Pacific Gas and Electric Company

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August 12, 2016 **BY ELECTRONIC MAIL**

Timothy Sullivan, Executive Director
California Public Utilities Commission
505 Van Ness Avenue
San Francisco, CA 94102

Re: 2015 Annual Electric Distribution Reliability Report, D.16-01-008

Dear Mr. Sullivan:

Pursuant to Decision (D.) 16-01-008, attached is PG&E's 2015 Annual Electric Distribution Reliability Report.

On May 31, 2016, as required by the Decision, PG&E submitted, under seal, the list of planned outages for the previous ten years to the Energy Division Director. A copy of the planned outage data, under seal, is being provided today to the Director of the Safety and Enforcement Division on a CD via hand delivery.

Please contact Bruce Smith (BTS1@PGE.COM, 415-973-2616) if you have any questions or comments on this report.

Very truly yours,

Erik B. Jacobson
Director, Regulatory Relations

cc: Elizaveta Malashenko, Director, Safety and Enforcement Division
David K. Lee, Energy Division
EnergyDivisionCentralFiles@cpuc.ca.gov

Enclosure

PACIFIC GAS AND ELECTRIC COMPANY

2015 ANNUAL ELECTRIC RELIABILITY REPORT
(Per Decision16-01-008)

August 12th, 2016

Table of Contents

Executive Summary

Over the last ten (10) years, electric customers of Pacific Gas and Electric Company (PG&E) have seen improving reliability. 2015 marked another milestone as the average PG&E customer experienced less than one outage during the year for the second year in a row. PG&E's investment in its electric infrastructure and its commitment to integrating innovative technology continue to pay dividends for our customers. As noted in the California Public Utilities Commission's (CPUC) recently released 10-year reliability study, "Particularly in PG&E's service territory, marked improvement in reliability metrics are seen in the historic data, with particular improvement observed in the Central Valley and Bay Area."[1]

Utilities measure reliability in many ways: duration of outages, frequency of outages, average restoration time, counting only unplanned outages, counting planned outages, excluding unusual events such as major storms (so called Major Event days), including or excluding certain types of outages, among other distinctions. This report explains the various different measures and includes all the various metrics required by CPUC Decision 16-01-008. For purposes of this Executive Summary, PG&E is focusing on metrics that include planned outages, but exclude major event days. These metrics are found in Section 3, starting at page 159. PG&E believes these metrics best reflect the typical customer's experience.

Since 2006, PG&E has reduced the amount of time the average PG&E customer experiences a sustained outage or outages in a given year by half, from 195.7 minutes to 95.8 minutes, a 51 percent improvement. In the same period, PG&E has also reduced the number of times the average PG&E customer experiences a sustained outage in a given year from 1.450 to 0.870, a 40 percent improvement. Table 1 below displays our improvement in electric reliability from 2006 through 2015.

[1] CPUC Policy and Planning Division, *California Electric Reliability Investor-Owned Utilities Performance Review 2006-2015*, Executive Summary, p. iii, which can be found at http://www.cpuc.ca.gov/uploadedfiles/cpuc_public_website/content/about_us/organization/divisions/policy_and_planning/ppd_work/ppd_work_products_(2014_forward)/ppd%20reliability%20review.pdf.

Table 1 – Combined Transmission and Distribution System Indices (2006-2015)
(Excludes MED and ISO outages, and includes planned outages)

Year	Major Event Day (MED) Excluded			
	SAIDI	SAIFI	MAIFI	CAIDI
2006	195.7	1.450	1.588	135.0
2007	167.0	1.306	1.526	127.9
2008	181.5	1.299	1.597	139.7
2009	157.5	1.206	1.398	130.6
2010	157.2	1.207	1.257	130.2
2011	141.8	1.087	1.180	130.5
2012	131.5	1.125	1.805	116.9
2013	116.8	1.065	1.533	109.7
2014	110.2	0.965	1.400	114.2
2015	95.8	0.870	1.549	110.1

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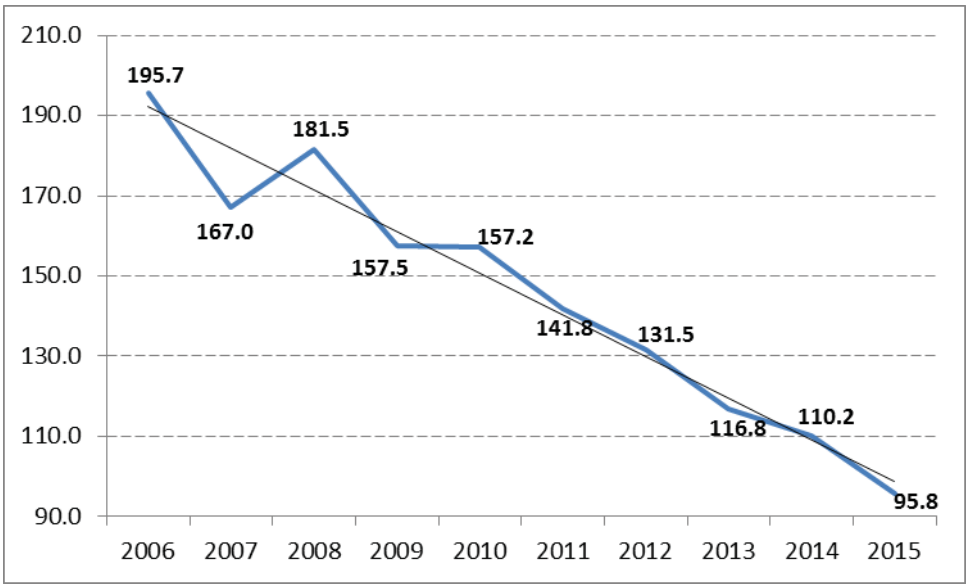
Chart A on the following page shows the reduction in the duration of the amount of time the average PG&E customer experiences a sustained outage or outages in a given year in graph form:

Chart A



(Includes Planned Outages, Excludes Major Event Days and ISO Outages)[2]

And, not surprisingly, system-wide improvement is mirrored at the division level. As shown by the 10-year charts included later in this report, reliability improved in 18 of PG&E's 19 divisions in 2015 compared to 2006. Division level reliability also improved in 13 of PG&E's 19 divisions in 2015 compared to 2014.

How PG&E Measures Reliability

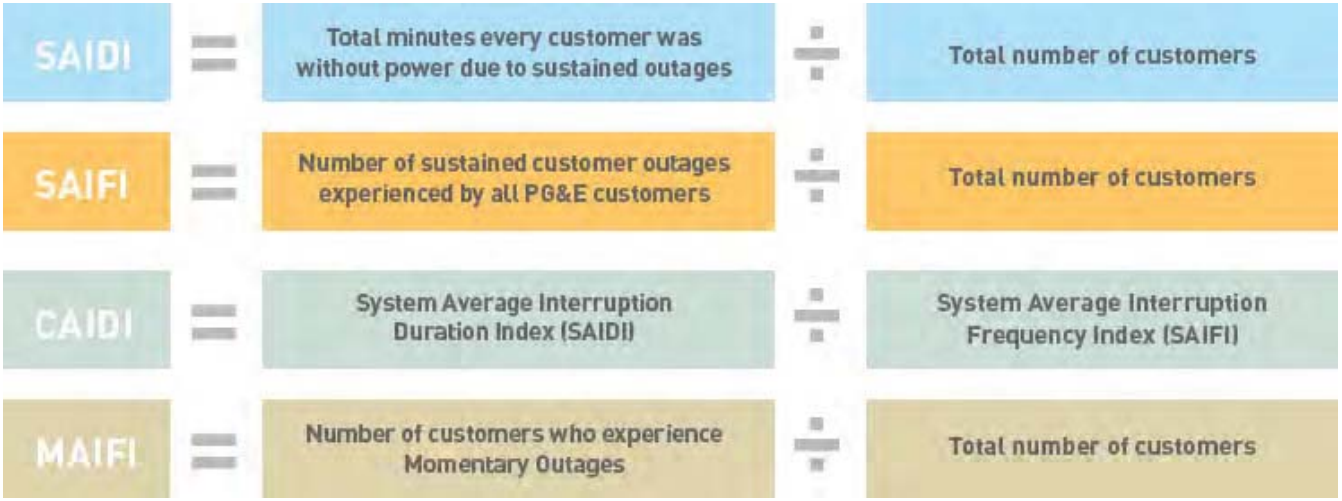
PG&E uses four metrics commonly used in the electric utility industry to measure reliability: the System Average Interruption Duration Index (SAIDI), the System Average Interruption Frequency Index (SAIFI), the Momentary Average Interruption Frequency Index (MAIFI), and the Customer Average Interruption Duration Index (CAIDI).

- SAIDI measures the amount of time the average PG&E customer experiences a sustained outage or outages (being without power for more than five minutes) in a given year. **In 2015, PG&E's SAIDI was about 95.8 minutes per customer. This is a better than 51 percent improvement over the last 10 years.**
- SAIFI is the number of times the average PG&E customer experiences a sustained outage in a given year. **In 2015, PG&E's SAIFI was 0.870 or less than one sustained outage per customer for the year, including planned outages. This is the second year in a row that the average customer**

[2] See Table 47 on Page 157.

has experienced less than one sustained outage for the year. The 2015 SAIFI, 0.870, represents a 40 percent improvement over the last 10 years.

- MAIFI is the number of times the average customer is interrupted by momentary outages each year. Momentary outages are outages lasting 5 minutes or less. **In 2015, PG&E's MAIFI was 1.549, or more than one per customer. This figure is similar to the 2007 MAIFI results.**
- CAIDI is the average duration of a sustained outage. It is determined by taking the total outage minutes for all customer outages[3] (System Average Interruption Duration Index (SAIDI)) and dividing it by the total number of outages (System Average Interruption Frequency Index (SAIFI)). **In 2015, PG&E's CAIDI was 110.1 minutes**. **This represents an 18 percent improvement over the past 10 years.**



What's Behind Record Reliability?

PG&E continues to integrate a wide range of advanced communications and control technologies throughout its electric grid to enhance the resiliency of the system and to identify and restore power outages more quickly. In the last five years, PG&E has invested more than $11 billion dollars to enhance and harden its electric transmission and distribution system assets.

Some highlights of the technology that has boosted reliability include:

New Distribution Control Centers: Since 2014, PG&E has opened state-of-the-art electric distribution control centers that manage more than 140,000 miles of electric distribution power lines throughout Northern and Central California. These facilities are the nerve centers of the grid that delivers energy to the homes and businesses of more than 16 million Californians. Located in Fresno and Concord, in addition to a new distribution control center opened this year in Rocklin in Placer

[3] Excluding momentary outages, which are measured through MAIFI.

County, the centers already are enhancing electric reliability for PG&E customers while incorporating clean, renewable energy into the grid.

Smart Grid: PG&E is also installing advanced automated technology on power lines throughout its service area. This technology can automatically “self-heal” the grid by re-routing the flow of electricity around a damaged power line and effectively restore power to the majority of impacted customers within minutes. These systems have been installed on more than 20 percent of PG&E’s electrical distribution circuits, helping the company avoid more than 100 million customer outage minutes and saving more than one million customers from a sustained outage since the program began in 2012. Other advances, including line sensors that help pinpoint the specific location of an outage, continue to be integrated into the system.

What follows is the 2015 Electric Reliability Report for Pacific Gas and Electric Company as required by Decision 16-01-008. This report includes system reliability data based on Institute of Electrical and Electronic Engineers (IEEE) Standard 1366 methodology, as required by D.16-01-008. The report includes very specific details, including reliability numbers for each of PG&E’s 19 divisions. It also includes a list of our worst performing circuits in Chapter 5.

Introduction

This is the 2015 Electric Reliability Report for Pacific Gas and Electric Company as required by Decision 16-01-008. This report includes system reliability data based on Institute of Electrical and Electronic Engineers (IEEE) Standard 1366 Methodology. This report consists of the following:

Section	Description
1.	System Indices For The Last 10 Years (2006-2015)
2.	Division Reliability Indices (2006-2015) Including and Excluding Major Event Day (MED)
3.	System and Division Indices Based on IEEE 1366 (2006-2015) Including Planned Outages and Including and Excluding MED
4.	Service Territory Map including Divisions
5.	Top 1% of Worst Performing Circuits (WPC) excluding MED
6.	Top 10 Major Unplanned Power Outage Events in 2015
7.	Summary List of MEDs per IEEE 1366
8.	Historical Ten Largest Unplanned Outage Events (2006-2015)
9.	The Number of Customer Inquiries on Reliability Data and the Number of Days per Response
10.	Appendix A – Definitions, Acronyms and Abbreviations

In 2015, PG&E implemented a new outage reporting system that included the data conversion of its legacy (DART/OUTAGE) database. This new system consists of two main components that are typically referred to as PG&E's Integrated Logging and Information System (ILIS) and its Operations Database (ODB), also called ILIS-ODB for short. ILIS models the actual electric switching operations reported during the circuit restoration process (which is useful for determining accurate customer outage minutes for calculating SAIDI and CAIDI). PG&E maintains account specific information for customers affected by outages that are recorded and stored in PG&E's ODB. This system tracks outages at various levels (generation, transmission, substation, primary distribution, and individual transformers) and the most current outage data was used to compile the information contained in this report.

Distribution operators log outage information in PG&E's ILIS tool, which uses minutes as the smallest time increment to record the outage start, switching operations, and outage end times. SmartMeters measure outage duration in seconds and are used to automatically report momentary outages beyond non-SCADA auto-reclosing devices. Momentary outages for SCADA related and other events are logged by distribution operators using the ILIS tool, which does not have the benefit of measuring the outage duration in seconds. Consequently and although infrequent, it is possible that an outage duration is recorded as 5 minutes when the actual outage duration was up to 5 minutes and 59 seconds. In 2015, PG&E updated its reporting tools and process to help minimize this occurrence and allows the operator in these situations to log this event as a 6 minute sustained outage.

We have added a list of Definitions, Acronyms and Abbreviations at the end as Appendix A to help the reader who is not familiar with the jargon used in reliability reporting.

1. System Indices For The last Ten Years

a. System Indices (2006-2015)

Table 2 lists the required SAIDI, SAIFI, MAIFI[4], and CAIDI with MED Included and Excluded as directed in Appendix B of D.16-01-008[5]:

Table 2 – Combine Transmission and Distribution System Indices[6] (2006-2015)
(Excludes planned and ISO outages)

	Major Event Day (MED) Included				Major Event Day (MED) Excluded			
Year	SAIDI	SAIFI	MAIFI	CAIDI	SAIDI	SAIFI	MAIFI	CAIDI
2006	286.7	1.728	1.781	165.9	171.1	1.347	1.585	127.0
2007	162.4	1.254	1.570	129.5	144.8	1.204	1.521	120.3
2008	424.0	1.575	1.831	269.2	156.9	1.208	1.594	129.9
2009	211.8	1.316	1.544	160.9	134.3	1.119	1.395	120.0
2010	249.5	1.394	1.488	179.0	130.2	1.106	1.253	117.7
2011	278.8	1.267	1.483	219.9	109.7	0.966	1.172	113.6
2012	141.4	1.125	1.923	125.7	111.2	1.031	1.802	107.8
2013	117.8	1.065	1.638	110.6	96.4	0.964	1.529	100.0
2014	133.8	1.044	1.565	128.2	92.8	0.879	1.393	105.6
2015	130.0	0.965	1.764	134.7	80.5	0.786	1.541	102.5

Note: Includes Generation, Transmission, Substation, and Distribution related outages

[4] On November 18, 2011 the EON recording system was removed from service. Momentary outage data is now being collected from SCADA devices and through the use of Smart Meters. Data collection from the Smart Meters is more effective than the previous EON system since Smart Meters don't rely on customer volunteers having EON devices securely connected inside their buildings. The increased frequency of momentary outages recorded does not indicate an actual increase in momentary outages in 2012 and after as compared to prior years, but is a result of this improved method for recording momentary outages.

[5] In the course of preparing this report, PG&E realized that it made minor errors in last year's report. For example, for 2014 System Indices including both transmission and distribution, and excluding major event days, SAIFI should have been 0.879 (instead of 0.880), MAIFI should have been 1.393 (instead of 1.391), and CAIDI should have been 105.6 (instead of 105.4). This year's report includes corrected historical figures for all included system indices and divisional indices.

[6] Several tables containing 2015 system results have been updated based on PG&E's master outage data base as of July 8, 2016. These updates show slightly lower overall system results (in other words, better reliability) compared to the May 31, 2016 draft report provided to Energy Division. The results with respect to sustained outages dropped by 0.1% to 1.2%, while the results for momentary outages fell by 2.8% to 5.3%.

The reduction in momentary outages is primarily related to a data processing error discovered and resolved in June 2016. PG&E has used Smart Meter technology to automatically record momentary outages for several years. That technology relies on a de-duplication process to accurately identify the location and customers impacted. However, a data processing gap occurred when PG&E implemented other software initiatives that prevented this de-duplication process from working correctly for all scenarios. This error, which has now been corrected, was difficult to identify since the de-duplication process worked in most but not all cases. Although the system tables in this report have been updated, the division metrics and the variances discussions have not been updated, due to the relatively small nature of the differences.

i. Distribution System Indices

Table 3 – Distribution System Indices (2006-2015)
(Excludes planned outages, transmission, substation, and generation related outages)

Year	Major Event Day (MED) Included			Major Event Day (MED) Excluded		
	SAIDI	SAIFI	CAIDI	SAIDI	SAIFI	CAIDI
2006	247.1	1.478	167.1	147.0	1.142	128.7
2007	131.1	1.047	125.2	121.5	1.019	119.2
2008	374.9	1.363	275.0	132.8	1.041	127.5
2009	191.2	1.151	166.1	119.4	0.974	122.5
2010	210.8	1.164	181.1	108.2	0.921	117.5
2011	239.2	1.041	229.7	92.8	0.796	116.5
2012	120.1	0.959	125.2	96.3	0.882	109.2
2013	100.1	0.869	115.2	84.8	0.804	105.5
2014	119.7	0.926	129.2	85.2	0.780	109.2
2015	99.3	0.803	123.6	72.4	0.688	105.3

Note: PG&E defines its distribution system as line voltage less than 50 kilovolts (KV)

The MAIFI information is not included in Table 3 since non-SCADA automatic recording devices (EON or Smart Meters) do not distinguish between transmission system outages or distribution system outages.

ii. Transmission System Indices

Table 4 – Transmission System Indices (2006-2015)
(Excludes planned outages, distribution, and generation related outages)
(Includes substation outages)

Year	Major Event Day (MED) Included			Major Event Day (MED) Excluded		
	SAIDI	SAIFI	CAIDI	SAIDI	SAIFI	CAIDI
2006	39.5	0.249	158.5	24.0	0.204	117.6
2007	31.3	0.208	150.9	23.3	0.185	126.4
2008	48.8	0.211	231.0	23.8	0.166	143.6
2009	20.6	0.165	124.8	14.9	0.144	103.4
2010	38.7	0.230	168.2	22.0	0.186	118.4
2011	39.5	0.224	176.2	16.9	0.168	100.6
2012	21.3	0.165	128.7	14.8	0.149	99.6
2013	13.1	0.168	77.7	11.7	0.160	72.6
2014	14.1	0.116	121.0	7.5	0.097	77.8
2015	30.5	0.159	191.4	7.8	0.095	82.7

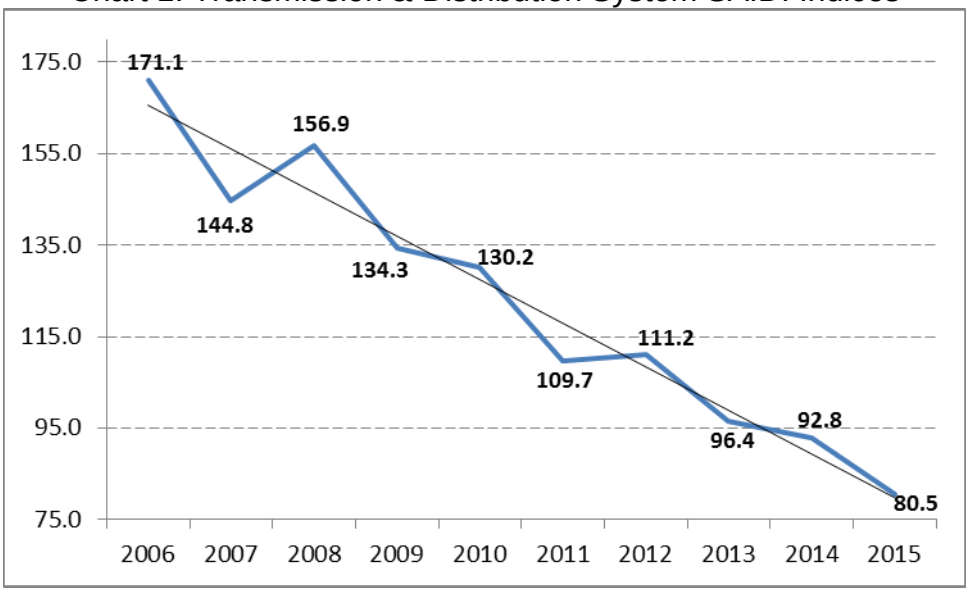
Note: PG&E defines its transmission system as line voltage 60 kilovolts (KV) and above

The MAIFI information is not included in Table 4 since non-SCADA automatic recording devices do not distinguish between transmission system outages or distribution system outages.

b. Separate System Charts of SAIDI, SAIFI, MAIFI, and CAIDI for the past 10 years with linear trend line (MED Excluded)

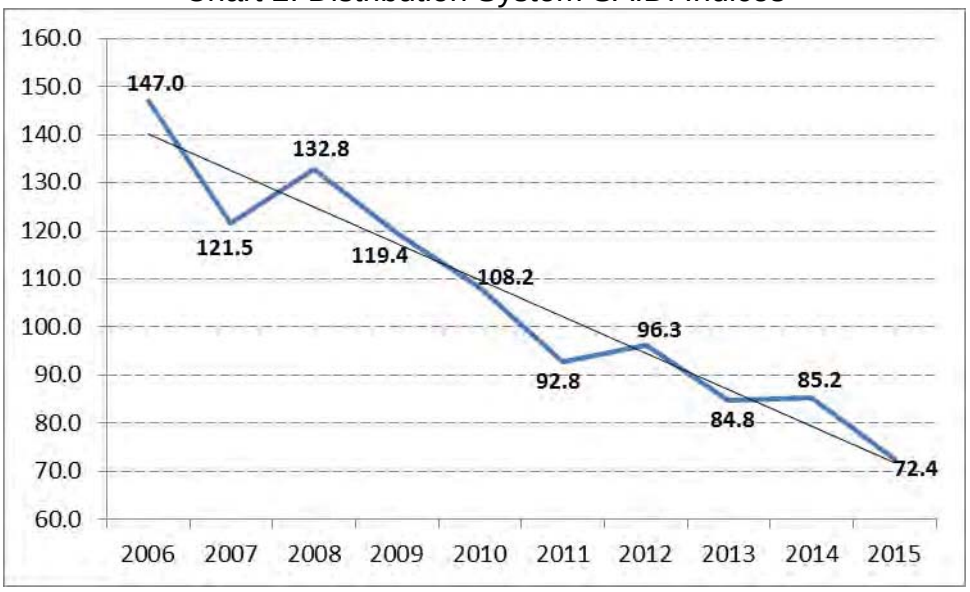
i. SAIDI Performance Results (MED Excluded)

Chart 1: Transmission & Distribution System SAIDI Indices



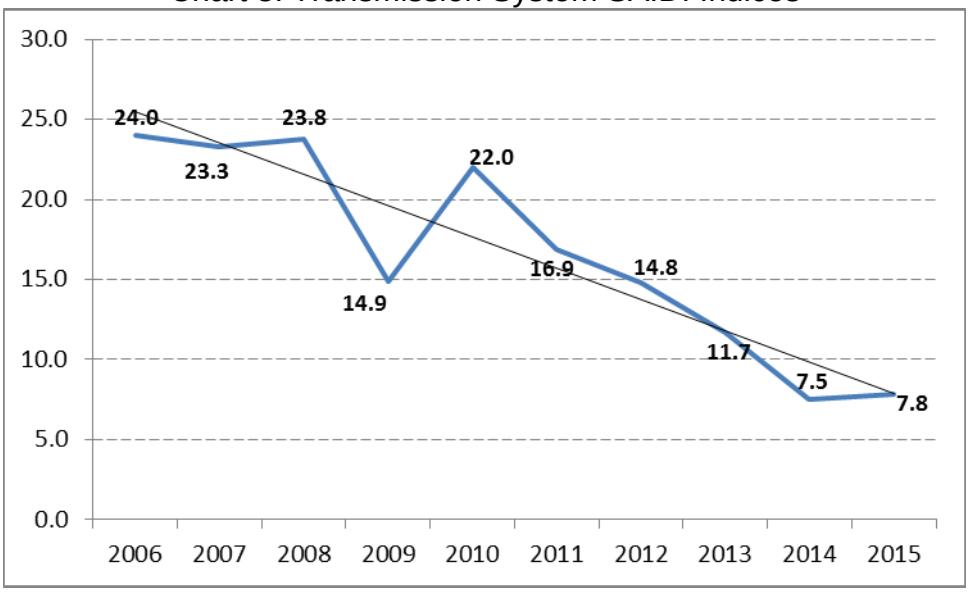
(Excludes Planned and ISO Outages)

Chart 2: Distribution System SAIDI Indices



(Excludes planned outages, transmission, substation, and generation related outages)

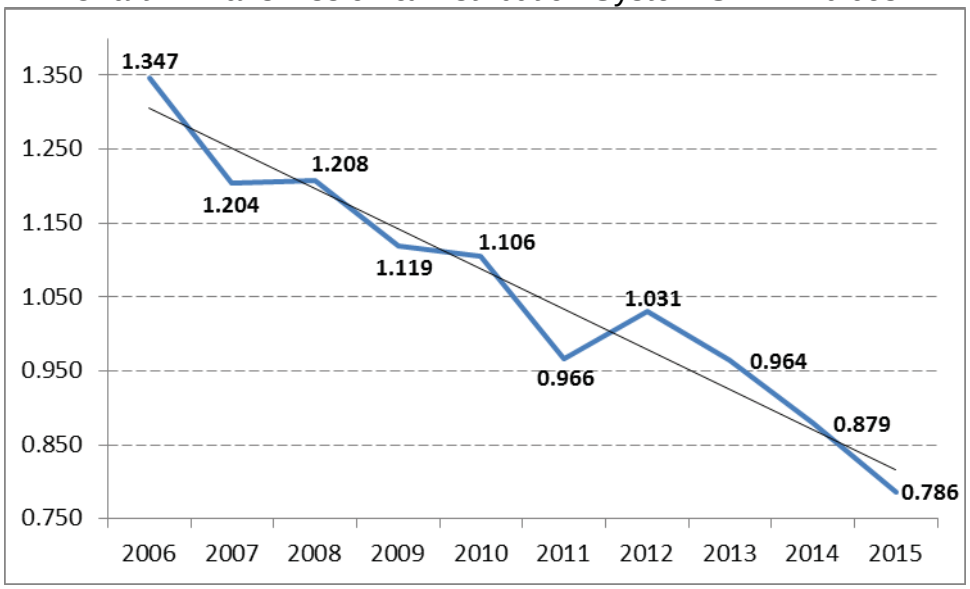
Chart 3: Transmission System SAIDI Indices



(Excludes planned outages, distribution, and generation related outages)
(Includes substation outages)

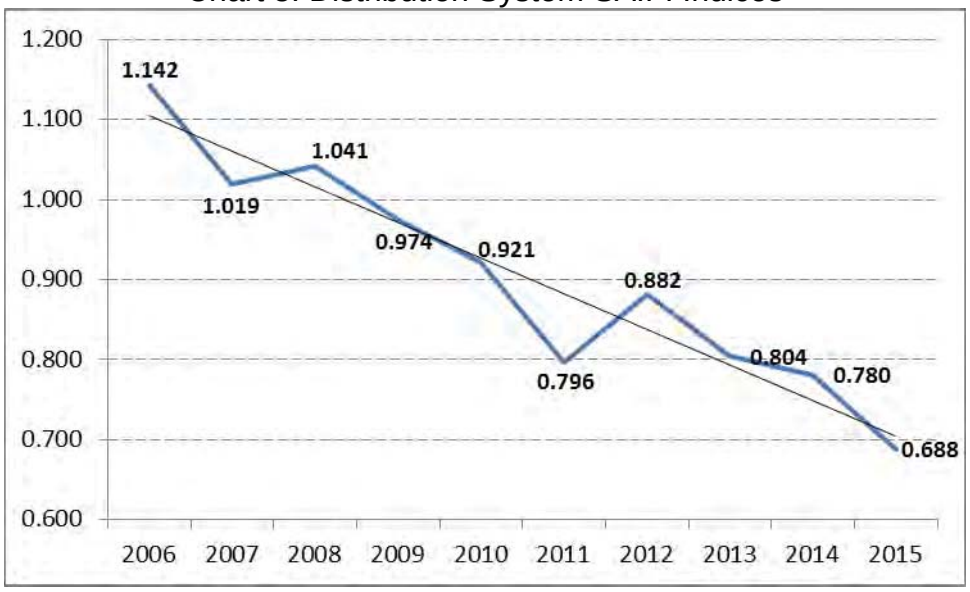
ii. SAIFI Performance Results (MED Excluded)

Chart 4: Transmission & Distribution System SAIFI Indices



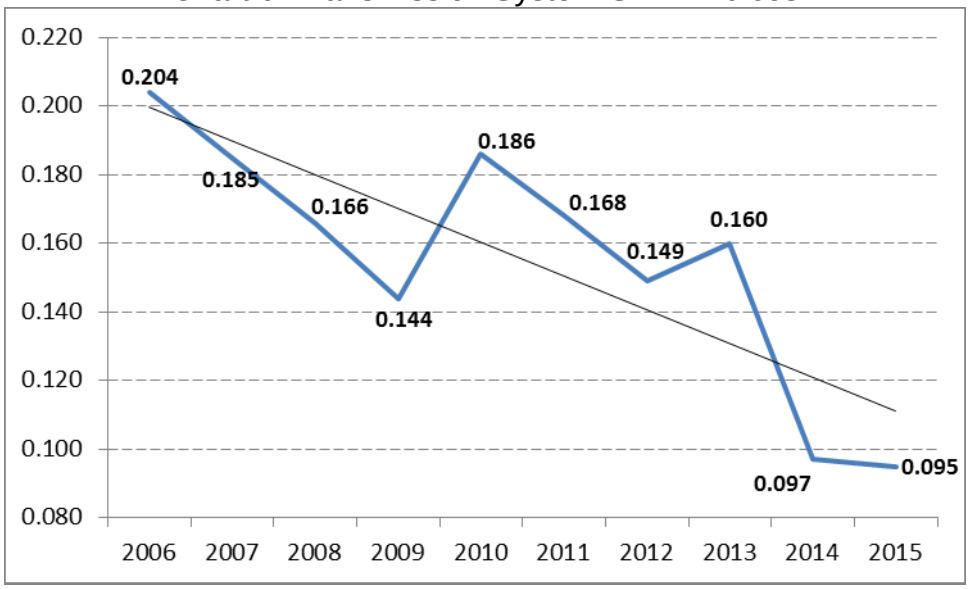
(Excludes planned and ISO Outages)

Chart 5: Distribution System SAIFI Indices



(Excludes planned outages, transmission, substation, and generation related outages)

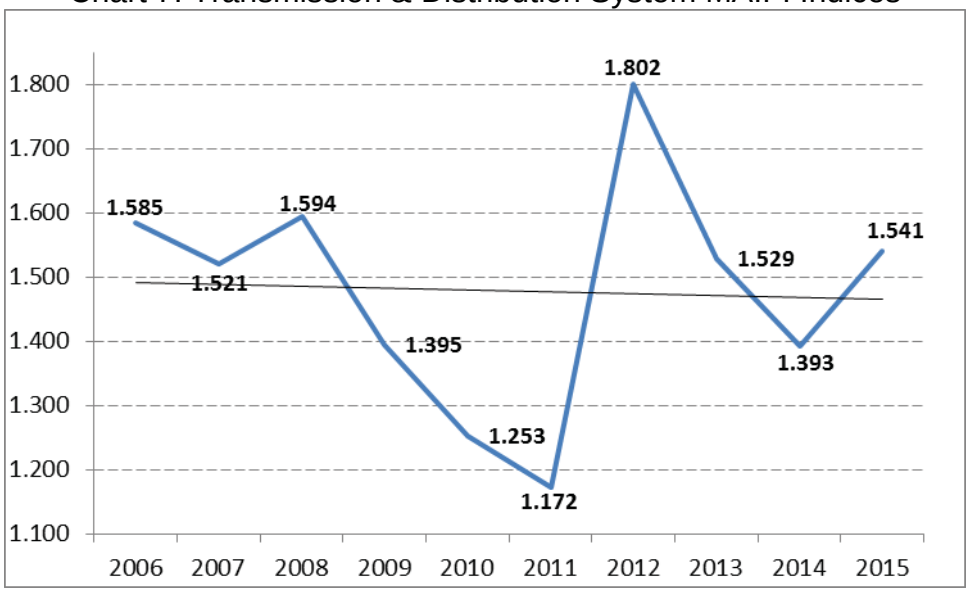
Chart 6: Transmission System SAIFI Indices



(Excludes planned outages, distribution, and generation related outages)
(Includes substation outages)

iii. MAIFI[7] Performance Results (MED Excluded)

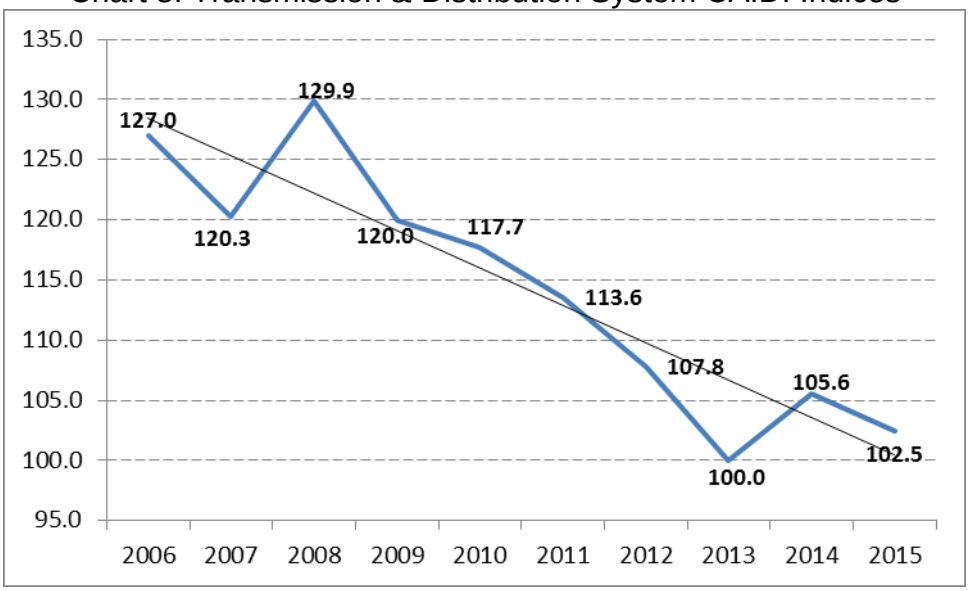
Chart 7: Transmission & Distribution System MAIFI Indices



(Excludes planned and ISO Outages)

iv. CAIDI Performance Results (MED Excluded)

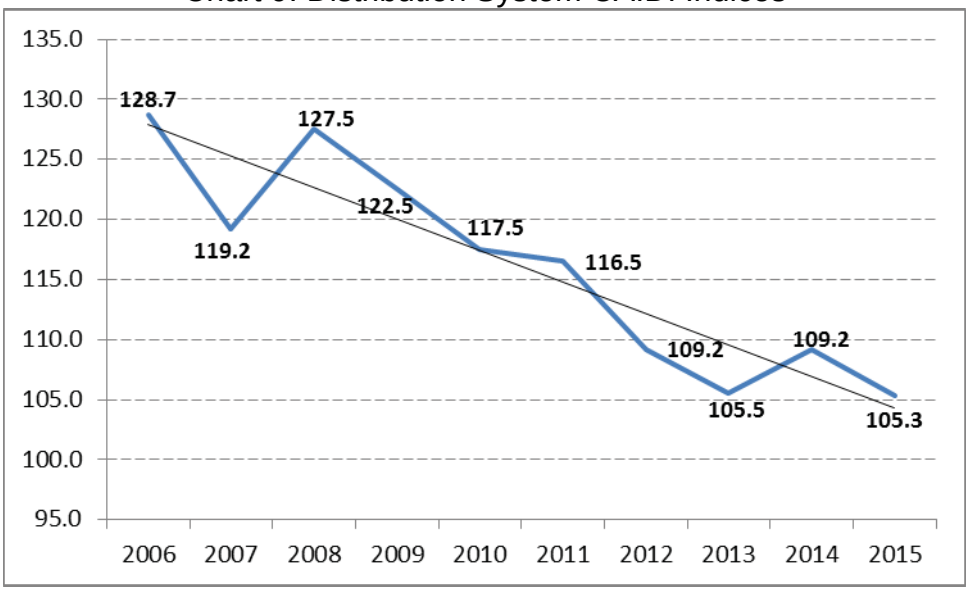
Chart 8: Transmission & Distribution System CAIDI Indices



(Excludes planned and ISO Outages)

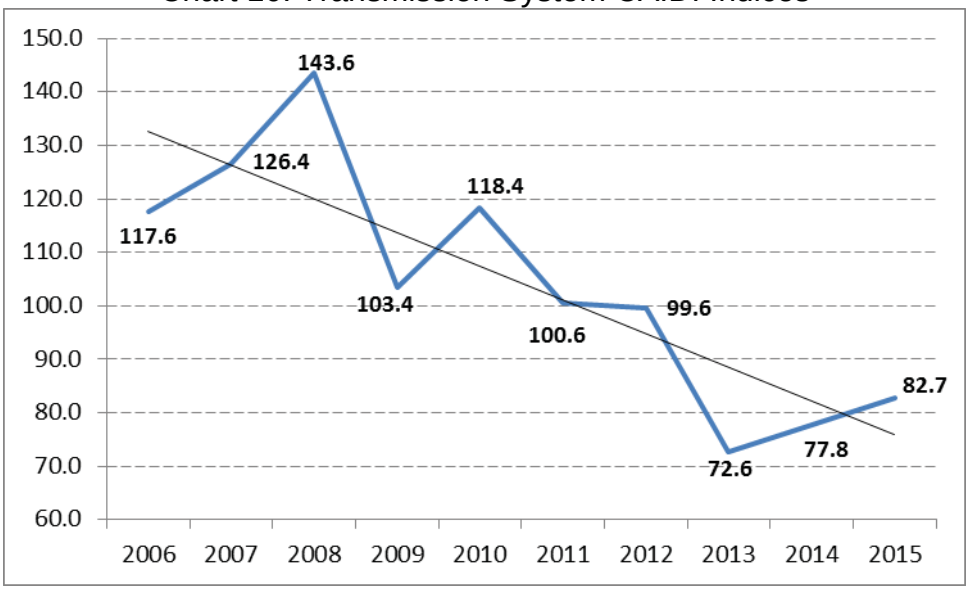
[7] As explained in footnote 4 on page 12 above, on November 18, 2011 the EON recording system was removed from service. Momentary outage data is now being collected from SCADA devices and through the use of Smart Meters. Data collection from the Smart Meters is more effective than the previous EON system since Smart Meters don't rely on customer volunteers having EON devices securely connected inside their buildings. The increased frequency of momentary outages recorded in 2012 and following years does not indicate an actual increase in momentary outages in 2012 and after as compared to prior years, but is a result of this improved method for recording momentary outages.

Chart 9: Distribution System CAIDI Indices



(Excludes planned outages, transmission, substation, and generation related outages)

Chart 10: Transmission System CAIDI Indices



(Excludes planned outages, distribution, and generation related outages)
(Includes substation outages)

2. Division Reliability Indices for the past 10 years including and excluding MED

a. Division Reliability Indices for the past 10 years excluding ISO and planned outages and including Major Event Days

Table 5: Division Reliability Indices

Year	Division	AIDI	AIFI	MAIFI	CAIDI
2006	CENTRAL COAST	419.8	2.222	3.032	188.9
2007	CENTRAL COAST	214.2	1.859	2.732	115.2
2008	CENTRAL COAST	768.2	2.256	2.825	340.5
2009	CENTRAL COAST	445.4	2.321	3.172	191.9
2010	CENTRAL COAST	390.7	1.984	3.941	196.9
2011	CENTRAL COAST	497.2	1.995	2.060	249.2
2012	CENTRAL COAST	152.0	1.317	2.362	115.5
2013	CENTRAL COAST	125.3	1.315	2.041	95.3
2014	CENTRAL COAST	199.3	1.351	2.133	147.5
2015	CENTRAL COAST	253.0	1.289	2.279	196.3
Year	Division	AIDI	AIFI	MAIFI	CAIDI
2006	DE ANZA	334.8	1.480	1.639	226.2
2007	DE ANZA	96.3	0.873	1.136	110.3
2008	DE ANZA	266.4	1.228	1.723	216.9
2009	DE ANZA	163.8	0.984	1.633	166.5
2010	DE ANZA	172.8	1.171	1.420	147.7
2011	DE ANZA	82.2	0.712	1.495	115.5
2012	DE ANZA	82.8	0.718	1.223	115.3
2013	DE ANZA	78.8	0.831	1.173	94.8
2014	DE ANZA	112.9	1.017	1.318	111.1
2015	DE ANZA	63.4	0.594	1.303	106.7
Year	Division	AIDI	AIFI	MAIFI	CAIDI
2006	DIABLO	312.5	1.867	1.652	167.4
2007	DIABLO	122.4	1.103	1.579	111.0
2008	DIABLO	202.9	1.457	2.101	139.3
2009	DIABLO	161.1	1.376	1.203	117.1
2010	DIABLO	119.9	1.376	1.309	87.1
2011	DIABLO	78.7	0.936	1.394	84.0
2012	DIABLO	105.3	1.230	1.400	85.6
2013	DIABLO	83.1	1.023	1.297	81.3
2014	DIABLO	82.2	0.979	1.374	84.0
2015	DIABLO	84.0	0.981	1.961	85.6
Year	Division	AIDI	AIFI	MAIFI	CAIDI
2006	EAST BAY	168.1	1.215	1.002	138.3
2007	EAST BAY	166.9	1.318	1.012	126.6
2008	EAST BAY	157.8	1.001	0.872	157.7
2009	EAST BAY	139.6	1.146	0.944	121.8
2010	EAST BAY	126.3	1.092	0.754	115.7
2011	EAST BAY	104.5	0.981	1.060	106.6
2012	EAST BAY	110.7	1.372	1.347	80.7
2013	EAST BAY	117.3	1.010	1.266	116.2
2014	EAST BAY	81.1	0.847	1.515	95.8
2015	EAST BAY	59.6	0.723	1.218	82.5

Year	Division	AIDI	AIFI	MAIFI	CAIDI
2006	FRESNO	304.3	2.214	2.341	137.4
2007	FRESNO	232.0	1.779	2.243	130.4
2008	FRESNO	201.0	1.600	1.793	125.6
2009	FRESNO	153.2	1.293	1.916	118.5
2010	FRESNO	175.4	1.275	1.953	137.6
2011	FRESNO	164.9	1.122	2.012	147.0
2012	FRESNO	100.1	1.066	2.359	94.0
2013	FRESNO	95.0	1.100	2.104	86.4
2014	FRESNO	81.6	1.002	1.781	81.5
2015	FRESNO	100.3	1.151	2.132	87.2
Year	**Division**	**AIDI**	**AIFI**	**MAIFI**	**CAIDI**
2006	HUMBOLDT	1,076.0	2.838	3.855	379.1
2007	HUMBOLDT	556.8	1.837	3.325	303.0
2008	HUMBOLDT	1,062.7	2.708	3.367	392.5
2009	HUMBOLDT	243.4	1.710	2.482	142.3
2010	HUMBOLDT	575.3	2.537	1.686	226.7
2011	HUMBOLDT	543.1	1.954	2.282	277.9
2012	HUMBOLDT	338.1	1.747	4.654	193.5
2013	HUMBOLDT	304.3	1.416	2.627	214.9
2014	HUMBOLDT	288.4	1.368	1.940	210.9
2015	HUMBOLDT	695.2	2.234	2.839	311.2
Year	**Division**	**AIDI**	**AIFI**	**MAIFI**	**CAIDI**
2006	KERN	216.3	1.640	1.970	131.9
2007	KERN	124.0	1.132	1.580	109.6
2008	KERN	176.7	1.349	1.260	130.9
2009	KERN	111.5	1.156	1.534	96.4
2010	KERN	137.4	1.198	1.566	114.8
2011	KERN	169.8	1.273	1.617	133.4
2012	KERN	89.2	0.999	1.218	89.2
2013	KERN	91.3	1.073	1.226	85.1
2014	KERN	108.8	1.109	1.848	98.2
2015	KERN	91.9	0.946	1.972	97.2
Year	**Division**	**AIDI**	**AIFI**	**MAIFI**	**CAIDI**
2006	LOS PADRES	377.2	2.239	3.211	168.5
2007	LOS PADRES	141.4	1.172	2.683	120.7
2008	LOS PADRES	237.5	1.785	3.114	133.1
2009	LOS PADRES	178.4	1.264	1.723	141.1
2010	LOS PADRES	277.0	1.745	2.045	158.7
2011	LOS PADRES	135.4	1.230	2.195	110.1
2012	LOS PADRES	95.4	1.010	1.658	94.4
2013	LOS PADRES	212.5	1.495	1.105	142.1
2014	LOS PADRES	186.6	1.238	1.354	150.7
2015	LOS PADRES	132.2	0.844	1.869	156.6

Year	Division	AIDI	AIFI	MAIFI	CAIDI
2006	MISSION	123.9	1.059	1.259	116.9
2007	MISSION	83.5	0.833	1.022	100.2
2008	MISSION	108.0	1.016	1.499	106.4
2009	MISSION	93.7	0.796	0.874	117.6
2010	MISSION	111.1	0.987	0.794	112.5
2011	MISSION	74.3	0.869	0.656	85.4
2012	MISSION	93.9	0.931	0.862	100.9
2013	MISSION	73.5	0.805	0.837	91.3
2014	MISSION	73.7	0.751	0.820	98.1
2015	MISSION	62.6	0.596	1.160	105.1
Year	**Division**	**AIDI**	**AIFI**	**MAIFI**	**CAIDI**
2006	NORTH BAY	232.3	1.423	1.472	163.2
2007	NORTH BAY	119.0	1.076	1.802	110.6
2008	NORTH BAY	571.5	1.639	1.886	348.7
2009	NORTH BAY	155.3	1.210	1.031	128.3
2010	NORTH BAY	161.8	1.233	1.401	131.2
2011	NORTH BAY	202.8	1.332	1.230	152.3
2012	NORTH BAY	140.4	0.920	1.949	152.6
2013	NORTH BAY	114.0	0.996	1.730	114.5
2014	NORTH BAY	235.1	1.250	2.721	188.1
2015	NORTH BAY	135.4	1.059	2.161	127.9
Year	**Division**	**AIDI**	**AIFI**	**MAIFI**	**CAIDI**
2006	NORTH VALLEY	310.3	2.267	2.129	136.9
2007	NORTH VALLEY	267.4	1.586	2.133	168.6
2008	NORTH VALLEY	1,564.4	2.313	4.194	676.4
2009	NORTH VALLEY	281.4	1.396	3.159	201.5
2010	NORTH VALLEY	552.3	1.843	1.979	299.7
2011	NORTH VALLEY	625.3	2.033	2.133	307.5
2012	NORTH VALLEY	514.0	1.886	2.947	272.6
2013	NORTH VALLEY	139.4	1.093	1.962	127.6
2014	NORTH VALLEY	173.2	1.177	1.778	147.2
2015	NORTH VALLEY	479.6	1.787	2.595	268.3
Year	**Division**	**AIDI**	**AIFI**	**MAIFI**	**CAIDI**
2006	PENINSULA	204.7	1.717	1.570	119.2
2007	PENINSULA	82.9	0.764	1.062	108.5
2008	PENINSULA	436.5	1.673	2.110	261.0
2009	PENINSULA	127.2	1.069	0.895	119.0
2010	PENINSULA	163.6	1.565	1.475	104.6
2011	PENINSULA	112.7	1.195	0.939	94.3
2012	PENINSULA	101.1	1.144	1.709	88.4
2013	PENINSULA	94.3	0.885	1.322	106.5
2014	PENINSULA	98.4	1.061	1.363	92.8
2015	PENINSULA	76.2	0.867	1.841	87.9

Year	Division	AIDI	AIFI	MAIFI	CAIDI
2006	SACRAMENTO	227.8	1.386	1.903	164.4
2007	SACRAMENTO	115.6	0.853	1.054	135.6
2008	SACRAMENTO	865.3	1.878	2.284	460.9
2009	SACRAMENTO	252.0	1.383	1.826	182.2
2010	SACRAMENTO	193.1	1.115	1.423	173.2
2011	SACRAMENTO	182.1	1.203	1.897	151.4
2012	SACRAMENTO	152.7	1.335	2.142	114.4
2013	SACRAMENTO	98.3	0.983	1.697	100.0
2014	SACRAMENTO	107.9	0.913	1.437	118.2
2015	SACRAMENTO	92.4	0.894	1.843	103.3
Year	**Division**	**AIDI**	**AIFI**	**MAIFI**	**CAIDI**
2006	SAN FRANCISCO	79.5	0.872	0.301	91.1
2007	SAN FRANCISCO	104.8	1.048	0.386	100.0
2008	SAN FRANCISCO	157.6	0.866	0.259	182.0
2009	SAN FRANCISCO	78.5	0.804	0.139	97.6
2010	SAN FRANCISCO	56.6	0.709	0.086	79.9
2011	SAN FRANCISCO	48.8	0.569	0.217	85.9
2012	SAN FRANCISCO	51.7	0.611	1.051	84.6
2013	SAN FRANCISCO	58.1	0.657	0.332	88.4
2014	SAN FRANCISCO	131.0	0.780	0.353	167.9
2015	SAN FRANCISCO	36.1	0.521	0.544	69.3
Year	**Division**	**AIDI**	**AIFI**	**MAIFI**	**CAIDI**
2006	SAN JOSE	302.5	1.446	1.030	209.2
2007	SAN JOSE	101.0	0.950	1.010	106.3
2008	SAN JOSE	177.3	1.001	1.169	177.1
2009	SAN JOSE	89.7	0.839	0.830	106.9
2010	SAN JOSE	103.6	0.920	0.594	112.6
2011	SAN JOSE	113.8	0.988	0.793	115.2
2012	SAN JOSE	85.2	0.844	0.972	100.9
2013	SAN JOSE	99.7	0.962	1.037	103.7
2014	SAN JOSE	98.9	0.975	1.066	101.4
2015	SAN JOSE	75.6	0.763	1.197	99.1
Year	**Division**	**AIDI**	**AIFI**	**MAIFI**	**CAIDI**
2006	SIERRA	377.5	2.173	1.014	173.7
2007	SIERRA	234.7	1.635	2.011	143.5
2008	SIERRA	1,235.0	2.115	2.042	583.9
2009	SIERRA	823.2	2.007	1.507	410.2
2010	SIERRA	774.9	2.288	1.568	338.7
2011	SIERRA	1,034.4	2.191	2.764	472.2
2012	SIERRA	243.2	1.481	3.224	164.2
2013	SIERRA	156.7	1.411	3.222	111.1
2014	SIERRA	194.8	1.411	2.349	138.1
2015	SIERRA	181.9	1.274	3.240	142.8

Year	Division	AIDI	AIFI	MAIFI	CAIDI
2006	SONOMA	304.6	1.706	0.843	178.5
2007	SONOMA	158.9	1.194	1.806	133.1
2008	SONOMA	454.0	1.337	1.184	339.5
2009	SONOMA	185.0	1.181	1.610	156.6
2010	SONOMA	205.2	1.384	1.017	148.2
2011	SONOMA	246.0	1.283	1.532	191.8
2012	SONOMA	208.4	1.109	2.030	187.9
2013	SONOMA	181.7	1.119	2.536	162.3
2014	SONOMA	214.9	1.270	2.049	169.3
2015	SONOMA	119.1	0.868	2.004	137.3
Year	**Division**	**AIDI**	**AIFI**	**MAIFI**	**CAIDI**
2006	STOCKTON	300.9	2.115	2.783	142.3
2007	STOCKTON	184.9	1.640	1.829	112.7
2008	STOCKTON	284.3	1.472	2.217	193.2
2009	STOCKTON	411.9	1.795	3.117	229.4
2010	STOCKTON	386.3	1.711	1.603	225.8
2011	STOCKTON	473.7	1.766	1.182	268.2
2012	STOCKTON	166.1	1.166	2.095	142.4
2013	STOCKTON	115.6	1.462	2.137	79.1
2014	STOCKTON	107.6	0.803	1.444	134.0
2015	STOCKTON	125.3	1.035	2.285	121.1
Year	**Division**	**AIDI**	**AIFI**	**MAIFI**	**CAIDI**
2006	YOSEMITE	355.5	2.380	2.979	149.4
2007	YOSEMITE	228.2	1.605	1.419	142.2
2008	YOSEMITE	318.9	1.627	1.604	196.0
2009	YOSEMITE	261.1	1.415	1.760	184.5
2010	YOSEMITE	711.1	2.015	3.164	352.9
2011	YOSEMITE	1,172.0	1.984	2.632	590.8
2012	YOSEMITE	147.7	1.311	4.168	112.6
2013	YOSEMITE	189.1	1.362	3.429	138.9
2014	YOSEMITE	135.6	1.290	2.669	105.2
2015	YOSEMITE	112.3	1.072	3.180	104.8

b. Division Reliability Indices for the past 10 years excluding planned outages, ISO outages and Major Event Days

Table 6: Division reliability Indices

Year	Division	AIDI	AIFI	MAIFI	CAIDI
2006	CENTRAL COAST	222.2	1.621	2.644	137.1
2007	CENTRAL COAST	212.5	1.850	2.691	114.9
2008	CENTRAL COAST	246.4	1.644	2.406	149.9
2009	CENTRAL COAST	218.6	1.902	2.959	115.0
2010	CENTRAL COAST	171.1	1.511	2.928	113.2
2011	CENTRAL COAST	156.8	1.513	1.576	103.6
2012	CENTRAL COAST	137.4	1.244	2.184	110.4
2013	CENTRAL COAST	119.7	1.291	1.958	92.7
2014	CENTRAL COAST	122.1	1.088	1.835	112.3
2015	CENTRAL COAST	102.0	0.847	1.845	120.4
Year	**Division**	**AIDI**	**AIFI**	**MAIFI**	**CAIDI**
2006	DE ANZA	107.1	0.877	1.404	122.1
2007	DE ANZA	95.5	0.870	1.106	109.8
2008	DE ANZA	104.8	0.911	1.495	115.0
2009	DE ANZA	109.5	0.842	1.565	130.0
2010	DE ANZA	116.4	0.958	1.151	121.5
2011	DE ANZA	62.6	0.625	1.187	100.1
2012	DE ANZA	74.6	0.668	1.109	111.7
2013	DE ANZA	77.0	0.821	1.138	93.8
2014	DE ANZA	89.3	0.890	1.213	100.3
2015	DE ANZA	51.2	0.476	1.171	107.6
Year	**Division**	**AIDI**	**AIFI**	**MAIFI**	**CAIDI**
2006	DIABLO	145.0	1.305	1.466	111.2
2007	DIABLO	122.1	1.101	1.577	110.9
2008	DIABLO	139.5	1.335	1.922	104.5
2009	DIABLO	146.7	1.282	1.165	114.4
2010	DIABLO	104.3	1.225	1.216	85.1
2011	DIABLO	66.8	0.808	1.235	82.7
2012	DIABLO	98.8	1.186	1.363	83.3
2013	DIABLO	80.4	1.001	1.237	80.3
2014	DIABLO	66.1	0.892	1.220	74.1
2015	DIABLO	74.0	0.856	1.669	86.5
Year	**Division**	**AIDI**	**AIFI**	**MAIFI**	**CAIDI**
2006	EAST BAY	142.4	1.071	0.872	133.0
2007	EAST BAY	164.6	1.297	1.003	126.9
2008	EAST BAY	96.4	0.821	0.828	117.5
2009	EAST BAY	125.2	1.049	0.896	119.4
2010	EAST BAY	90.5	0.874	0.678	103.4
2011	EAST BAY	88.1	0.868	0.830	101.5
2012	EAST BAY	100.6	1.289	1.278	78.0
2013	EAST BAY	63.0	0.832	1.155	75.6
2014	EAST BAY	64.8	0.726	1.299	89.2
2015	EAST BAY	45.0	0.586	1.079	76.9

Year	Division	AIDI	AIFI	MAIFI	CAIDI
2006	FRESNO	214.1	1.757	2.215	121.9
2007	FRESNO	230.2	1.759	2.224	130.9
2008	FRESNO	176.2	1.485	1.737	118.6
2009	FRESNO	136.5	1.167	1.768	116.9
2010	FRESNO	115.0	1.054	1.846	109.1
2011	FRESNO	81.6	0.815	1.685	100.1
2012	FRESNO	98.6	1.043	2.323	94.5
2013	FRESNO	92.4	1.068	2.063	86.5
2014	FRESNO	79.4	0.983	1.709	80.7
2015	FRESNO	70.0	0.849	1.829	82.4
Year	**Division**	**AIDI**	**AIFI**	**MAIFI**	**CAIDI**
2006	HUMBOLDT	521.5	2.113	3.114	246.8
2007	HUMBOLDT	396.1	1.669	3.250	237.3
2008	HUMBOLDT	393.5	1.933	2.927	203.6
2009	HUMBOLDT	224.1	1.573	2.341	142.5
2010	HUMBOLDT	402.9	2.158	1.505	186.7
2011	HUMBOLDT	227.0	1.448	1.887	156.8
2012	HUMBOLDT	276.6	1.560	4.330	177.3
2013	HUMBOLDT	210.4	1.170	2.437	179.8
2014	HUMBOLDT	212.4	1.217	1.809	174.5
2015	HUMBOLDT	276.3	1.621	2.418	170.5
Year	**Division**	**AIDI**	**AIFI**	**MAIFI**	**CAIDI**
2006	KERN	173.9	1.470	1.842	118.3
2007	KERN	123.9	1.131	1.580	109.5
2008	KERN	139.7	1.181	1.101	118.3
2009	KERN	100.2	1.085	1.439	92.4
2010	KERN	120.4	1.076	1.408	111.9
2011	KERN	112.5	0.979	1.340	114.8
2012	KERN	88.1	0.981	1.218	89.8
2013	KERN	87.5	1.027	1.133	85.2
2014	KERN	81.0	0.936	1.635	86.5
2015	KERN	80.3	0.862	1.850	93.2
Year	**Division**	**AIDI**	**AIFI**	**MAIFI**	**CAIDI**
2006	LOS PADRES	205.4	1.672	2.631	122.8
2007	LOS PADRES	141.3	1.171	2.683	120.7
2008	LOS PADRES	136.2	1.331	2.756	102.3
2009	LOS PADRES	100.8	0.999	1.333	100.8
2010	LOS PADRES	110.5	1.159	1.722	95.3
2011	LOS PADRES	89.9	0.970	1.666	92.7
2012	LOS PADRES	94.8	1.008	1.652	94.1
2013	LOS PADRES	86.7	0.726	0.960	119.5
2014	LOS PADRES	95.2	1.043	1.135	91.2
2015	LOS PADRES	72.2	0.687	1.408	105.1

Year	Division	AIDI	AIFI	MAIFI	CAIDI
2006	MISSION	84.0	0.916	1.212	91.8
2007	MISSION	83.4	0.832	1.022	100.3
2008	MISSION	81.3	0.884	1.408	91.9
2009	MISSION	87.2	0.731	0.848	119.2
2010	MISSION	101.4	0.910	0.723	111.5
2011	MISSION	62.9	0.781	0.586	80.6
2012	MISSION	91.2	0.905	0.860	100.7
2013	MISSION	67.8	0.736	0.775	92.1
2014	MISSION	62.9	0.672	0.770	93.6
2015	MISSION	56.7	0.543	1.054	104.4
Year	**Division**	**AIDI**	**AIFI**	**MAIFI**	**CAIDI**
2006	NORTH BAY	135.3	1.073	1.345	126.1
2007	NORTH BAY	118.3	1.073	1.800	110.3
2008	NORTH BAY	155.5	1.205	1.685	129.0
2009	NORTH BAY	112.6	1.033	0.915	109.0
2010	NORTH BAY	133.9	1.035	1.294	129.3
2011	NORTH BAY	110.7	1.074	1.094	103.1
2012	NORTH BAY	109.7	0.791	1.646	138.8
2013	NORTH BAY	101.8	0.910	1.455	111.9
2014	NORTH BAY	114.6	0.875	2.505	131.0
2015	NORTH BAY	97.4	0.904	1.977	107.8
Year	**Division**	**AIDI**	**AIFI**	**MAIFI**	**CAIDI**
2006	NORTH VALLEY	289.2	2.142	2.076	135.0
2007	NORTH VALLEY	163.5	1.344	1.947	121.6
2008	NORTH VALLEY	353.0	1.674	3.451	210.8
2009	NORTH VALLEY	203.4	1.182	3.026	172.1
2010	NORTH VALLEY	156.9	1.220	1.814	128.7
2011	NORTH VALLEY	161.2	1.218	1.557	132.3
2012	NORTH VALLEY	223.2	1.505	2.576	148.3
2013	NORTH VALLEY	118.9	1.035	1.904	114.9
2014	NORTH VALLEY	111.1	0.968	1.521	114.8
2015	NORTH VALLEY	132.8	1.062	1.926	125.0
Year	**Division**	**AIDI**	**AIFI**	**MAIFI**	**CAIDI**
2006	PENINSULA	102.4	1.073	1.080	95.4
2007	PENINSULA	81.9	0.758	1.058	108.0
2008	PENINSULA	125.3	1.007	1.836	124.4
2009	PENINSULA	84.1	0.832	0.771	101.1
2010	PENINSULA	117.9	1.324	1.060	89.0
2011	PENINSULA	83.8	1.047	0.782	80.0
2012	PENINSULA	86.8	0.999	1.528	86.9
2013	PENINSULA	70.1	0.785	1.114	89.4
2014	PENINSULA	77.1	0.898	1.164	85.9
2015	PENINSULA	60.5	0.752	1.602	80.4

Year	Division	AIDI	AIFI	MAIFI	CAIDI
2006	SACRAMENTO	146.4	1.147	1.769	127.6
2007	SACRAMENTO	112.4	0.833	1.037	135.0
2008	SACRAMENTO	192.0	1.251	1.713	153.4
2009	SACRAMENTO	135.1	1.095	1.542	123.4
2010	SACRAMENTO	118.6	0.875	1.082	135.5
2011	SACRAMENTO	107.9	0.991	1.693	108.9
2012	SACRAMENTO	130.1	1.194	1.969	108.9
2013	SACRAMENTO	93.0	0.937	1.566	99.2
2014	SACRAMENTO	94.4	0.807	1.258	117.0
2015	SACRAMENTO	80.1	0.799	1.557	100.3
Year	**Division**	**AIDI**	**AIFI**	**MAIFI**	**CAIDI**
2006	SAN FRANCISCO	62.2	0.781	0.259	79.7
2007	SAN FRANCISCO	104.0	1.040	0.386	99.9
2008	SAN FRANCISCO	64.1	0.684	0.259	93.8
2009	SAN FRANCISCO	75.6	0.784	0.103	96.4
2010	SAN FRANCISCO	49.6	0.652	0.066	76.0
2011	SAN FRANCISCO	45.3	0.540	0.211	83.9
2012	SAN FRANCISCO	47.0	0.570	1.008	82.6
2013	SAN FRANCISCO	52.0	0.604	0.302	86.1
2014	SAN FRANCISCO	41.5	0.457	0.235	90.8
2015	SAN FRANCISCO	33.9	0.504	0.501	67.2
Year	**Division**	**AIDI**	**AIFI**	**MAIFI**	**CAIDI**
2006	SAN JOSE	107.6	0.866	0.932	124.2
2007	SAN JOSE	100.3	0.945	1.008	106.1
2008	SAN JOSE	90.3	0.769	1.005	117.4
2009	SAN JOSE	75.8	0.739	0.808	102.5
2010	SAN JOSE	69.4	0.758	0.525	91.6
2011	SAN JOSE	101.5	0.900	0.685	112.8
2012	SAN JOSE	80.6	0.793	0.945	101.6
2013	SAN JOSE	96.7	0.914	0.977	105.7
2014	SAN JOSE	76.0	0.806	1.026	94.4
2015	SAN JOSE	65.9	0.678	1.008	97.2
Year	**Division**	**AIDI**	**AIFI**	**MAIFI**	**CAIDI**
2006	SIERRA	271.6	1.838	0.881	147.8
2007	SIERRA	164.8	1.353	1.464	121.8
2008	SIERRA	277.4	1.507	1.545	184.1
2009	SIERRA	262.9	1.337	1.219	196.6
2010	SIERRA	194.0	1.332	1.124	145.6
2011	SIERRA	179.5	1.168	1.401	153.7
2012	SIERRA	182.4	1.322	2.906	137.9
2013	SIERRA	109.9	1.279	3.085	85.9
2014	SIERRA	142.2	1.210	2.128	117.5
2015	SIERRA	123.2	1.115	2.813	110.5

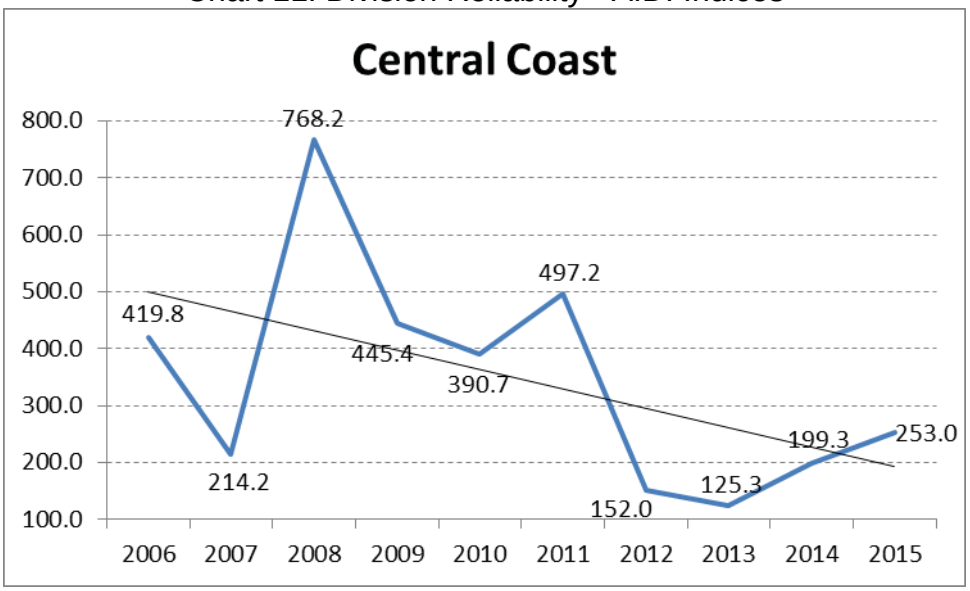
Year	Division	AIDI	AIFI	MAIFI	CAIDI
2006	SONOMA	170.7	1.371	0.794	124.5
2007	SONOMA	157.4	1.178	1.806	133.6
2008	SONOMA	158.7	1.076	0.952	147.5
2009	SONOMA	154.9	1.072	1.357	144.4
2010	SONOMA	151.4	1.131	0.818	133.9
2011	SONOMA	103.4	0.896	1.341	115.4
2012	SONOMA	117.9	0.897	1.730	131.5
2013	SONOMA	113.4	0.846	2.256	134.0
2014	SONOMA	113.7	0.899	1.587	126.6
2015	SONOMA	73.0	0.673	1.531	108.5
Year	**Division**	**AIDI**	**AIFI**	**MAIFI**	**CAIDI**
2006	STOCKTON	195.7	1.630	2.499	120.1
2007	STOCKTON	150.0	1.517	1.781	98.9
2008	STOCKTON	160.6	1.067	1.825	150.5
2009	STOCKTON	160.1	1.266	2.697	126.4
2010	STOCKTON	166.2	1.310	1.402	126.8
2011	STOCKTON	180.5	1.234	0.898	146.2
2012	STOCKTON	91.1	0.993	1.972	91.8
2013	STOCKTON	106.5	1.427	2.025	74.6
2014	STOCKTON	89.7	0.709	1.309	126.4
2015	STOCKTON	96.9	0.874	1.947	110.9
Year	**Division**	**AIDI**	**AIFI**	**MAIFI**	**CAIDI**
2006	YOSEMITE	264.3	2.065	2.784	128.0
2007	YOSEMITE	152.9	1.349	1.240	113.4
2008	YOSEMITE	205.2	1.303	1.511	157.5
2009	YOSEMITE	183.4	1.186	1.486	154.6
2010	YOSEMITE	226.3	1.474	2.598	153.5
2011	YOSEMITE	207.9	1.279	1.811	162.5
2012	YOSEMITE	140.8	1.272	4.088	110.7
2013	YOSEMITE	187.8	1.344	3.259	139.7
2014	YOSEMITE	117.6	1.226	2.446	96.0
2015	YOSEMITE	102.3	0.984	2.638	103.9

c. Charts for Division Reliability Indices for the past 10 years

i. Charts for Division Reliability Indices for the past 10 years with linear trend line excluding ISO and planned outages and including MED

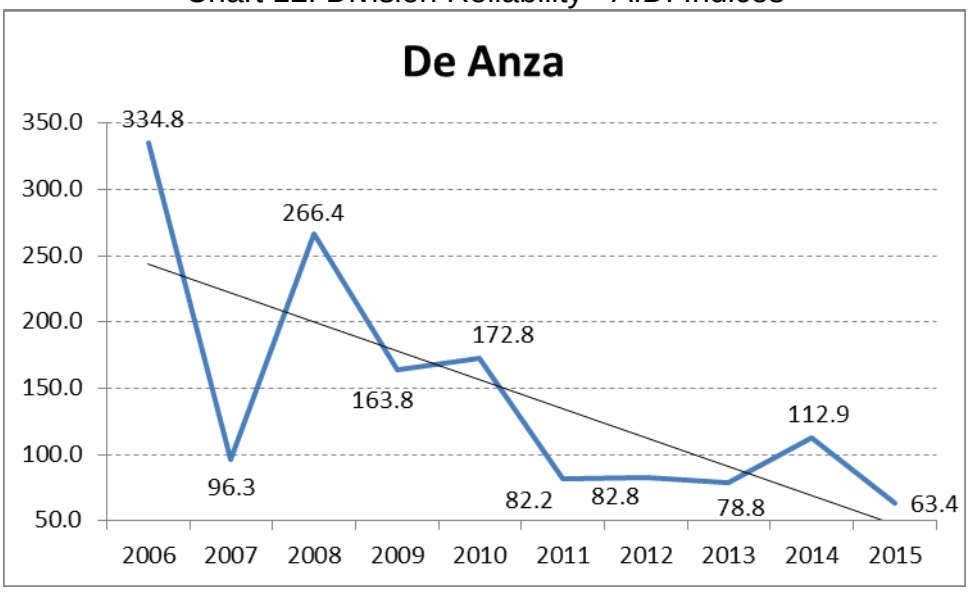
1. AIDI Performance Results (MED Included)

Chart 11: Division Reliability - AIDI Indices



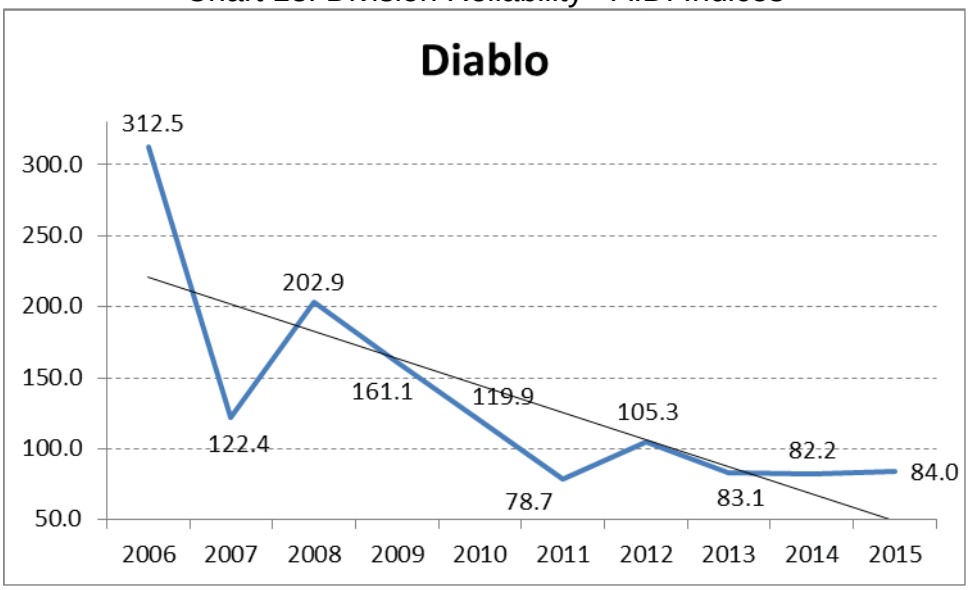
(Excludes ISO, and planned outages)

Chart 12: Division Reliability - AIDI Indices



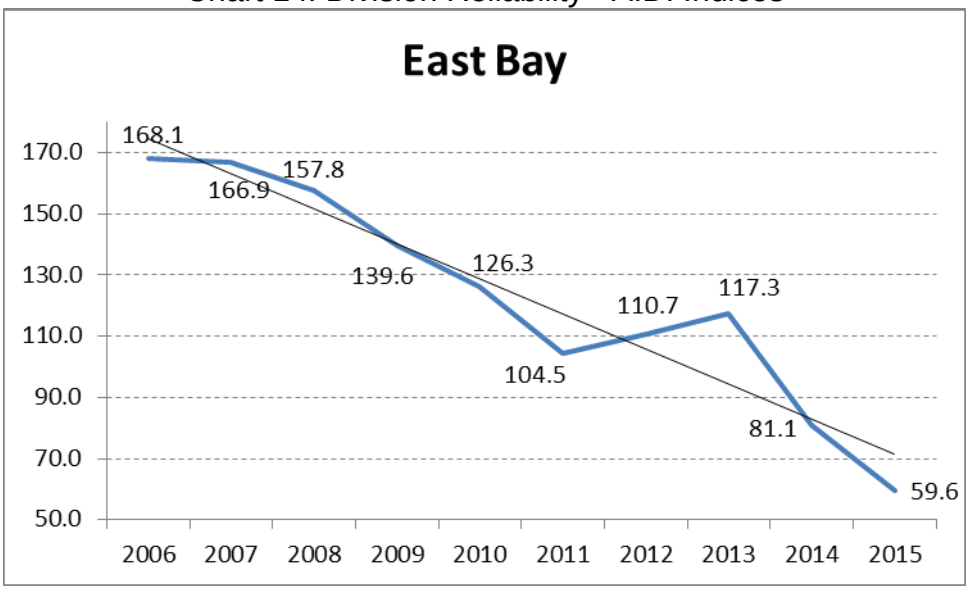
(Excludes ISO, and planned outages)

Chart 13: Division Reliability - AIDI Indices



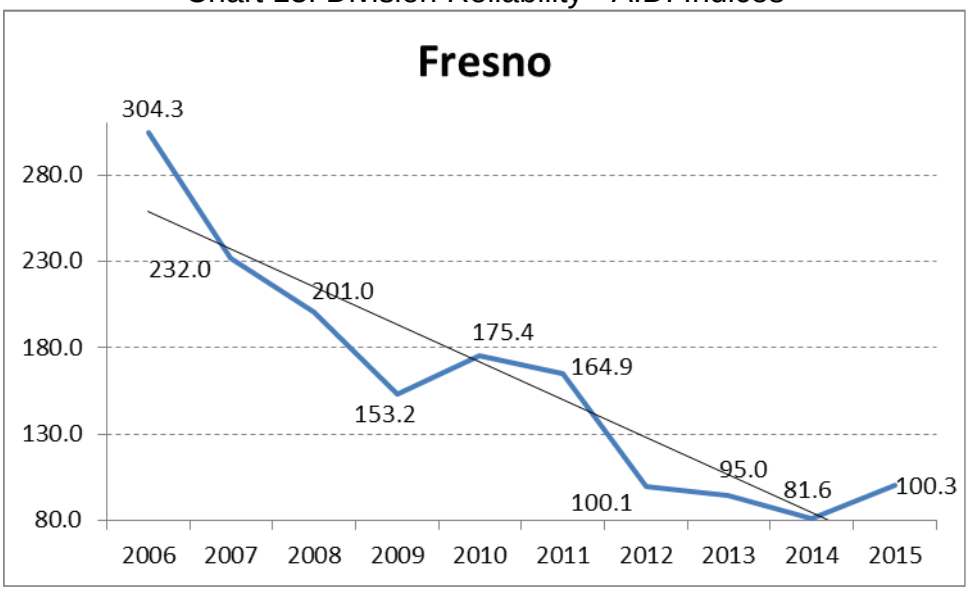
(Excludes ISO, and planned outages)

Chart 14: Division Reliability - AIDI Indices



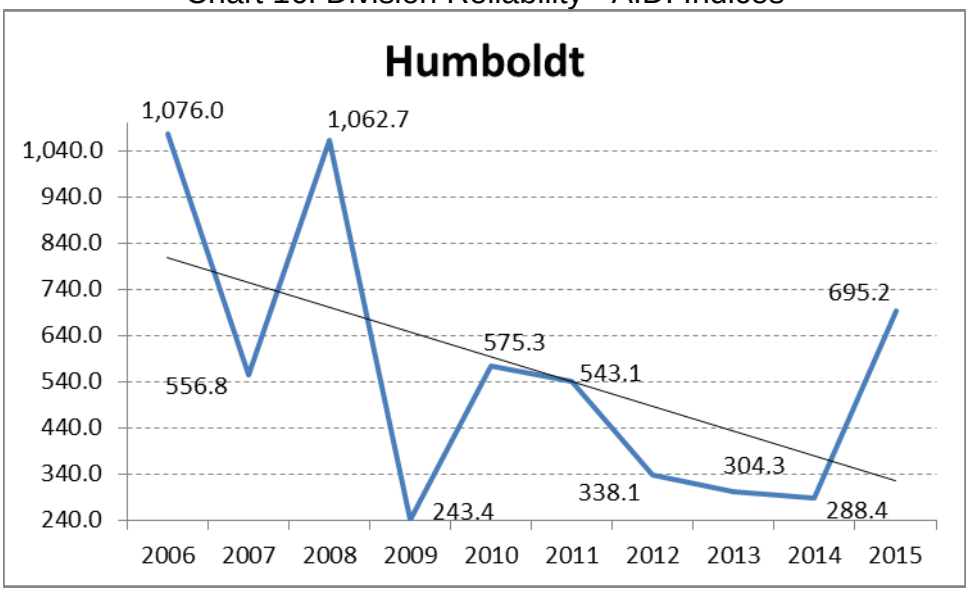
(Excludes ISO, and planned outages)

Chart 15: Division Reliability - AIDI Indices



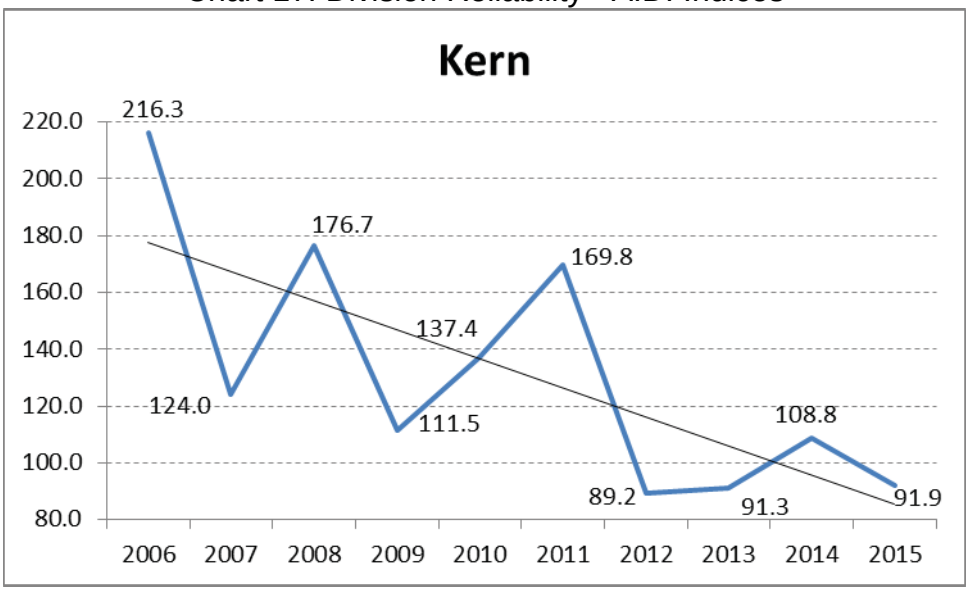
(Excludes ISO, and planned outages)

Chart 16: Division Reliability - AIDI Indices



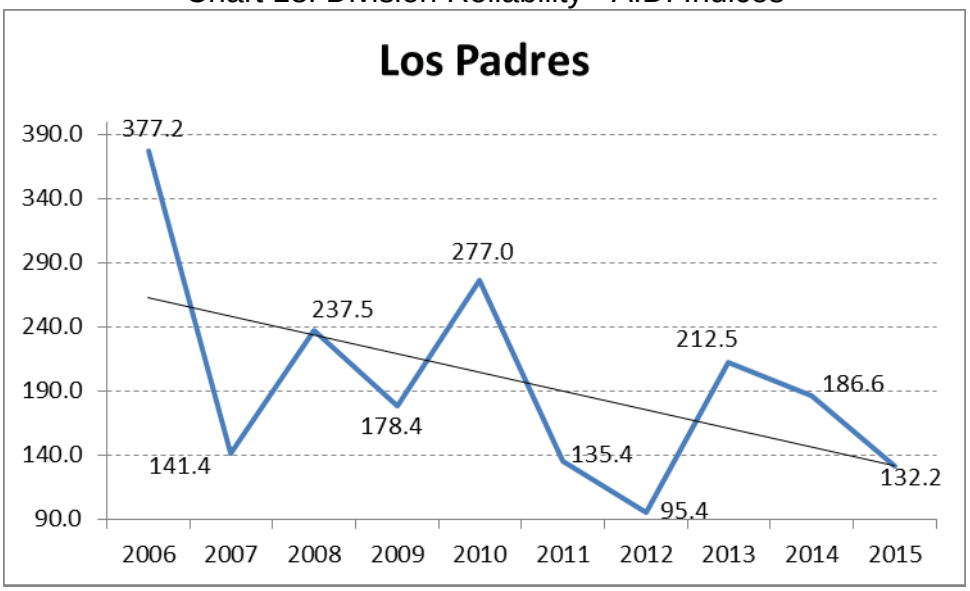
(Excludes ISO, and planned outages)

Chart 17: Division Reliability - AIDI Indices



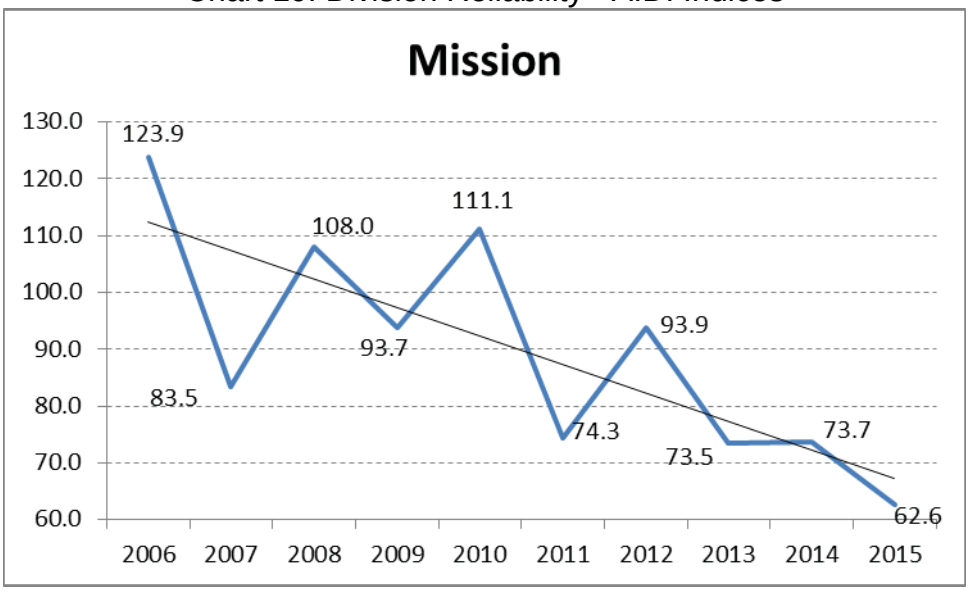
(Excludes ISO, and planned outages)

Chart 18: Division Reliability - AIDI Indices



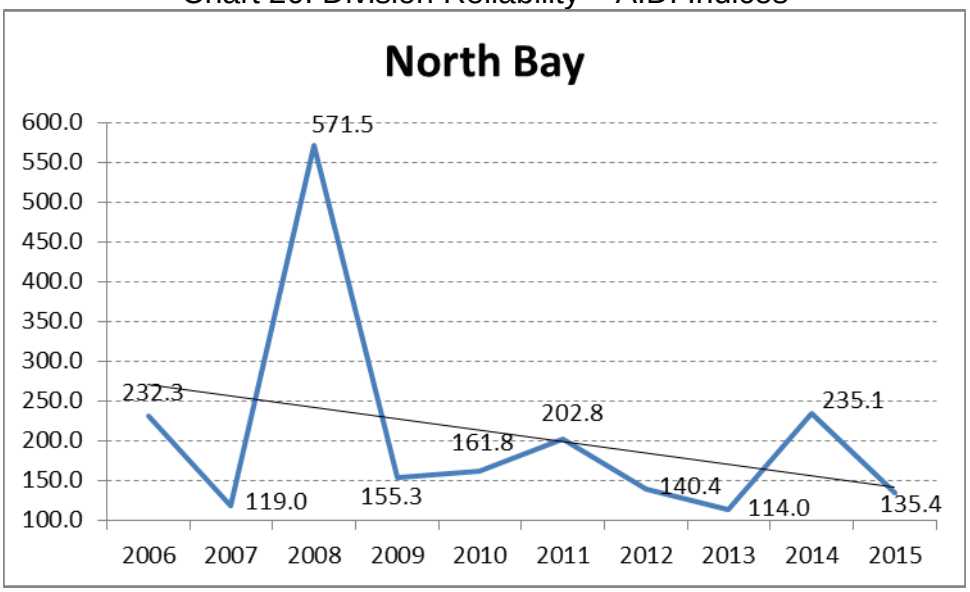
(Excludes ISO, and planned outages)

Chart 19: Division Reliability - AIDI Indices



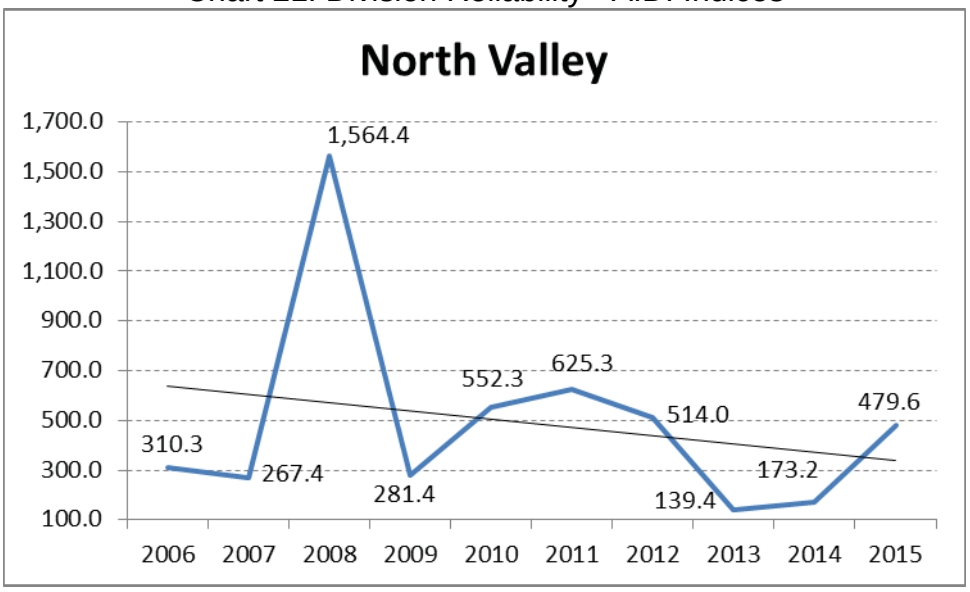
(Excludes ISO, and planned outages)

Chart 20: Division Reliability – AIDI Indices



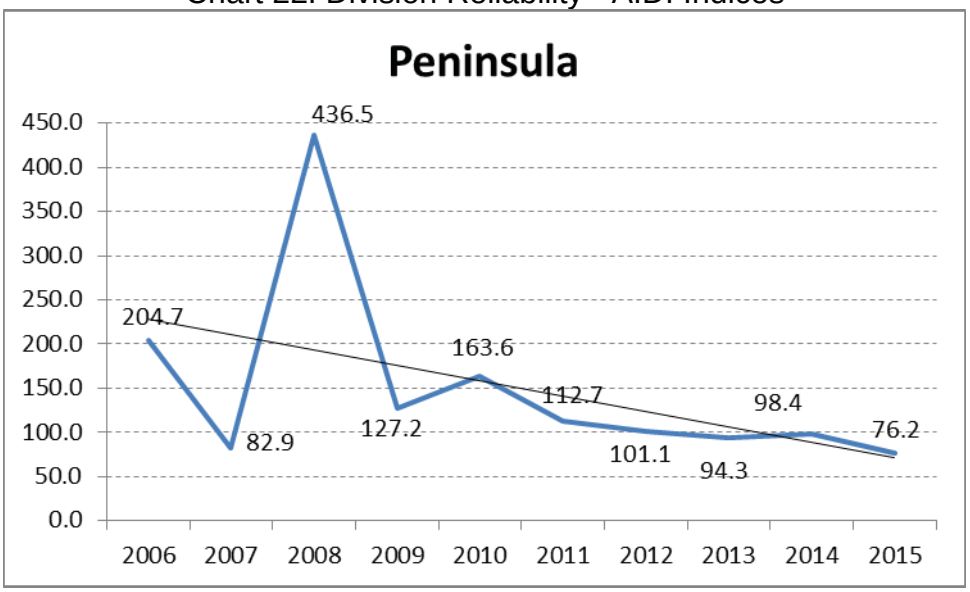
(Excludes ISO, and planned outages)

Chart 21: Division Reliability - AIDI Indices



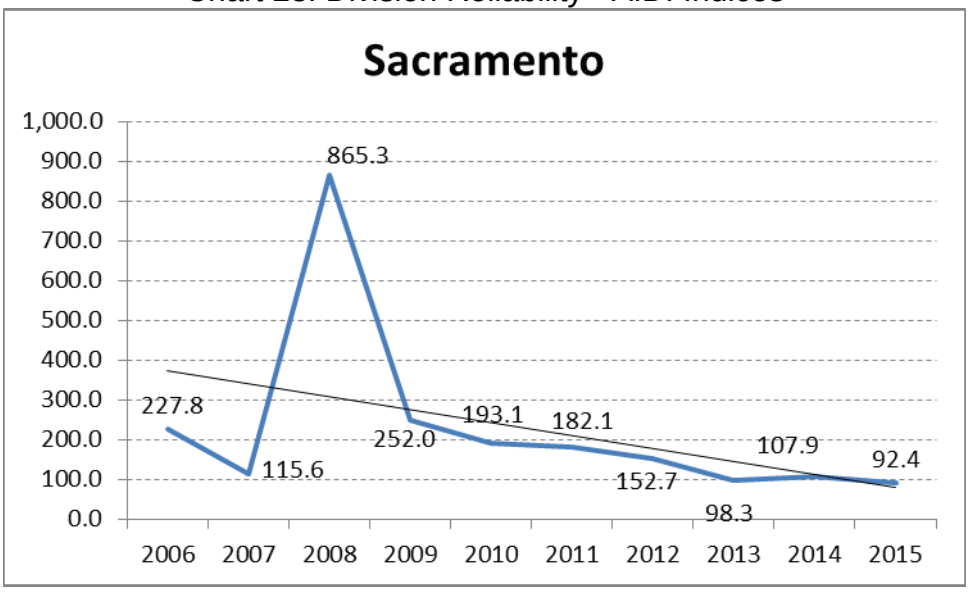
(Excludes ISO, and planned outages)

Chart 22: Division Reliability - AIDI Indices



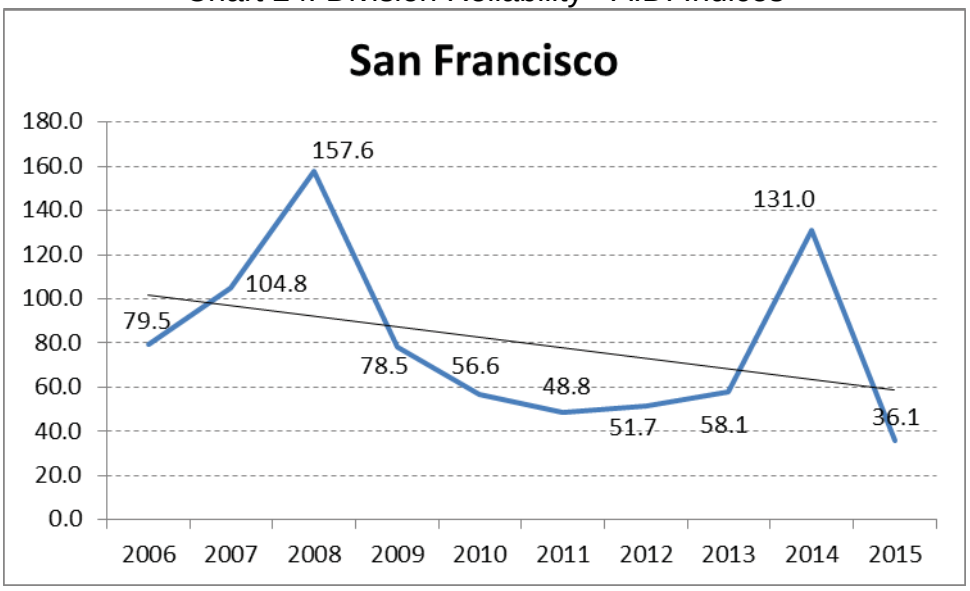
(Excludes ISO, and planned outages)

Chart 23: Division Reliability - AIDI Indices



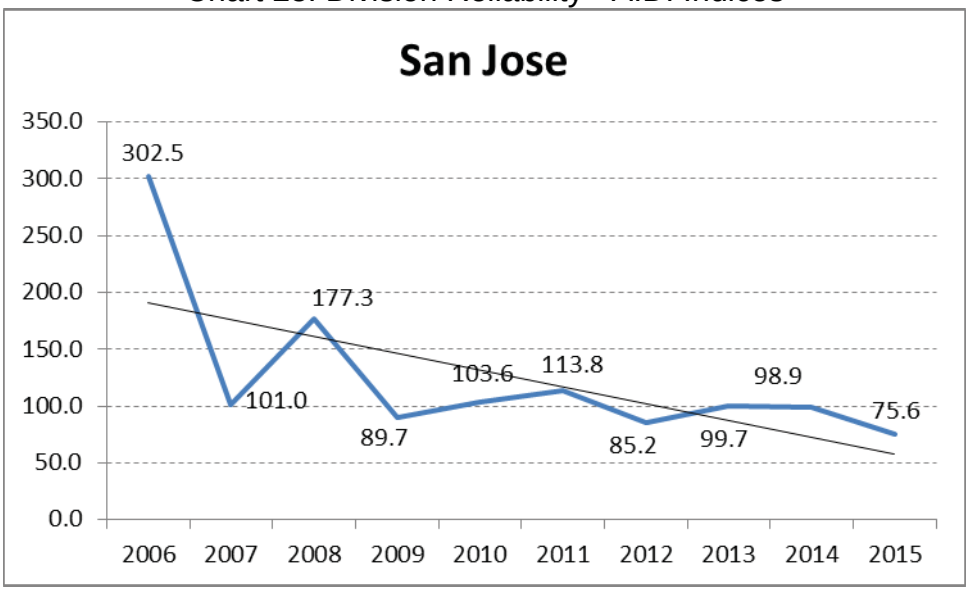
(Excludes ISO, and planned outages)

Chart 24: Division Reliability - AIDI Indices



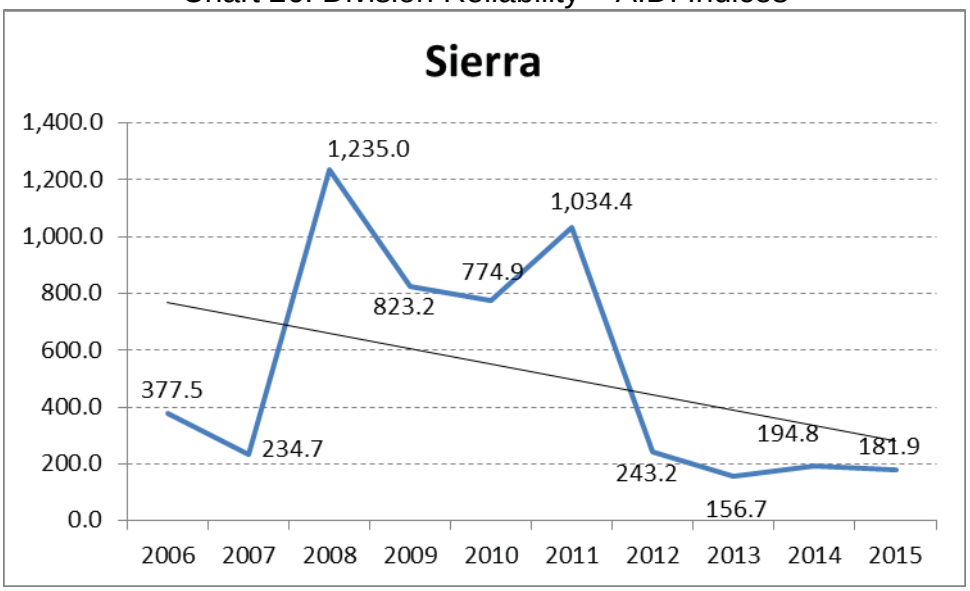
(Excludes ISO, and planned outages)

Chart 25: Division Reliability - AIDI Indices



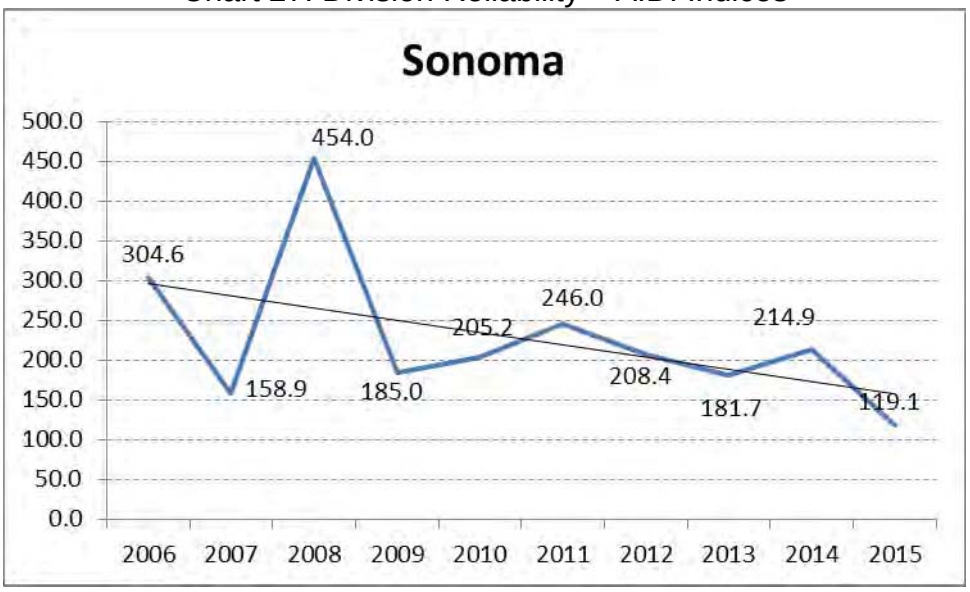
(Excludes ISO, and planned outages)

