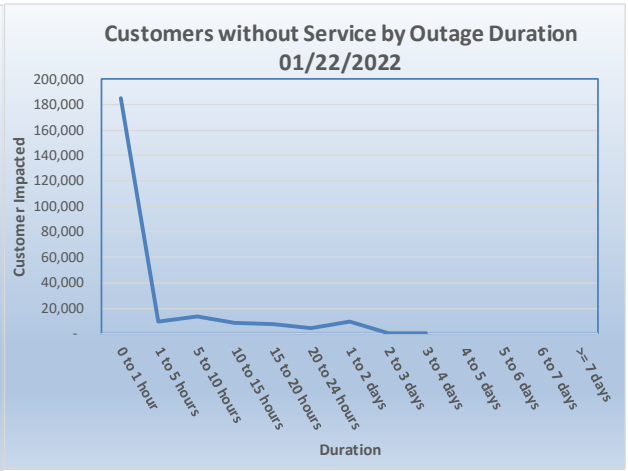
Table 13 – Summary list of MED Per IEEE (2022)

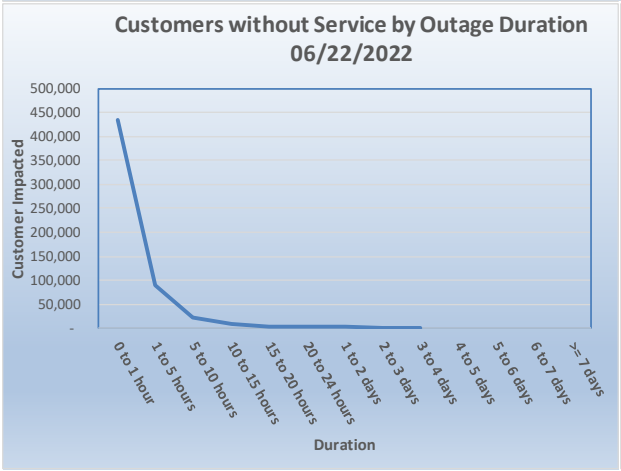
Cause	Wind, Vegetation Blown, OH Equipment, Operation	Wind, Vegetation Blown, OH Equipment, Operation	Lightning	Source Loss, OH Equipment, Vegetation Blown	Unknown, OH Equipment, Vegetation Blown
Location	**ME**	**ME**	**ME, NC, SJC, R**	**D, MW, O**	**MW, ME, R, O, NC**
Outage Duration	**1/21/2022**	**1/22/2022**	**6/22/2022**	**9/9/2022**	**11/8/2022**
0 to 1 hour	166,967	184,785	432,796	150,766	297,467
1 to 5 hours	16,725	9,722	90,611	40,943	51,091
5 to 10 hours	5,130	13,707	21,887	6,394	5,224
10 to 15 hours	8,975	7,931	7,904	2,605	2,290
15 to 20 hours	5,572	7,753	2,854	363	423
20 to 24 hours	1,158	4,096	3,285	611	147
1 to 2 days	6,562	9,322	3,081	1,161	224
2 to 3 days	2,247	228	47	13	
3 to 4 days	54	14	14		
4 to 5 days					
5 to 6 days					
6 to 7 days					
>= 7 days			1		
Total	213,390	237,558	607,214	202,856	356,866

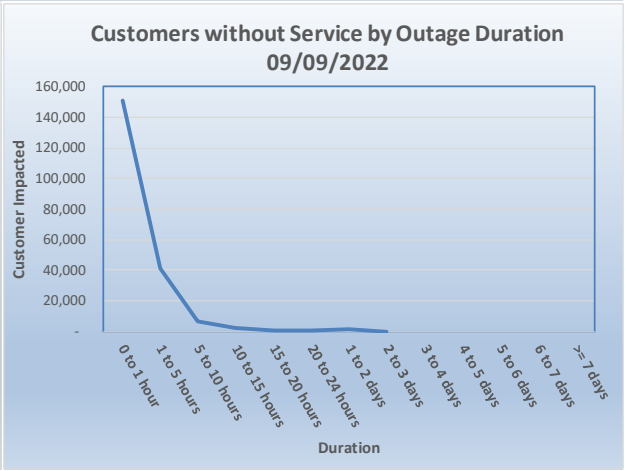
Note:

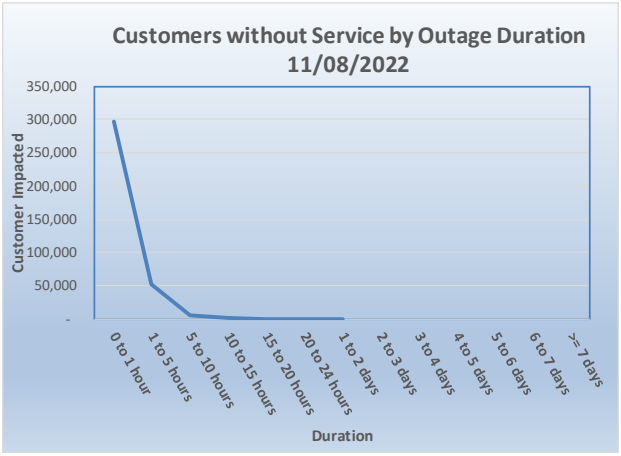
D - DESERT
ME - METRO EAST
MW - METRO WEST
NC - NORTH COAST
NV - NORTH VALLEY
O - ORANGE
R - RURALS
SJC - SAN JACINTO
SJQ - SAN JOAQUIN


Customers without Service by Outage Duration
01/21/2022
Customer Impacted
180,000
160,000
140,000
120,000
100,000
80,000
60,000
40,000
20,000
-
0 to 1 hour
1 to 5 hours
5 to 10 hours
10 to 15 hours
15 to 20 hours
20 to 24 hours
1 to 2 days
2 to 3 days
3 to 4 days
4 to 5 days
5 to 6 days
6 to 7 days
>= 7 days
Duration


Customers without Service by Outage Duration
01/22/2022
Customer Impacted
200,000
180,000
160,000
140,000
120,000
100,000
80,000
60,000
40,000
20,000
-
0 to 1 hour
1 to 5 hours
5 to 10 hours
10 to 15 hours
15 to 20 hours
20 to 24 hours
1 to 2 days
2 to 3 days
3 to 4 days
4 to 5 days
5 to 6 days
6 to 7 days
>= 7 days
Duration


Customers without Service by Outage Duration
06/22/2022
Customer Impacted
500,000
450,000
400,000
350,000
300,000
250,000
200,000
150,000
100,000
50,000
-
0 to 1 hour
1 to 5 hours
5 to 10 hours
10 to 15 hours
15 to 20 hours
20 to 24 hours
1 to 2 days
2 to 3 days
3 to 4 days
4 to 5 days
5 to 6 days
6 to 7 days
>= 7 days
Duration


Customers without Service by Outage Duration
09/09/2022
Customer Impacted
160,000
140,000
120,000
100,000
80,000
60,000
40,000
20,000
-
0 to 1 hour
1 to 5 hours
5 to 10 hours
10 to 15 hours
15 to 20 hours
20 to 24 hours
1 to 2 days
2 to 3 days
3 to 4 days
4 to 5 days
5 to 6 days
6 to 7 days
>= 7 days
Duration


Customers without Service by Outage Duration
11/08/2022
Customer Impacted
350,000
300,000
250,000
200,000
150,000
100,000
50,000
-
0 to 1 hour
1 to 5 hours
5 to 10 hours
10 to 15 hours
15 to 20 hours
20 to 24 hours
1 to 2 days
2 to 3 days
3 to 4 days
4 to 5 days
5 to 6 days
6 to 7 days
>= 7 days
Duration

SECTION 8 - HISTORICAL 10 LARGEST UNPLANNED OUTAGE EVENTS FOR THE PAST 10 YEARS

Table 14 below captures the 10 largest unplanned outage events for each of the years from 2013-2022.