Chart 26: Division Reliability – AIDI Indices



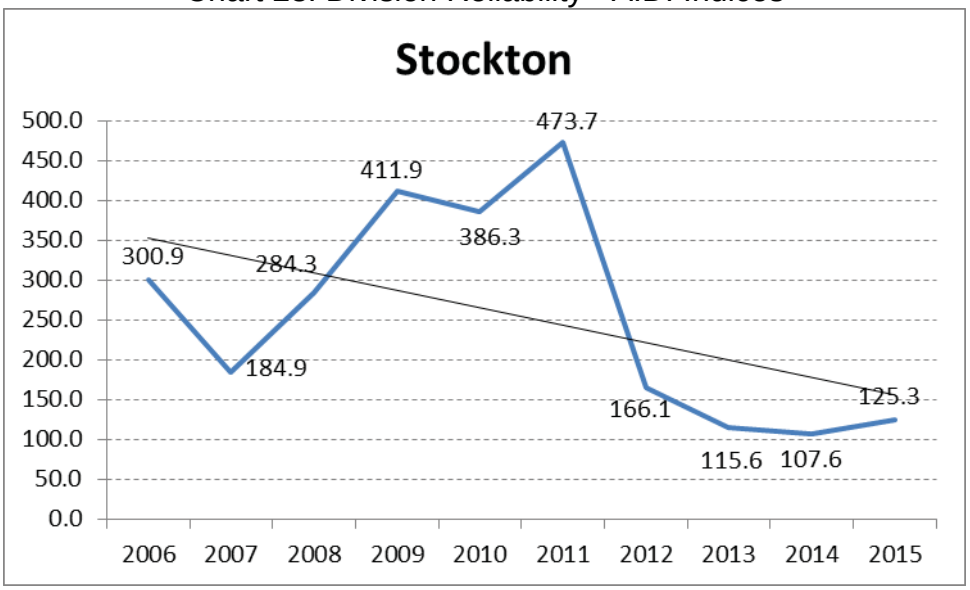
(Excludes ISO, and planned outages)

Chart 27: Division Reliability – AIDI Indices



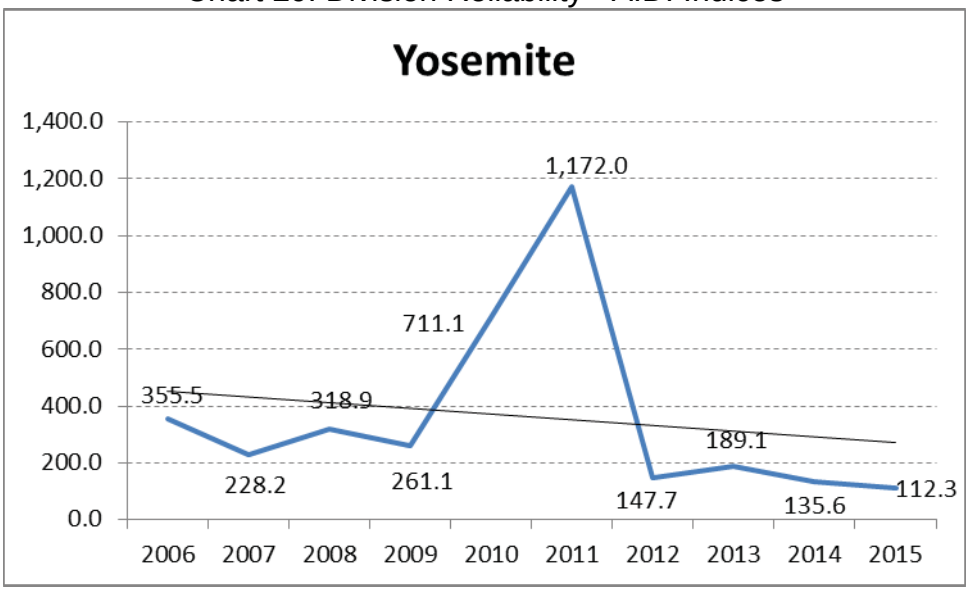
(Excludes ISO, and planned outages)

Chart 28: Division Reliability - AIDI Indices



(Excludes ISO, and planned outages)

Chart 29: Division Reliability - AIDI Indices



(Excludes ISO, and planned outages)

2. AIFI Performance Results (MED Included)

Chart 30: Division Reliability - AIFI Indices

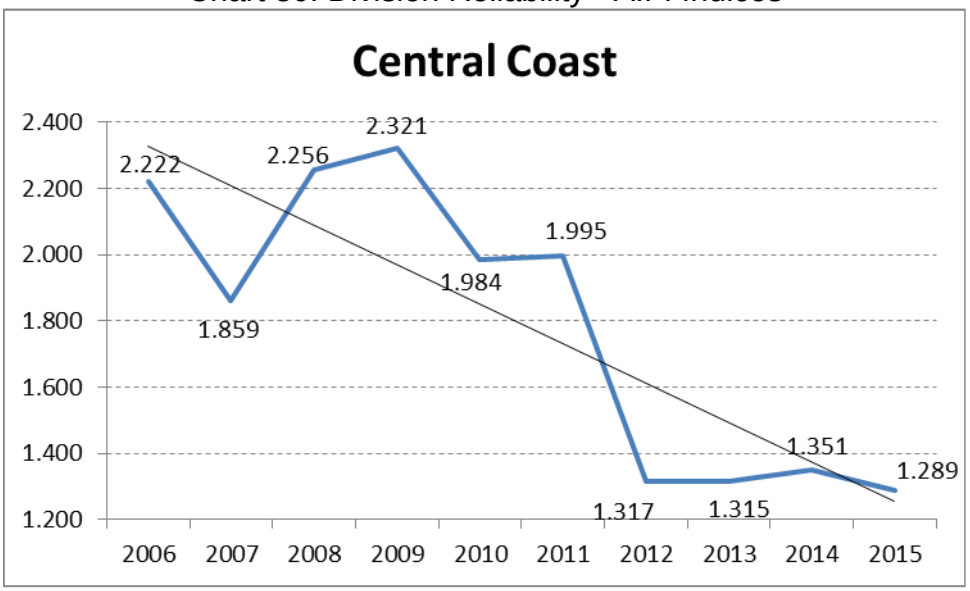
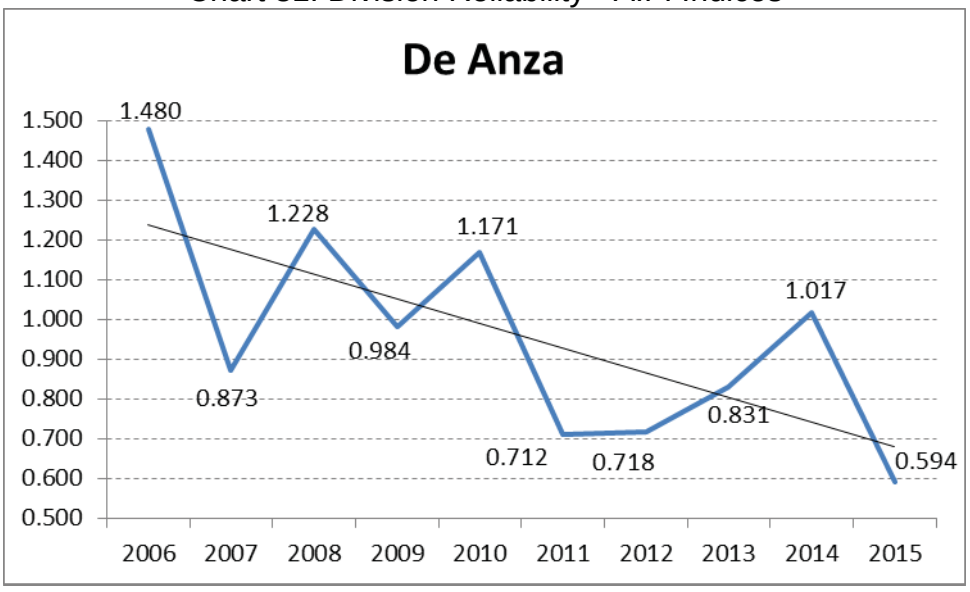
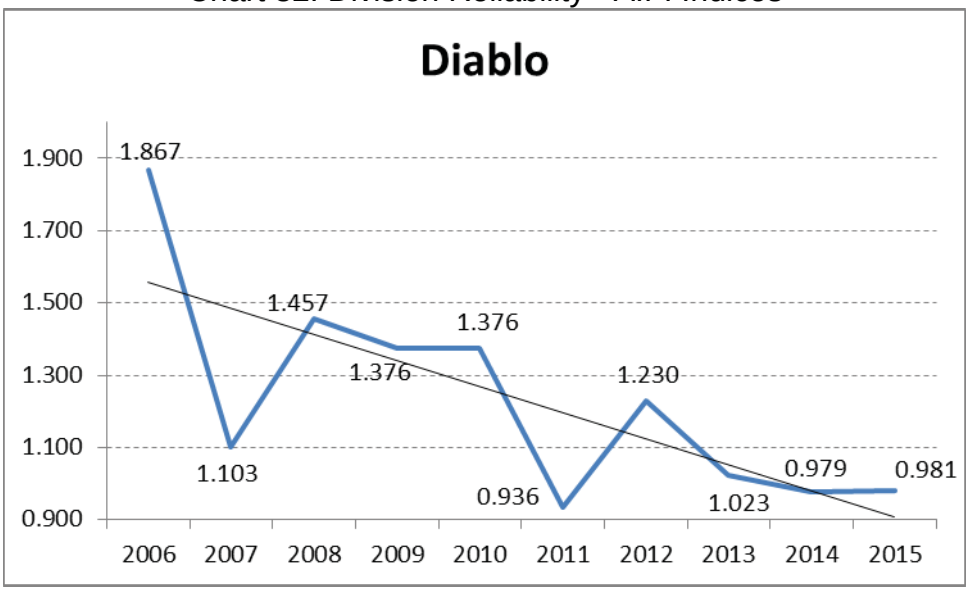


Chart 31: Division Reliability - AIFI Indices



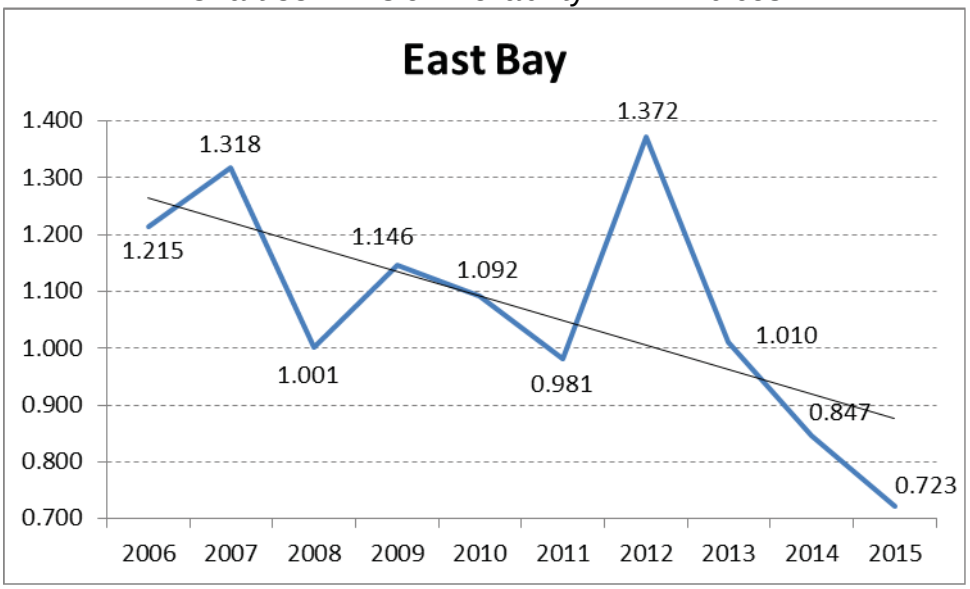
(Excludes ISO, and planned outages)

Chart 32: Division Reliability - AIFI Indices



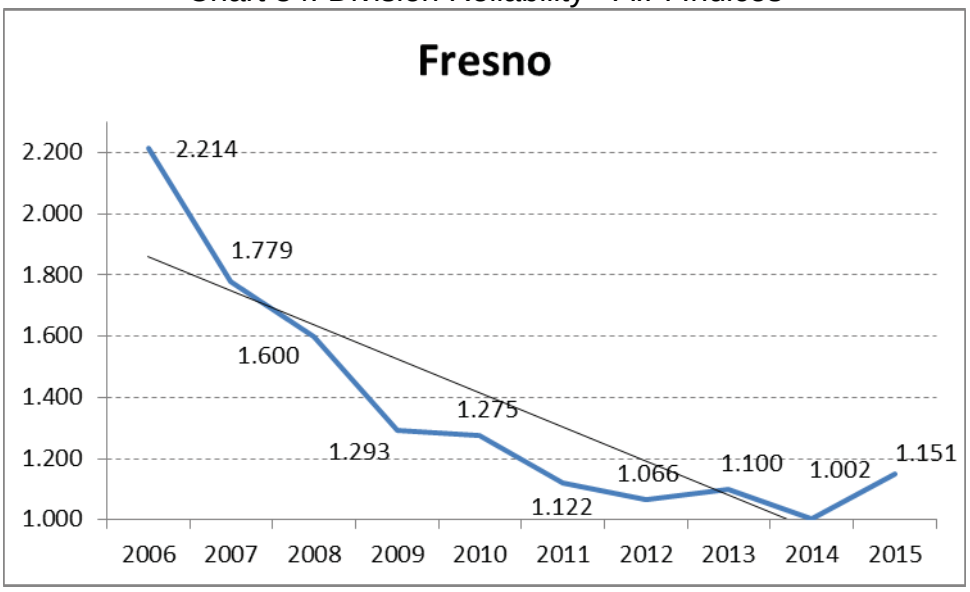
(Excludes ISO, and planned outages)

Chart 33: Division Reliability - AIFI Indices



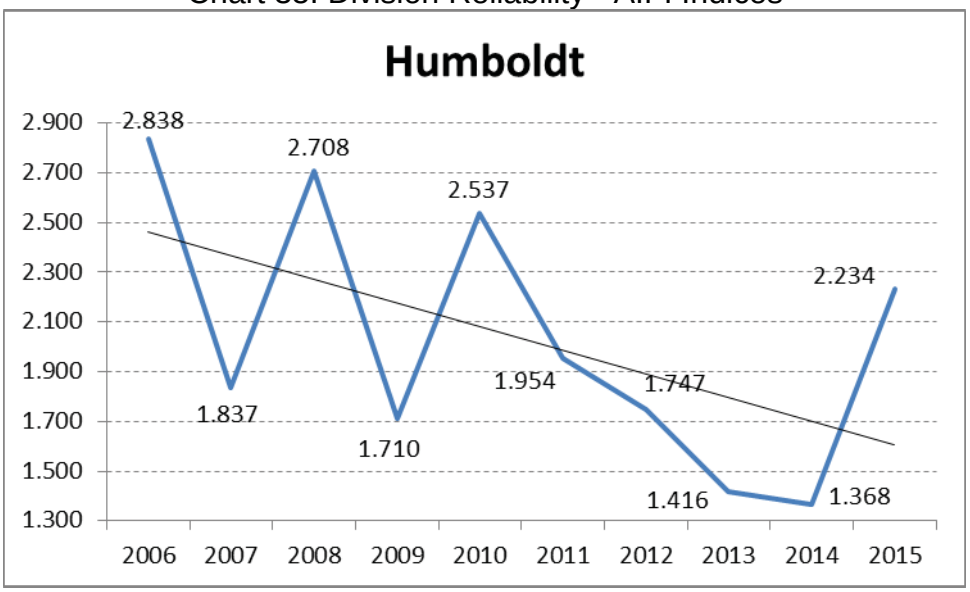
(Excludes ISO, and planned outages)

Chart 34: Division Reliability - AIFI Indices



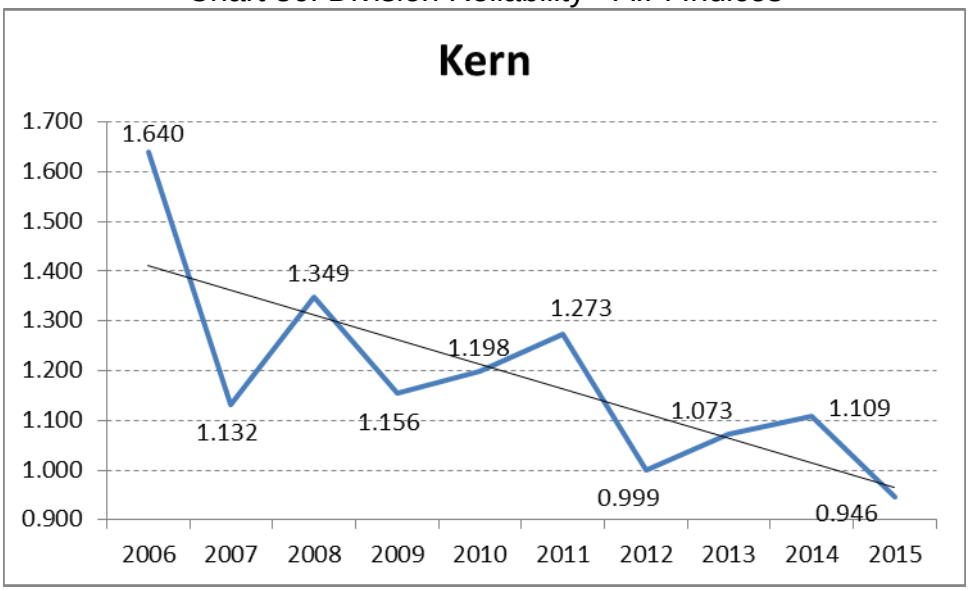
(Excludes ISO, and planned outages)

Chart 35: Division Reliability - AIFI Indices



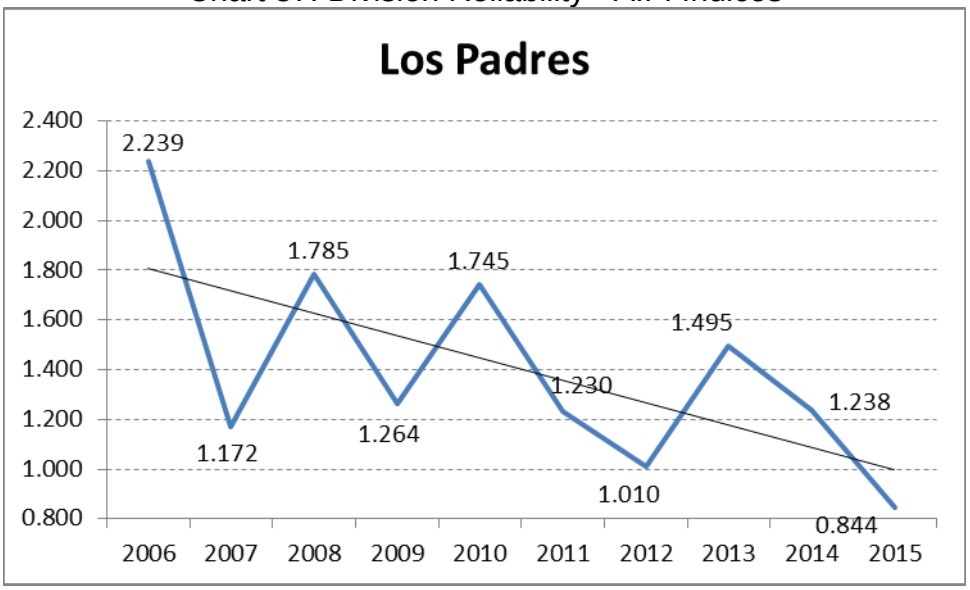
(Excludes ISO, and planned outages)

Chart 36: Division Reliability - AIFI Indices



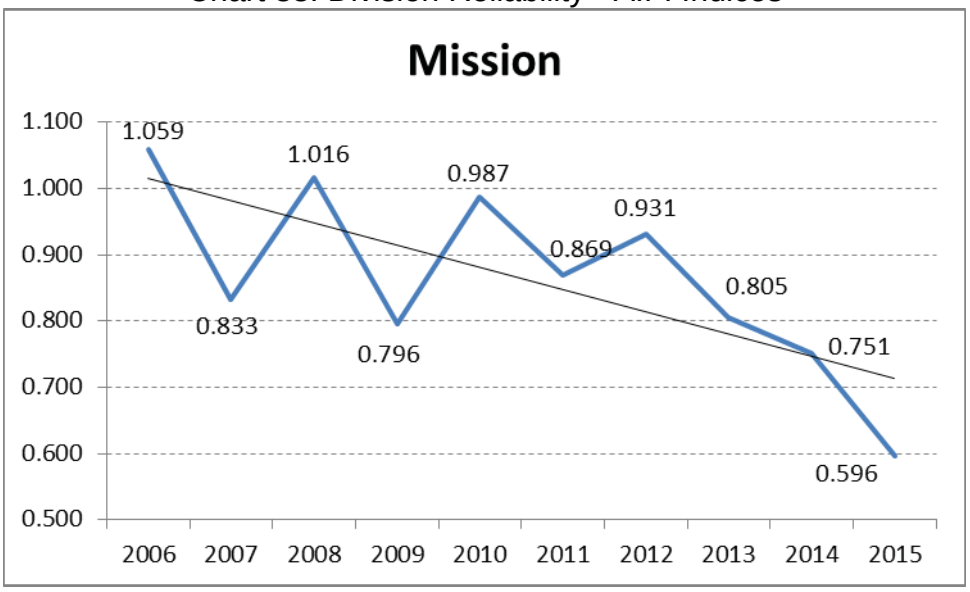
(Excludes ISO, and planned outages)

Chart 37: Division Reliability - AIFI Indices



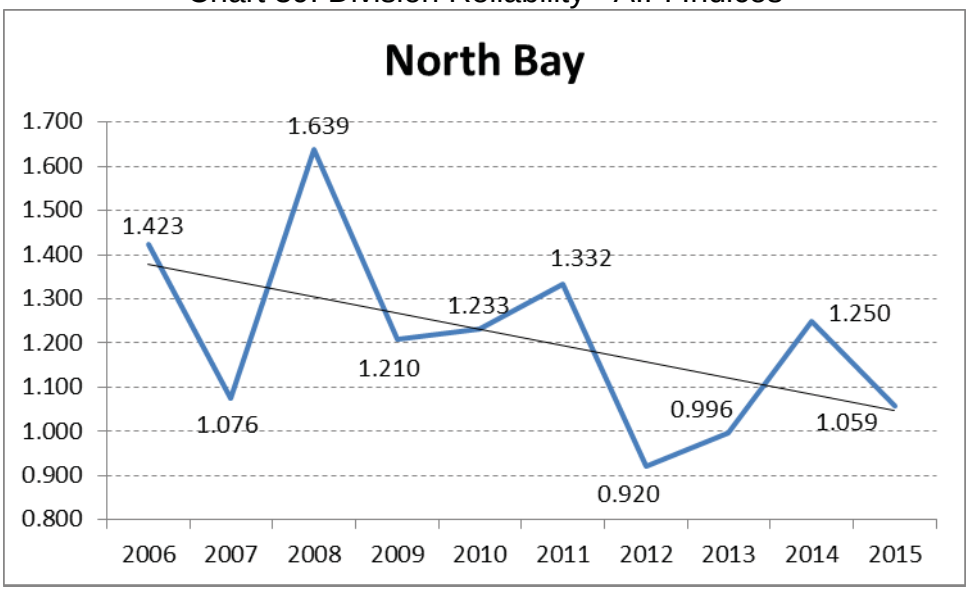
(Excludes ISO, and planned outages)

Chart 38: Division Reliability - AIFI Indices



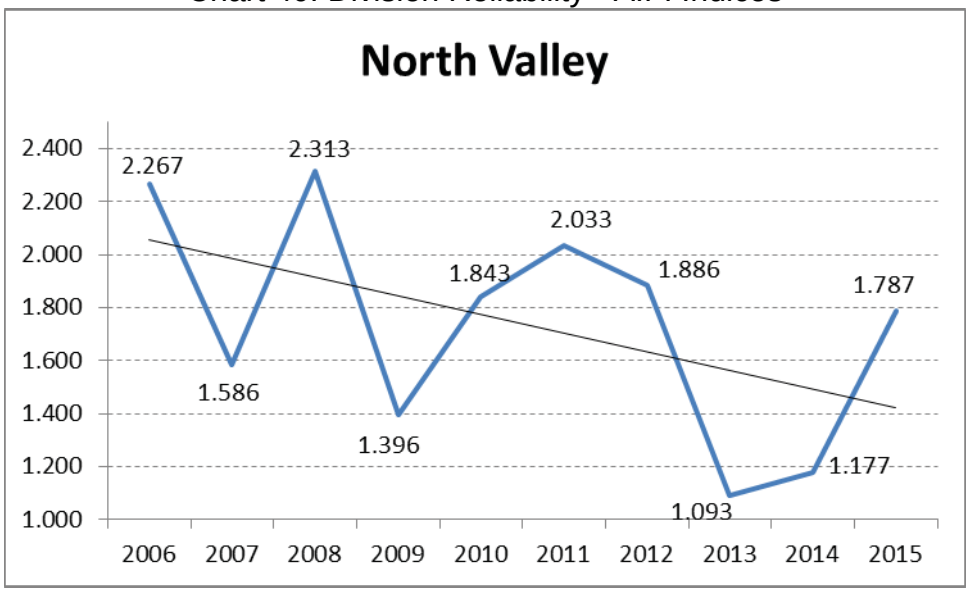
(Excludes ISO, and planned outages)

Chart 39: Division Reliability - AIFI Indices



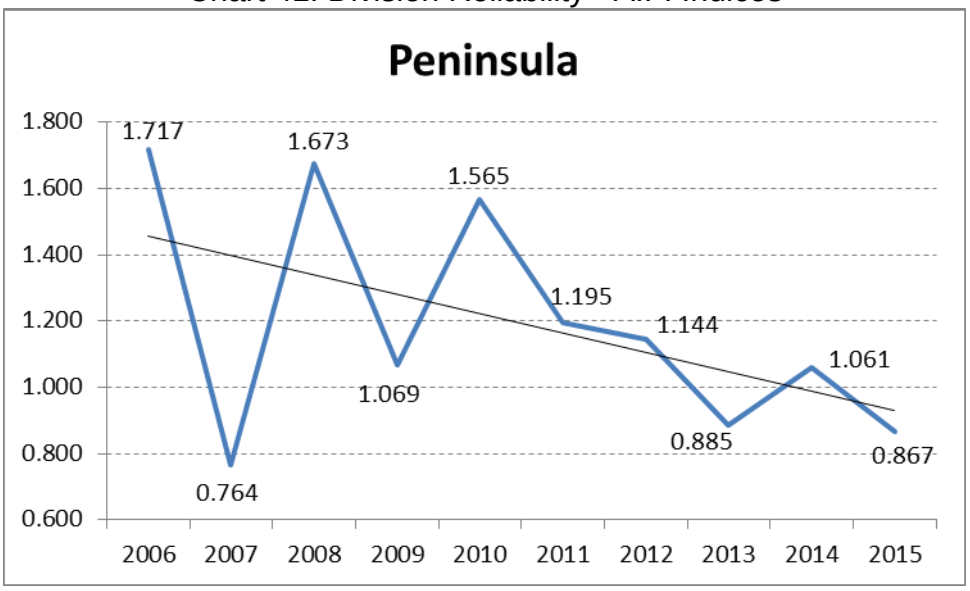
(Excludes ISO, and planned outages)

Chart 40: Division Reliability - AIFI Indices



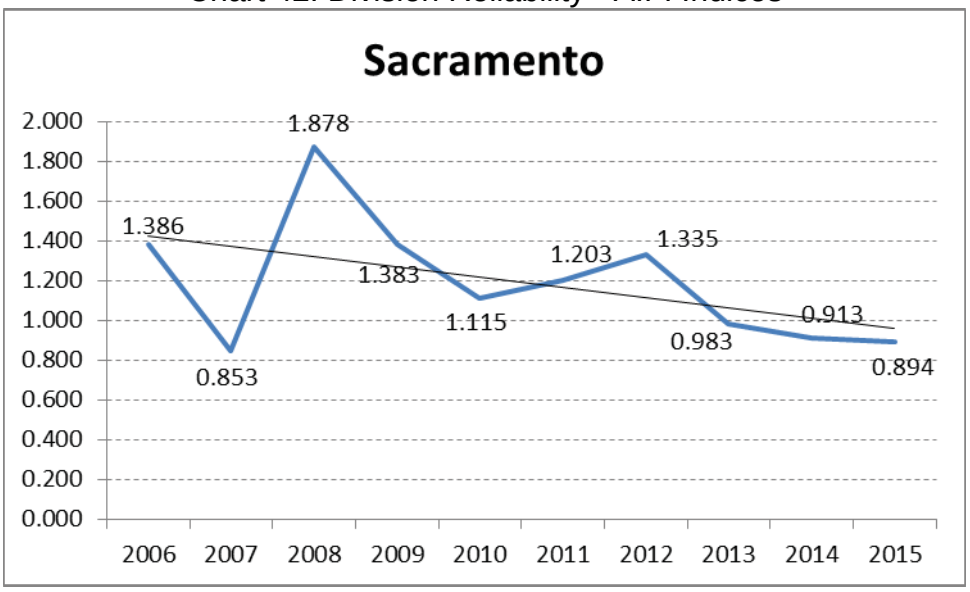
(Excludes ISO, and planned outages)

Chart 41: Division Reliability - AIFI Indices



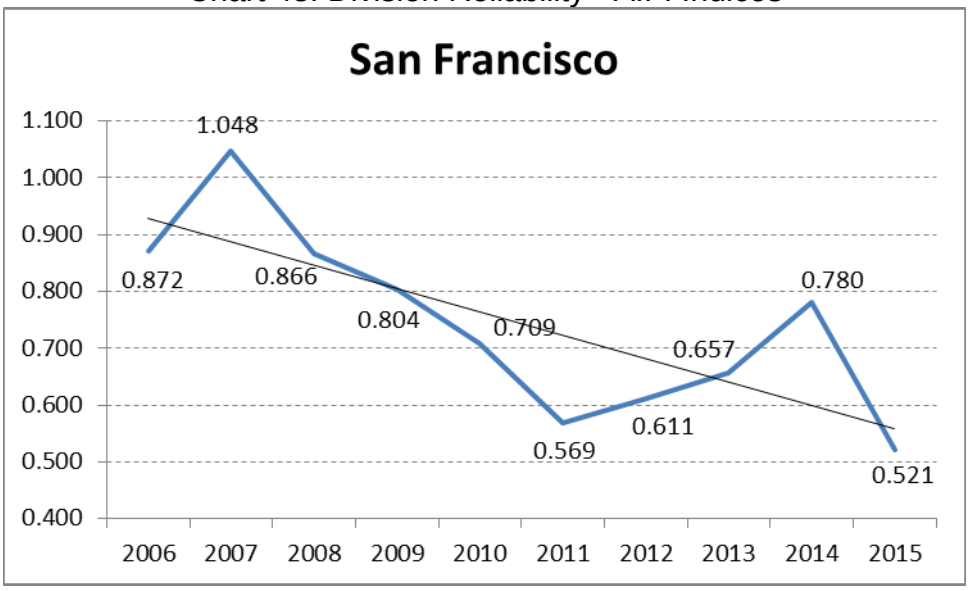
(Excludes ISO, and planned outages)

Chart 42: Division Reliability - AIFI Indices



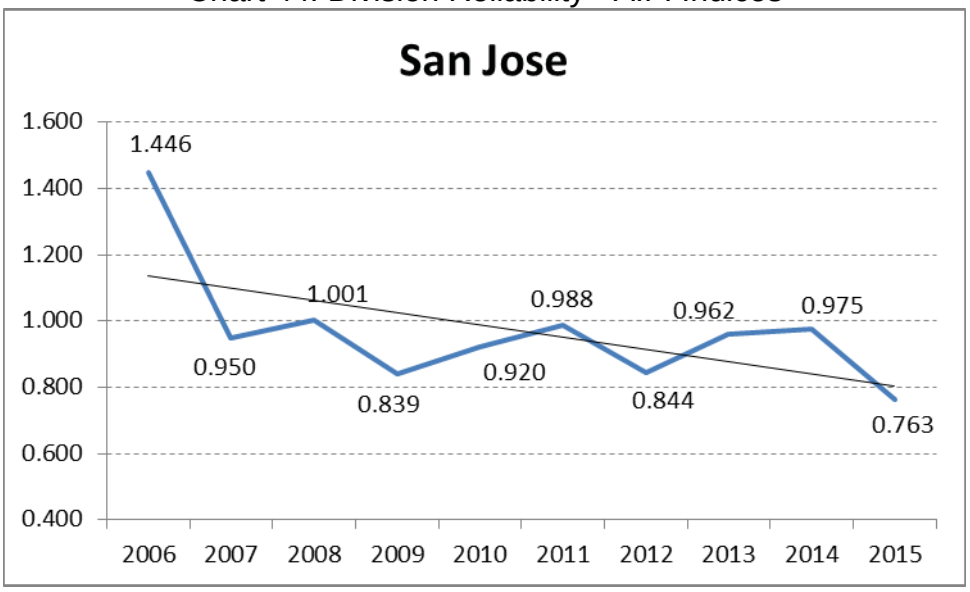
(Excludes ISO, and planned outages)

Chart 43: Division Reliability - AIFI Indices



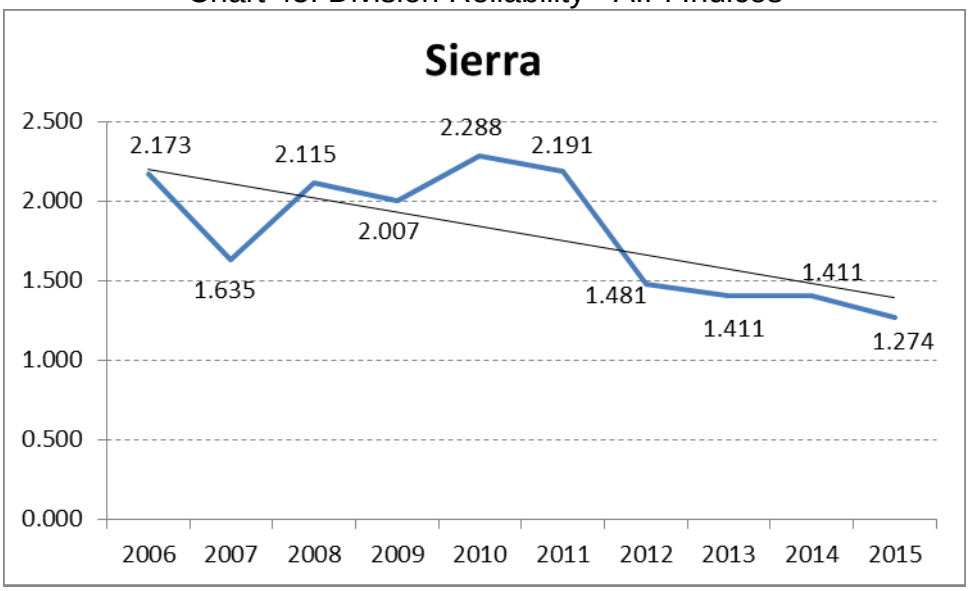
(Excludes ISO, and planned outages)

Chart 44: Division Reliability - AIFI Indices



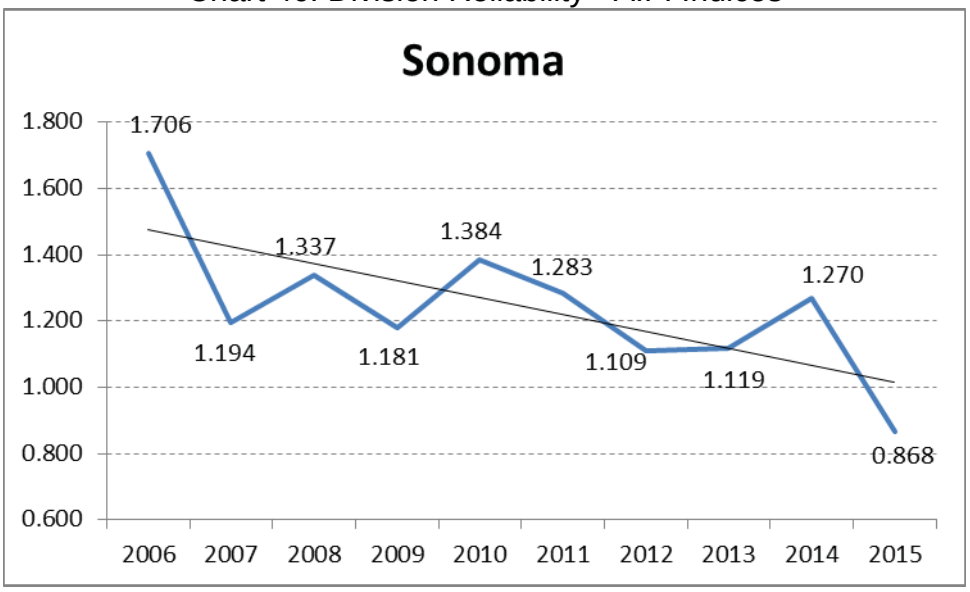
(Excludes ISO, and planned outages)

Chart 45: Division Reliability - AIFI Indices



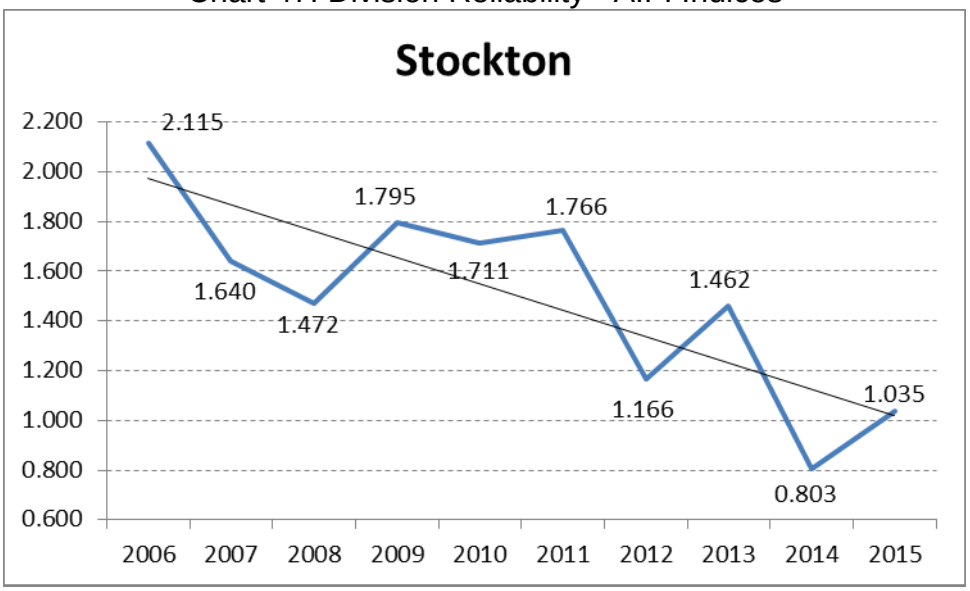
(Excludes ISO, and planned outages)

Chart 46: Division Reliability - AIFI Indices



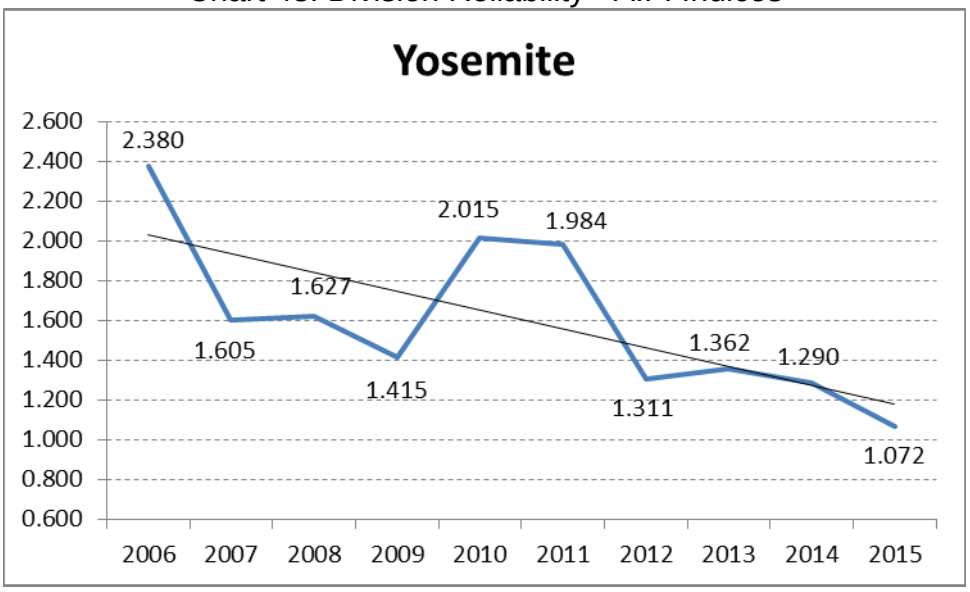
(Excludes ISO, and planned outages)

Chart 47: Division Reliability - AIFI Indices



(Excludes ISO, and planned outages)

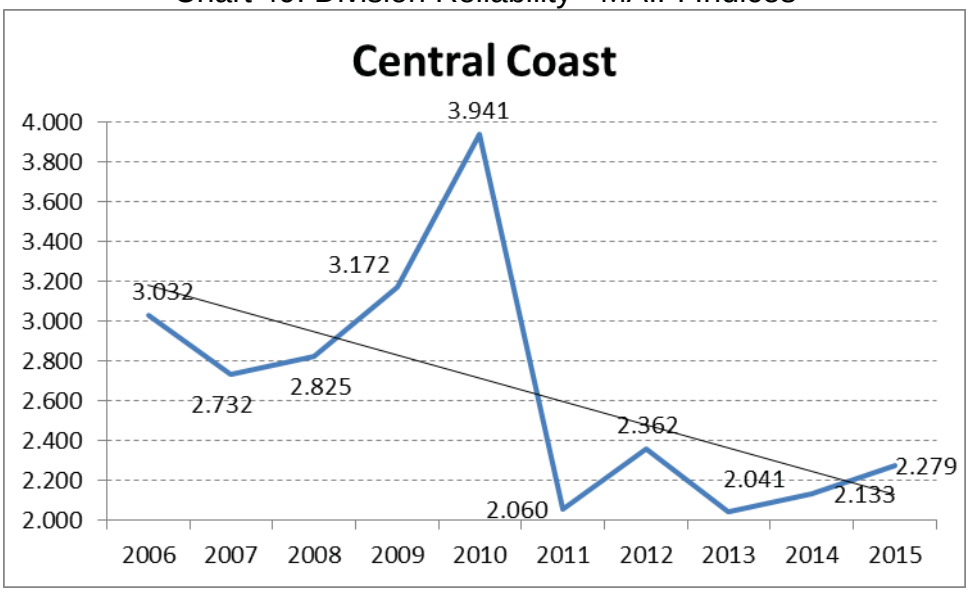
Chart 48: Division Reliability - AIFI Indices



(Excludes ISO, and planned outages)

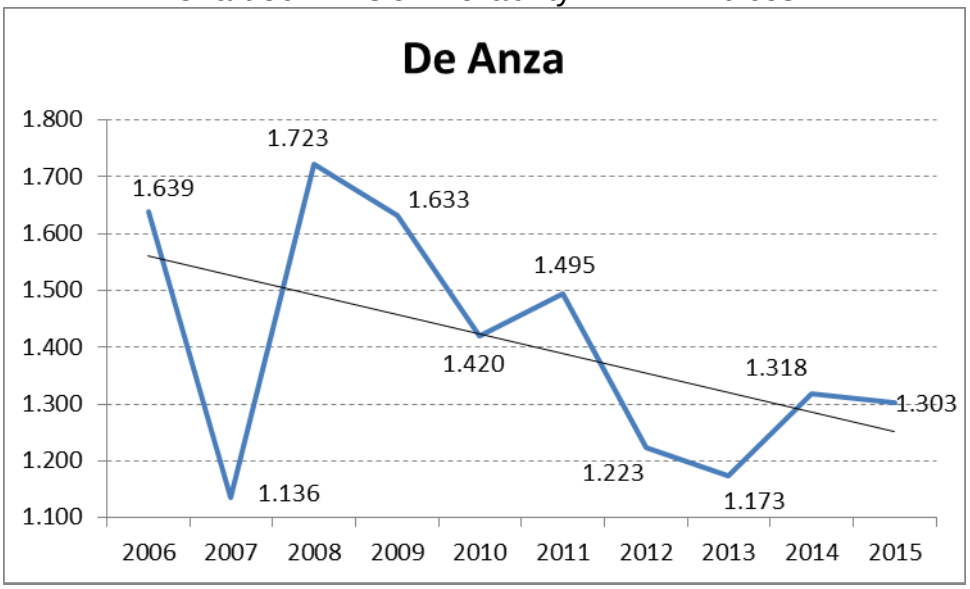
3. MAIFI Performance Results (MED Included)

Chart 49: Division Reliability - MAIFI Indices



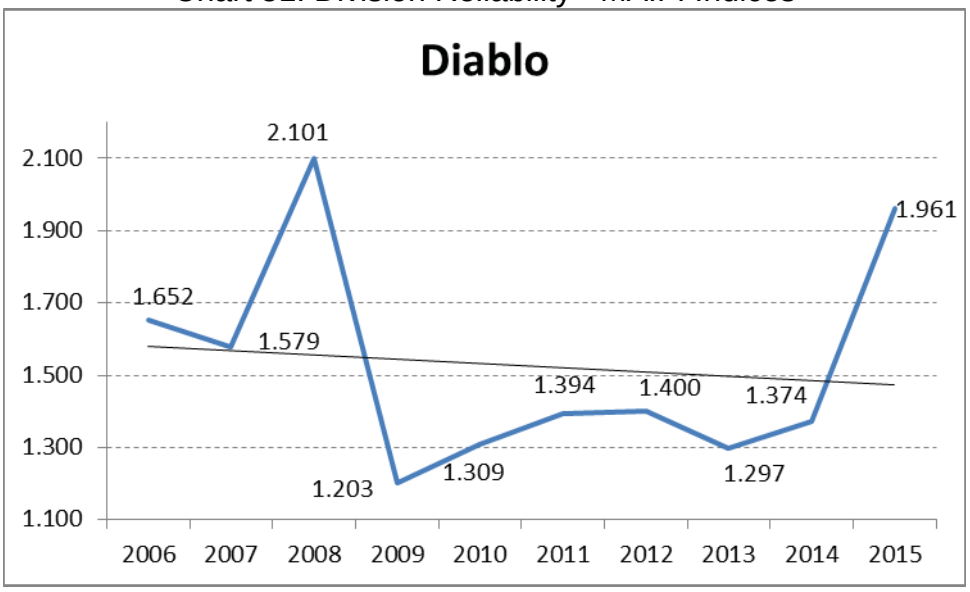
(Excludes ISO, and planned outages)

Chart 50: Division Reliability - MAIFI Indices



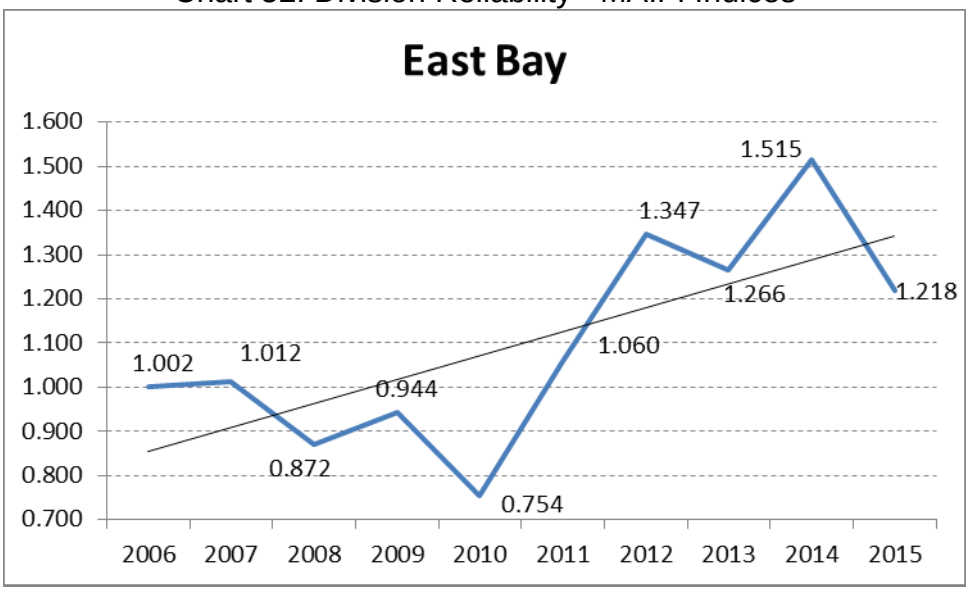
(Excludes ISO, and planned outages)

Chart 51: Division Reliability - MAIFI Indices



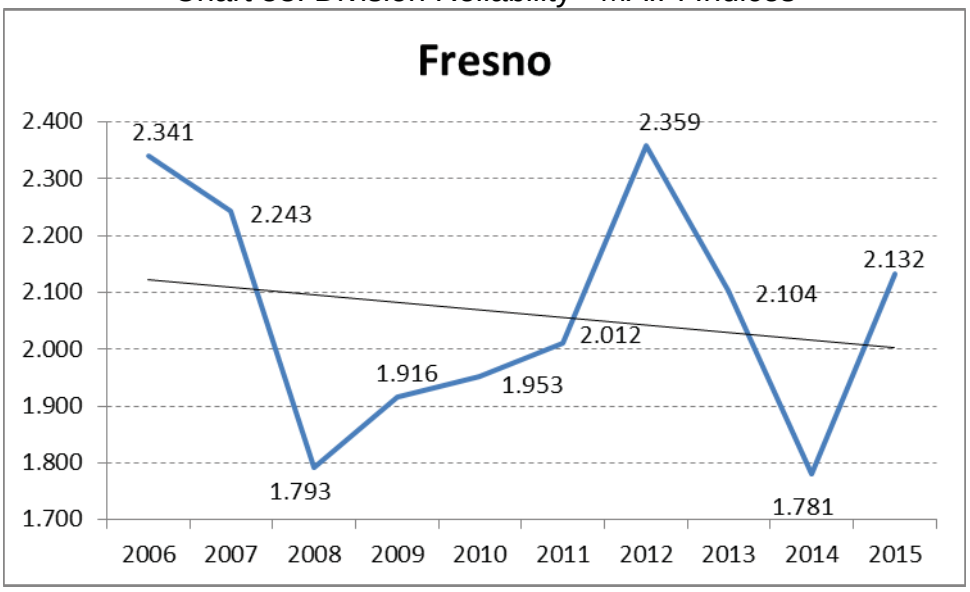
(Excludes ISO, and planned outages)

Chart 52: Division Reliability - MAIFI Indices



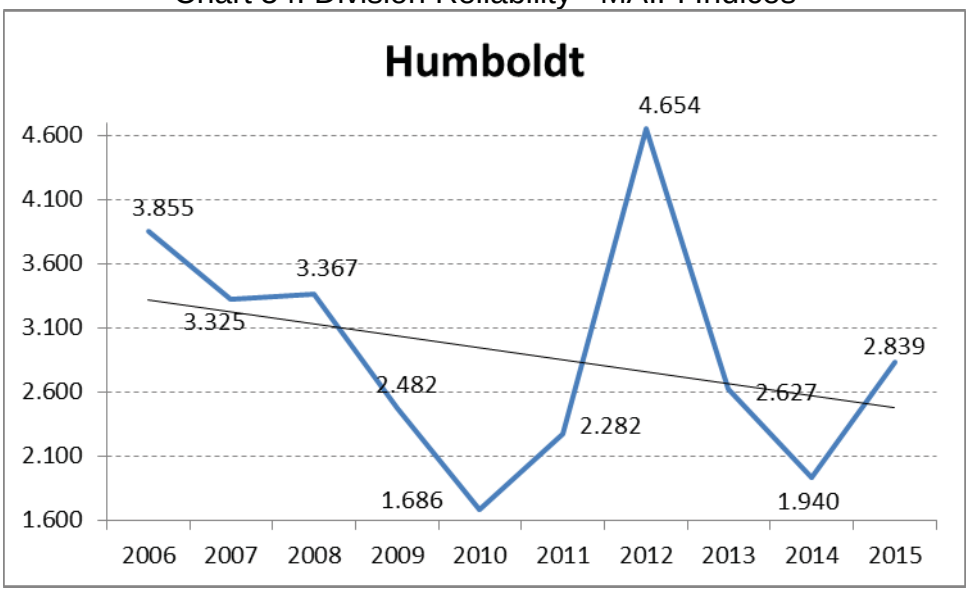
(Excludes ISO, and planned outages)

Chart 53: Division Reliability - MAIFI Indices



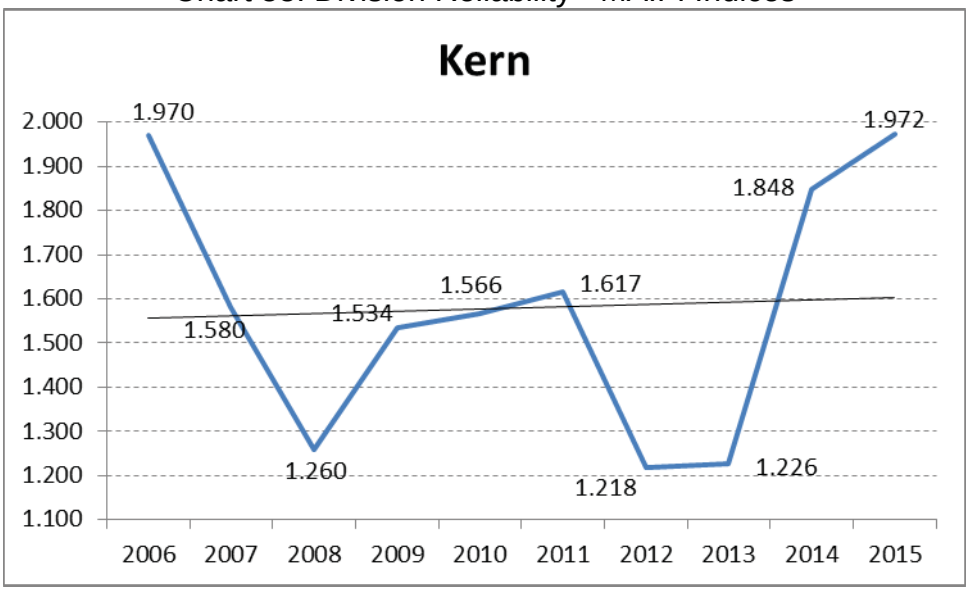
(Excludes ISO, and planned outages)

Chart 54: Division Reliability - MAIFI Indices



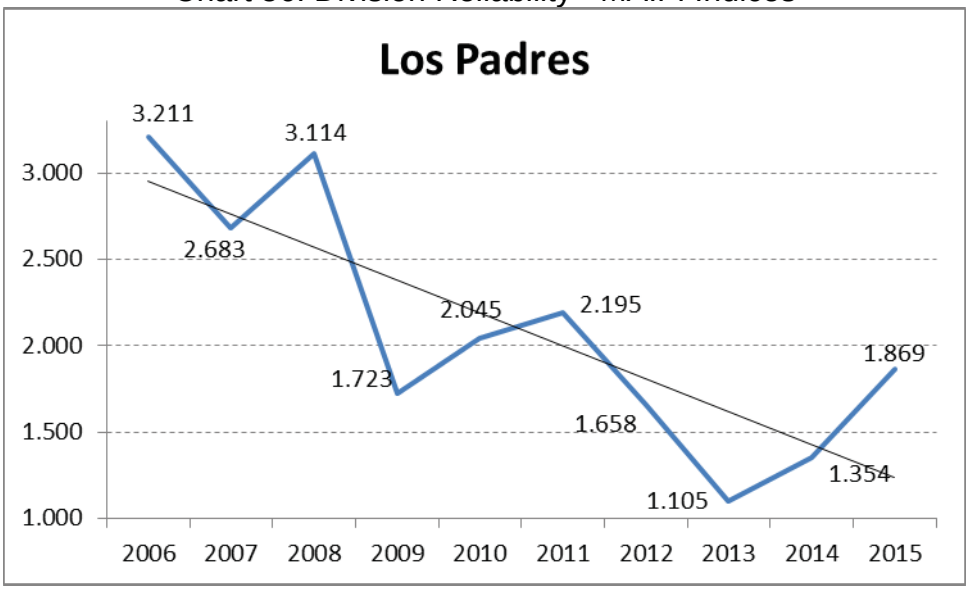
(Excludes ISO, and planned outages)

Chart 55: Division Reliability - MAIFI Indices



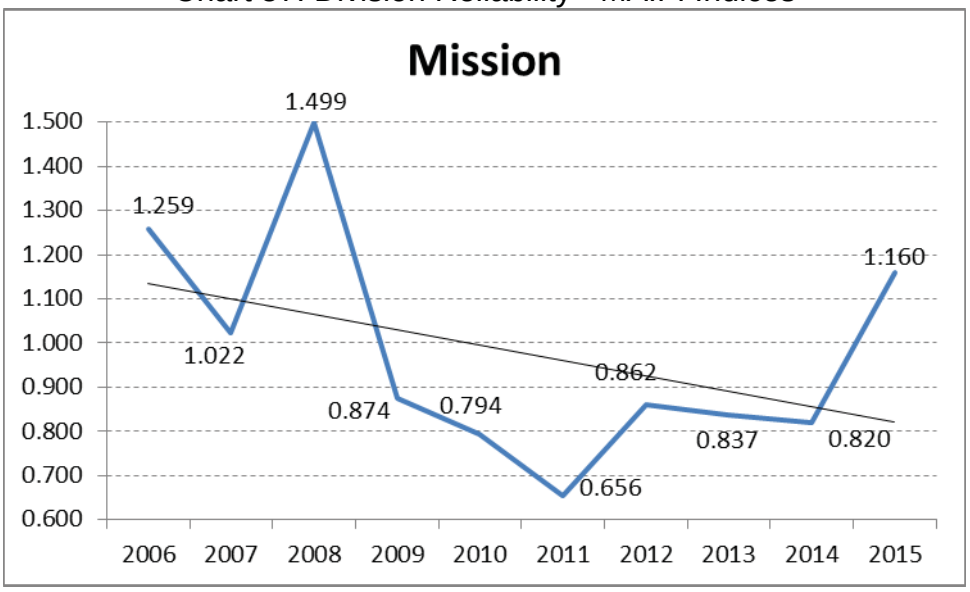
(Excludes ISO, and planned outages)

Chart 56: Division Reliability - MAIFI Indices



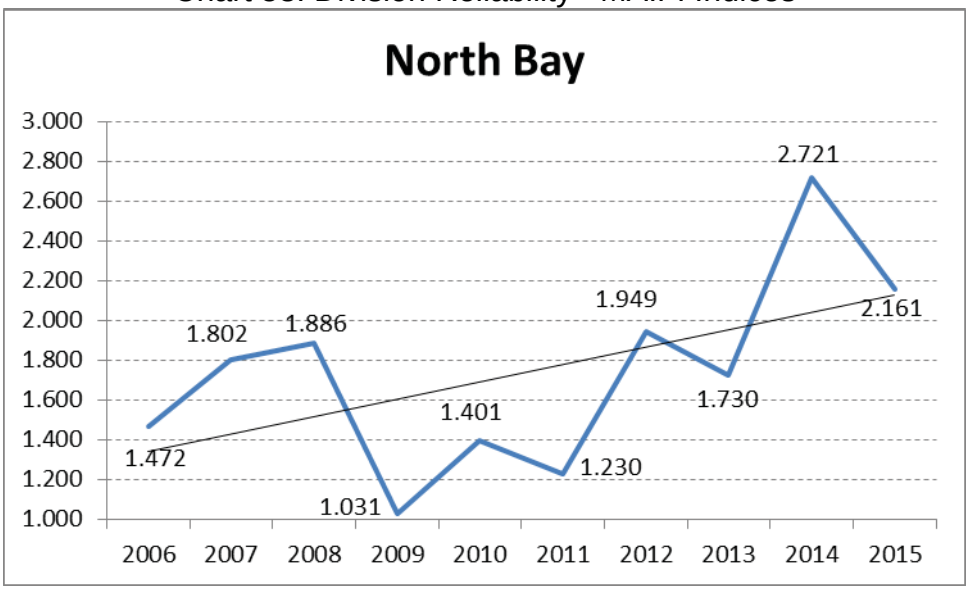
(Excludes ISO, and planned outages)

Chart 57: Division Reliability - MAIFI Indices



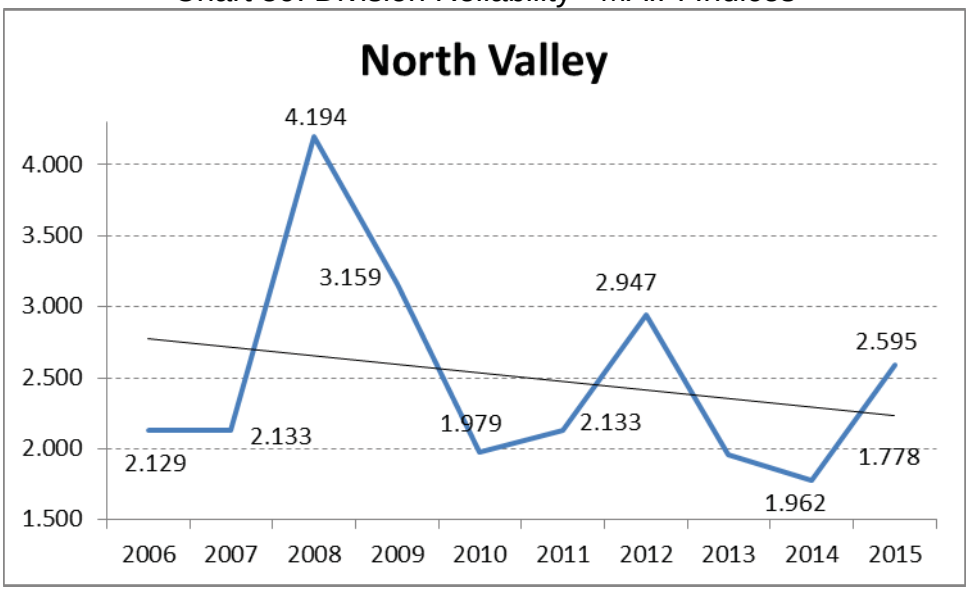
(Excludes ISO, and planned outages)

Chart 58: Division Reliability - MAIFI Indices



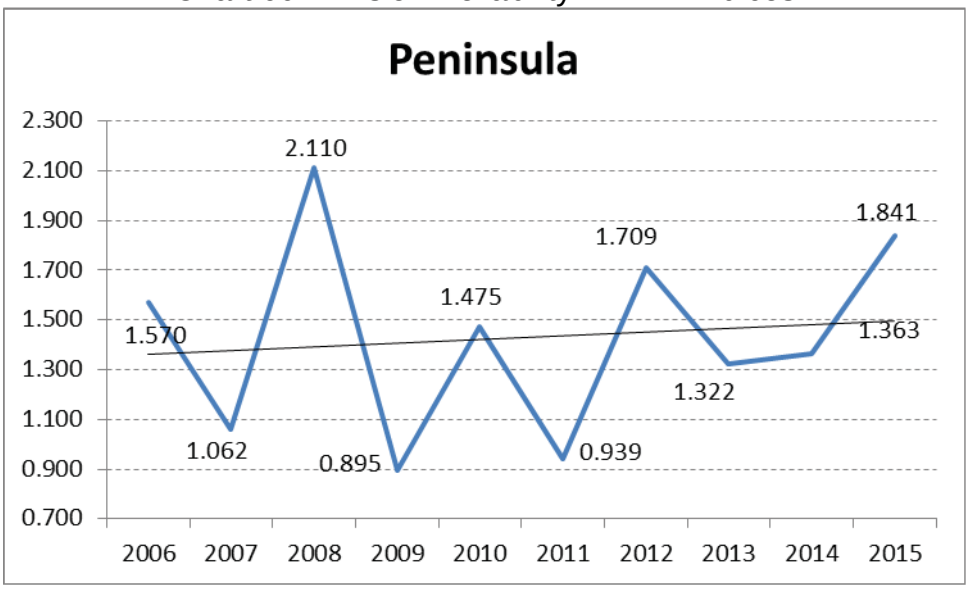
(Excludes ISO, and planned outages)

Chart 59: Division Reliability - MAIFI Indices



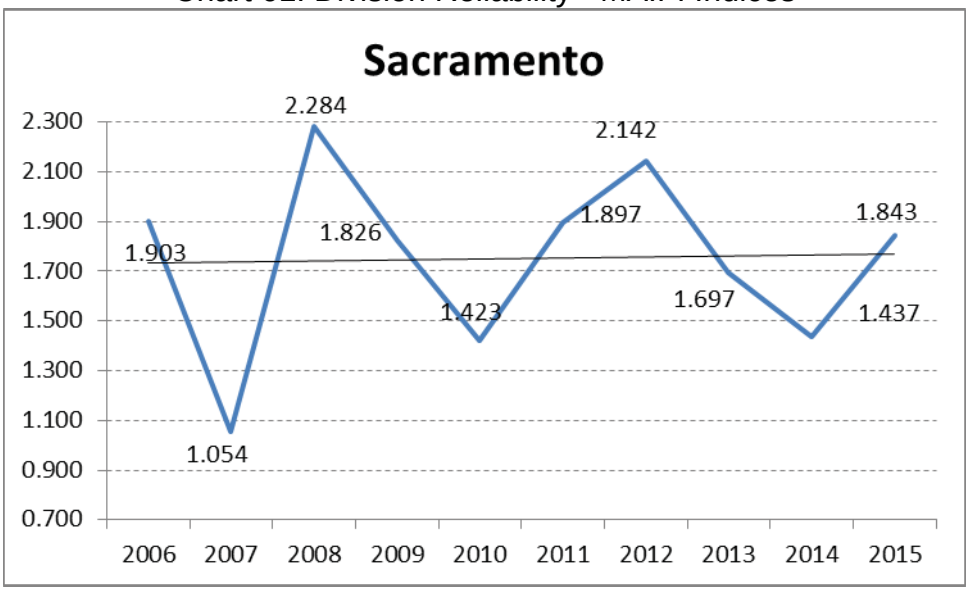
(Excludes ISO, and planned outages)

Chart 60: Division Reliability - MAIFI Indices



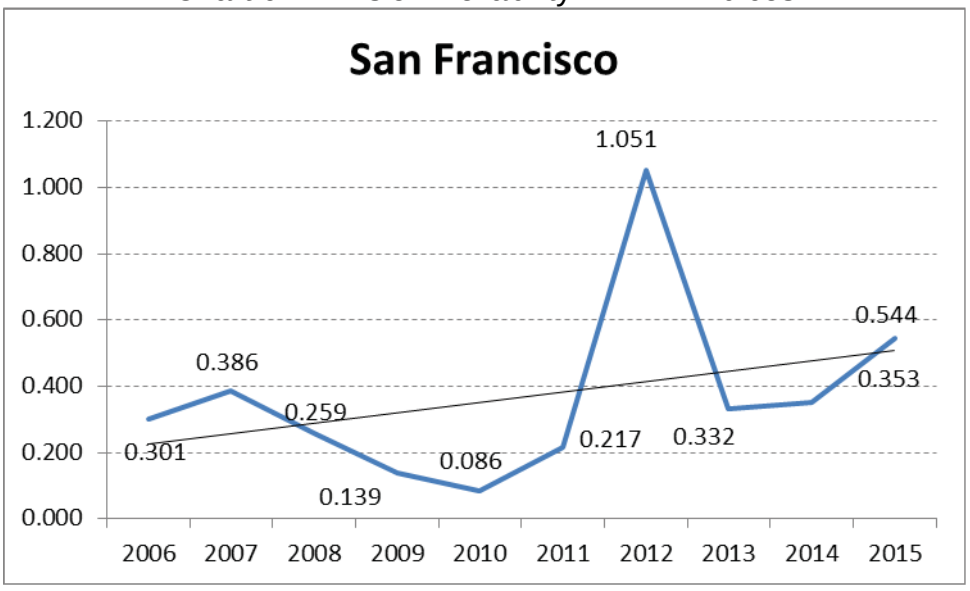
(Excludes ISO, and planned outages)

Chart 61: Division Reliability - MAIFI Indices



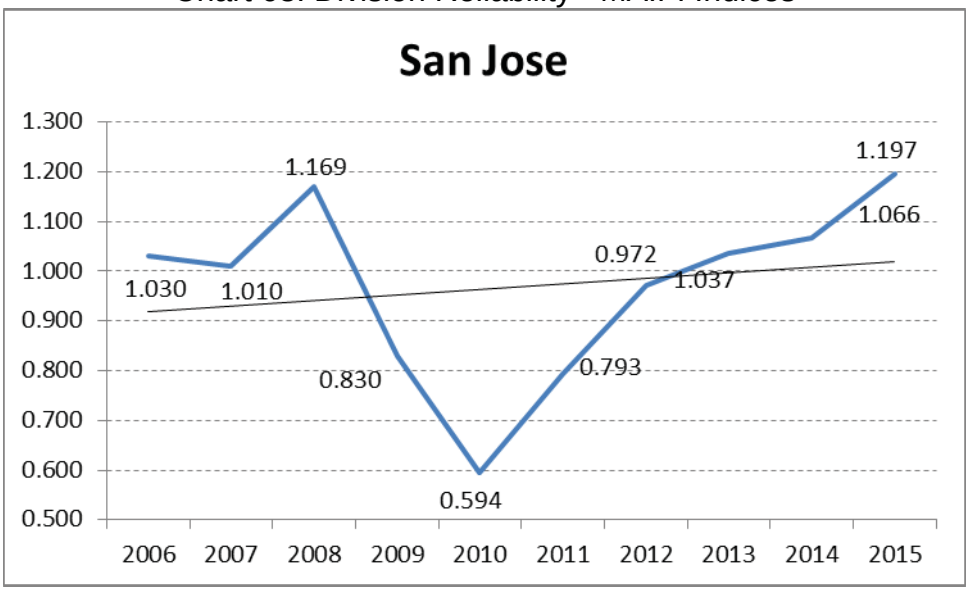
(Excludes ISO, and planned outages)

Chart 62: Division Reliability - MAIFI Indices



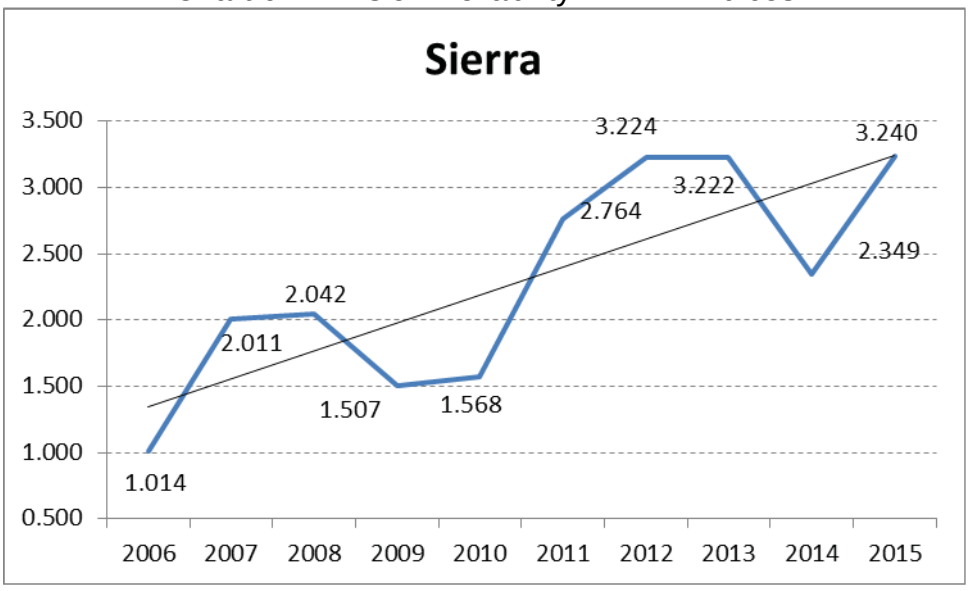
(Excludes ISO, and planned outages)

Chart 63: Division Reliability - MAIFI Indices



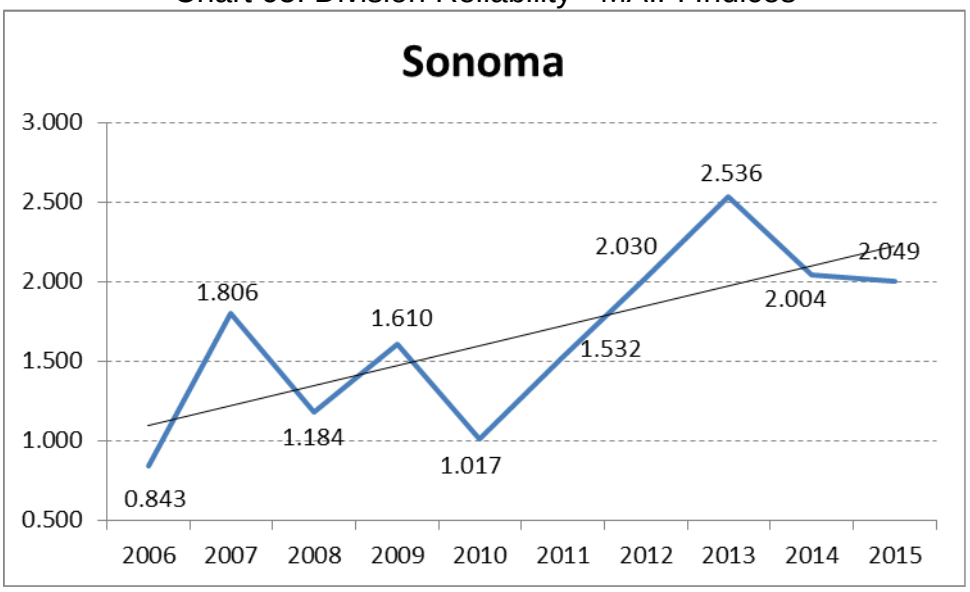
(Excludes ISO, and planned outages)

Chart 64: Division Reliability - MAIFI Indices



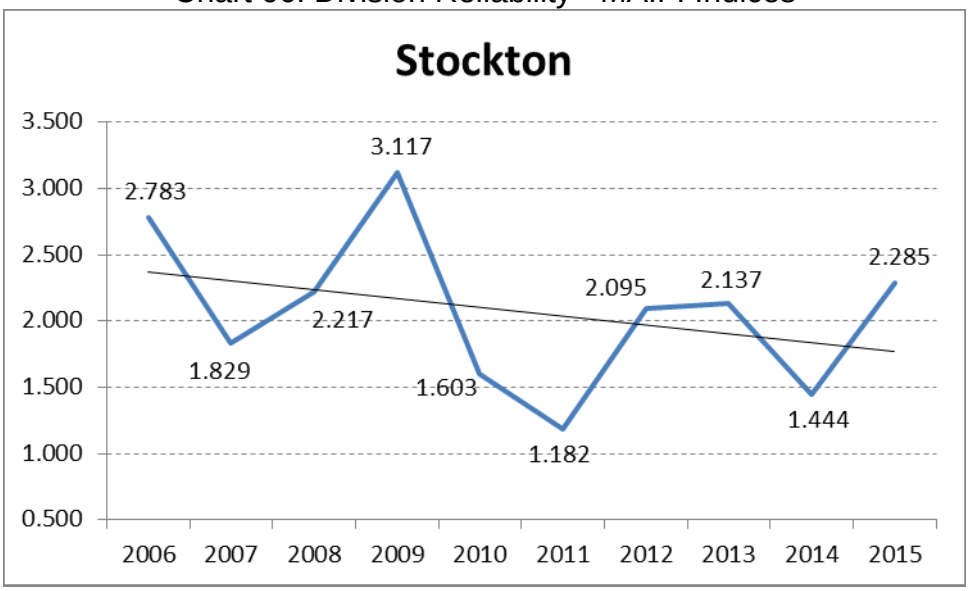
(Excludes ISO, and planned outages)

Chart 65: Division Reliability - MAIFI Indices



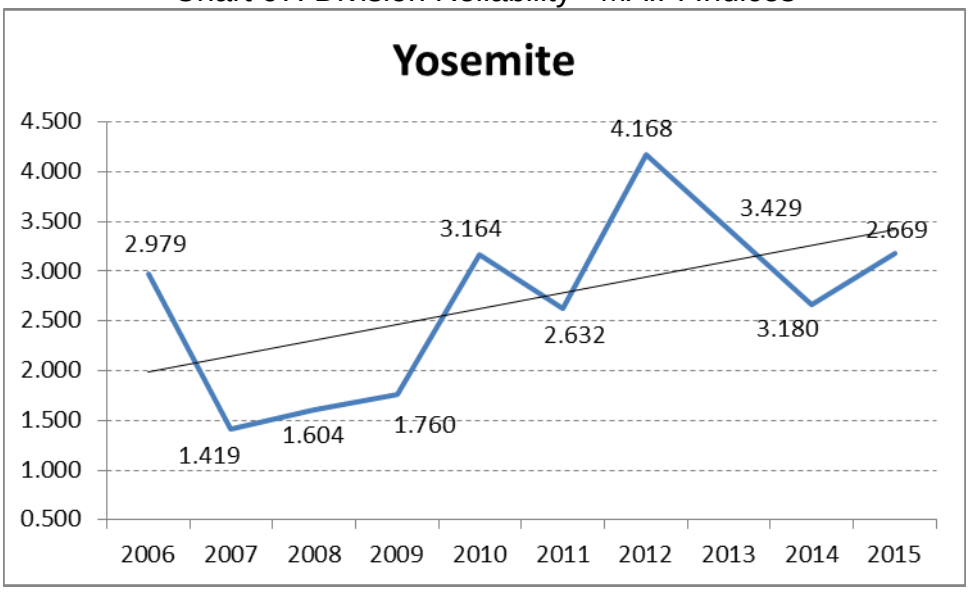
(Excludes ISO, and planned outages)

Chart 66: Division Reliability - MAIFI Indices



(Excludes ISO, and planned outages)

Chart 67: Division Reliability - MAIFI Indices



(Excludes ISO, and planned outages)

4. CAIDI Performance Results (MED Included)

Chart 68: Division Reliability - CAIDI Indices

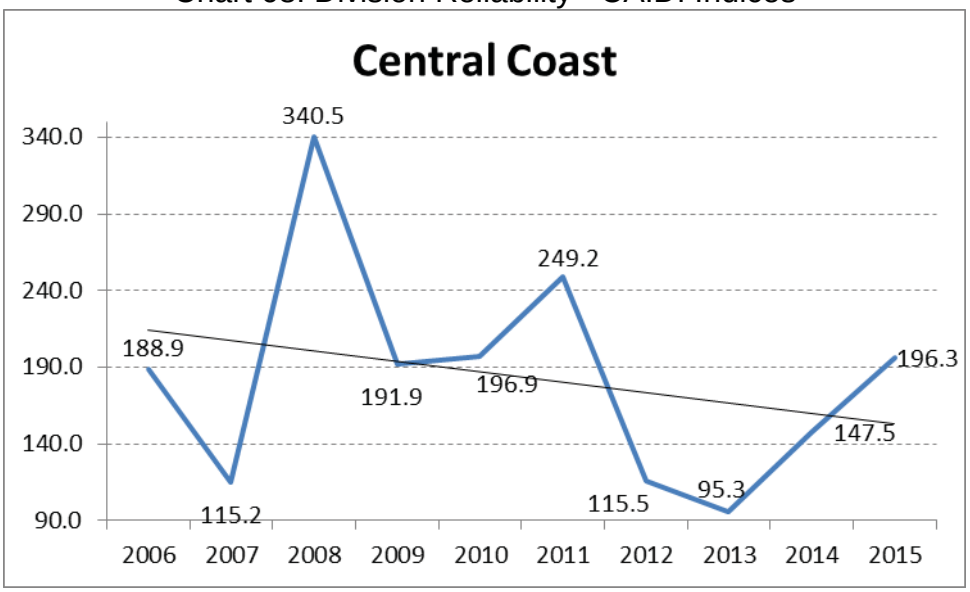
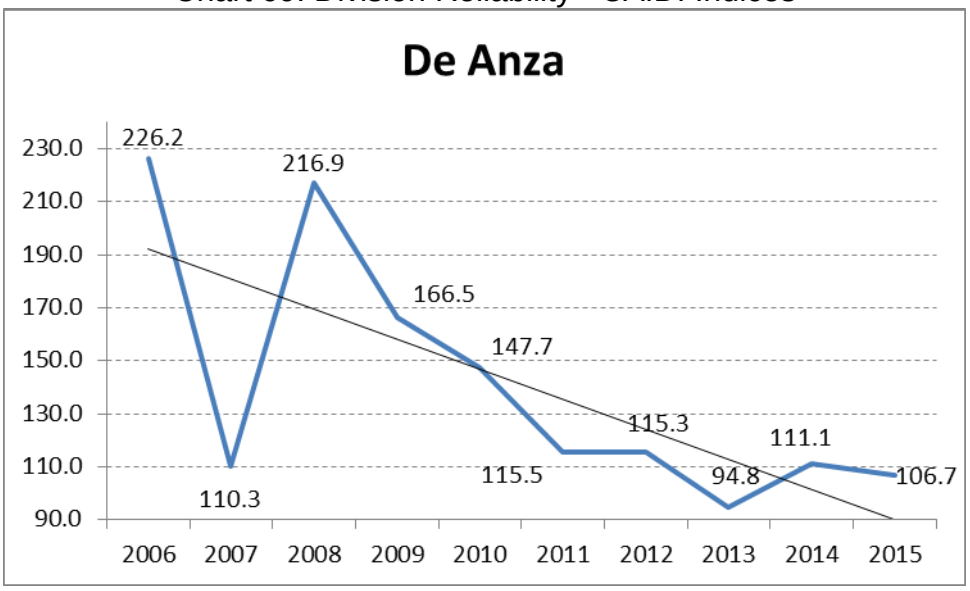
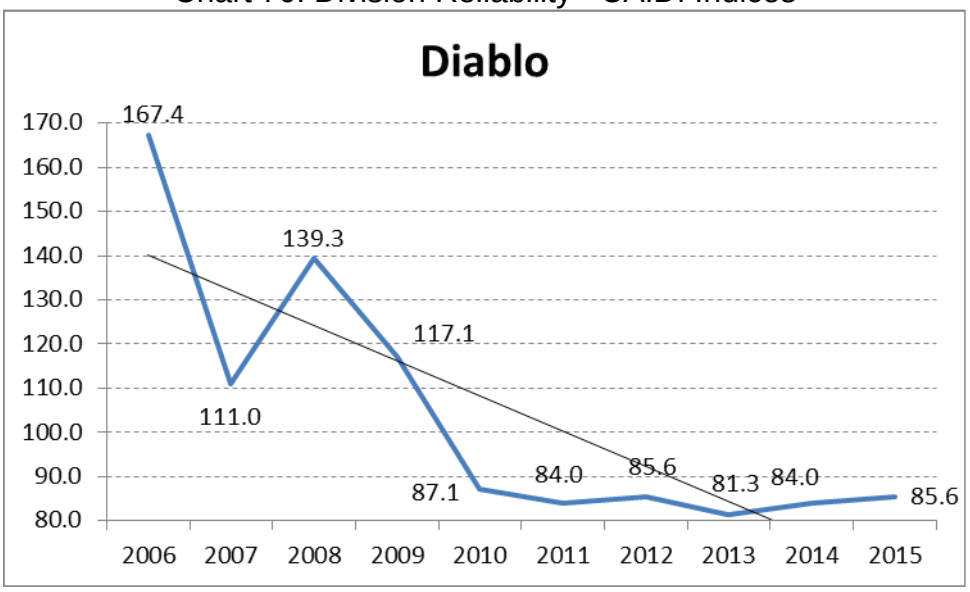


Chart 69: Division Reliability - CAIDI Indices



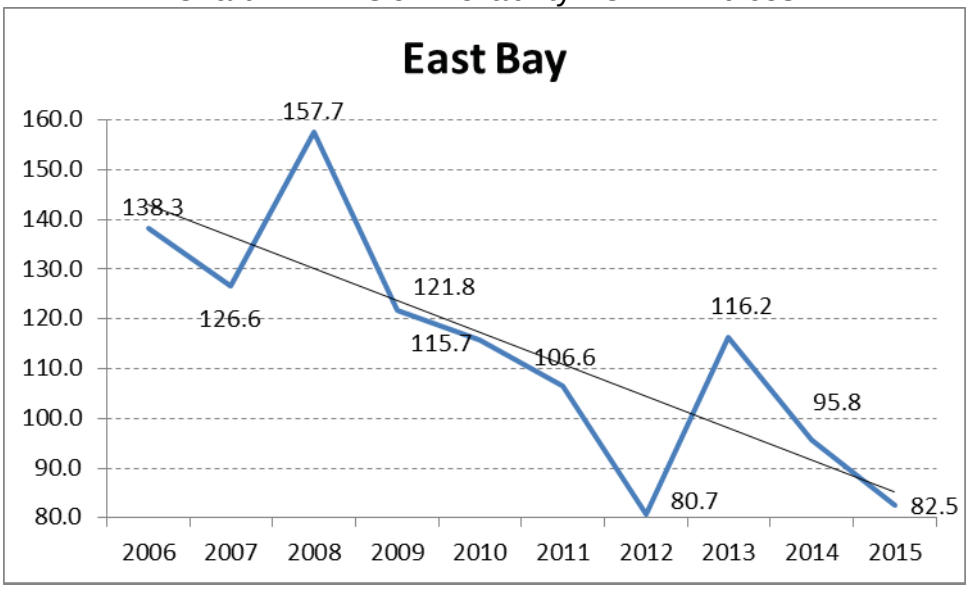
(Excludes ISO, and planned outages)

Chart 70: Division Reliability - CAIDI Indices



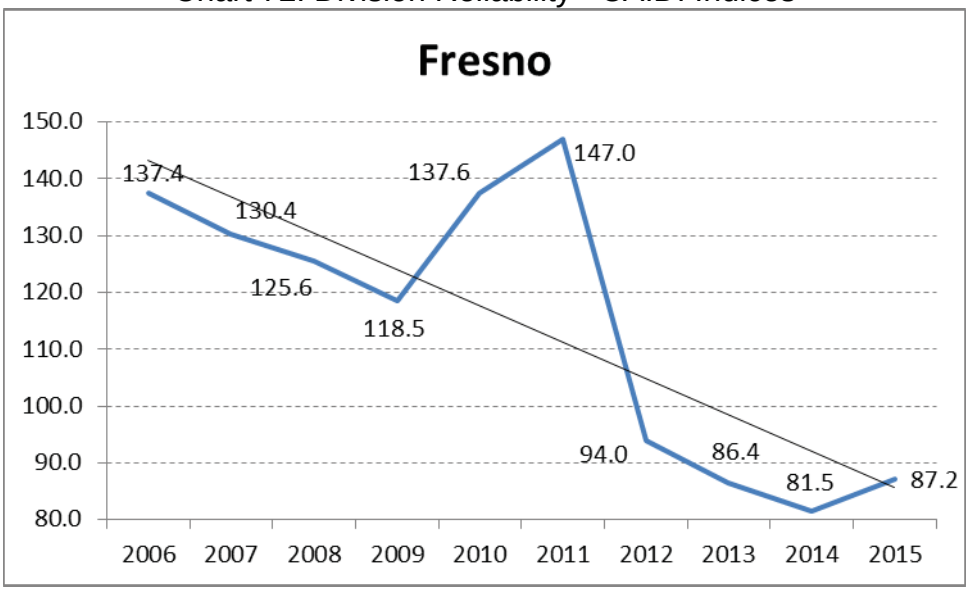
(Excludes ISO, and planned outages)

Chart 71: Division Reliability - CAIDI Indices



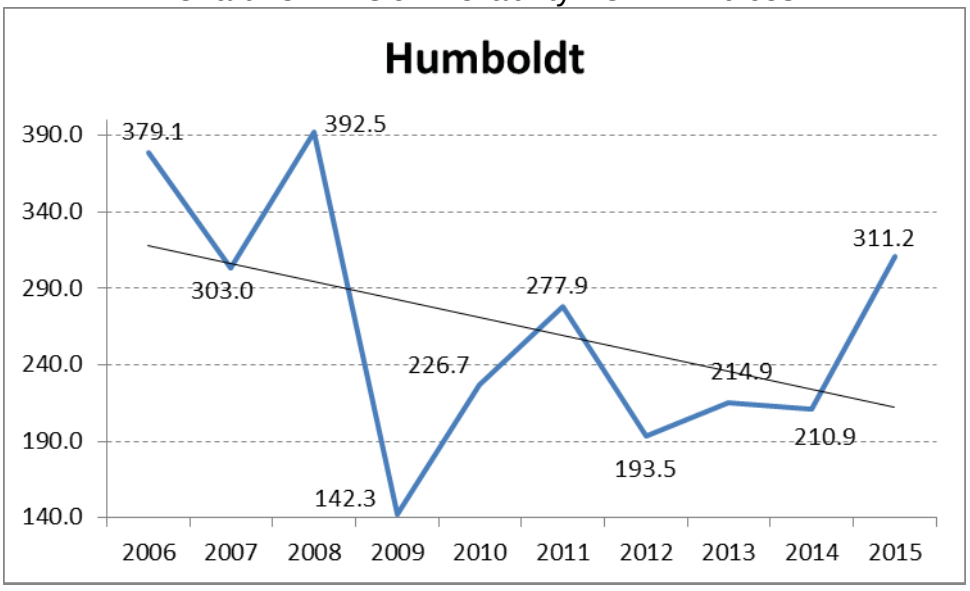
(Excludes ISO, and planned outages)

Chart 72: Division Reliability - CAIDI Indices



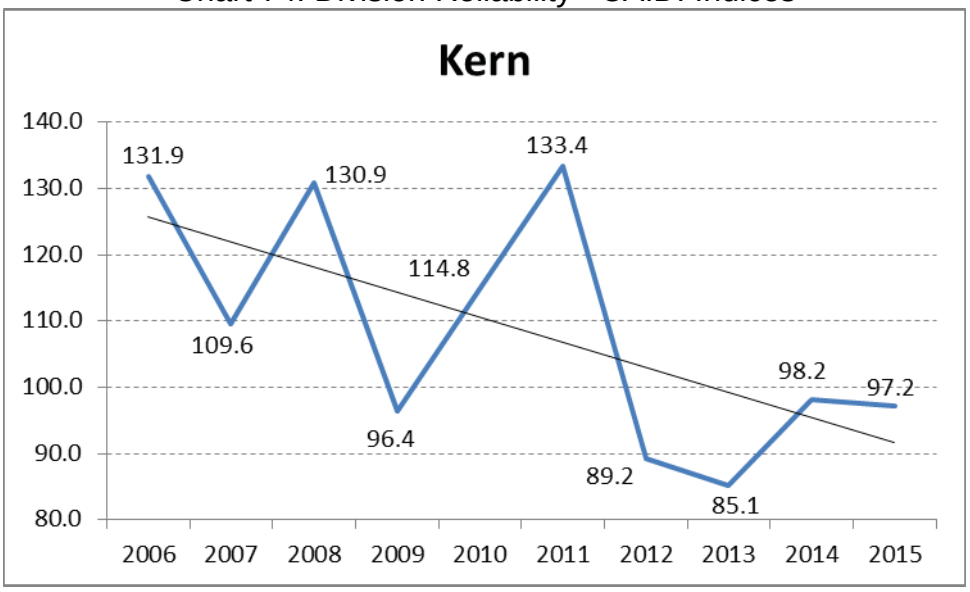
(Excludes ISO, and planned outages)

Chart 73: Division Reliability - CAIDI Indices



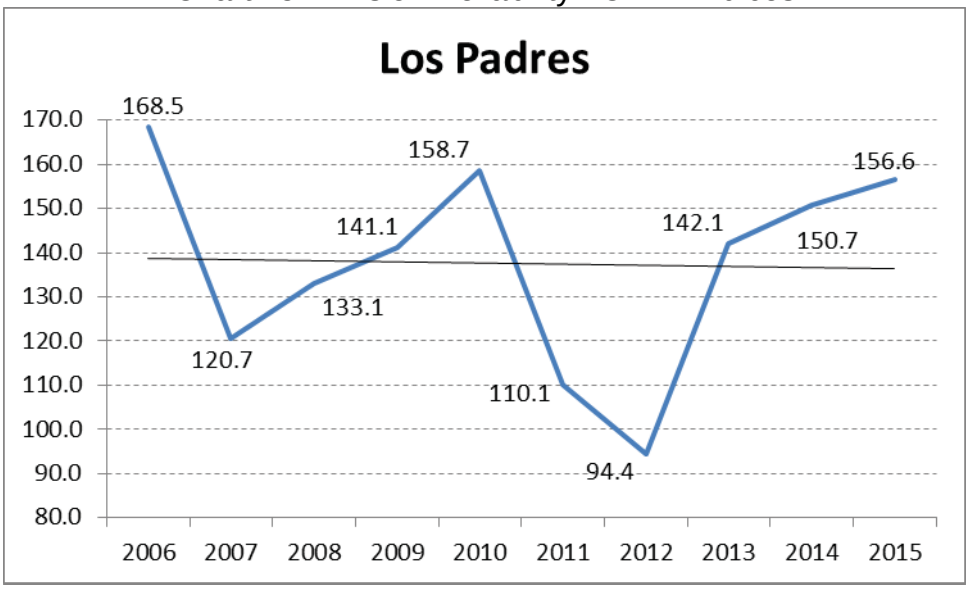
(Excludes ISO, and planned outages)

Chart 74: Division Reliability - CAIDI Indices



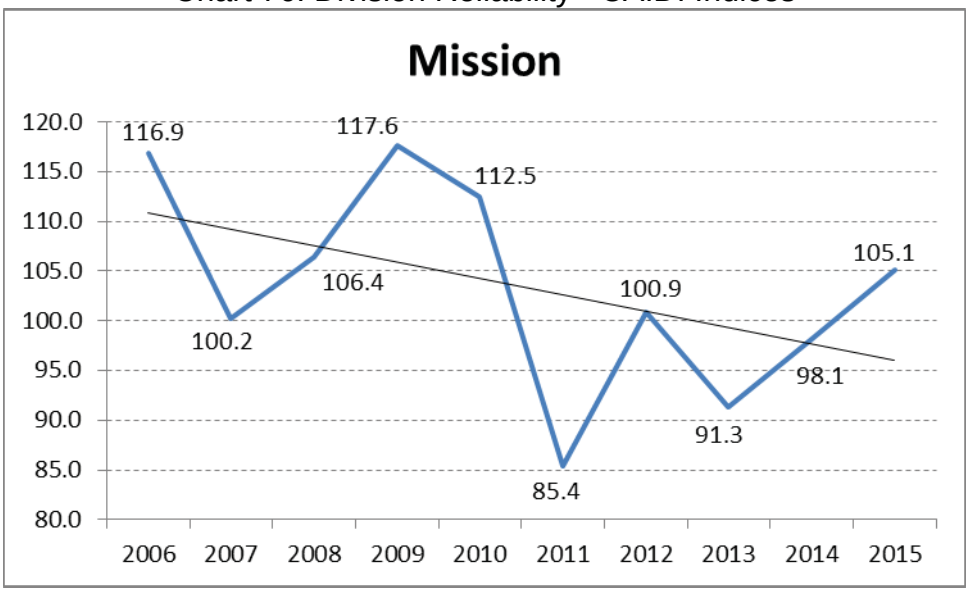
(Excludes ISO, and planned outages)

Chart 75: Division Reliability - CAIDI Indices



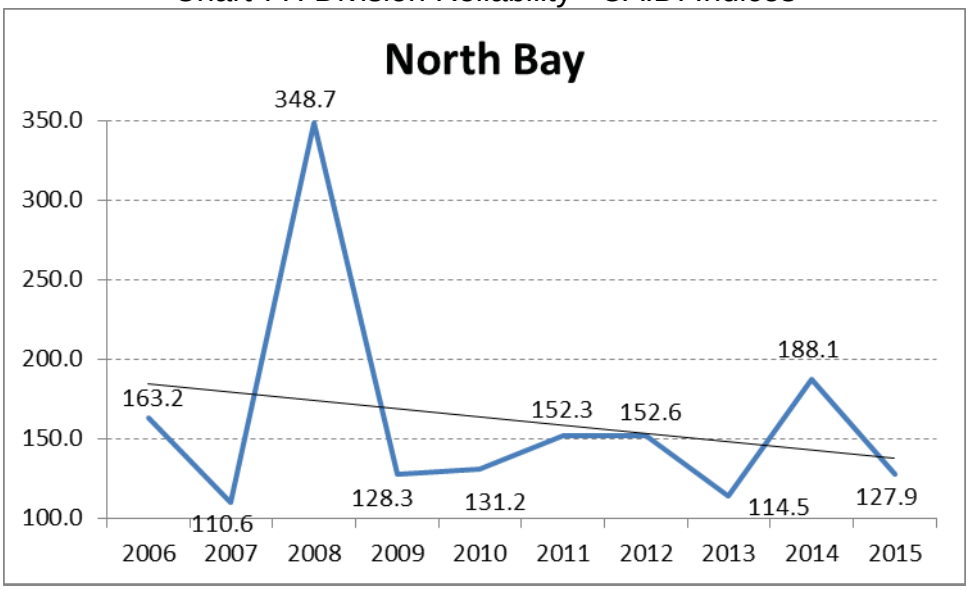
(Excludes ISO, and planned outages)

Chart 76: Division Reliability - CAIDI Indices



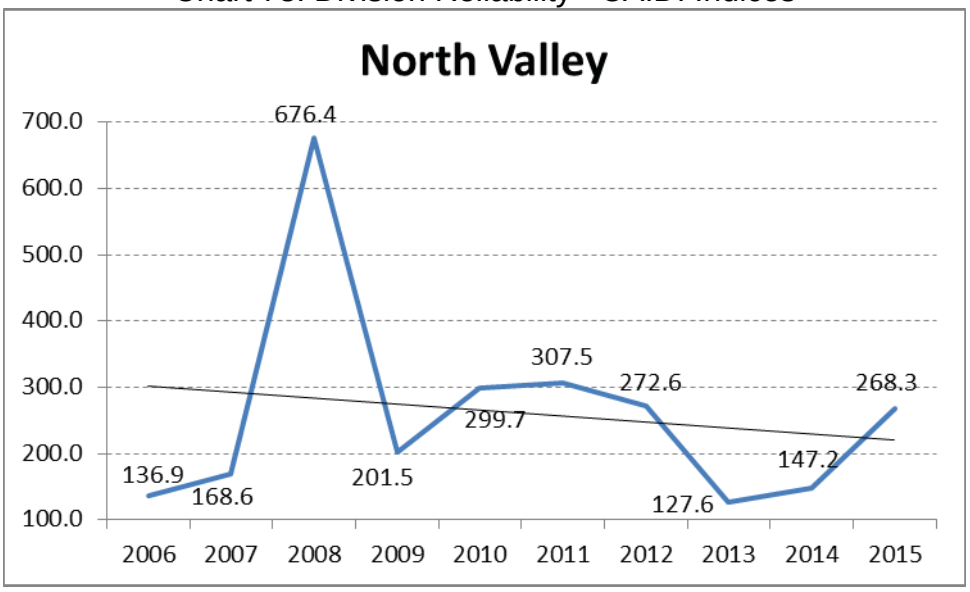
(Excludes ISO, and planned outages)

Chart 77: Division Reliability - CAIDI Indices



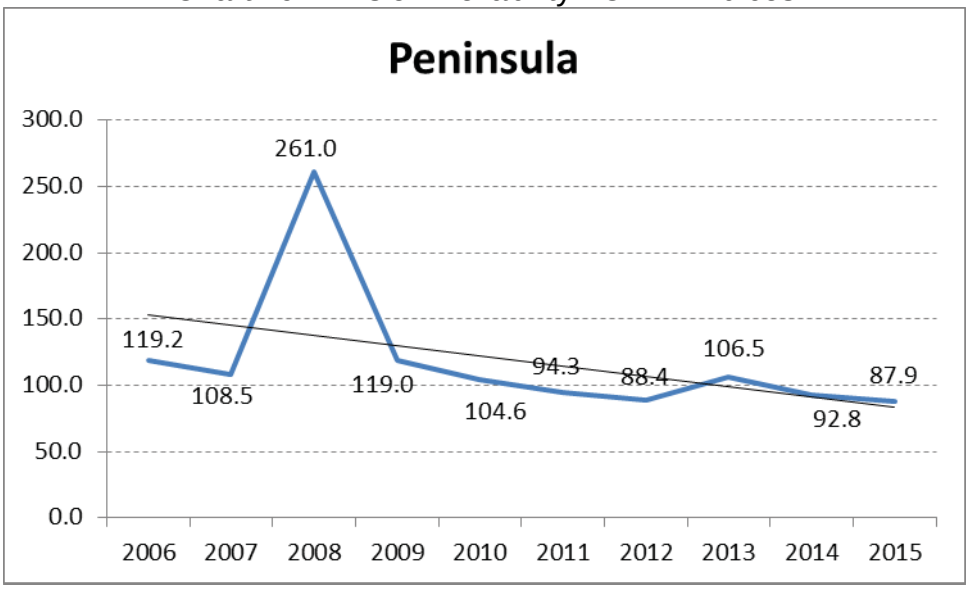
(Excludes ISO, and planned outages)

Chart 78: Division Reliability - CAIDI Indices



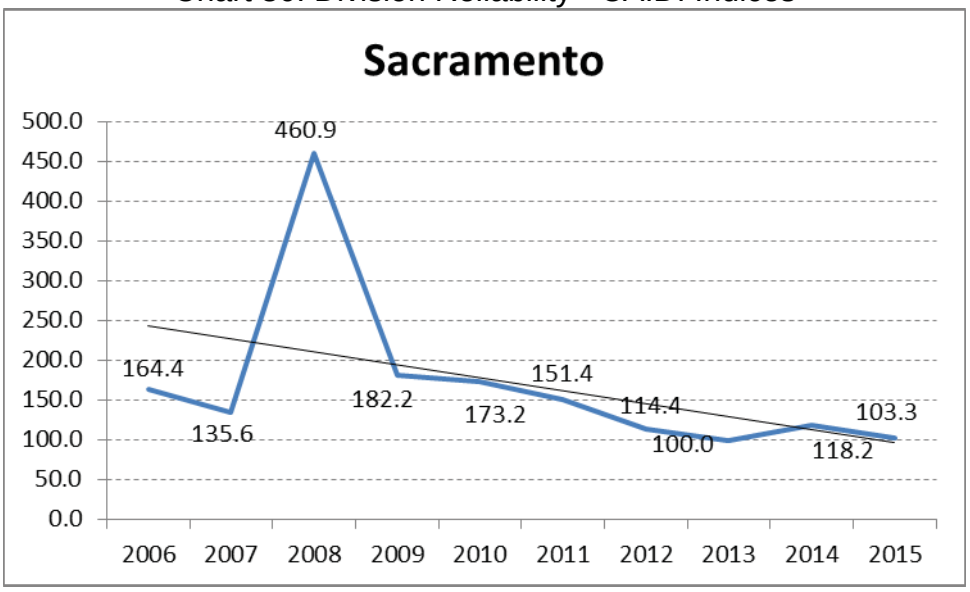
(Excludes ISO, and planned outages)

Chart 79: Division Reliability - CAIDI Indices



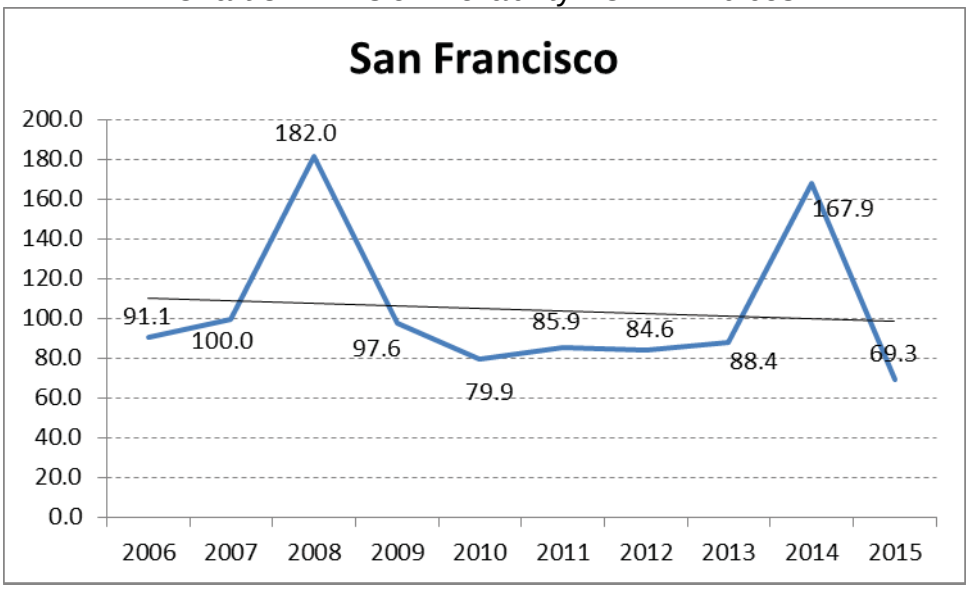
(Excludes ISO, and planned outages)

Chart 80: Division Reliability - CAIDI Indices



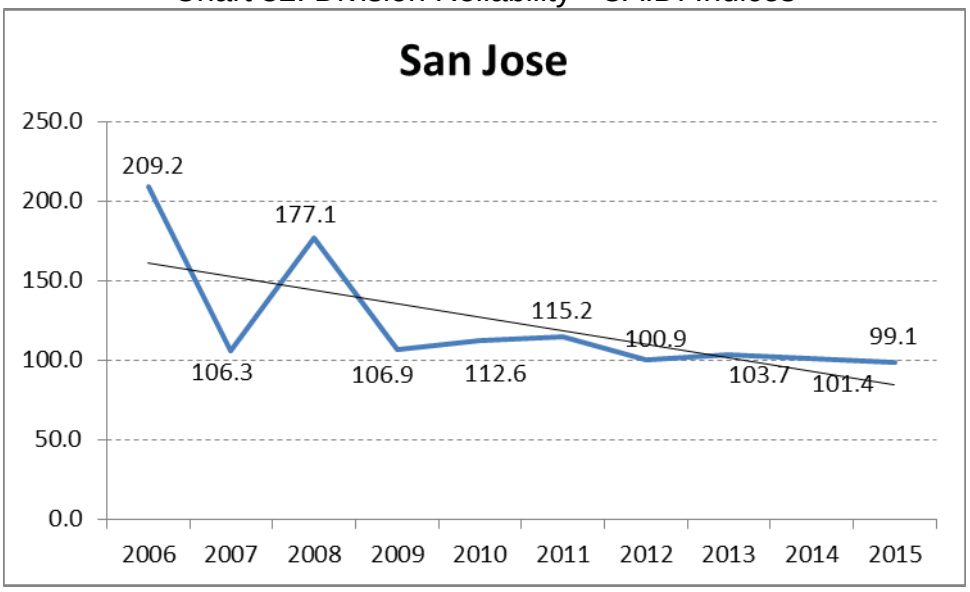
(Excludes ISO, and planned outages)

Chart 81: Division Reliability - CAIDI Indices



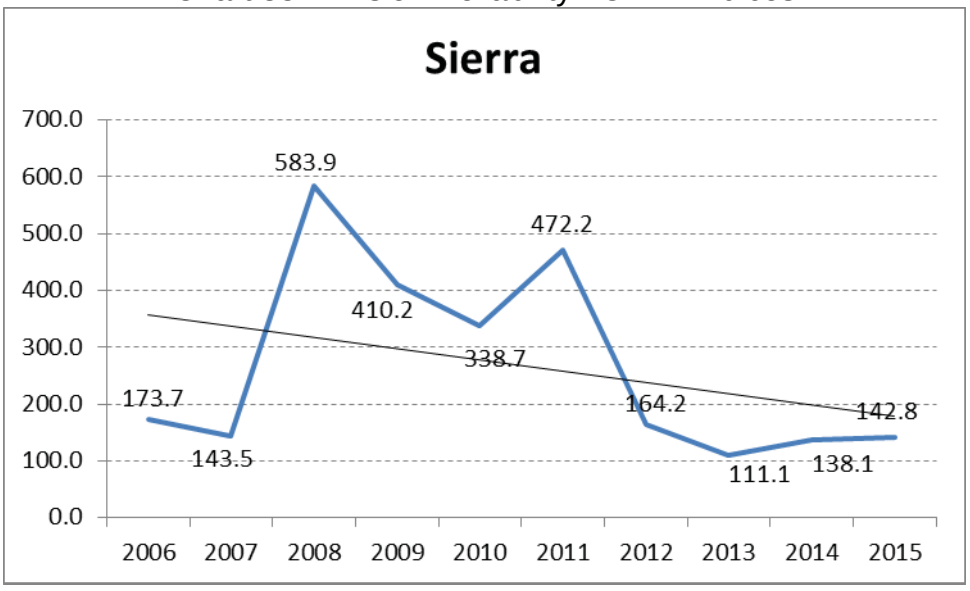
(Excludes ISO, and planned outages)

Chart 82: Division Reliability - CAIDI Indices



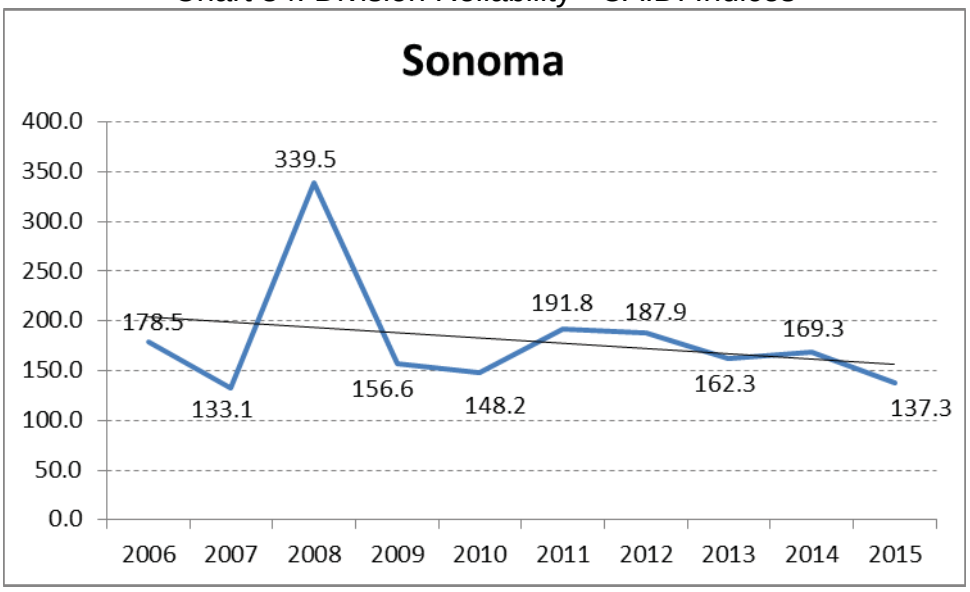
(Excludes ISO, and planned outages)

Chart 83: Division Reliability - CAIDI Indices



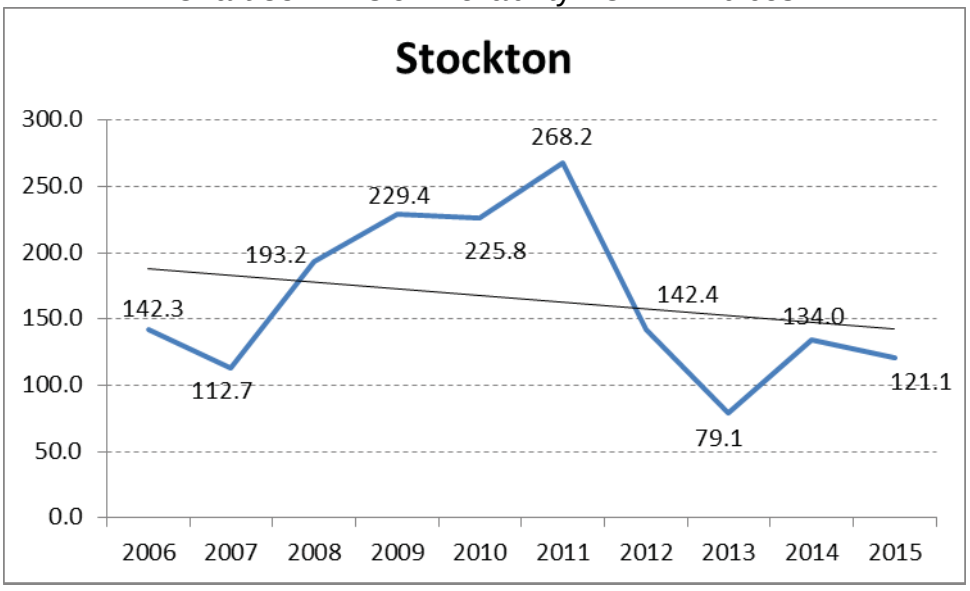
(Excludes ISO, and planned outages)

Chart 84: Division Reliability - CAIDI Indices



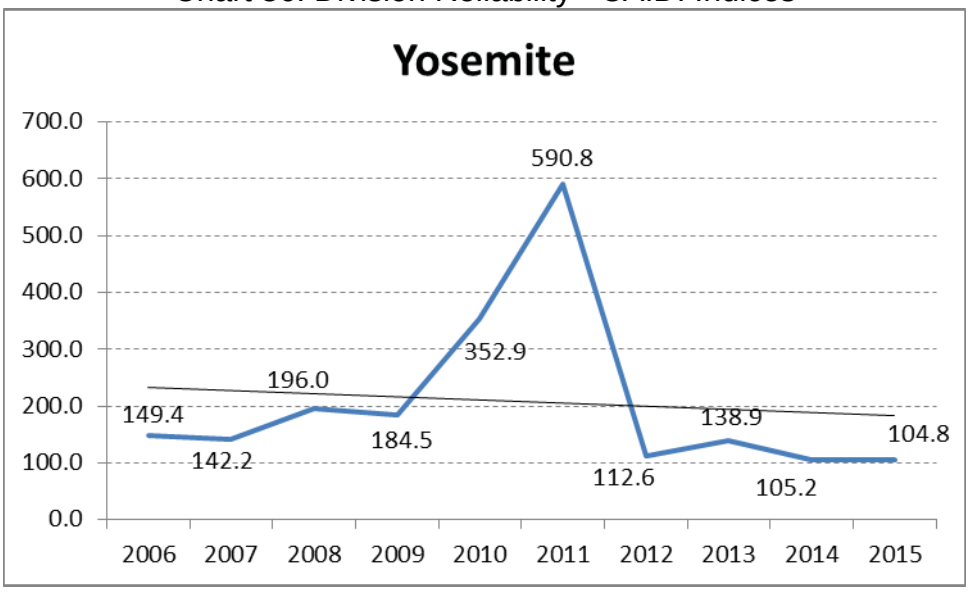
(Excludes ISO, and planned outages)

Chart 85: Division Reliability - CAIDI Indices



(Excludes ISO, and planned outages)

Chart 86: Division Reliability - CAIDI Indices

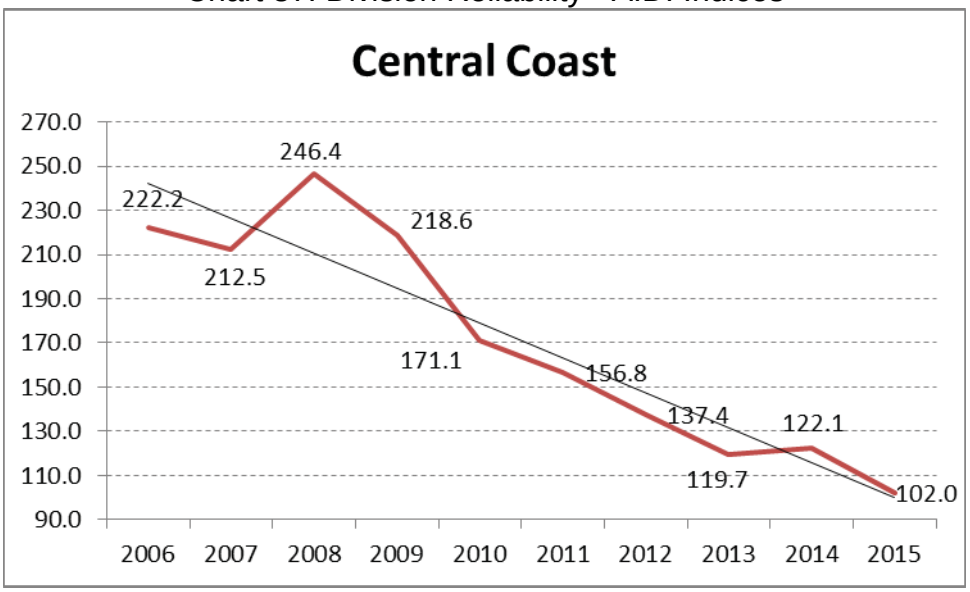


(Excludes ISO, and planned outages)

ii. Charts for Division Reliability Indices for the past 10 years with linear trend line excluding ISO, planned outages and MED

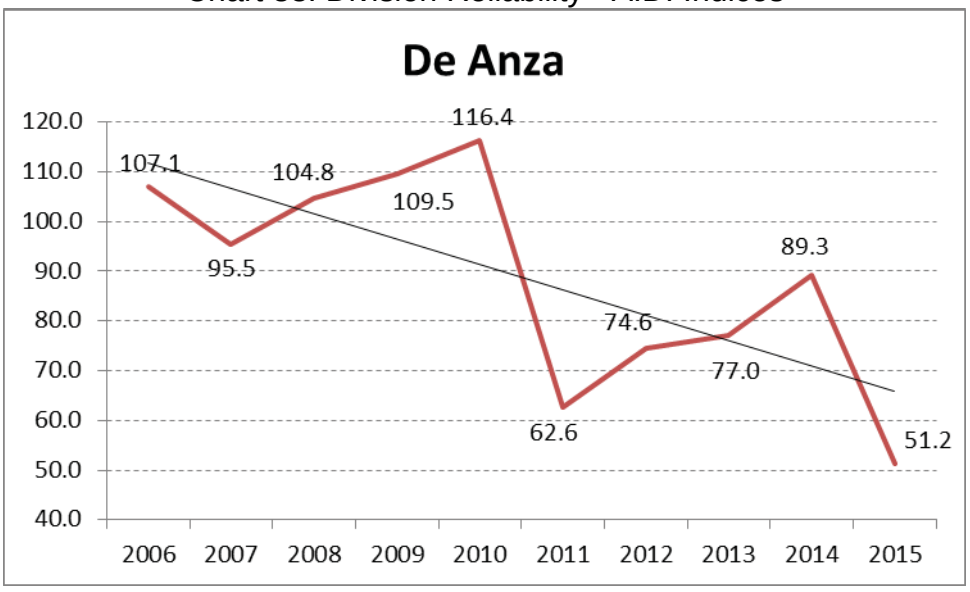
1. AIDI Performance Results (MED Excluded)

Chart 87: Division Reliability - AIDI Indices



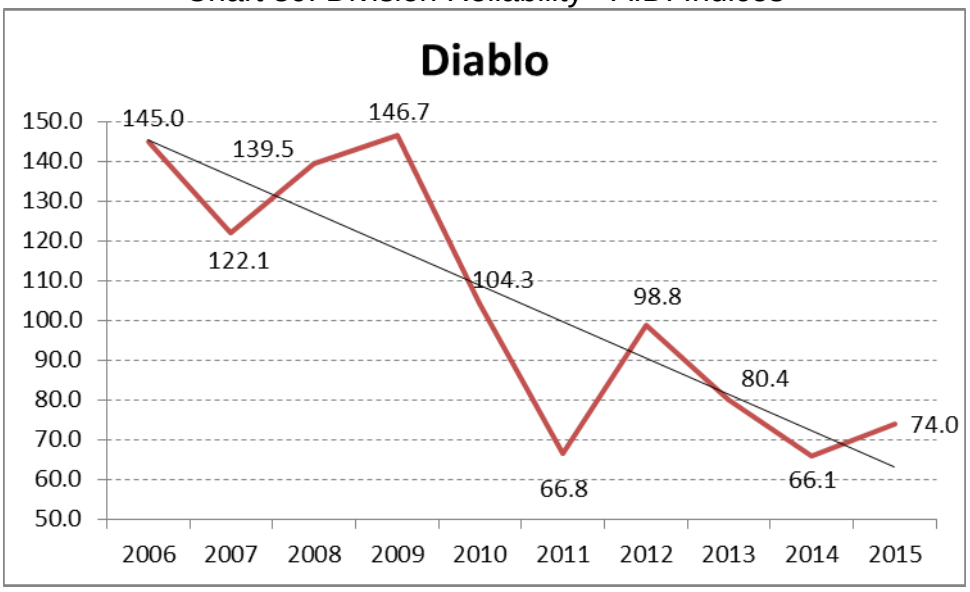
(Excludes ISO, and planned outages)

Chart 88: Division Reliability - AIDI Indices



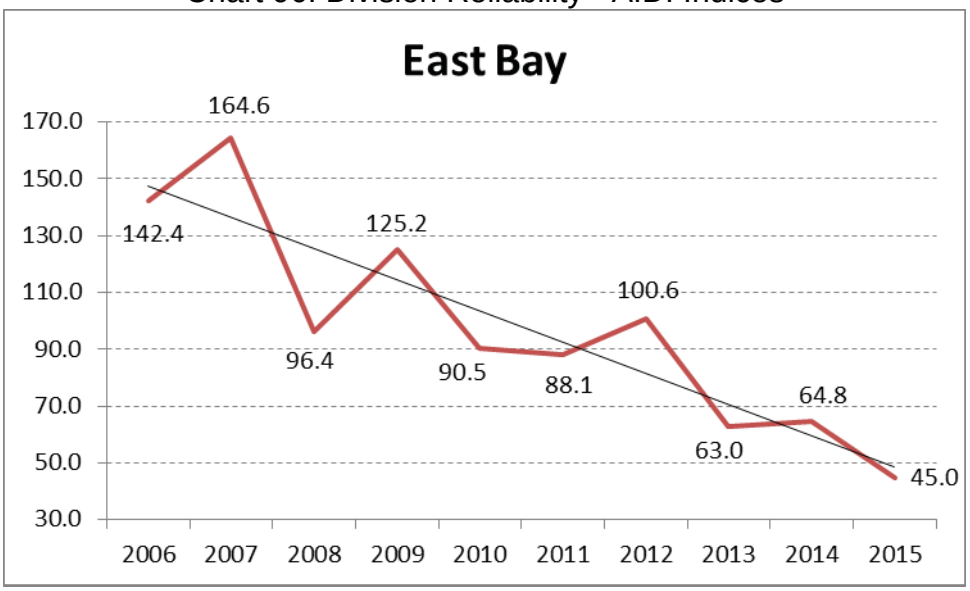
(Excludes ISO, and planned outages)

Chart 89: Division Reliability - AIDI Indices



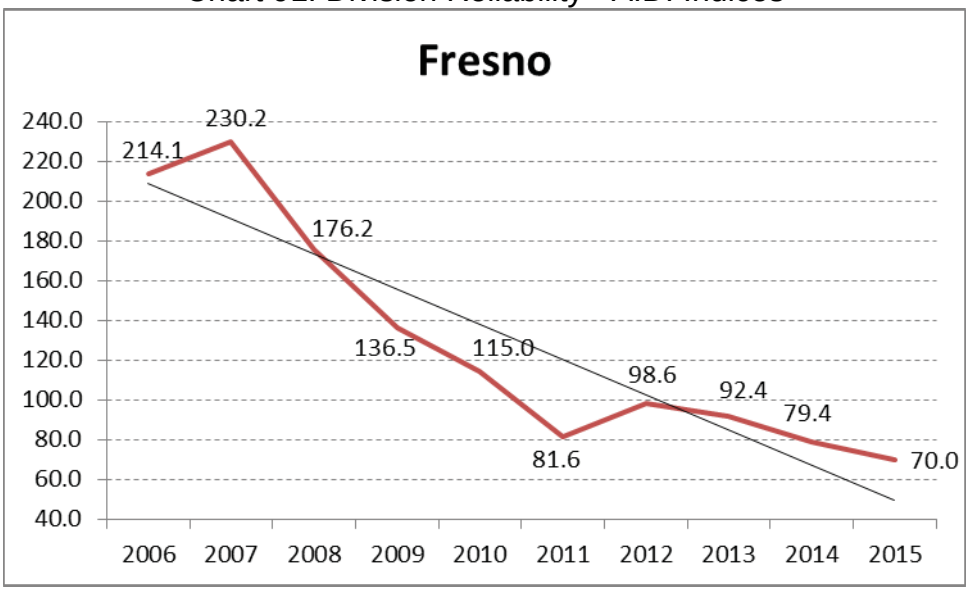
(Excludes ISO, and planned outages)

Chart 90: Division Reliability - AIDI Indices



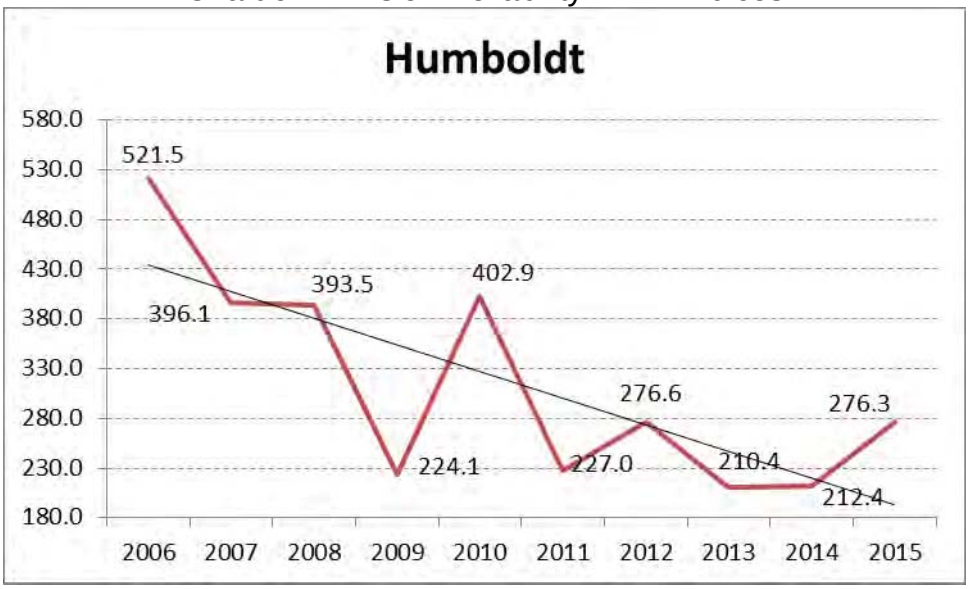
(Excludes ISO, and planned outages)

Chart 91: Division Reliability - AIDI Indices



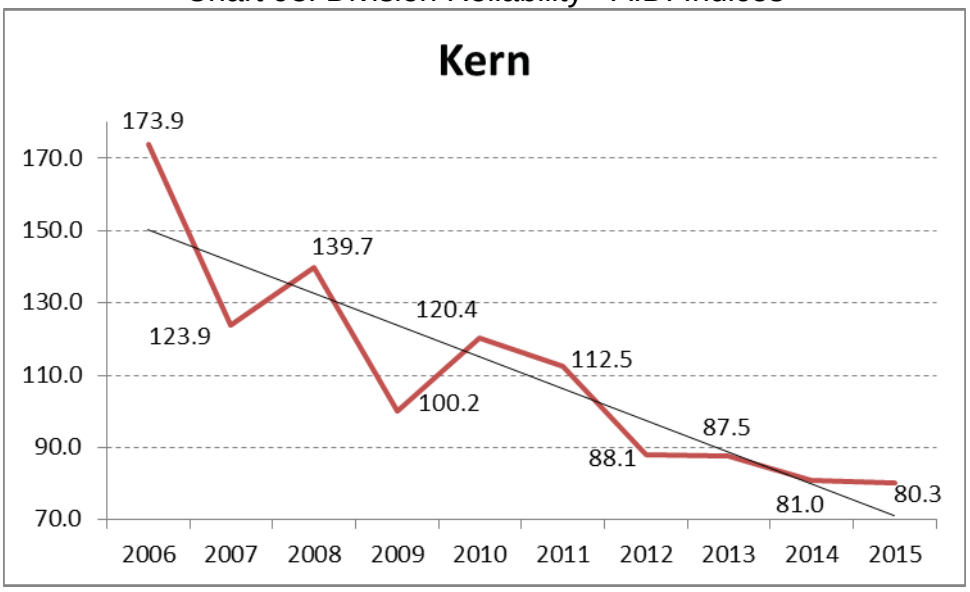
(Excludes ISO, and planned outages)

Chart 92: Division Reliability - AIDI Indices



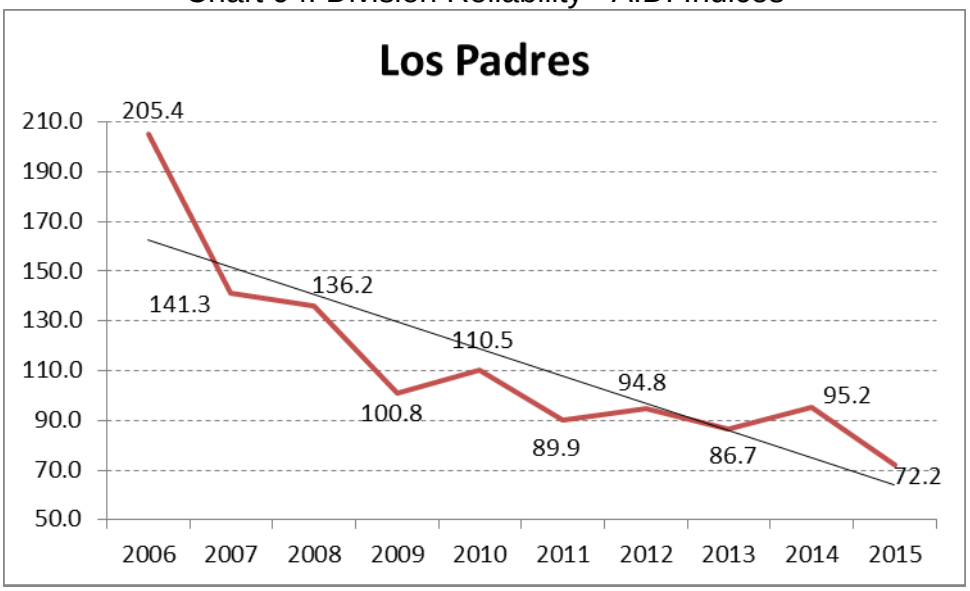
(Excludes ISO, and planned outages)

Chart 93: Division Reliability - AIDI Indices



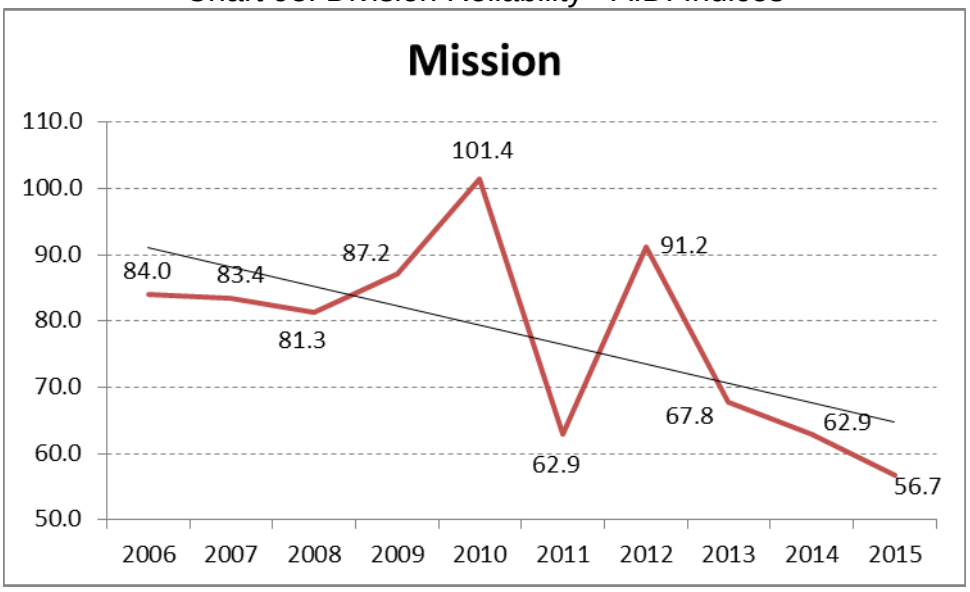
(Excludes ISO, and planned outages)

Chart 94: Division Reliability - AIDI Indices



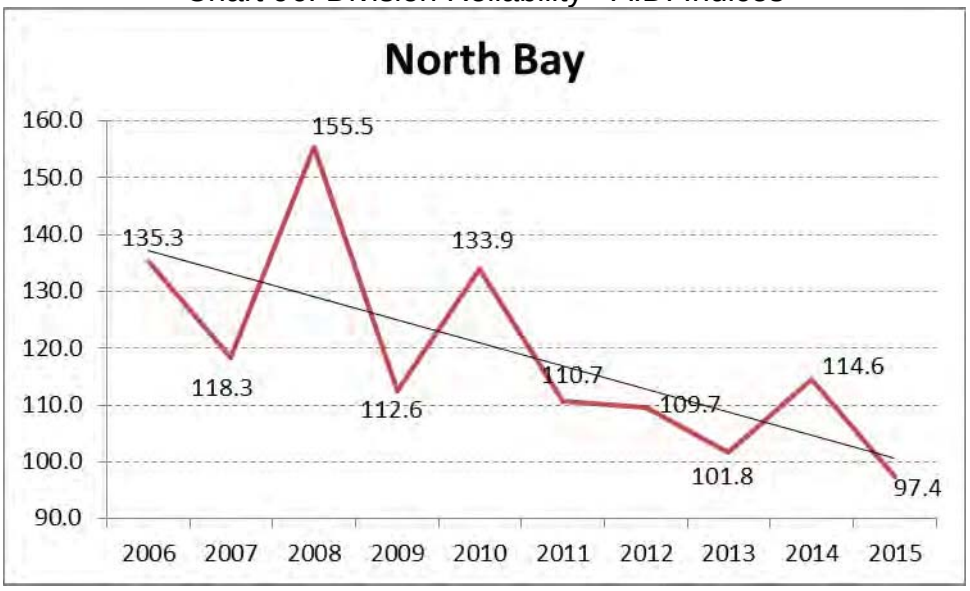
(Excludes ISO, and planned outages)

Chart 95: Division Reliability - AIDI Indices



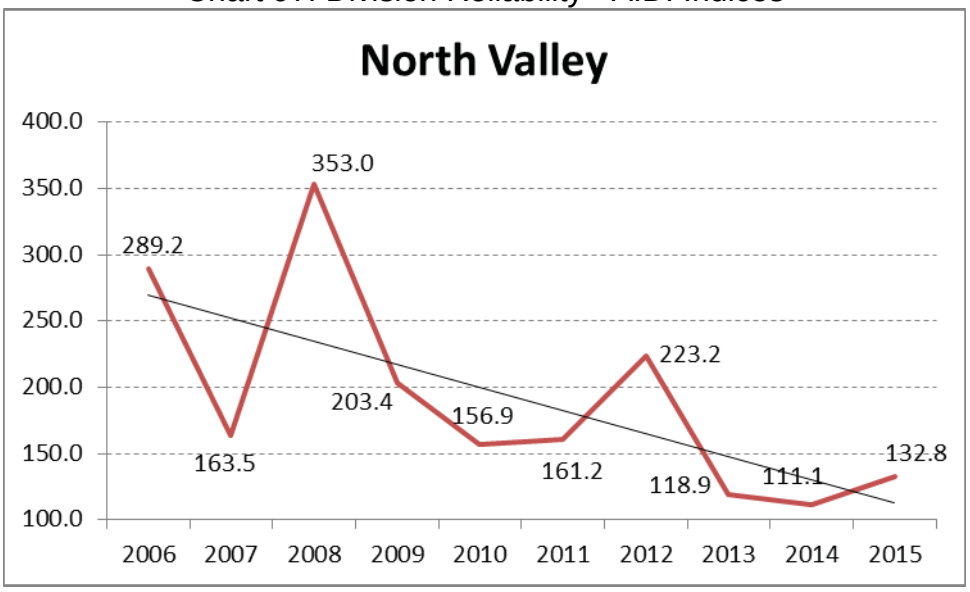
(Excludes ISO, and planned outages)

Chart 96: Division Reliability - AIDI Indices



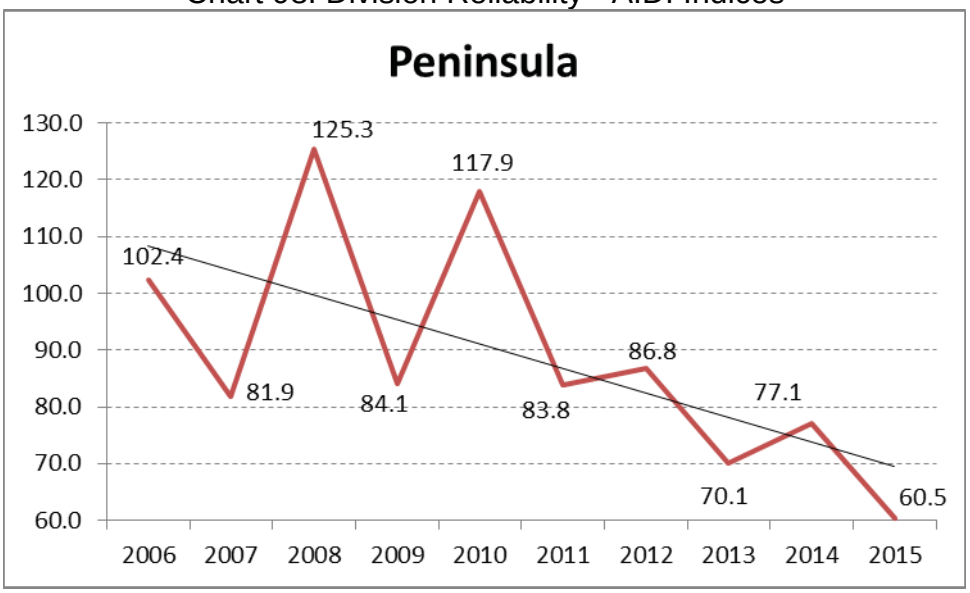
(Excludes ISO, and planned outages)

Chart 97: Division Reliability - AIDI Indices



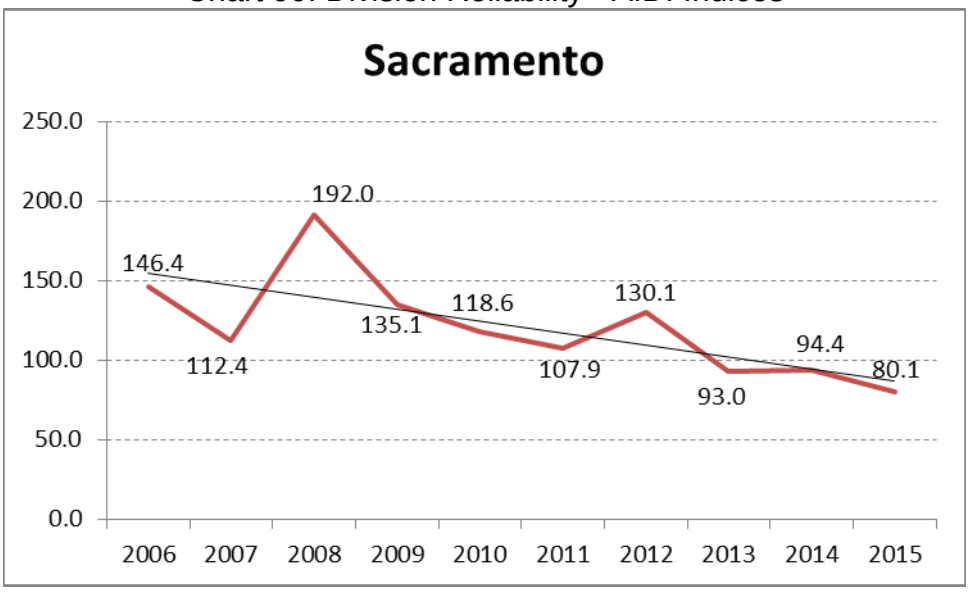
(Excludes ISO, and planned outages)

Chart 98: Division Reliability - AIDI Indices



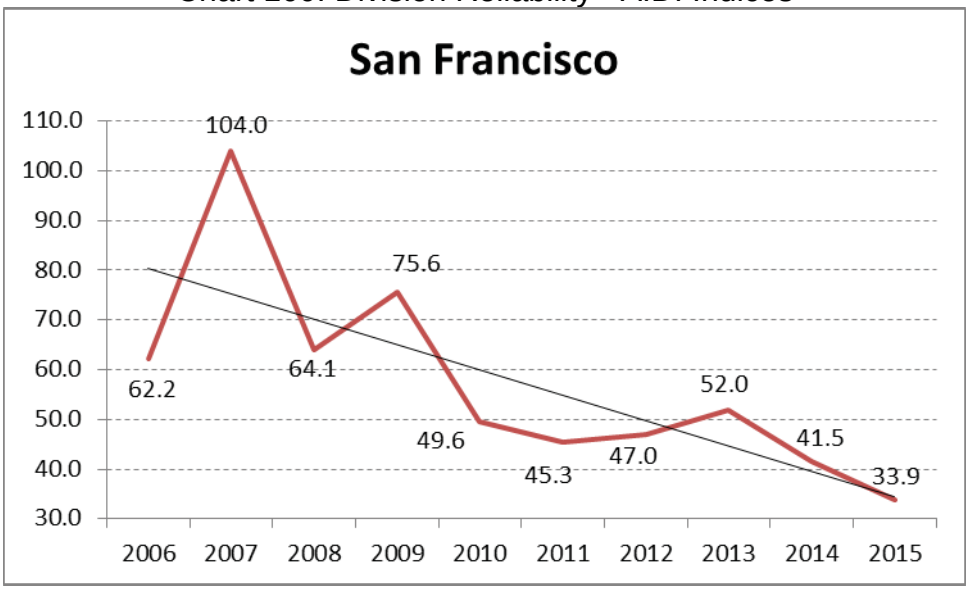
(Excludes ISO, and planned outages)

Chart 99: Division Reliability - AIDI Indices



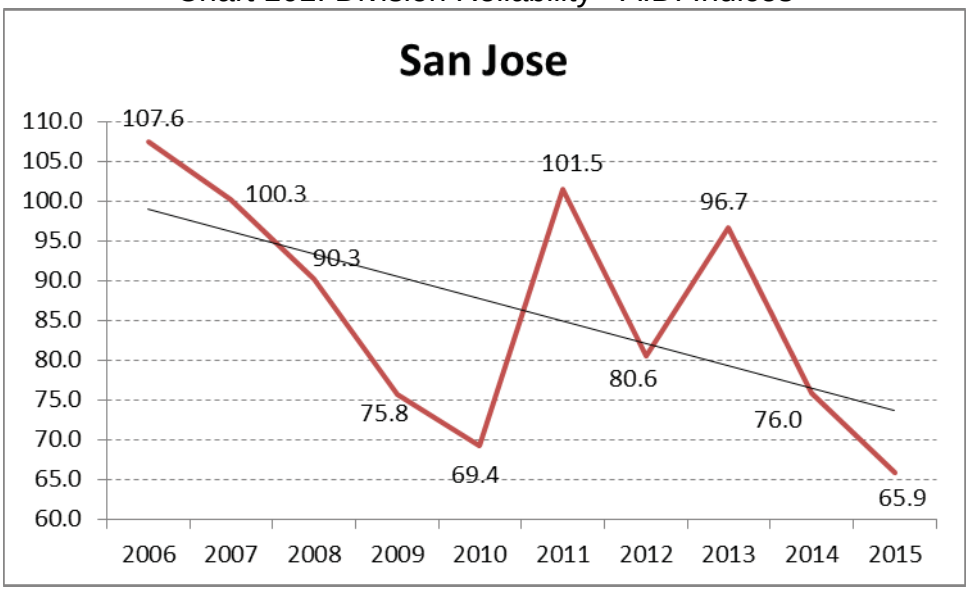
(Excludes ISO, and planned outages)

Chart 100: Division Reliability - AIDI Indices



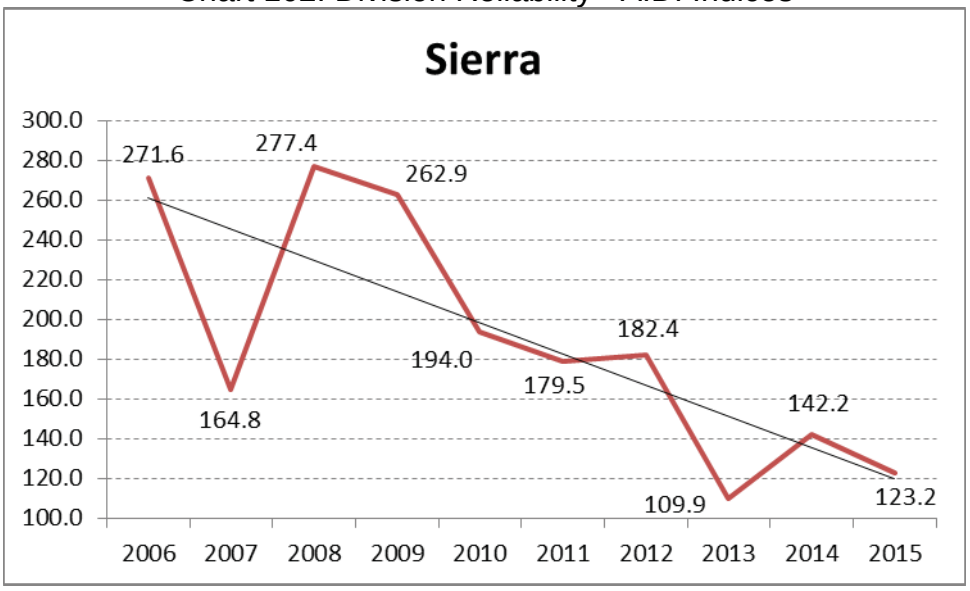
(Excludes ISO, and planned outages)

Chart 101: Division Reliability - AIDI Indices



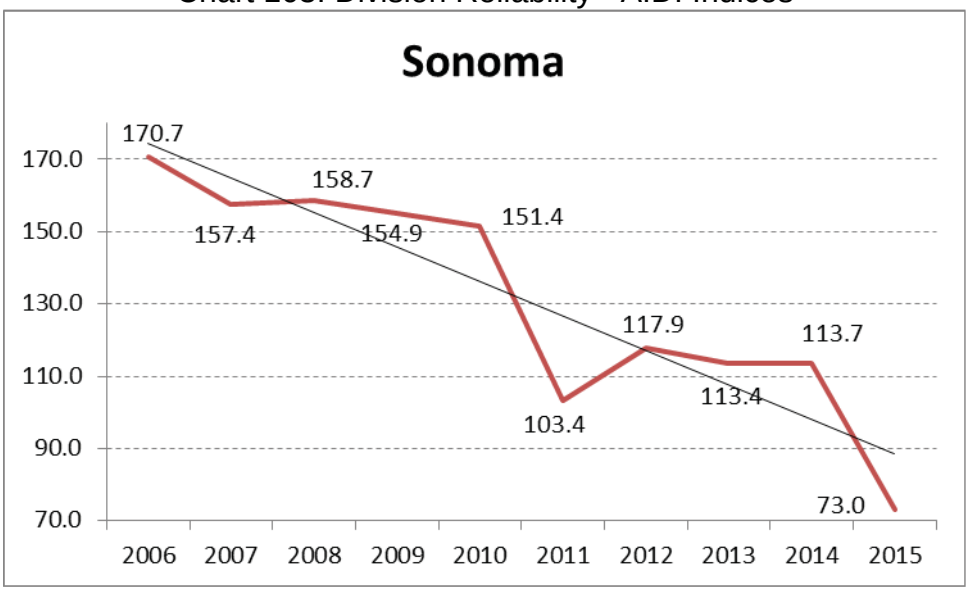
(Excludes ISO, and planned outages)

Chart 102: Division Reliability - AIDI Indices



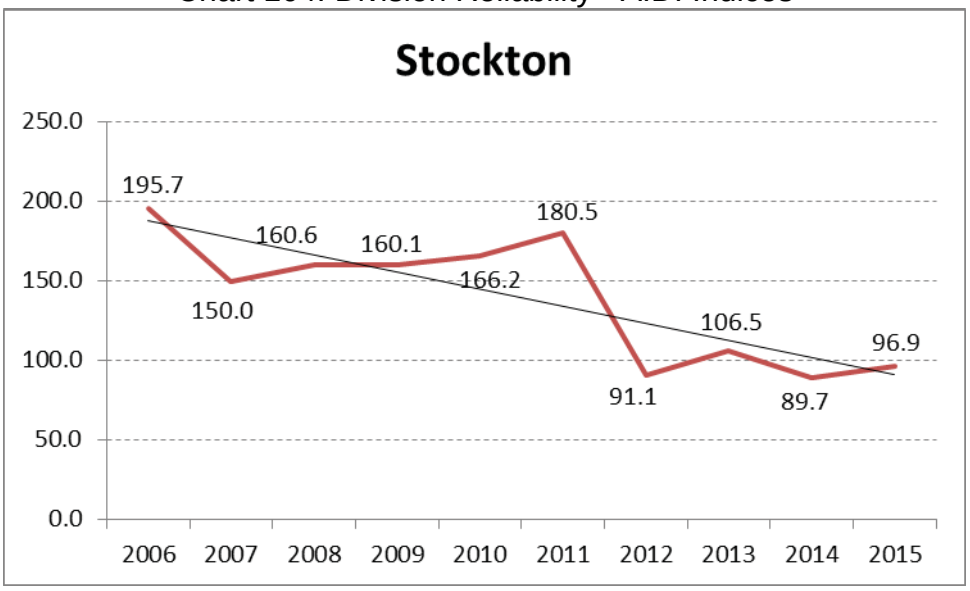
(Excludes ISO, and planned outages)

Chart 103: Division Reliability - AIDI Indices



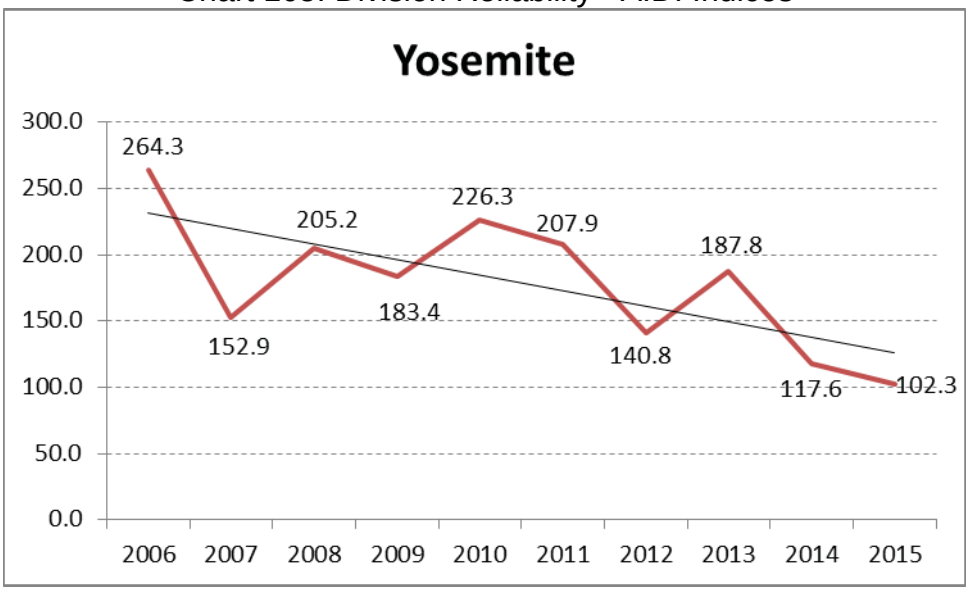
(Excludes ISO, and planned outages)

Chart 104: Division Reliability - AIDI Indices



(Excludes ISO, and planned outages)

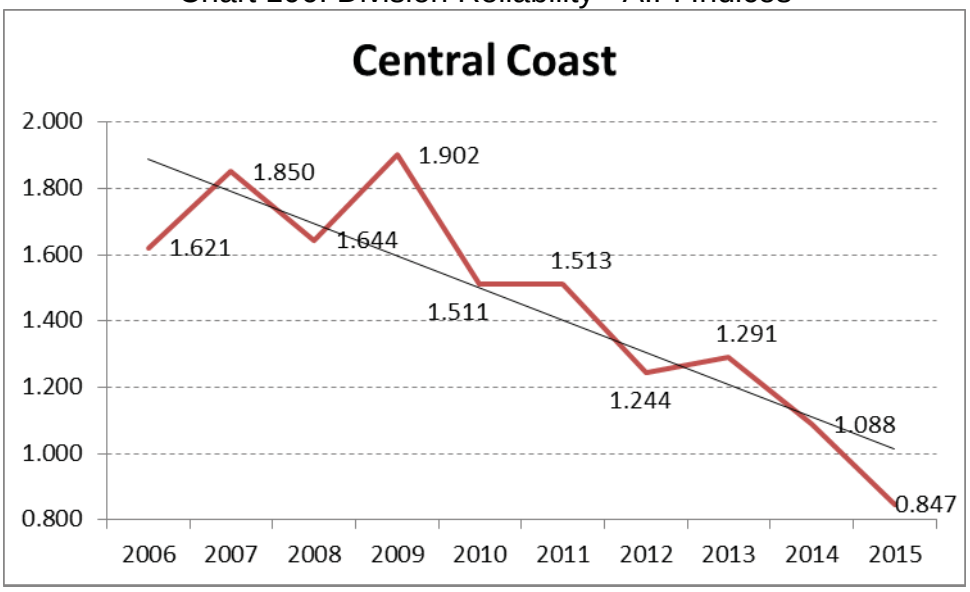
Chart 105: Division Reliability - AIDI Indices



(Excludes ISO, and planned outages)

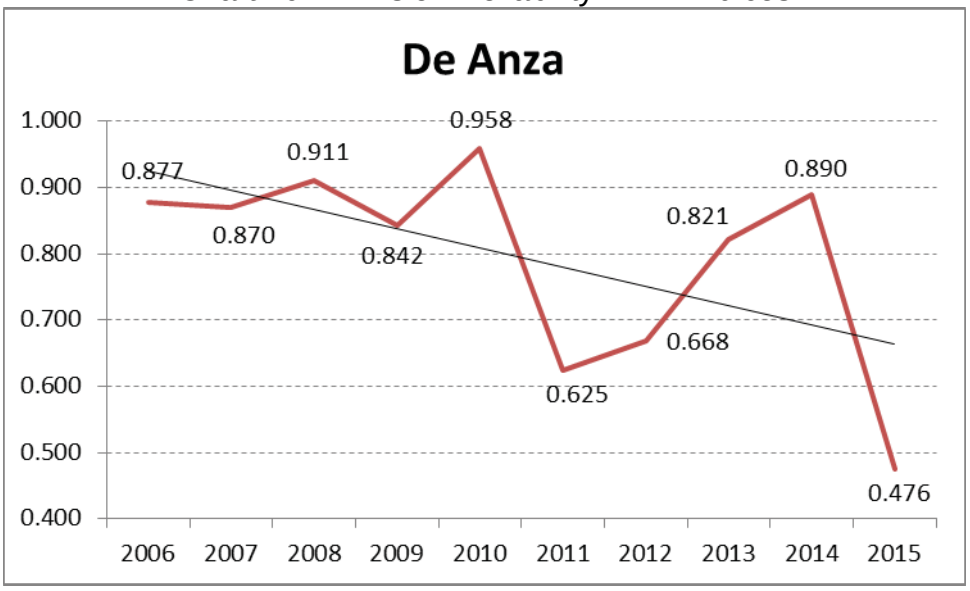
2. AIFI Performance Results (MED Excluded)

Chart 106: Division Reliability - AIFI Indices



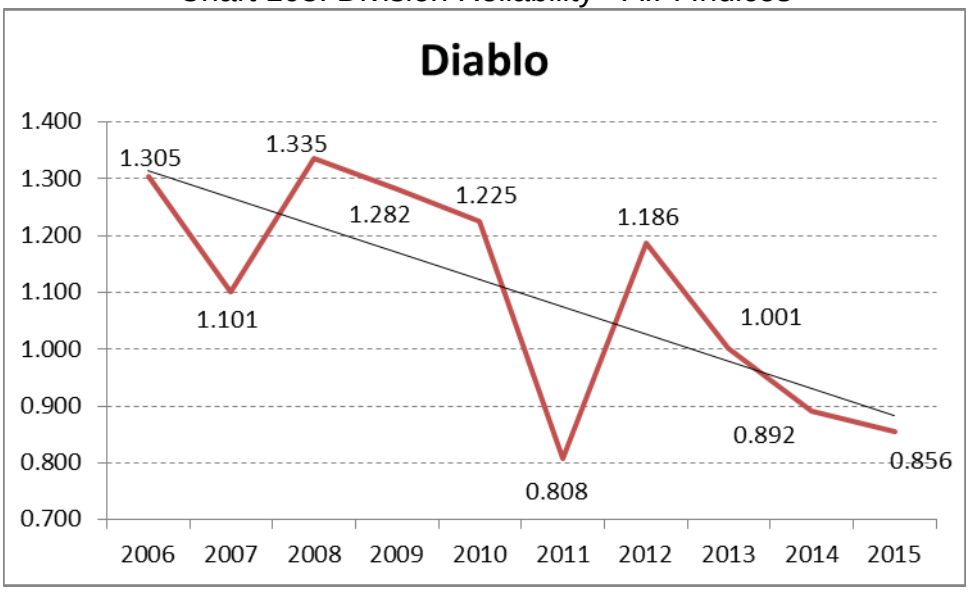
(Excludes ISO, and planned outages)

Chart 107: Division Reliability - AIFI Indices



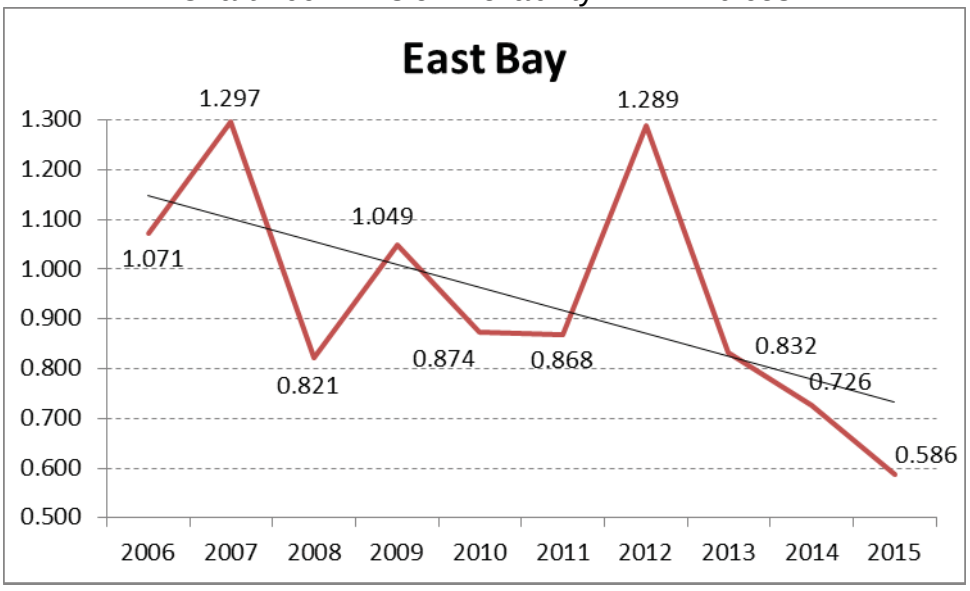
(Excludes ISO, and planned outages)

Chart 108: Division Reliability - AIFI Indices



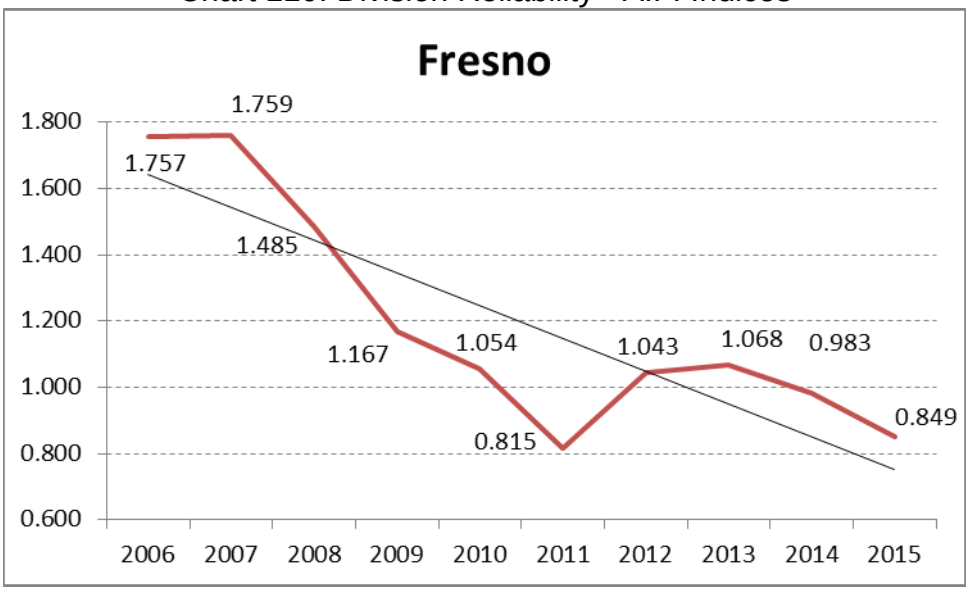
(Excludes ISO, and planned outages)

Chart 109: Division Reliability - AIFI Indices



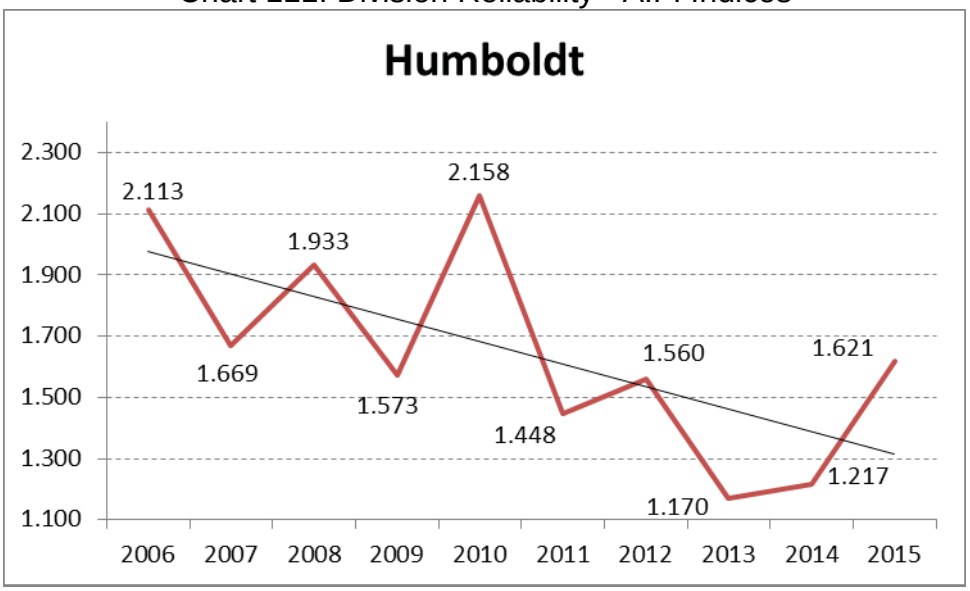
(Excludes ISO, and planned outages)

Chart 110: Division Reliability - AIFI Indices



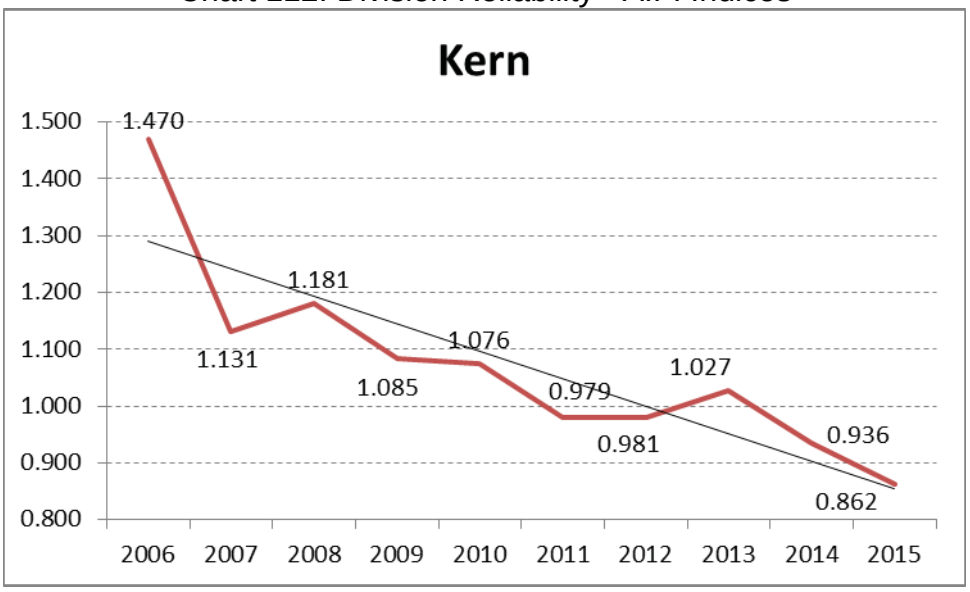
(Excludes ISO, and planned outages)

Chart 111: Division Reliability - AIFI Indices



(Excludes ISO, and planned outages)

Chart 112: Division Reliability - AIFI Indices

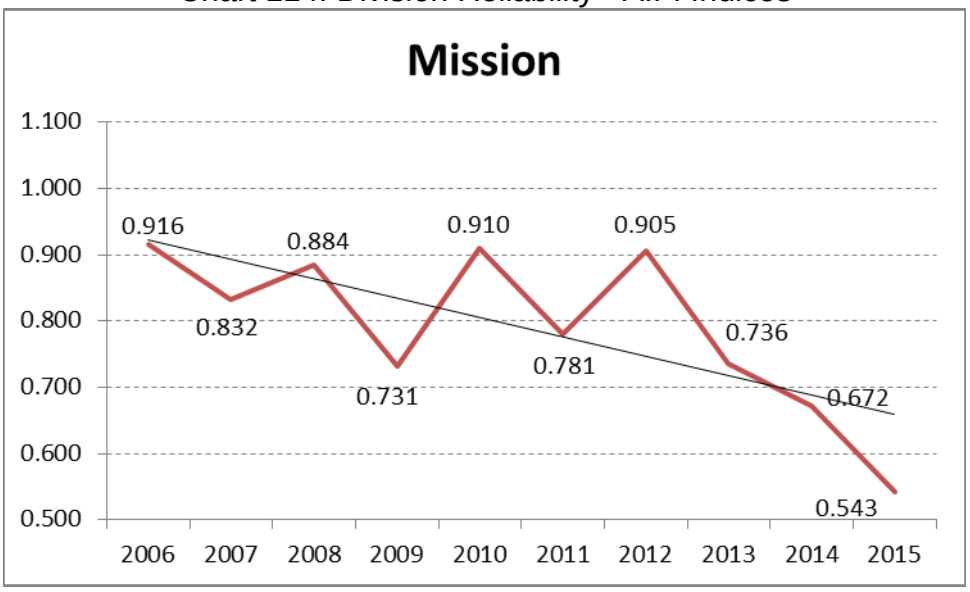


(Excludes ISO, and planned outages)

Chart 113: Division Reliability - AIFI Indices

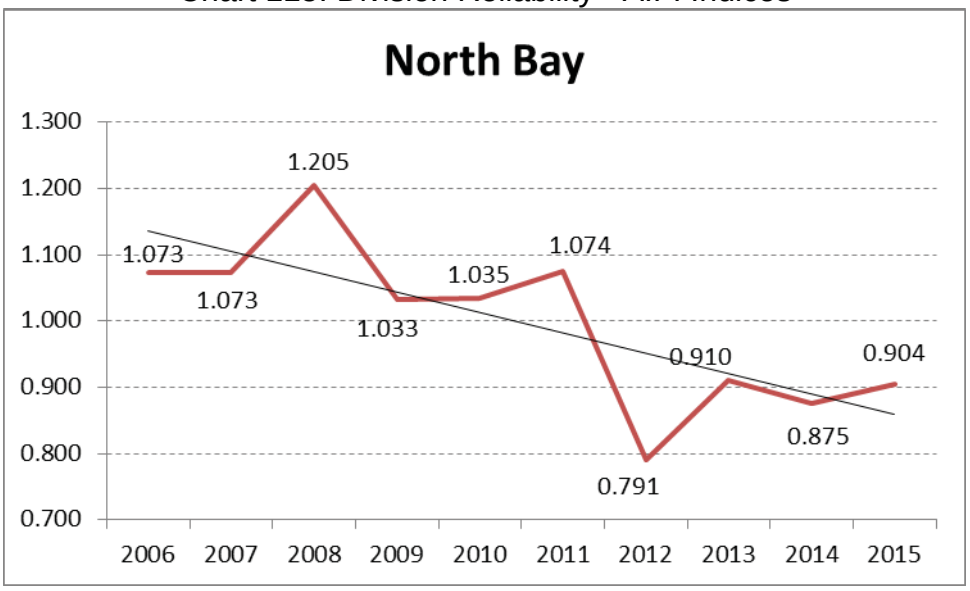
(Excludes ISO, and planned outages)

Chart 114: Division Reliability - AIFI Indices



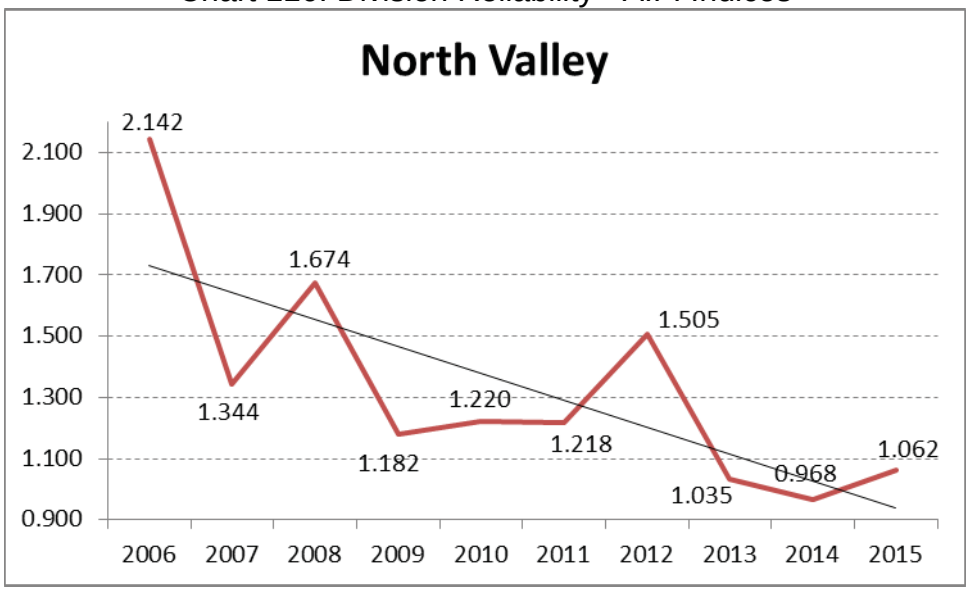
(Excludes ISO, and planned outages)

Chart 115: Division Reliability - AIFI Indices



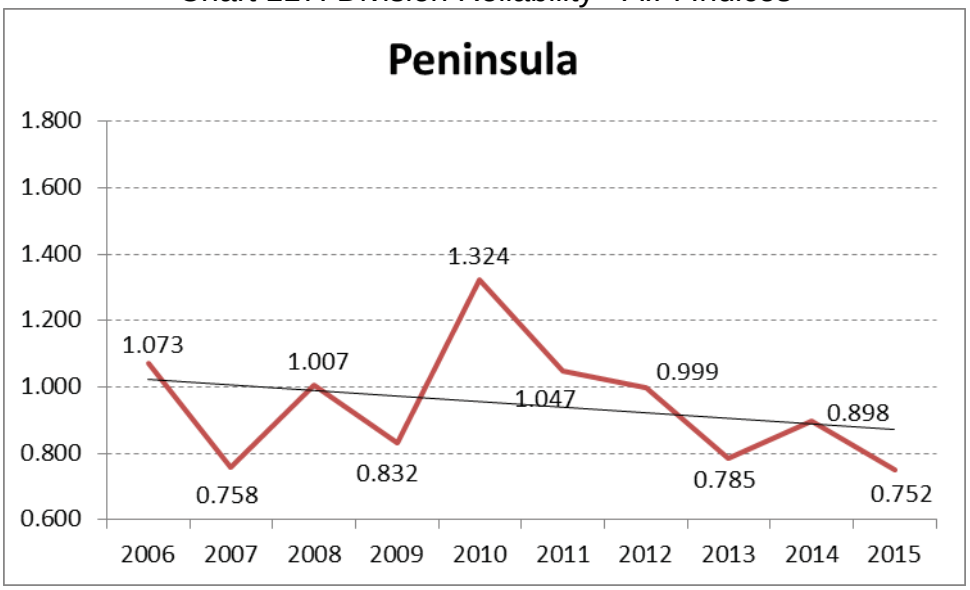
(Excludes ISO, and planned outages)

Chart 116: Division Reliability - AIFI Indices



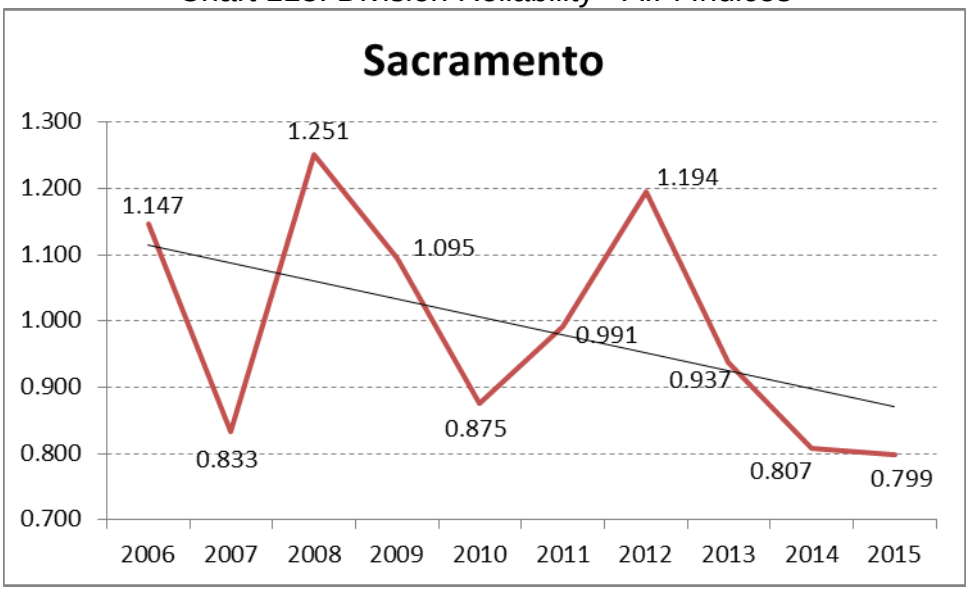
(Excludes ISO, and planned outages)

Chart 117: Division Reliability - AIFI Indices



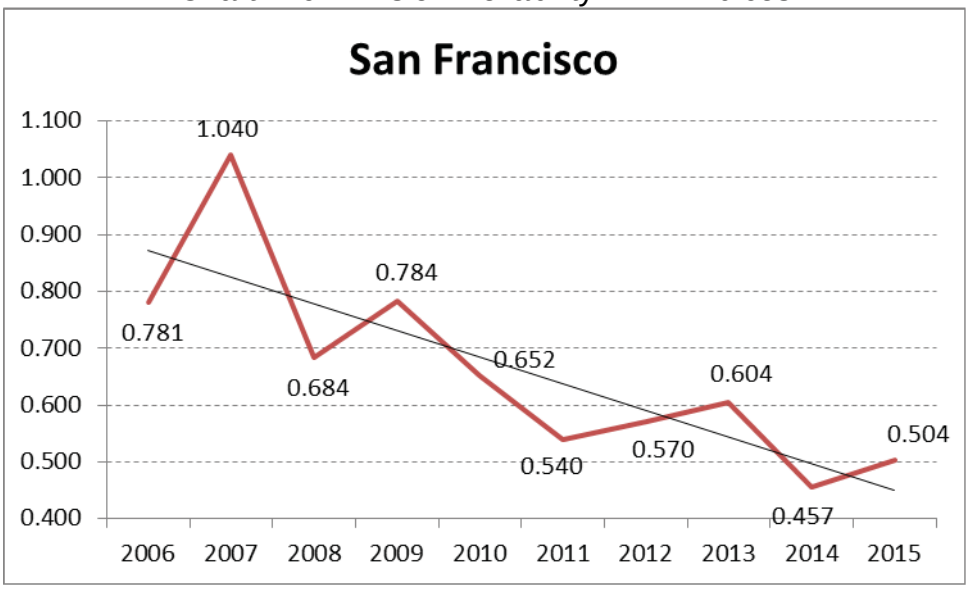
(Excludes ISO, and planned outages)

Chart 118: Division Reliability - AIFI Indices



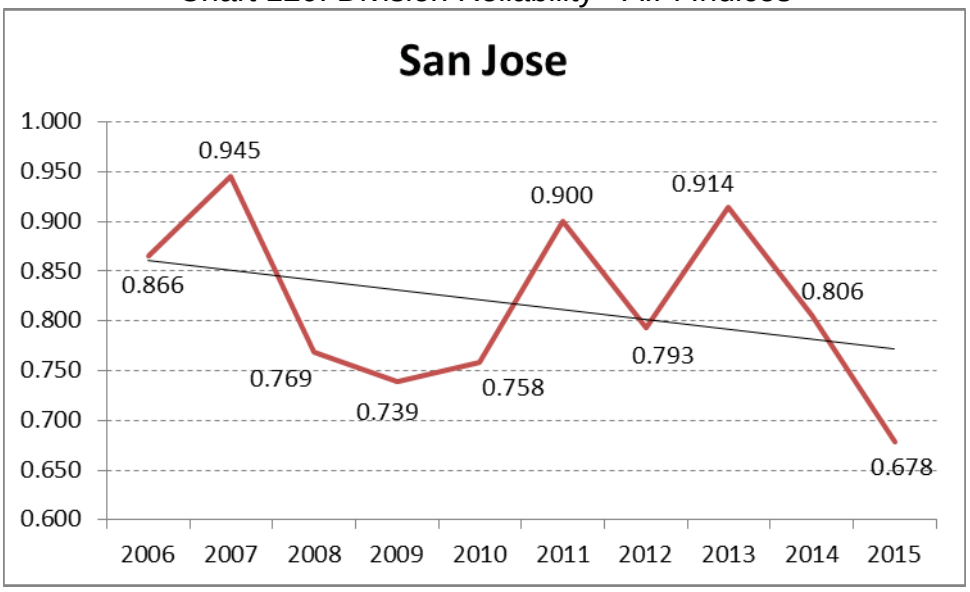
(Excludes ISO, and planned outages)

Chart 119: Division Reliability - AIFI Indices



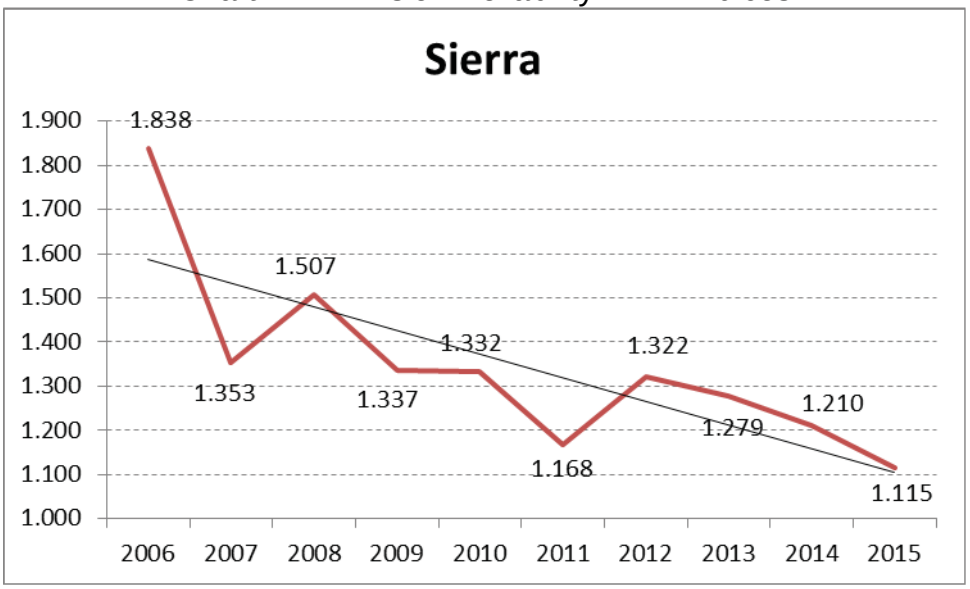
(Excludes ISO, and planned outages)

Chart 120: Division Reliability - AIFI Indices



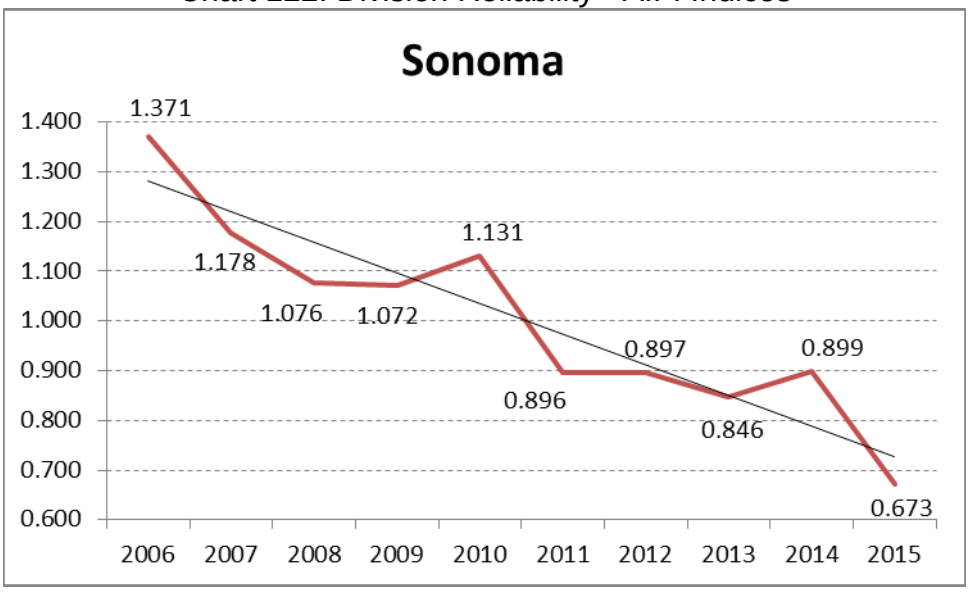
(Excludes ISO, and planned outages)

Chart 121: Division Reliability - AIFI Indices



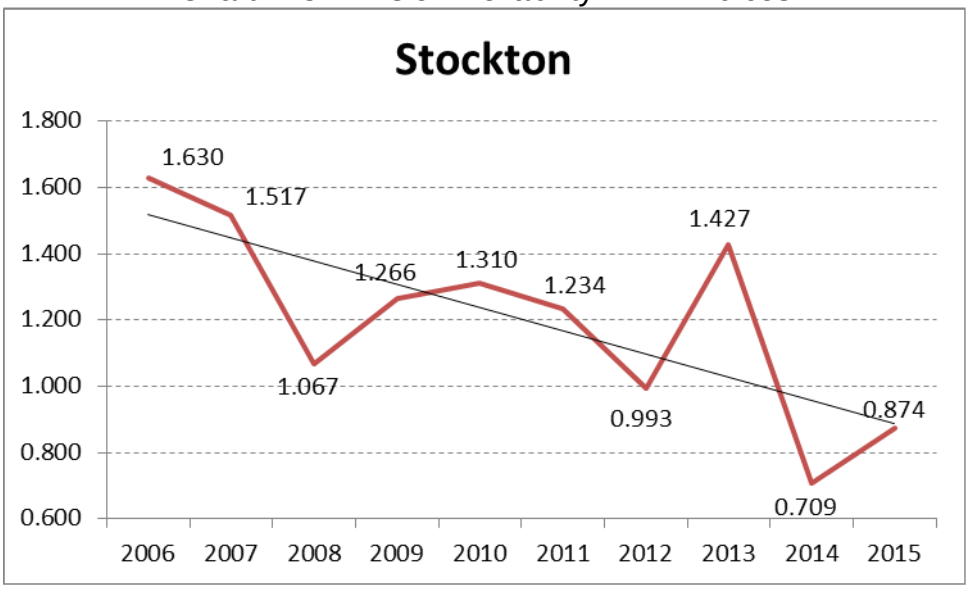
(Excludes ISO, and planned outages)

Chart 122: Division Reliability - AIFI Indices



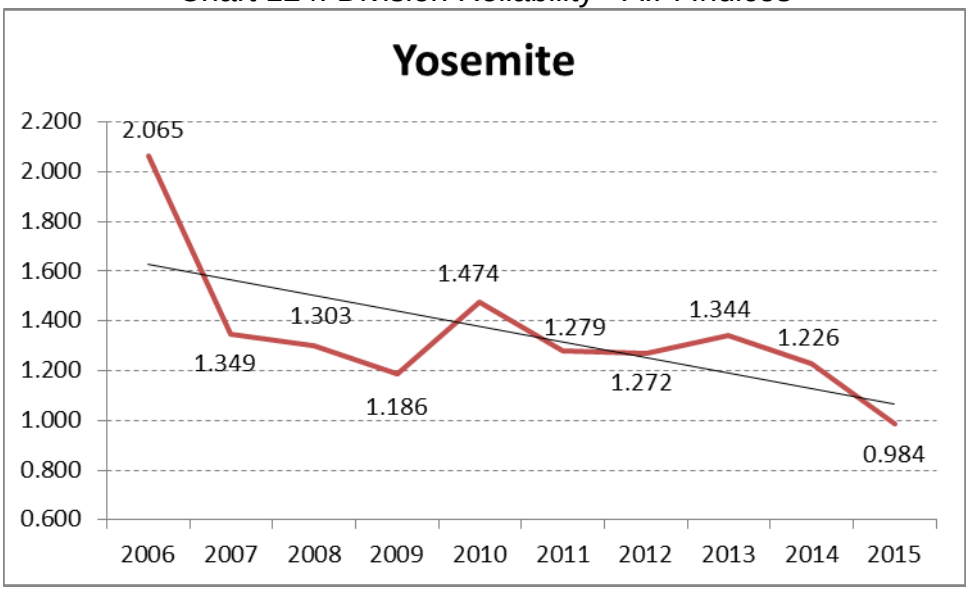
(Excludes ISO, and planned outages)

Chart 123: Division Reliability - AIFI Indices



(Excludes ISO, and planned outages)

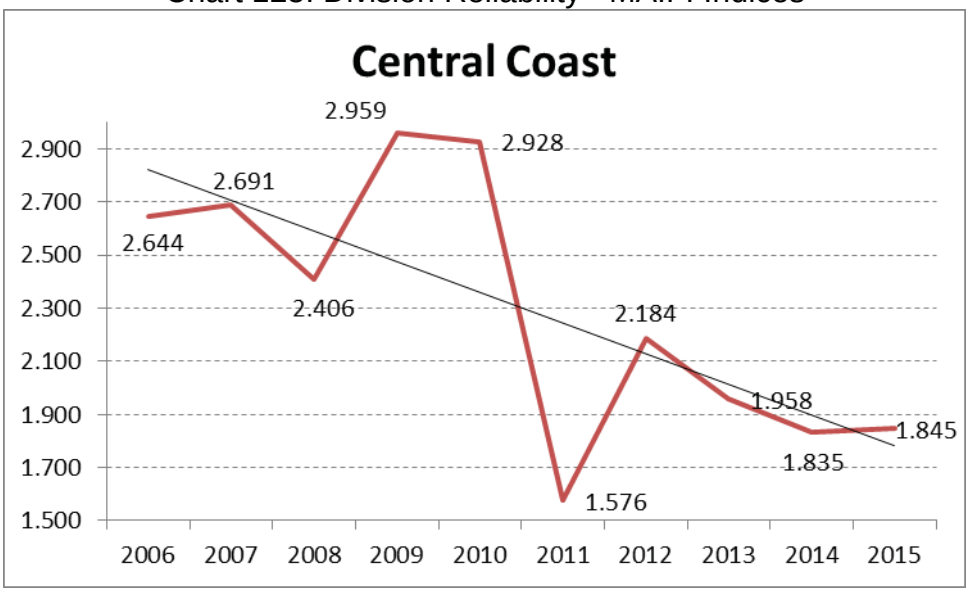
Chart 124: Division Reliability - AIFI Indices



(Excludes ISO, and planned outages)

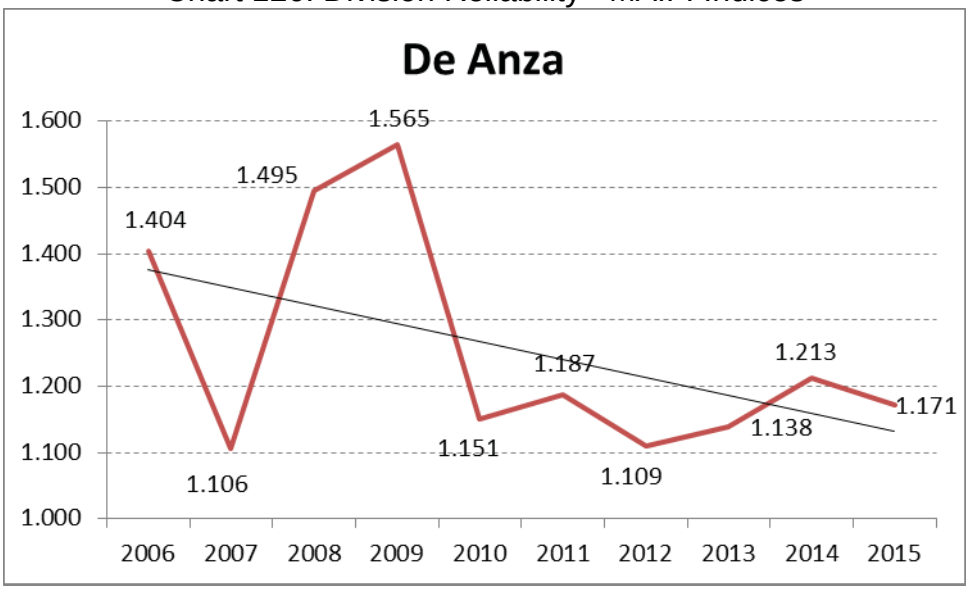
3. MAIFI Performance Results (MED Excluded)

Chart 125: Division Reliability - MAIFI Indices



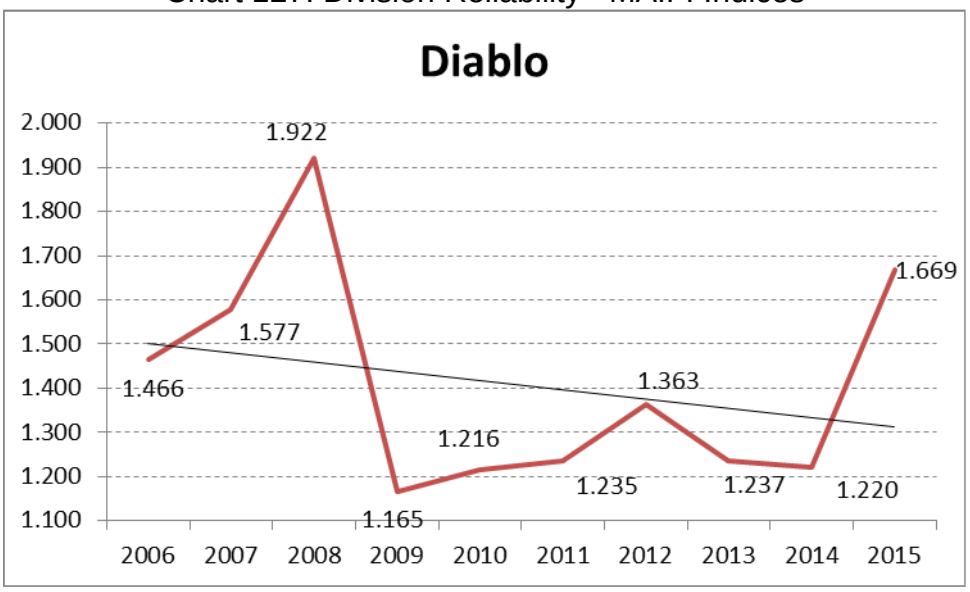
(Excludes ISO, and planned outages)

Chart 126: Division Reliability - MAIFI Indices



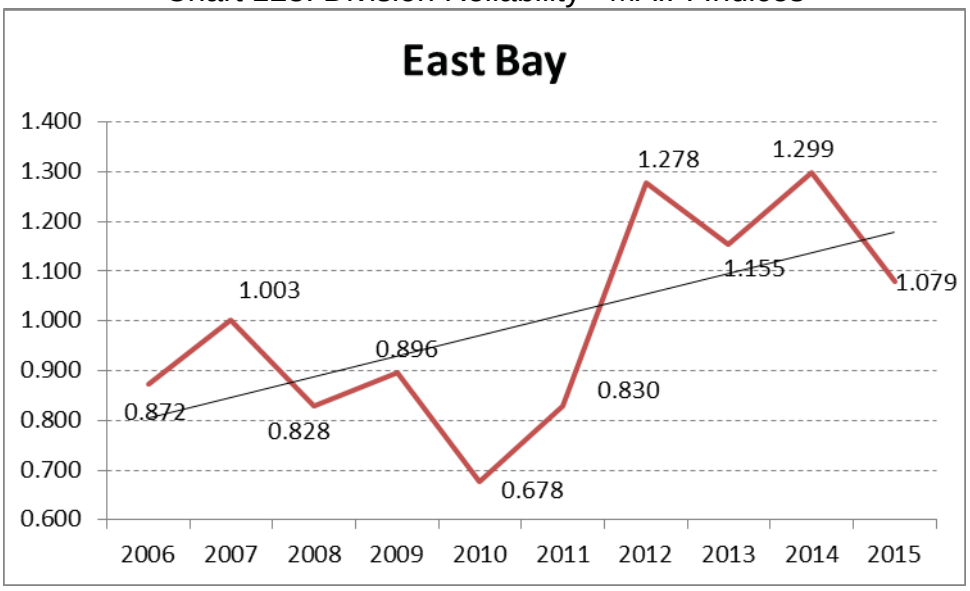
(Excludes ISO, and planned outages)

Chart 127: Division Reliability - MAIFI Indices



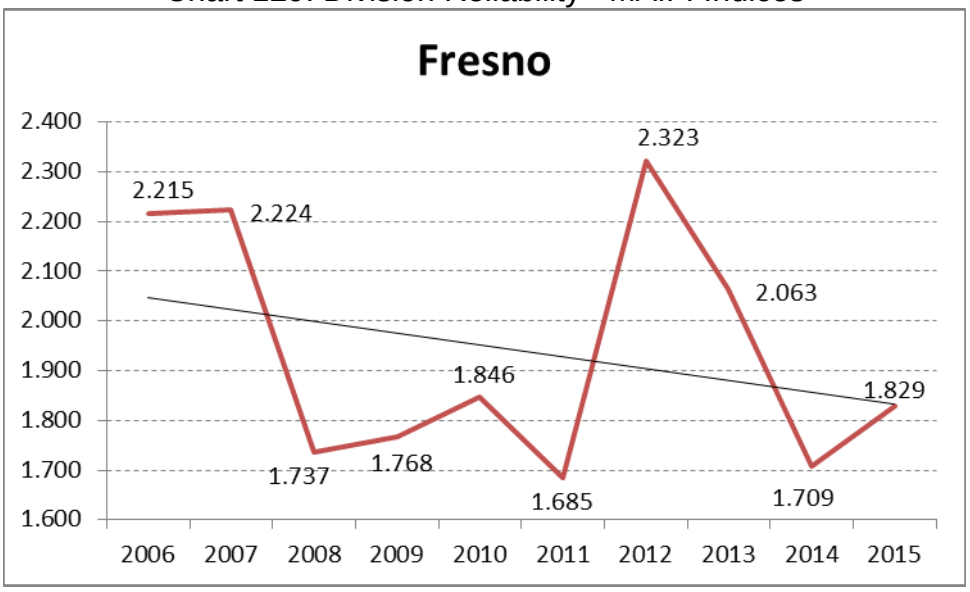
(Excludes ISO, and planned outages)

Chart 128: Division Reliability - MAIFI Indices



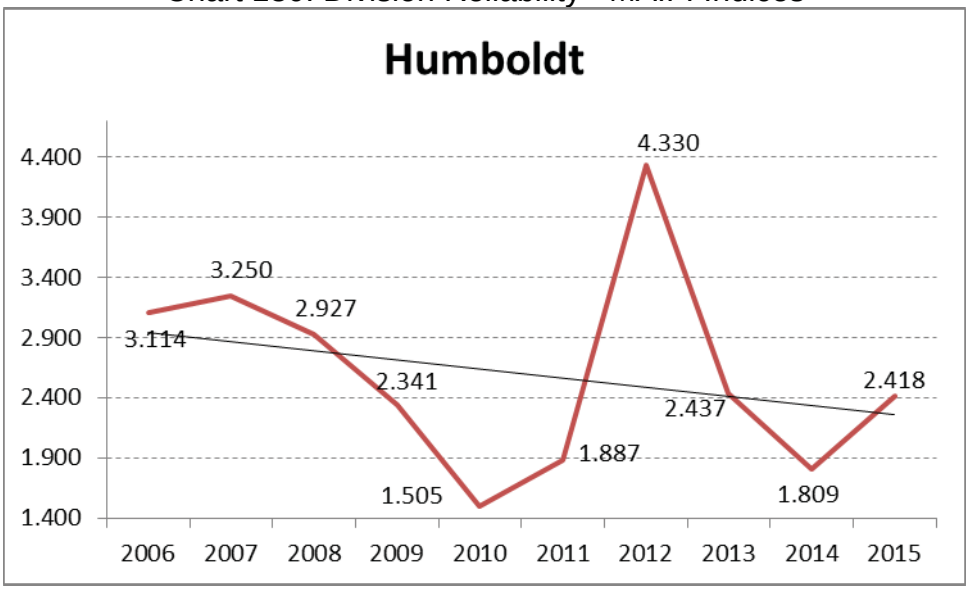
(Excludes ISO, and planned outages)