Table 14 – Historical Top 10 Outage Events (2022)

Rank	Cause Description	System Outage ID	Date	SAIDI	Number of Customers Affected	Longest Individual Customer Interruption (minutes)	Location Switching Center
			2022				
1	UNKNOWN|OVERHEAD EQUIPMENT|SPLICE/CONNECTOR/TAP	392533	1/22/2022	1.031	5,138	2,529	MIRA LOMA
2	DE-ENERGIZE FOR PUB. AGENCY|PUB. SAFETY|SWITCH/DISCONNECT/AR	405076	8/15/2022	0.951	873	5,769	RECTOR
3	VEGETATION BLOWN|OVERHEAD EQUIPMENT|CONDUCTOR/WIRE	391947	1/21/2022	0.805	2,813	3,841	MESA
4	OPEN FOR REPAIRS|STANDARD OPERATION|OPERATOR/CREW	400741	6/16/2022	0.719	2,589	1,472	LUGO
5	LIGHTNING|OVERHEAD EQUIPMENT|FUSE/BLF/CUTOUT	400713	6/22/2022	0.634	2,512	1,322	VINCENT
6	OTHER-SEE NOTES|SUBSTATION EQUIPMENT|CIRCUIT BREAKER	403187	7/19/2022	0.577	25,460	218	EL NIDO
7	VEGETATION BLOWN|OVERHEAD EQUIPMENT|CONDUCTOR/WIRE	392509	1/21/2022	0.562	2,837	4,048	MIRA LOMA
8	OTHER-SEE NOTES|STRUCTURE|POLE	403999	8/8/2022	0.558	2,354	1,890	ELDORADO
9	WIND|OVERHEAD EQUIPMENT|CONDUCTOR/WIRE	392236	1/21/2022	0.553	23,753	4,582	MIRA LOMA
10	WIND|OVERHEAD EQUIPMENT|CONDUCTOR/WIRE	392495	1/21/2022	0.549	1,564	3,810	MIRA LOMA
			2021				
1	DE-ENERGIZE FOR PUB. AGENCY | PUB. SAFETY | SWITCH/DISCONNECT/AR	383108	8/20/2021	1.801	413	22,691	RECTOR
2	PUB. SAFETY POWER SHUTDOWN | PUB. SAFETY | SWITCH/DISCONNECT/AR	388053	11/24/2021	1.463	3,404	2,633	VENTURA
3	UNKNOWN | OVERHEAD EQUIPMENT | CONDUCTOR/WIRE	390687	12/29/2021	1.450	5,740	6,203	VISTA
4	UNKNOWN | SUBSTATION EQUIPMENT | BUS/CONDUCTOR	382392	8/9/2021	1.261	17,919	574	ORANGE COUNTY
5	VEGETATION BLOWN | OVERHEAD EQUIPMENT | CONDUCTOR/WIRE	390712	12/29/2021	1.257	23,554	10,001	VISTA
6	VEGETATION BLOWN | SUBSTATION EQUIPMENT | DISCONNECT	369669	1/19/2021	1.159	18,377	2,572	VINCENT
7	PUB. SAFETY POWER SHUTDOWN | PUB. SAFETY | SWITCH/DISCONNECT/AR	369889	1/19/2021	1.094	2,669	2,836	VENTURA
8	NO CAUSE FOUND | UNKNOWN | PATROLLED	369414	1/19/2021	1.090	5,501	1,934	VINCENT
9	PUB. SAFETY POWER SHUTDOWN | PUB. SAFETY | SWITCH/DISCONNECT/AR	369394	1/19/2021	1.063	3,068	1,811	VENTURA
10	PUB. SAFETY POWER SHUTDOWN | PUB. SAFETY | SWITCH/DISCONNECT/AR	388252	11/25/2021	1.023	7,662	2,504	VISTA
			2020				
1	DE-ENERGIZE FOR PUB. AGENCY | PUB. SAFETY | SWITCH/DISCONNECT/AR	368680	9/5/2020	16.141	5,036	169,347	RECTOR
2	FIRE | OVERHEAD EQUIPMENT | CONDUCTOR/WIRE	366672	9/9/2020	3.295	786	28,063	VISTA
3	FIRE | OVERHEAD EQUIPMENT | CONDUCTOR/WIRE	368697	9/13/2020	1.914	98	125,503	RECTOR
4	PUB. SAFETY POWER SHUTDOWN | PUB. SAFETY | SWITCH/DISCONNECT/AR	367130	12/7/2020	1.878	4,125	3,043	VALLEY
5	PUB. SAFETY POWER SHUTDOWN | PUB. SAFETY | SWITCH/DISCONNECT/AR	366833	12/7/2020	1.795	5,239	1,983	VINCENT
6	FIRE | STRUCTURE | POLE	366519	9/5/2020	1.646	800	113,097	RECTOR
7	DE-ENERGIZE FOR PUB. AGENCY | PUB. SAFETY | SWITCH/DISCONNECT/AR	362801	9/14/2020	1.483	572	13,476	RECTOR