Chart 129: Division Reliability - MAIFI Indices



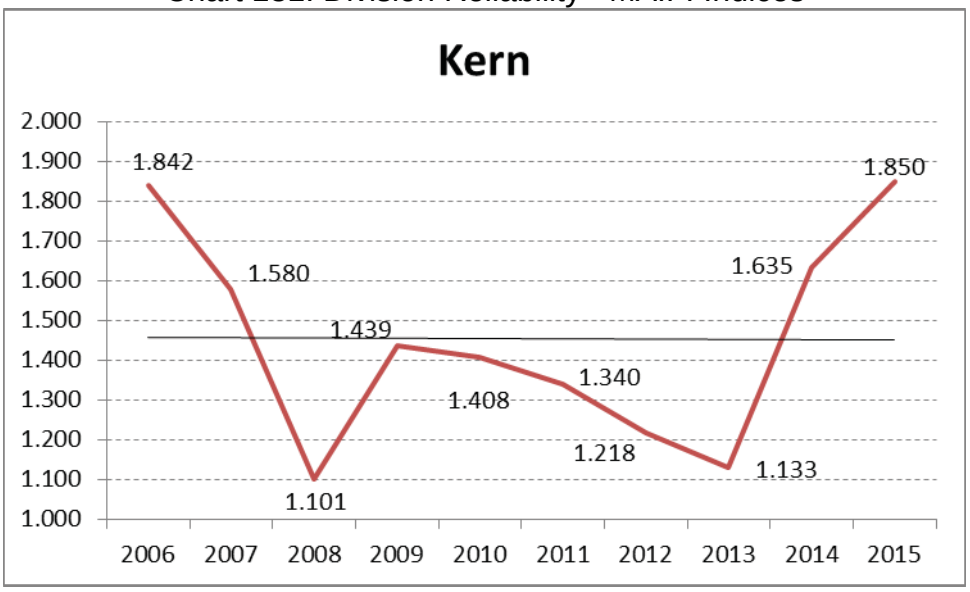
(Excludes ISO, and planned outages)

Chart 130: Division Reliability - MAIFI Indices



(Excludes ISO, and planned outages)

Chart 131: Division Reliability - MAIFI Indices

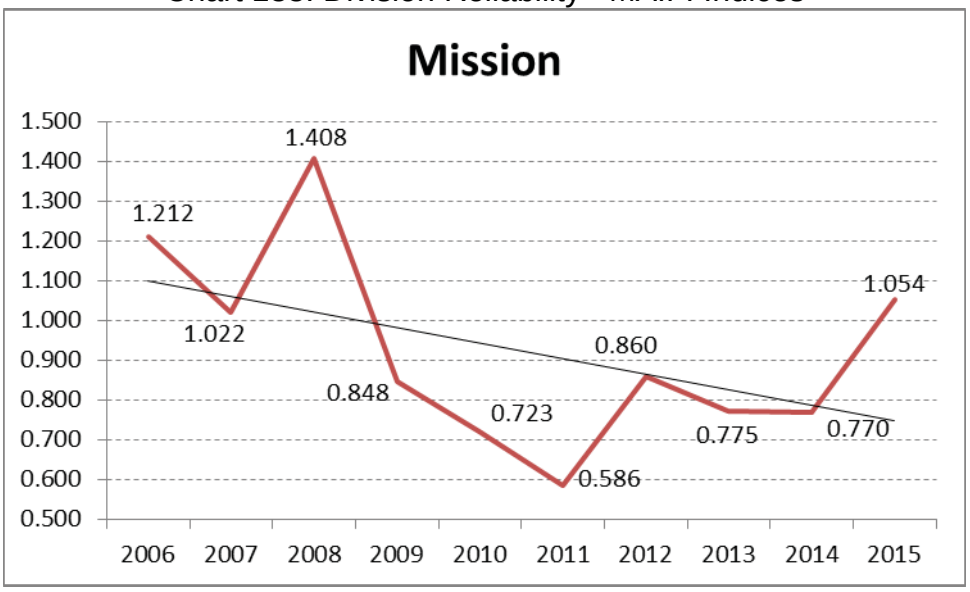


(Excludes ISO, and planned outages)

Chart 132: Division Reliability - MAIFI Indices

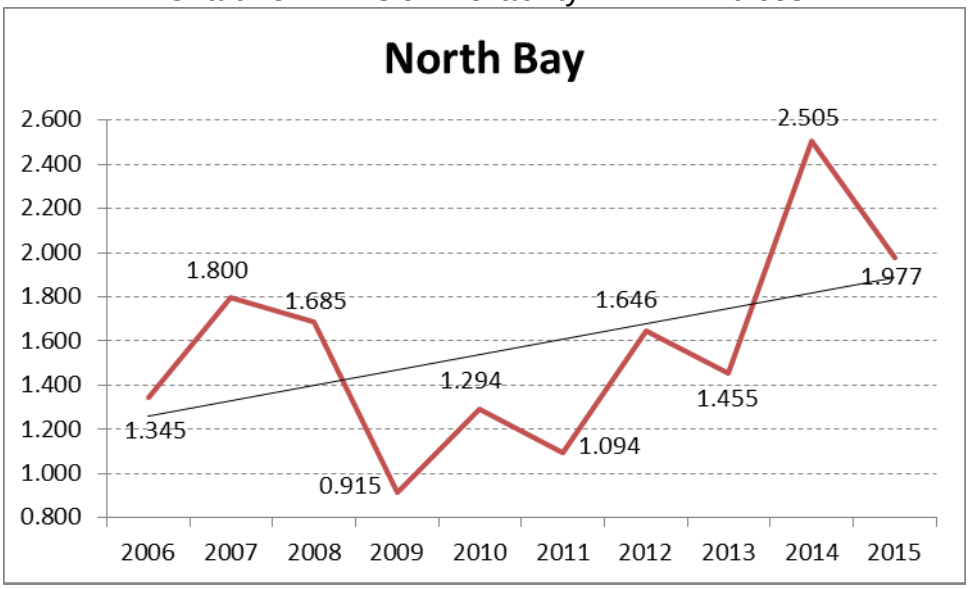
(Excludes ISO, and planned outages)

Chart 133: Division Reliability - MAIFI Indices



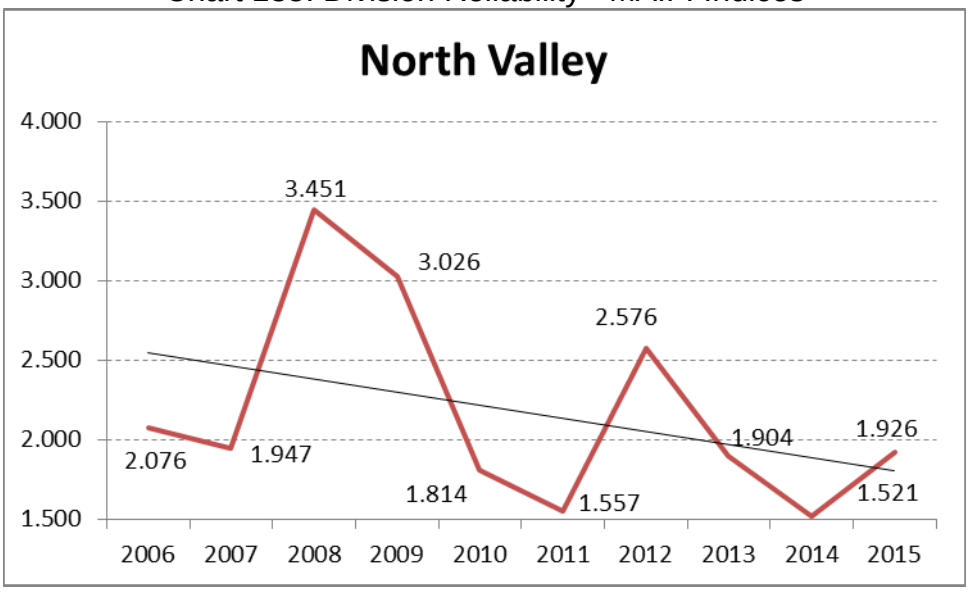
(Excludes ISO, and planned outages)

Chart 134: Division Reliability - MAIFI Indices



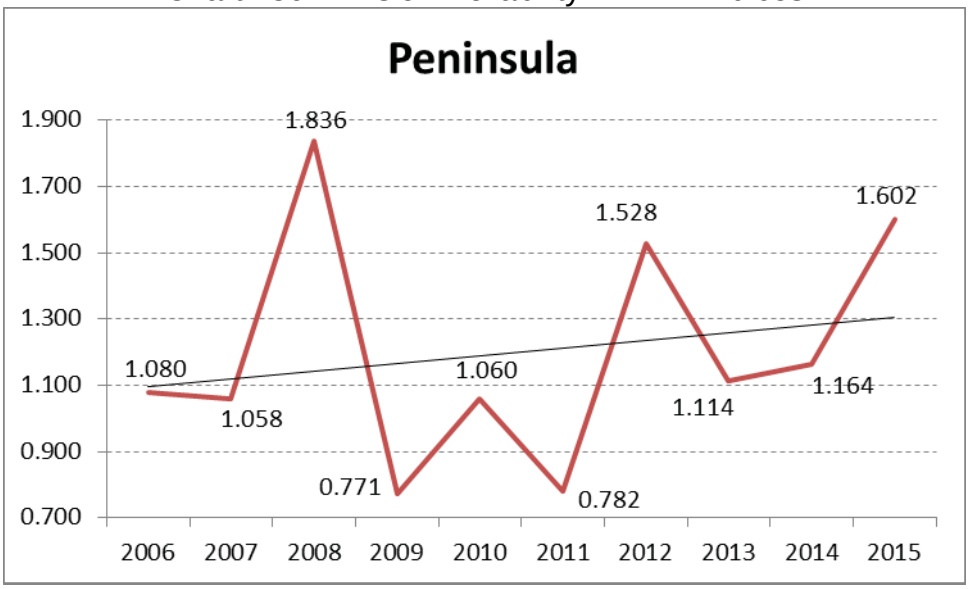
(Excludes ISO, and planned outages)

Chart 135: Division Reliability - MAIFI Indices



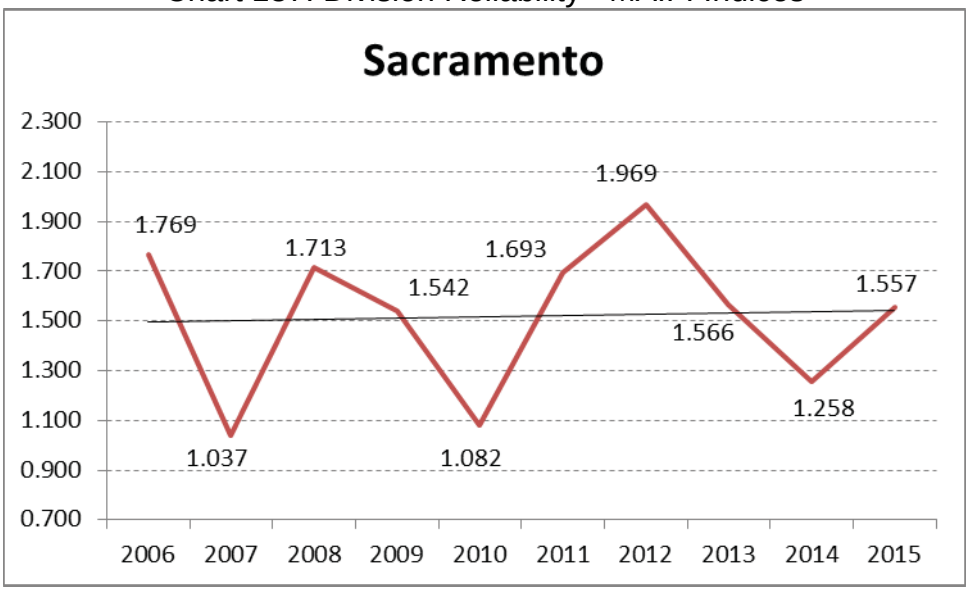
(Excludes ISO, and planned outages)

Chart 136: Division Reliability - MAIFI Indices



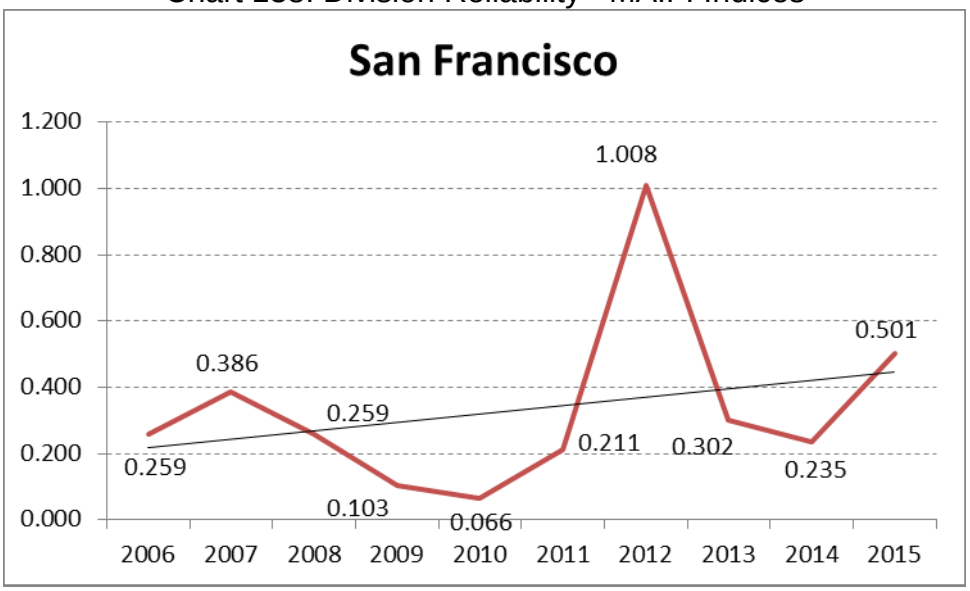
(Excludes ISO, and planned outages)

Chart 137: Division Reliability - MAIFI Indices



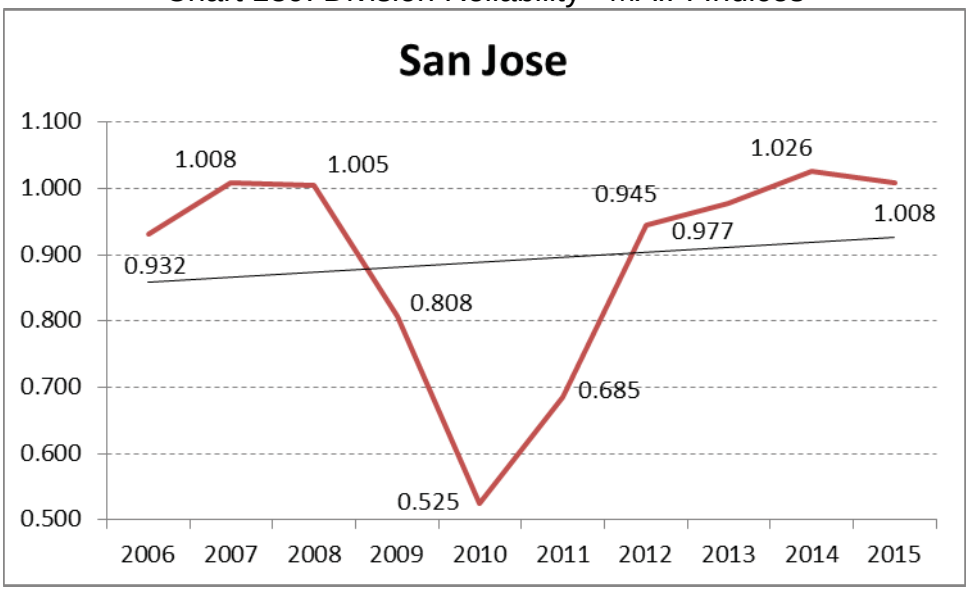
(Excludes ISO, and planned outages)

Chart 138: Division Reliability - MAIFI Indices



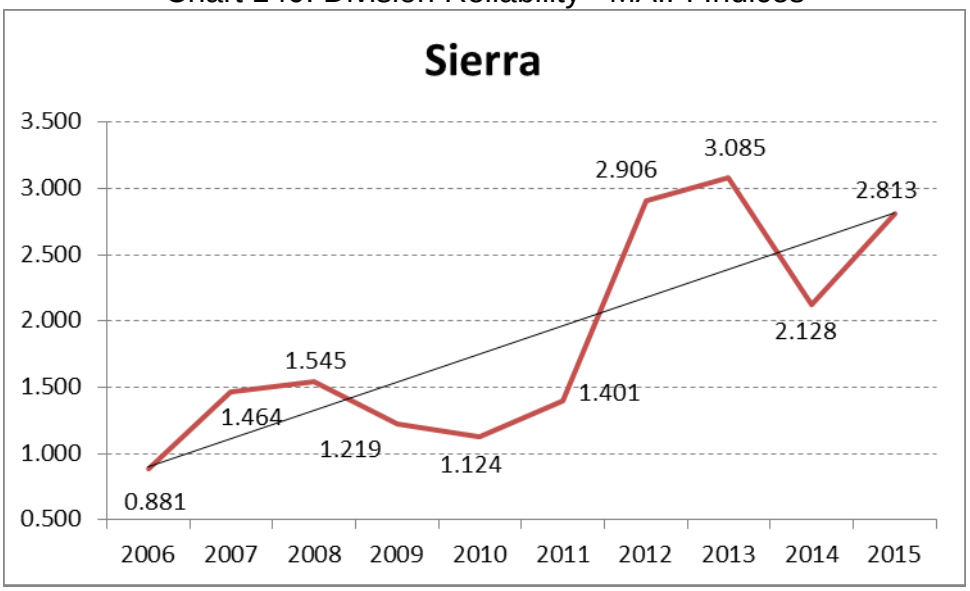
(Excludes ISO, and planned outages)

Chart 139: Division Reliability - MAIFI Indices



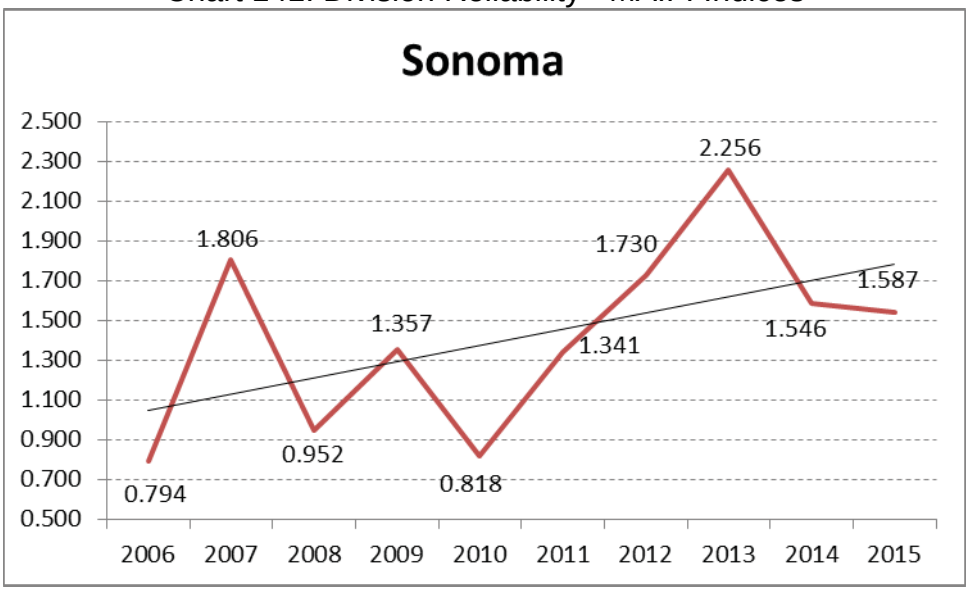
(Excludes ISO, and planned outages)

Chart 140: Division Reliability - MAIFI Indices



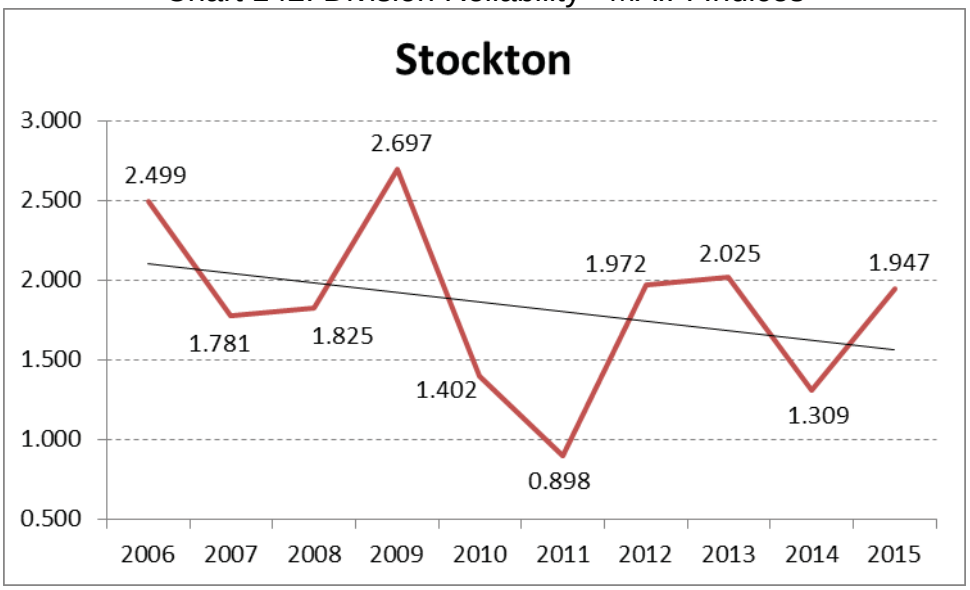
(Excludes ISO, and planned outages)

Chart 141: Division Reliability - MAIFI Indices



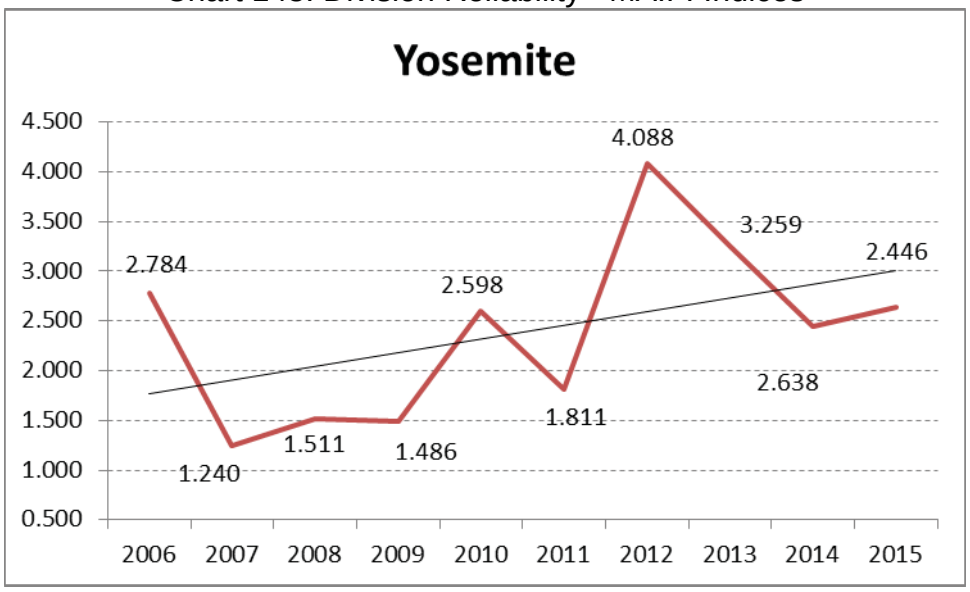
(Excludes ISO, and planned outages)

Chart 142: Division Reliability - MAIFI Indices



(Excludes ISO, and planned outages)

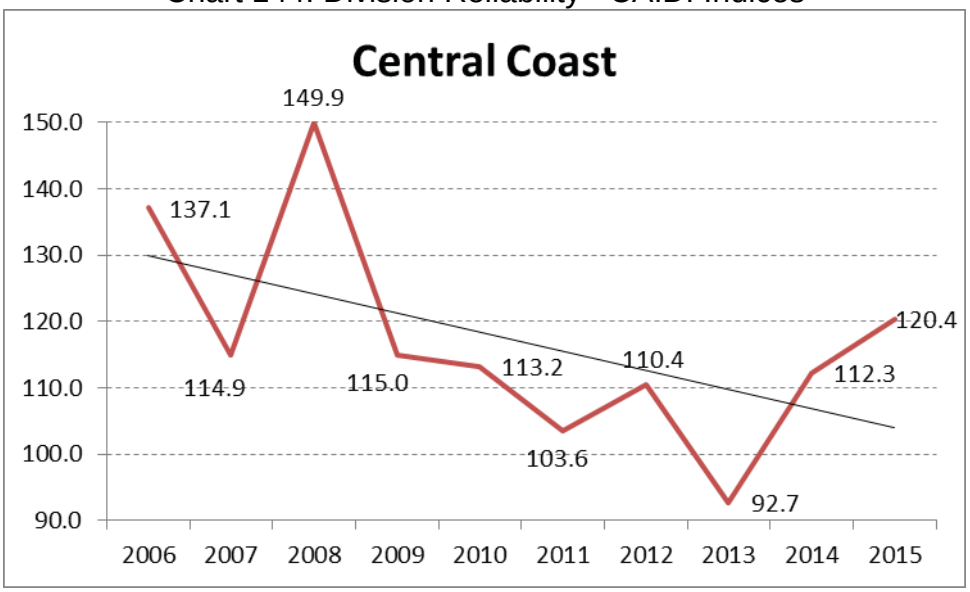
Chart 143: Division Reliability - MAIFI Indices



(Excludes ISO, and planned outages)

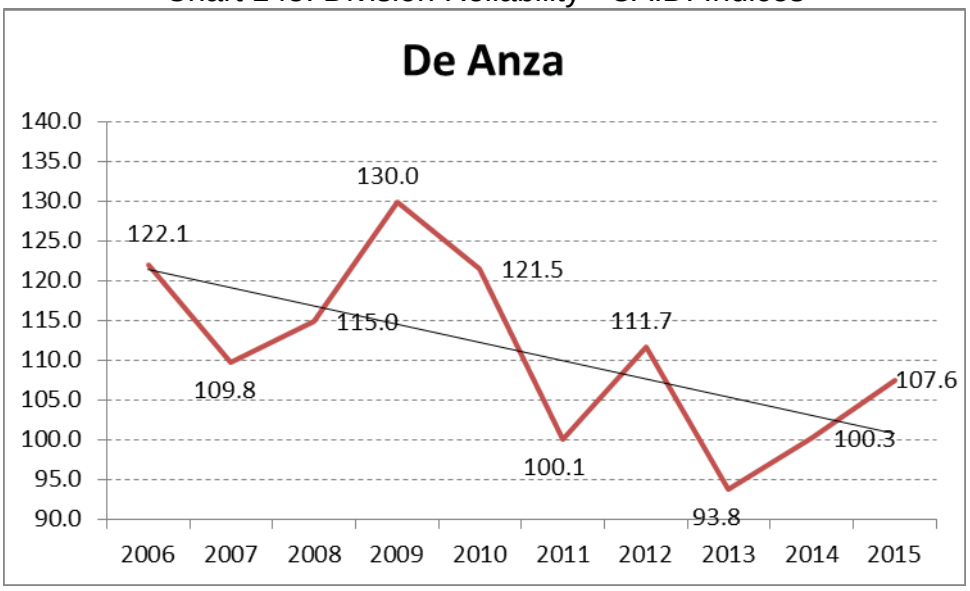
4. CAIDI Performance Results (MED Excluded)

Chart 144: Division Reliability - CAIDI Indices



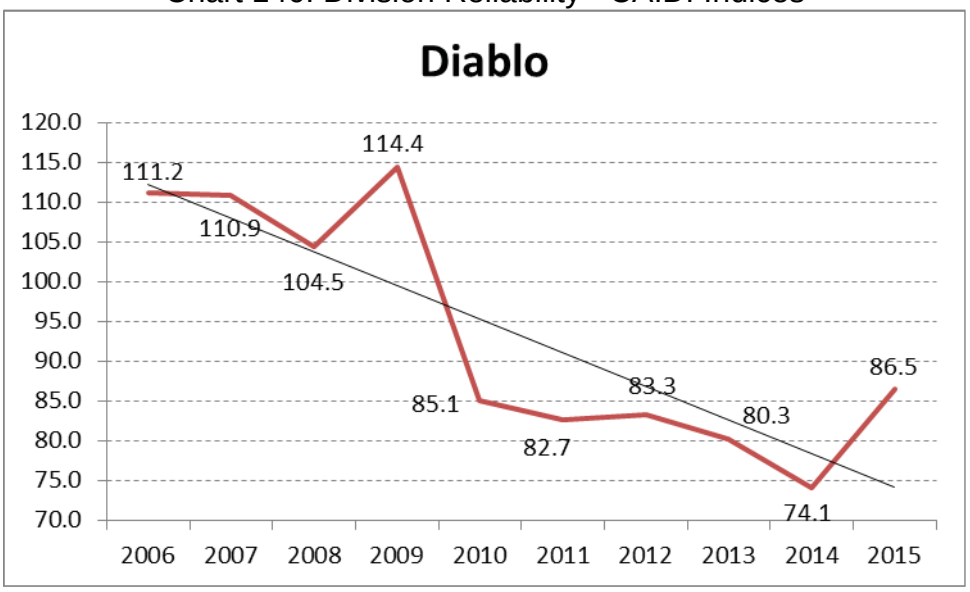
(Excludes ISO, and planned outages)

Chart 145: Division Reliability - CAIDI Indices



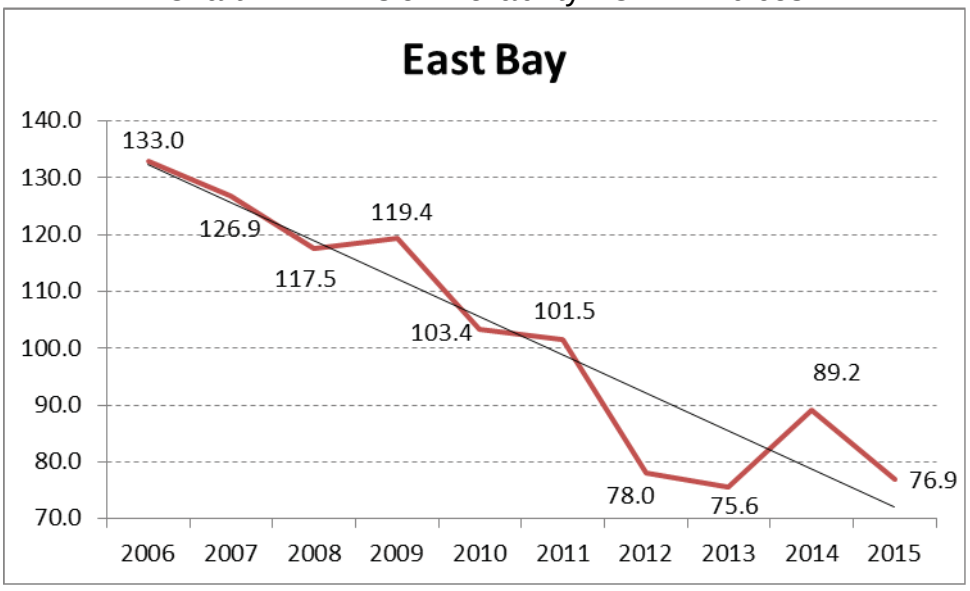
(Excludes ISO, and planned outages)

Chart 146: Division Reliability - CAIDI Indices



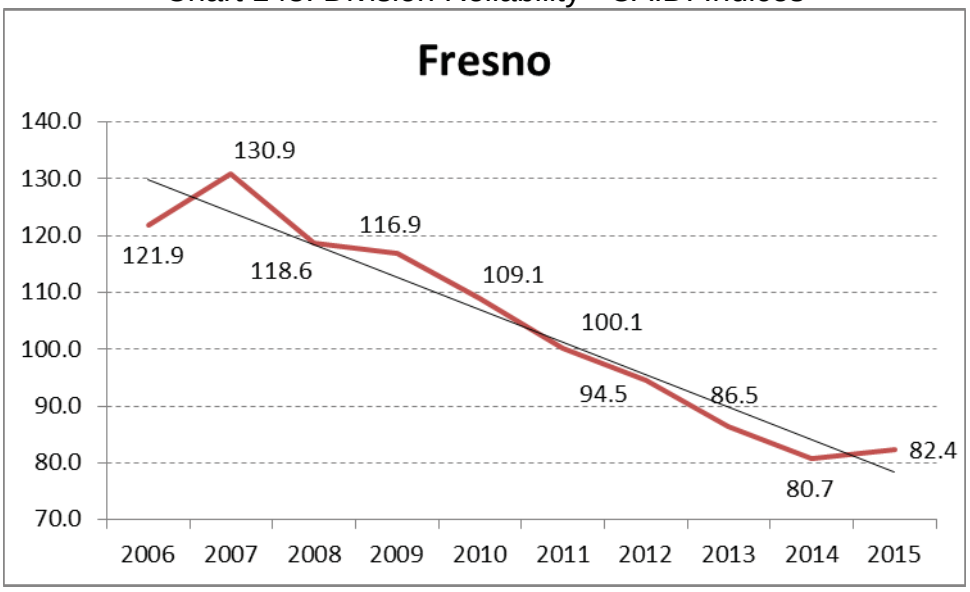
(Excludes ISO, and planned outages)

Chart 147: Division Reliability - CAIDI Indices



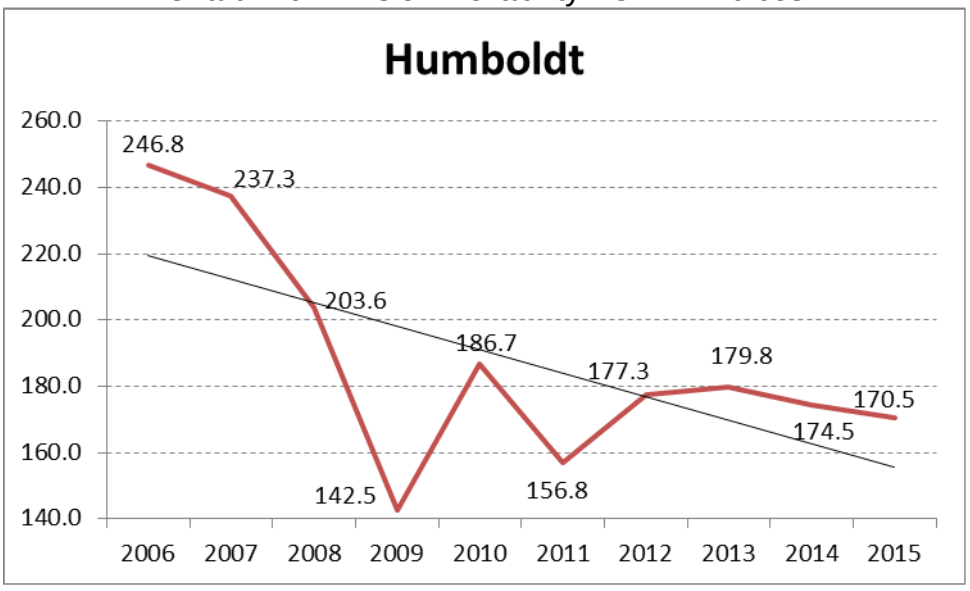
(Excludes ISO, and planned outages)

Chart 148: Division Reliability - CAIDI Indices



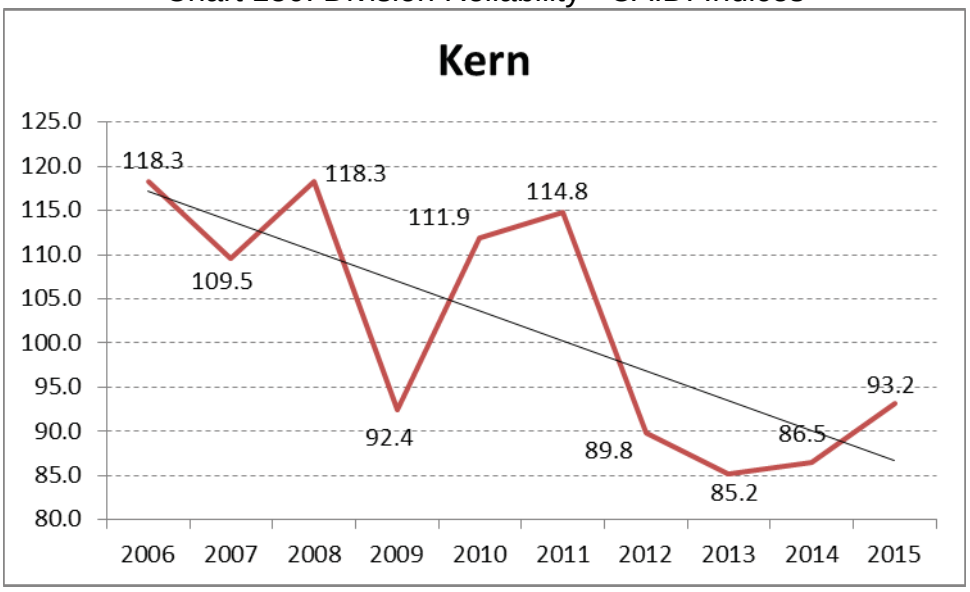
(Excludes ISO, and planned outages)

Chart 149: Division Reliability - CAIDI Indices



(Excludes ISO, and planned outages)

Chart 150: Division Reliability - CAIDI Indices

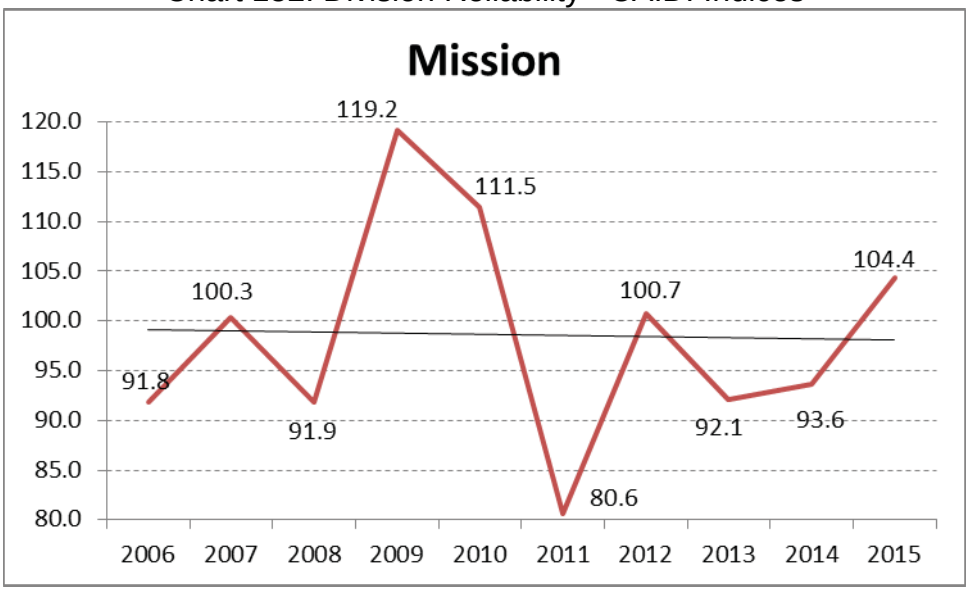


(Excludes ISO, and planned outages)

Chart 151: Division Reliability - CAIDI Indices

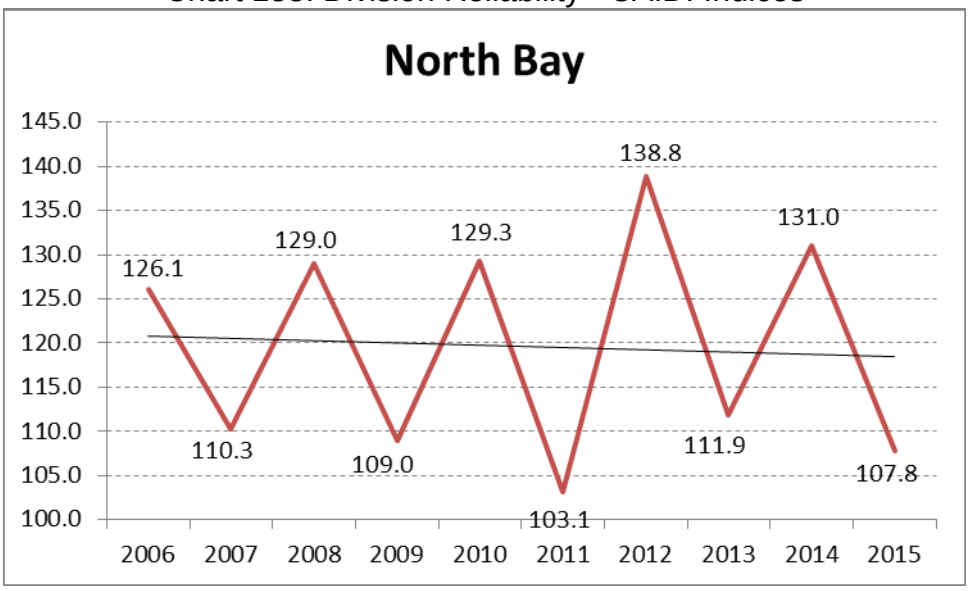
(Excludes ISO, and planned outages)

Chart 152: Division Reliability - CAIDI Indices



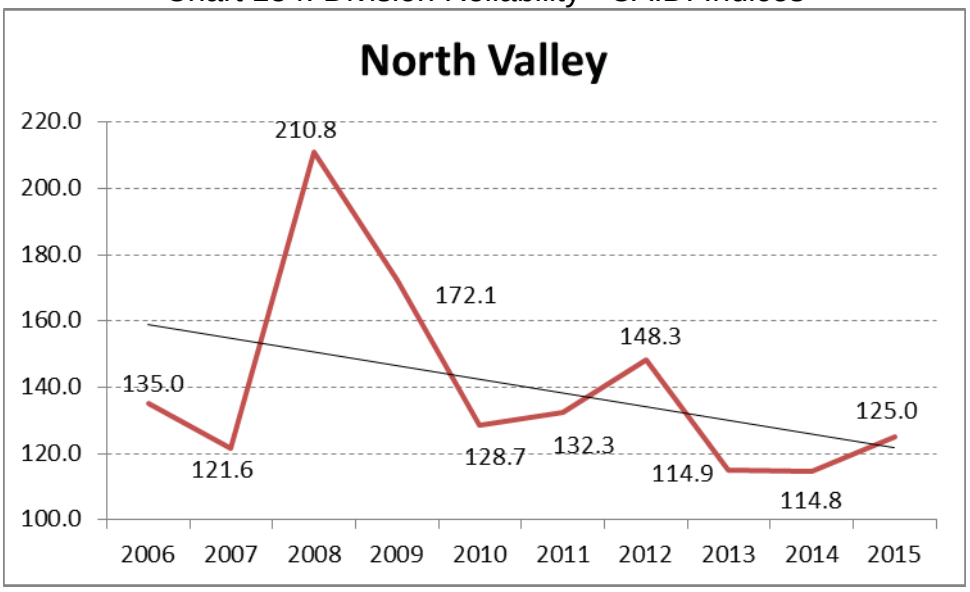
(Excludes ISO, and planned outages)

Chart 153: Division Reliability - CAIDI Indices



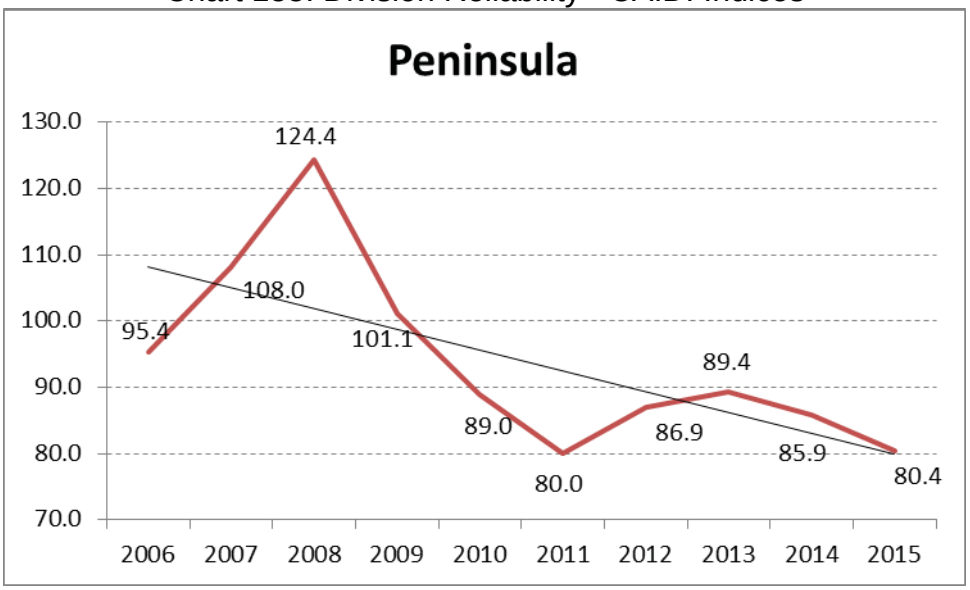
(Excludes ISO, and planned outages)

Chart 154: Division Reliability - CAIDI Indices



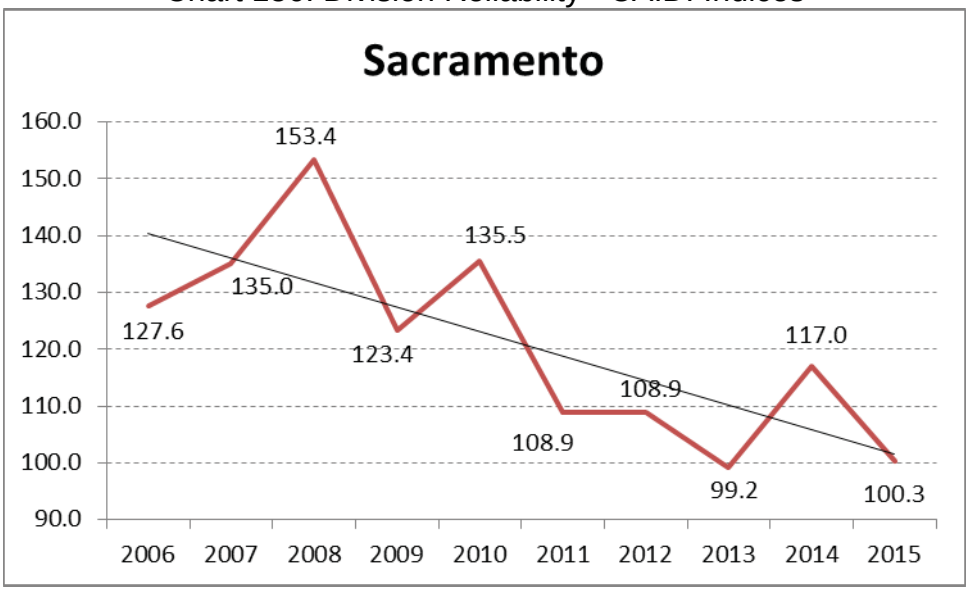
(Excludes ISO, and planned outages)

Chart 155: Division Reliability - CAIDI Indices



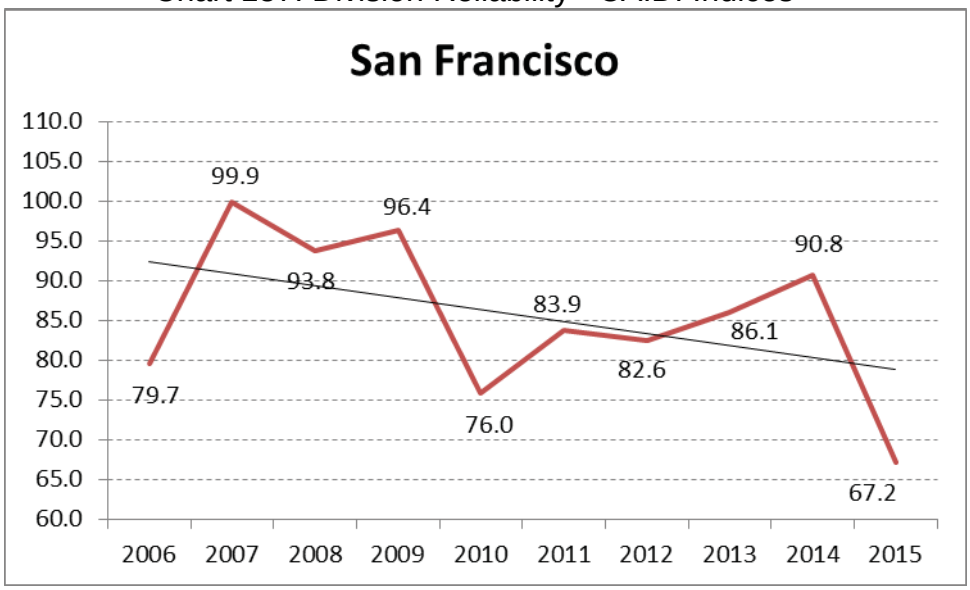
(Excludes ISO, and planned outages)

Chart 156: Division Reliability - CAIDI Indices



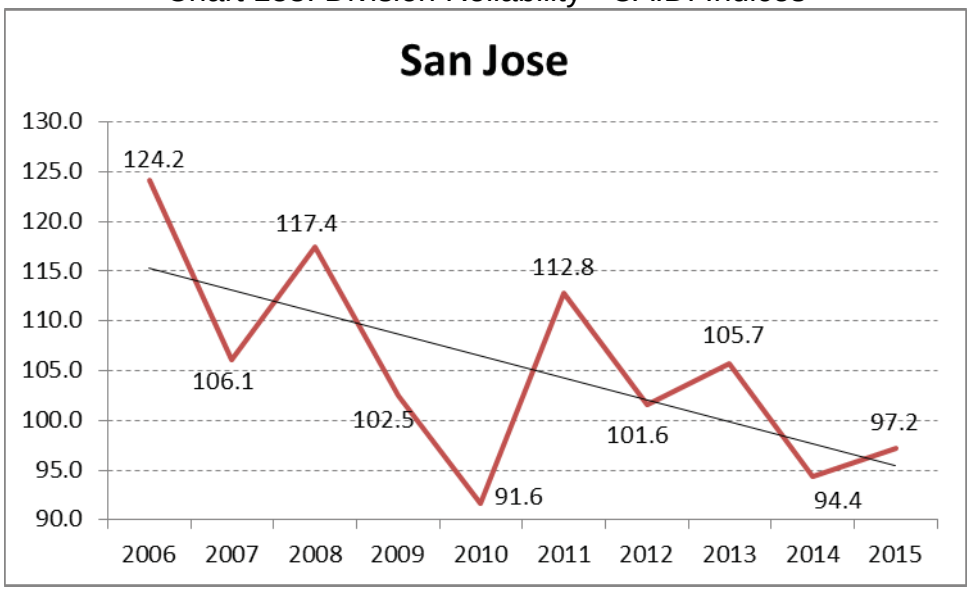
(Excludes ISO, and planned outages)

Chart 157: Division Reliability - CAIDI Indices



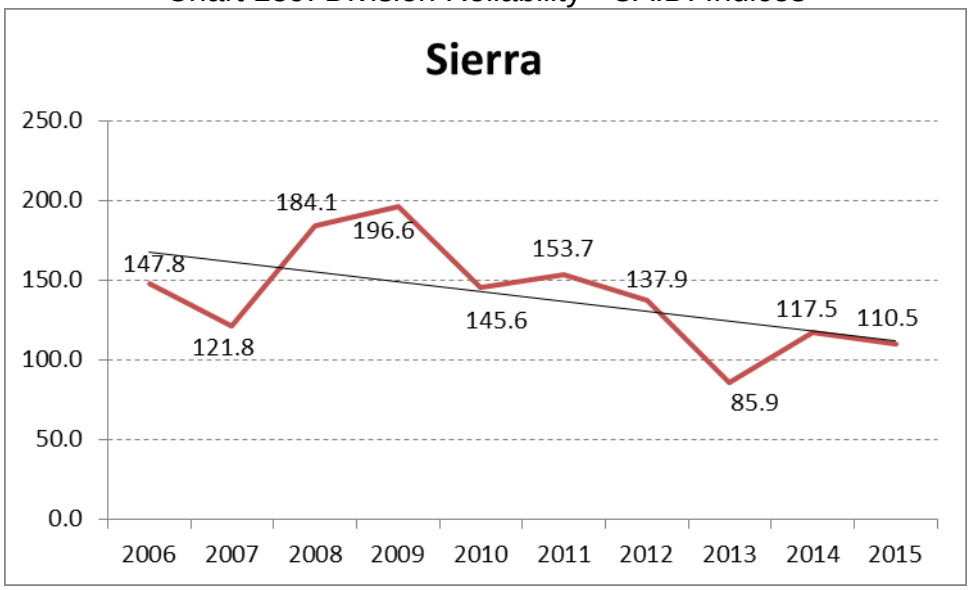
(Excludes ISO, and planned outages)

Chart 158: Division Reliability - CAIDI Indices



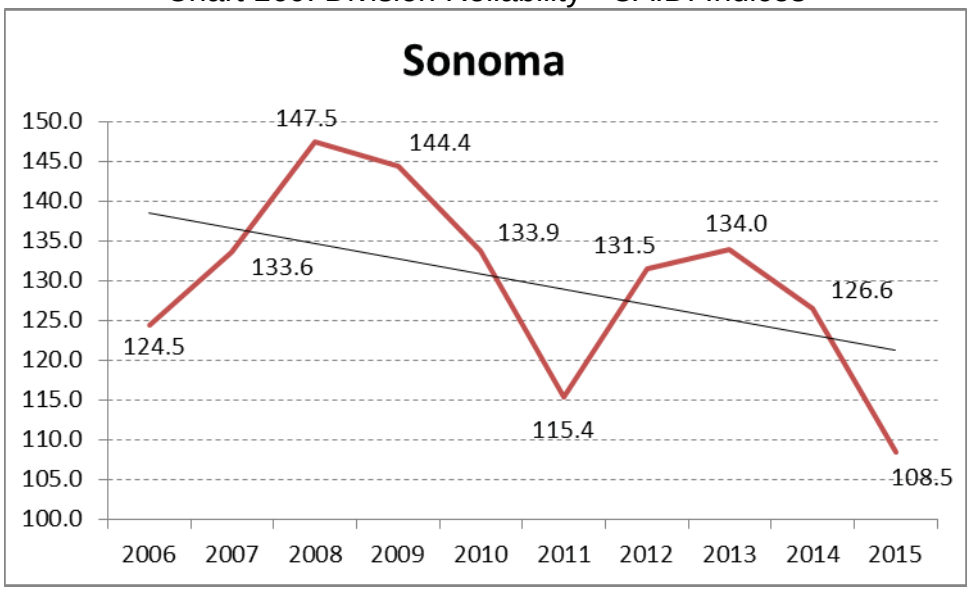
(Excludes ISO, and planned outages)

Chart 159: Division Reliability - CAIDI Indices



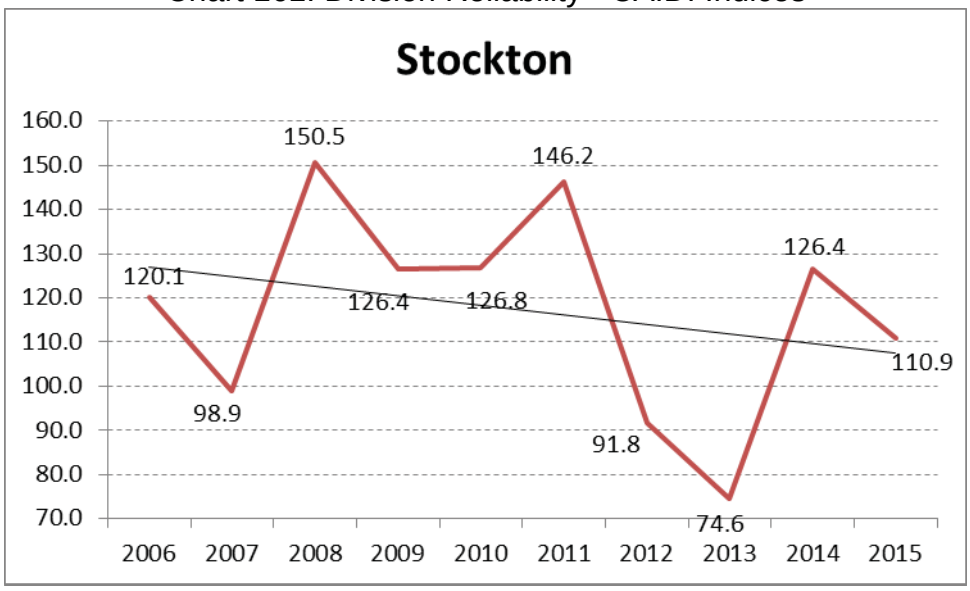
(Excludes ISO, and planned outages)

Chart 160: Division Reliability - CAIDI Indices



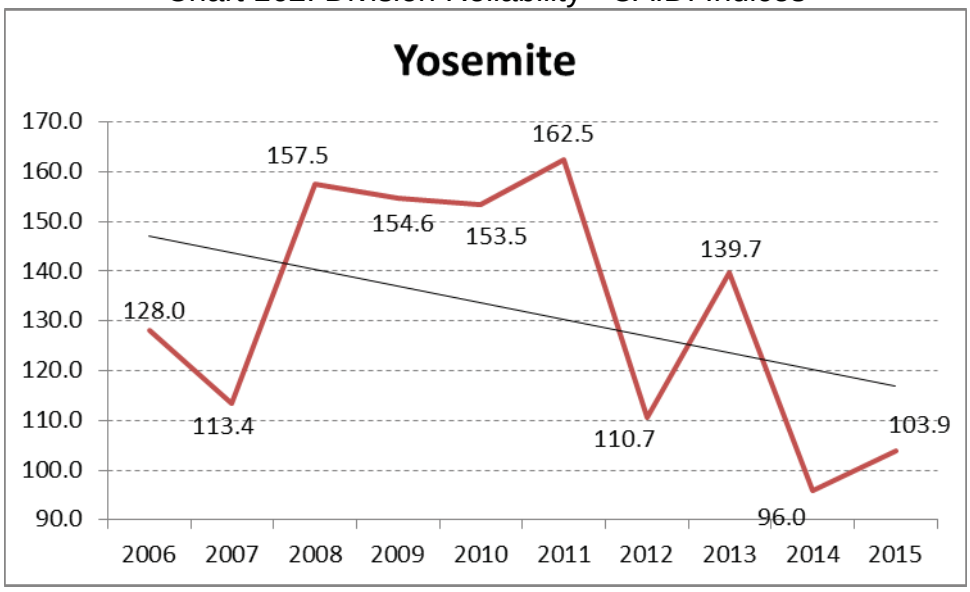
(Excludes ISO, and planned outages)

Chart 161: Division Reliability - CAIDI Indices



(Excludes ISO, and planned outages)

Chart 162: Division Reliability - CAIDI Indices



(Excludes ISO, and planned outages)

d. Division and System Reliability Indices Performance Variances (Five-Year Average)

This section contains additional division reliability information, as required by Decision 04-10-034, and Decision 16-01-008, Appendix B, footnote 6. This section explains threshold variations (unplanned outages only) in division and/or system reliability indices relative to the prior five-year averages (excluding major events, as defined per the IEEE 1366 methodology). This section also highlights the large outage events in each division that exceeded the reporting threshold.

Table 7 summarizes the 2015 division indices that meet the reporting requirement thresholds of 10 percent or more for the division, and 5 percent or more at the system level worse than the five year rolling average of reliability performance per D. 04-10-034.[8] An "X" indicates that the 2015 Division and system index exceeded the 10 percent and 5 percent threshold, respectively, and is thus discussed in detail in this section.

Table 7 – 2015 Indices excluding Major Events
(Meeting the Reporting Requirement Thresholds)

	SAIDI	SAIFI	MAIFI	CAIDI
SYSTEM			X	
CENTRAL COAST				X
DE ANZA				
DIABLO			X	
EAST BAY				
FRESNO				
HUMBOLDT				
KERN			X	
LOS PADRES				
MISSION			X	
NORTH BAY			X	
NORTH VALLEY				
PENINSULA			X	
SACRAMENTO				
SAN FRANCISCO			X	
SAN JOSE			X	
SIERRA			X	
SONOMA				
STOCKTON			X	
YOSEMITE				

[8] As in prior reports, PG&E does not interpret this reporting requirement as applying to those indices where 2015 reliability was better than the prior five-year average.

Table 8: Division and System Reliability Indices Performance Variances (Excluding MED)

Year	Division	SAIDI	SAIFI	MAIFI	CAIDI
2010	SYSTEM	130.3	1.106	1.250	117.8
2011	SYSTEM	109.6	0.974	1.163	112.5
2012	SYSTEM	110.7	1.036	1.796	106.8
2013	SYSTEM	95.8	0.969	1.523	98.9
2014	SYSTEM	90.1	0.877	1.390	102.8
5-Yr Ave	10-14 Avg	107.3	0.992	1.424	107.8
2015	SYSTEM	80.7	0.786	1.584	102.7
	% Difference	-24.8%	-20.8%	11.2%	-4.7%

Year	Division	SAIDI	SAIFI	MAIFI	CAIDI
2010	CENTRAL COAST	171.1	1.511	2.928	113.2
2011	CENTRAL COAST	156.8	1.513	1.576	103.6
2012	CENTRAL COAST	137.4	1.244	2.184	110.4
2013	CENTRAL COAST	119.7	1.291	1.958	92.7
2014	CENTRAL COAST	122.1	1.088	1.835	112.3
5-Yr Ave	10-14 Avg	141.4	1.329	2.096	106.4
2015	CENTRAL COAST	102.0	0.847	1.845	120.4
	% Difference	-27.9%	-36.3%	-12.0%	13.1%

Year	Division	SAIDI	SAIFI	MAIFI	CAIDI
2010	DE ANZA	116.4	0.958	1.151	121.5
2011	DE ANZA	62.6	0.625	1.187	100.1
2012	DE ANZA	74.6	0.668	1.109	111.7
2013	DE ANZA	77.0	0.821	1.138	93.8
2014	DE ANZA	89.3	0.890	1.213	100.3
5-Yr Ave	10-14 Avg	84.0	0.792	1.160	105.5
2015	DE ANZA	51.2	0.476	1.171	107.6
	% Difference	-39.0%	-39.9%	1.0%	2.0%

Year	Division	SAIDI	SAIFI	MAIFI	CAIDI
2010	DIABLO	104.3	1.225	1.216	85.1
2011	DIABLO	66.8	0.808	1.235	82.7
2012	DIABLO	98.8	1.186	1.363	83.3
2013	DIABLO	80.4	1.001	1.237	80.3
2014	DIABLO	66.1	0.892	1.220	74.1
5-Yr Ave	10-14 Avg	83.3	1.022	1.254	81.1
2015	DIABLO	74.0	0.856	1.669	86.5
	% Difference	-11.1%	-16.3%	33.1%	6.7%

Division Reliability Indices
2010-2015
(Excluding MED)

Year	Division	SAIDI	SAIFI	MAIFI	CAIDI
2010	EAST BAY	90.5	0.874	0.678	103.4
2011	EAST BAY	88.1	0.868	0.830	101.5
2012	EAST BAY	100.6	1.289	1.278	78.0
2013	EAST BAY	63.0	0.832	1.155	75.6
2014	EAST BAY	64.8	0.726	1.299	89.2
5-Yr Ave	10-14 Avg	81.4	0.918	1.048	89.5
2015	EAST BAY	45.0	0.586	1.079	76.9
	% Difference	-44.7%	-36.2%	3.0%	-14.1%
Year	Division	SAIDI	SAIFI	MAIFI	CAIDI
2010	FRESNO	115.0	1.054	1.846	109.1
2011	FRESNO	81.6	0.815	1.685	100.1
2012	FRESNO	98.6	1.043	2.323	94.5
2013	FRESNO	92.4	1.068	2.063	86.5
2014	FRESNO	79.4	0.983	1.709	80.7
5-Yr Ave	10-14 Avg	93.4	0.993	1.925	94.2
2015	FRESNO	70.0	0.849	1.829	82.4
	% Difference	-25.1%	-14.5%	-5.0%	-12.5%
Year	Division	SAIDI	SAIFI	MAIFI	CAIDI
2010	HUMBOLDT	402.9	2.158	1.505	186.7
2011	HUMBOLDT	227.0	1.448	1.887	156.8
2012	HUMBOLDT	276.6	1.560	4.330	177.3
2013	HUMBOLDT	210.4	1.170	2.437	179.8
2014	HUMBOLDT	212.4	1.217	1.809	174.5
5-Yr Ave	10-14 Avg	265.9	1.511	2.394	175.0
2015	HUMBOLDT	276.3	1.621	2.418	170.5
	% Difference	3.9%	7.3%	1.0%	-2.6%
Year	Division	SAIDI	SAIFI	MAIFI	CAIDI
2010	KERN	120.4	1.076	1.408	111.9
2011	KERN	112.5	0.979	1.340	114.8
2012	KERN	88.1	0.981	1.218	89.8
2013	KERN	87.5	1.027	1.133	85.2
2014	KERN	81.0	0.936	1.635	86.5
5-Yr Ave	10-14 Avg	97.9	1.000	1.347	97.6
2015	KERN	80.3	0.862	1.850	93.2
	% Difference	-18.0%	-13.8%	37.4%	-4.5%

Division Reliability Indices
2010-2015
(Excluding MED)

Year	Division	SAIDI	SAIFI	MAIFI	CAIDI
2010	LOS PADRES	110.5	1.159	1.722	95.3
2011	LOS PADRES	89.9	0.970	1.666	92.7
2012	LOS PADRES	94.8	1.008	1.652	94.1
2013	LOS PADRES	86.7	0.726	0.960	119.5
2014	LOS PADRES	95.2	1.043	1.135	91.2
5-Yr Ave	10-14 Avg	95.4	0.981	1.427	98.6
2015	LOS PADRES	72.2	0.687	1.408	105.1
	% Difference	-24.3%	-30.0%	-1.3%	6.6%
Year	Division	SAIDI	SAIFI	MAIFI	CAIDI
2010	MISSION	101.4	0.910	0.723	111.5
2011	MISSION	62.9	0.781	0.586	80.6
2012	MISSION	91.2	0.905	0.860	100.7
2013	MISSION	67.8	0.736	0.775	92.1
2014	MISSION	62.9	0.672	0.770	93.6
5-Yr Ave	10-14 Avg	77.2	0.801	0.743	95.7
2015	MISSION	56.7	0.543	1.054	104.4
	% Difference	-26.6%	-32.2%	41.9%	9.1%
Year	Division	SAIDI	SAIFI	MAIFI	CAIDI
2010	NORTH BAY	133.9	1.035	1.294	129.3
2011	NORTH BAY	110.7	1.074	1.094	103.1
2012	NORTH BAY	109.7	0.791	1.646	138.8
2013	NORTH BAY	101.8	0.910	1.455	111.9
2014	NORTH BAY	114.6	0.875	2.505	131.0
5-Yr Ave	10-14 Avg	114.1	0.937	1.599	122.8
2015	NORTH BAY	97.4	0.904	1.977	107.8
	% Difference	-14.7%	-3.5%	23.7%	-12.2%
Year	Division	SAIDI	SAIFI	MAIFI	CAIDI
2010	NORTH VALLEY	156.9	1.220	1.814	128.7
2011	NORTH VALLEY	161.2	1.218	1.557	132.3
2012	NORTH VALLEY	223.2	1.505	2.576	148.3
2013	NORTH VALLEY	118.9	1.035	1.904	114.9
2014	NORTH VALLEY	111.1	0.968	1.521	114.8
5-Yr Ave	10-14 Avg	154.3	1.189	1.874	127.8
2015	NORTH VALLEY	132.8	1.062	1.926	125.0
	% Difference	-13.9%	-10.7%	2.8%	-2.2%

Division Reliability Indices
2010-2015
(Excluding MED)

Year	Division	SAIDI	SAIFI	MAIFI	CAIDI
2010	PENINSULA	117.9	1.324	1.060	89.0
2011	PENINSULA	83.8	1.047	0.782	80.0
2012	PENINSULA	86.8	0.999	1.528	86.9
2013	PENINSULA	70.1	0.785	1.114	89.4
2014	PENINSULA	77.1	0.898	1.164	85.9
5-Yr Ave	10-14 Avg	87.1	1.011	1.130	86.2
2015	PENINSULA	60.5	0.752	1.602	80.4
	% Difference	-30.6%	-25.6%	41.8%	-6.8%
Year	Division	SAIDI	SAIFI	MAIFI	CAIDI
2010	SACRAMENTO	118.6	0.875	1.082	135.5
2011	SACRAMENTO	107.9	0.991	1.693	108.9
2012	SACRAMENTO	130.1	1.194	1.969	108.9
2013	SACRAMENTO	93.0	0.937	1.566	99.2
2014	SACRAMENTO	94.4	0.807	1.258	117.0
5-Yr Ave	10-14 Avg	108.8	0.961	1.514	113.9
2015	SACRAMENTO	80.1	0.799	1.557	100.3
	% Difference	-26.4%	-16.8%	2.9%	-11.9%
Year	Division	SAIDI	SAIFI	MAIFI	CAIDI
2010	SAN FRANCISCO	49.6	0.652	0.066	76.0
2011	SAN FRANCISCO	45.3	0.540	0.211	83.9
2012	SAN FRANCISCO	47.0	0.570	1.008	82.6
2013	SAN FRANCISCO	52.0	0.604	0.302	86.1
2014	SAN FRANCISCO	41.5	0.457	0.235	90.8
5-Yr Ave	10-14 Avg	47.1	0.565	0.364	83.9
2015	SAN FRANCISCO	33.9	0.504	0.501	67.2
	% Difference	-28.0%	-10.7%	37.5%	-19.9%
Year	Division	SAIDI	SAIFI	MAIFI	CAIDI
2010	SAN JOSE	69.4	0.758	0.525	91.6
2011	SAN JOSE	101.5	0.900	0.685	112.8
2012	SAN JOSE	80.6	0.793	0.945	101.6
2013	SAN JOSE	96.7	0.914	0.977	105.7
2014	SAN JOSE	76.0	0.806	1.026	94.4
5-Yr Ave	10-14 Avg	84.8	0.834	0.832	101.2
2015	SAN JOSE	65.9	0.678	1.008	97.2
	% Difference	-22.3%	-18.7%	21.2%	-4.0%

Division Reliability Indices
2010-2015
(Excluding MED)

Year	Division	SAIDI	SAIFI	MAIFI	CAIDI
2010	SIERRA	194.0	1.332	1.124	145.6
2011	SIERRA	179.5	1.168	1.401	153.7
2012	SIERRA	182.4	1.322	2.906	137.9
2013	SIERRA	109.9	1.279	3.085	85.9
2014	SIERRA	142.2	1.210	2.128	117.5
5-Yr Ave	10-14 Avg	161.6	1.262	2.129	128.1
2015	SIERRA	123.2	1.115	2.813	110.5
	% Difference	-23.8%	-11.7%	32.1%	-13.8%
Year	Division	SAIDI	SAIFI	MAIFI	CAIDI
2010	SONOMA	151.4	1.131	0.818	133.9
2011	SONOMA	103.4	0.896	1.341	115.4
2012	SONOMA	117.9	0.897	1.730	131.5
2013	SONOMA	113.4	0.846	2.256	134.0
2014	SONOMA	113.7	0.899	1.587	126.6
5-Yr Ave	10-14 Avg	120.0	0.934	1.546	128.3
2015	SONOMA	73.0	0.673	1.531	108.5
	% Difference	-39.1%	-27.9%	-1.0%	-15.4%
Year	Division	SAIDI	SAIFI	MAIFI	CAIDI
2010	STOCKTON	166.2	1.310	1.402	126.8
2011	STOCKTON	180.5	1.234	0.898	146.2
2012	STOCKTON	91.1	0.993	1.972	91.8
2013	STOCKTON	106.5	1.427	2.025	74.6
2014	STOCKTON	89.7	0.709	1.309	126.4
5-Yr Ave	10-14 Avg	126.8	1.135	1.521	113.2
2015	STOCKTON	96.9	0.874	1.947	110.9
	% Difference	-23.6%	-23.0%	28.0%	-2.0%
Year	Division	SAIDI	SAIFI	MAIFI	CAIDI
2010	YOSEMITE	226.3	1.474	2.598	153.5
2011	YOSEMITE	207.9	1.279	1.811	162.5
2012	YOSEMITE	140.8	1.272	4.088	110.7
2013	YOSEMITE	187.8	1.344	3.259	139.7
2014	YOSEMITE	117.6	1.226	2.446	96.0
5-Yr Ave	10-14 Avg	176.1	1.319	2.840	132.5
2015	YOSEMITE	102.3	0.984	2.638	103.9
	% Difference	-41.9%	-25.4%	-7.1%	-21.6%

i. System and Division Performance Assessment

1. System Performance Assessment

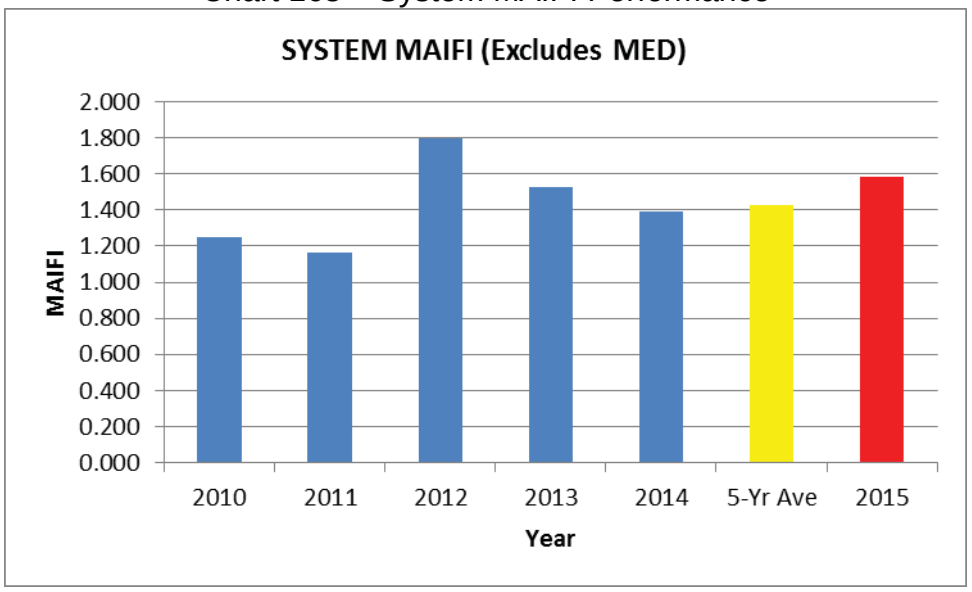
Table 9: System MAIFI Performance

Year	Division	SAIDI	SAIFI	MAIFI	CAIDI
2010	SYSTEM	130.3	1.106	1.250	117.8
2011	SYSTEM	109.6	0.974	1.163	112.5
2012	SYSTEM	110.7	1.036	1.796	106.8
2013	SYSTEM	95.8	0.969	1.523	98.9
2014	SYSTEM	90.1	0.877	1.390	102.8
5-Yr Ave	10-14 Avg	107.3	0.992	1.424	107.8
2015	SYSTEM	80.7	0.786	1.584	102.7
	% Difference	-24.8%	-20.8%	11.2%	-4.7%

System MAIFI Performance

System MAIFI performance of 1.584 was within the range of the past five years but was 0.16 (or 11.2%) higher than the previous 5-year average of 1.424 as shown in the table above and illustrated in the figure below.

Chart 163 – System MAIFI Performance



This reflects both improvement in the ability to record when a momentary has occurred, and PG&E's success in shortening the duration of outages. For example, an event that would have involved a 30 minute outage in the past but, due to improved technology and the Smart Grid is now a 1 minute outage reduces SAIDI and SAIFI but increases MAIFI, as it is now considered a momentary outage.

As explained in footnote 4 on page 13, on November 18, 2011, PG&E's EON recording system was removed from service. Since then, momentary outage data is being collected from SCADA devices and through the use of SmartMeters. Data collection from the SmartMeters is more effective than the previous EON system since SmartMeters don't rely on customer

volunteers having EON devices securely connected inside their buildings. The increased frequency of momentary outages recorded in 2012 and following years does not indicate an actual increase in momentary outages in 2012 and after as compared to prior years, but is a result of this improved method for recording momentary outages.

PG&E believes that the 11% increase is due to the change in data collection methods, and not a change in performance. PG&E's 2015 System MAIFI performance (1.584) is very close to the three year average from 2012-2014 (1.570), the three years with the same data collection approach.

In addition to the change in data collection methodology, the higher than average 2015 System MAIFI was attributed to the following:

1. The November 2nd, 2015 heavy rain and lighting from the northwest storms created numerous momentary outages throughout the system and contributed 0.033 customer-interruptions to the system's MAIFI.
2. On May 7th, 2015 lighting and thunderstorms developed in the early morning of the 7th, created momentary outages throughout Central Coast, Central Valley, and Northern Region, and contributed 0.029 to the system's MAIFI.
3. On November 15th, 2015 heavy rain from the northwest storms created momentary outages throughout the system and contributed 0.023 to the system's MAIFI.
4. On December 10th lighting created numerous outages throughout the service territory and contributed 0.022 to the system's MAIFI.

2. Central Coast Division Performance Assessment

Central Coast Division CAIDI Performance

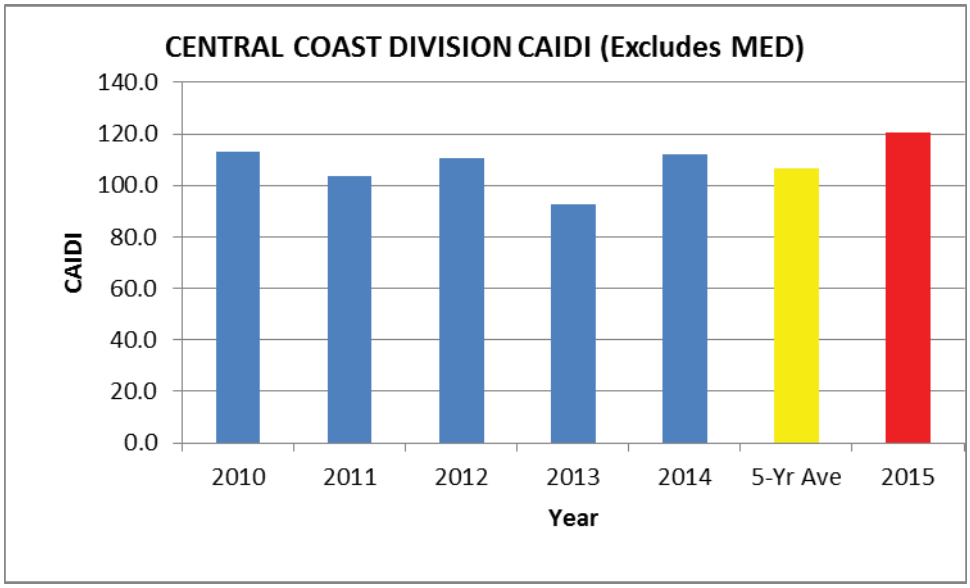
Table 10: Central Coast CAIDI Performance

Year	Division	SAIDI	SAIFI	MAIFI	CAIDI
2010	CENTRAL COAST	171.1	1.511	2.928	113.2
2011	CENTRAL COAST	156.8	1.513	1.576	103.6
2012	CENTRAL COAST	137.4	1.244	2.184	110.4
2013	CENTRAL COAST	119.7	1.291	1.958	92.7
2014	CENTRAL COAST	122.1	1.088	1.835	112.3
5-Yr Ave	10-14 Avg	141.4	1.329	2.096	106.4
2015	CENTRAL COAST	102.0	0.847	1.845	120.4
	% Difference	-27.9%	-36.3%	-12.0%	13.1%

Central Coast Division CAIDI Performance

Central Coast Division's 2015 CAIDI performance of 120.4 minutes was 14 minutes (or 13.1%) higher than the previous 5-year average of 106.4 as shown in the table above and illustrated in the figure below.

Chart 164 – Central Coast Division CAIDI Performance



The higher than average 2015 Central Coast CAIDI was attributed to the following:

1. On September 19th the Tassajara wildfires in Monterey County caused by a third party began near a wooden pole on Laureles 1111 distribution circuit. Damage to the Laureles 1111 circuit was substantial, and resulted in an extended outage affecting 521 customers. The total number of customer-minutes for which customers on that feeder did not have power was 869,818 minutes, or an average of 1,670 minutes for those 521 customers. If this event were not included, the Central Coast Division CAIDI would have been 117.1 minutes, a drop of 3.3 minutes.

Diablo Division MAIFI Performance

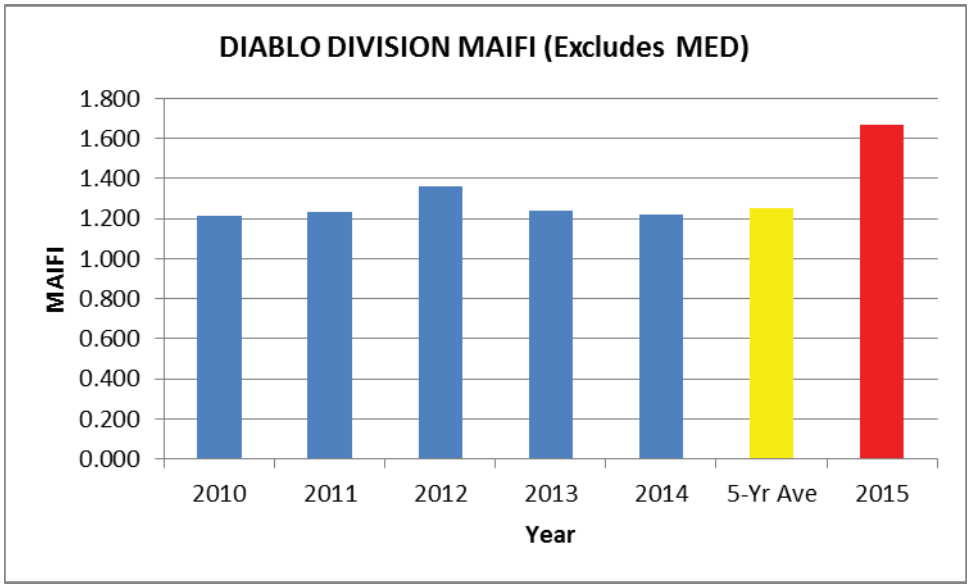
Table 11: Diablo Division MAIFI Performance

Year	Division	SAIDI	SAIFI	MAIFI	CAIDI
2010	DIABLO	104.3	1.225	1.216	85.1
2011	DIABLO	66.8	0.808	1.235	82.7
2012	DIABLO	98.8	1.186	1.363	83.3
2013	DIABLO	80.4	1.001	1.237	80.3
2014	DIABLO	66.1	0.892	1.220	74.1
5-Yr Ave	10-14 Avg	83.3	1.022	1.254	81.1
2015	DIABLO	74.0	0.856	1.669	86.5
	% Difference	-11.1%	-16.3%	33.1%	6.7%

Diablo Division MAIFI Performance

Diablo Division's 2015 MAIFI performance of 1.669 was higher than the previous 5-year average of 1.254 (or 33.1%) as shown in the table above and illustrated in the figure below.

Chart 165 – Diablo Division MAIFI Performance



The higher than average 2015 Diablo Division MAIFI was attributed to the following:

1. On June 22nd, 2015 momentary outages on the Pittsburg-Kirker- USP 115 KV line were caused by birds on the transmission structures contributing 0.082 customer-interruptions to Diablo's MAIFI.
2. On July 17th, 2015 there are numerous distribution momentary outages on the Contra Costa 2116 circuit due to birds. On the same day, the Willow Pass 2107 and Willow Pass 2108 circuits had momentary outages of unknown cause. These contributed 0.063 customer-

interruptions to Diablo's MAIFI.

3. On November 2nd, 2015 heavy rain and lighting created numerous momentary outages on the Balfour 1101, Brentwood 2105, Rossmoor 1103, Lake Wood 2224, and Tide Water 2106 circuits. These contributed 0.059 customer-interruptions to Diablo's MAIFI.
4. On September 27th, 2015 three feeders (Willow Pass 2107, 2108, and Tide Water 2108) experienced momentary outages due to squirrel activities in the area, contributing 0.043 customer-interruptions to Diablo's MAIFI.
5. On December 23rd, 2015 Rossmoor 1102 and 1107 experienced momentary outages due to an unknown cause for Rossmoor 1102, and fire burning on cross-arm for Rossmoor 1107 contributing 0.036 customer-interruptions to the Diablo's MAIFI.
6. On January 22nd, 2015 Tide Water 2107 experienced a momentary outage of unknown cause contributing to 0.035 customer-interruptions to the Diablo's MAIFI.

4. Kern Division Performance Assessment

Kern Division MAIFI Performance

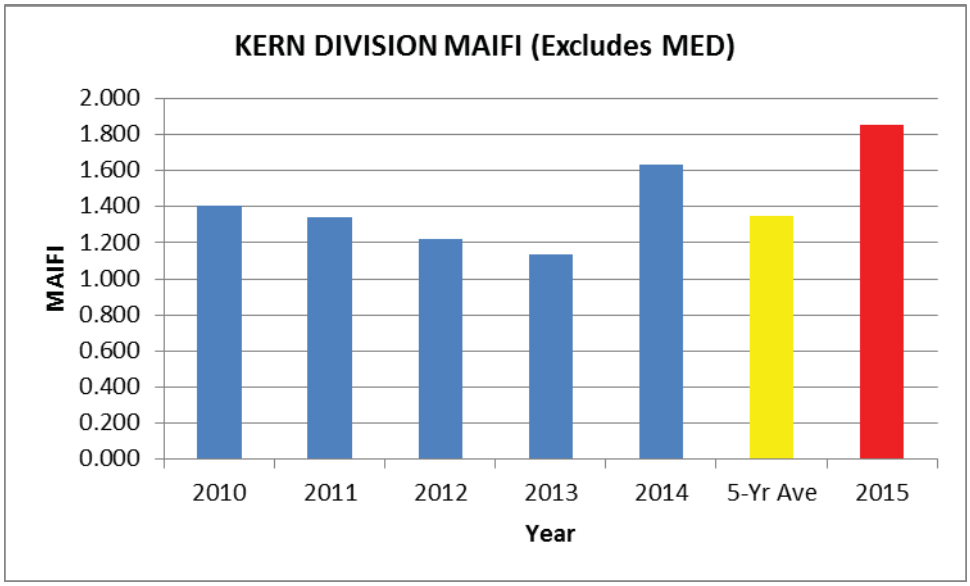
Table 12: Kern Division MAIFI Performance

Year	Division	SAIDI	SAIFI	MAIFI	CAIDI
2010	KERN	120.4	1.076	1.408	111.9
2011	KERN	112.5	0.979	1.340	114.8
2012	KERN	88.1	0.981	1.218	89.8
2013	KERN	87.5	1.027	1.133	85.2
2014	KERN	81.0	0.936	1.635	86.5
5-Yr Ave	10-14 Avg	97.9	1.000	1.347	97.6
2015	KERN	80.3	0.862	1.850	93.2
	% Difference	-18.0%	-13.8%	37.4%	-4.5%

Kern Division MAIFI Performance

Kern Division's 2015 MAIFI performance of 1.85 was above the range of the past five years, and it was higher than the previous 5-year average of 1.347 (or 37.4%) as shown in the table above and illustrated in the figure below.

Chart 166 – Kern Division MAIFI Performance



The higher than average 2015 Kern Division MAIFI was attributed to the following:

1. On February 10th at approximately 04:02 AM the 115 kV Kern – Front line circuit breakers opened creating a momentary interruption at Kern and Front substations. This interruption was of "unknown cause" and contributed 0.411 customer-interruptions to Kern's MAIFI.

5. Mission Division Performance Assessment

Mission Division MAIFI Performance

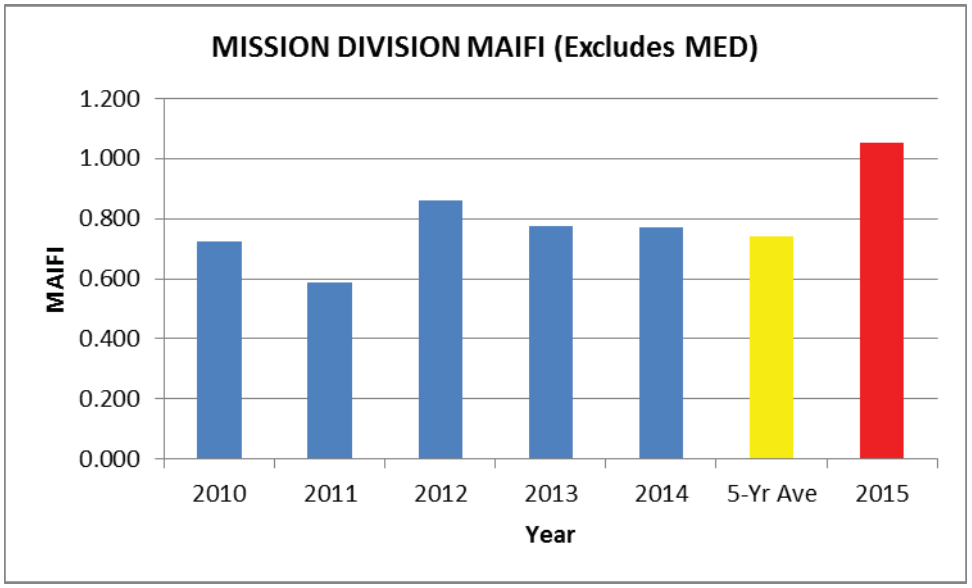
Table 13: Mission Division MAIFI Performance

Year	Division	SAIDI	SAIFI	MAIFI	CAIDI
2010	MISSION	101.4	0.910	0.723	111.5
2011	MISSION	62.9	0.781	0.586	80.6
2012	MISSION	91.2	0.905	0.860	100.7
2013	MISSION	67.8	0.736	0.775	92.1
2014	MISSION	62.9	0.672	0.770	93.6
5-Yr Ave	10-14 Avg	77.2	0.801	0.743	95.7
2015	MISSION	56.7	0.543	1.054	104.4
	% Difference	-26.6%	-32.2%	41.9%	9.1%

Mission Division MAIFI Performance

Mission Division's 2015 MAIFI performance of 1.054 was above the range of the past five years, and it was higher than the previous 5-year average of 0.743 (or 41.9%) as shown in the table above and illustrated in the figure below.

Chart 167 – Mission Division MAIFI Performance



The higher than average 2015 Mission Division MAIFI was attributed to the following:

1. The December 22nd storms caused momentary interruptions to the Mt. Eden 1104 and San Leandro 1114 feeders, which contributed 0.045 customer-interruptions to Mission division's MAIFI.
2. On August 30th, 2015 a metallic balloon was the cause of the outages outside San Ramon substation contributing 0.038 customer-interruptions to Mission's MAIFI.
3. On September 3rd, 2015 the Jarvis 1108 and Las Positas 2105 feeders had momentary

outages of “unknown cause”, which contributed 0.037 customer-interruptions to Mission’s MAIFI.

4. On July 30th, 2015 Mt. Eden 1106, 1107, 1108, and San Leandro 1114 feeders had numerous momentary outages of “unknown cause” which contributed 0.034 customer-interruptions to Mission’s MAIFI.
5. On July 27th, 2015 the Jarvis 1112 and Las Positas 2108 feeders had momentary outages of “unknown cause” which contributed 0.033 customer-interruptions to Mission’s MAIFI.
6. On July 16th, 2015 a metallic balloon was the primary cause for the momentary outage at Jarvis substation, and a squirrel was another cause for the momentary outage at Newark substation. Both of these events contributed 0.029 customer-interruptions to Mission’s MAIFI.
7. On July 26th, 2015 momentary outages at San Leandro substation, Bancroft 0401 feeder, San Leandro U-1116, and Ward 0401 of “unknown cause” contributed 0.021 customer-interruptions to Mission’s MAIFI.

6. North Bay Division Performance Assessment

North Bay Division MAIFI Performance

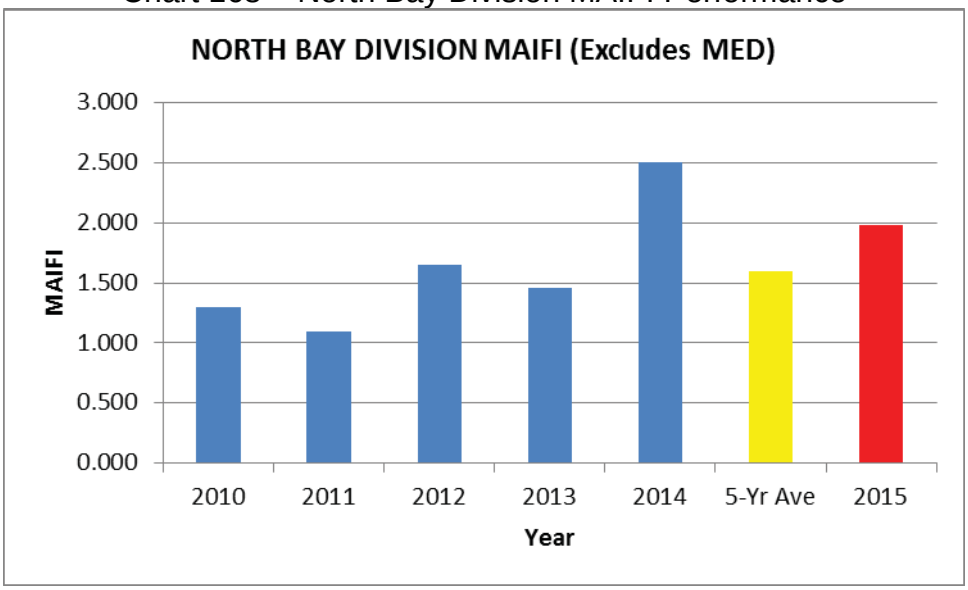
Table 14: North Bay Division MAIFI Performance

Year	Division	SAIDI	SAIFI	MAIFI	CAIDI
2010	NORTH BAY	133.9	1.035	1.294	129.3
2011	NORTH BAY	110.7	1.074	1.094	103.1
2012	NORTH BAY	109.7	0.791	1.646	138.8
2013	NORTH BAY	101.8	0.910	1.455	111.9
2014	NORTH BAY	114.6	0.875	2.505	131.0
5-Yr Ave	10-14 Avg	114.1	0.937	1.599	122.8
2015	NORTH BAY	97.4	0.904	1.977	107.8
	% Difference	-14.7%	-3.5%	23.7%	-12.2%

North Bay Division MAIFI Performance

North Bay Division's 2015 MAIFI performance of 1.977 was within the range of the past five years but was 0.378 (or 23.7%) higher than the previous 5-year average of 1.599 as shown in the table above and illustrated in the figure below.

Chart 168 – North Bay Division MAIFI Performance



The higher than average 2015 North Bay Division MAIFI was attributed to the following:

1. The November 2nd, 2015 storm event brought lighting and heavy rain to North Bay Division, causing numerous momentary outages at various substations within the division which contributed 0.213 customer-interruptions to North Bay's MAIFI.
2. On October 10th, 2015 a momentary outage of "unknown cause" on the 115 KV Ignacio – Mare Island #2 transmission contributed 0.192 customer-interruptions to the North Bay's MAIFI.

7. Peninsula Division Performance Assessment

Peninsula Division MAIFI Performance

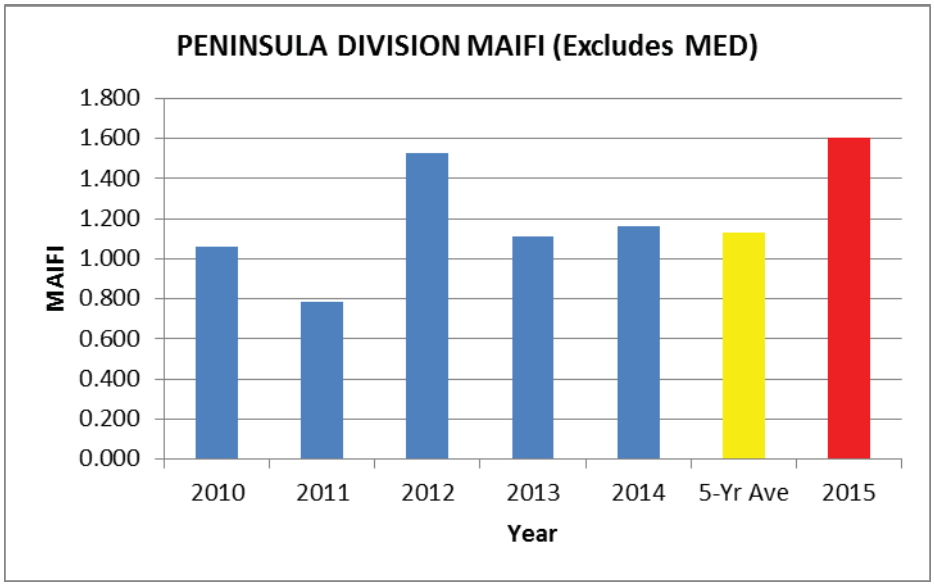
Table 15: Peninsula Division MAIFI Performance

Year	Division	SAIDI	SAIFI	MAIFI	CAIDI
2010	PENINSULA	117.9	1.324	1.060	89.0
2011	PENINSULA	83.8	1.047	0.782	80.0
2012	PENINSULA	86.8	0.999	1.528	86.9
2013	PENINSULA	70.1	0.785	1.114	89.4
2014	PENINSULA	77.1	0.898	1.164	85.9
5-Yr Ave	10-14 Avg	87.1	1.011	1.130	86.2
2015	PENINSULA	60.5	0.752	1.602	80.4
	% Difference	-30.6%	-25.6%	41.8%	-6.8%

Peninsula Division MAIFI Performance

Peninsula Division's 2015 MAIFI performance of 1.602 was above the range of the past five years and was 0.472 (or 41.8%) higher than the previous 5-year average of 1.13 as shown in the table above and illustrated in the figure below.

Chart 169 – Peninsula Division MAIFI Performance



The higher than average 2015 Peninsula Division MAIFI was attributed to the following:

1. On November 9th, 2015 storms with lighting and heavy rain caused momentary outages on the Sneath Lane – Pacifica 60 KV transmission line which contributed 0.118 customer-interruptions to Peninsula's MAIFI.
2. On November 15th, 2015 storms with heavy rain from the south of the service territory caused numerous 4 kV and 12 kV breaker level momentary outages which contributed 0.084 customer-interruptions to Peninsula's MAIFI.
3. On August 28th, 2015 at approximately 09:29 PM, a contractor's equipment hit the base of a

steel tower of the 115 kV line San Mateo – Martin #4 caused numerous distribution lines to have momentary outages which contributed 0.06 customer-interruptions to Peninsula's MAIFI.

4. On October 15th, 2015 lightning caused momentary outages contributing 0.047 customer-interruptions to Peninsula's MAIFI.
5. On September 26th, 2015, an operator error caused a momentary outage to the Glenwood – Menlo transmission line which contributed 0.045 customer-interruptions to Peninsula's MAIFI.