8	DE-ENERGIZE FOR PUB. AGENCY | PUB. SAFETY | SWITCH/DISCONNECT/AR	364540	9/10/2020	1.308	531	22,077	VISTA
9	REMEDIAL ACTION SCHEME | STANDARD OPERATION | OPERATOR/CREW	367731	12/13/2020	1.304	130,528	121	MIRA LOMA
10	PUB. SAFETY POWER SHUTDOWN | PUB. SAFETY | SWITCH/DISCONNECT/AR	366862	12/7/2020	1.273	2,841	2,323	VINCENT
			2019				
1	LOST | SOURCE | SUBSTATION	336358	8/2/2019	4.620	37,714	6,348	ORANGE COUNTY
2	LOST | SOURCE | SUBSTATION	338863	9/16/2019	2.291	13,242	40,884	CONTROL
3	WIND | OVERHEAD EQUIPMENT | CONDUCTOR/WIRE	344450	12/26/2019	2.202	8,970	15,027	VISTA
4	NO CAUSE FOUND | UNKNOWN | PATROLLED	342810	11/28/2019	1.644	14,106	21,127	VISTA
5	UNKNOWN | TRANSMISSION EQUIPMENT | CONDUCTOR	339320	10/5/2019	1.608	16,311	13,149	CONTROL
6	PUB. SAFETY POWER SHUTDOWN | PUB. SAFETY | SWITCH/DISCONNECT/AR	340707	10/30/2019	1.421	2,462	9,039	VISTA
7	LOST | SOURCE | SUBSTATION	344416	12/26/2019	1.294	40,765	11,642	VISTA
8	PUB. SAFETY POWER SHUTDOWN | PUB. SAFETY | SWITCH/DISCONNECT/AR	340669	10/30/2019	1.201	2,932	2,113	VINCENT
9	PUB. SAFETY POWER SHUTDOWN | PUB. SAFETY | SWITCH/DISCONNECT/AR	340627	10/30/2019	1.101	3,105	12,038	VINCENT
10	PUB. SAFETY POWER SHUTDOWN | PUB. SAFETY | SWITCH/DISCONNECT/AR	340690	10/30/2019	1.049	2,288	2,361	VISTA
			2018				
1	LOST | SOURCE | SUBSTATION	320389	11/13/2018	7.577	2,828	47,832	VENTURA
2	FIRE | STRUCTURE | POLE	320287	11/12/2018	4.159	914	44,776	VENTURA
3	PUBLIC AGENCY | DENIED ACCESS | POLE	320225	11/9/2018	3.703	2,141	8,867	VENTURA
4	LOST | SOURCE | SUBSTATION	320091	11/11/2018	2.743	833	31,785	VENTURA
5	LOST | SOURCE | SUBSTATION	320324	11/15/2018	2.463	2,492	46,234	VENTURA
6	PUBLIC AGENCY | DENIED ACCESS | POLE	320390	11/9/2018	2.421	2,085	5,954	VENTURA
7	OPEN FOR REPAIRS | STANDARD OPERATION | OPERATOR/CREW	313579	7/25/2018	2.199	7,732	4,189	VALLEY
8	LOST | SOURCE | SUBSTATION	319319	11/9/2018	2.063	1,743	27,656	VENTURA
9	LOST | SOURCE | DISTRIBUTION LINE	318316	10/15/2018	1.306	5,475	2,021	VALLEY
10	LOST | SOURCE | SUBSTATION	319972	11/9/2018	0.933	2,313	30,448	VENTURA
			2017				
1	LOST | SOURCE | SUBSTATION	303349	12/4/2017	4.998	181,830	1,377	VENTURA
2	FIRE | OVERHEAD EQUIPMENT | CONDUCTOR/WIRE	298030	8/29/2017	3.023	1,008	32,392	RECTOR
3	FIRE | STRUCTURE | POLE	303217	12/4/2017	2.259	6,841	16,826	VENTURA
4	TOPPLED/BROKEN | STRUCTURE | POLE	286230	1/22/2017	2.045	5,236	10,393	RECTOR
5	FIRE | STRUCTURE | POLE	303315	12/5/2017	1.849	4,640	19,065	VENTURA
6	FIRE | TRANSMISSION EQUIPMENT | CONDUCTOR	303350	12/4/2017	1.450	85,545	262	VENTURA
7	LOST | SOURCE | SUBSTATION	301515	12/7/2017	0.923	2,824	1,940	VALLEY
8	FIRE | TRANSMISSION EQUIPMENT | CONDUCTOR	302696	12/10/2017	0.898	84,977	66	VENTURA
9	BALLOON | OVERHEAD EQUIPMENT | POTHEAD	290334	4/30/2017	0.740	12,818	797	VISTA
10	LOST | SOURCE | SUBSTATION	302693	12/4/2017	0.622	175,978	18	VENTURA