8. San Francisco Division Performance Assessment

San Francisco Division MAIFI Performance

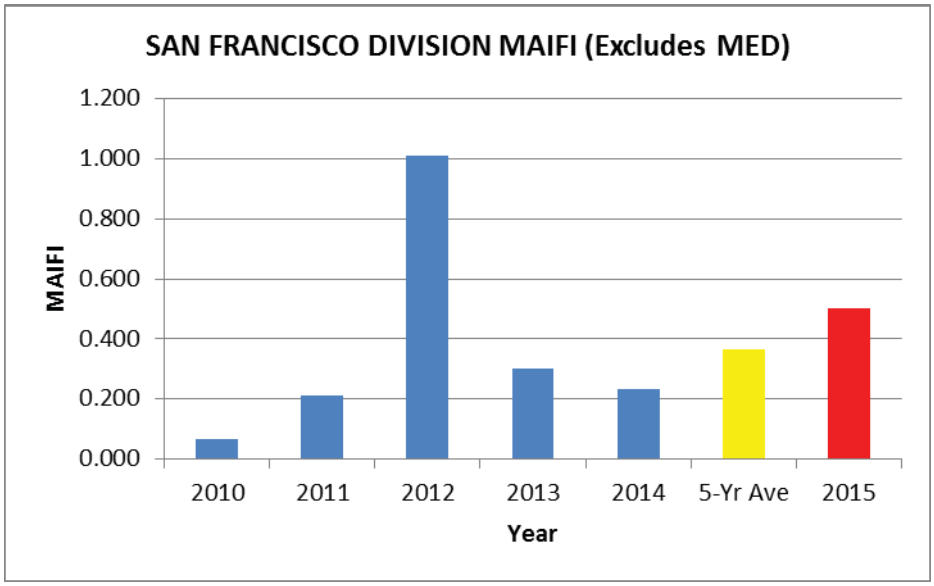
Table 16: San Francisco Division MAIFI Performance

Year	Division	SAIDI	SAIFI	MAIFI	CAIDI
2010	SAN FRANCISCO	49.6	0.652	0.066	76.0
2011	SAN FRANCISCO	45.3	0.540	0.211	83.9
2012	SAN FRANCISCO	47.0	0.570	1.008	82.6
2013	SAN FRANCISCO	52.0	0.604	0.302	86.1
2014	SAN FRANCISCO	41.5	0.457	0.235	90.8
5-Yr Ave	10-14 Avg	47.1	0.565	0.364	83.9
2015	SAN FRANCISCO	33.9	0.504	0.501	67.2
	% Difference	-28.0%	-10.7%	37.5%	-19.9%

San Francisco Division MAIFI Performance

San Francisco Division's 2015 MAIFI performance of 0.501 was within the range of the past five years but was 0.137 (or 37.5%) higher than the previous 5-year average of 0.364 as shown in the table above and illustrated in the figure below.

Chart 170 – San Francisco Division MAIFI Performance



The higher than average 2015 San Francisco Division MAIFI was attributed to the following:

1. On December 11th, 2015 lightning caused a momentary outage to the P-1106 feeder which contributed 0.049 customer-interruptions to San Francisco's MAIFI.
2. On November 10th, 2015 a momentary outage at Station A of an "unknown cause" contributed 0.036 customer-interruptions to San Francisco's MAIFI.
3. On November 24th, 2015 storm related activities caused momentary outages to the Station Y-1119 feeder which contributed 0.029 customer-interruptions to the San Francisco's MAIFI.

9. San Jose Division Performance Assessment

San Jose Division MAIFI Performance

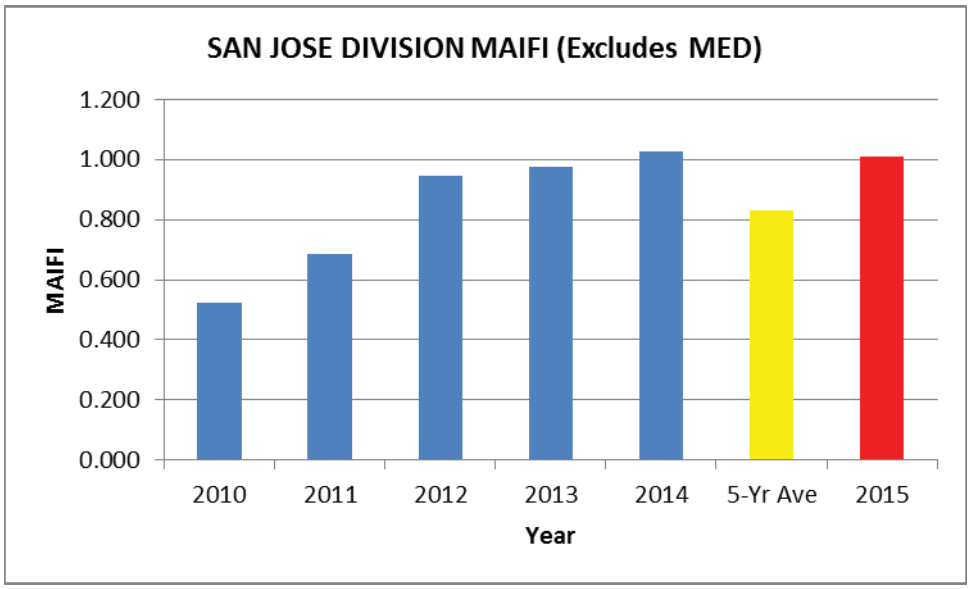
Table 17: San Jose Division MAIFI Performance

Year	Division	SAIDI	SAIFI	MAIFI	CAIDI
2010	SAN JOSE	69.4	0.758	0.525	91.6
2011	SAN JOSE	101.5	0.900	0.685	112.8
2012	SAN JOSE	80.6	0.793	0.945	101.6
2013	SAN JOSE	96.7	0.914	0.977	105.7
2014	SAN JOSE	76.0	0.806	1.026	94.4
5-Yr Ave	10-14 Avg	84.8	0.834	0.832	101.2
2015	SAN JOSE	65.9	0.678	1.008	97.2
	% Difference	-22.3%	-18.7%	21.2%	-4.0%

San Jose Division MAIFI Performance

San Jose Division's 2015 MAIFI performance of 1.008 was above the range of the past five years and higher than the previous 5-year average of 0.176 (or 21.2%) as shown in the table above and illustrated in the figure below.

Chart 171 – San Jose Division MAIFI Performance



The higher than average 2015 San Jose Division MAIFI was attributed to the following:

1. On November 15th, 2015 heavy rain and windy conditions caused numerous distribution momentary outages to the Evergreen and Stone substations. In addition, a momentary outage on the Swift 2107 feeder contributed 0.032 customer-interruptions at San Jose's MAIFI.
2. On October 22nd, 2015 the Edenvale 2108, 2109, and 2110 feeders had momentary outages of an "unknown cause" which contributed 0.031 customer-interruptions at San Jose's MAIFI.
3. On June 28th, 2015 the Evergreen 2103, Edenvale 2108, and McKee 1111 feeders had momentary outages due to various causes which contributed 0.03 customer-interruptions at San Jose's MAIFI.

10. Sierra Division Performance Assessment

Sierra Division MAIFI Performance

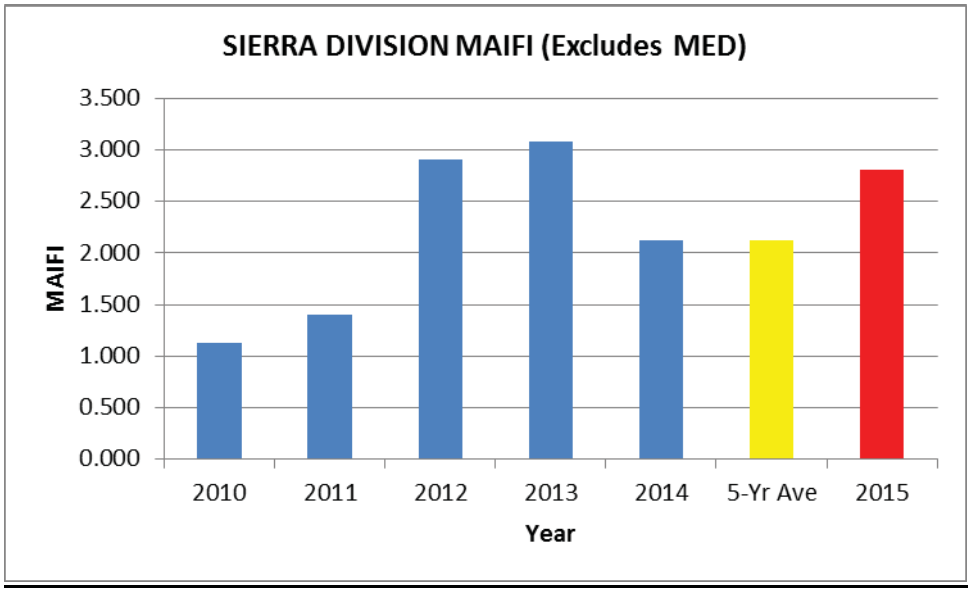
Table 18: Sierra Division MAIFI Performance

Year	Division	SAIDI	SAIFI	MAIFI	CAIDI
2010	SIERRA	194.0	1.332	1.124	145.6
2011	SIERRA	179.5	1.168	1.401	153.7
2012	SIERRA	182.4	1.322	2.906	137.9
2013	SIERRA	109.9	1.279	3.085	85.9
2014	SIERRA	142.2	1.210	2.128	117.5
5-Yr Ave	10-14 Avg	161.6	1.262	2.129	128.1
2015	SIERRA	123.2	1.115	2.813	110.5
	% Difference	-23.8%	-11.7%	32.1%	-13.8%

Sierra Division MAIFI Performance

Sierra Division's 2015 MAIFI performance of 2.813 was within the range of the past five years but was 0.684 (or 32.1%) higher than the previous 5-year average of 2.129 as shown in the table above and illustrated in the figure below.

Chart 172 – Sierra Division MAIFI Performance



The higher than average 2015 Sierra Division MAIFI was attributed to the following:

1. On May 7th, 2015 rain and lightning storm caused numerous transmission momentary outages to the Drum – Higgins 115 kV line, Drum - Rio – OSO #2 tap line, and the Drum – Grass Valley 60 kV line. These outages contributed 0.406 customer-interruptions to Sierra's MAIFI.
2. On June 5th, 2015 lighting activity caused numerous momentary outages to the Drum – Wiemar 60 kV and Colgate – Allegheny 60 kV lines. These outages contributed 0.147customer-interruptions to Sierra's MAIFI.

11. Stockton Division Performance Assessment

Stockton Division MAIFI Performance

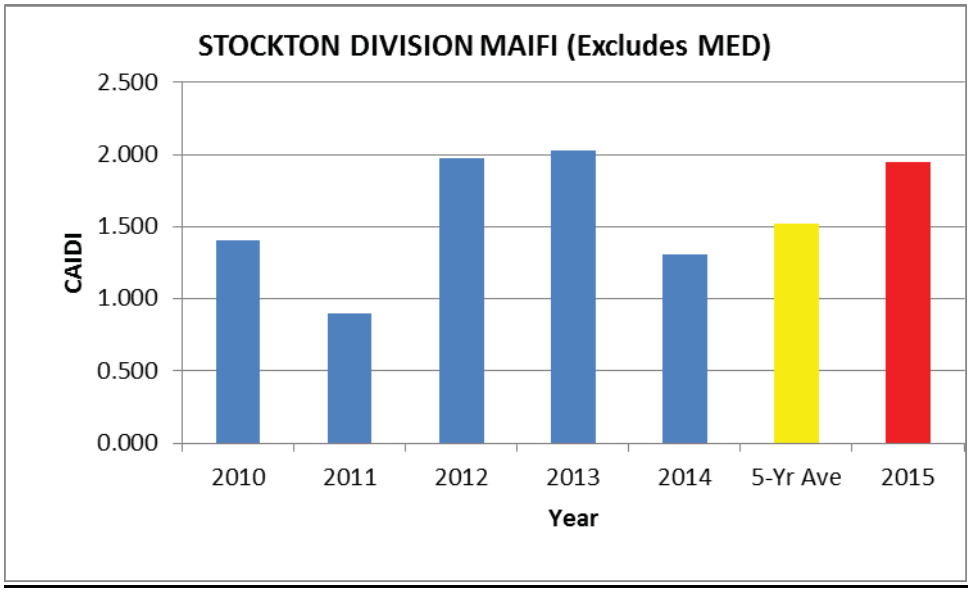
Table 19: Stockton Division MAIFI Performance

Year	Division	SAIDI	SAIFI	MAIFI	CAIDI
2010	STOCKTON	166.2	1.310	1.402	126.8
2011	STOCKTON	180.5	1.234	0.898	146.2
2012	STOCKTON	91.1	0.993	1.972	91.8
2013	STOCKTON	106.5	1.427	2.025	74.6
2014	STOCKTON	89.7	0.709	1.309	126.4
5-Yr Ave	10-14 Avg	126.8	1.135	1.521	113.2
2015	STOCKTON	96.9	0.874	1.947	110.9
	% Difference	-23.6%	-23.0%	28.0%	-2.0%

Stockton Division MAIFI Performance

Stockton Division's 2015 MAIFI performance of 1.947 was within the range of the past five years but was 0.426 (or 28.0%) higher than the previous 5-year average of 1.521 as shown in the table above and illustrated in the figure below.

Chart 173 – Stockton Division MAIFI Performance



The higher than average 2015 Stockton Division MAIFI was attributed to the following:

1. On April 30th, 2015 there was a transmission momentary outage on the Mormon – Weber line due to a third party vehicle which contributed 0.185 customer-interruptions to Stockton's MAIFI.
2. On April 25th, 2015 experienced strong wind conditions causing momentary outages to the Martel 1101, Linden 1103, and Salt Spring 2101 feeders which contributed 0.142 customer-interruptions to Stockton's MAIFI.

ii. 2015 Excludable Major Event Day (MED) CAIDI Performance

Excludable Major Event Day (MED) In 2015

This section contains PG&E's report on weather related excludable major event day (MED) for each division in which CAIDI[9] varied by 25 percent or more in the division benchmark, as required by Decision 04-10-034 and Decision 16-01-008, Appendix B, footnote 6. Per D.04-10-034, the division benchmark is calculated from the rolling average of the prior 10 weather-related excludable major events.[10] PG&E is also required by D.04-10-034 to provide such a report for the system, where the system performance varies by more than 10 percent from the rolling average of the prior 10 weather-related system-wide excludable major event days, whichever yields more event days.

There were six major events, 9 Major Event Days in total, in 2015.

Table 20 – Summary MED days

2015 Major Events	MED
February 6-8, 2015	1
	2
	3
April 6, 2015	4
June 8,2015	5
July 18-19, 2015	6
	7
December 13, 2015	8
December 24, 2015	9

9 Per Decision 16-01-008, Appendix B footnote 6, Decision 04-10-034 only applies to PG&E:

- Investigate and report on all weather-related excludable major events for each division in which CAIDI varies by 25 percent or more from the division benchmark. The division benchmarks are calculated from the rolling average of the prior 10 weather-related excludable events as defined by IEEE 1366.

10 A major event is based on the IEEE definition. As in prior reports, PG&E is using the "prior ten weather related excludable major events" prior to the calendar year that is the subject of the report.

The first major event days of the year, February 6th – 8th, 2015, involved a series of strong Pacific storms that moved into PG&E's service territory producing heavy rain and south winds. South wind gusts near fifty mph were observed along the coast, and wind gusts near sixty mph were observed in the northern Sacramento Valley. Generally, four to eight inches of rain were observed across the elevated terrain in the northern part of the territory, with some locations topped eight inches, and Bucks Lake in North Valley Division recorded nine inches of rain.

Table 21 summarizes the system and division CAIDI performances during this event and the average of the prior ten weather related major events.

(February 6-8, 2015 vs. Prior 10 MED)

System / Division	Average CAIDI of Prior 10 System / Division Specific Excludable ME	February 6-8, 2015 / Division Specific CAIDI	Percent Difference From the Prior CAIDI Average	Exceeds the Investigation Threshold?
SYSTEM	253.9	395.4	55.7%	Yes
CENTRAL COAST	278.6	128.5	-53.9%	No
DE ANZA	180.0	104.8	-41.8%	No
DIABLO	161.4	87.5	-45.8%	No
EAST BAY	212.5	76.3	-64.1%	No
FRESNO	86.8	100.8	16.2%	No
HUMBOLDT	402.4	787.7	95.8%	Yes
KERN	144.8	67.9	-53.1%	No
LOS PADRES	225.5	95.0	-57.9%	No
MISSION	111.2	51.5	-53.7%	No
NORTH BAY	277.1	254.1	-8.3%	No
NORTH VALLEY	649.0	964.9	48.7%	Yes
PENINSULA	145.9	158.1	8.4%	No
SACRAMENTO	123.9	132.0	6.6%	No
SAN FRANCISCO	240.5	135.1	-43.8%	No
SAN JOSE	114.4	123.5	8.0%	No
SIERRA	295.0	489.0	65.7%	Yes
SONOMA	265.5	248.5	-6.4%	No
STOCKTON	354.8	135.7	-61.8%	No
YOSEMITE	249.3	128.0	-48.6%	No

Table 21 – February 6-8, 2015 CAIDI Performance

1. February 6-8, 2015 Major Event Days

1.1 System CAIDI Assessment

System / Division	Major Event Day	CAIDI	SO / Day
SYSTEM	December 17, 2012	443.1	102
SYSTEM	December 21, 2012	549.2	199
SYSTEM	December 23, 2012	287.2	439
SYSTEM	April 8, 2013	167.4	447
SYSTEM	June 23, 2013	160.5	96
SYSTEM	November 21-22, 2013	254.5	419
SYSTEM	August 24, 2014	302.5	209
SYSTEM	December 3, 2014	144.1	373
SYSTEM	December 11-12, 2014	278.0	728
SYSTEM	December 30, 2014	202.6	643
	Average of 10 excludable major events	253.9	400
SYSTEM	February 6-8, 2015	395.4	540
	% Difference	55.7%	35%

Table 22 – System Historical Performance

As indicated in Table 22, the system CAIDI value of 395.4 minutes for the February 6th – 8th major event was within the range of the prior ten excludable major events. However, this CAIDI value was 55.7% higher than the 253.9 minute average of the prior 10 weather-related excludable major events.

The average number of sustained outages per day on February 6th – 8th was 35% higher than the average of the corresponding prior 10 excludable major events. Further review of this major event shows that February 6th was hardest hit with 881 sustained outages which is 220% higher than the daily average of the prior 10 major excludable events.

The high CAIDI value along with the high number of sustained outages during this event illustrates the severity of this three-day storm in comparison to the past ten weather-related events.

1.2 Humboldt Division CAIDI Assessment

System / Division	Major Event Day	CAIDI	SO / Day
HUMBOLDT	December 17, 2012	177.6	4
HUMBOLDT	December 21, 2012	136.7	14
HUMBOLDT	December 23, 2012	369.9	47
HUMBOLDT	April 8, 2013	149.5	38
HUMBOLDT	June 23, 2013	109.1	5
HUMBOLDT	November 21-22, 2013	418.2	62
HUMBOLDT	August 24, 2014	199.7	6
HUMBOLDT	December 3, 2014	145.6	7
HUMBOLDT	December 11-12, 2014	533.3	87
HUMBOLDT	December 30, 2014	205.0	6
	Average of 10 excludable major events	402.4	35
HUMBOLDT	February 6-8, 2015	787.7	104
	% Difference	95.8%	194%

Table 23 – Humboldt Division Historical Performance

As indicated in Table 23, the Humboldt division CAIDI value of 787.7 minutes for the February 6th – 8th major event exceeded the range of the prior ten excludable major events. However, this CAIDI value was 95.8% higher than the 402.4 minute average of the prior 10 weather-related excludable major events.
The average number of sustained outages per day on February 6th – 8th was 194% higher than the average of the corresponding prior 10 excludable major events.

The high CAIDI value along with the high number of sustained outages during this event illustrates the severity of this three-day storm in comparison to the past ten weather-related events.

The top four outages on February 6-8, 2015 were:

- A tree related outage on the Mendocino – Willits – Ft. Bragg transmission line affected 2,629 customers. The total customer-minutes in which the customers did not have power due to this tree related outage were 4,528,676 minutes, or an average restoration time of 1,723 minutes/customer. This transmission outage contributed 40.3 minutes to the overall February 6-8, 2015 CAIDI performance in the Humboldt division.
- The Ft. Bragg 1102 outage due to equipment failure (circuit breaker 1102/2 failed) contributed 37.5 minutes to the February 6-8, 2015 CAIDI performance in the Humboldt Division.
- The Philo 1101 feeder outage caused when a tree fell through the distribution line due to strong wind and heavy rain contributed 35.9 minutes to the overall February 6-8, 2015 CAIDI performance in the Humboldt division.
- A separate transmission line outage on the Mendocino – Willits – Ft. Bragg 60 KV line due to a tree falling into the line contributed 4.5 minutes to the overall CAIDI performance in the Humboldt division.

1.3 North Valley Division CAIDI Assessment

System / Division	Major Event Day	CAIDI	SO / Day
NORTH VALLEY	December 17, 2012	101.9	15
NORTH VALLEY	December 21, 2012	1,436.5	79
NORTH VALLEY	December 23, 2012	958.5	62
NORTH VALLEY	April 8, 2013	407.6	13
NORTH VALLEY	June 23, 2013	120.7	2
NORTH VALLEY	November 21-22, 2013	351.2	25
NORTH VALLEY	August 24, 2014	298.2	3
NORTH VALLEY	December 3, 2014	92.7	20
NORTH VALLEY	December 11-12, 2014	264.6	58
NORTH VALLEY	December 30, 2014	444.9	57
	Average of 10 excludable major events	649.0	35
NORTH VALLEY	February 6-8, 2015	964.9	71
	% Difference	48.7%	106%

Table 24 – North Valley Division Historical Performance

As indicated in Table 24, the system CAIDI value of 964.9 minutes for the February 6th – 8th major event was within the range of the prior ten excludable major events. However, this CAIDI value was 48.7% higher than the 649 minute average of the prior 10 weather-related excludable major events.
The average number of sustained outages per day on February 6th – 8th was 106% higher than the average of the corresponding prior 10 excludable major events.
The high CAIDI value along with the high number of sustained outages during this event illustrates the severity of this three-day storm in comparison to the past ten weather-related events.

The top outages on February 6-8, 2015 were:

- A tree related outage on the Caribou – Westwood transmission line contributing 138.1 minutes to the overall February 6-8, 2015 CAIDI performance in the North Valley division.
- Another tree related outage on the Caribou – Westwood #2 transmission line caused numerous 21 kV lines outages. This outage contributed 53.2 minutes to the overall February 6-8, 2015 CAIDI performance in the North Valley division.

1.4 Sierra Division CAIDI Assessment

System / Division	Major Event Day	CAIDI	SO / Day
SIERRA	December 17, 2012	137.5	4
SIERRA	December 21, 2012	195.9	10
SIERRA	December 23, 2012	290.7	32
SIERRA	April 8, 2013	153.0	7
SIERRA	June 23, 2013	95.4	2
SIERRA	November 21-22, 2013	359.8	44
SIERRA	August 24, 2014	186.6	5
SIERRA	December 3, 2014	125.6	34
SIERRA	December 11-12, 2014	220.8	77
SIERRA	December 30, 2014	339.2	103
	Average of 10 excludable major events	295.0	30
SIERRA	February 6-8, 2015	489.0	40
	% Difference	65.7%	34%

Table 25 – Sierra Division Historical Performance

As indicated in Table 25, the system CAIDI value of 489 minutes for the February 6th – 8th major event exceeded the range of the prior ten excludable major events and was 65.7% higher than the 253.9 minute average of the prior 10 weather-related excludable major events. The average number of sustained outages per day on February 6th – 8th was 34% higher than the average of the corresponding prior 10 excludable major events.

The high CAIDI value along with the high number of sustained outages during this event illustrates the severity of this three-day storm in comparison to the past ten weather-related events.

The top outages on February 6-8, 2015 are:

- A transmission line outage on the Columbia Hill – Pike City – Alleghany 60 KV line due to tree falling into the line contributed 25.2 minutes to the overall February 6-8, 2015 CAIDI performance in the Sierra division.
- Numerous distribution lines outages, i.e. Brunswick 1102, 1103, 1105, Placerville 2106, Apple Hill 1104, Grass Valley 1103, and Columbia Hill 1101 due to trees falling into lines contributed 116.2 minutes to the overall February 6-8, 2015 CAIDI performance in the Sierra Division.
- A transmission outage on the Pike City – Alleghany 60 KV line of “unknown cause” contributed 23.1 minutes to the overall February 6-8, 2015 CAIDI performance in the Sierra division.

2. April 6, 2015 Major Event Day

The second major event day was on April 6, 2015, a late winter-storm moved through the service area producing moderate rain showers, with gusty south winds from thirty to forty mph, and thunderstorms. Nearly one thousand cloud-to-ground lightning strikes were recorded across the Sacramento Valley and San Joaquin Valleys. Table 26 summarizes the system and division CAIDI performances during this event and the average of the prior ten weather related major events.

(April 6, 2015 vs. Prior 10 MED)

System / Division	Average CAIDI of Prior 10 System / Division Specific Excludable ME	April 6, 2015 / Division Specific CAIDI	Percent Difference From the Prior CAIDI Average	Exceeds the Investigation Threshold?
SYSTEM	253.9	193.5	-23.8%	No
CENTRAL COAST	278.6	98.0	-64.8%	No
DE ANZA	180.0	46.4	-74.2%	No
DIABLO	161.4	112.0	-30.6%	No
EAST BAY	212.5	0.0	-100.0%	No
FRESNO	86.8	13.8	-84.1%	No
HUMBOLDT	402.4	433.8	7.8%	No
KERN	144.8	66.9	-53.8%	No
LOS PADRES	225.5	169.8	-24.7%	No
MISSION	111.2	74.3	-33.2%	No
NORTH BAY	277.1	124.0	-55.3%	No
NORTH VALLEY	649.0	205.5	-68.3%	No
PENINSULA	145.9	216.0	48.1%	Yes
SACRAMENTO	123.9	9.8	-92.1%	No
SAN FRANCISCO	240.5	0.0	-100.0%	No
SAN JOSE	114.4	94.8	-17.1%	No
SIERRA	295.0	48.6	-83.5%	No
SONOMA	265.5	117.8	-55.6%	No
STOCKTON	354.8	43.7	-87.7%	No
YOSEMITE	249.3	111.2	-55.4%	No

Table 26 – April 6, 2015 CAIDI Performance

2.1 Peninsula Division CAIDI Assessment

System / Division	Major Event Day	CAIDI	SO / Day
PENINSULA	December 2, 1012	107.8	50
PENINSULA	December 17, 2012	90.4	2
PENINSULA	December 21, 2012	65.7	6
PENINSULA	December 23, 2012	83.3	15
PENINSULA	April 8, 2013	247.5	66
PENINSULA	June 23, 2013	528.4	2
PENINSULA	November 21-22, 2013	116.5	4
PENINSULA	December 3, 2014	179.2	27
PENINSULA	December 11-12, 2014	125.0	39
PENINSULA	December 30, 2014	113.4	23
	Average of 10 excludable major events	145.9	23
PENINSULA	April 6, 2015	216.0	1
	% Difference	48.1%	-96%

Table 27 – Peninsula Division Historical Performance

As indicated in Table 27, the Peninsula Division CAIDI value of 216 minutes for the April 6th, 2015 major event day was within the range of the prior ten excludable major events. However, this CAIDI value was 48.1% higher than the 145.9 minutes average of the prior 10 weather-related excludable major events.

- This higher CAIDI value was due to an outage on the Menlo 1102 circuit when a bird contacted a transformer, causing the fuse to blow.

3. June 8, 2015 Major Event Day

The third major event day was on June 8th, 2016 caused by a strong high pressure ridge developed over the territory and produced the first significant heat of the season, with Redding, Fresno, Livermore, and Sacramento recorded over 100 degrees. Table 28 summarizes the system and division CAIDI performances during this event and the average of the prior ten weather related major events.

(June 8, 2015 vs. Prior 10 MED)

System / Division	Average CAIDI of Prior 10 System / Division Specific Excludable ME	June 8, 2015 / Division Specific CAIDI	Percent Difference From the Prior CAIDI Average	Exceeds the Investigation Threshold?
SYSTEM	253.9	122.6	-51.7%	No
CENTRAL COAST	278.6	22.9	-91.8%	No
DE ANZA	180.0	395.8	119.9%	Yes
DIABLO	161.4	104.5	-35.3%	No
EAST BAY	212.5	113.9	-46.4%	No
FRESNO	86.8	67.3	-22.5%	No
HUMBOLDT	402.4	142.4	-64.6%	No
KERN	144.8	325.4	124.7%	Yes
LOS PADRES	225.5	260.3	15.4%	No
MISSION	111.2	159.7	43.7%	Yes
NORTH BAY	277.1	245.7	-11.3%	No
NORTH VALLEY	649.0	110.1	-83.0%	No
PENINSULA	145.9	69.5	-52.4%	No
SACRAMENTO	123.9	178.9	44.4%	Yes
SAN FRANCISCO	240.5	0.0	-100.0%	No
SAN JOSE	114.4	139.2	21.7%	No
SIERRA	295.0	188.9	-36.0%	No
SONOMA	265.5	194.2	-26.9%	No
STOCKTON	354.8	132.6	-62.6%	No
YOSEMITE	249.3	101.4	-59.3%	No

Table 28 – June 8, 2015 CAIDI Performance

3.1 De Anza Division CAIDI Assessment

System / Division	Major Event Day	CAIDI	SO / Day
DE ANZA	December 2, 1012	210.9	20
DE ANZA	December 17, 2012	57.9	10
DE ANZA	December 21, 2012	188	7
DE ANZA	December 23, 2012	183.7	18
DE ANZA	April 8, 2013	36.1	2
DE ANZA	June 23, 2013	542.3	1
DE ANZA	November 21-22, 2013	277.3	2
DE ANZA	December 3, 2014	150.4	36
DE ANZA	December 11-12, 2014	192.7	13
DE ANZA	December 30, 2014	235.2	17
	Average of 10 excludable major events	180.0	13
DE ANZA	June 8, 2015	395.8	9
	% Difference	119.9%	-28%

Table 29 – De Anza Division Historical Performance

As indicated in Table 33, the De Anza Division CAIDI value of 395.8 minutes for the June 8th , 2015 major event day was within the range of the prior ten excludable major events. However, this CAIDI value was 119.9% higher than the 180 minutes average of the prior 10 weather-related excludable major events.

- This higher CAIDI value was due to an outage on the Vasona 1108 circuit. This outage was due to a failed underground transformer. Without this event, the June 8th CAIDI performance would have been 177.8 minutes.

3.2 Kern Division CAIDI Assessment

System / Division	Major Event Day	CAIDI	SO / Day
Kern	December 17, 2012	97.7	4
Kern	December 21, 2012	416.5	3
Kern	December 23, 2012	91.3	3
Kern	April 8, 2013	72.5	7
Kern	June 23, 2013	158.6	5
Kern	November 21-22, 2013	78.2	22
Kern	August 24, 2014	183.4	2
Kern	December 3, 2014	129.9	3
Kern	December 11-12, 2014	163.2	61
Kern	December 30, 2014	20.0	6
	Average of 10 excludable major events	144.8	17
Kern	June 8, 2015	325.4	8
	% Difference	124.7%	-52%

Table 30 – Kern Division Historical Performance

As indicated in Table 30, the Kern Division CAIDI value of 325.4 minutes for the June 8th, 2015 major event day was within the range of the prior ten excludable major events. However, this CAIDI value was 124.7% higher than the 144.8 minutes average of the prior 10 weather-related excludable major events.

- This higher CAIDI value was due to two failed underground transformers, one on the Stockdale 2105 circuit and the other on the Stockdale 2019 circuit. These two outages contributed 195 minutes to the overall June 8th CAIDI performance.

3.3 Mission Division CAIDI Assessment

System / Division	Major Event Day	CAIDI	SO / Day
MISSION	December 17, 2012	168.2	1
MISSION	December 21, 2012	381.9	3
MISSION	December 23, 2012	101.2	7
MISSION	April 8, 2013	67.9	11
MISSION	June 23, 2013	101.3	3
MISSION	November 21-22, 2013	85.2	15
MISSION	August 24, 2014	87.1	3
MISSION	December 3, 2014	240.7	4
MISSION	December 11-12, 2014	140.7	8
MISSION	December 30, 2014	135.7	31
	Average of 10 excludable major events	111.2	9
MISSION	June 8, 2015	159.7	12
	% Difference	43.7%	33%

Table 31 – Mission Division CAIDI Assessment

As indicated in Table 31, Mission division's CAIDI value of 159.7 for the June 8th major event was within the range of the prior ten excludable major events. However, this CAIDI value was 43.7% higher than the 111.2 minute average of the prior 10 weather-related excludable major events and related to one outage.

This higher CAIDI value was associated with the following top five outages:

- Dixon Landing 2106 circuit – due to a failed underground cable.
- Dumbarton 1102 circuit – due to a burned-open jumper.
- Vineyard 2107 circuit – due to a failed underground transformer.
- San Ramon 2104 circuit – due to a failed overhead transformer.
- Newark 1106 circuit – due to a failed pad-mounted transformer.

  These five outages contributed 21.2 minutes to the overall June 8th CAIDI performance.

3.4 Sacramento Division CAIDI Assessment

System / Division	Major Event Day	CAIDI	SO / Day
SACRAMENTO	December 17, 2012	79.1	11
SACRAMENTO	December 21, 2012	116.3	8
SACRAMENTO	December 23, 2012	137.3	43
SACRAMENTO	April 8, 2013	116.1	40
SACRAMENTO	June 23, 2013	48.4	8
SACRAMENTO	November 21-22, 2013	139.0	32
SACRAMENTO	August 24, 2014	40.3	9
SACRAMENTO	December 3, 2014	222.2	23
SACRAMENTO	December 11-12, 2014	150.7	19
SACRAMENTO	December 30, 2014	91.1	34
	Average of 10 excludable major events	123.9	23
SACRAMENTO	June 8, 2015	178.9	18
	% Difference	44.4%	-22%

Table 32 – Sacramento Division CAIDI Assessment

As indicated in Table 32,The Sacramento Division CAIDI value of 178.9 minutes for the June 8th, 2015 major event day was within the range of the prior ten excludable major events. However, this CAIDI value was 44.4% higher than the 123.9 minutes average of the prior 10 weather-related excludable major events.

This higher CAIDI value was due to the following top four outages:

- Suisun 1105 circuit – due to a failed overhead transformer.
- Peabody 2105 circuit – due to a failed pad-mounted transformer.
- Peabody 2107 circuit – due to a failed underground transformer.
- Suisun 1108 circuit – due to a failed overhead transformer.

These four outages contributed 36.1 minutes to the overall June 8th CAIDI performance.

4. July 18, and July 19, 2015 Major Event Days

The fourth major event day occurred on July 18th thru July 19th, 2015. Tropical moisture associated with former Hurricane Dolores drifted over service territory, creating atmospheric instability combined with abundant tropical moisture, initiated a widespread thunderstorm outbreak across the San Joaquin Valley and Central Coast. Table 33 summarizes the system and division CAIDI performances during this event and the average of the prior ten weather related major events.

(July 18-19, 2015 vs. Prior 10 MED)

System / Division	Average CAIDI of Prior 10 System / Division Specific Excludable ME	July 18-19, 2015 / Division Specific CAIDI	Percent Difference From the Prior CAIDI Average	Exceeds the Investigation Threshold?
SYSTEM	253.9	169.4	-33.3%	No
CENTRAL COAST	278.6	81.7	-70.7%	No
DE ANZA	180.0	146.7	-18.5%	No
DIABLO	161.4	144.8	-10.3%	No
EAST BAY	212.5	0.0	-100.0%	No
FRESNO	86.8	119.0	37.1%	Yes
HUMBOLDT	402.4	252.9	-37.1%	No
KERN	144.8	163.9	13.1%	No
LOS PADRES	225.5	437.7	94.1%	Yes
MISSION	111.2	250.2	125.1%	Yes
NORTH BAY	277.1	161.4	-41.8%	No
NORTH VALLEY	649.0	119.6	-81.6%	No
PENINSULA	145.9	42.0	-71.2%	No
SACRAMENTO	123.9	418.6	237.9%	Yes
SAN FRANCISCO	240.5	108.3	-55.0%	No
SAN JOSE	114.4	106.6	-6.7%	No
SIERRA	295.0	12.4	-95.8%	No
SONOMA	265.5	71.2	-73.2%	No
STOCKTON	354.8	173.8	-51.0%	No
YOSEMITE	249.3	97.2	-61.0%	No

Table 33 – July 18-19, 2015 CAIDI Performance

4.1 Fresno Division CAIDI Assessment

System / Division	Major Event Day	CAIDI	SO / Day
FRESNO	December 17, 2012	84.2	10
FRESNO	December 21, 2012	68.1	9
FRESNO	December 23, 2012	40.8	9
FRESNO	April 8, 2013	110.5	27
FRESNO	June 23, 2013	27.9	6
FRESNO	November 21-22, 2013	74.7	20
FRESNO	August 24, 2014	22.6	3
FRESNO	December 3, 2014	65.2	8
FRESNO	December 11-12, 2014	82.2	27
FRESNO	December 30, 2014	392.1	4
	Average of 10 excludable major events	86.8	14
FRESNO	July 18-19, 2015	119.0	73
	% Difference	37.1%	418%

Table 34 – Fresno Division CAIDI Assessment

As indicated in Table 34, the Fresno Division CAIDI value of 119 minutes for the July 18th thru July 19th, 2015 major event day was within the range of the prior ten excludable major events. However, this CAIDI value was 37.1% higher than the 86.8 minutes average of the prior 10 weather-related excludable major events.

The average number of sustained outages per day from July 18th thru 19th, 2015 were 418% higher than the average of the corresponding prior 10 excludable major events.

This illustrates the intensity of the storm event in this division and the causes of the outages.

4.2 Los Padres Division CAIDI Assessment

System / Division	Major Event Day	CAIDI	SO / Day
LOS PADRES	December 17, 2012	195.8	2
LOS PADRES	December 21, 2012	90	1
LOS PADRES	December 23, 2012	497.7	2
LOS PADRES	April 8, 2013	60.2	13
LOS PADRES	June 23, 2013	166.6	28
LOS PADRES	November 21-22, 2013	176.4	7
LOS PADRES	August 24, 2014	125	2
LOS PADRES	December 3, 2014	137.3	4
LOS PADRES	December 11-12, 2014	479.4	55
LOS PADRES	December 30, 2014	86.0	1
	Average of 10 excludable major events	225.5	15
LOS PADRES	July 18-19, 2015	437.7	100
	% Difference	94.1%	578%

Table 35 – Los Padres Division CAIDI Assessment

As indicated in Table 35,The Los Padres Division CAIDI value of 437.7 minutes for the July 18th thru July 19th, 2015 major event day was within the range of the prior ten excludable major events. However, this CAIDI value was 94.1% higher than the 225.5 minutes average of the prior 10 weather-related excludable major events.

The average number of sustained outages per day from July 18th thru 19th, 2015 were 578% higher than the average of the corresponding prior 10 excludable major events.

The 100 sustained outages on July 18th – 19th, 2015 are higher than the average of ten prior major events (sum of all days per event) and illustrate the intensity of the storm event in this division. The top outages on July 18- 19, 2015 are:

- An outage at Paso Robles 1103 due to distribution wire on ground contributed 34.7 minutes to the July 18-19, 2015 Los Padres division CAIDI performance.
- An outage at Templeton 2113 due to various causes from fuse blown by lightning, overhead transformer blown, to unknown cause at various section of the line contributed to 21.8 minutes to the July 18-19, 2015 Los Padres division CAIDI performance.

4.3 Mission Division CAIDI Assessment

System / Division	Major Event Day	CAIDI	SO / Day
MISSION	December 17, 2012	168.2	1
MISSION	December 21, 2012	381.9	3
MISSION	December 23, 2012	101.2	7
MISSION	April 8, 2013	67.9	11
MISSION	June 23, 2013	101.3	3
MISSION	November 21-22, 2013	85.2	15
MISSION	August 24, 2014	87.1	3
MISSION	December 3, 2014	240.7	4
MISSION	December 11-12, 2014	140.7	8
MISSION	December 30, 2014	135.7	31
	Average of 10 excludable major events	111.2	9
MISSION	July 18-19, 2015	250.2	2
	% Difference	125.1%	-83%

Table 36 – Mission Division CAIDI Assessment

As indicated in Table 36, The Mission Division CAIDI value of 250.2 minutes for the July 18th thru July 19th, 2015 major event day was within the range of the prior ten excludable major events. However, this CAIDI value was 125.1% higher than the 111.2 minutes average of the prior 10 weather-related excludable major events.

This higher CAIDI value was due to the following:

- An outage on the Las Positas 2104 feeder due to an underground conductor failure. This outage contributed 28.5 minutes to the July 18-19, 2015 Mission division CAIDI performance.
- An outage on the Castro Valley 1101 feeder due to an underground transformer failure that contributed 110.8 minutes to the July 18-19, 2015 Mission division CAIDI performance.

4.4 Sacramento Division CAIDI Assessment

System / Division	Major Event Day	CAIDI	SO / Day
SACRAMENTO	December 17, 2012	79.1	11
SACRAMENTO	December 21, 2012	116.3	8
SACRAMENTO	December 23, 2012	137.3	43
SACRAMENTO	April 8, 2013	116.1	40
SACRAMENTO	June 23, 2013	48.4	8
SACRAMENTO	November 21-22, 2013	139.0	32
SACRAMENTO	August 24, 2014	40.3	9
SACRAMENTO	December 3, 2014	222.2	23
SACRAMENTO	December 11-12, 2014	150.7	18.5
SACRAMENTO	December 30, 2014	91.1	34
	Average of 10 excludable major events	123.9	23
SACRAMENTO	July 18-19, 2015	418.6	2
	% Difference	237.9%	-91%

Table 37 – Sacramento Division CAIDI Assessment

As indicated in table 37, the Sacramento Division CAIDI value of 418.6 minutes for the July 18th thru July 19th, 2015 major event day was exceeding the range of the prior ten excludable major events. This CAIDI value was 237.9% higher than the 123.9 minutes average of the prior 10 weather-related excludable major events.

This higher CAIDI value was due to the following:

- An outage on Woodland 1104 feeder when a tree fell into the line. This outage contributed 307.6 minutes to the July 18-19, 2015 Sacramento division CAIDI performance.

5. December 13, 2015 Major Event Day

The fifth major event day happened on December 13th, 2015; a strong cold front moved into the northern part of the territory and produced strong wind gusts, a period of very heavy rainfall, and significant outage activity. The front swiftly progressed south through the remainder of the territory. Widespread wind gusts from 40 - 55 mph were observed across the Sacramento Valley and Redding recorded a gust near 60 mph. Table 38 summarizes the system and division CAIDI performances during this event and the average of the prior ten weather related major events.

(December 13, 2015 vs. Prior 10 MED)

System / Division	Average CAIDI of Prior 10 System / Division Specific Excludable ME	December 13, 2015 / Division Specific CAIDI	Percent Difference From the Prior CAIDI Average	Exceeds the Investigation Threshold?
SYSTEM	253.9	127.7	-49.7%	No
CENTRAL COAST	278.6	74.2	-73.4%	No
DE ANZA	180.0	71.7	-60.2%	No
DIABLO	161.4	31.6	-80.4%	No
EAST BAY	212.5	91.1	-57.1%	No
FRESNO	86.8	23.7	-72.7%	No
HUMBOLDT	402.4	268.4	-33.3%	No
KERN	144.8	144.1	-0.5%	No
LOS PADRES	225.5	291.3	29.2%	Yes
MISSION	111.2	176.0	58.3%	Yes
NORTH BAY	277.1	146.4	-47.2%	No
NORTH VALLEY	649.0	157.9	-75.7%	No
PENINSULA	145.9	119.6	-18.0%	No
SACRAMENTO	123.9	142.3	14.9%	No
SAN FRANCISCO	240.5	144.6	-39.9%	No
SAN JOSE	114.4	77.2	-32.5%	No
SIERRA	295.0	139.2	-52.8%	No
SONOMA	265.5	230.6	-13.2%	No
STOCKTON	354.8	146.7	-58.6%	No
YOSEMITE	249.3	110.8	-55.5%	No

Table 38 – December 13, 2015 CAIDI Performance

5.1 Los Padres Division CAIDI Assessment

System / Division	Major Event Day	CAIDI	SO / Day
LOS PADRES	December 17, 2012	195.8	2
LOS PADRES	December 21, 2012	90.0	1
LOS PADRES	December 23, 2012	497.7	2
LOS PADRES	April 8, 2013	60.2	13
LOS PADRES	June 23, 2013	166.6	28
LOS PADRES	November 21-22, 2013	176.4	7
LOS PADRES	August 24, 2014	125.0	2
LOS PADRES	December 3, 2014	137.3	4
LOS PADRES	December 11-12, 2014	479.4	55
LOS PADRES	December 30, 2014	86.0	1
	Average of 10 excludable major events	225.5	15
LOS PADRES	December 13, 2015	291.3	6
	% Difference	29.2%	-59%

Table 39 – Los Padres Division CAIDI Assessment

As indicated in table 39, the Los Padres Division CAIDI value of 291.3 minutes for the December 13th, 2015 major event day was within the range of the prior ten excludable major events. However, this CAIDI value was 29.2% higher than the 225.5 minutes average of the prior 10 weather-related excludable major events.

This higher CAIDI value was due to the following:

- An outage on Santa Maria 1105 feeder due to an underground transformer failure. This outage contributed 194.5 minutes to the December 13th, 2015 Los Padres division CAIDI performance.

5.2 Mission Division CAIDI Assessment

System / Division	Major Event Day	CAIDI	SO / Day
MISSION	December 17, 2012	168.2	1
MISSION	December 21, 2012	381.9	3
MISSION	December 23, 2012	101.2	7
MISSION	April 8, 2013	67.9	11
MISSION	June 23, 2013	101.3	3
MISSION	November 21-22, 2013	85.2	15
MISSION	August 24, 2014	87.1	3
MISSION	December 3, 2014	240.7	4
MISSION	December 11-12, 2014	140.7	8
MISSION	December 30, 2014	135.7	31
	Average of 10 excludable major events	111.2	9
MISSION	December 13, 2015	176.0	6
	% Difference	58.3%	-33%

Table 40 – Mission Division CAIDI Assessment

As indicated in table 40, the Mission Division CAIDI value of 176 minutes for the December 13th, 2015 major event day was within the range of the prior ten excludable major events. However, this CAIDI value was 58.3% higher than the 111.2 minutes average of the prior 10 weather-related excludable major events.

This higher CAIDI value was due to the following:

- An outage on the Jarvis 1110 feeder due to underground switch failures. This outage contributed 83 minutes to the December 13th, 2015 Mission division CAIDI performance.

6. December 24, 2015 Major Event Day

The sixth major event day occurred on Christmas Eve. An active Christmas Eve storm moved though the territory producing low elevation snow, isolated thunderstorms, and even a pair of tornadoes. Table 41 summarizes the system and division CAIDI performances during this event and the average of the prior ten weather related major events.

(December 24, 2015 vs. Prior 10 MED)

System / Division	Average CAIDI of Prior 10 System / Division Specific Excludable ME	December 24, 2015 / Division Specific CAIDI	Percent Difference From the Prior CAIDI Average	Exceeds the Investigation Threshold?
SYSTEM	253.9	344.5	35.7%	Yes
CENTRAL COAST	278.6	113.9	-59.1%	No
DE ANZA	180.0	0.0	-100.0%	No
DIABLO	161.4	0.0	-100.0%	No
EAST BAY	212.5	0.0	-100.0%	No
FRESNO	86.8	21.8	-74.9%	No
HUMBOLDT	402.4	726.8	80.6%	Yes
KERN	144.8	119.0	-17.8%	No
LOS PADRES	225.5	542.0	140.3%	Yes
MISSION	111.2	165.5	48.9%	Yes
NORTH BAY	277.1	230.2	-16.9%	No
NORTH VALLEY	649.0	102.3	-84.2%	No
PENINSULA	145.9	448.7	207.6%	Yes
SACRAMENTO	123.9	140.4	13.3%	No
SAN FRANCISCO	240.5	242.4	0.8%	No
SAN JOSE	114.4	100.0	-12.6%	No
SIERRA	295.0	293.3	-0.6%	No
SONOMA	265.5	139.8	-47.3%	No
STOCKTON	354.8	261.1	-26.4%	No
YOSEMITE	249.3	75.9	-69.5%	No

Table 41 – December 24, 2015 CAIDI Performance

6.1 System CAIDI Assessment

System / Division	Major Event Day	CAIDI	SO / Day
SYSTEM	December 17, 2012	443.1	102
SYSTEM	December 21, 2012	549.2	199
SYSTEM	December 23, 2012	287.2	439
SYSTEM	April 8, 2013	167.4	447
SYSTEM	June 23, 2013	160.5	96
SYSTEM	November 21-22, 2013	254.5	419
SYSTEM	August 24, 2014	302.5	209
SYSTEM	December 3, 2014	144.1	373
SYSTEM	December 11-12, 2014	278.0	728
SYSTEM	December 30, 2014	202.6	643
	Average of 10 excludable major events	253.9	400
SYSTEM	December 24, 2015	344.5	135
	% Difference	35.7%	-66%

Table 42 – System CAIDI Assessment

As indicated in table 42, the System CAIDI value of 344.5 minutes for the December 24th, 2015 major event day was within the range of the prior ten excludable major events. However, this CAIDI value was 35.7% higher than the 253.9 minutes average of the prior 10 weather-related excludable major events.

This higher CAIDI value was due to the following:

- A tree related outage on the Maple Creek – Hoopa 60kV transmission line contributed 57.3 minutes to the December 24th, 2015 System CAIDI performance.
- An outage on Low Gap 1101 feeder at multiple locations due to snow and tree damage on the line contributed 29.6 minutes to the December 24th, 2015 System CAIDI performance.
- An outage on the West Point – Valley Spring 60 kV transmission line due to a third party car hitting the transmission pole contributed 18.3 minutes to the December 24th, 2015 System CAIDI performance.

6.2 Humboldt Division CAIDI Assessment

System / Division	Major Event Day	CAIDI	SO / Day
HUMBOLDT	December 17, 2012	177.6	4
HUMBOLDT	December 21, 2012	136.7	14
HUMBOLDT	December 23, 2012	369.9	47
HUMBOLDT	April 8, 2013	149.5	38
HUMBOLDT	June 23, 2013	109.1	5
HUMBOLDT	November 21-22, 2013	418.2	62
HUMBOLDT	August 24, 2014	199.7	6
HUMBOLDT	December 3, 2014	145.6	7
HUMBOLDT	December 11-12, 2014	533.3	87
HUMBOLDT	December 30, 2014	205.0	6
	Average of 10 excludable major events	402.4	35
HUMBOLDT	December 24, 2015	726.8	50
	% Difference	80.6%	42%

Table 43 – Humboldt CAIDI Assessment

As indicated in Table 43, the system CAIDI value of 726.8 minutes for the December 24th, 2015 major event was the highest of the prior ten excludable major events. The CAIDI value was 80.6% higher than the 402.4 minute average of the prior 10 weather-related excludable major events.

The average number of sustained outages per day on December 24th, 2015 was 42% higher than the average of the corresponding prior 10 excludable major events.

The high CAIDI value along with the high number of sustained outages during this event illustrates the severity of this Christmas Eve's storm in comparison to the past ten weather-related events.

6.3 Los Padres Division CAIDI Assessment

System / Division	Major Event Day	CAIDI	SO / Day
LOS PADRES	December 17, 2012	195.8	2
LOS PADRES	December 21, 2012	90.0	1
LOS PADRES	December 23, 2012	497.7	2
LOS PADRES	April 8, 2013	60.2	13
LOS PADRES	June 23, 2013	166.6	28
LOS PADRES	November 21-22, 2013	176.4	7
LOS PADRES	August 24, 2014	125.0	2
LOS PADRES	December 3, 2014	137.3	4
LOS PADRES	December 11-12, 2014	479.4	55
LOS PADRES	December 30, 2014	86.0	1
	Average of 10 excludable major events	225.5	15
LOS PADRES	December 24, 2015	542.0	1
	% Difference	140.3%	-93%

Table 44 – Los Padres CAIDI Assessment

As indicated in table 44, the Los Padres Division CAIDI value of 542 minutes for the December 24th, 2015 major event day exceeds the range of the prior ten excludable major events. This CAIDI value is 140.3% higher than the 225.5 minutes average of the prior 10 weather-related excludable major events.

This higher CAIDI value was due to the following:

- An outage on Foot Hill 1101 feeder due to equipment failure contributed 542 minutes to the December 24th, 2015 Los Padres division CAIDI performance.

6.4 Mission Division CAIDI Assessment

System / Division	Major Event Day	CAIDI	SO / Day
MISSION	December 17, 2012	168.2	1
MISSION	December 21, 2012	381.9	3
MISSION	December 23, 2012	101.2	7
MISSION	April 8, 2013	67.9	11
MISSION	June 23, 2013	101.3	3
MISSION	November 21-22, 2013	85.2	15
MISSION	August 24, 2014	87.1	3
MISSION	December 3, 2014	240.7	4
MISSION	December 11-12, 2014	140.7	8
MISSION	December 30, 2014	135.7	31
	Average of 10 excludable major events	111.2	9
MISSION	Decmber 24, 2015	165.5	2
	% Difference	48.9%	-78%

Table 45 – Mission CAIDI Assessment

As indicated in table 45, the Mission Division CAIDI value of 165.5 minutes for the December 24th, 2015 major event day was within the range of the prior ten excludable major events. However, this CAIDI value was 48.9% higher than the 111.2 minutes average of the prior 10 weather-related excludable major events.

This higher CAIDI value was due to the following:

- A failed overhead transformer connection on the Newark 2107 circuit.
- A failed overhead transformer on the Grant 1102 circuit.

6.5 Peninsula Division CAIDI Assessment

System / Division	Major Event Day	CAIDI	SO / Day
PENINSULA	December 17, 2012	107.8	50
PENINSULA	December 21, 2012	90.4	2
PENINSULA	December 23, 2012	65.7	6
PENINSULA	April 8, 2013	83.3	15
PENINSULA	June 23, 2013	247.5	66
PENINSULA	November 21-22, 2013	528.4	2
PENINSULA	August 24, 2014	116.5	4
PENINSULA	December 3, 2014	179.2	27
PENINSULA	December 11-12, 2014	125.0	39
PENINSULA	December 30, 2014	113.4	23
	Average of 10 excludable major events	145.9	23
PENINSULA	Decmber 24, 2015	448.7	3
	% Difference	207.6%	-87%

Table 46 – Peninsula CAIDI Assessment

As indicated in table 46, the Peninsula Division CAIDI value of 448.7 minutes for the December 24th, 2015 major event day was within the range of the prior ten excludable major events. However, this CAIDI value was 207.6% higher than the 145.9 minutes average of the prior 10 weather-related excludable major events.

This higher CAIDI value was due to the following:

- An outage on the Belmont 1103 circuit due to a tree falling through the 12 kV line.
- An underground cable failure on the East Grand 1104 circuit.

These two outages contributed 393.7 minutes to the overall December 24th CAIDI event.

3. System and Division Indices Based on IEEE 1366 for the past 10 years including Planned Outages and including and excluding MED

2015 was the eighth year out of the last nine years with improved reliability (2008 was the exception) in terms of the total duration of sustained outages for the entire year per customer (including planned outages but excluding major events). Since 2006, PG&E has consistently reduced the total duration of power outages per customer from 195.7 minutes to 95.8 minutes, a 51 percent improvement, as shown in Table 47 below.

Table 47: Combine Transmission and Distribution System Indices with Planned Outages

	Major Event Day (MED) Included				Major Event Day (MED) Excluded			
Year	SAIDI	SAIFI	MAIFI	CAIDI	SAIDI	SAIFI	MAIFI	CAIDI
2006	311.4	1.833	1.785	169.9	195.7	1.450	1.588	135.0
2007	184.6	1.357	1.575	136.1	167.0	1.306	1.526	127.9
2008	448.7	1.666	1.835	269.3	181.5	1.299	1.597	139.7
2009	235.2	1.404	1.547	167.5	157.5	1.206	1.398	130.6
2010	276.6	1.496	1.492	185.0	157.2	1.207	1.257	130.2
2011	311.8	1.392	1.490	223.9	141.8	1.087	1.180	130.5
2012	161.8	1.219	1.927	132.7	131.5	1.125	1.805	116.9
2013	138.3	1.167	1.643	118.5	116.8	1.065	1.533	109.7
2014	151.3	1.131	1.571	133.8	110.2	0.965	1.400	114.2
2015	145.5	1.051	1.773	138.4	95.8	0.870	1.549	110.1

a. System and Division Indices Based on IEEE 1366 for the past ten years including Planned Outages and including MED, and excluding ISO Outages

Table 48:

Year	Division	SAIDI	SAIFI	MAIFI	CAIDI
2006	CENTRAL COAST	441.0	2.375	3.038	185.7
2007	CENTRAL COAST	228.8	1.988	2.739	115.1
2008	CENTRAL COAST	850.4	2.468	2.757	344.5
2009	CENTRAL COAST	471.9	2.462	3.224	191.7
2010	CENTRAL COAST	429.9	2.143	3.952	200.6
2011	CENTRAL COAST	538.7	2.143	2.098	251.4
2012	CENTRAL COAST	174.4	1.411	2.385	123.6
2013	CENTRAL COAST	153.7	1.476	2.048	104.1
2014	CENTRAL COAST	219.2	1.438	2.130	152.4
2015	CENTRAL COAST	269.6	1.376	2.282	195.9
Year	**Division**	**SAIDI**	**SAIFI**	**MAIFI**	**CAIDI**
2006	DE ANZA	345.7	1.524	1.639	226.8
2007	DE ANZA	119.4	0.959	1.136	124.5
2008	DE ANZA	282.0	1.362	1.687	207.1
2009	DE ANZA	175.7	1.042	1.655	168.6
2010	DE ANZA	192.1	1.233	1.437	155.9
2011	DE ANZA	100.7	0.805	1.489	125.2
2012	DE ANZA	100.2	0.792	1.224	126.5
2013	DE ANZA	100.9	0.919	1.190	109.7
2014	DE ANZA	135.5	1.124	1.307	120.5
2015	DE ANZA	80.7	0.680	1.313	118.8
Year	**Division**	**SAIDI**	**SAIFI**	**MAIFI**	**CAIDI**
2006	DIABLO	331.1	1.946	1.652	170.1
2007	DIABLO	144.0	1.203	1.580	119.7
2008	DIABLO	222.7	1.597	2.132	139.5
2009	DIABLO	185.1	1.496	1.196	123.7
2010	DIABLO	143.1	1.488	1.314	96.2
2011	DIABLO	110.1	1.064	1.404	103.5
2012	DIABLO	127.7	1.334	1.407	95.7
2013	DIABLO	100.4	1.103	1.307	90.9
2014	DIABLO	101.0	1.046	1.389	96.5
2015	DIABLO	97.9	1.062	1.966	92.2
Year	**Division**	**SAIDI**	**SAIFI**	**MAIFI**	**CAIDI**
2006	EAST BAY	175.1	1.238	1.002	141.5
2007	EAST BAY	178.2	1.365	1.014	130.6
2008	EAST BAY	174.1	1.131	0.864	153.9
2009	EAST BAY	143.5	1.278	0.894	112.3
2010	EAST BAY	134.6	1.120	0.757	120.2
2011	EAST BAY	123.3	1.020	1.079	120.9
2012	EAST BAY	119.1	1.397	1.369	85.2
2013	EAST BAY	132.6	1.048	1.283	126.4
2014	EAST BAY	91.8	0.915	1.499	100.3
2015	EAST BAY	65.9	0.749	1.218	87.9

Year	Division	SAIDI	SAIFI	MAIFI	CAIDI
2006	FRESNO	325.6	2.314	2.343	140.7
2007	FRESNO	257.9	1.890	2.256	136.5
2008	FRESNO	227.4	1.754	1.798	129.7
2009	FRESNO	185.0	1.461	1.902	126.6
2010	FRESNO	204.0	1.377	1.957	148.1
2011	FRESNO	187.0	1.215	2.023	153.9
2012	FRESNO	122.1	1.158	2.361	105.4
2013	FRESNO	121.5	1.225	2.115	99.2
2014	FRESNO	104.0	1.095	1.775	95.0
2015	FRESNO	115.2	1.238	2.135	93.1
Year	**Division**	**SAIDI**	**SAIFI**	**MAIFI**	**CAIDI**
2006	HUMBOLDT	1,131.7	3.063	3.857	369.5
2007	HUMBOLDT	619.9	2.055	3.326	301.7
2008	HUMBOLDT	1,136.5	3.027	3.366	375.5
2009	HUMBOLDT	356.1	2.041	2.489	174.5
2010	HUMBOLDT	737.8	2.860	1.719	258.0
2011	HUMBOLDT	762.1	2.439	2.280	312.5
2012	HUMBOLDT	388.7	1.904	4.673	204.2
2013	HUMBOLDT	342.4	1.518	2.650	225.5
2014	HUMBOLDT	350.5	1.514	1.955	231.5
2015	HUMBOLDT	738.9	2.388	2.842	309.4
Year	**Division**	**SAIDI**	**SAIFI**	**MAIFI**	**CAIDI**
2006	KERN	245.7	1.776	1.976	138.3
2007	KERN	146.1	1.237	1.603	118.1
2008	KERN	192.0	1.509	1.216	127.3
2009	KERN	126.9	1.258	1.493	100.8
2010	KERN	152.4	1.264	1.583	120.6
2011	KERN	189.8	1.367	1.622	138.8
2012	KERN	107.7	1.066	1.229	101.0
2013	KERN	103.2	1.168	1.202	88.3
2014	KERN	131.4	1.204	1.847	109.2
2015	KERN	104.5	1.022	1.976	102.3
Year	**Division**	**SAIDI**	**SAIFI**	**MAIFI**	**CAIDI**
2006	LOS PADRES	411.0	2.374	3.219	173.1
2007	LOS PADRES	154.4	1.247	2.686	123.8
2008	LOS PADRES	262.0	1.931	3.067	135.7
2009	LOS PADRES	200.3	1.367	1.714	146.5
2010	LOS PADRES	293.1	1.818	2.055	161.2
2011	LOS PADRES	159.1	1.333	2.195	119.4
2012	LOS PADRES	124.0	1.142	1.633	108.6
2013	LOS PADRES	242.3	1.618	1.095	149.7
2014	LOS PADRES	202.2	1.298	1.378	155.8
2015	LOS PADRES	148.2	0.931	1.899	159.1

Year	Division	SAIDI	SAIFI	MAIFI	CAIDI
2006	MISSION	130.3	1.095	1.259	119.0
2007	MISSION	100.1	0.907	1.024	110.3
2008	MISSION	119.9	1.054	1.516	113.7
2009	MISSION	103.2	0.826	0.902	124.9
2010	MISSION	123.6	1.053	0.785	117.4
2011	MISSION	88.9	0.900	0.693	98.7
2012	MISSION	106.2	0.967	0.886	109.8
2013	MISSION	89.9	0.877	0.838	102.6
2014	MISSION	84.8	0.805	0.826	105.4
2015	MISSION	71.7	0.654	1.162	109.6
Year	**Division**	**SAIDI**	**SAIFI**	**MAIFI**	**CAIDI**
2006	NORTH BAY	261.7	1.554	1.473	168.4
2007	NORTH BAY	150.5	1.203	1.803	125.1
2008	NORTH BAY	589.1	1.782	1.979	330.6
2009	NORTH BAY	186.2	1.354	1.011	137.5
2010	NORTH BAY	179.8	1.320	1.402	136.2
2011	NORTH BAY	244.3	1.508	1.224	162.0
2012	NORTH BAY	164.5	1.046	1.950	157.3
2013	NORTH BAY	146.4	1.144	1.731	128.0
2014	NORTH BAY	253.2	1.362	2.714	185.9
2015	NORTH BAY	156.3	1.171	2.162	133.5
Year	**Division**	**SAIDI**	**SAIFI**	**MAIFI**	**CAIDI**
2006	NORTH VALLEY	378.8	2.457	2.130	154.2
2007	NORTH VALLEY	304.6	1.708	2.141	178.3
2008	NORTH VALLEY	1,625.4	2.527	4.194	643.3
2009	NORTH VALLEY	335.0	1.651	3.143	203.0
2010	NORTH VALLEY	609.0	2.007	2.002	303.5
2011	NORTH VALLEY	703.6	2.331	2.141	301.8
2012	NORTH VALLEY	543.4	2.003	2.952	271.4
2013	NORTH VALLEY	179.2	1.251	1.974	143.2
2014	NORTH VALLEY	212.1	1.285	1.837	165.1
2015	NORTH VALLEY	505.6	1.920	2.603	263.4
Year	**Division**	**SAIDI**	**SAIFI**	**MAIFI**	**CAIDI**
2006	PENINSULA	217.5	1.777	1.571	122.4
2007	PENINSULA	93.9	0.818	1.062	114.9
2008	PENINSULA	438.6	1.908	2.060	229.9
2009	PENINSULA	140.8	1.162	0.893	121.1
2010	PENINSULA	185.2	1.670	1.450	110.9
2011	PENINSULA	131.5	1.254	0.965	104.9
2012	PENINSULA	115.0	1.200	1.709	95.8
2013	PENINSULA	107.3	0.934	1.333	114.8
2014	PENINSULA	111.6	1.127	1.368	99.0
2015	PENINSULA	90.5	0.941	1.842	96.2

Year	Division	SAIDI	SAIFI	MAIFI	CAIDI
2006	SACRAMENTO	251.8	1.483	1.904	169.8
2007	SACRAMENTO	136.5	0.961	1.055	142.1
2008	SACRAMENTO	894.5	2.030	2.300	440.6
2009	SACRAMENTO	266.9	1.471	1.836	181.5
2010	SACRAMENTO	215.9	1.210	1.439	178.3
2011	SACRAMENTO	210.1	1.306	1.922	160.9
2012	SACRAMENTO	182.2	1.478	2.157	123.3
2013	SACRAMENTO	123.1	1.106	1.716	111.3
2014	SACRAMENTO	128.4	1.006	1.452	127.7
2015	SACRAMENTO	113.0	1.009	1.849	112.0
Year	**Division**	**SAIDI**	**SAIFI**	**MAIFI**	**CAIDI**
2006	SAN FRANCISCO	87.6	0.924	0.301	94.8
2007	SAN FRANCISCO	113.6	1.098	0.387	103.5
2008	SAN FRANCISCO	164.6	0.927	0.272	177.6
2009	SAN FRANCISCO	81.9	0.854	0.136	95.9
2010	SAN FRANCISCO	67.6	0.765	0.098	88.4
2011	SAN FRANCISCO	60.0	0.622	0.216	96.6
2012	SAN FRANCISCO	62.3	0.673	1.052	92.5
2013	SAN FRANCISCO	64.8	0.706	0.334	91.8
2014	SAN FRANCISCO	141.7	0.860	0.351	164.8
2015	SAN FRANCISCO	44.2	0.569	0.559	77.7
Year	**Division**	**SAIDI**	**SAIFI**	**MAIFI**	**CAIDI**
2006	SAN JOSE	320.6	1.534	1.030	209.0
2007	SAN JOSE	122.4	1.070	1.011	114.5
2008	SAN JOSE	192.0	1.105	1.175	173.8
2009	SAN JOSE	102.5	0.920	0.818	111.4
2010	SAN JOSE	125.3	1.036	0.608	121.0
2011	SAN JOSE	131.6	1.065	0.808	123.6
2012	SAN JOSE	102.9	0.932	0.993	110.3
2013	SAN JOSE	122.1	1.089	1.038	112.1
2014	SAN JOSE	124.6	1.101	1.075	113.1
2015	SAN JOSE	90.1	0.872	1.211	103.4
Year	**Division**	**SAIDI**	**SAIFI**	**MAIFI**	**CAIDI**
2006	SIERRA	421.5	2.356	1.048	178.9
2007	SIERRA	276.4	1.808	2.056	152.9
2008	SIERRA	1,221.3	2.354	2.051	518.8
2009	SIERRA	851.6	2.219	1.535	383.8
2010	SIERRA	788.5	2.415	1.608	326.6
2011	SIERRA	1,066.3	2.404	2.900	443.5
2012	SIERRA	269.9	1.582	3.229	170.6
2013	SIERRA	175.3	1.483	3.276	118.2
2014	SIERRA	208.9	1.467	2.431	142.5
2015	SIERRA	197.3	1.378	3.315	143.2

Year	Division	SAIDI	SAIFI	MAIFI	CAIDI
2006	SONOMA	339.1	1.842	0.843	184.1
2007	SONOMA	196.9	1.362	1.808	144.6
2008	SONOMA	485.6	1.511	1.175	321.3
2009	SONOMA	216.1	1.374	1.574	157.3
2010	SONOMA	244.0	1.523	1.018	160.2
2011	SONOMA	286.9	1.438	1.529	199.5
2012	SONOMA	234.6	1.235	2.032	189.9
2013	SONOMA	210.8	1.260	2.537	167.3
2014	SONOMA	239.3	1.374	2.071	174.2
2015	SONOMA	140.7	0.985	2.005	142.8
Year	**Division**	**SAIDI**	**SAIFI**	**MAIFI**	**CAIDI**
2006	STOCKTON	330.9	2.251	2.789	147.0
2007	STOCKTON	199.7	1.719	1.829	116.2
2008	STOCKTON	304.6	1.637	2.212	186.1
2009	STOCKTON	445.1	1.897	3.146	234.6
2010	STOCKTON	408.9	1.806	1.604	226.5
2011	STOCKTON	502.1	1.862	1.202	269.7
2012	STOCKTON	192.4	1.286	2.105	149.6
2013	STOCKTON	135.0	1.552	2.145	87.0
2014	STOCKTON	138.5	0.923	1.471	150.0
2015	STOCKTON	135.8	1.105	2.291	122.8
Year	**Division**	**SAIDI**	**SAIFI**	**MAIFI**	**CAIDI**
2006	YOSEMITE	412.4	2.569	2.994	160.5
2007	YOSEMITE	252.8	1.725	1.420	146.5
2008	YOSEMITE	344.7	1.831	1.626	188.2
2009	YOSEMITE	287.5	1.570	1.722	183.2
2010	YOSEMITE	737.9	2.109	3.166	349.8
2011	YOSEMITE	1,201.5	2.098	2.642	572.7
2012	YOSEMITE	166.1	1.392	4.181	119.3
2013	YOSEMITE	204.7	1.403	3.466	145.9
2014	YOSEMITE	147.6	1.342	2.683	110.0
2015	YOSEMITE	130.6	1.162	3.183	112.4
Year	**Division**	**SAIDI**	**SAIFI**	**MAIFI**	**CAIDI**
2006	SYSTEM	311.4	1.833	1.785	169.9
2007	SYSTEM	184.6	1.357	1.575	136.1
2008	SYSTEM	448.7	1.666	1.835	269.3
2009	SYSTEM	235.2	1.404	1.547	167.5
2010	SYSTEM	276.6	1.496	1.492	185.0
2011	SYSTEM	311.8	1.392	1.490	223.9
2012	SYSTEM	161.8	1.219	1.927	132.7
2013	SYSTEM	138.3	1.167	1.643	118.5
2014	SYSTEM	151.3	1.131	1.571	133.8
2015	SYSTEM	147.2	1.052	1.873	140.0

b. System and Division Indices Based on IEEE 1366 for the past 10 years including Planned Outages and excluding ISO, and MED

Table 49:

Year	Division	SAIDI	SAIFI	MAIFI	CAIDI
2006	CENTRAL COAST	243.3	1.773	2.650	137.3
2007	CENTRAL COAST	226.9	1.978	2.699	114.8
2008	CENTRAL COAST	272.9	1.820	2.373	150.0
2009	CENTRAL COAST	243.3	2.043	3.008	119.1
2010	CENTRAL COAST	210.2	1.672	2.937	125.8
2011	CENTRAL COAST	197.8	1.658	1.603	119.3
2012	CENTRAL COAST	159.7	1.339	2.206	119.3
2013	CENTRAL COAST	147.2	1.444	1.973	102.0
2014	CENTRAL COAST	141.8	1.171	1.835	121.2
2015	CENTRAL COAST	118.6	0.934	1.848	126.9
Year	**Division**	**SAIDI**	**SAIFI**	**MAIFI**	**CAIDI**
2006	DE ANZA	117.9	0.920	1.404	128.2
2007	DE ANZA	118.6	0.955	1.106	124.1
2008	DE ANZA	120.4	1.033	1.459	116.6
2009	DE ANZA	121.3	0.900	1.587	134.8
2010	DE ANZA	135.6	1.019	1.167	133.0
2011	DE ANZA	80.9	0.718	1.181	112.7
2012	DE ANZA	92.1	0.742	1.110	124.1
2013	DE ANZA	98.9	0.909	1.155	108.8
2014	DE ANZA	111.2	0.987	1.211	112.6
2015	DE ANZA	68.2	0.561	1.182	121.7
Year	**Division**	**SAIDI**	**SAIFI**	**MAIFI**	**CAIDI**
2006	DIABLO	163.5	1.384	1.466	118.2
2007	DIABLO	143.6	1.201	1.578	119.6
2008	DIABLO	160.1	1.475	1.952	108.6
2009	DIABLO	170.6	1.401	1.157	121.8
2010	DIABLO	127.5	1.336	1.221	95.4
2011	DIABLO	98.0	0.934	1.245	104.9
2012	DIABLO	121.2	1.291	1.369	93.9
2013	DIABLO	97.4	1.081	1.246	90.0
2014	DIABLO	84.8	0.953	1.240	89.0
2015	DIABLO	87.8	0.935	1.674	93.9
Year	**Division**	**SAIDI**	**SAIFI**	**MAIFI**	**CAIDI**
2006	EAST BAY	149.5	1.094	0.872	136.6
2007	EAST BAY	175.8	1.344	1.006	130.8
2008	EAST BAY	114.0	0.959	0.810	118.8
2009	EAST BAY	129.8	1.181	0.847	109.9
2010	EAST BAY	98.7	0.902	0.682	109.4
2011	EAST BAY	106.5	0.906	0.850	117.5
2012	EAST BAY	108.9	1.301	1.300	83.7
2013	EAST BAY	76.3	0.867	1.172	88.0
2014	EAST BAY	75.5	0.795	1.283	95.0
2015	EAST BAY	51.1	0.611	1.079	83.6

Year	Division	SAIDI	SAIFI	MAIFI	CAIDI
2006	FRESNO	235.1	1.853	2.217	126.9
2007	FRESNO	256.0	1.870	2.237	136.9
2008	FRESNO	202.6	1.626	1.741	124.6
2009	FRESNO	168.2	1.331	1.758	126.4
2010	FRESNO	143.5	1.157	1.848	124.0
2011	FRESNO	98.3	0.894	1.689	110.0
2012	FRESNO	120.5	1.135	2.325	106.2
2013	FRESNO	118.8	1.192	2.074	99.7
2014	FRESNO	101.6	1.076	1.704	94.5
2015	FRESNO	84.8	0.935	1.832	90.7
Year	**Division**	**SAIDI**	**SAIFI**	**MAIFI**	**CAIDI**
2006	HUMBOLDT	576.9	2.306	3.116	250.1
2007	HUMBOLDT	459.1	1.886	3.250	243.4
2008	HUMBOLDT	526.2	2.254	2.922	233.4
2009	HUMBOLDT	336.6	1.904	2.348	176.8
2010	HUMBOLDT	564.6	2.472	1.539	228.4
2011	HUMBOLDT	439.7	1.914	1.886	229.7
2012	HUMBOLDT	327.1	1.717	4.349	190.6
2013	HUMBOLDT	248.4	1.296	2.435	191.7
2014	HUMBOLDT	274.4	1.363	1.823	201.3
2015	HUMBOLDT	319.8	1.774	2.421	180.2
Year	**Division**	**SAIDI**	**SAIFI**	**MAIFI**	**CAIDI**
2006	KERN	203.3	1.605	1.848	126.7
2007	KERN	145.7	1.236	1.603	117.9
2008	KERN	155.0	1.290	1.079	120.1
2009	KERN	115.4	1.186	1.398	97.3
2010	KERN	135.1	1.142	1.423	118.3
2011	KERN	132.3	1.072	1.345	123.4
2012	KERN	106.5	1.048	1.229	101.6
2013	KERN	98.9	1.110	1.120	89.1
2014	KERN	101.8	1.041	1.623	97.8
2015	KERN	92.8	0.937	1.855	99.0
Year	**Division**	**SAIDI**	**SAIFI**	**MAIFI**	**CAIDI**
2006	LOS PADRES	238.7	1.803	2.639	132.4
2007	LOS PADRES	154.3	1.246	2.686	123.8
2008	LOS PADRES	163.2	1.469	2.722	111.1
2009	LOS PADRES	122.6	1.102	1.324	111.2
2010	LOS PADRES	126.6	1.232	1.732	102.7
2011	LOS PADRES	113.5	1.072	1.666	105.8
2012	LOS PADRES	123.3	1.139	1.626	108.2
2013	LOS PADRES	116.3	0.848	0.950	137.2
2014	LOS PADRES	110.5	1.101	1.159	100.3
2015	LOS PADRES	88.1	0.773	1.438	113.9

Year	Division	SAIDI	SAIFI	MAIFI	CAIDI
2006	MISSION	90.4	0.951	1.212	95.1
2007	MISSION	99.9	0.906	1.024	110.3
2008	MISSION	92.9	0.922	1.425	100.7
2009	MISSION	96.6	0.761	0.876	126.9
2010	MISSION	113.8	0.974	0.714	116.8
2011	MISSION	77.1	0.806	0.627	95.6
2012	MISSION	103.5	0.941	0.885	109.9
2013	MISSION	84.2	0.808	0.776	104.3
2014	MISSION	74.0	0.726	0.777	102.0
2015	MISSION	65.6	0.601	1.055	109.3
Year	**Division**	**SAIDI**	**SAIFI**	**MAIFI**	**CAIDI**
2006	NORTH BAY	164.7	1.204	1.346	136.8
2007	NORTH BAY	149.7	1.200	1.801	124.8
2008	NORTH BAY	181.8	1.258	1.777	144.5
2009	NORTH BAY	143.3	1.175	0.896	122.0
2010	NORTH BAY	151.9	1.122	1.295	135.3
2011	NORTH BAY	151.0	1.246	1.088	121.2
2012	NORTH BAY	133.8	0.916	1.647	146.0
2013	NORTH BAY	133.8	1.057	1.456	126.6
2014	NORTH BAY	132.3	0.984	2.499	134.5
2015	NORTH BAY	117.9	1.014	1.977	116.2
Year	**Division**	**SAIDI**	**SAIFI**	**MAIFI**	**CAIDI**
2006	NORTH VALLEY	357.3	2.330	2.077	153.3
2007	NORTH VALLEY	200.6	1.466	1.954	136.9
2008	NORTH VALLEY	385.7	1.804	3.448	213.8
2009	NORTH VALLEY	257.1	1.436	3.010	179.1
2010	NORTH VALLEY	213.6	1.383	1.837	154.4
2011	NORTH VALLEY	239.2	1.515	1.565	157.9
2012	NORTH VALLEY	252.2	1.622	2.580	155.5
2013	NORTH VALLEY	158.6	1.193	1.916	132.9
2014	NORTH VALLEY	150.0	1.076	1.580	139.4
2015	NORTH VALLEY	158.7	1.195	1.934	132.9
Year	**Division**	**SAIDI**	**SAIFI**	**MAIFI**	**CAIDI**
2006	PENINSULA	115.1	1.132	1.081	101.7
2007	PENINSULA	92.8	0.811	1.058	114.5
2008	PENINSULA	136.0	1.222	1.786	111.3
2009	PENINSULA	97.4	0.922	0.769	105.6
2010	PENINSULA	139.4	1.430	1.036	97.5
2011	PENINSULA	102.5	1.106	0.807	92.7
2012	PENINSULA	100.6	1.054	1.528	95.4
2013	PENINSULA	83.0	0.834	1.125	99.6
2014	PENINSULA	90.1	0.967	1.166	93.2
2015	PENINSULA	74.8	0.826	1.602	90.6

Year	Division	SAIDI	SAIFI	MAIFI	CAIDI
2006	SACRAMENTO	170.0	1.243	1.770	136.8
2007	SACRAMENTO	133.4	0.941	1.039	141.7
2008	SACRAMENTO	218.9	1.365	1.734	160.4
2009	SACRAMENTO	150.0	1.183	1.552	126.8
2010	SACRAMENTO	141.3	0.981	1.087	144.0
2011	SACRAMENTO	135.7	1.092	1.719	124.3
2012	SACRAMENTO	159.6	1.338	1.984	119.3
2013	SACRAMENTO	117.6	1.059	1.587	111.0
2014	SACRAMENTO	114.6	0.898	1.273	127.5
2015	SACRAMENTO	100.7	0.913	1.562	110.3
Year	**Division**	**SAIDI**	**SAIFI**	**MAIFI**	**CAIDI**
2006	SAN FRANCISCO	70.3	0.832	0.259	84.5
2007	SAN FRANCISCO	112.7	1.089	0.387	103.5
2008	SAN FRANCISCO	71.1	0.734	0.272	96.8
2009	SAN FRANCISCO	78.9	0.832	0.100	94.8
2010	SAN FRANCISCO	60.7	0.708	0.078	85.8
2011	SAN FRANCISCO	56.2	0.591	0.211	95.2
2012	SAN FRANCISCO	57.6	0.632	1.009	91.2
2013	SAN FRANCISCO	58.8	0.653	0.304	90.0
2014	SAN FRANCISCO	52.2	0.537	0.234	97.3
2015	SAN FRANCISCO	41.8	0.551	0.516	75.8
Year	**Division**	**SAIDI**	**SAIFI**	**MAIFI**	**CAIDI**
2006	SAN JOSE	125.6	0.952	0.932	131.9
2007	SAN JOSE	121.8	1.065	1.009	114.3
2008	SAN JOSE	105.0	0.872	1.011	120.4
2009	SAN JOSE	88.6	0.819	0.797	108.1
2010	SAN JOSE	91.0	0.874	0.539	104.1
2011	SAN JOSE	119.2	0.975	0.701	122.2
2012	SAN JOSE	98.3	0.882	0.966	111.5
2013	SAN JOSE	118.8	1.040	0.978	114.2
2014	SAN JOSE	101.4	0.929	1.035	109.1
2015	SAN JOSE	80.4	0.785	1.022	102.3
Year	**Division**	**SAIDI**	**SAIFI**	**MAIFI**	**CAIDI**
2006	SIERRA	315.0	2.016	0.907	156.3
2007	SIERRA	206.4	1.525	1.508	135.4
2008	SIERRA	274.0	1.710	1.555	160.2
2009	SIERRA	291.4	1.538	1.247	189.5
2010	SIERRA	227.8	1.460	1.164	156.1
2011	SIERRA	232.1	1.371	1.534	169.3
2012	SIERRA	209.0	1.423	2.911	146.8
2013	SIERRA	128.2	1.350	3.139	94.9
2014	SIERRA	156.2	1.266	2.210	123.5
2015	SIERRA	138.4	1.218	2.884	113.6

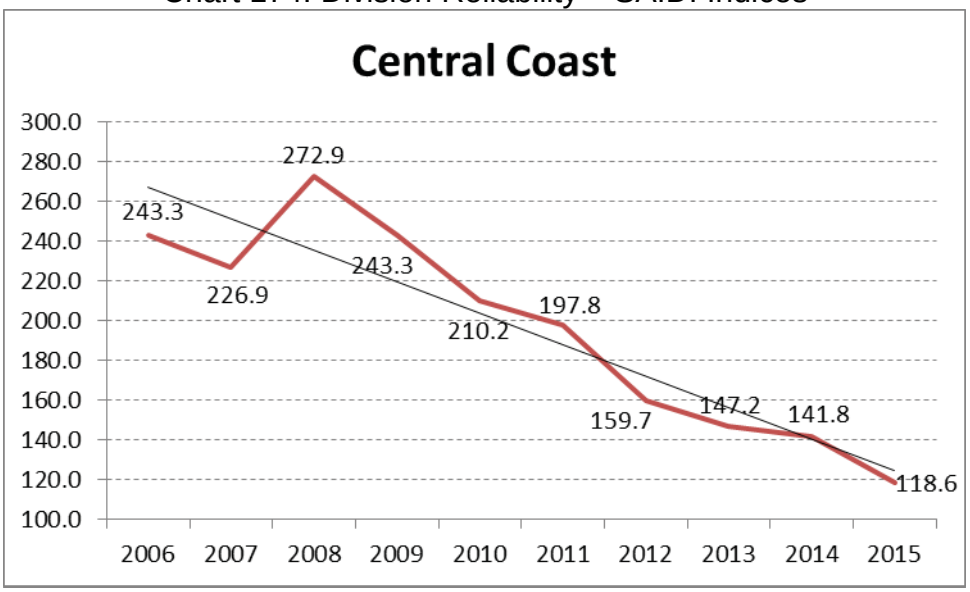
Year	Division	SAIDI	SAIFI	MAIFI	CAIDI
2006	SONOMA	204.9	1.506	0.794	136.0
2007	SONOMA	195.3	1.346	1.808	145.1
2008	SONOMA	187.5	1.239	0.942	151.3
2009	SONOMA	185.8	1.264	1.321	146.9
2010	SONOMA	190.2	1.270	0.818	149.8
2011	SONOMA	143.6	1.049	1.338	137.0
2012	SONOMA	143.6	1.022	1.733	140.5
2013	SONOMA	141.0	0.979	2.257	144.0
2014	SONOMA	138.2	1.023	1.589	135.2
2015	SONOMA	94.3	0.790	1.532	119.5
Year	**Division**	**SAIDI**	**SAIFI**	**MAIFI**	**CAIDI**
2006	STOCKTON	225.3	1.764	2.505	127.7
2007	STOCKTON	164.8	1.596	1.781	103.3
2008	STOCKTON	180.6	1.211	1.819	149.2
2009	STOCKTON	194.2	1.368	2.725	142.0
2010	STOCKTON	188.8	1.405	1.403	134.4
2011	STOCKTON	208.9	1.336	0.912	156.4
2012	STOCKTON	118.6	1.109	1.981	106.9
2013	STOCKTON	125.7	1.516	2.033	82.9
2014	STOCKTON	120.4	0.829	1.336	145.3
2015	STOCKTON	107.3	0.944	1.952	113.6
Year	**Division**	**SAIDI**	**SAIFI**	**MAIFI**	**CAIDI**
2006	YOSEMITE	321.2	2.253	2.799	142.5
2007	YOSEMITE	177.3	1.468	1.241	120.8
2008	YOSEMITE	231.0	1.489	1.533	155.2
2009	YOSEMITE	209.5	1.321	1.467	158.5
2010	YOSEMITE	252.8	1.570	2.598	161.1
2011	YOSEMITE	237.2	1.394	1.819	170.1
2012	YOSEMITE	159.2	1.352	4.101	117.7
2013	YOSEMITE	203.2	1.385	3.296	146.7
2014	YOSEMITE	129.6	1.278	2.460	101.4
2015	YOSEMITE	120.4	1.073	2.641	112.3
Year	**Division**	**SAIDI**	**SAIFI**	**MAIFI**	**CAIDI**
2006	SYSTEM	195.7	1.450	1.588	135.0
2007	SYSTEM	167.0	1.306	1.526	127.9
2008	SYSTEM	181.5	1.299	1.597	139.7
2009	SYSTEM	157.5	1.206	1.398	130.6
2010	SYSTEM	157.2	1.207	1.257	130.2
2011	SYSTEM	141.8	1.087	1.180	130.5
2012	SYSTEM	131.5	1.125	1.805	116.9
2013	SYSTEM	116.8	1.065	1.533	109.7
2014	SYSTEM	110.2	0.965	1.400	114.2
2015	SYSTEM	96.0	0.871	1.593	110.2

c. Charts for System and Division Indices Based on IEEE 1366 for the past 10 years including Planned Outages and including and excluding MED

i. Charts for System and Division Reliability Indices based on IEEE 1366 for the past 10 years with linear trend line, and including planned outages and excluding ISO, and MED

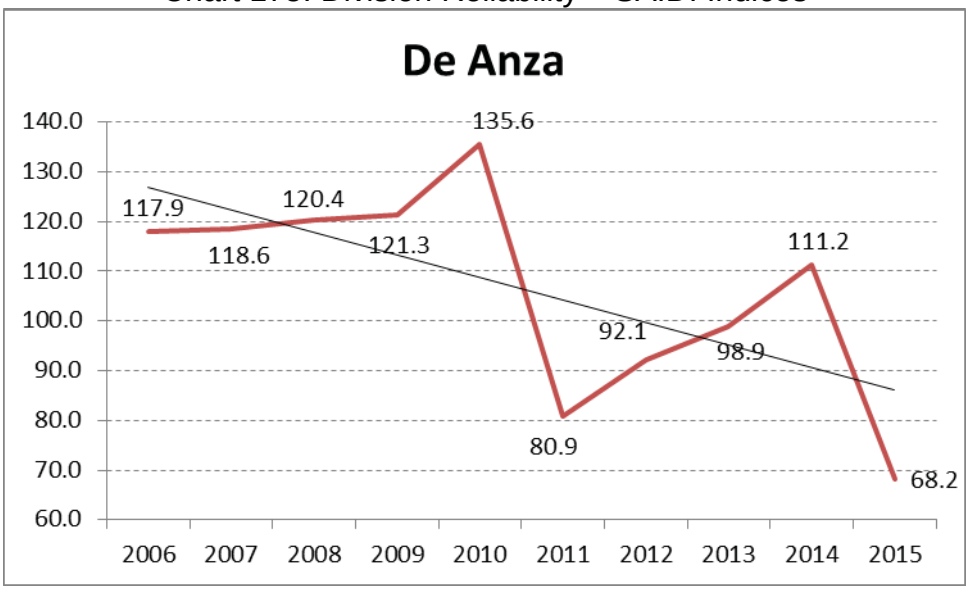
1. SAIDI Performance Results (MED Excluded)

Chart 174: Division Reliability – SAIDI Indices



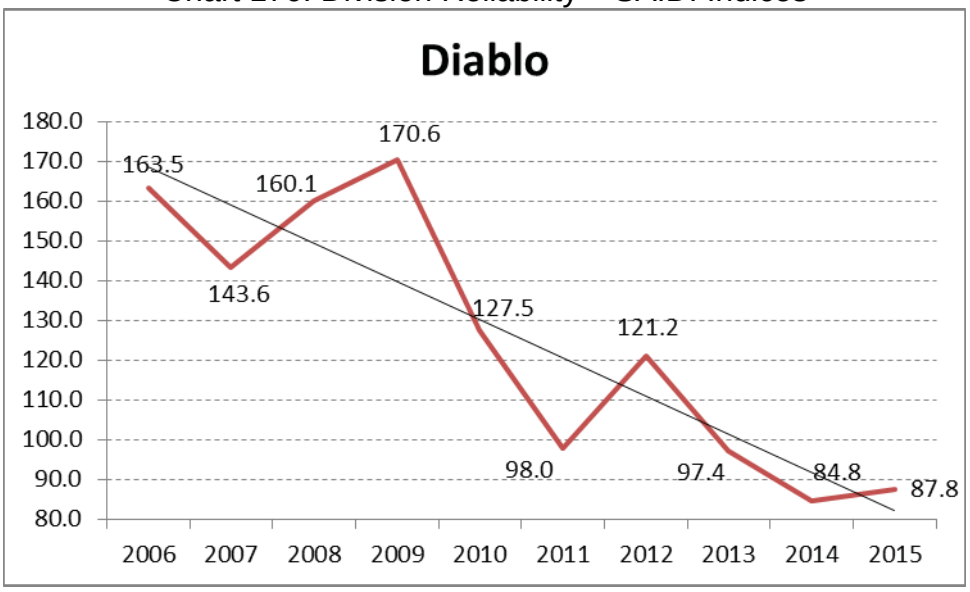
(Excludes ISO and MED)

Chart 175: Division Reliability – SAIDI Indices



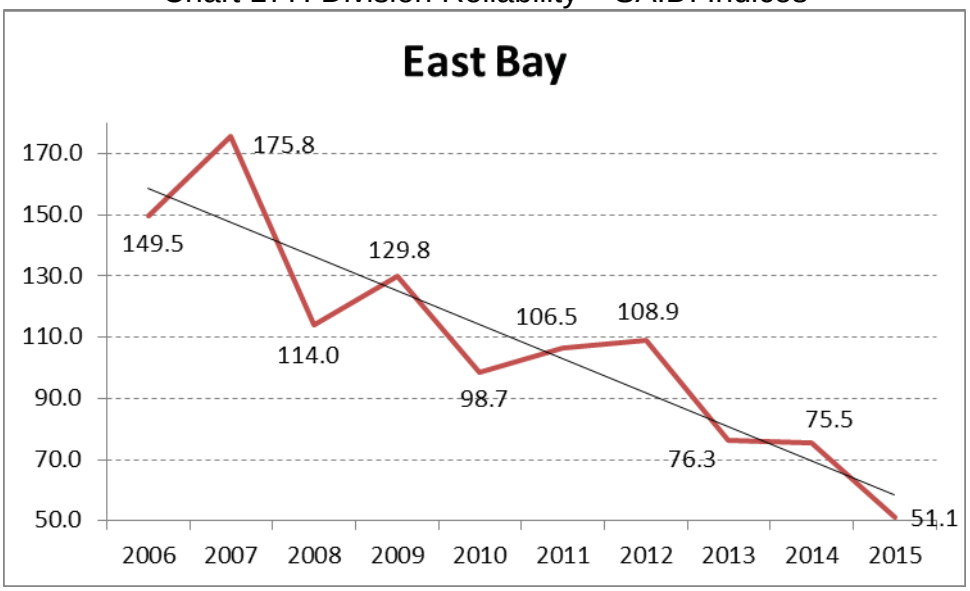
(Excludes ISO and MED)

Chart 176: Division Reliability – SAIDI Indices



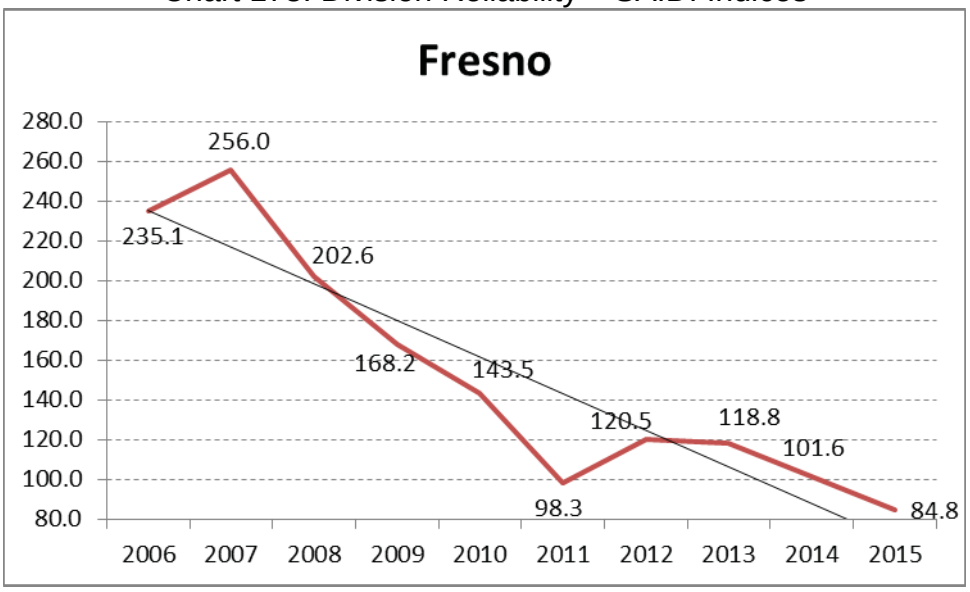
(Excludes ISO and MED)

Chart 177: Division Reliability – SAIDI Indices



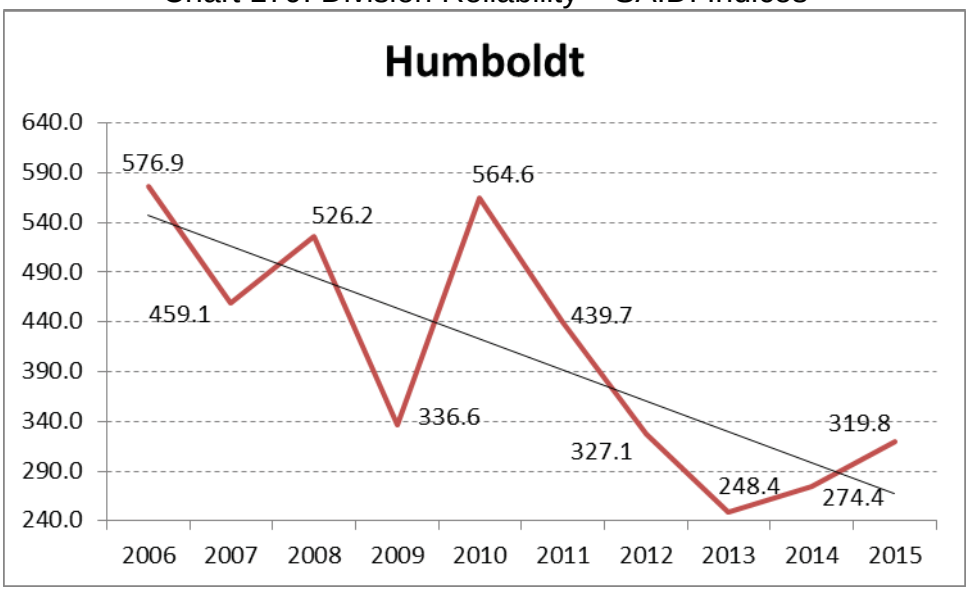
(Excludes ISO and MED)

Chart 178: Division Reliability – SAIDI Indices



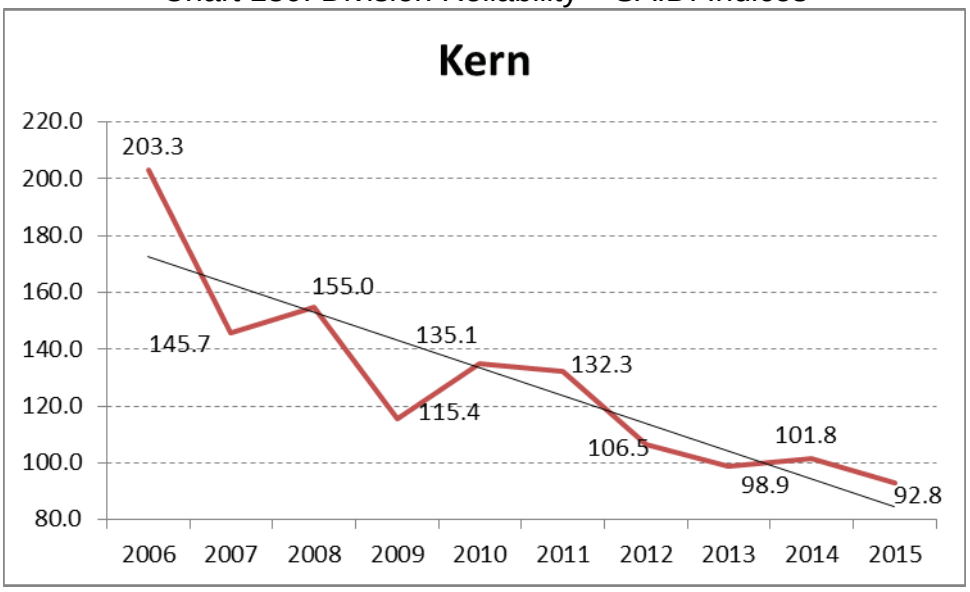
(Excludes ISO and MED)

Chart 179: Division Reliability – SAIDI Indices



(Excludes ISO and MED)