Rank	Cause Description	System Outage ID	Date	SAIDI	Number of Customers Affected	Longest Individual Customer Interruption (minutes)	Location Switching Center
			2016				
1	OPEN FOR REPAIRS | STANDARD OPERATION | OPERATOR/CREW	272685	4/29/2016	1.507	40,012	451	VALLEY
2	OPEN FOR REPAIRS | STANDARD OPERATION | OPERATOR/CREW	278786	8/19/2016	1.298	1,238	18,457	RECTOR
3	FIRE | STRUCTURE | POLE	276042	6/23/2016	1.171	7,608	3,666	RECTOR
4	VEGETATION BLOWN | OVERHEAD EQUIPMENT | CONDUCTOR/WIRE	267639	1/7/2016	0.979	12,812	2,424	VISTA
5	OVERLOAD/FATIGUE | OVERHEAD EQUIPMENT | CONDUCTOR/WIRE	275066	6/20/2016	0.928	16,162	1,572	LIGHTHIPE
6	FIRE | OVERHEAD EQUIPMENT | CONDUCTOR/WIRE	276005	6/23/2016	0.880	1,678	9,359	RECTOR
7	FIRE | OVERHEAD EQUIPMENT | CONDUCTOR/WIRE	276561	6/23/2016	0.840	664	11,716	RECTOR
8	FIRE | OVERHEAD EQUIPMENT | CONDUCTOR/WIRE	275884	6/23/2016	0.830	440	9,546	RECTOR
9	SUBSTATION MAINTENANCE | ERROR | DURING ROUTINE WORK	280501	10/11/2016	0.694	103,448	304	EL NIDO
10	BALLOON | OVERHEAD EQUIPMENT | CONDUCTOR/WIRE	269108	2/15/2016	0.640	8,220	696	EL NIDO
			2015				
1	OPEN FOR REPAIRS | STANDARD OPERATION | OPERATOR/CREW	257095	7/15/2015	2.316	3,849	3,035	LIGHTHIPE
2	OPEN FOR REPAIRS | STANDARD OPERATION | OPERATOR/CREW	257307	7/15/2015	0.783	1,329	3,372	LIGHTHIPE
3	UNKNOWN | OVERHEAD EQUIPMENT | CONDUCTOR/WIRE	258625	8/13/2015	0.611	5,884	1,136	DEVERS
4	TOPPLED/BROKEN | STRUCTURE | POLE	261130	9/9/2015	0.467	4,301	7,215	MIRA LOMA
5	UNKNOWN | UNDERGROUND EQUIPMENT | CABLE	257337	7/15/2015	0.452	1,801	3,539	LIGHTHIPE
6	OTHER-SEE NOTES | STRUCTURE | POLE	257205	7/19/2015	0.446	3,906	1,247	VALLEY
7	N/A | UNKNOWN | NOT PATROLLED	262924	10/15/2015	0.436	10,130	581	VISTA
8	UNKNOWN | UNDERGROUND EQUIPMENT | CABLE	261743	9/19/2015	0.411	4,024	906	ORANGE COUNTY
9	UNKNOWN | SUBSTATION EQUIPMENT | CIRCUIT BREAKER	261051	9/15/2015	0.387	17,282	135	LIGHTHIPE
10	LANDSLIDE/MUDSLIDE | STRUCTURE | POLE	267353	10/18/2015	0.382	18	106,745	ELDORADO
			2014				
1	BUSHING | SUBSTATION EQUIPMENT | CIRCUIT BREAKER	247325	12/22/2014	2.155	20,314	741	VISTA
2	LOST | SOURCE | SUBSTATION	239280	7/24/2014	0.808	29,678	345	ORANGE COUNTY
3	TOPPLED/BROKEN | STRUCTURE | POLE	236393	5/14/2014	0.739	5,694	1,033	VALLEY
4	UNKNOWN | UNDERGROUND EQUIPMENT | CABLE	247704	12/31/2014	0.464	1,308	4,188	VALLEY
5	UNKNOWN | OVERHEAD EQUIPMENT | POTHEAD	245855	11/23/2014	0.401	1,395	1,440	DEVERS
6	OTHER-SEE NOTES | STRUCTURE | SUBSTATION STRUCTURE/RACK	239913	7/30/2014	0.399	6,895	503	MESA
7	OVERLOADED | SUBSTATION EQUIPMENT | TRANSFORMER BANK	243293	10/2/2014	0.384	51,167	293	VENTURA
8	TOPPLED/BROKEN | STRUCTURE | POLE	245458	11/16/2014	0.365	785	2,329	DEVERS
9	LOST | SOURCE | SUBSTATION	232941	2/28/2014	0.351	25,087	87	VENTURA
10	TESTING/TROUBLESHOOTING | STANDARD OPERATION | OPERATOR/CREW	246973	12/15/2014	0.348	2,423	2,398	ORANGE COUNTY
			2013				
1	LOST | SOURCE | SUBSTATION	224692	8/19/2013	6.316	125,876	1,729	RECTOR
2	UNKNOWN | TRANSMISSION EQUIPMENT | CONDUCTOR	226855	9/15/2013	1.500	107,741	381	EL NIDO
3	SUDDEN PRESSURE DEVICE | SUBSTATION EQUIPMENT | TRANSFORMER BANK	221685	6/28/2013	1.111	64,709	164	LIGHTHIPE
4	UNKNOWN | OVERHEAD EQUIPMENT | TRANSFORMER	217672	4/9/2013	0.801	5,613	1,453	LIGHTHIPE
5	LIGHTNING | SUBSTATION EQUIPMENT | CIRCUIT BREAKER	215922	2/8/2013	0.728	30,145	883	LIGHTHIPE
6	UNKNOWN | UNDERGROUND EQUIPMENT | CABLE	223292	7/26/2013	0.618	5,904	1,443	ORANGE COUNTY
7	UNKNOWN | UNDERGROUND EQUIPMENT | CABLE	229947	12/15/2013	0.543	1,572	1,867	EL NIDO
8	VANDALISM | SUBSTATION EQUIPMENT | BUS/CONDUCTOR	218242	4/24/2013	0.519	22,217	304	VALLEY
9	PULLED APART | OVERHEAD EQUIPMENT | SPLICE/CONNECTOR/TAP	214695	1/1/2013	0.440	4,979	1,395	MESA
10	UNKNOWN | OVERHEAD EQUIPMENT | CONDUCTOR/WIRE	218132	4/26/2013	0.437	2,911	1,483	LIGHTHIPE

SECTION 9 – THE NUMBER OF CUSTOMER INQUIRIES ON RELIABILITY DATA AND THE NUMBER OF DAYS PER RESPONSE.

In 2022, SCE received a total of 93 customer inquiries relating to circuit outage history or reliability data. SCE responded to 32% of the inquiries within 7 business days, 58% of the inquiries between 8 and 15 business days, and 10% of the inquires in a time frame greater than 15 business days.

APPENDIX

Circuit SAIFI

The number of times the average customer on the circuit experienced an outage lasting more than 5 minutes.

Circuit SAIDI

The amount of time the average customer on the circuit was without power due to outages lasting longer than 5 minutes.

Circuit MAIFI

The Momentary Average Interruption Frequency Index is the number of times an average customer was without power in a year due to service interruptions lasting 5 minutes or less (measured in interruptions per customer)

Circuit CAIDI

The average time required to restore service for a sustained outage.