Chart 180: Division Reliability – SAIDI Indices

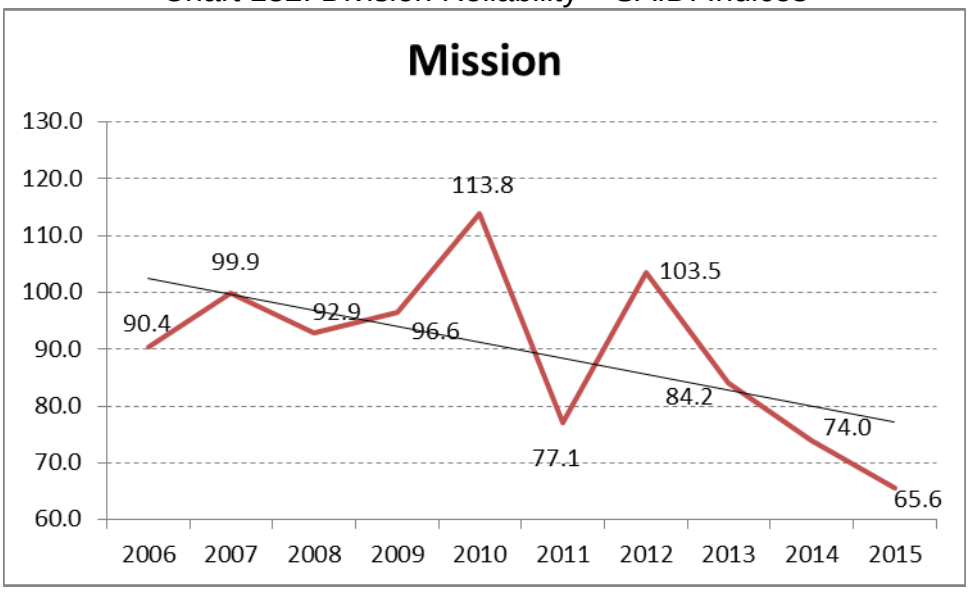


(Excludes ISO and MED)

Chart 181: Division Reliability – SAIDI Indices

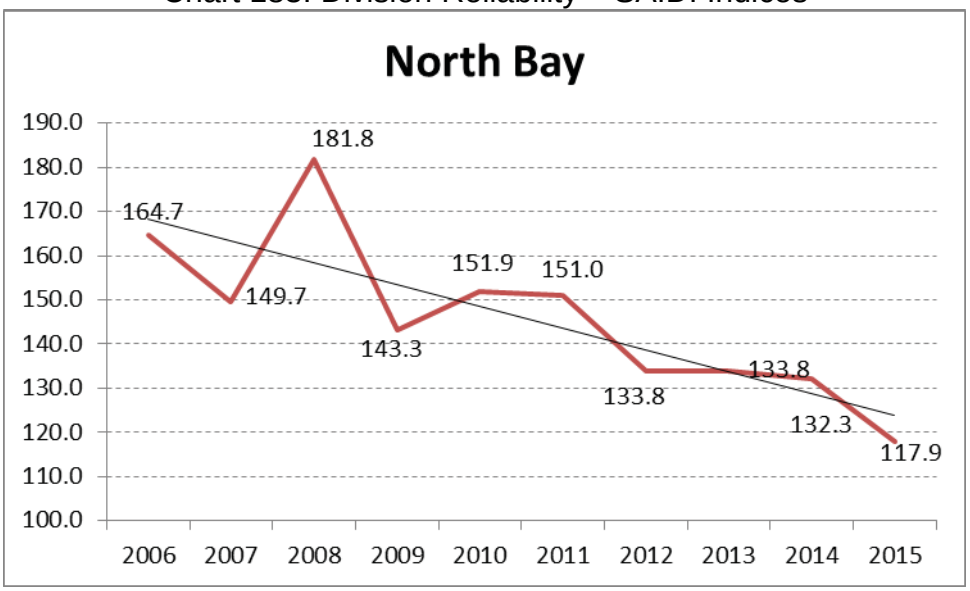
(Excludes ISO and MED)

Chart 182: Division Reliability – SAIDI Indices



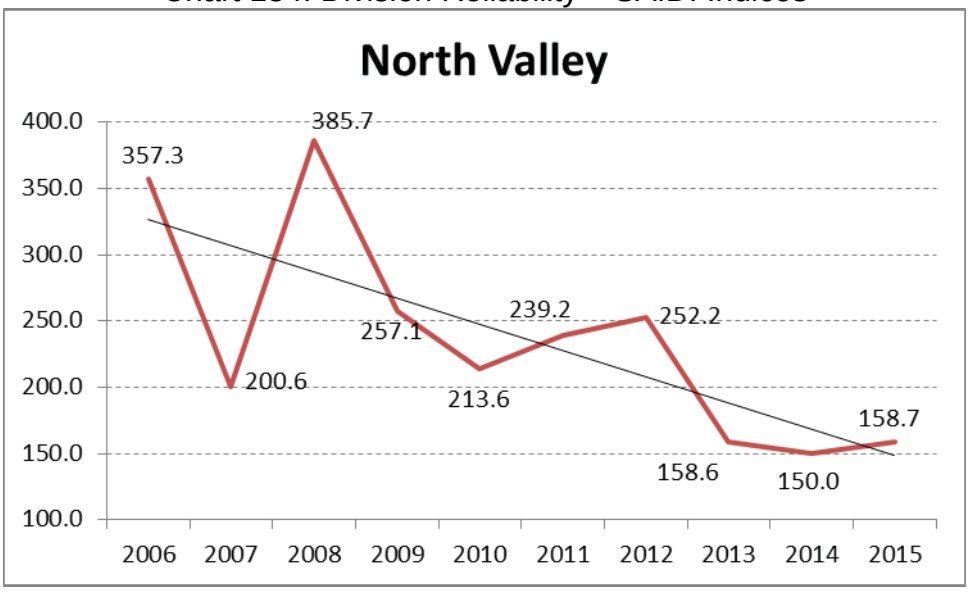
(Excludes ISO and MED)

Chart 183: Division Reliability – SAIDI Indices



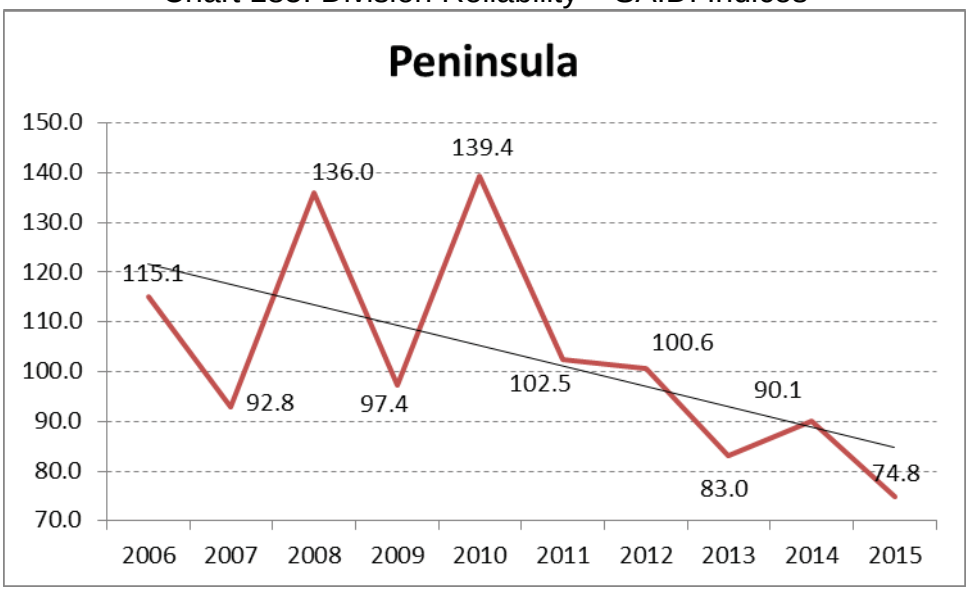
(Excludes ISO and MED)

Chart 184: Division Reliability – SAIDI Indices



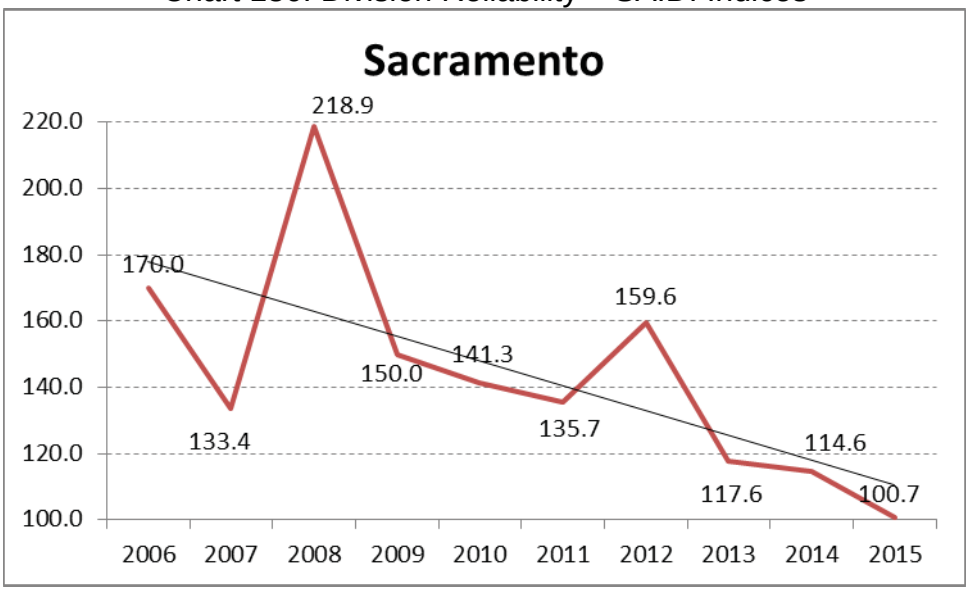
(Excludes ISO and MED)

Chart 185: Division Reliability – SAIDI Indices



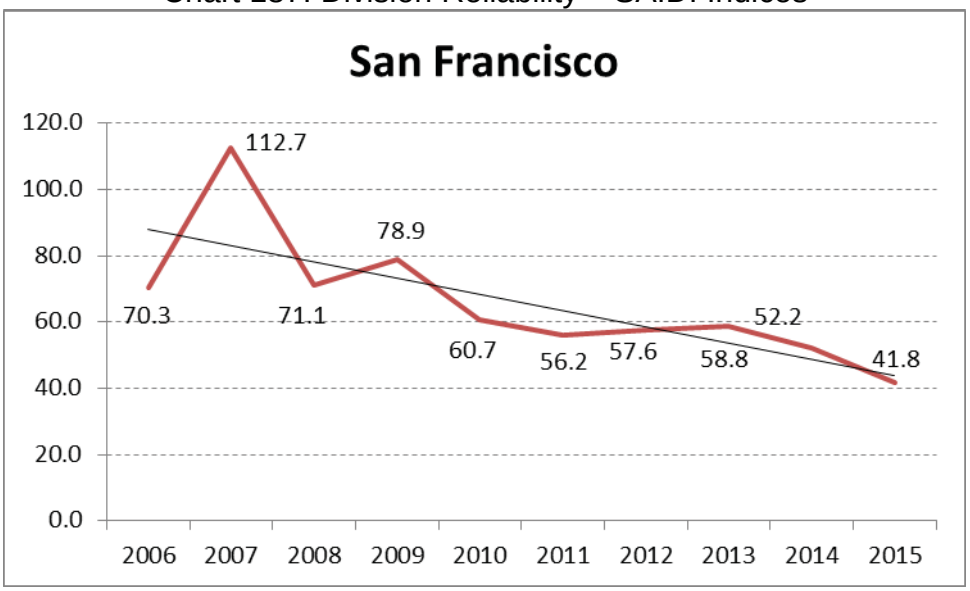
(Excludes ISO and MED)

Chart 186: Division Reliability – SAIDI Indices



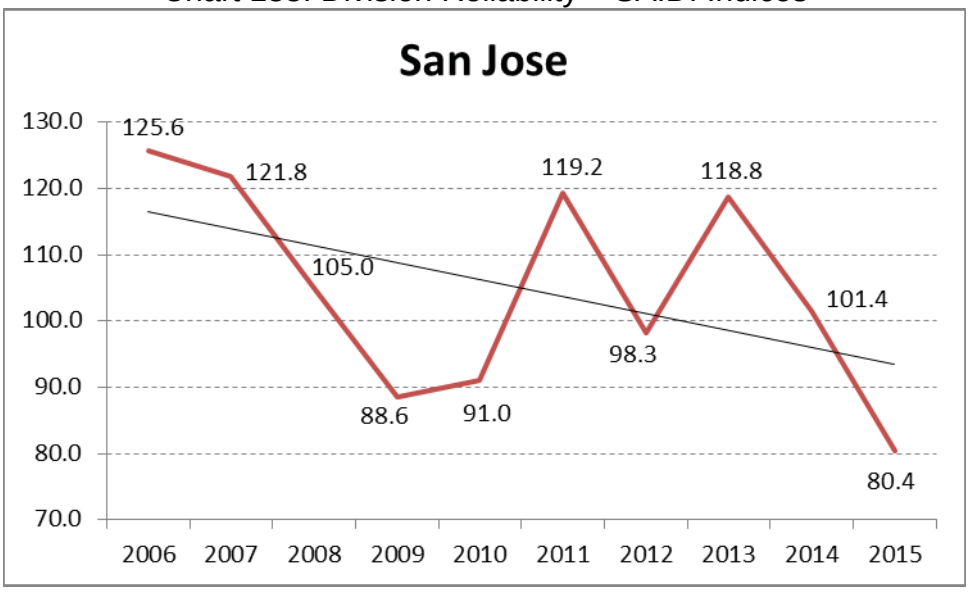
(Excludes ISO and MED)

Chart 187: Division Reliability – SAIDI Indices



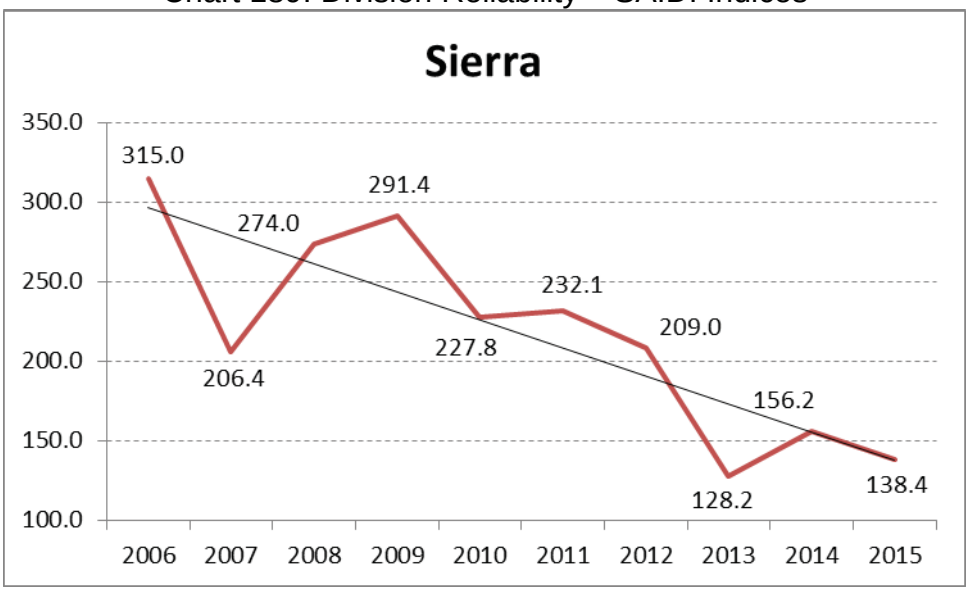
(Excludes ISO and MED)

Chart 188: Division Reliability – SAIDI Indices



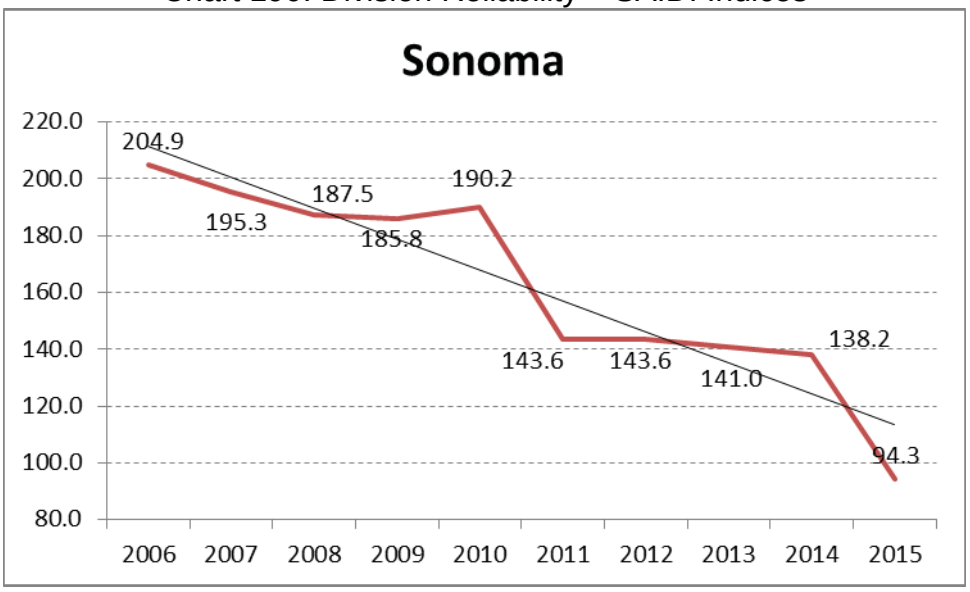
(Excludes ISO and MED)

Chart 189: Division Reliability – SAIDI Indices



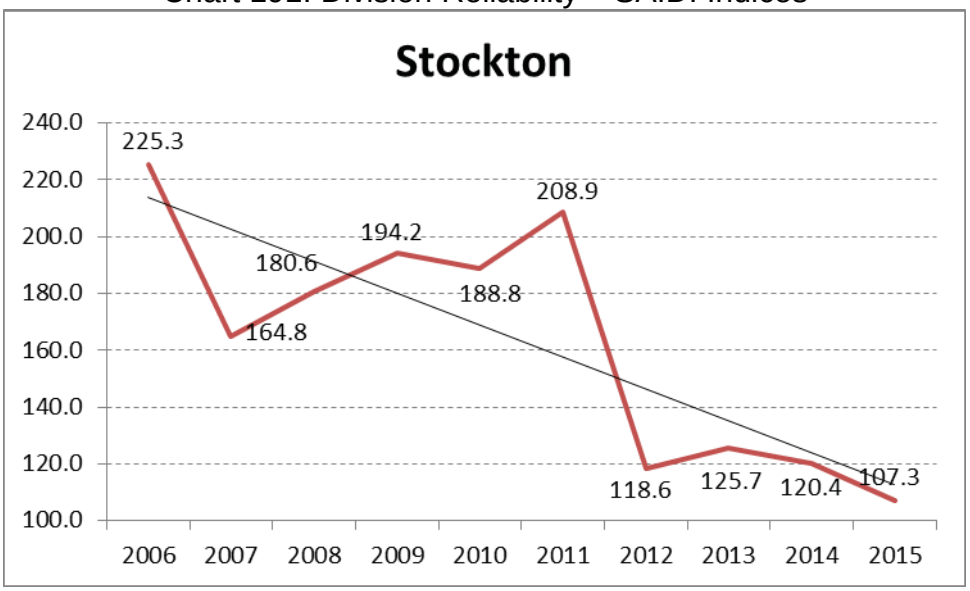
(Excludes ISO and MED)

Chart 190: Division Reliability – SAIDI Indices



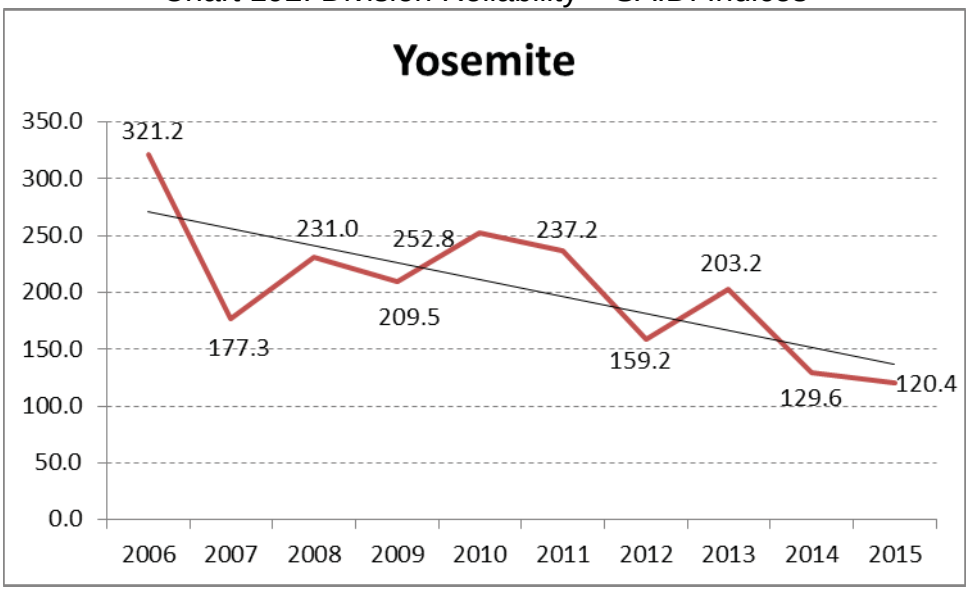
(Excludes ISO and MED)

Chart 191: Division Reliability – SAIDI Indices



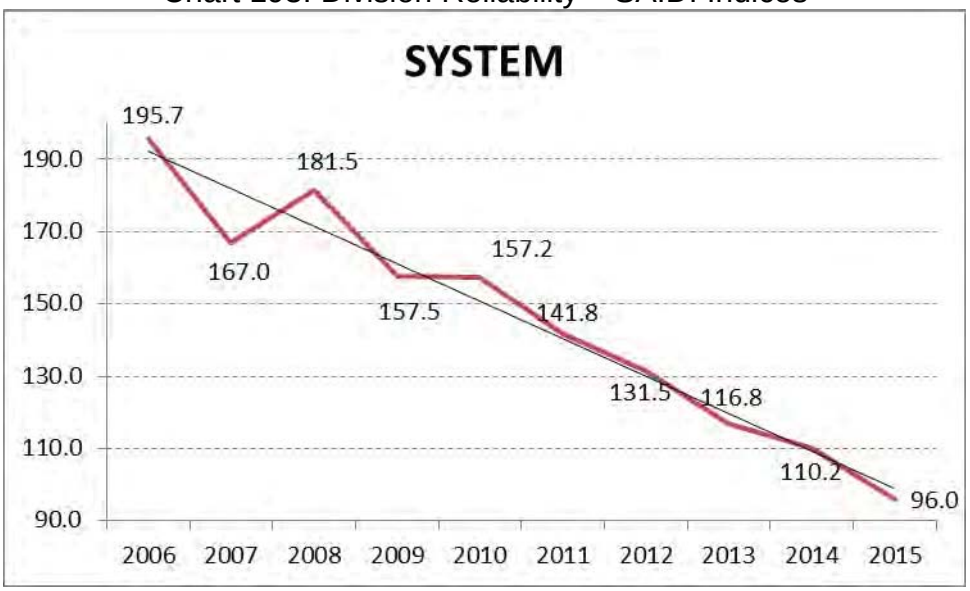
(Excludes ISO and MED)

Chart 192: Division Reliability – SAIDI Indices



(Excludes ISO and MED)

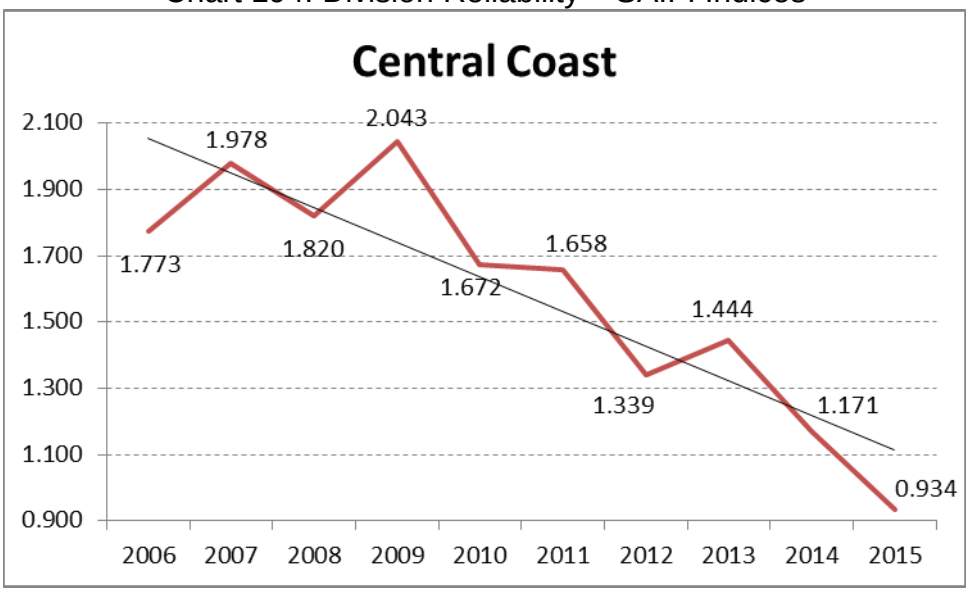
Chart 193: Division Reliability – SAIDI Indices



(Excludes ISO and MED)

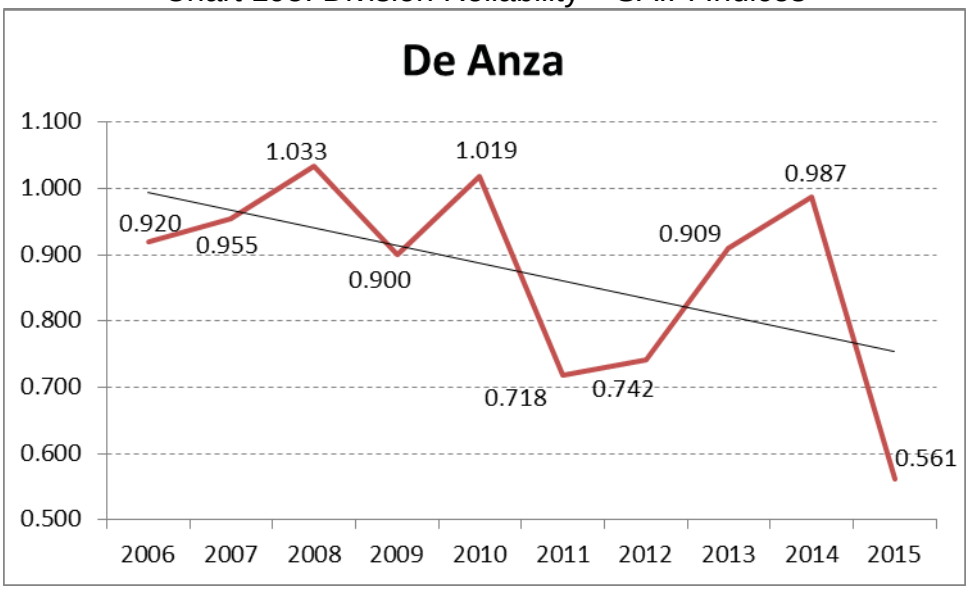
2. SAIFI Performance Results (MED Excluded)

Chart 194: Division Reliability – SAIFI Indices



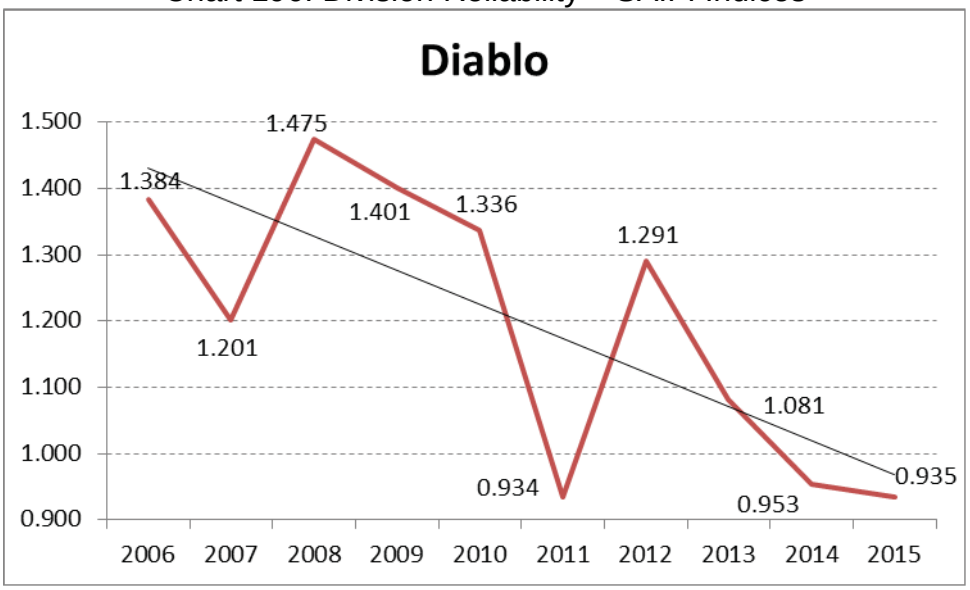
(Excludes ISO and MED)

Chart 195: Division Reliability – SAIFI Indices



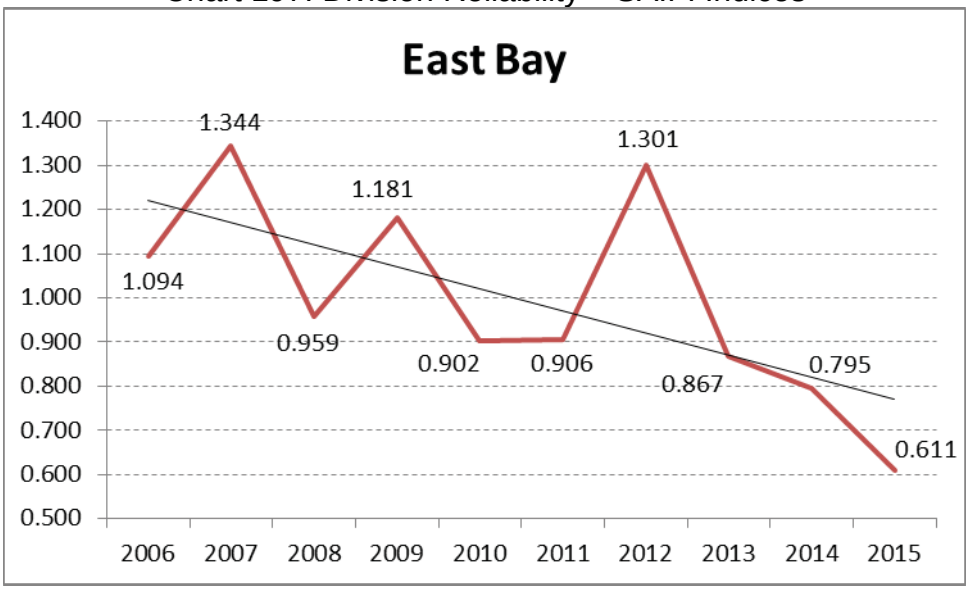
(Excludes ISO and MED)

Chart 196: Division Reliability – SAIFI Indices



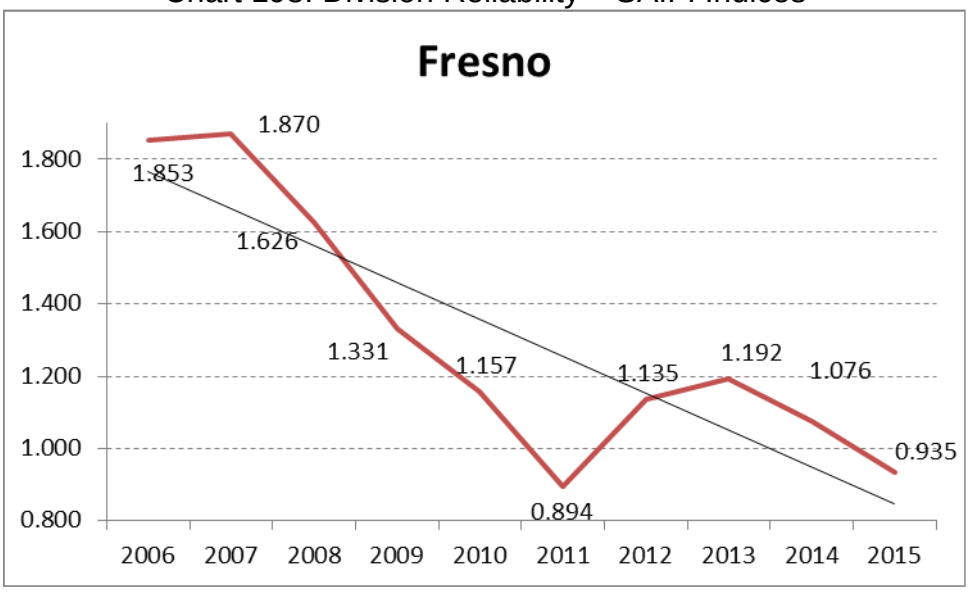
(Excludes ISO and MED)

Chart 197: Division Reliability – SAIFI Indices



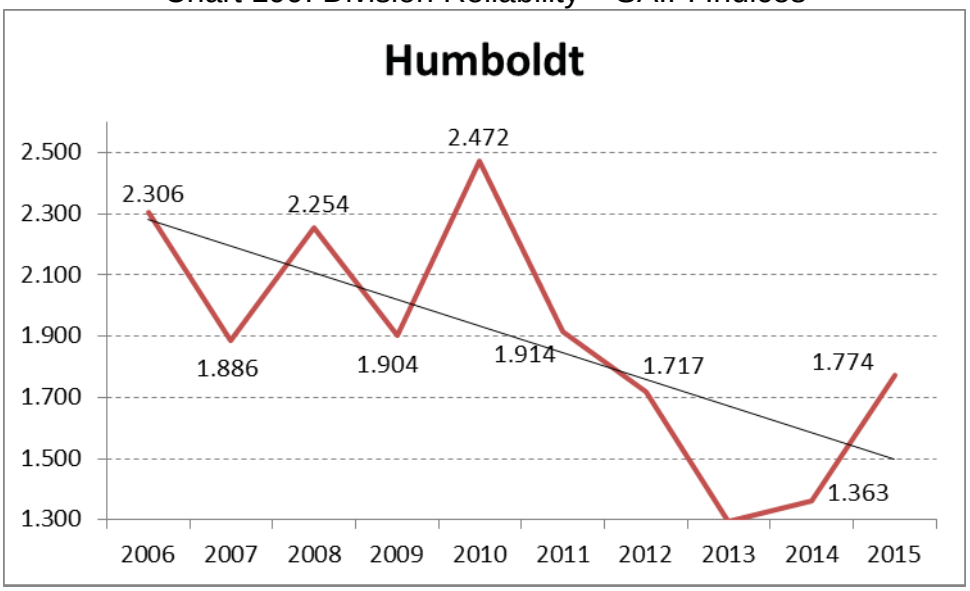
(Excludes ISO and MED)

Chart 198: Division Reliability – SAIFI Indices



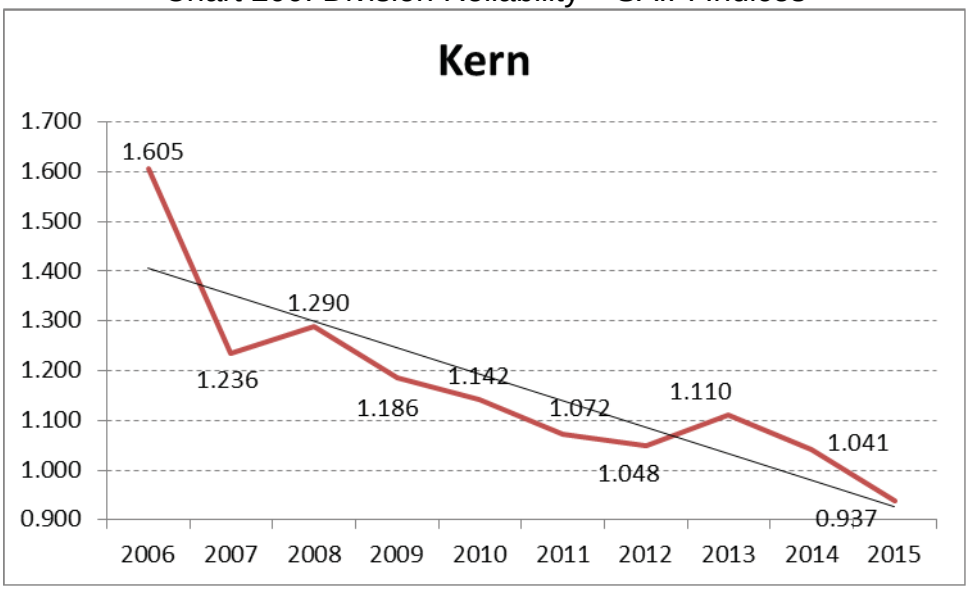
(Excludes ISO and MED)

Chart 199: Division Reliability – SAIFI Indices



(Excludes ISO and MED)

Chart 200: Division Reliability – SAIFI Indices

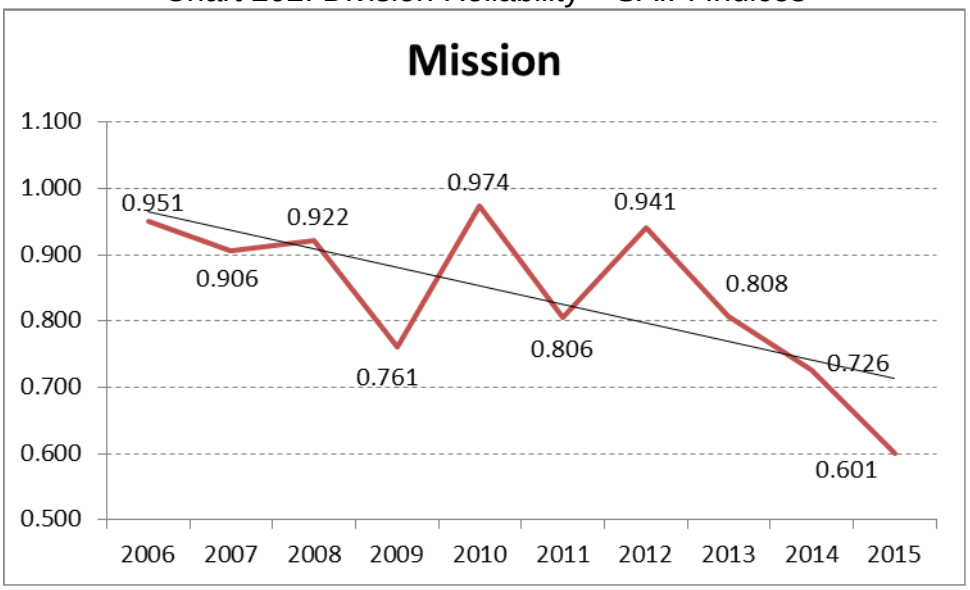


(Excludes ISO and MED)

Chart 201: Division Reliability – SAIFI Indices

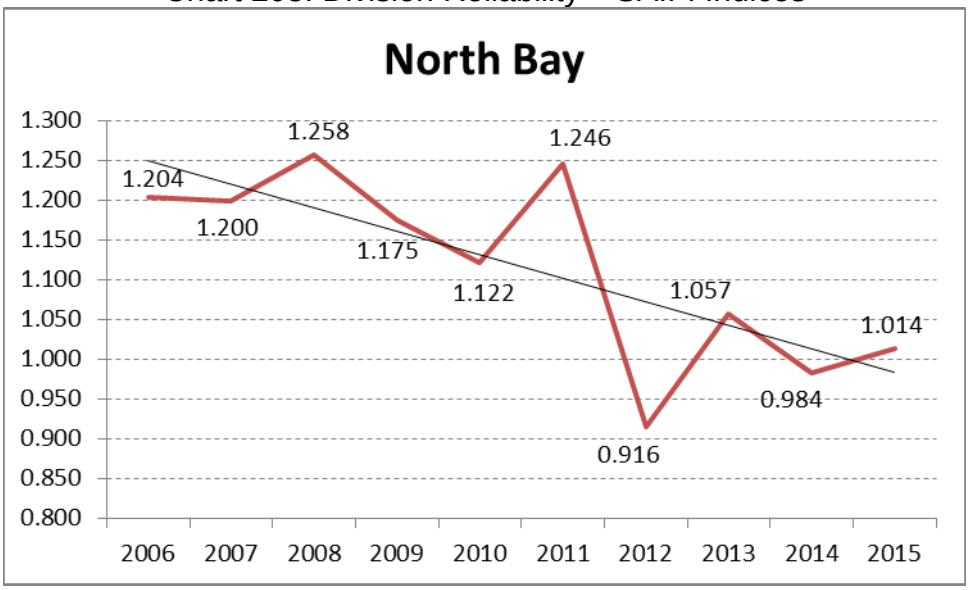
(Excludes ISO and MED)

Chart 202: Division Reliability – SAIFI Indices



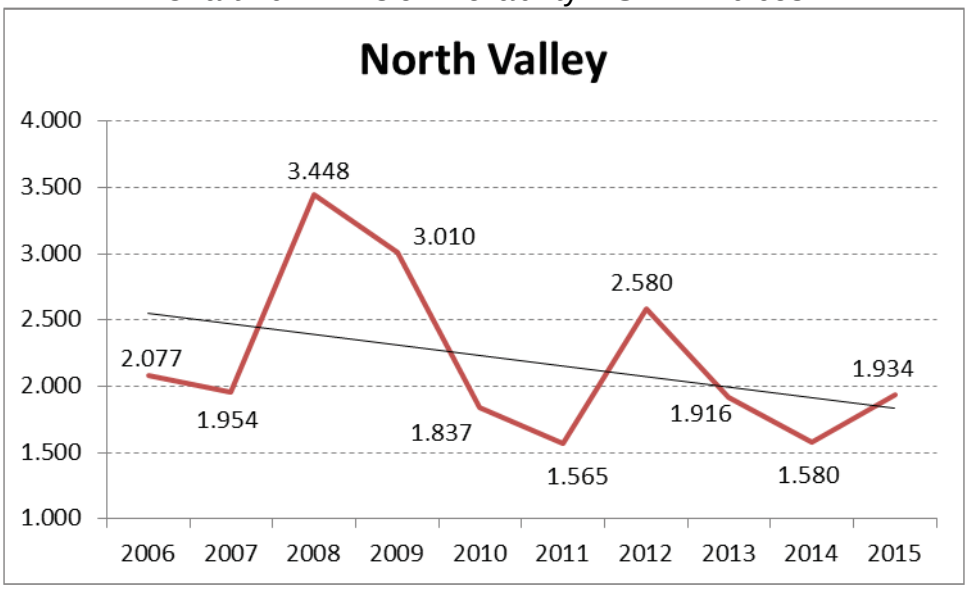
(Excludes ISO and MED)

Chart 203: Division Reliability – SAIFI Indices



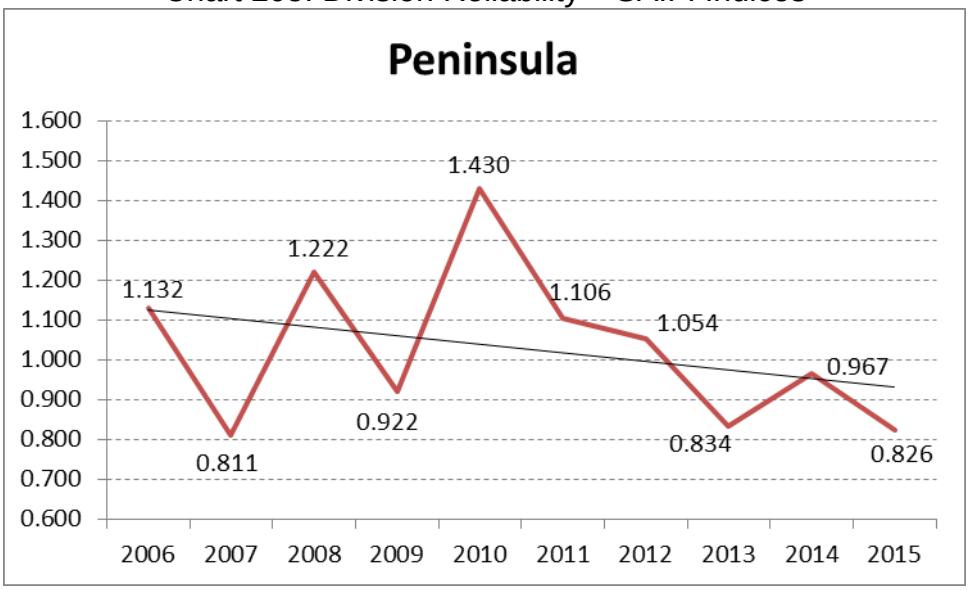
(Excludes ISO and MED)

Chart 204: Division Reliability – SAIFI Indices



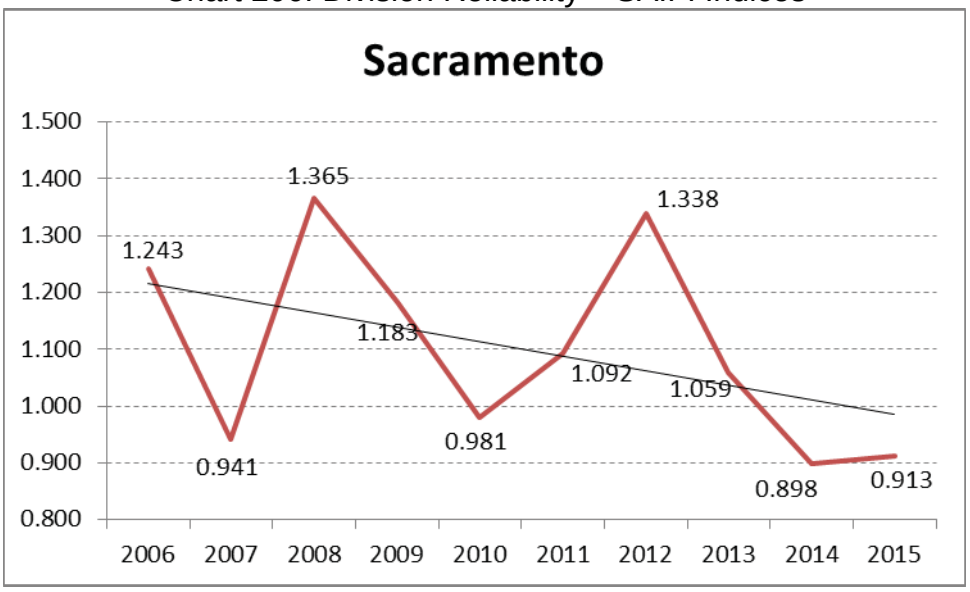
(Excludes ISO and MED)

Chart 205: Division Reliability – SAIFI Indices



(Excludes ISO and MED)

Chart 206: Division Reliability – SAIFI Indices

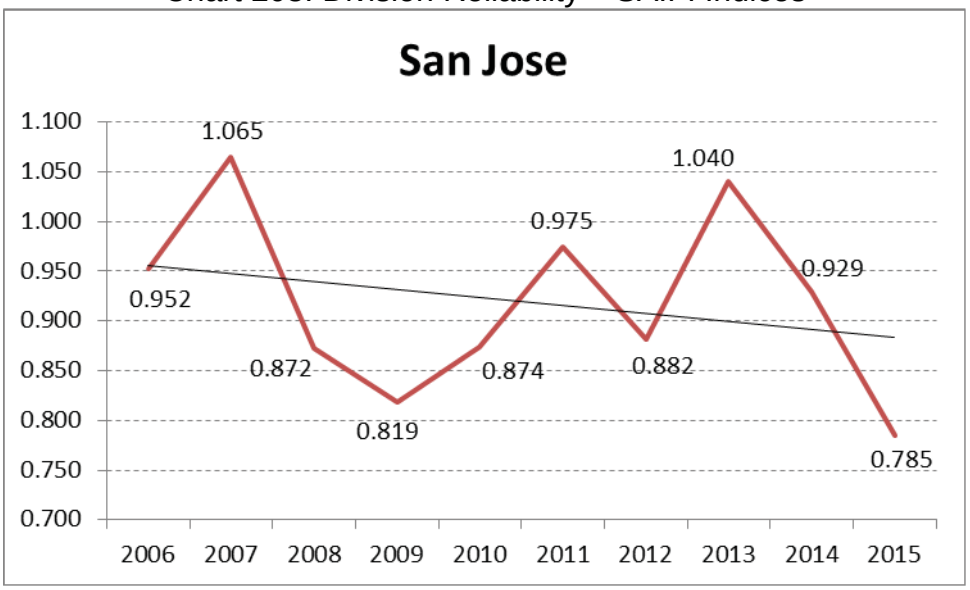


(Excludes ISO and MED)

Chart 207: Division Reliability – SAIFI Indices

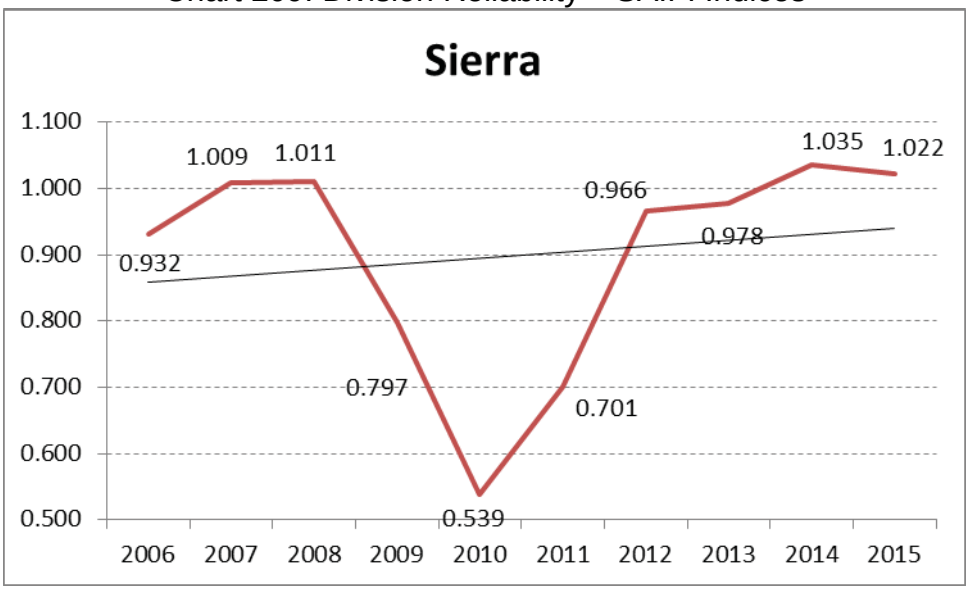
(Excludes ISO and MED)

Chart 208: Division Reliability – SAIFI Indices



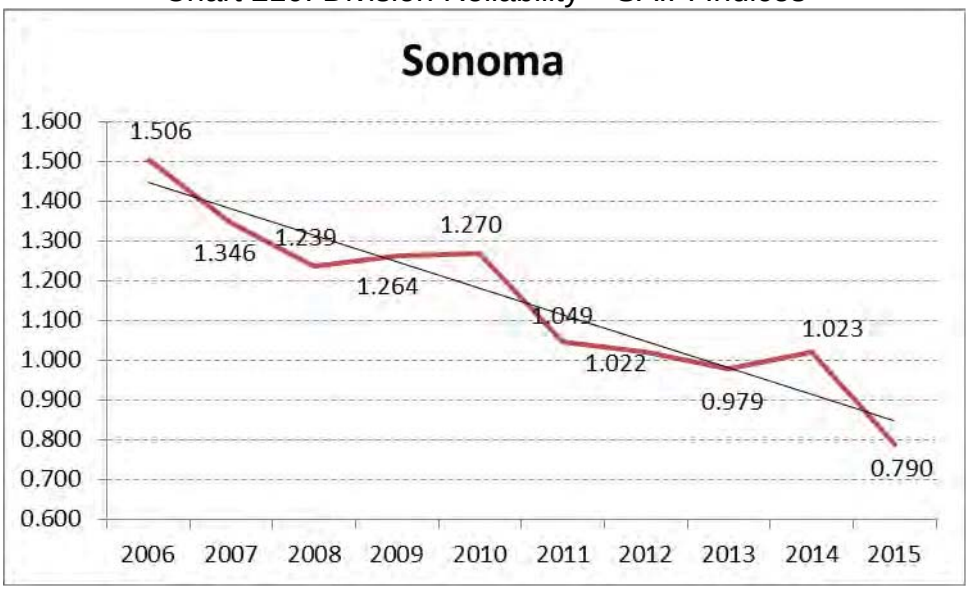
(Excludes ISO and MED)

Chart 209: Division Reliability – SAIFI Indices



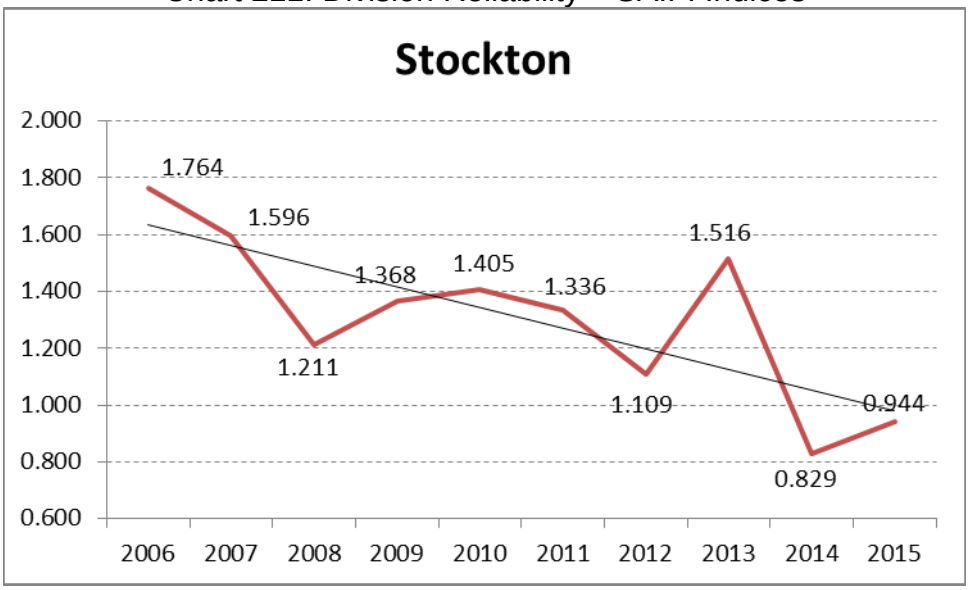
(Excludes ISO and MED)

Chart 210: Division Reliability – SAIFI Indices



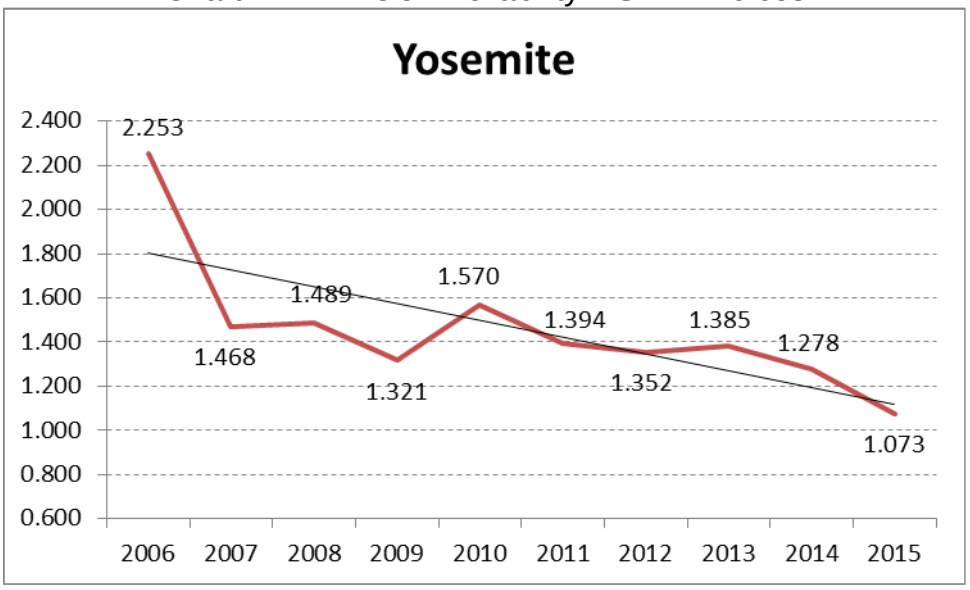
(Excludes ISO and MED)

Chart 211: Division Reliability – SAIFI Indices



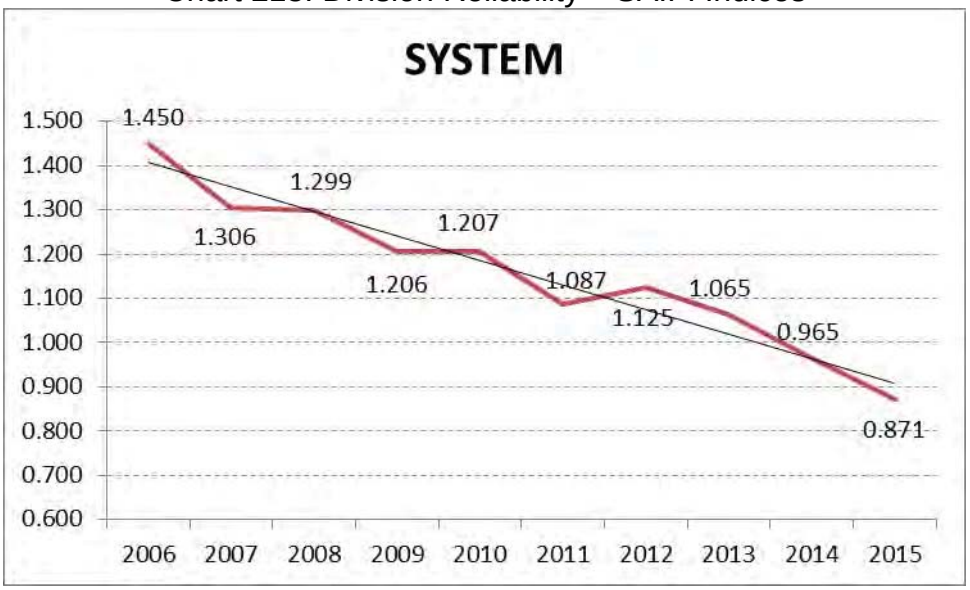
(Excludes ISO and MED)

Chart 212: Division Reliability – SAIFI Indices



(Excludes ISO and MED)

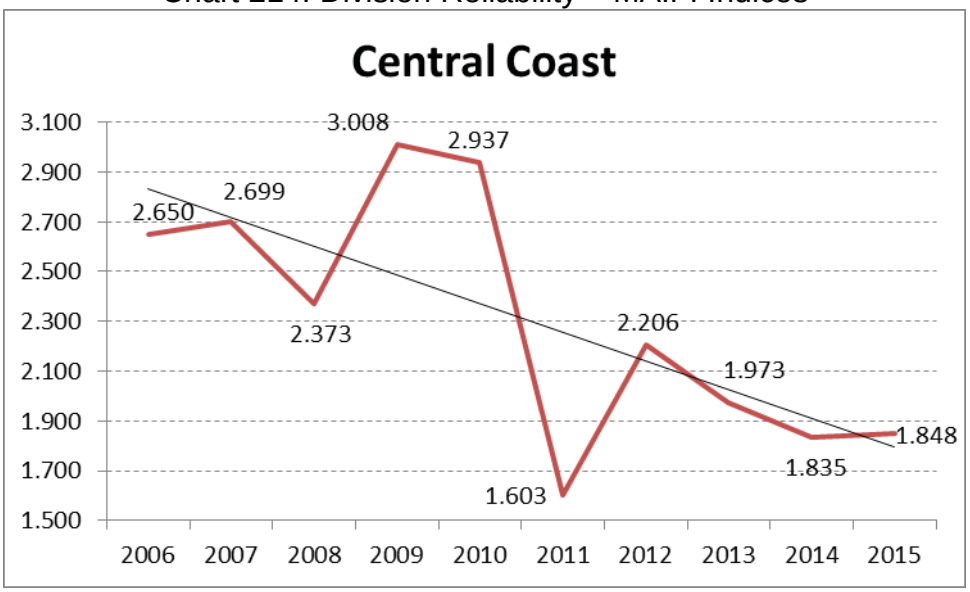
Chart 213: Division Reliability – SAIFI Indices



(Excludes ISO and MED)

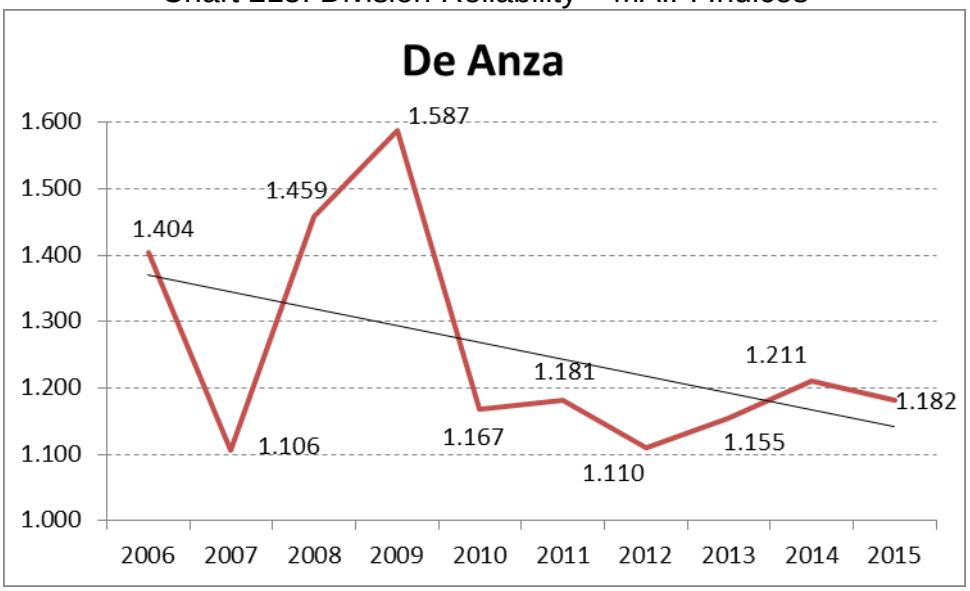
3. MAIFI[11] Performance Results (MED Excluded)

Chart 214: Division Reliability – MAIFI Indices



(Excludes ISO and MED)

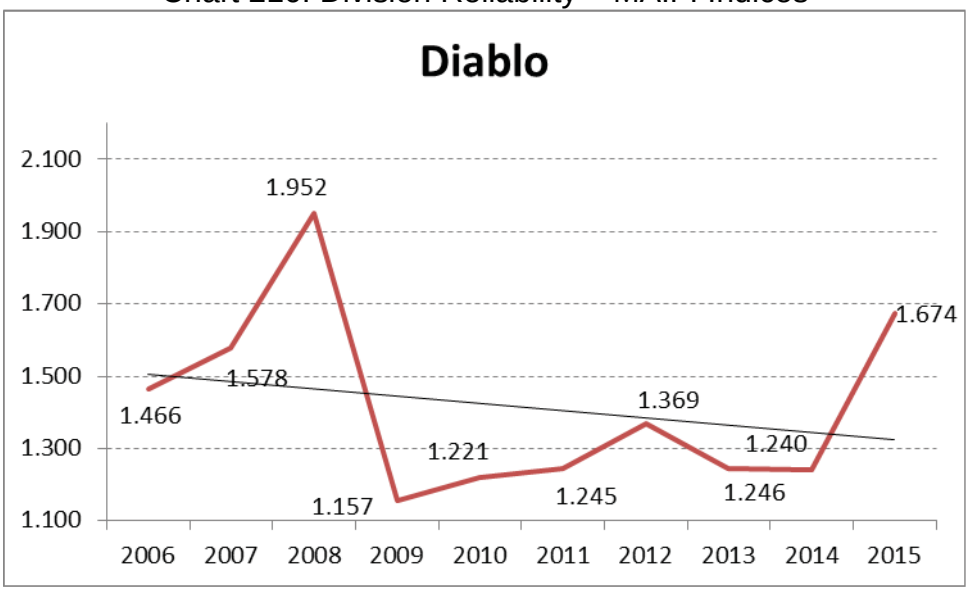
Chart 215: Division Reliability – MAIFI Indices



(Excludes ISO and MED)

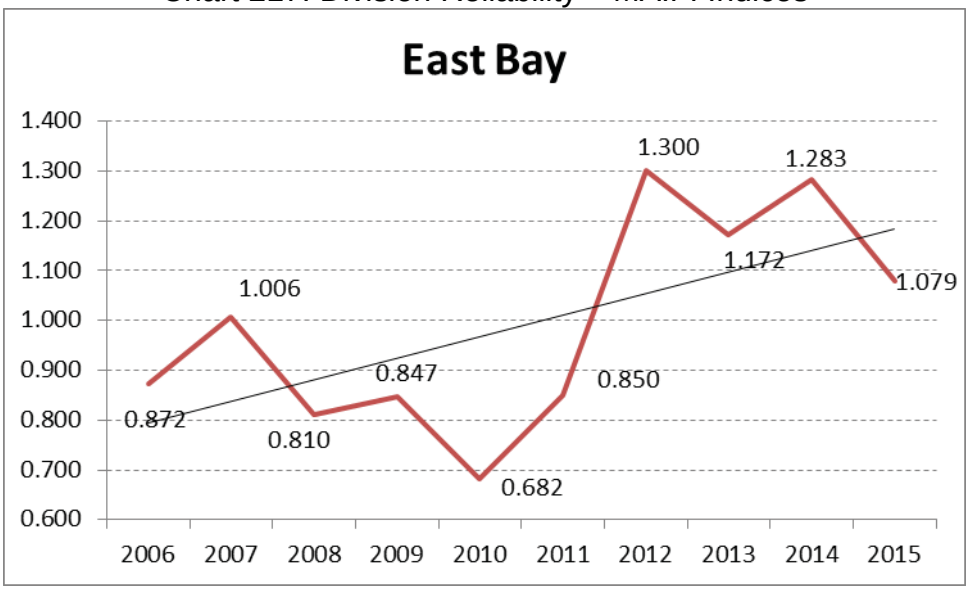
[11] As discussed in footnote 4 on page 12 above, on November 18, 2011 the EON recording system was removed from service. Momentary outage data is now being collected from SCADA devices and through the use of Smart Meters. Data collection from the Smart Meters is more effective than the previous EON system since Smart Meters don't rely on customer volunteers having EON devices securely connected inside their buildings. The increased frequency of momentary outages recorded in 2012 and following years does not indicate an actual increase in momentary outages in 2012 and after as compared to prior years, but is a result of this improved method for recording momentary outages.

Chart 216: Division Reliability – MAIFI Indices



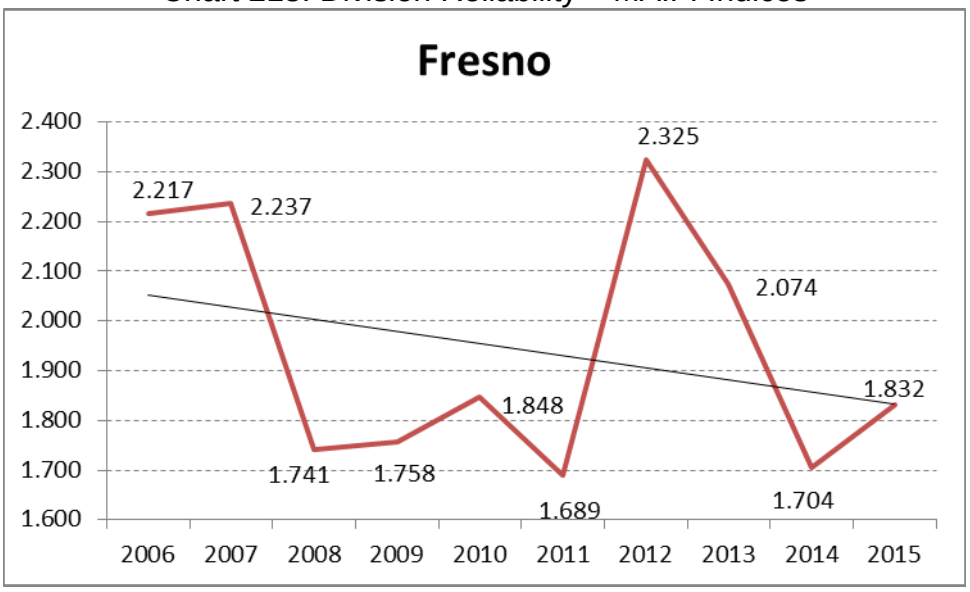
(Excludes ISO and MED)

Chart 217: Division Reliability – MAIFI Indices



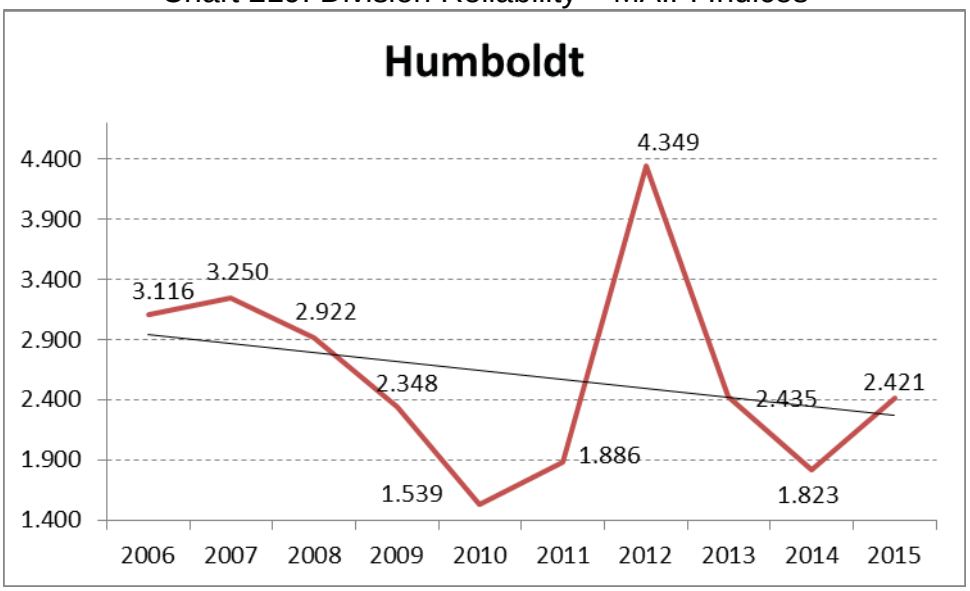
(Excludes ISO and MED)

Chart 218: Division Reliability – MAIFI Indices



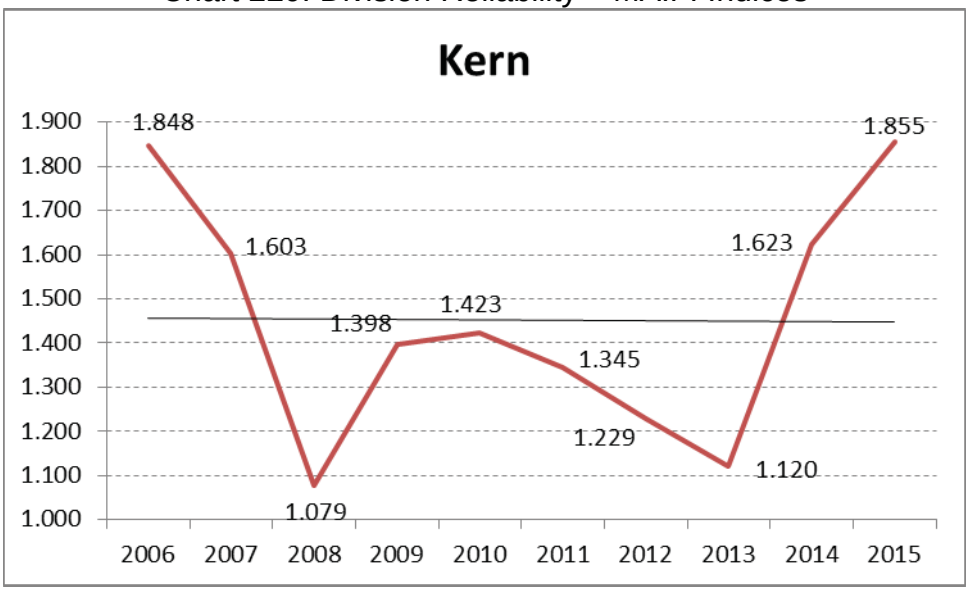
(Excludes ISO and MED)

Chart 219: Division Reliability – MAIFI Indices



(Excludes ISO and MED)

Chart 220: Division Reliability – MAIFI Indices

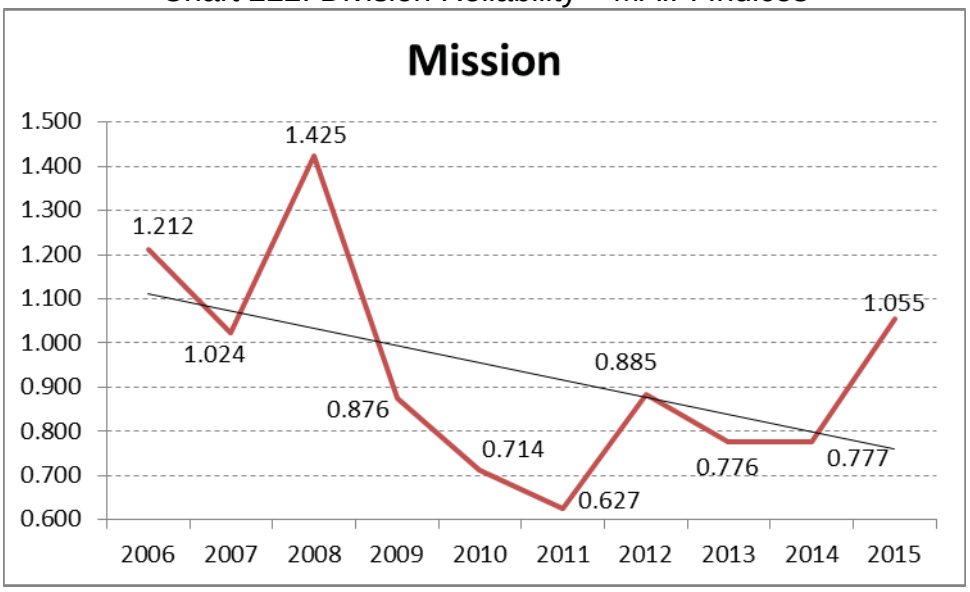


(Excludes ISO and MED)

Chart 221: Division Reliability – MAIFI Indices

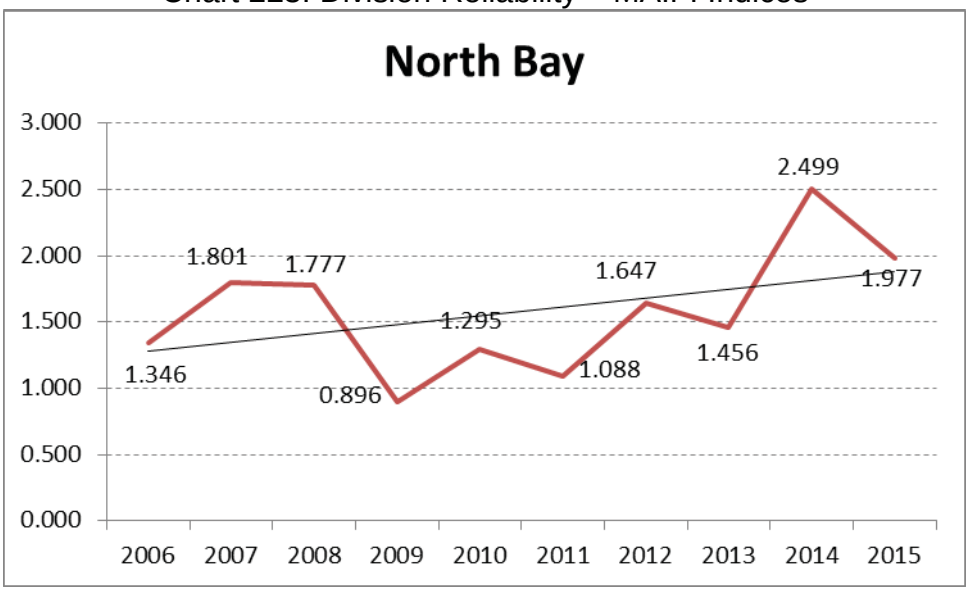
(Excludes ISO and MED)

Chart 222: Division Reliability – MAIFI Indices



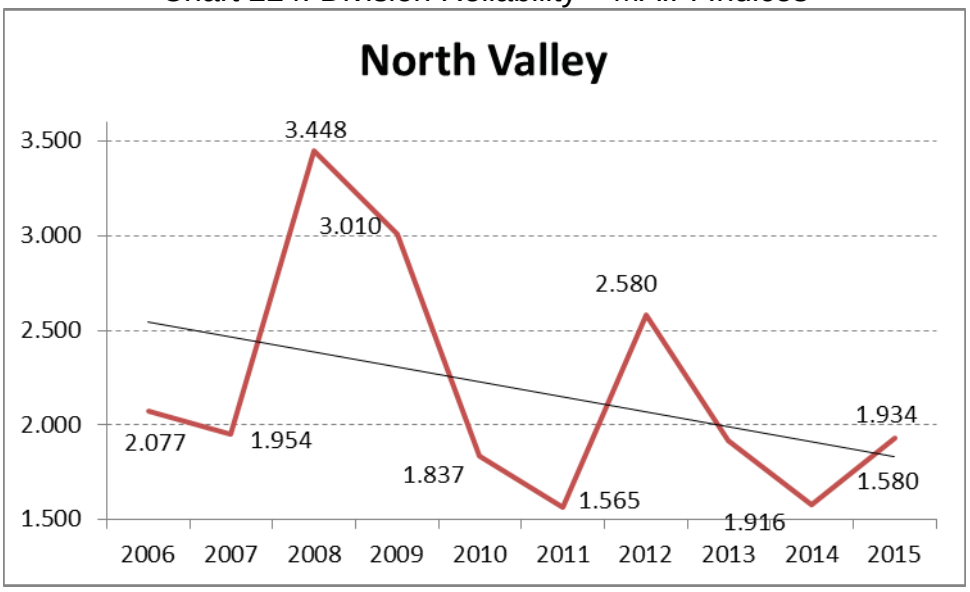
(Excludes ISO and MED)

Chart 223: Division Reliability – MAIFI Indices



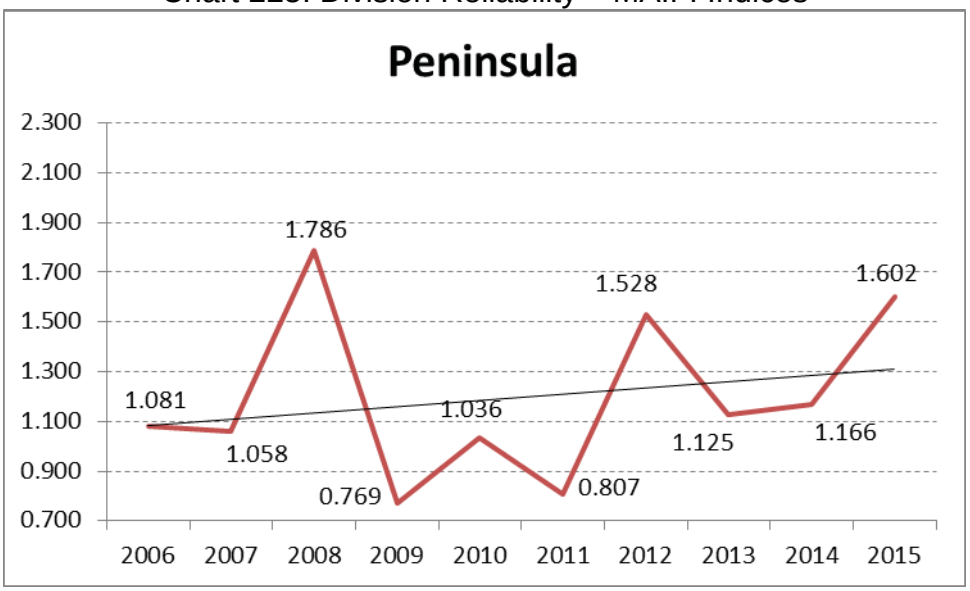
(Excludes ISO and MED)

Chart 224: Division Reliability – MAIFI Indices



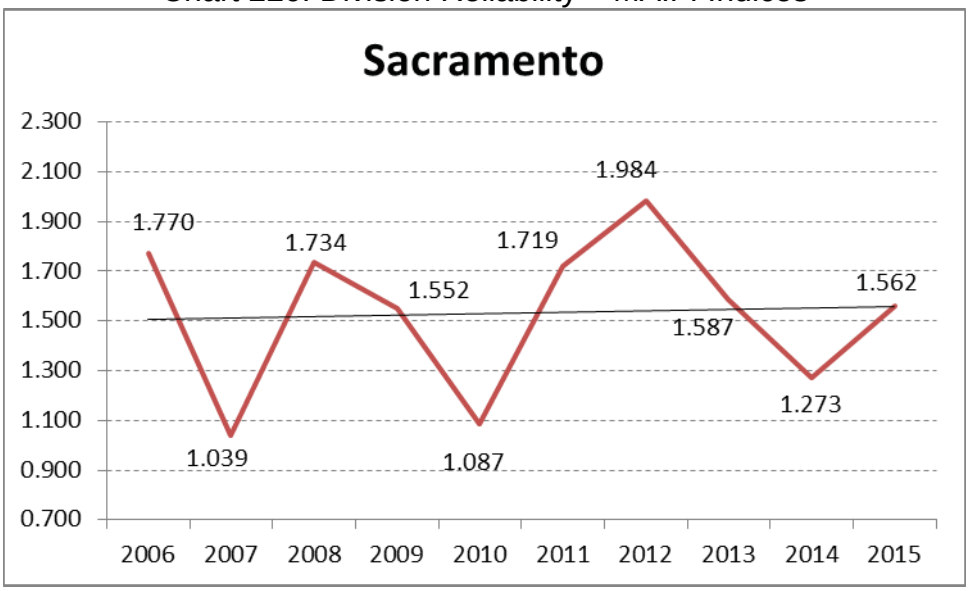
(Excludes ISO and MED)

Chart 225: Division Reliability – MAIFI Indices



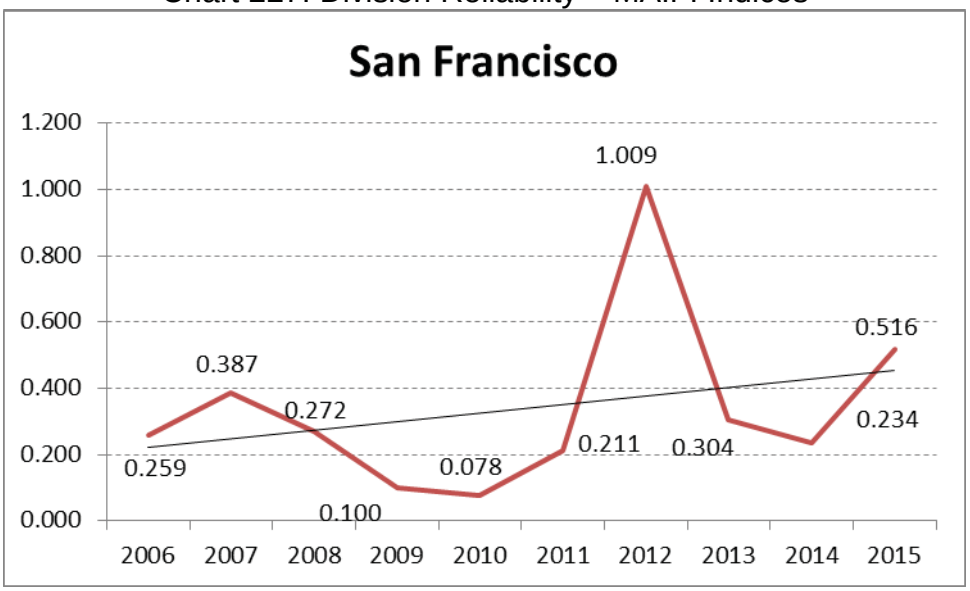
(Excludes ISO and MED)

Chart 226: Division Reliability – MAIFI Indices



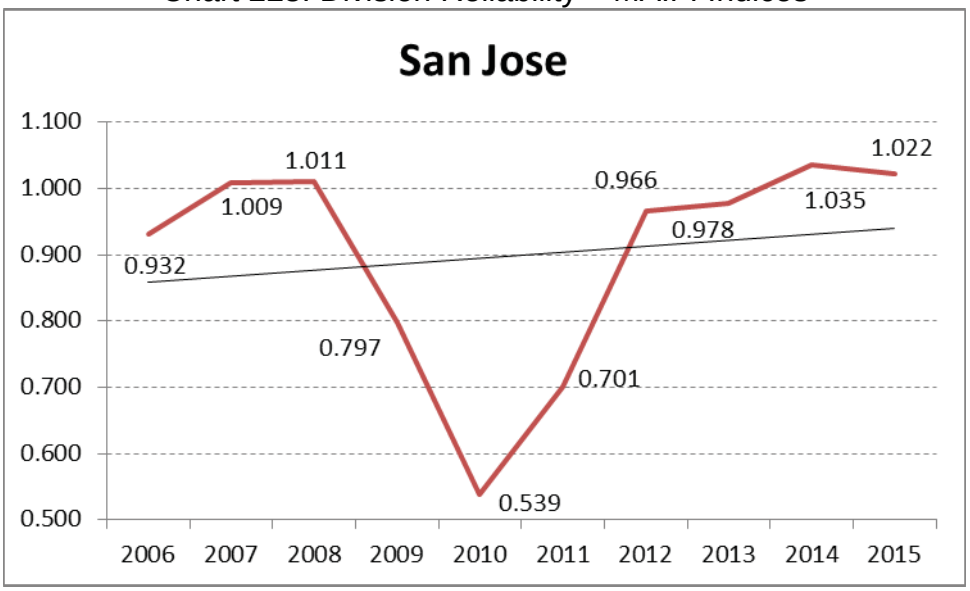
(Excludes ISO and MED)

Chart 227: Division Reliability – MAIFI Indices



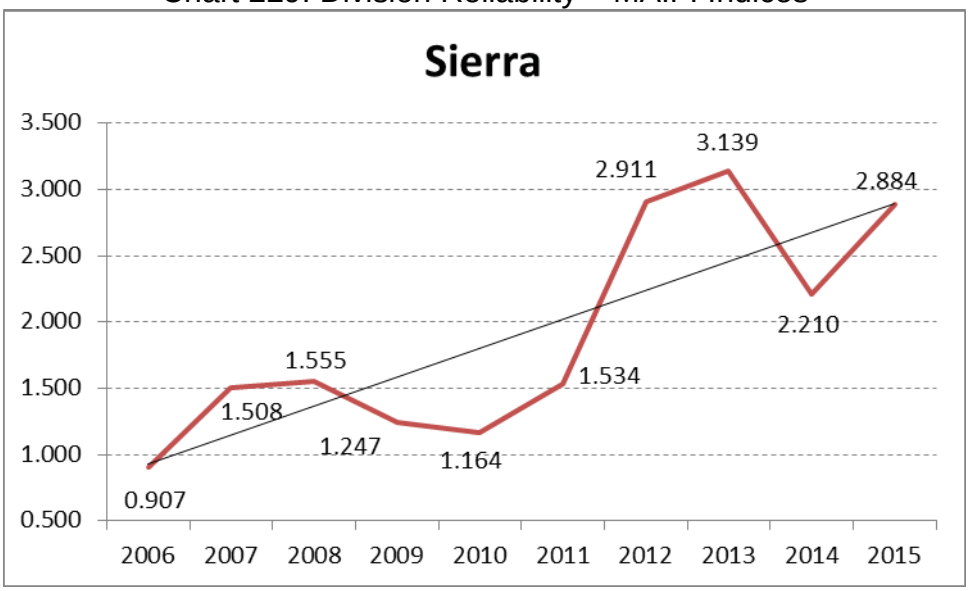
(Excludes ISO and MED)

Chart 228: Division Reliability – MAIFI Indices



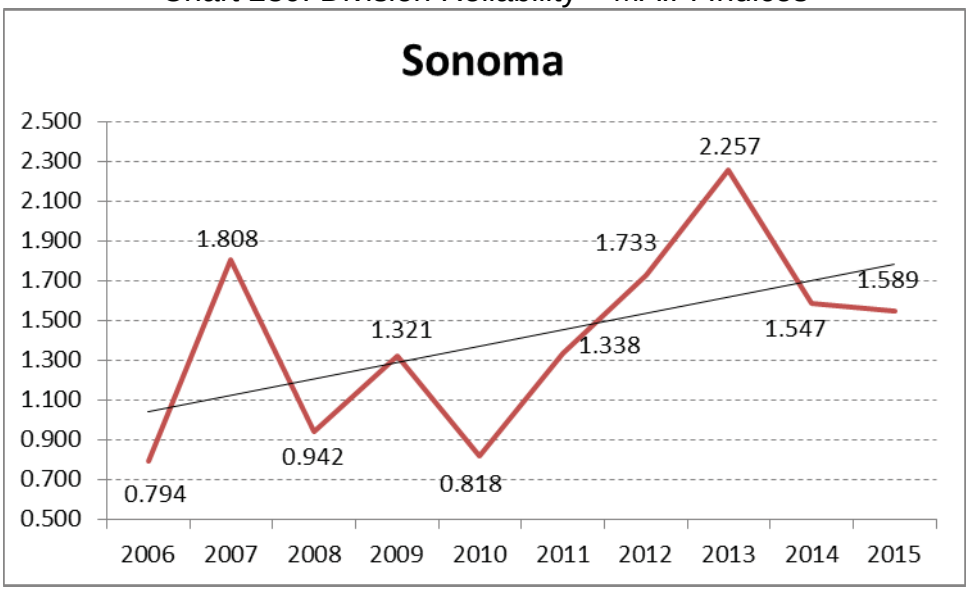
(Excludes ISO and MED)

Chart 229: Division Reliability – MAIFI Indices



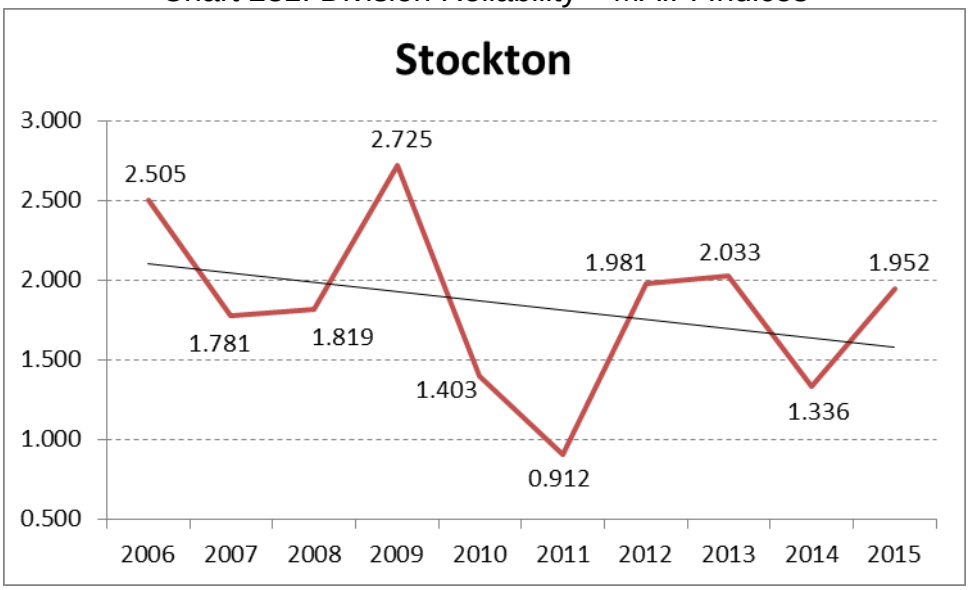
(Excludes ISO and MED)

Chart 230: Division Reliability – MAIFI Indices



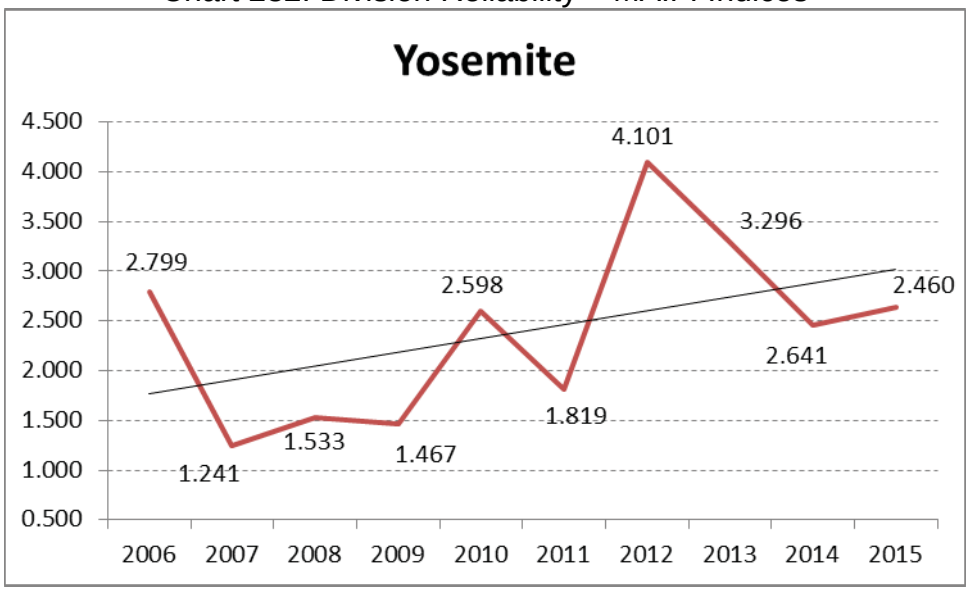
(Excludes ISO and MED)

Chart 231: Division Reliability – MAIFI Indices



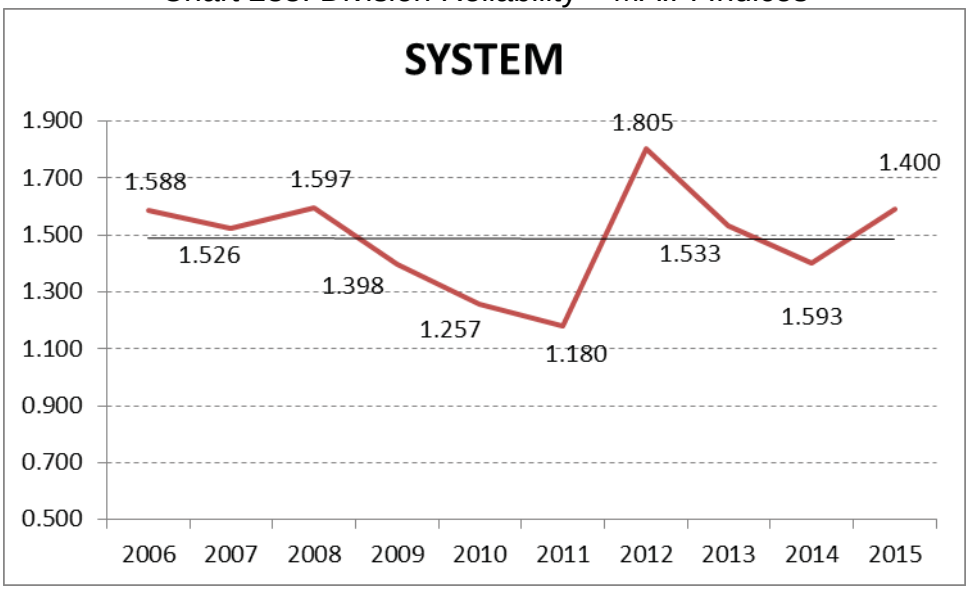
(Excludes ISO and MED)

Chart 232: Division Reliability – MAIFI Indices



(Excludes ISO and MED)

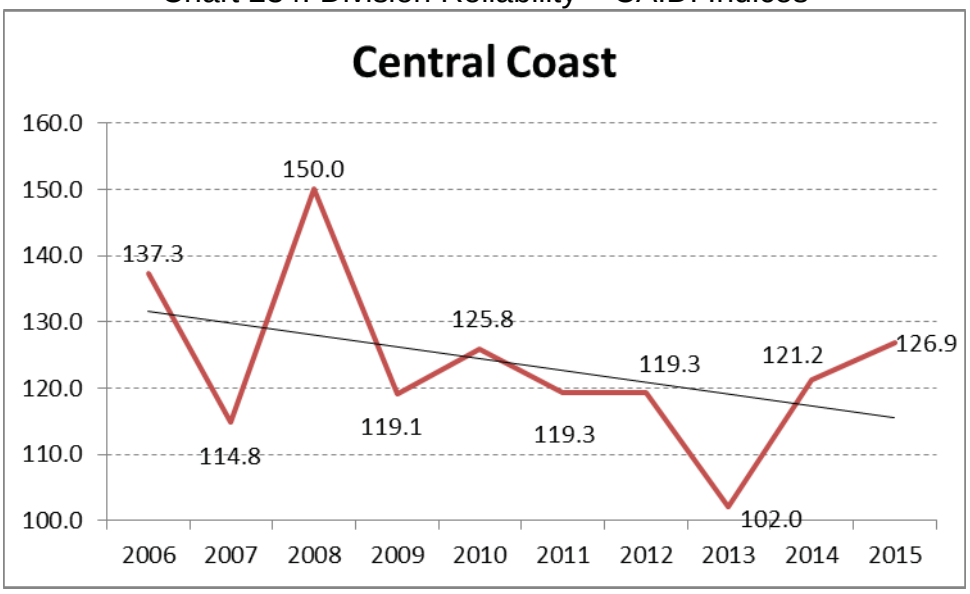
Chart 233: Division Reliability – MAIFI Indices



(Excludes ISO and MED)

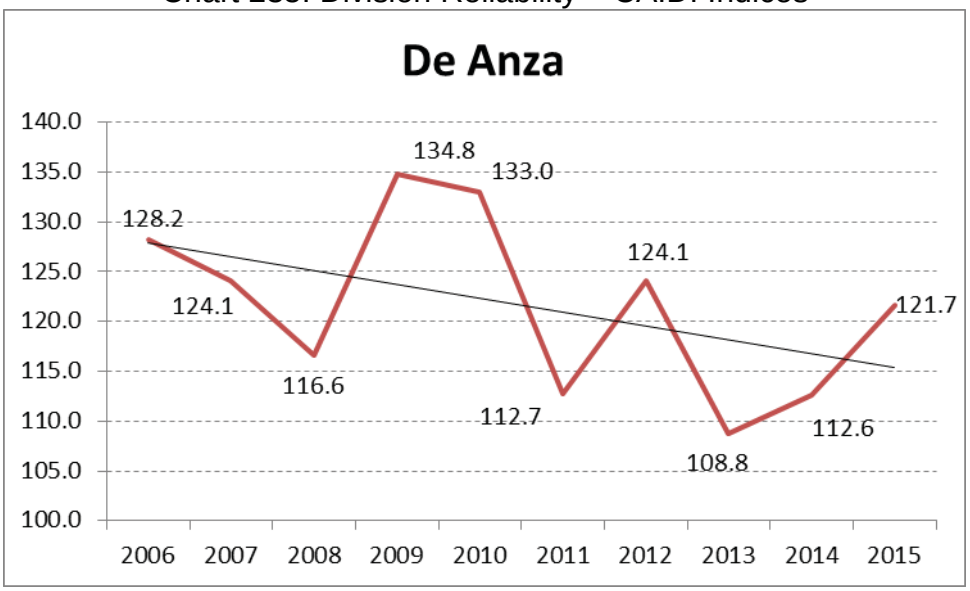
4. CAIDI Performance Results (MED Excluded)

Chart 234: Division Reliability – CAIDI Indices



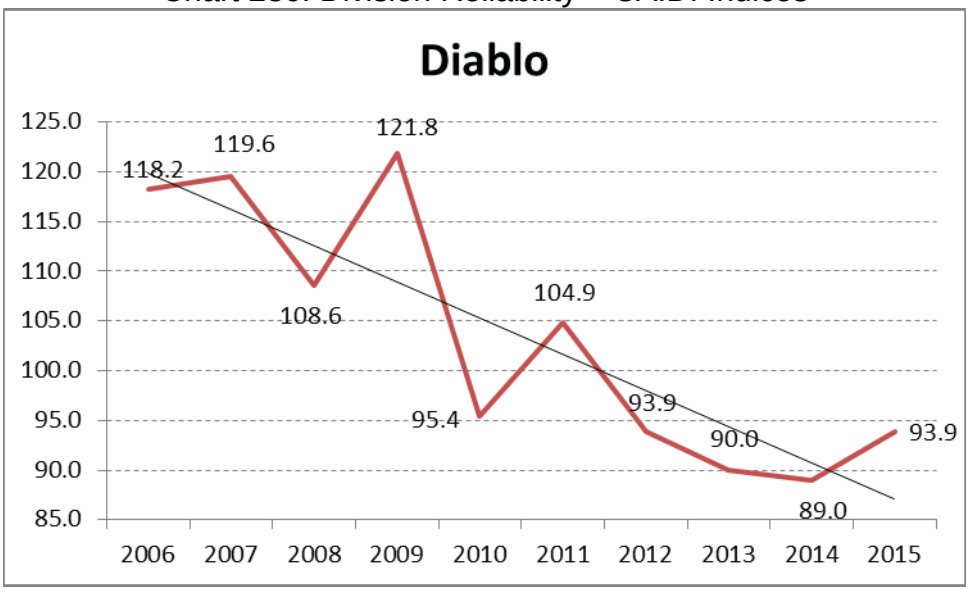
(Excludes ISO and MED)

Chart 235: Division Reliability – CAIDI Indices



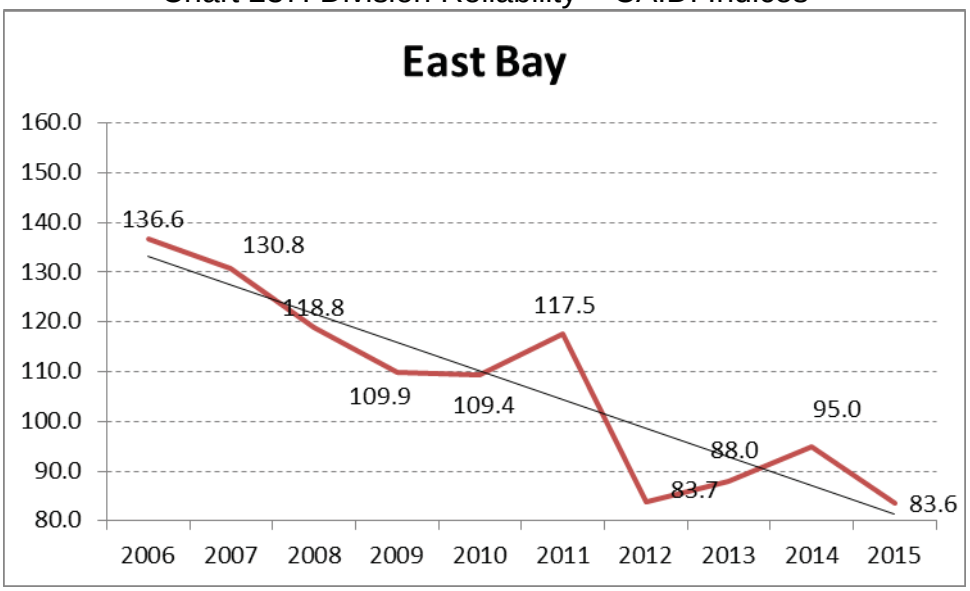
(Excludes ISO and MED)

Chart 236: Division Reliability – CAIDI Indices



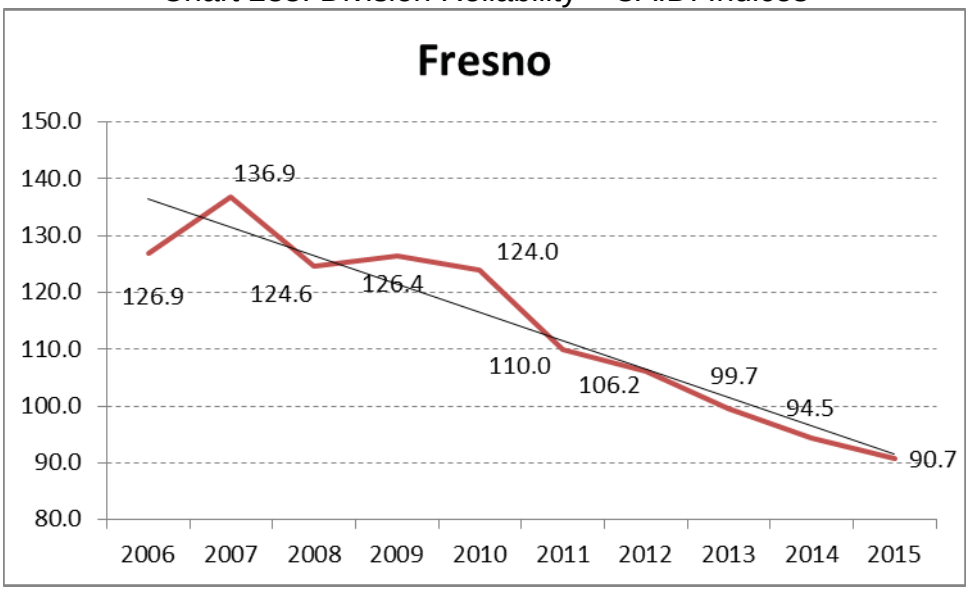
(Excludes ISO and MED)

Chart 237: Division Reliability – CAIDI Indices



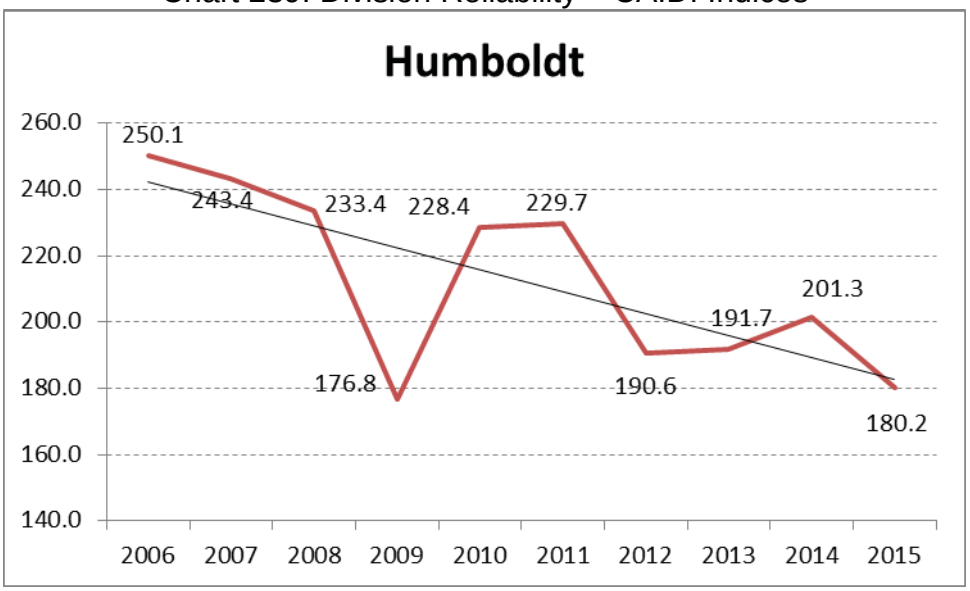
(Excludes ISO and MED)

Chart 238: Division Reliability – CAIDI Indices



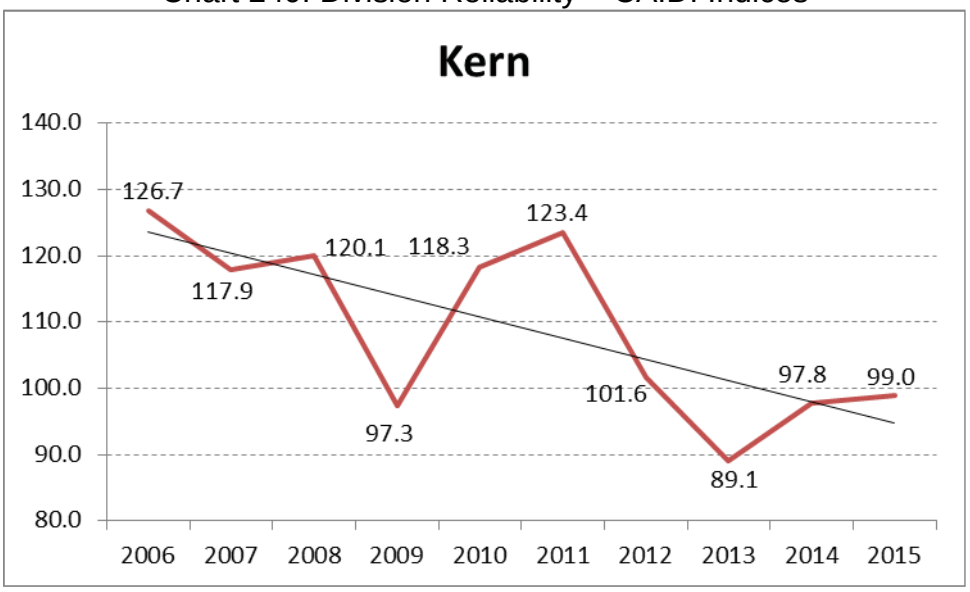
(Excludes ISO and MED)

Chart 239: Division Reliability – CAIDI Indices



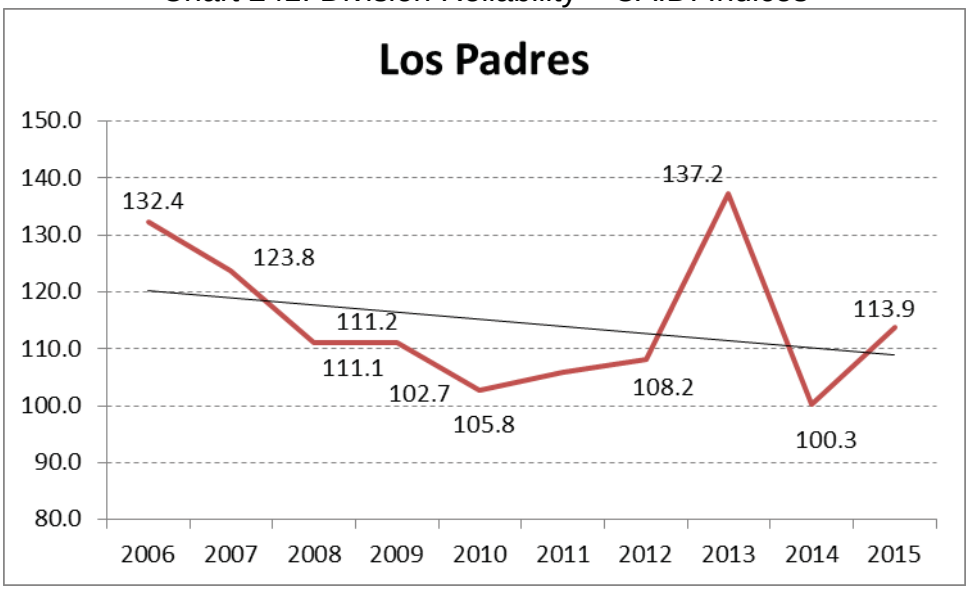
(Excludes ISO and MED)

Chart 240: Division Reliability – CAIDI Indices



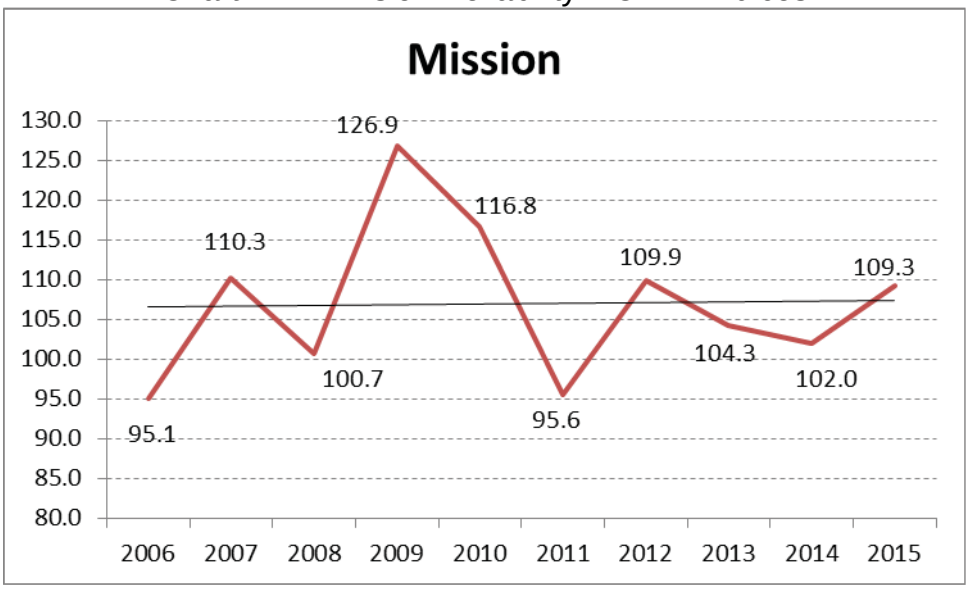
(Excludes ISO and MED)

Chart 241: Division Reliability – CAIDI Indices



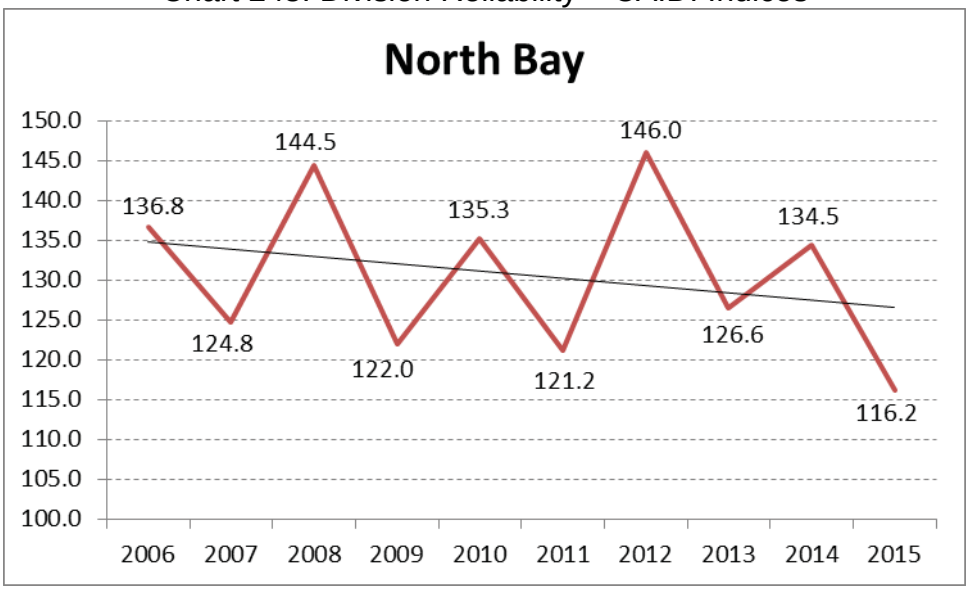
(Excludes ISO and MED)

Chart 242: Division Reliability – CAIDI Indices



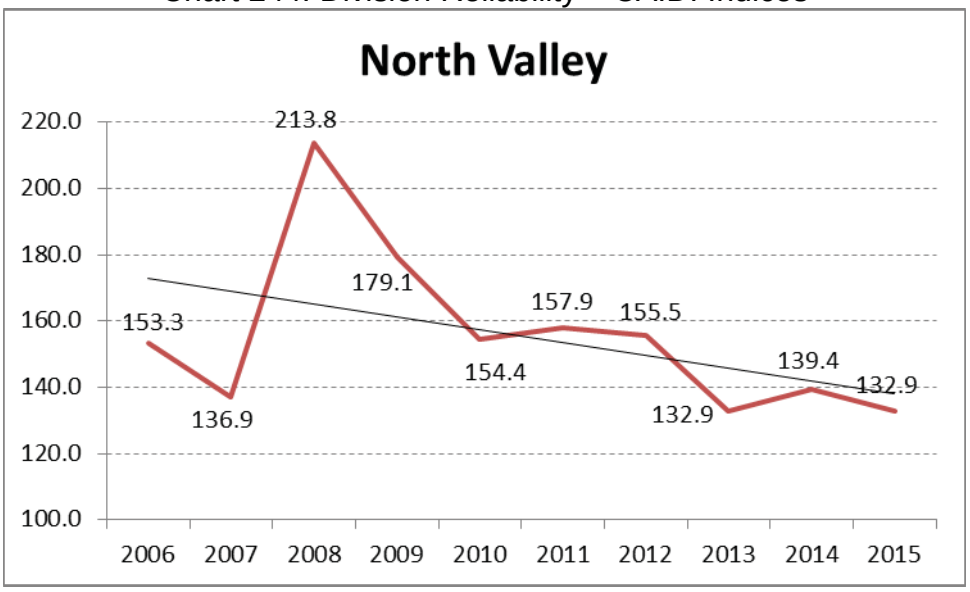
(Excludes ISO and MED)

Chart 243: Division Reliability – CAIDI Indices



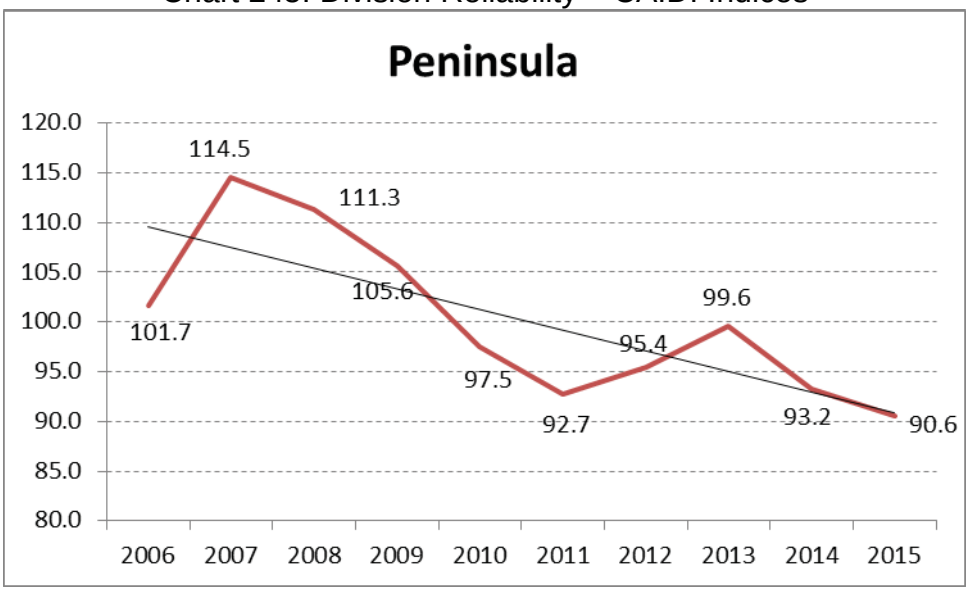
(Excludes ISO and MED)

Chart 244: Division Reliability – CAIDI Indices



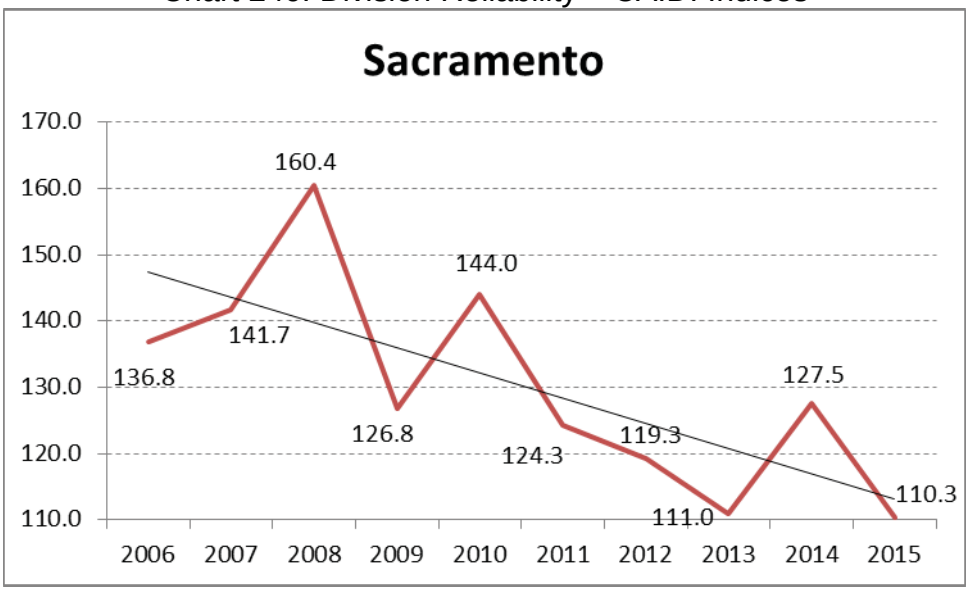
(Excludes ISO and MED)

Chart 245: Division Reliability – CAIDI Indices



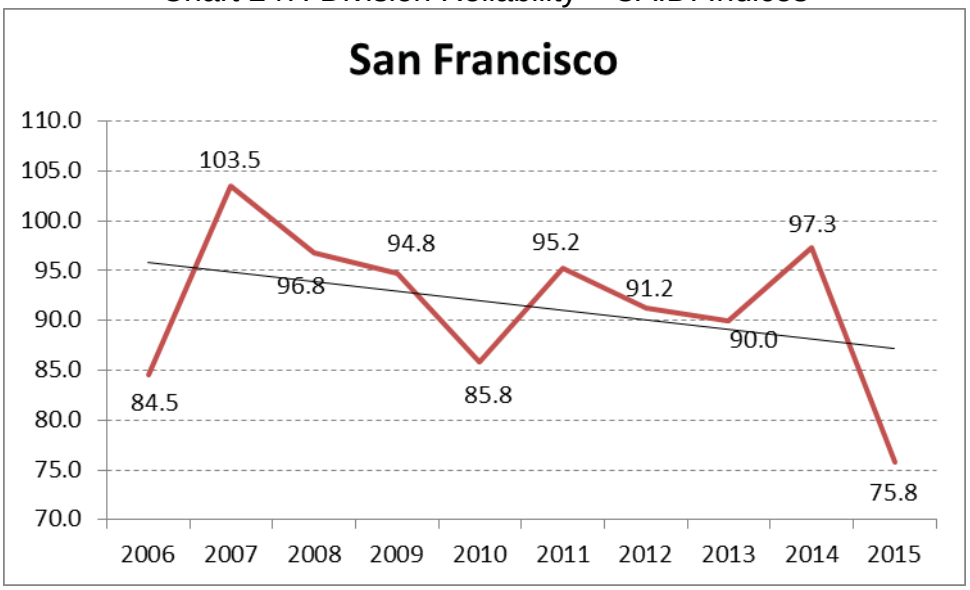
(Excludes ISO and MED)

Chart 246: Division Reliability – CAIDI Indices



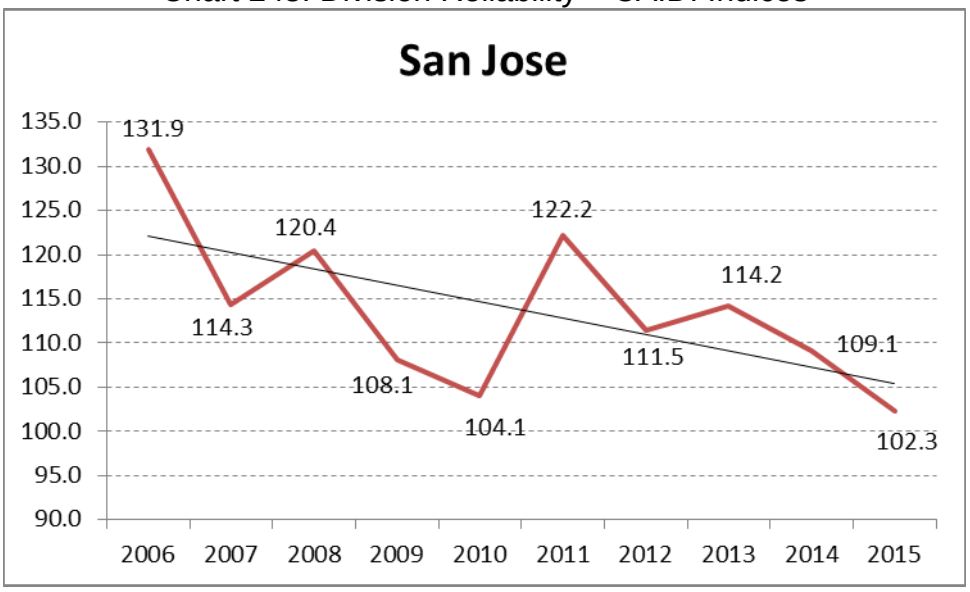
(Excludes ISO and MED)

Chart 247: Division Reliability – CAIDI Indices



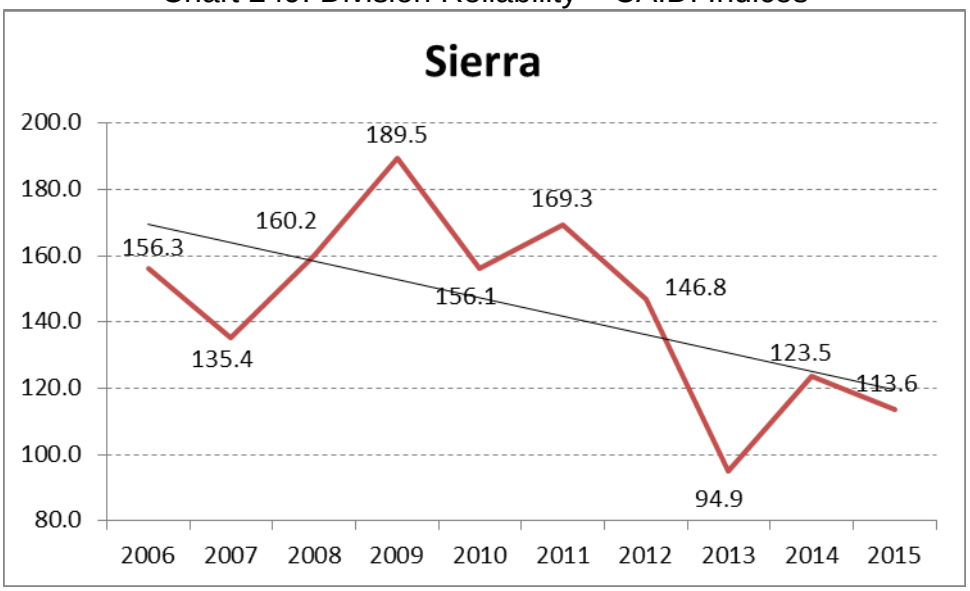
(Excludes ISO and MED)

Chart 248: Division Reliability – CAIDI Indices



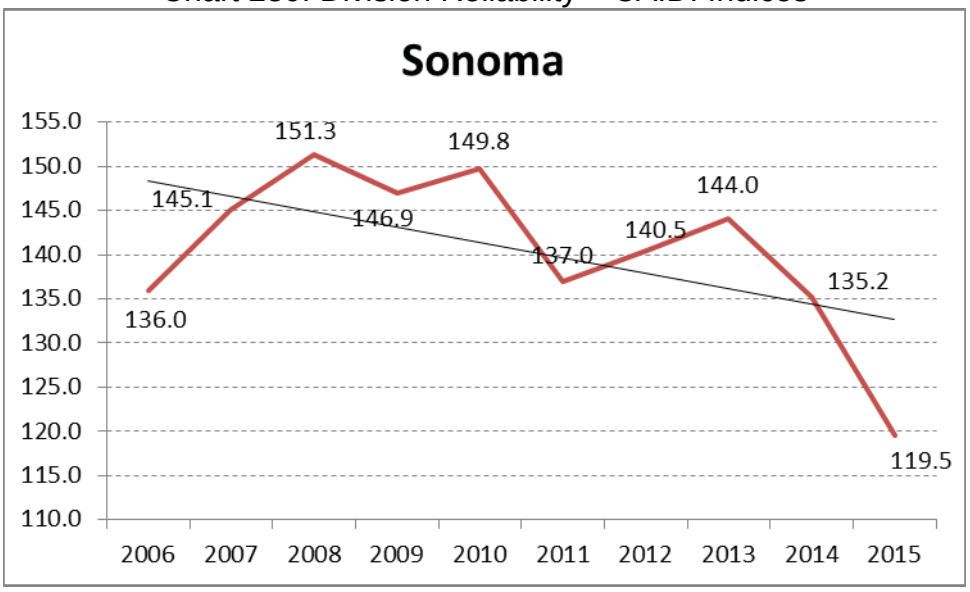
(Excludes ISO and MED)

Chart 249: Division Reliability – CAIDI Indices



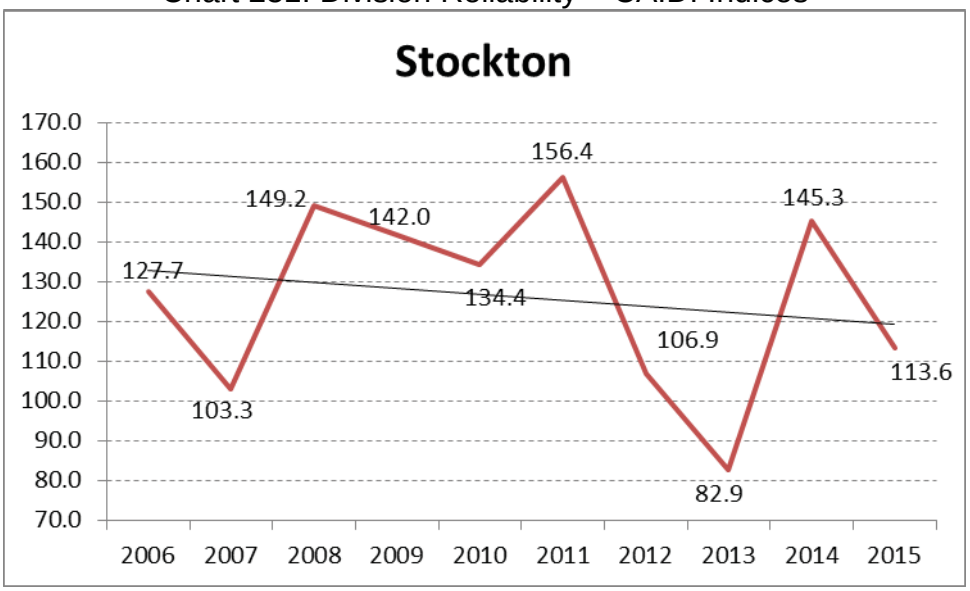
(Excludes ISO and MED)

Chart 250: Division Reliability – CAIDI Indices



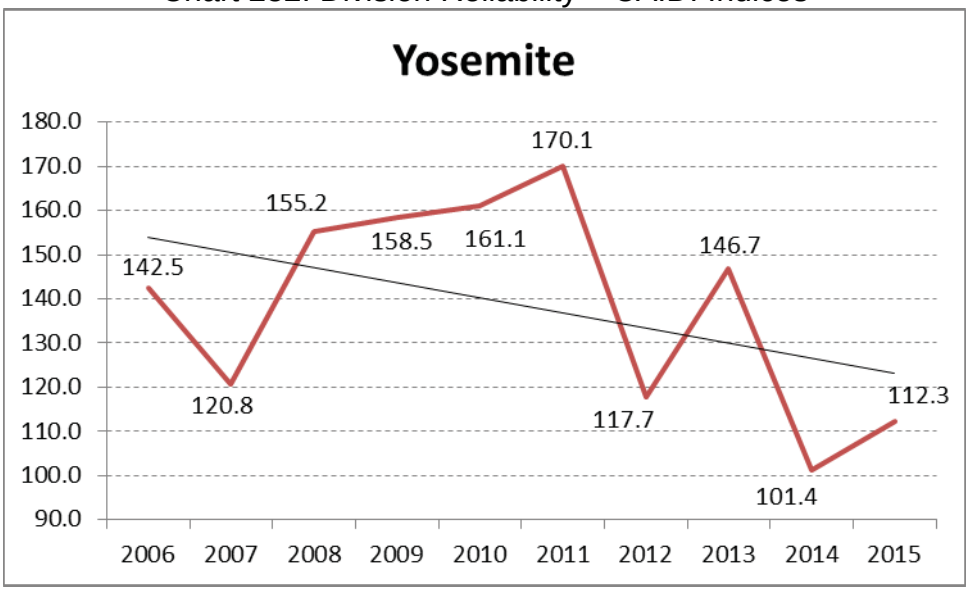
(Excludes ISO and MED)

Chart 251: Division Reliability – CAIDI Indices



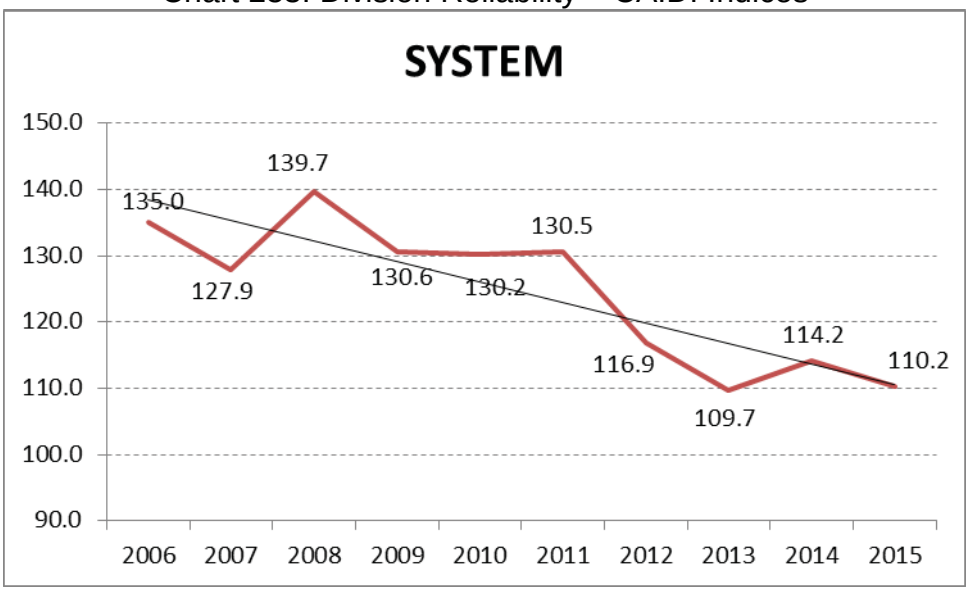
(Excludes ISO and MED)

Chart 252: Division Reliability – CAIDI Indices



(Excludes ISO and MED)

Chart 253: Division Reliability – CAIDI Indices

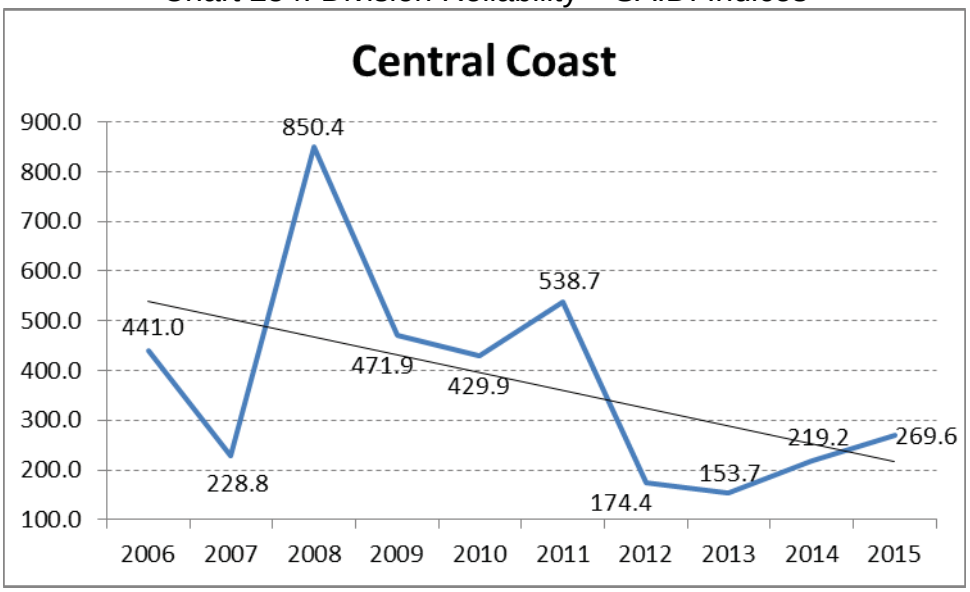


(Excludes ISO and MED)

ii. Charts for System and Division Reliability Indices based on IEEE 1366 for the past 10 years including planned outages and including MED

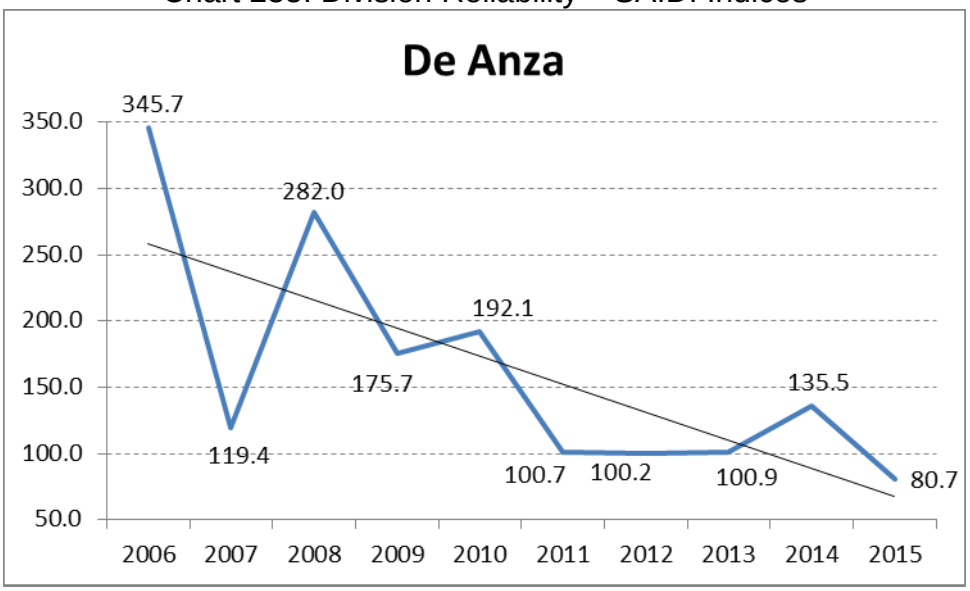
1. SAIDI Performance Results (MED Included)

Chart 254: Division Reliability – SAIDI Indices



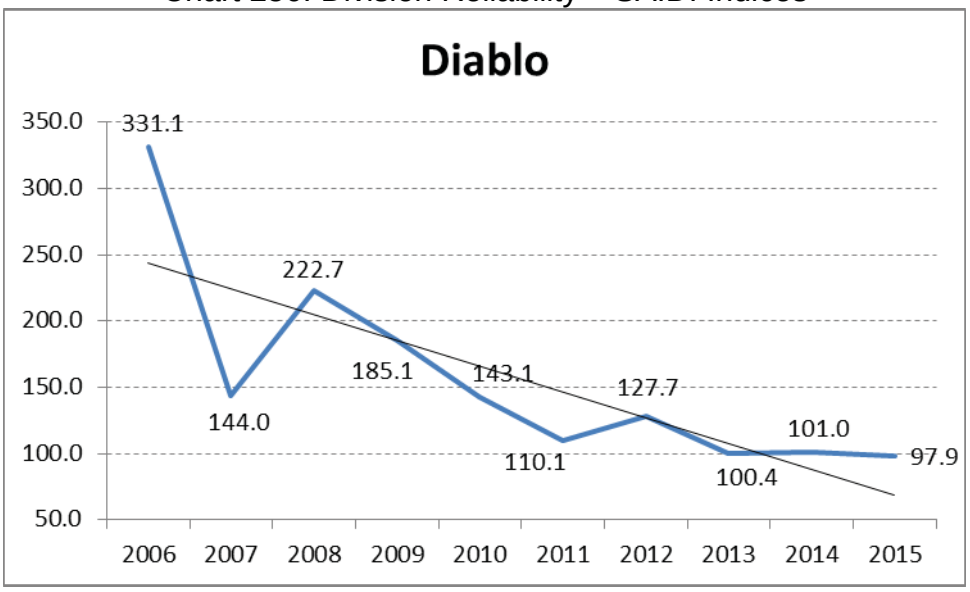
(Excludes ISO)

Chart 255: Division Reliability – SAIDI Indices



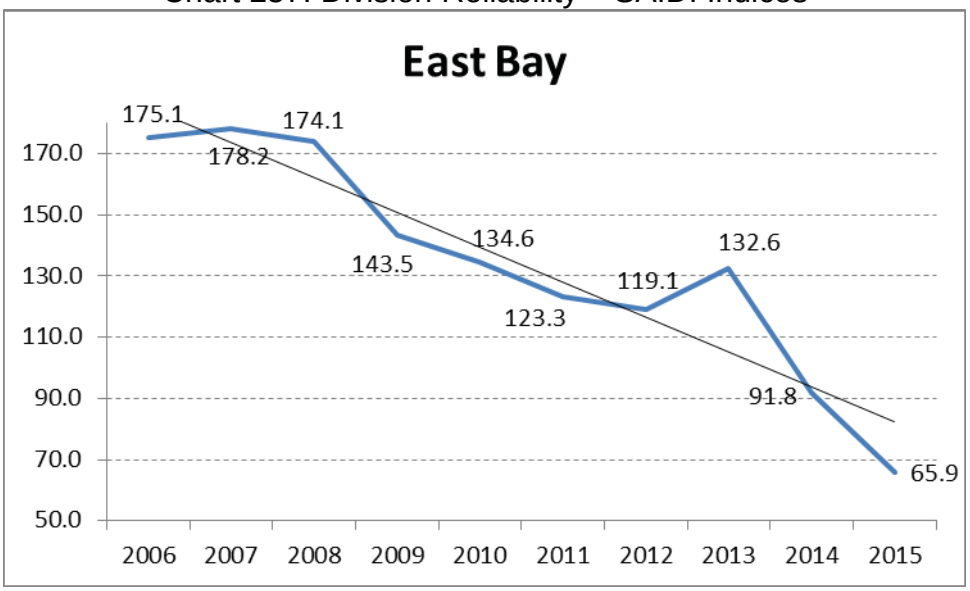
(Excludes ISO)

Chart 256: Division Reliability – SAIDI Indices



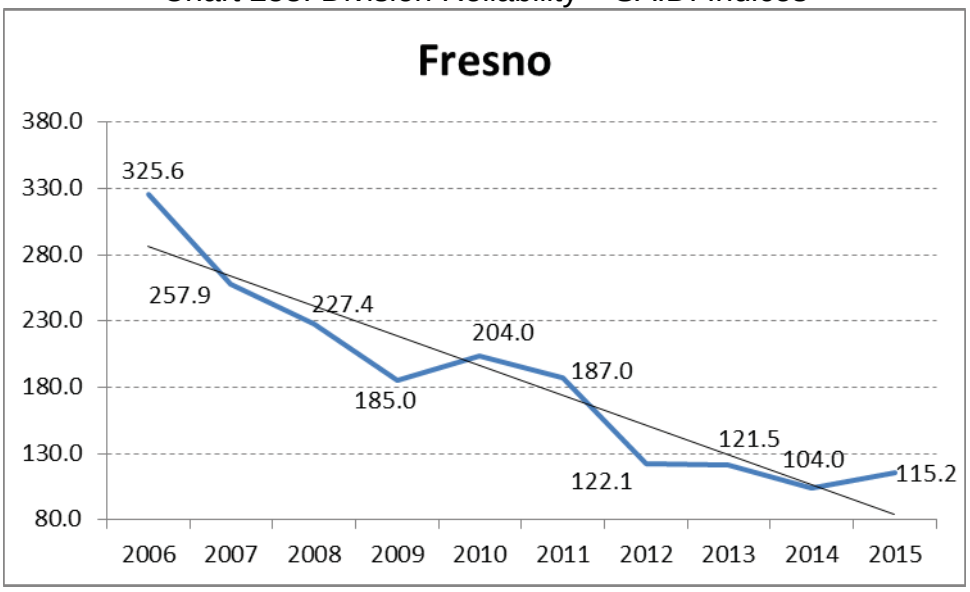
(Excludes ISO)

Chart 257: Division Reliability – SAIDI Indices



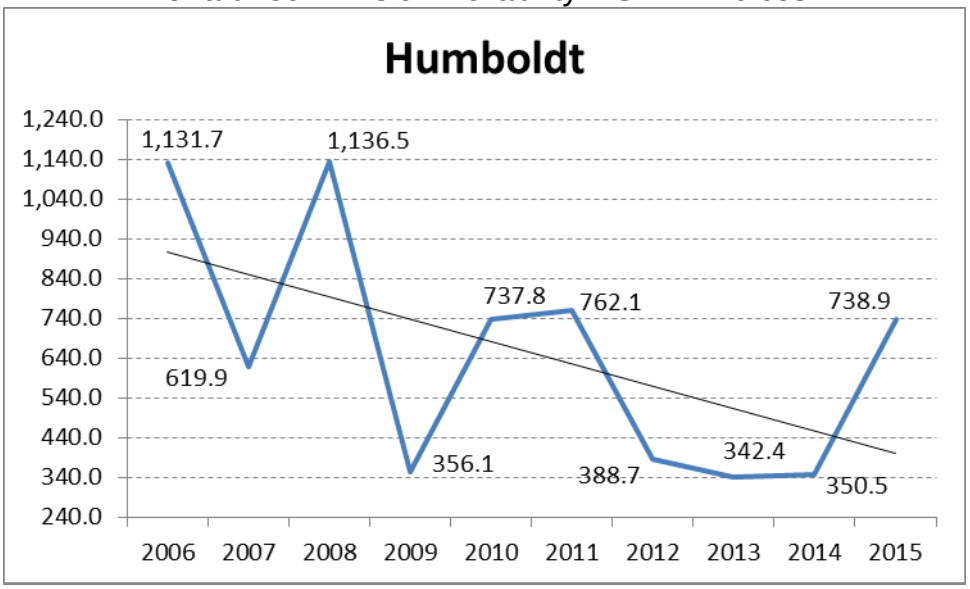
(Excludes ISO)

Chart 258: Division Reliability – SAIDI Indices



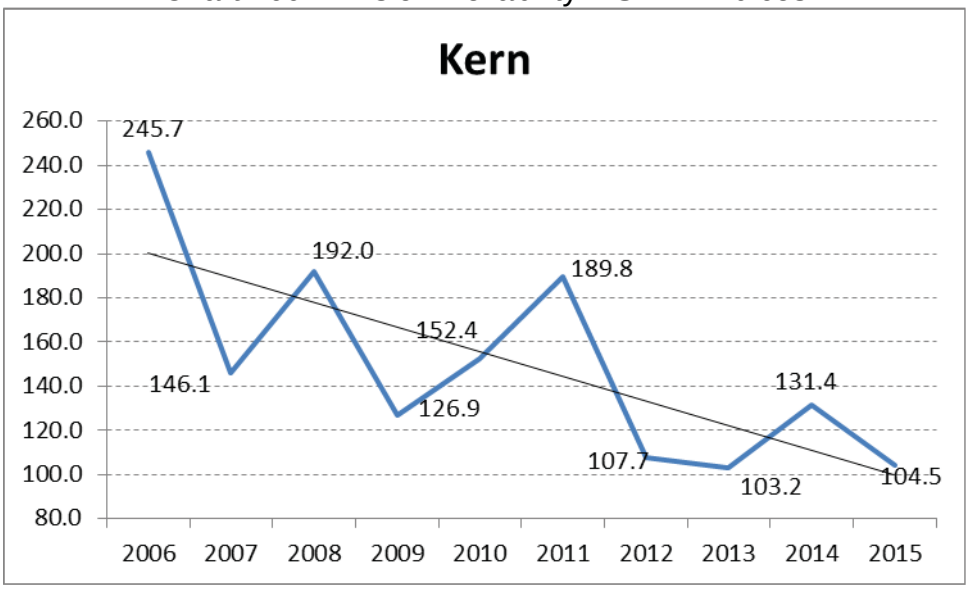
(Excludes ISO)

Chart 259: Division Reliability – SAIDI Indices



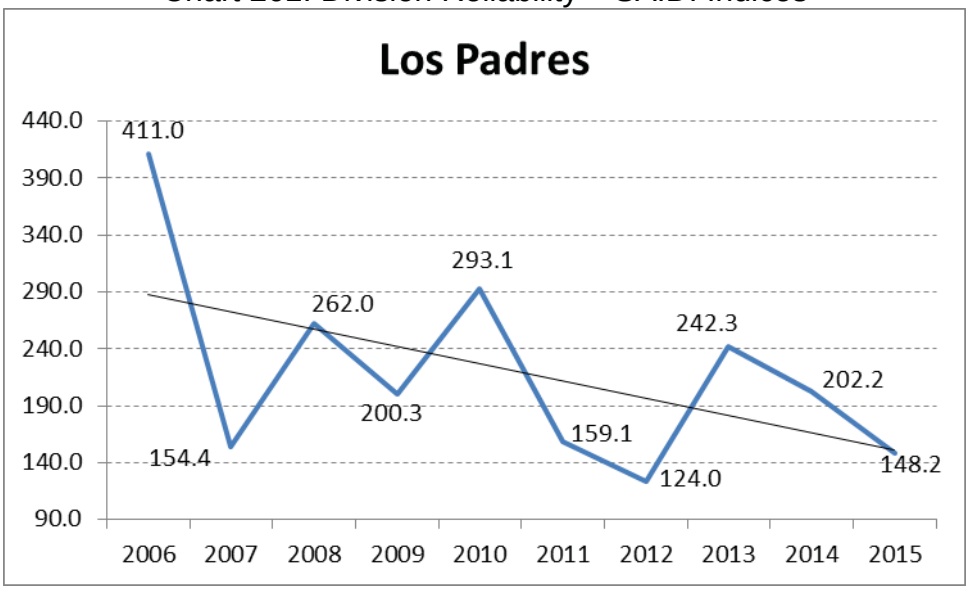
(Excludes ISO)

Chart 260: Division Reliability – SAIDI Indices



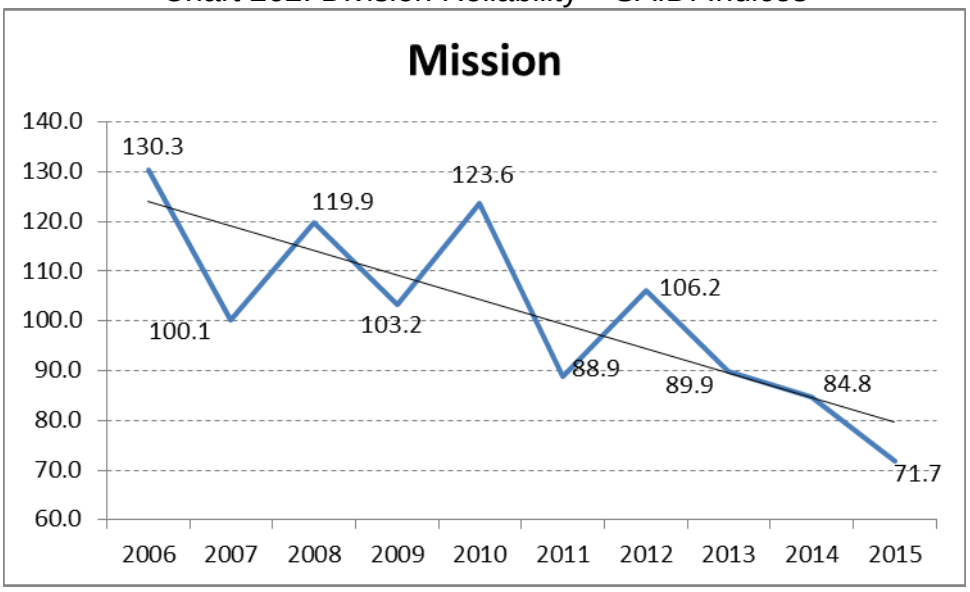
(Excludes ISO)

Chart 261: Division Reliability – SAIDI Indices



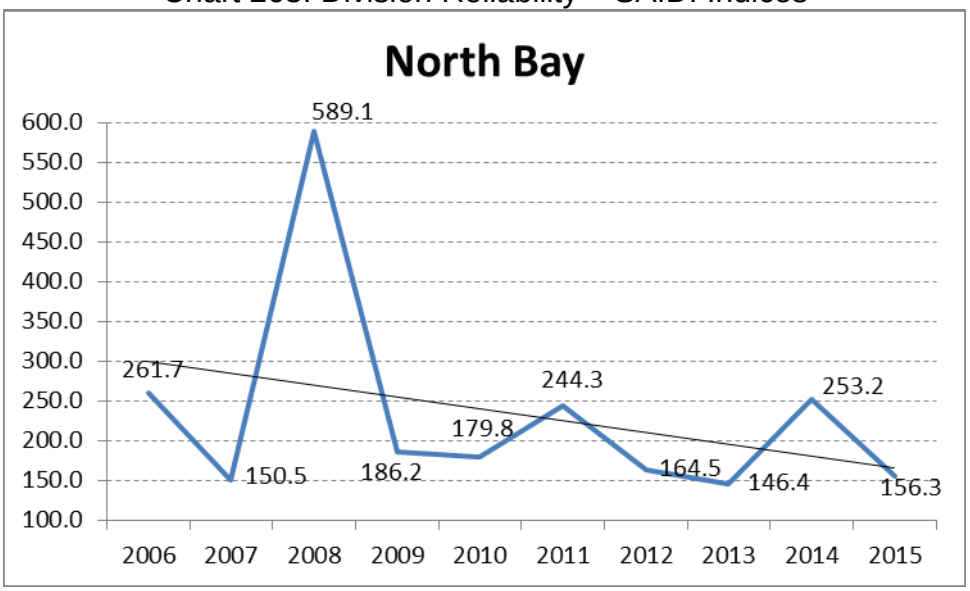
(Excludes ISO)

Chart 262: Division Reliability – SAIDI Indices



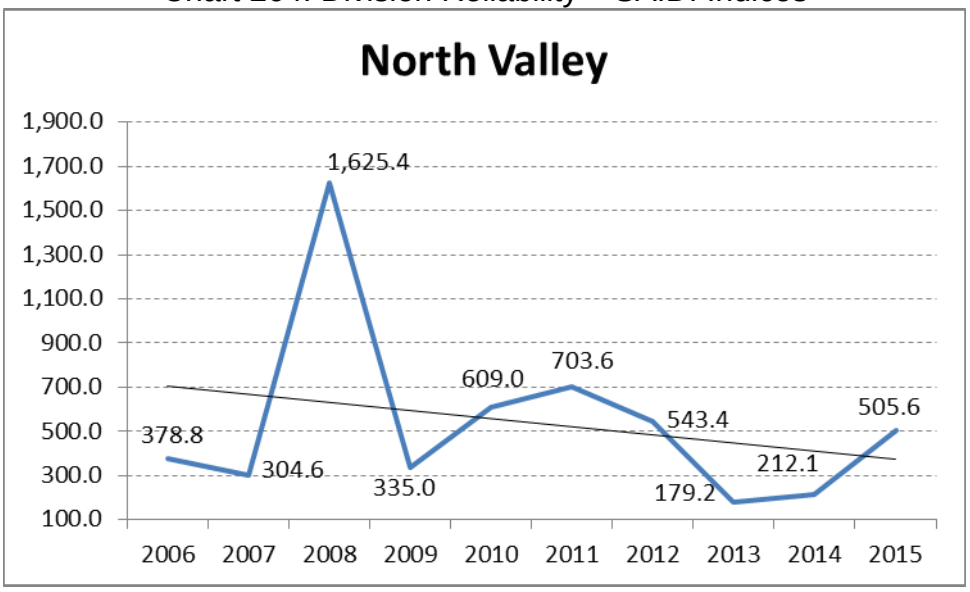
(Excludes ISO)

Chart 263: Division Reliability – SAIDI Indices



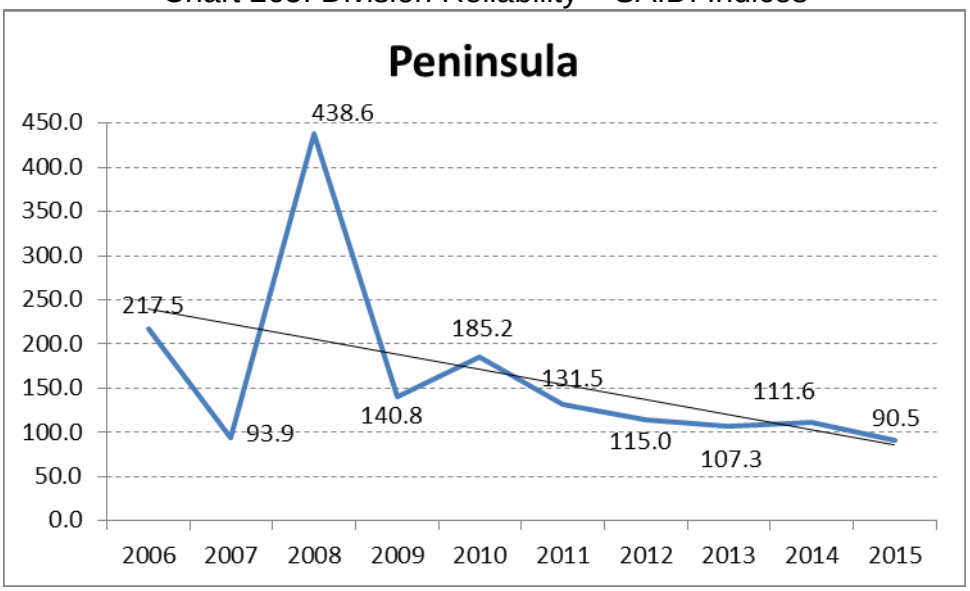
(Excludes ISO)

Chart 264: Division Reliability – SAIDI Indices



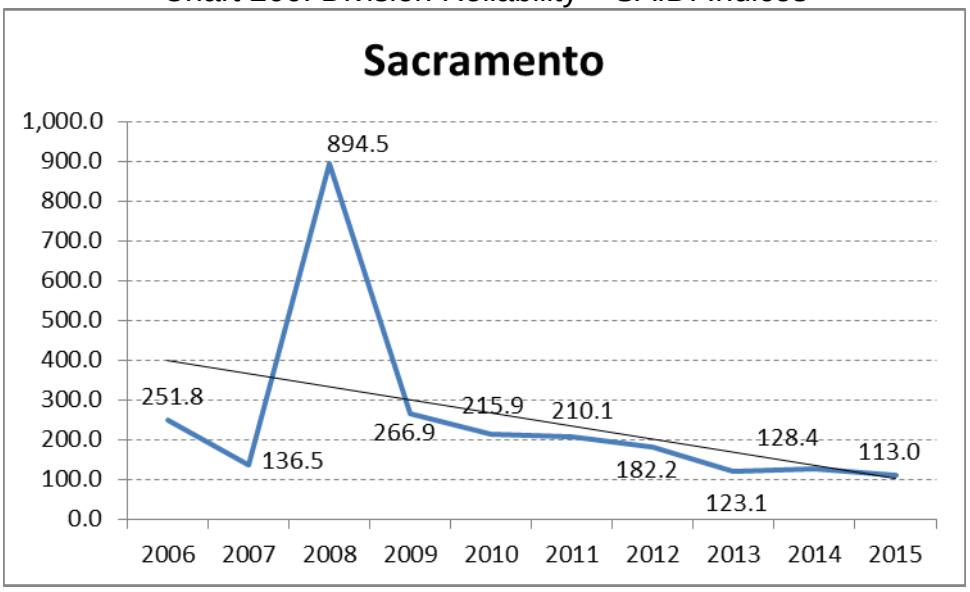
(Excludes ISO)

Chart 265: Division Reliability – SAIDI Indices



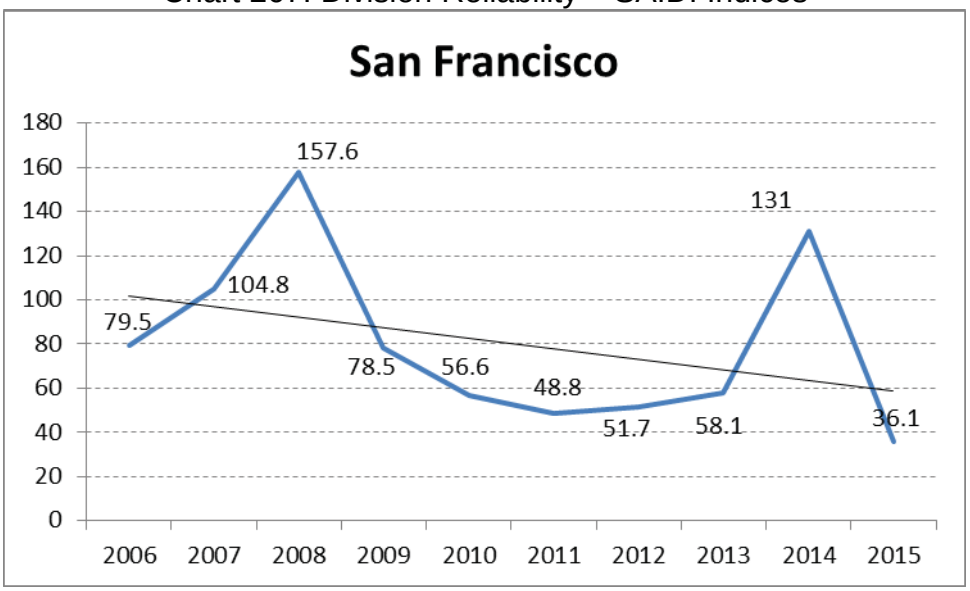
(Excludes ISO)

Chart 266: Division Reliability – SAIDI Indices



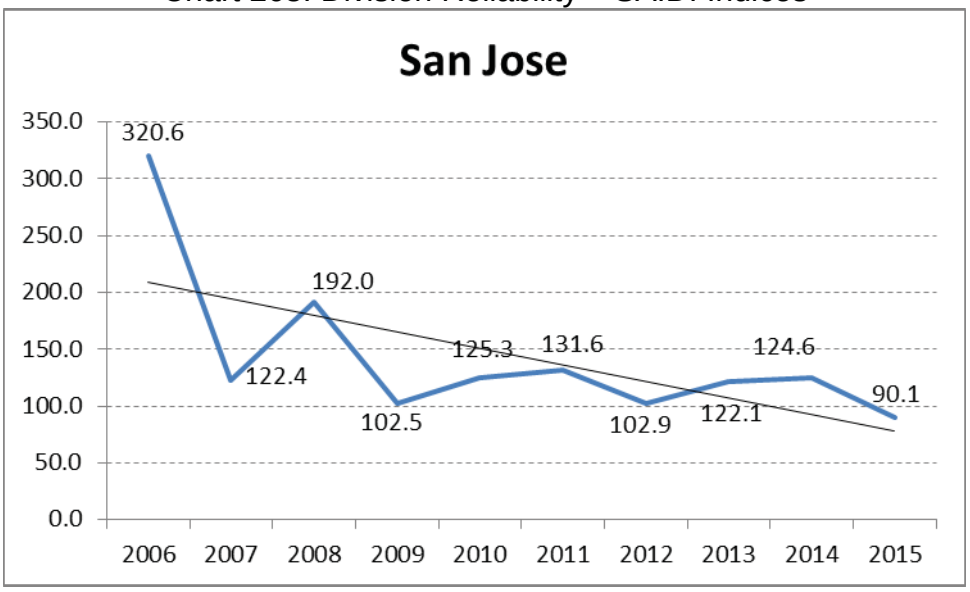
(Excludes ISO)

Chart 267: Division Reliability – SAIDI Indices



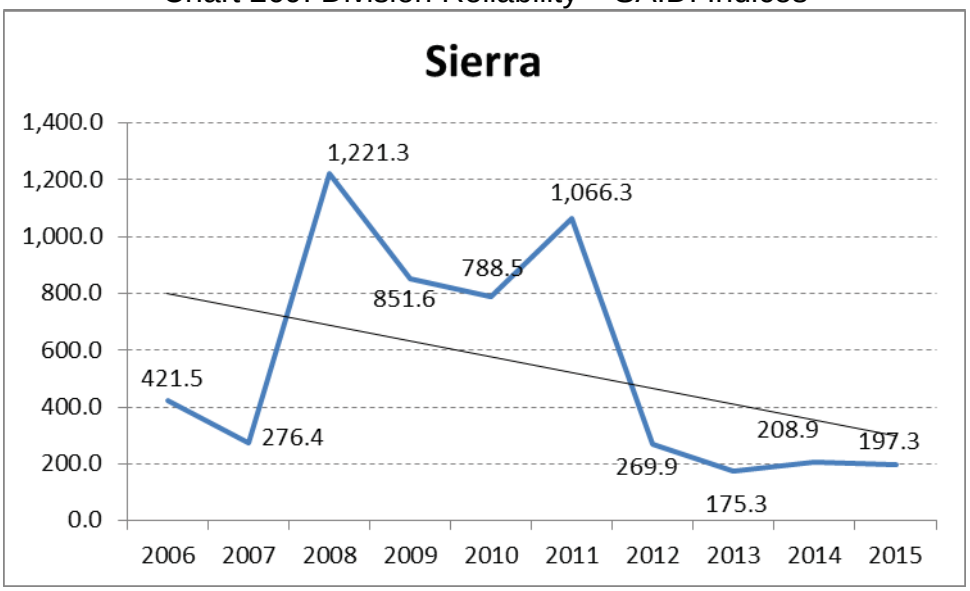
(Excludes ISO)

Chart 268: Division Reliability – SAIDI Indices



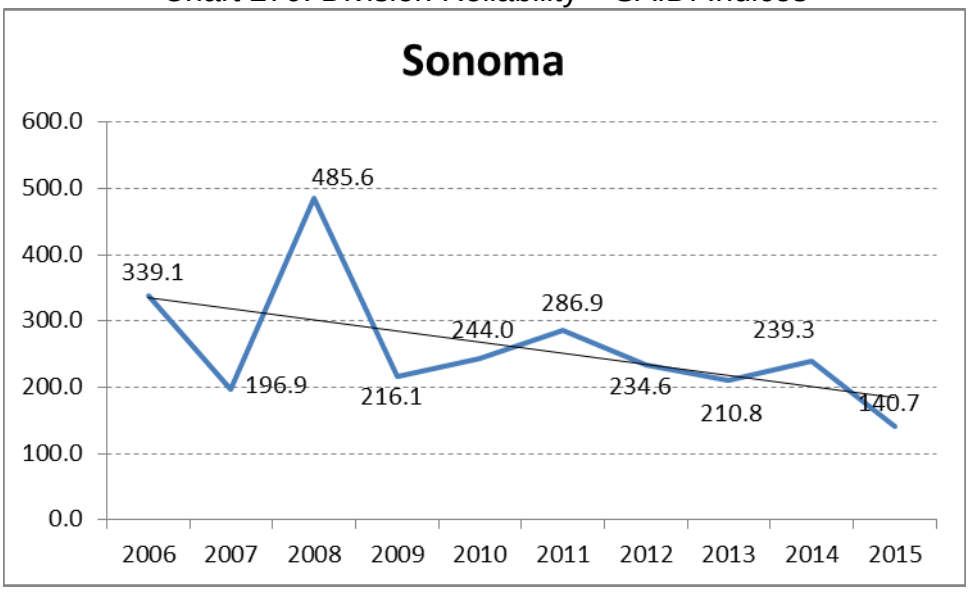
(Excludes ISO)

Chart 269: Division Reliability – SAIDI Indices



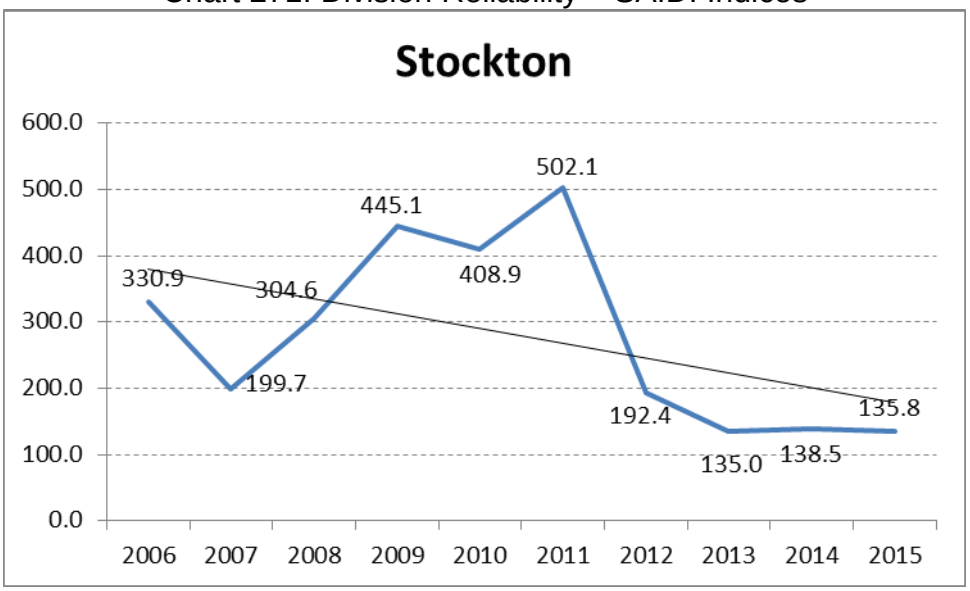
(Excludes ISO)

Chart 270: Division Reliability – SAIDI Indices



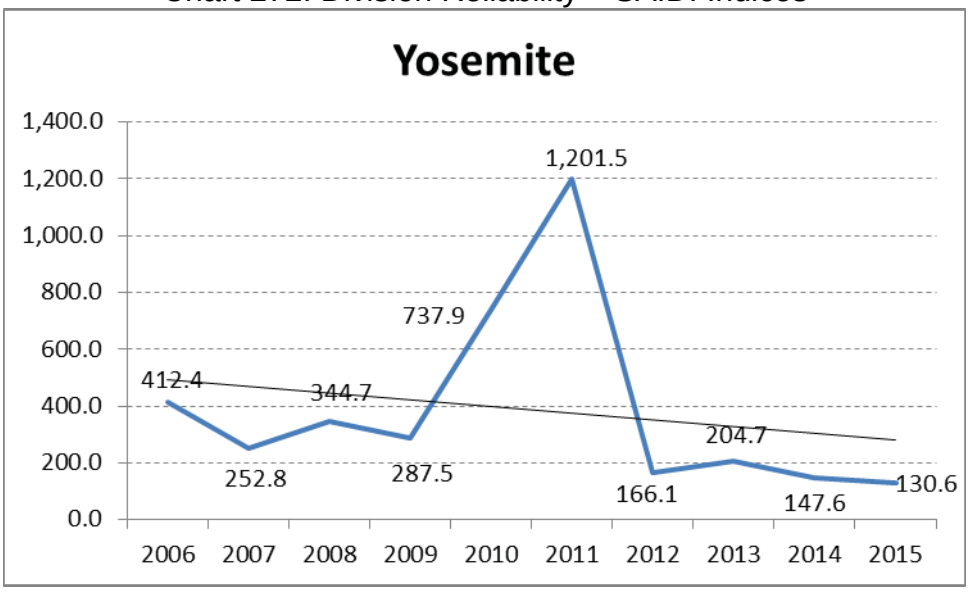
(Excludes ISO)

Chart 271: Division Reliability – SAIDI Indices



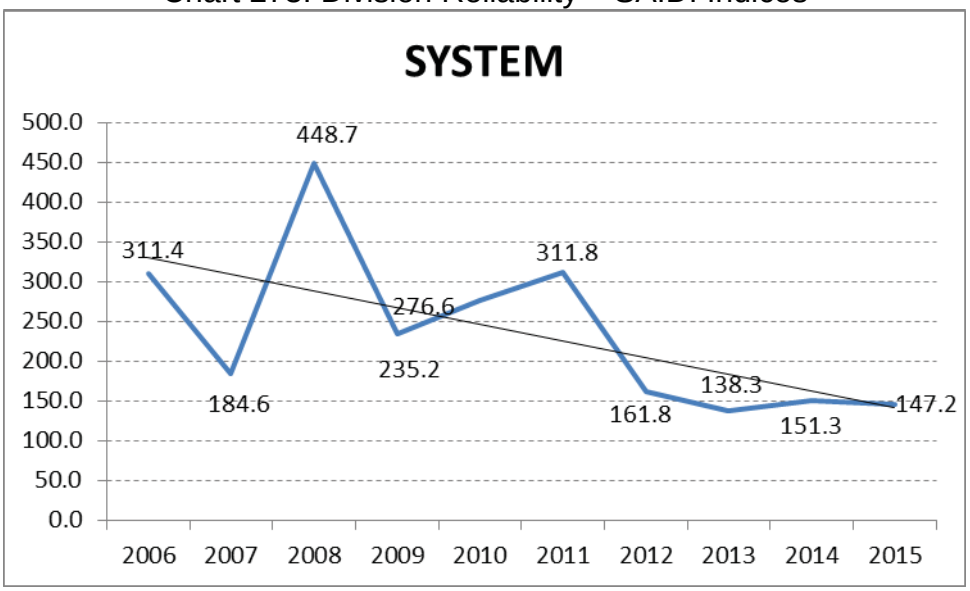
(Excludes ISO)

Chart 272: Division Reliability – SAIDI Indices



(Excludes ISO)

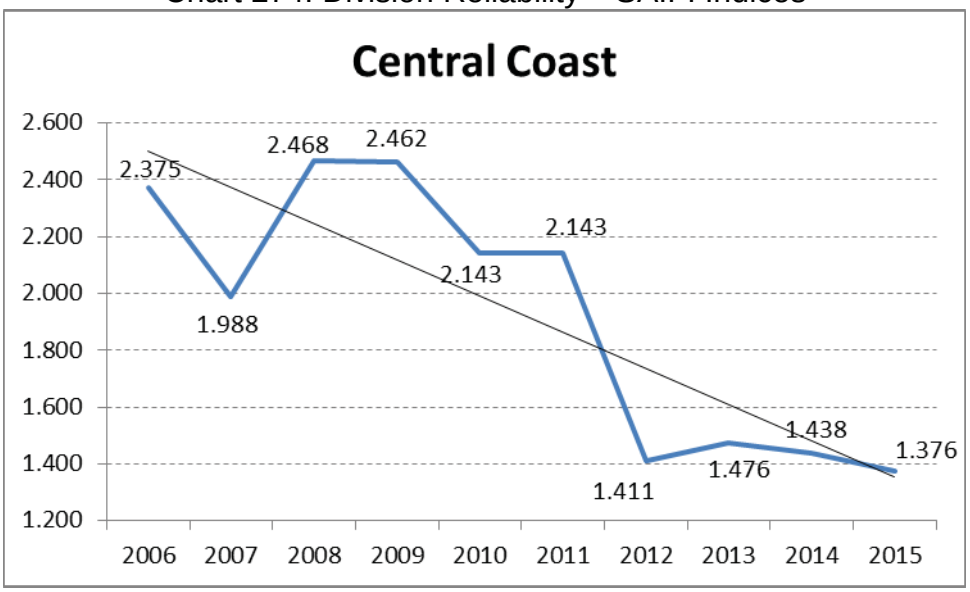
Chart 273: Division Reliability – SAIDI Indices



(Excludes ISO)

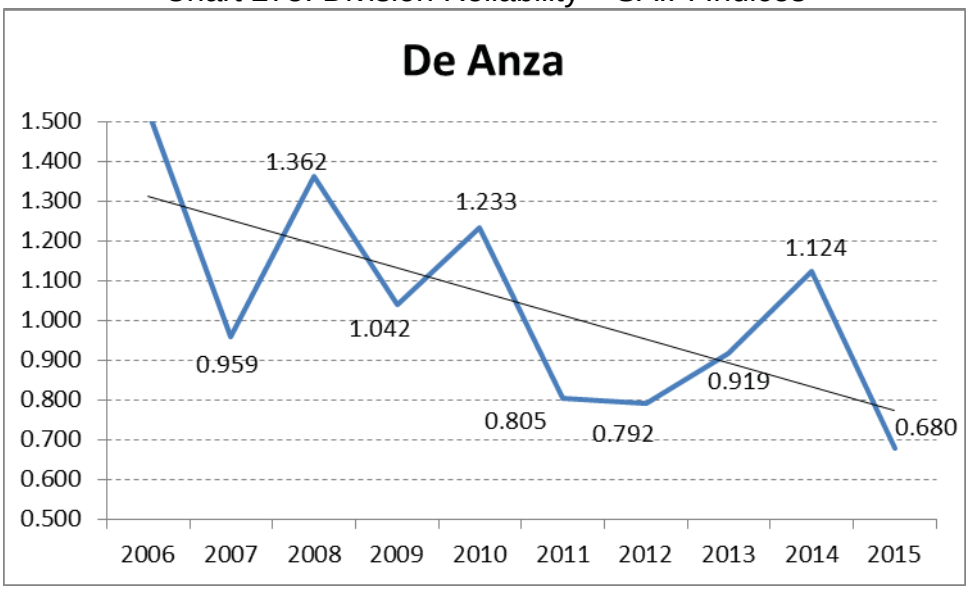
2. SAIFI Performance Results (MED Included)

Chart 274: Division Reliability – SAIFI Indices



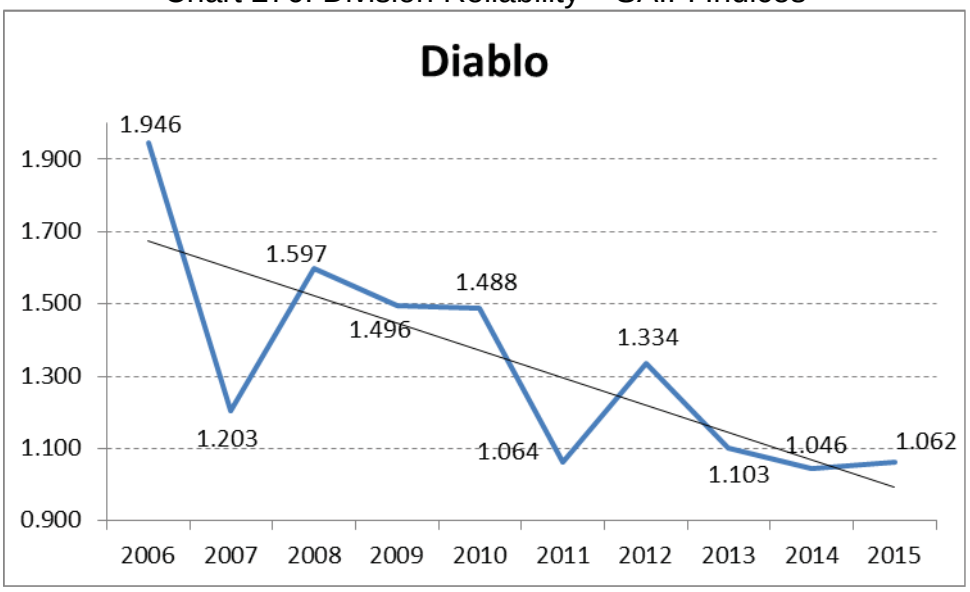
(Excludes ISO)

Chart 275: Division Reliability – SAIFI Indices



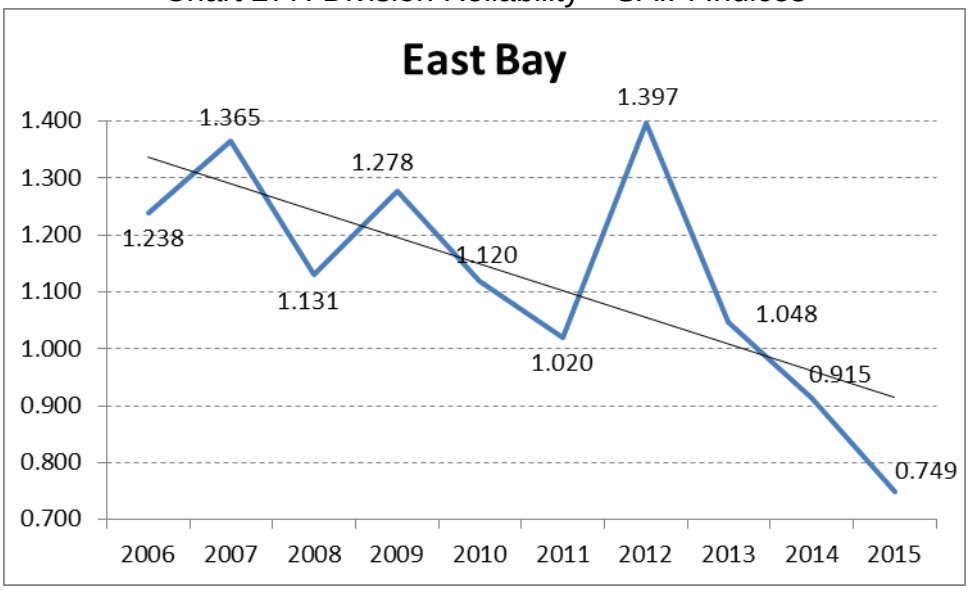
(Excludes ISO)

Chart 276: Division Reliability – SAIFI Indices



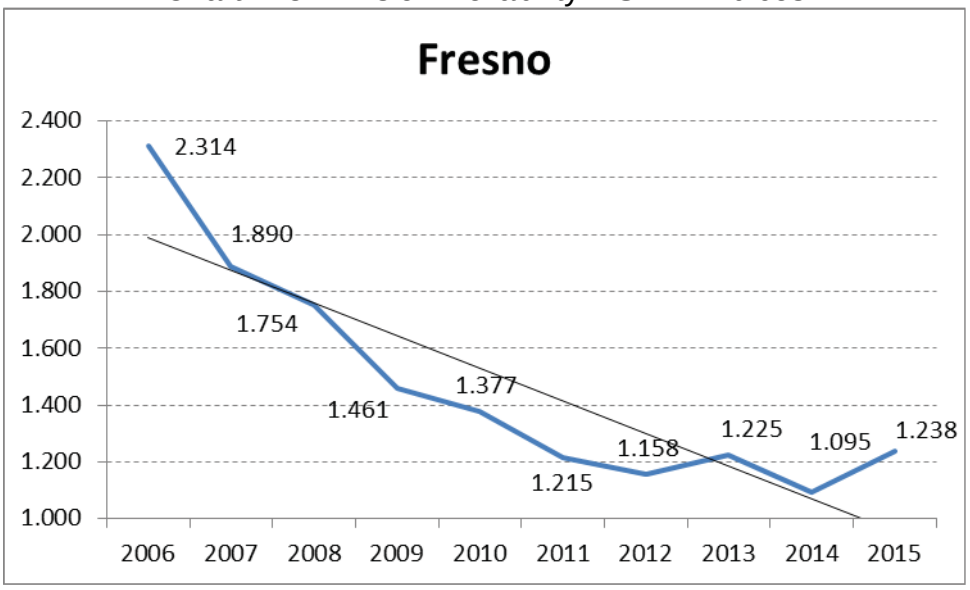
(Excludes ISO)

Chart 277: Division Reliability – SAIFI Indices



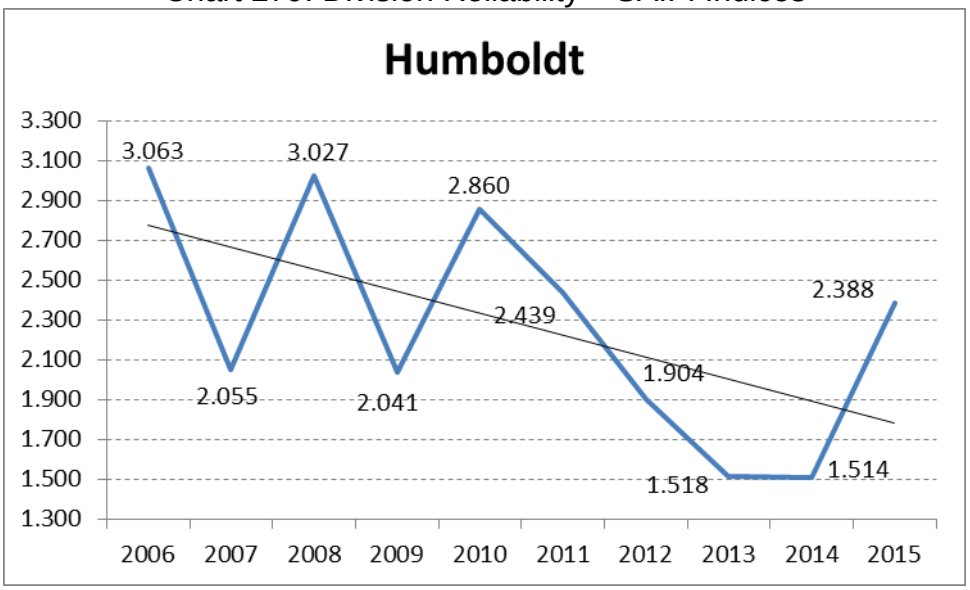
(Excludes ISO)

Chart 278: Division Reliability – SAIFI Indices



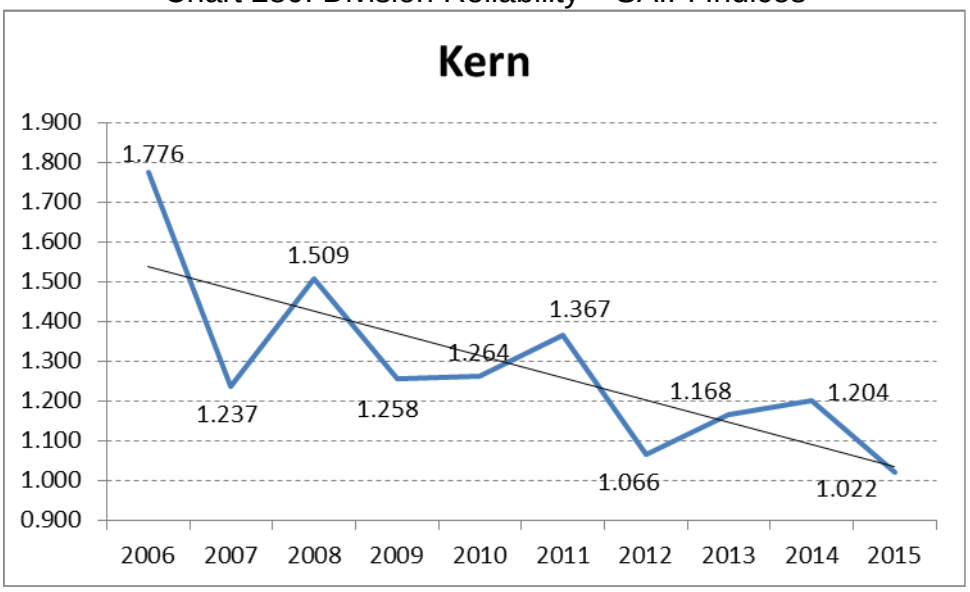
(Excludes ISO)

Chart 279: Division Reliability – SAIFI Indices



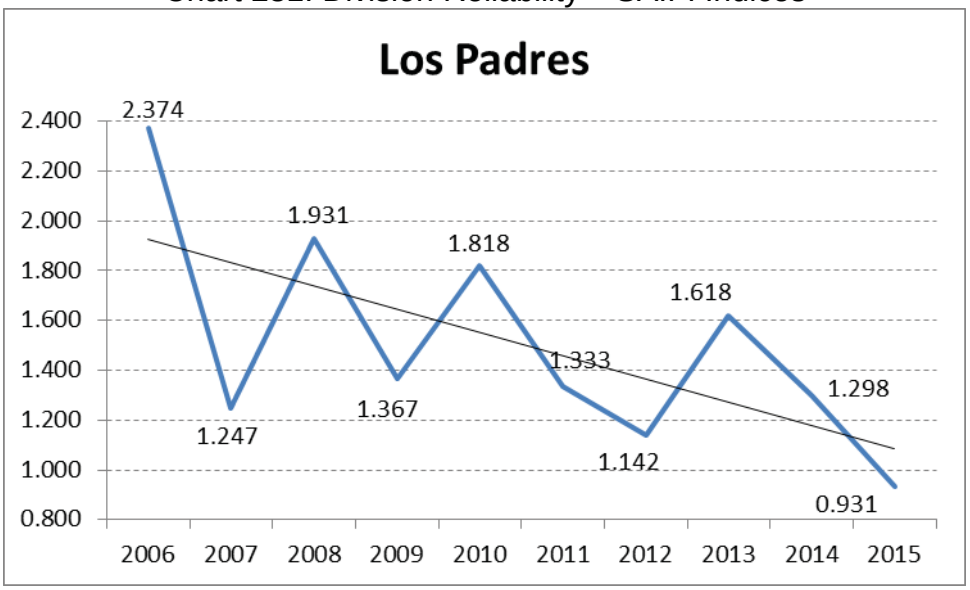
(Excludes ISO)

Chart 280: Division Reliability – SAIFI Indices



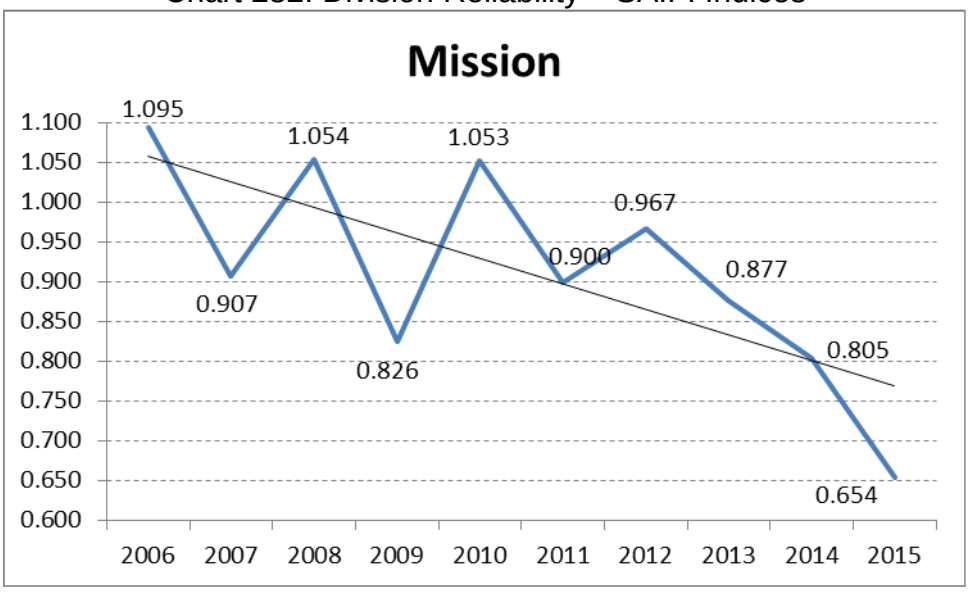
(Excludes ISO)

Chart 281: Division Reliability – SAIFI Indices



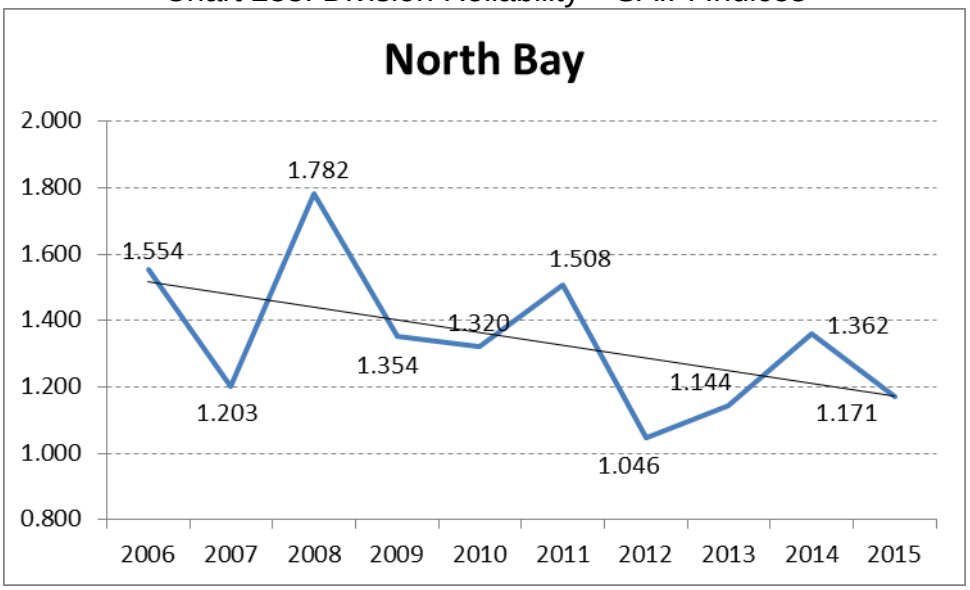
(Excludes ISO)

Chart 282: Division Reliability – SAIFI Indices



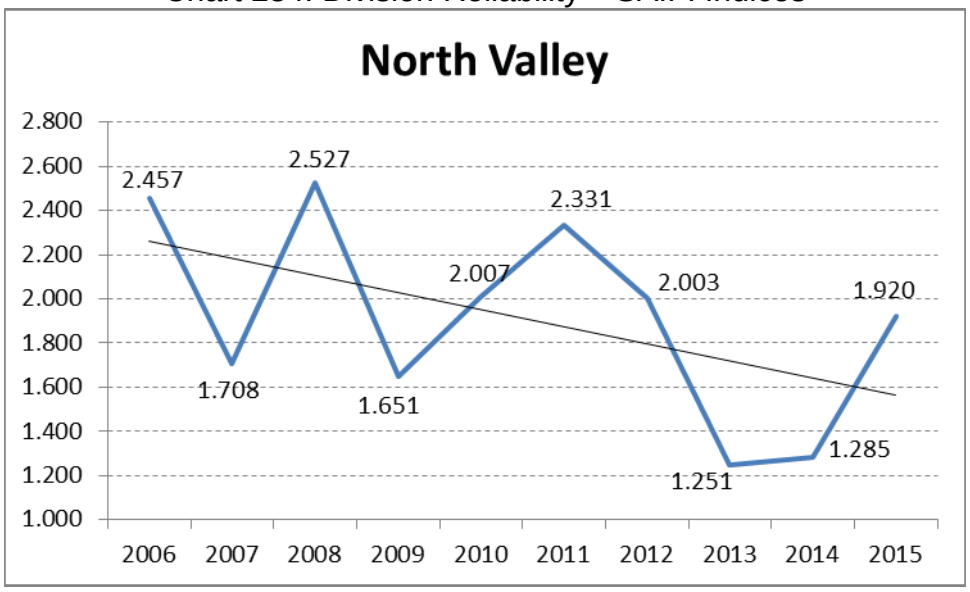
(Excludes ISO)

Chart 283: Division Reliability – SAIFI Indices



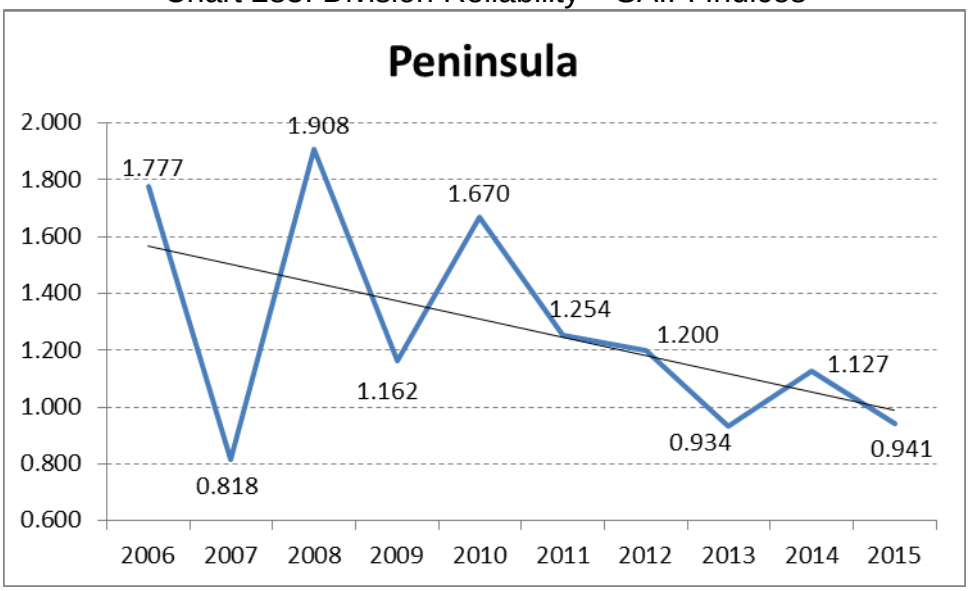
(Excludes ISO)

Chart 284: Division Reliability – SAIFI Indices



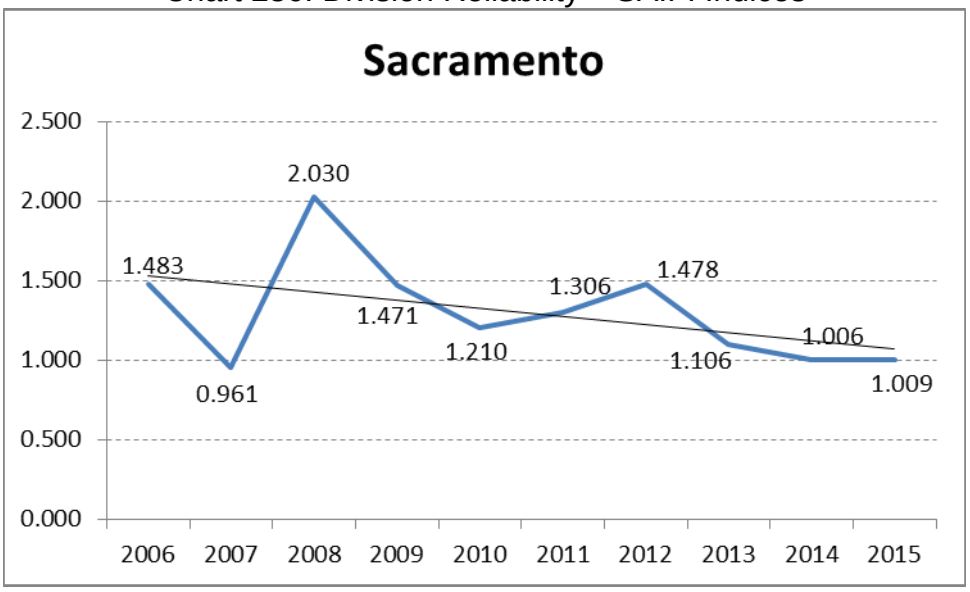
(Excludes ISO)

Chart 285: Division Reliability – SAIFI Indices



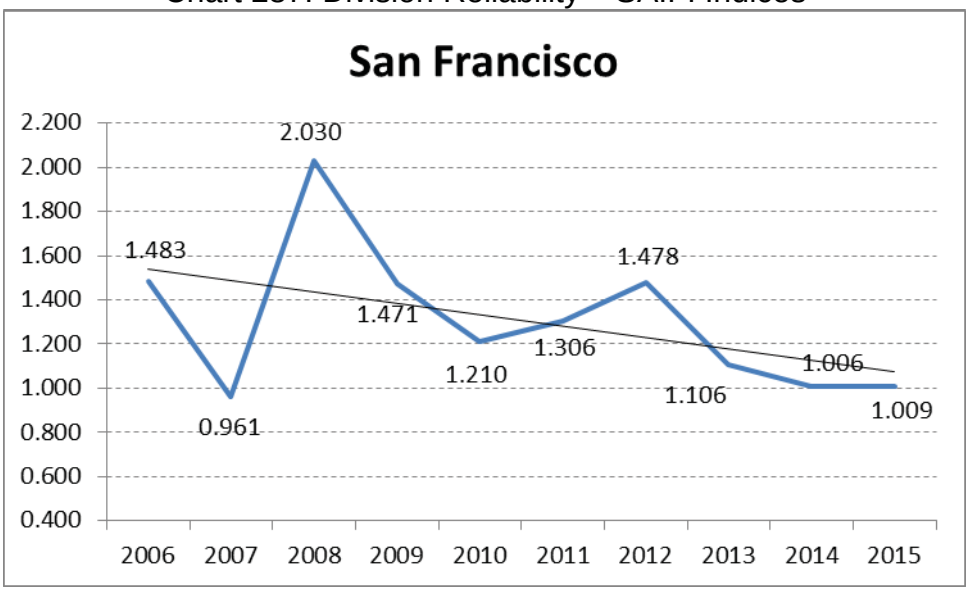
(Excludes ISO)

Chart 286: Division Reliability – SAIFI Indices



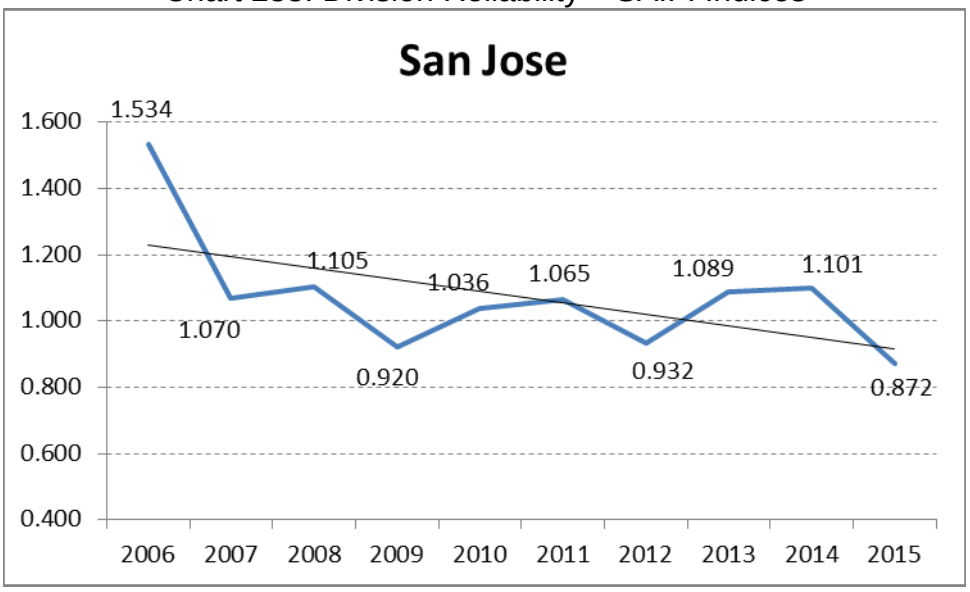
(Excludes ISO)

Chart 287: Division Reliability – SAIFI Indices



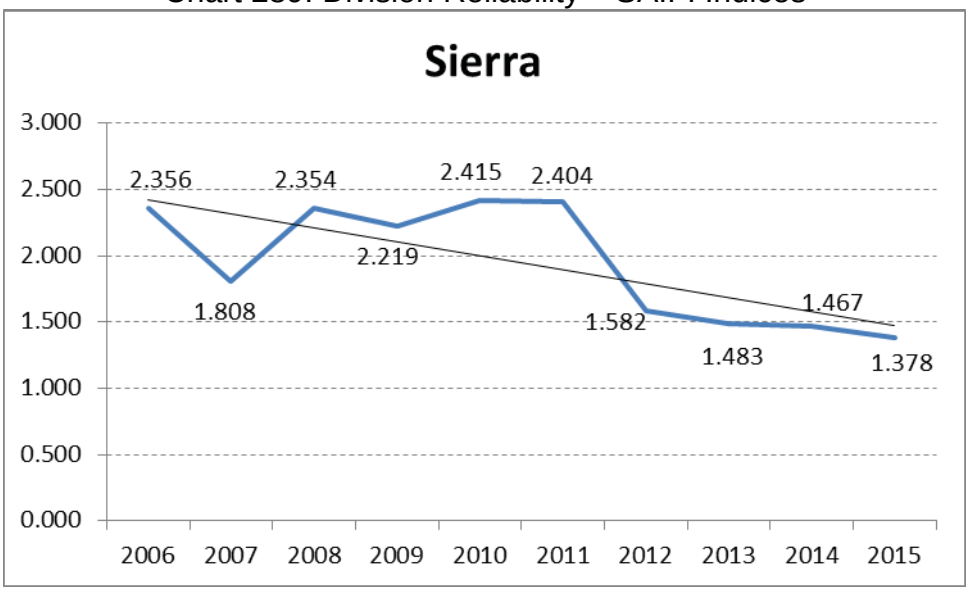
(Excludes ISO)

Chart 288: Division Reliability – SAIFI Indices



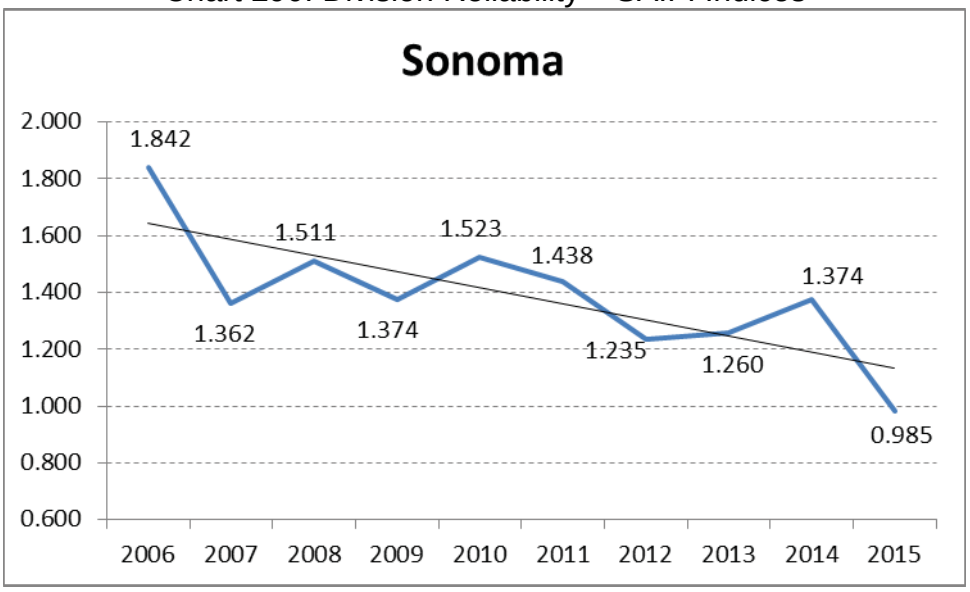
(Excludes ISO)

Chart 289: Division Reliability – SAIFI Indices



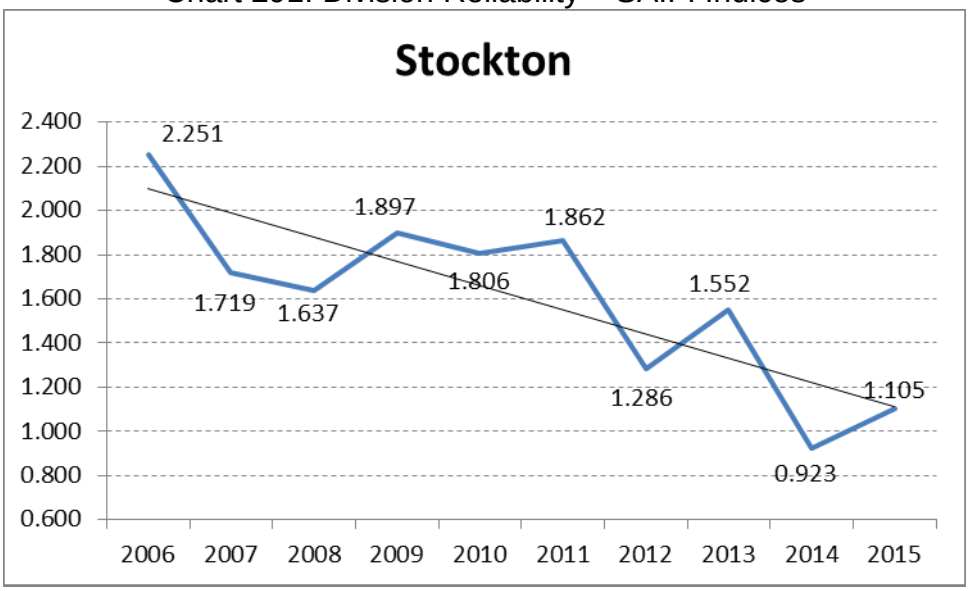
(Excludes ISO)

Chart 290: Division Reliability – SAIFI Indices



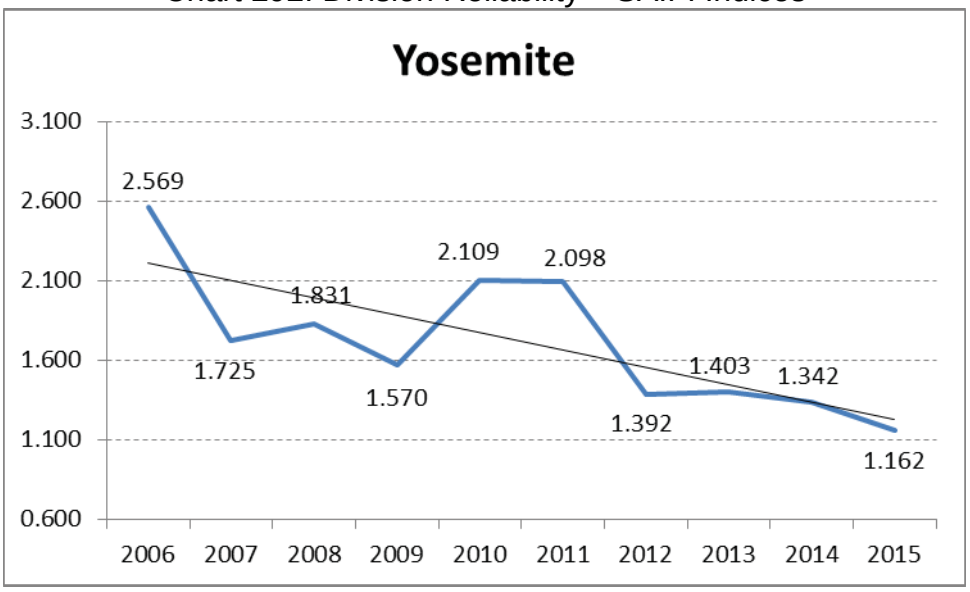
(Excludes ISO)

Chart 291: Division Reliability – SAIFI Indices



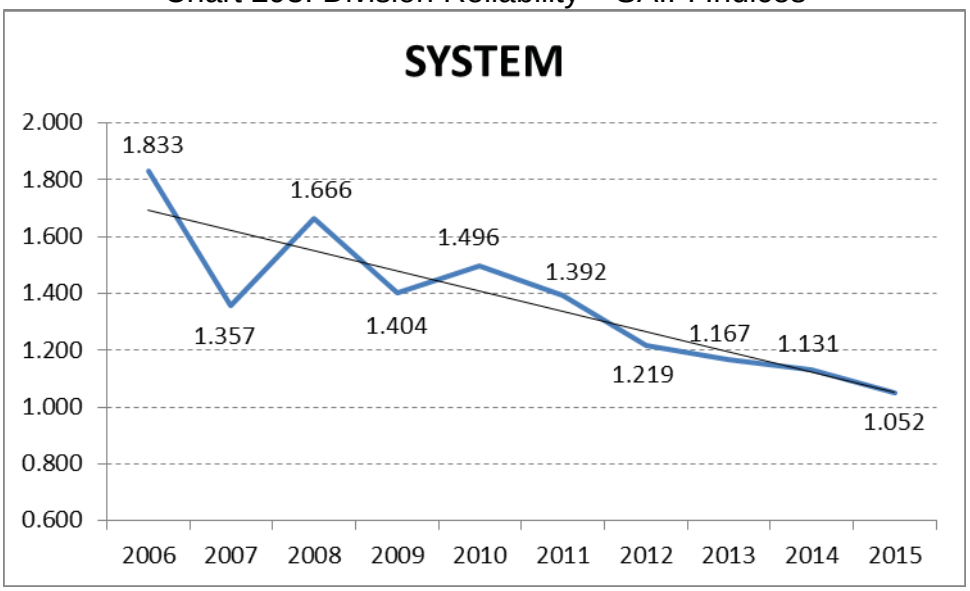
(Excludes ISO)

Chart 292: Division Reliability – SAIFI Indices



(Excludes ISO)

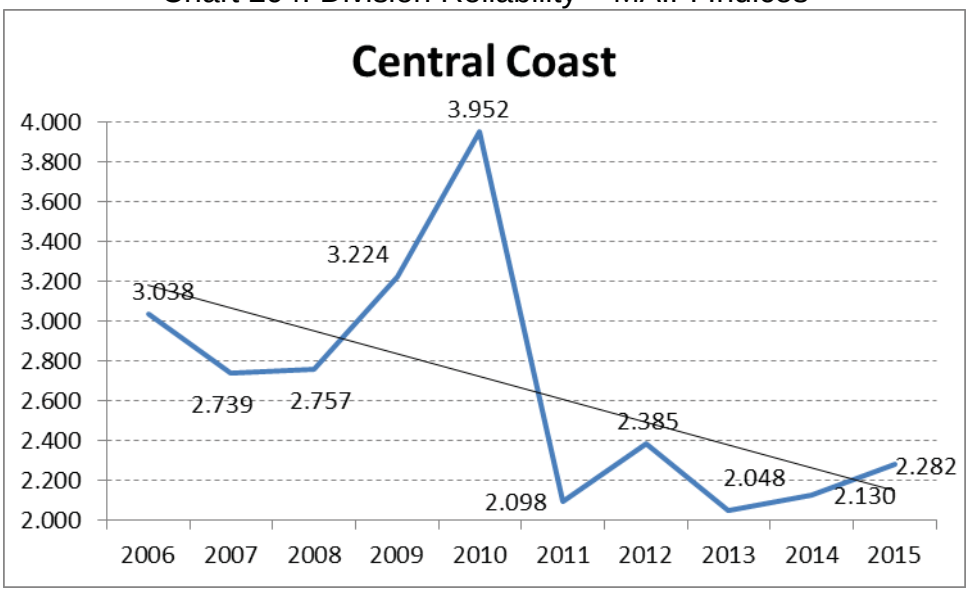
Chart 293: Division Reliability – SAIFI Indices



(Excludes ISO)

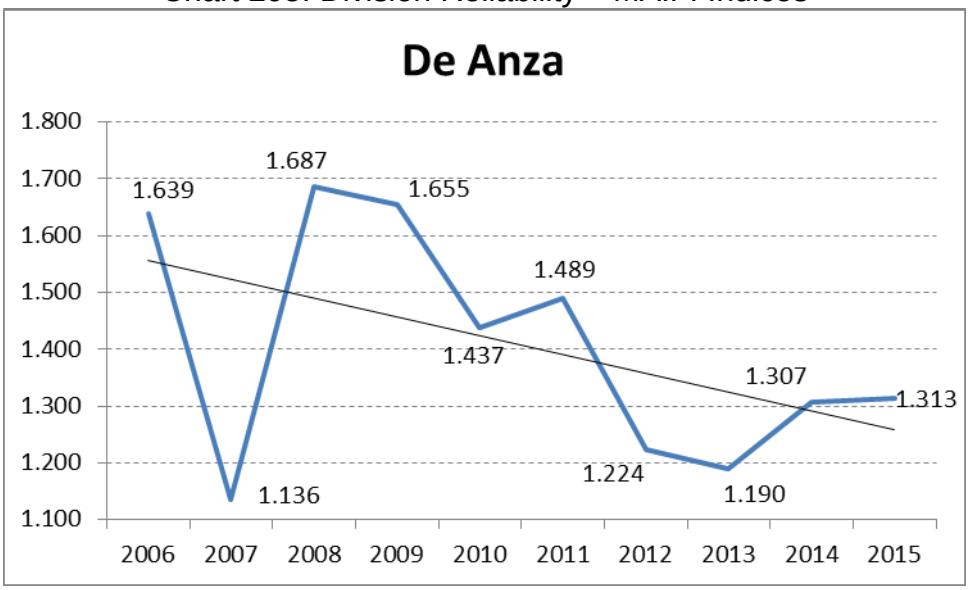
3. MAIFI[12] Performance Results (MED Included)

Chart 294: Division Reliability – MAIFI Indices



(Excludes ISO)

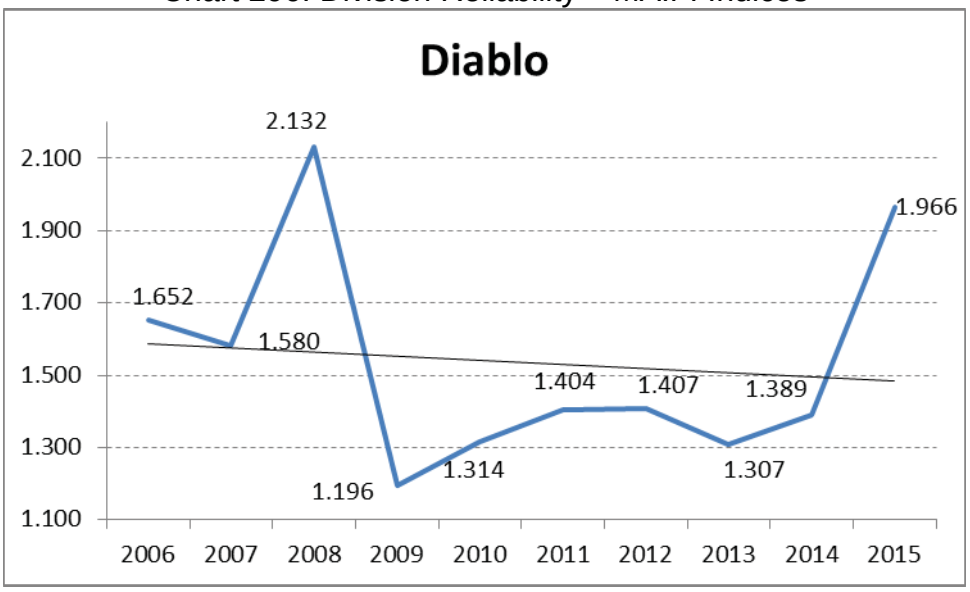
Chart 295: Division Reliability – MAIFI Indices



(Excludes ISO)

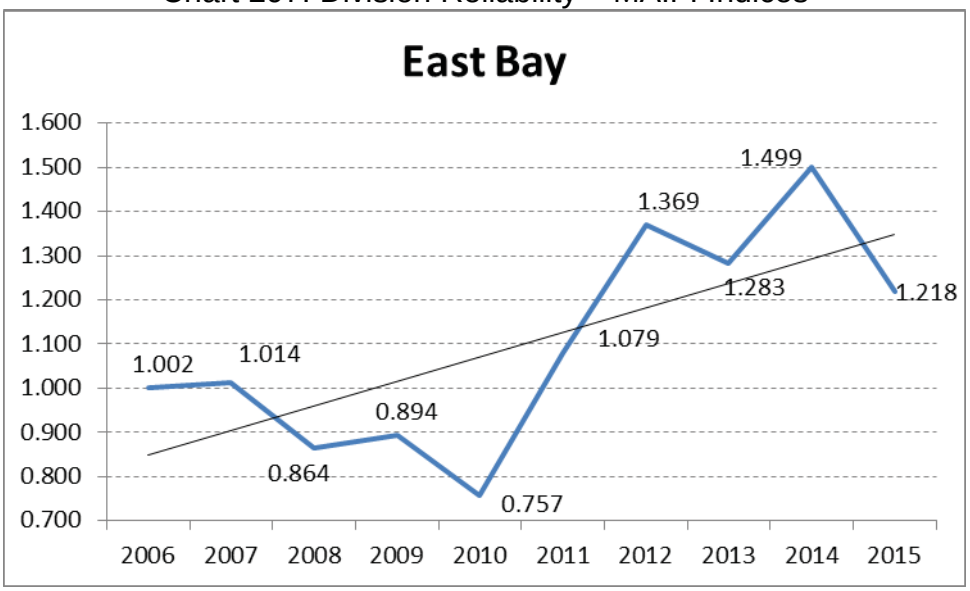
[12] See footnote 4 on page 12.

Chart 296: Division Reliability – MAIFI Indices



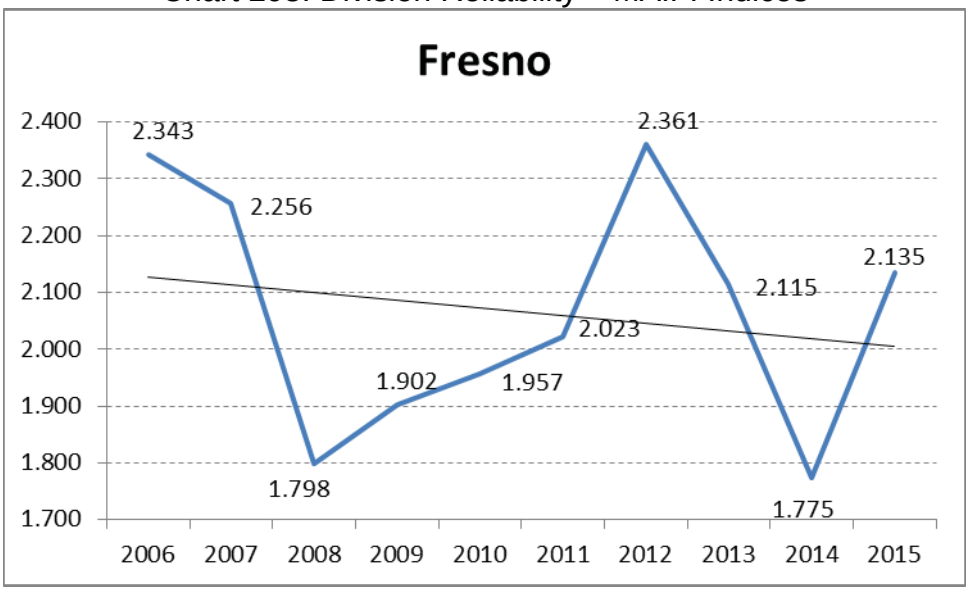
(Excludes ISO)

Chart 297: Division Reliability – MAIFI Indices



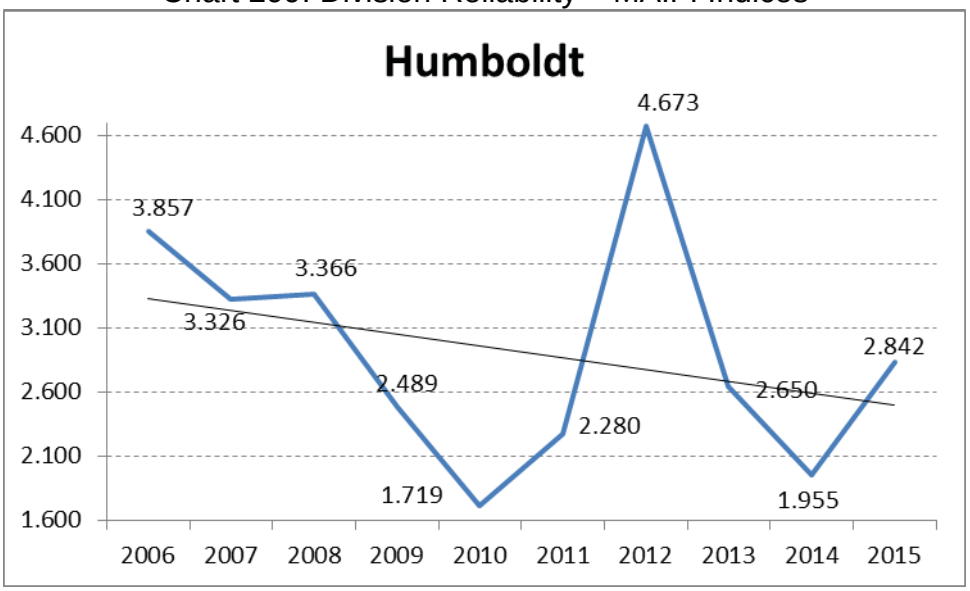
(Excludes ISO)

Chart 298: Division Reliability – MAIFI Indices



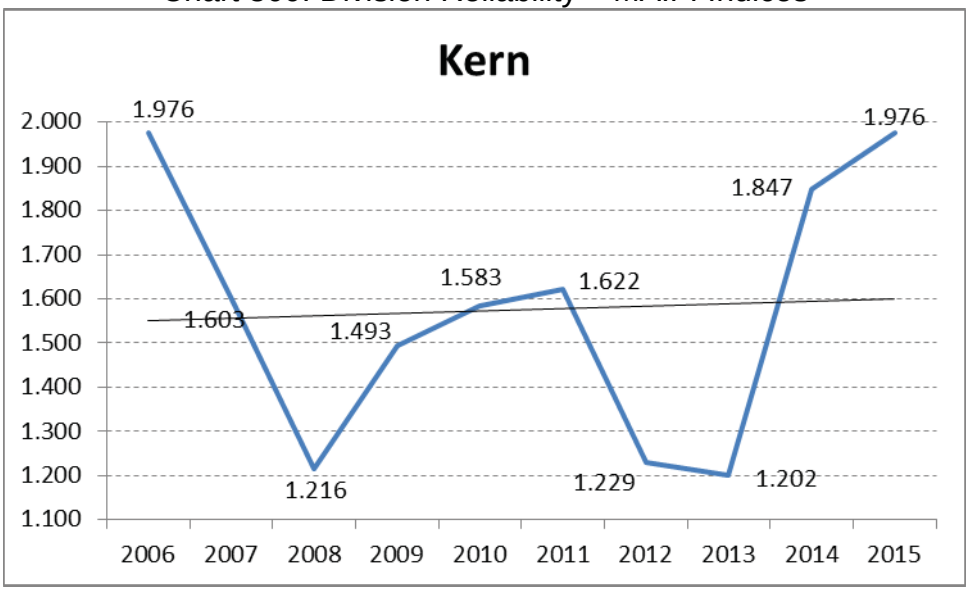
(Excludes ISO)

Chart 299: Division Reliability – MAIFI Indices



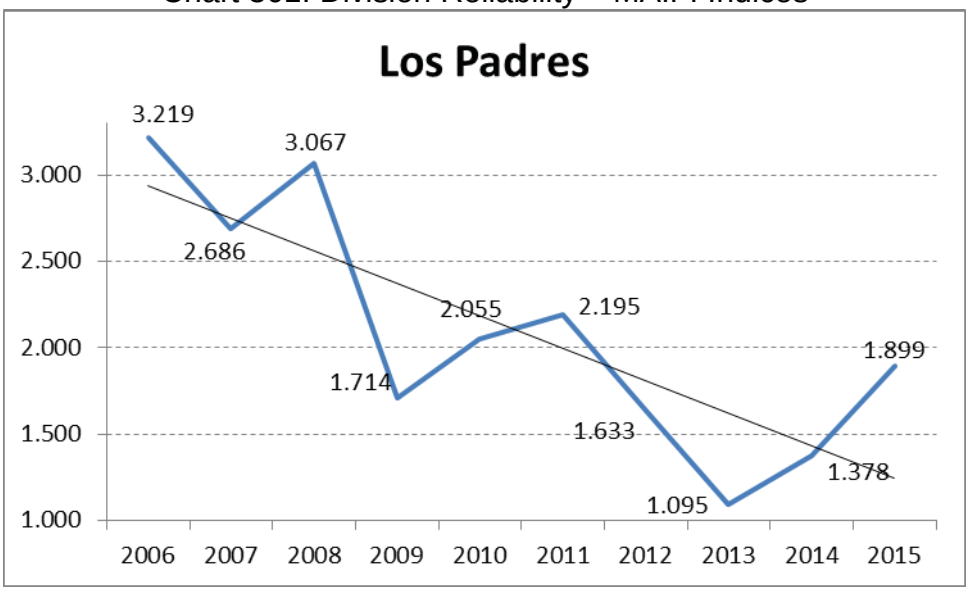
(Excludes ISO)

Chart 300: Division Reliability – MAIFI Indices



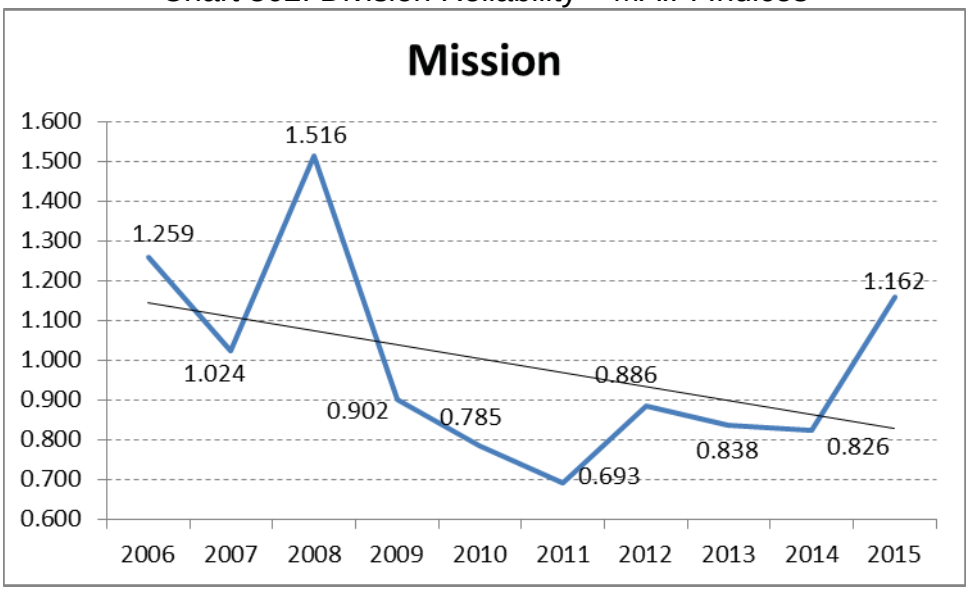
(Excludes ISO)

Chart 301: Division Reliability – MAIFI Indices



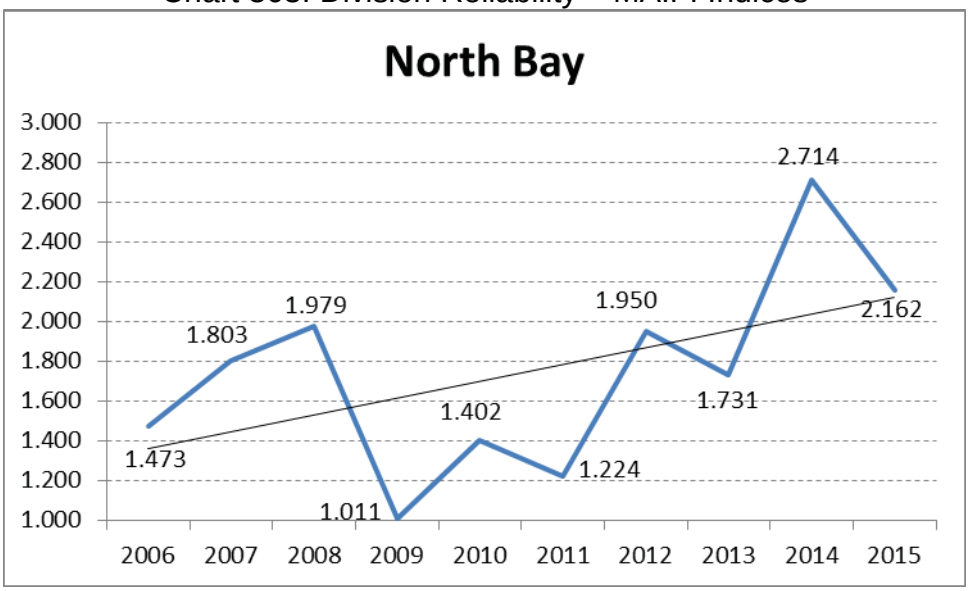
(Excludes ISO)

Chart 302: Division Reliability – MAIFI Indices



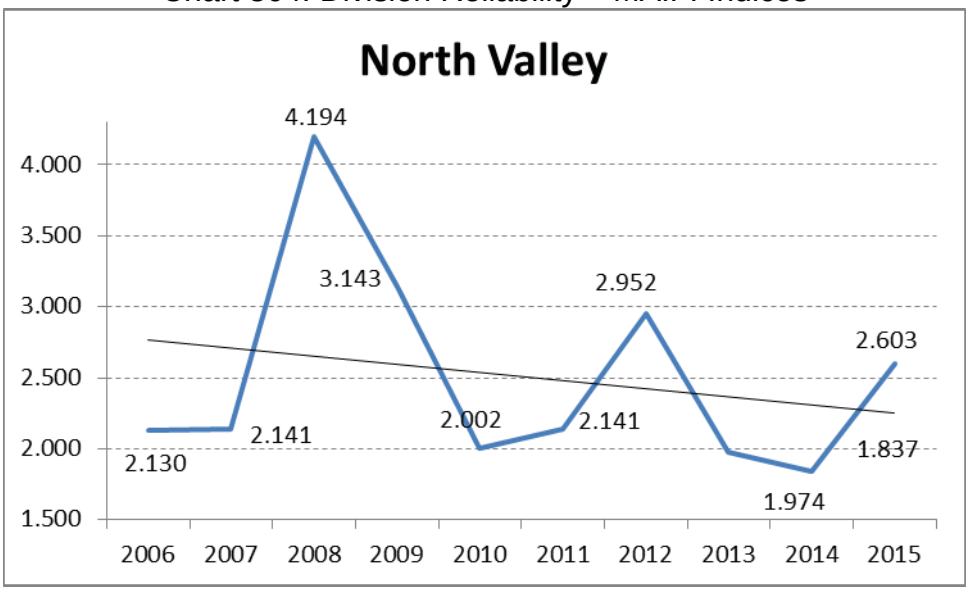
(Excludes ISO)

Chart 303: Division Reliability – MAIFI Indices



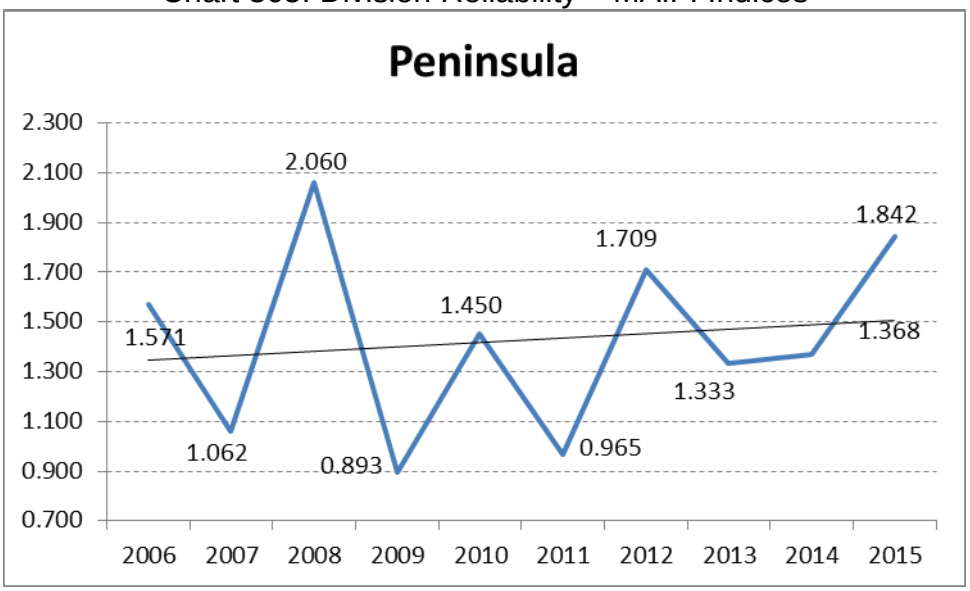
(Excludes ISO)

Chart 304: Division Reliability – MAIFI Indices



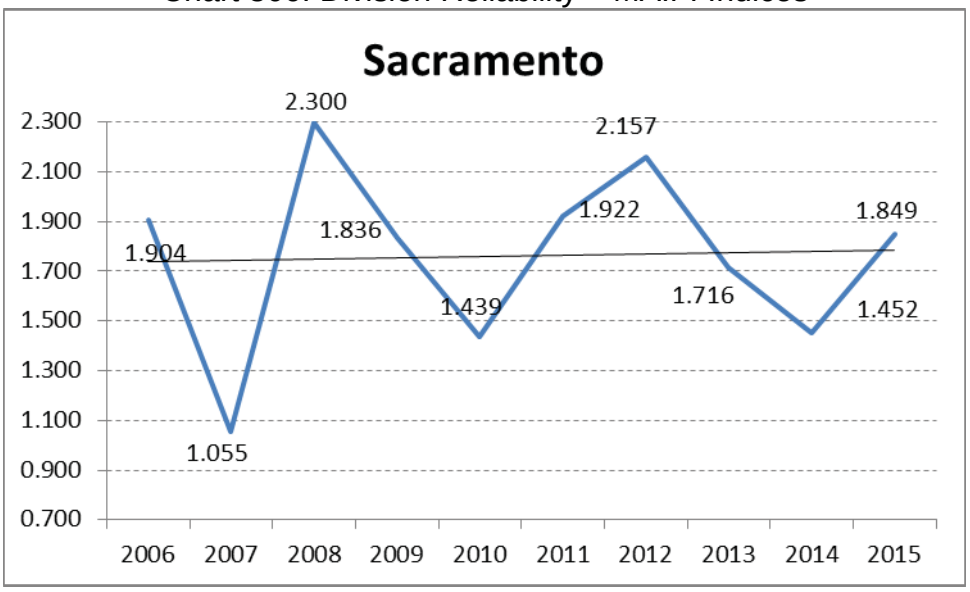
(Excludes ISO)

Chart 305: Division Reliability – MAIFI Indices



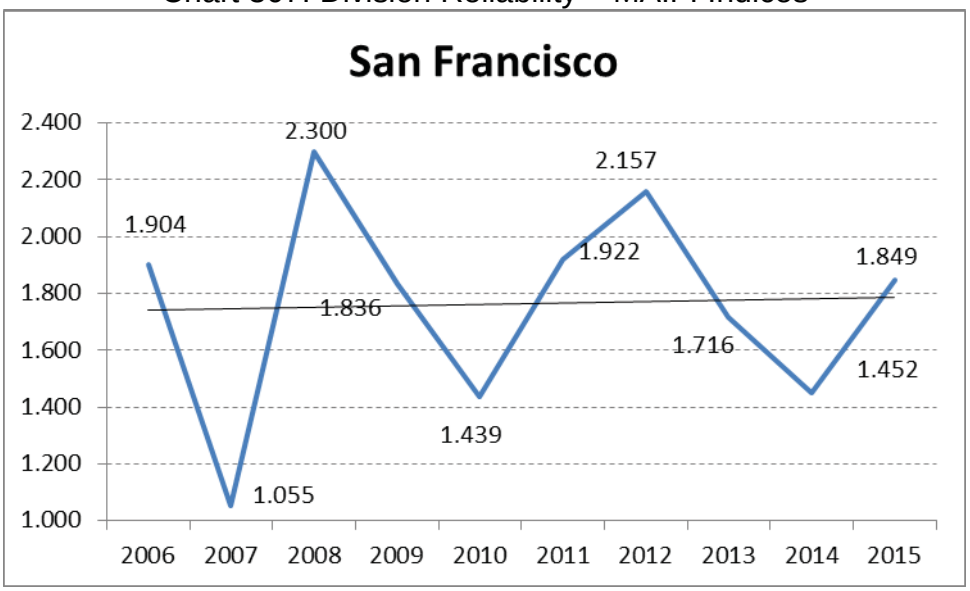
(Excludes ISO)

Chart 306: Division Reliability – MAIFI Indices



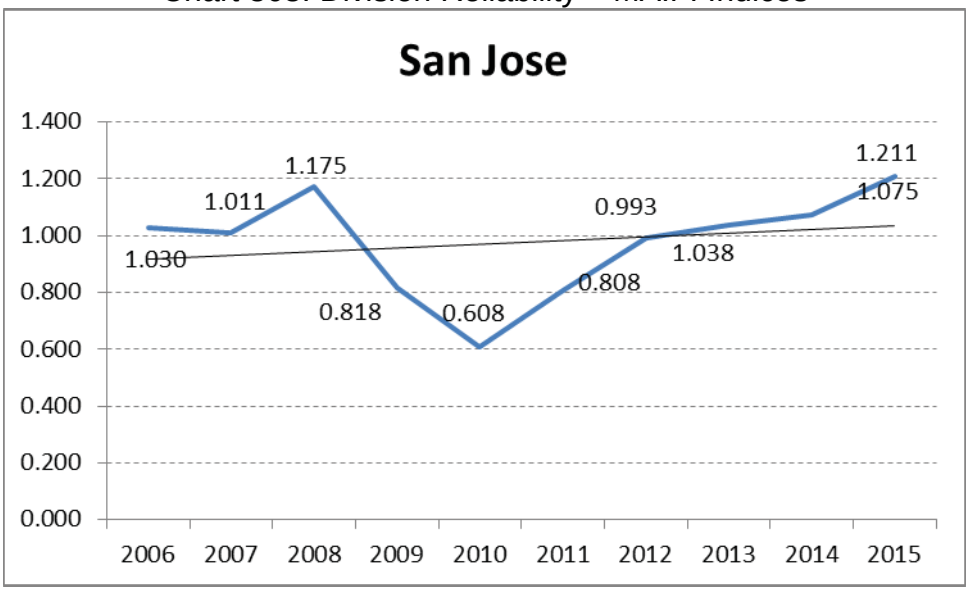
(Excludes ISO)

Chart 307: Division Reliability – MAIFI Indices



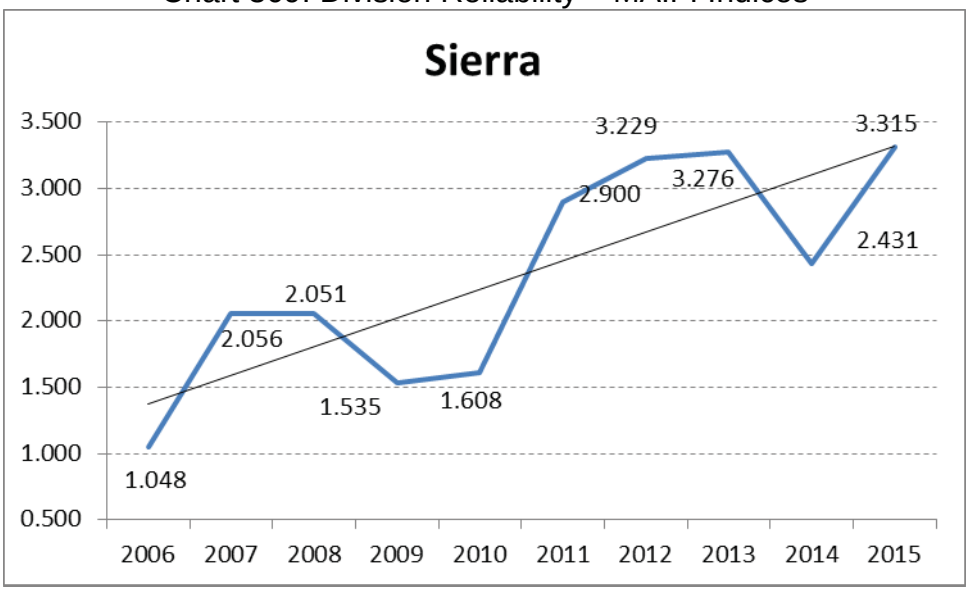
(Excludes ISO)

Chart 308: Division Reliability – MAIFI Indices



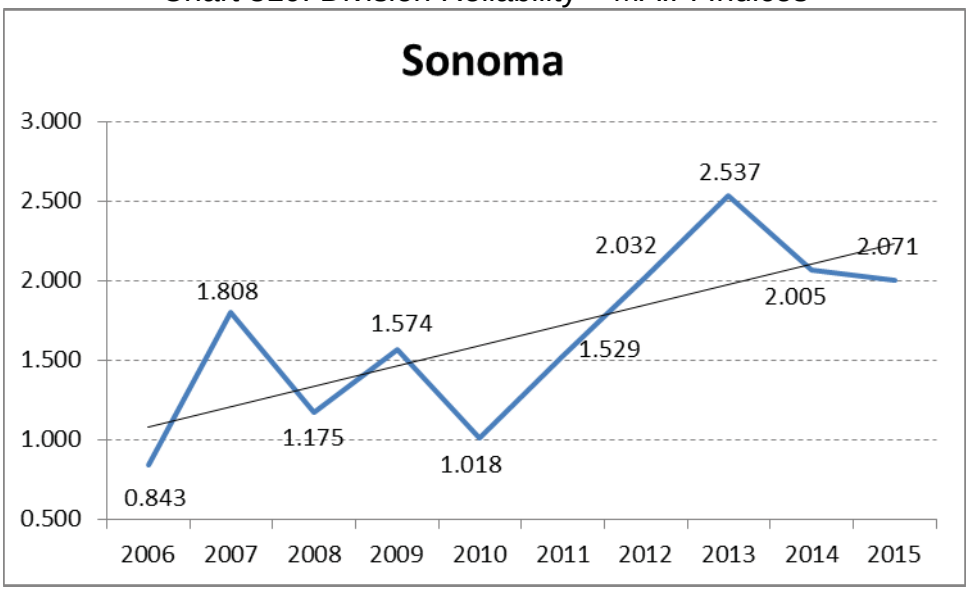
(Excludes ISO)

Chart 309: Division Reliability – MAIFI Indices



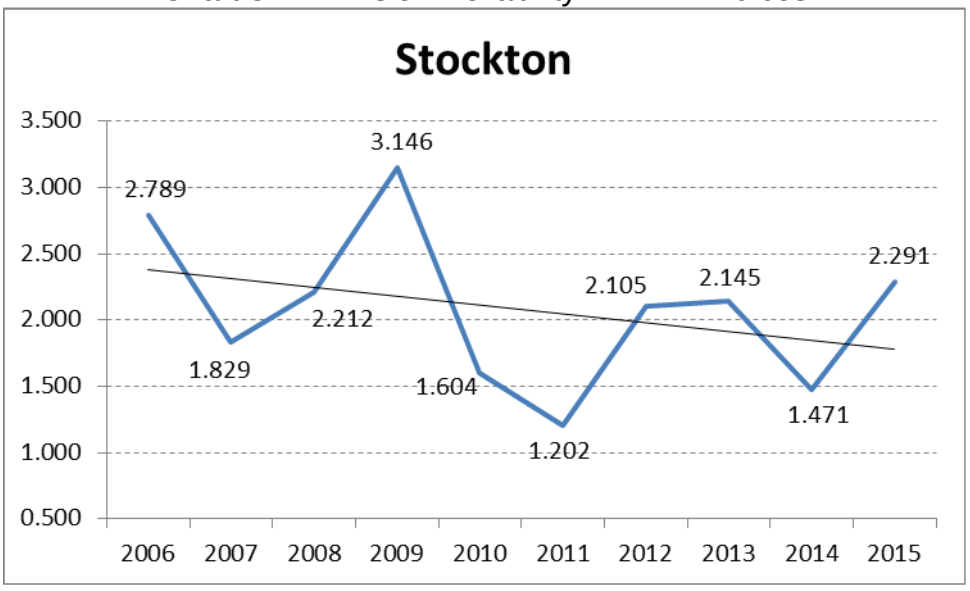
(Excludes ISO)

Chart 310: Division Reliability – MAIFI Indices



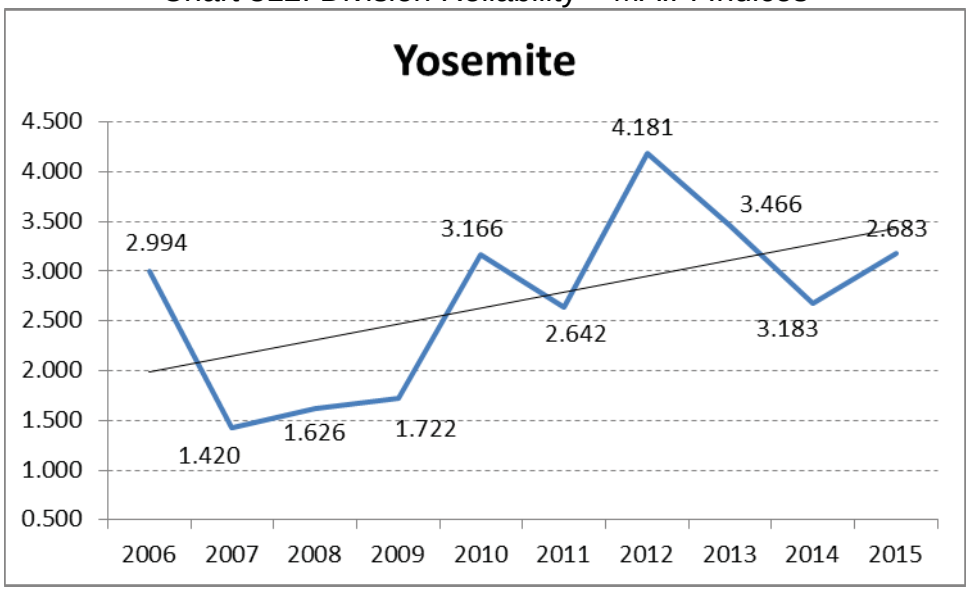
(Excludes ISO)

Chart 311: Division Reliability – MAIFI Indices



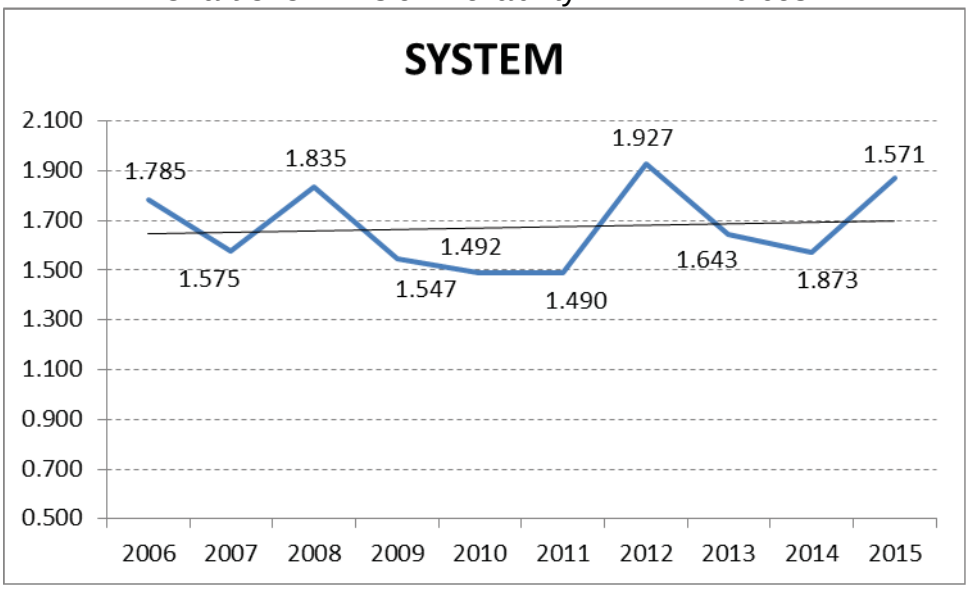
(Excludes ISO)

Chart 312: Division Reliability – MAIFI Indices



(Excludes ISO)

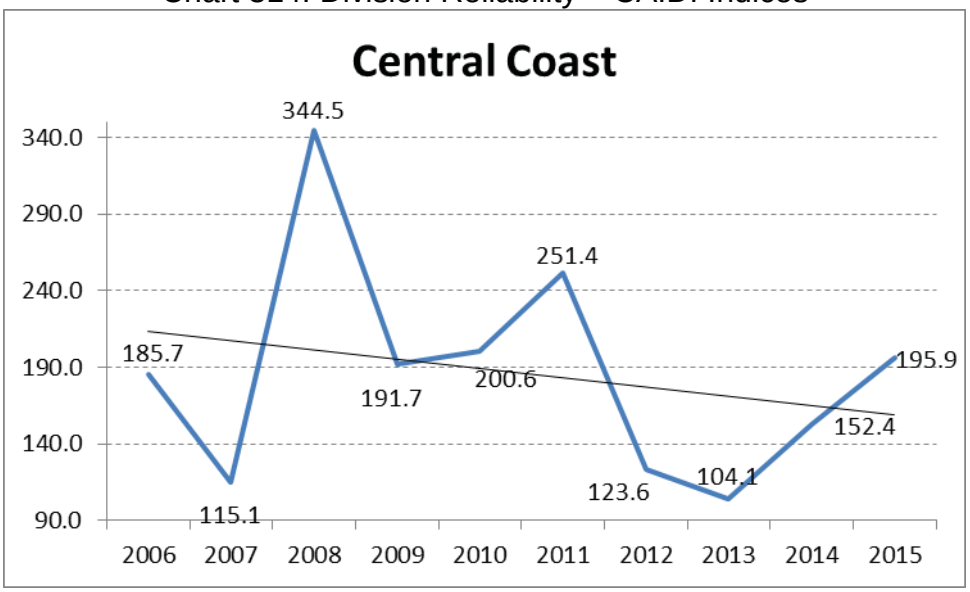
Chart 313: Division Reliability – MAIFI Indices



(Excludes ISO)

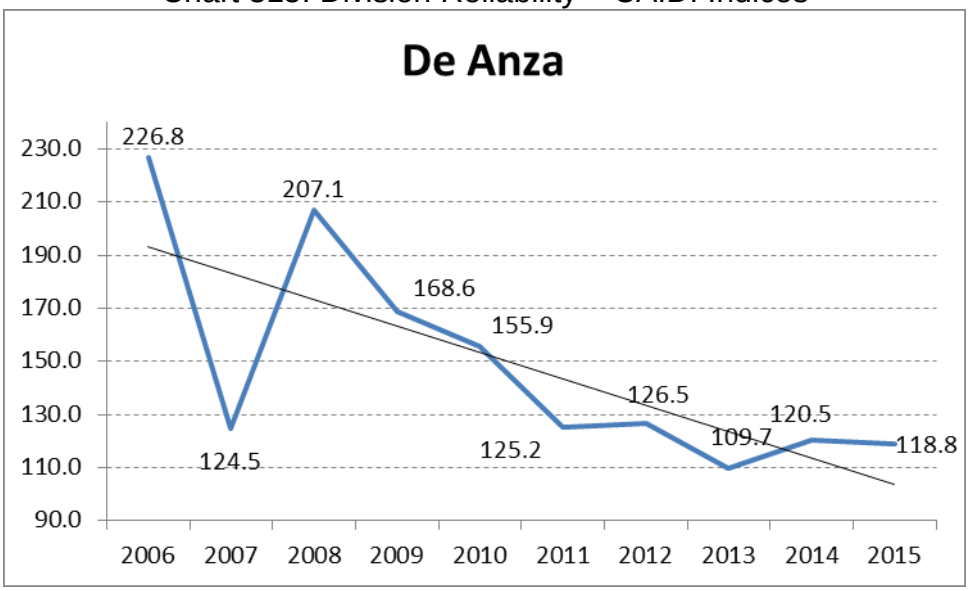
4. CAIDI Performance Results (MED Included)

Chart 314: Division Reliability – CAIDI Indices



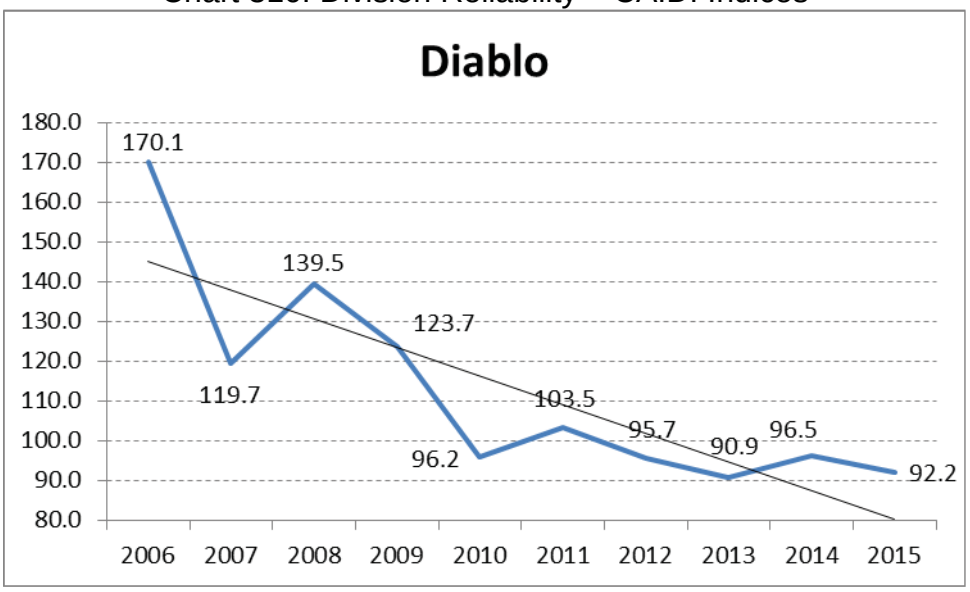
(Excludes ISO)

Chart 315: Division Reliability – CAIDI Indices



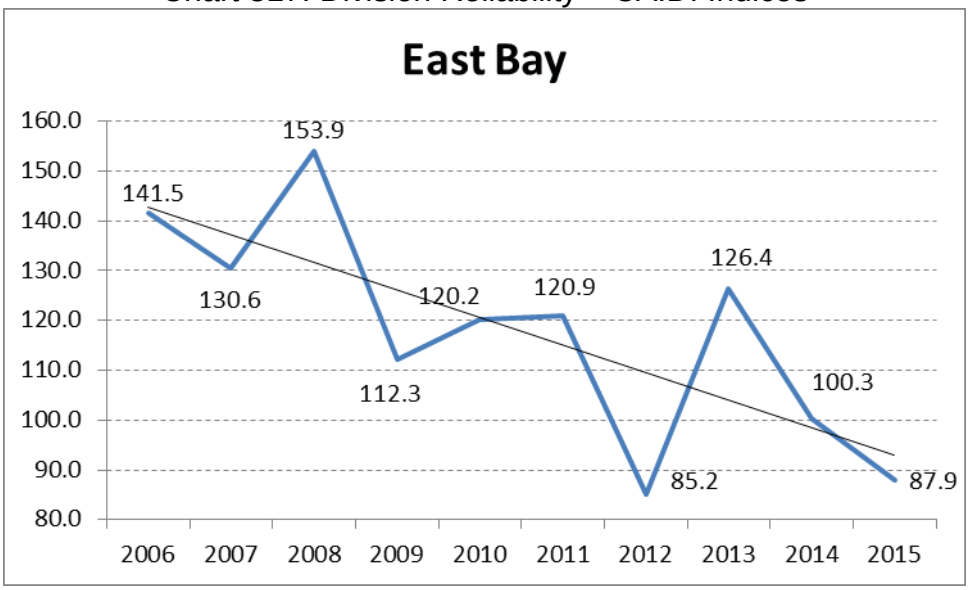
(Excludes ISO)

Chart 316: Division Reliability – CAIDI Indices



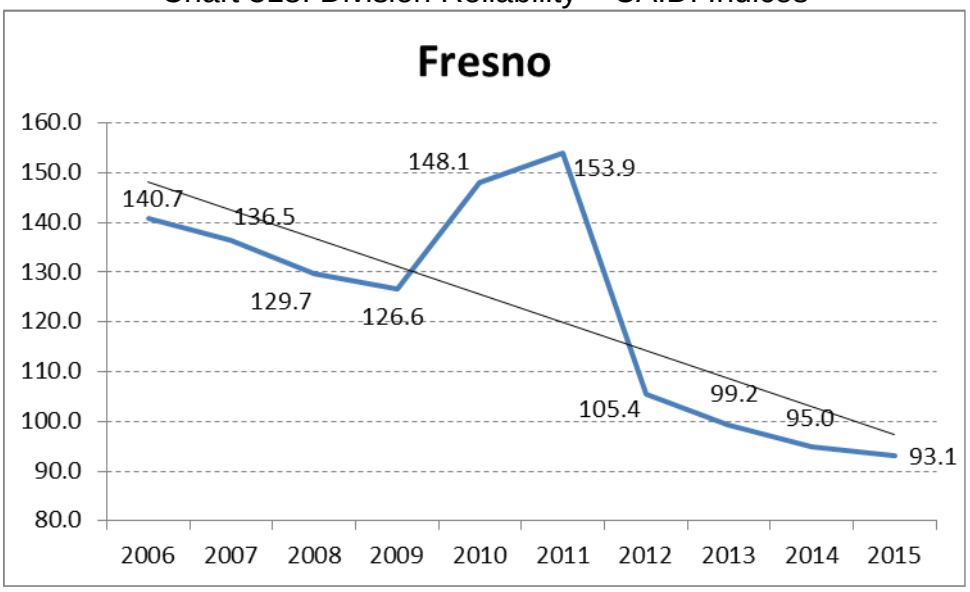
(Excludes ISO)

Chart 317: Division Reliability – CAIDI Indices



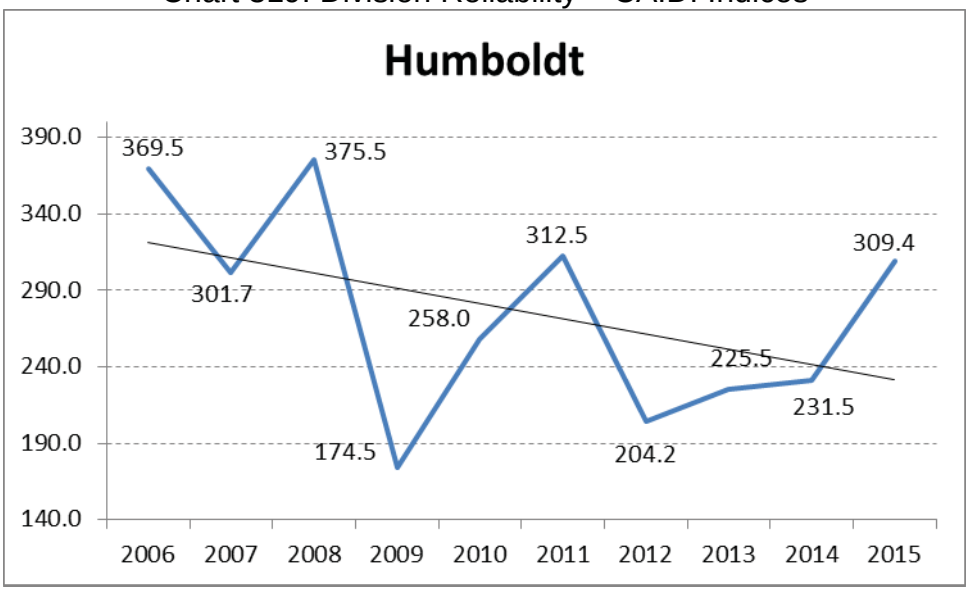
(Excludes ISO)

Chart 318: Division Reliability – CAIDI Indices



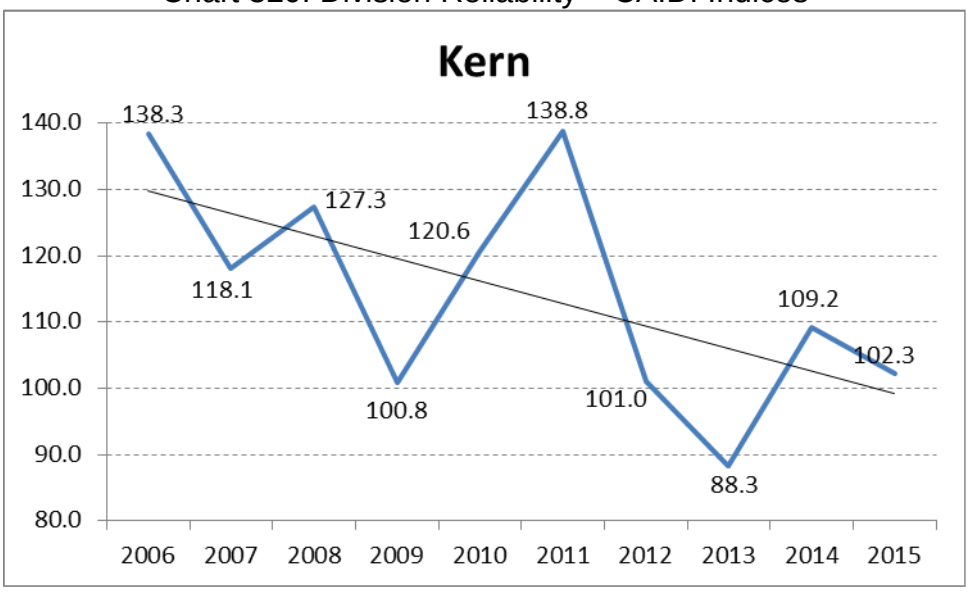
(Excludes ISO)

Chart 319: Division Reliability – CAIDI Indices



(Excludes ISO)

Chart 320: Division Reliability – CAIDI Indices

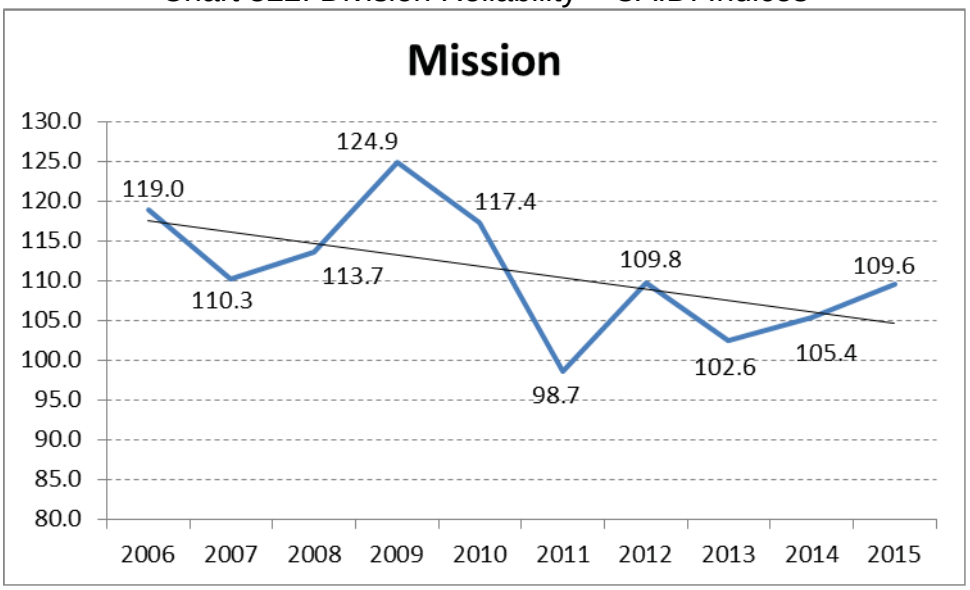


(Excludes ISO)

Chart 321: Division Reliability – CAIDI Indices

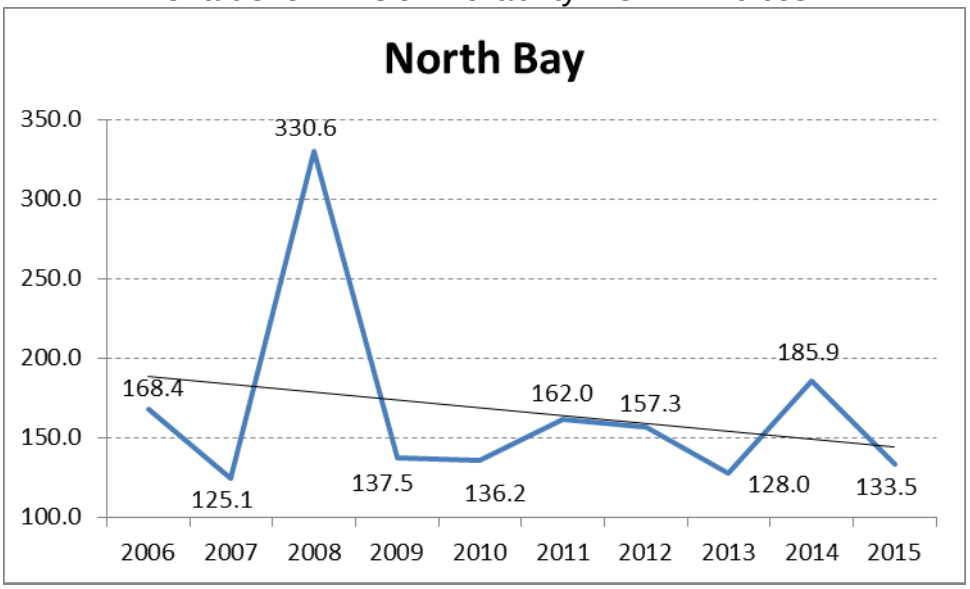
(Excludes ISO)

Chart 322: Division Reliability – CAIDI Indices



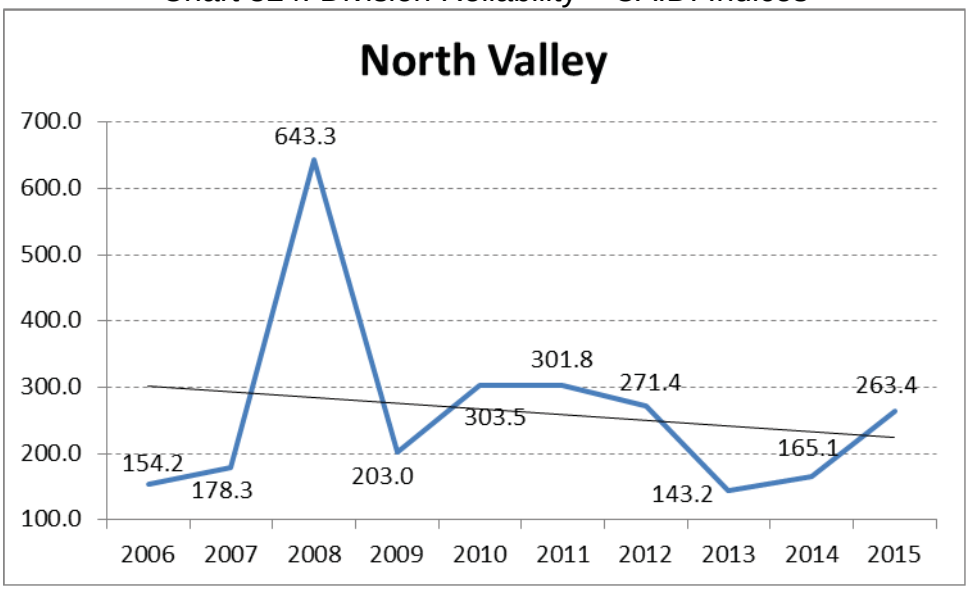
(Excludes ISO)

Chart 323: Division Reliability – CAIDI Indices



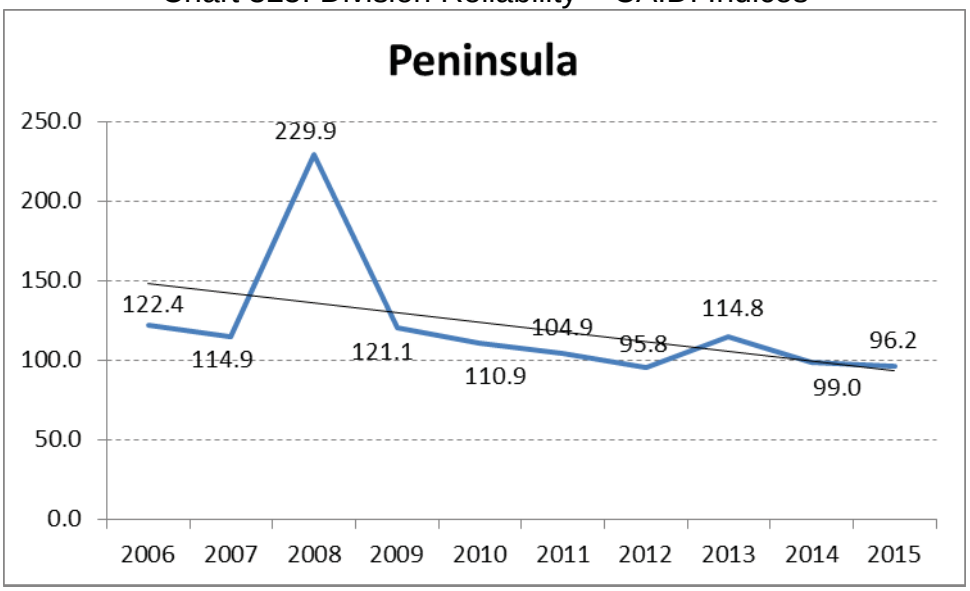
(Excludes ISO)

Chart 324: Division Reliability – CAIDI Indices



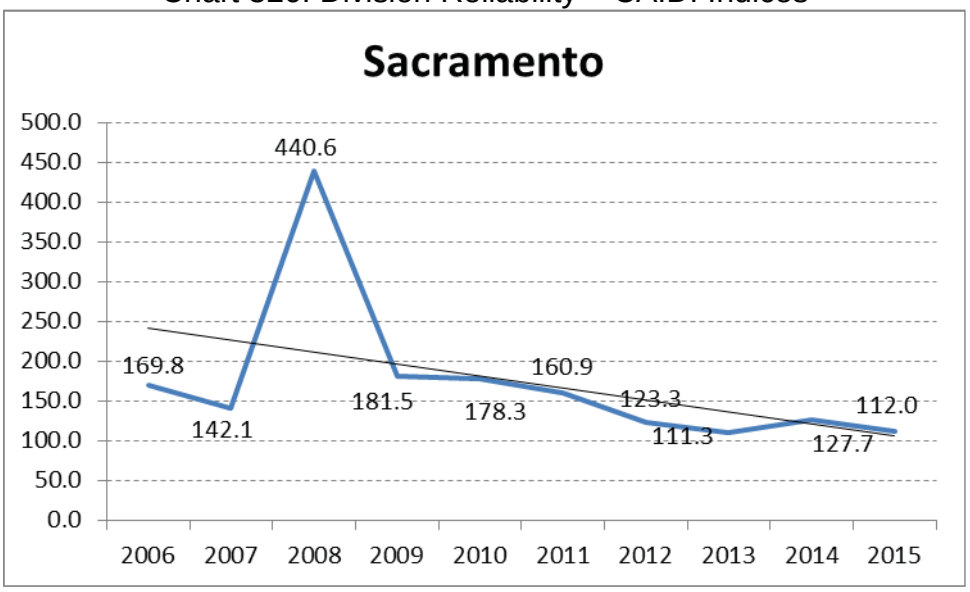
(Excludes ISO)

Chart 325: Division Reliability – CAIDI Indices



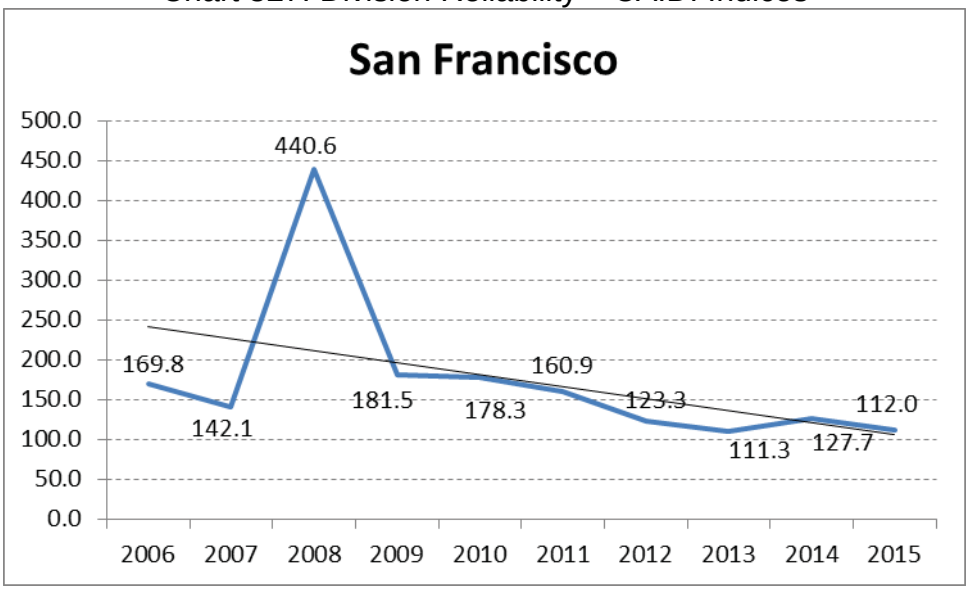
(Excludes ISO)

Chart 326: Division Reliability – CAIDI Indices



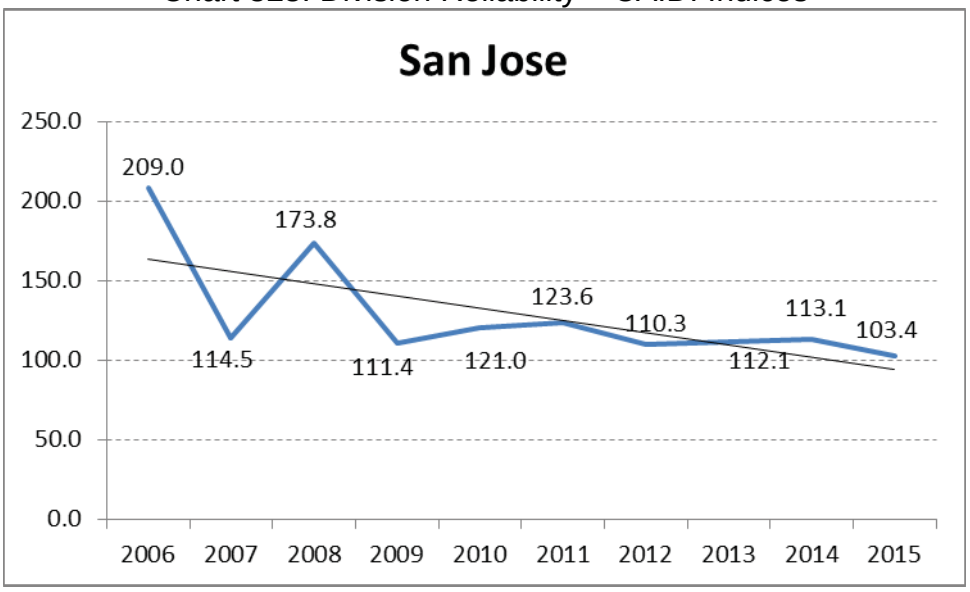
(Excludes ISO)

Chart 327: Division Reliability – CAIDI Indices



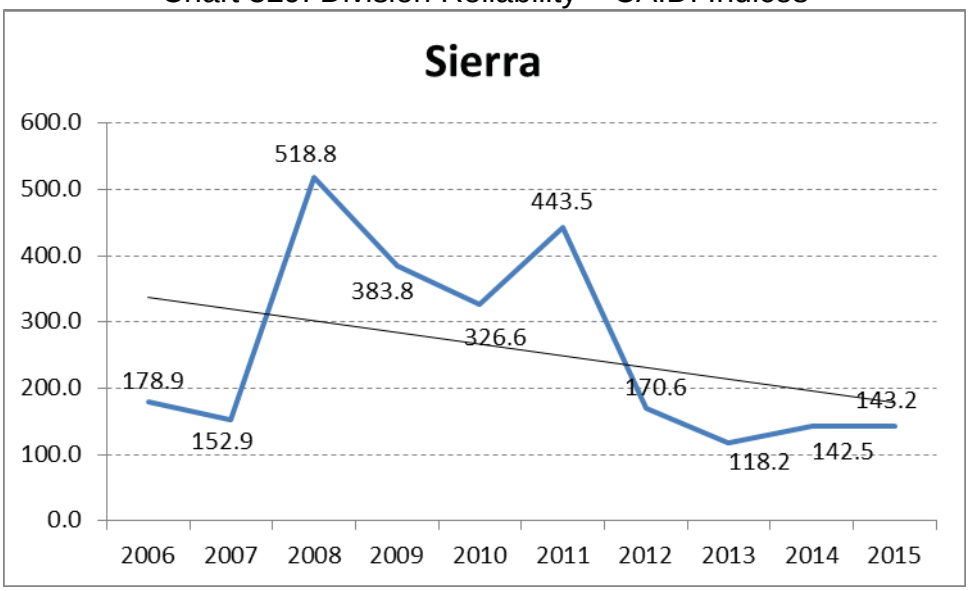
(Excludes ISO)

Chart 328: Division Reliability – CAIDI Indices



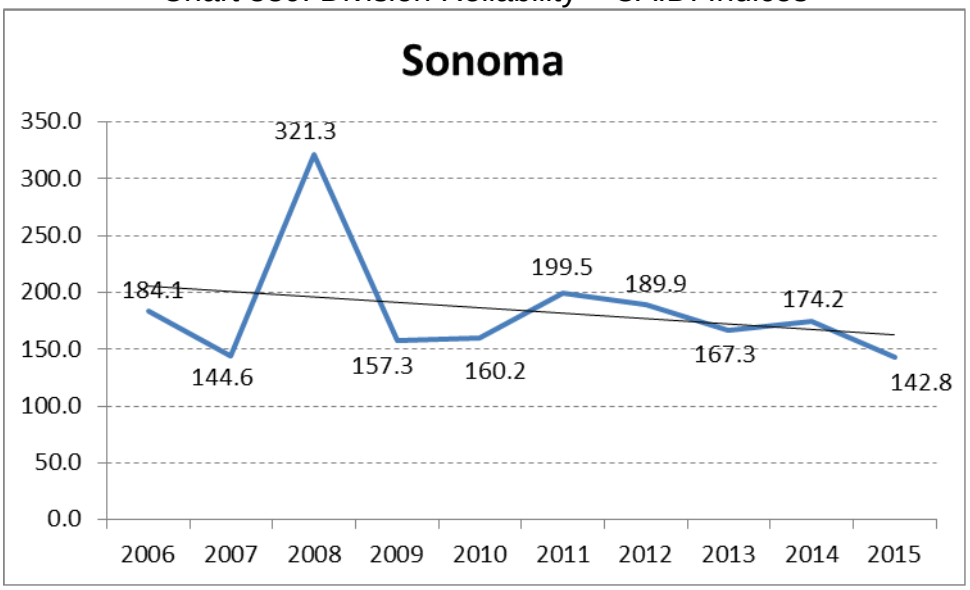
(Excludes ISO)

Chart 329: Division Reliability – CAIDI Indices



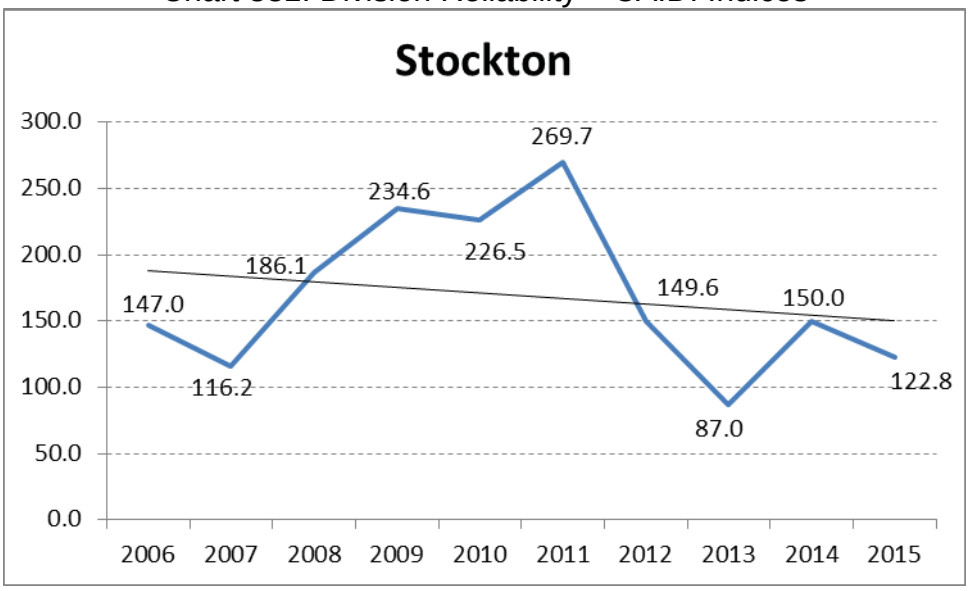
(Excludes ISO)

Chart 330: Division Reliability – CAIDI Indices



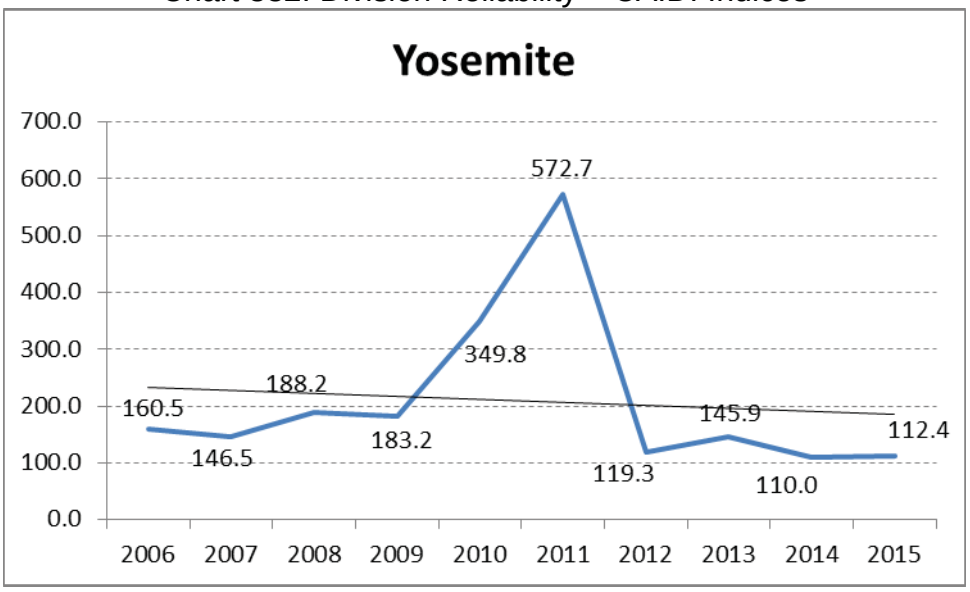
(Excludes ISO)

Chart 331: Division Reliability – CAIDI Indices



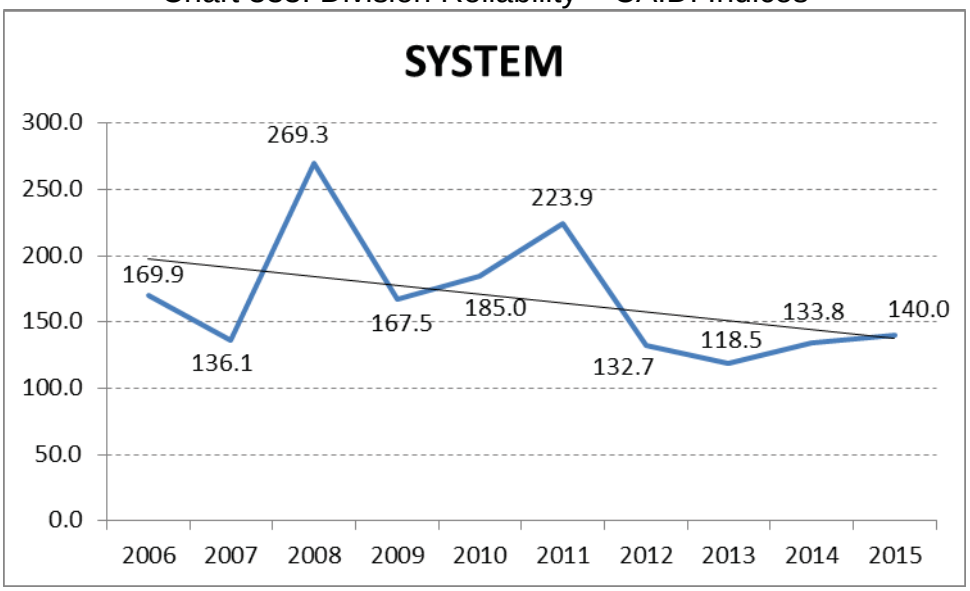
(Excludes ISO)

Chart 332: Division Reliability – CAIDI Indices



(Excludes ISO)

Chart 333: Division Reliability – CAIDI Indices



(Excludes ISO)

d. The number of planned outages, date, and location of planned outages in each division on an annual basis.

PG&E is submitting detailed planned outage information on a confidential basis under seal as required by Appendix B of Decision 16-01-008, at footnote 7. Listed below is a summary of planned outages by year from 2006 through 2015:

Table 50: Ten Years Planned Outage Summary (2006-2015)

Year	Total Planned Outages
2006	10345
2007	11916
2008	11089
2009	11319
2010	12377
2011	17248
2012	17010
2013	21986
2014	18030
2015	18895

4. Service Territory Map

PG&E Service Territory

5. Top 1% of Worst Performing Circuits (WPC) excluding Major Event Day (MED)

PG&E's selection of its worst performing circuits is comprised of two lists. List #1 (see Table 51 below) is ranked by the highest number of sustained outages the average customer on the circuit experiences on an annual basis (AIFI). List #2 (see Table 52 below) is ranked by the highest total number of sustained outage minutes that the average customer on the circuit experiences on an annual basis (AIDI). PG&E recognized that a given circuit could appear on both the AIDI and AIFI lists of worst performing circuits. In consideration of this overlap, in order to include one percent of its total number of circuits (32 circuits), PG&E identified 19 circuits on each list, five of which are on both lists, for a net of 33 individual circuits.

For purposes of this reliability report, PG&E's focus in developing the worst performing circuit lists has been on the impact to the *average customer on the circuit*. This is different than a focus on a circuit's impact or contribution to overall system reliability performance. For example, a circuit with 50 customers that experienced 5 sustained outages affecting the entire circuit (a total customer count of 250 sustained outages) would have a higher worst performing circuit ranking than a circuit with 1,000 customers where each customer experienced 3 sustained outages (a total customer count of 3,000 sustained outages). For purposes of the worst performing circuit list, the fact that the average customer on the smaller circuit experienced five sustained outages caused that circuit to rank as performing worse than a circuit where the average customer only experienced three sustained outages.

Consistent with Decision 16-01-008, PG&E has used three years of outage data (2013 – 2015) in developing the worst performing circuit lists. PG&E has excluded outage data involving planned outages, ISO outages and major event days. PG&E has also limited its review to mainline circuit outages only (in other words, only outages involving an Oil Circuit Breaker (OCB), a recloser, or an interrupter). Finally, PG&E has excluded outages in which the circuit was in an abnormal configuration. An abnormal circuit configuration occurs when additional customers are temporarily added to a circuit in order to support construction or maintenance work performed on an adjacent circuit. Analysis has shown that outages associated with abnormal circuit configurations would skew the results of the worst performing circuit lists. PG&E believes that its approach best defines a worst performing circuit.

Turning to Table 51, the list of the worst performing circuits by outage frequency, the worst circuit was the Borden 1103 circuit. The Borden 1103 circuit experienced an average of 4.3 mainline sustained outages (resulting in the operation of a circuit breaker or an automatic recloser) per year from 2013 – 2015. The average customer on the circuit experienced 3.51 sustained outages per year over this three year period.

Table 52, by comparison, focuses on the duration of the sustained outages. Here, the Otter 1102 circuit was the worst performing circuit. For this circuit, the average customer on the circuit experienced 853 sustained outage minutes per year over the three year period.

Five circuits, Alpine 1102, Challenge 1101, Garberville 1102, Otter 1102, and Wilkins Slough 1101, appear on both lists. These five circuits are highlighted in Tables 51 and 52. Additionally, circuits are

marked with an asterisk (*) which indicate they are "deficient" since they would have shown up in both the 2014 and 2015 list (see the *"Deficient" Worst Performing Section* below for further details).

Table 51: AIFI Worst Performing Circuit for 2015

#	Division	Substation	Circuit Name	Total Customers	Circuit Miles	% OH	% UG	3 Yr Avg Mainline Outages	3 Yr Avg AIFI
1	YOSEMITE	BORDEN	BORDEN 1103	703	128	99%	1%	4.3	3.51
2	SIERRA	EL DORADO PH	EL DORADO PH 2101	4,604	216	99%	1%	9.0	3.18
3	SACRAMENTO	WILKINS SLOUGH	WILKINS SLOUGH 1101*	169	85	100%	0%	4.0	3.17
4	DIABLO	ROSSMOOR	ROSSMOOR 1108	2,844	57	51%	49%	3.3	3.02
5	SIERRA	BRUNSWICK	BRUNSWICK 1103*	3,214	101	88%	12%	5.0	2.78
6	STOCKTON	ALPINE	ALPINE 1102	309	3	0%	100%	2.7	2.66
7	HUMBOLDT	GARBERVILLE	GARBERVILLE 1102*	1,783	215	95%	5%	11.0	2.62
8	FRESNO	TULARE LAKE	TULARE LAKE 1106*	123	72	99%	1%	3.3	2.57
9	KERN	LAMONT	LAMONT 1104	358	79	100%	0%	3.7	2.53
10	YOSEMITE	RIVERBANK	RIVERBANK 1711*	1,451	58	83%	17%	5.0	2.45
11	HUMBOLDT	GARBERVILLE	GARBERVILLE 1101*	1,237	238	99%	1%	7.0	2.37
12	STOCKTON	SALT SPRINGS	SALT SPRINGS 2102*	2,000	93	77%	23%	2.7	2.31
13	DIABLO	TASSAJARA	TASSAJARA 2106	2,899	46	9%	91%	3.0	2.28
14	YOSEMITE	RIVERBANK	RIVERBANK 1712	1,245	71	95%	5%	3.3	2.27
15	CENTRAL COAST	OTTER	OTTER 1102	532	87	87%	13%	4.0	2.27
16	NORTH VALLEY	CHALLENGE	CHALLENGE 1101	698	71	99%	1%	3.0	2.25
17	STOCKTON	WEST POINT	WEST POINT 1102	2,769	298	99%	1%	4.3	2.22
18	SACRAMENTO	MERIDIAN	MERIDIAN 1101	434	86	100%	0%	2.3	2.17
19	FRESNO	KEARNEY	KEARNEY 1104	1,457	102	99%	1%	4.3	2.11

Table 52: AIDI Worst Performing Circuit for 2015

#	Division	Substation	Circuit Name	Total Customers	Circuit Miles	% OH	% UG	3 Yr Ave Mainline Outages	3 Yr Avg AIDI
1	CENTRAL COAST	OTTER	OTTER 1102	532	87	87%	13%	4.0	853.19
2	NORTH VALLEY	RISING RIVER	RISING RIVER 1101*	727	82	98%	2%	4.0	821.51
3	NORTH VALLEY	CHALLENGE	CHALLENGE 1101 *	698	71	99%	1%	3.0	791.00
4	HUMBOLDT	FRUITLAND	FRUITLAND 1141*	373	41	100%	0%	2.7	760.02
5	HUMBOLDT	HOOPA	HOOPA 1101*	2,008	199	94%	6%	5.7	758.57
6	SACRAMENTO	WILKINS SLOUGH	WILKINS SLOUGH 1101*	169	85	100%	0%	4.0	740.28
7	HUMBOLDT	WILLOW CREEK	WILLOW CREEK 1103*	1,527	126	99%	1%	4.0	628.13
8	STOCKTON	ALPINE	ALPINE 1102*	309	3	0%	100%	2.7	618.70
9	SIERRA	ALLEGHANY	ALLEGHANY 1101*	1,070	114	98%	2%	3.7	613.67
10	KERN	POSO MOUNTAIN	POSO MOUNTAIN 2101	146	84	100%	0%	3.7	590.28
11	FRESNO	TULARE LAKE	TULARE LAKE 2108	105	77	99%	1%	3.0	582.38
12	YOSEMITE	INDIAN FLAT	INDIAN FLAT 1104*	599	44	55%	45%	2.0	556.32
13	HUMBOLDT	GARBERVILLE	GARBERVILLE 1102*	1,783	215	95%	5%	11.0	546.46
14	SIERRA	PIKE CITY	PIKE CITY 1101*	412	52	97%	3%	2.3	527.93
15	FRESNO	DUNLAP	DUNLAP 1102*	718	115	69%	31%	6.3	523.73
16	HUMBOLDT	ORICK	ORICK 1101	90	13	94%	6%	0.7	502.81
17	FRESNO	ANGIOLA	ANGIOLA 1102	96	50	99%	1%	2.7	500.57
18	FRESNO	DUNLAP	DUNLAP 1103*	915	106	94%	6%	3.3	485.15
19	KERN	KERN OIL	KERN OIL 1106	668	78	92%	8%	3.0	440.86

Cost Effective Reliability Remediation:

For purposes of this reliability report, PG&E has identified circuits with the worst AIDI and AIFI performance based on the sustained outage impacts to the average customer on that circuit. However, PG&E generally focuses on circuits with larger numbers of customers to maximize the cost effectiveness of remediating poor reliability performing circuits. Specifically, PG&E identifies the worst performing circuits for cost effective remediation based on the highest total number of customers experiencing sustained outages (CESO) on a circuit. The reliability remediation of these worst performing circuits is addressed in PG&E's Targeted Circuit Program. In addition to the Targeted Circuit Program, internal reviews of unplanned outages are performed on a regular basis. The objective of the outage review process is to identify and minimize chronic reliability issues that affect smaller number of customers. Cost effective remediation work that addresses those circuits identified from the outage review process are incorporated into PG&E's base reliability work.

In the Targeted Circuit Program, PG&E's distribution engineers analyze the causes and characteristics of historical outages as well as review the current circuit design in order to identify targeted work that will improve the circuit's reliability performance. The typical targeted circuit work includes, as appropriate for the circuit, installing new fuses and line reclosers, replacing overhead and underground conductors, installing new fault indicators, reframing poles to increase phase separation, installing animal/bird guards, repairing or replacing deteriorated equipment, completing pending reliability related maintenance work, performing infrared inspections, and trimming trees. It typically takes two to three years for a targeted circuit project to be initiated, engineered, and constructed. As forecast in PG&E's 2017 General Rate Case (GRC), PG&E expects to complete an average of 37 circuits in the Targeted Circuit Program per year through 2019, at a cost of $24.5 million in 2016 and $26.0 million in 2017 through 2019.

The anticipated goal of the Targeted Circuit Program is to achieve a 25 percent reliability performance improvement per circuit. The actual historical results for the Targeted Circuit Program have seen an average 30 to 50 percent reliability performance improvement per circuit since 2009. As reported in the 2014 GRC, the Targeted Circuit Program had a benefit to cost ratio of 3.1 to 1 based on the Values of Service analysis.

Most of the listed worst performing circuits have high CESO values. As a result, most of the worst performing circuits have been or will be incorporated into the Targeted Circuit Program. For those worst performing circuits not incorporated into the Targeted Circuit Program, PG&E will evaluate what remedial action, if any, is appropriate. This includes determining whether any remediation action has been or will be performed through the outage review process.

"Deficient" Worst Performing Circuits:

The circuits listed below are "deficient" (WPC) circuits in response to section 5b of CPUC D 16-008-001, Appendix B:

1. WILKINS SLOUGH 1101

i. An explanation of why it was ranked as a "deficient" circuit:
- Three year (2012-2014) average AIFI score of 2.52 and an average AIDI score of 533.13.[13]
- Three year (2013-2015) average AIFI score of 3.17 and an average AIDI score of 740.28.

ii. A historical record of the metric:
- AIFI 2011 = 1.08
- AIFI 2012 = 1.74
- AIFI 2013 = 3.63
- AIFI 2014 = 2.22
- AIFI 2015 = 3.62

- AIDI 2011 = 176.48
- AIDI 2012 = 349.61
- AIDI 2013 = 869.75
- AIDI 2014 = 442.48
- AIDI 2015 = 898.73

iii. An explanation of why it was on the deficiency list again:

Even though this is the first year that PG&E has submitted a "worst performing circuit" list, we are treating this circuit as being "on the deficiency list again" because it was also one of the worst performing circuits based on a review of a three year average AIFI and AIDI from 2012 through 2014. The results appear to be driven by poor 2013 and 2015 performance.

iv. An explanation of what is being done to improve the circuit's future performance:

This is the first year of this report. As of the date of this report, PG&E does not have any firm plans with respect to what can cost-effectively be done to improve the performance of this circuit. We will be reviewing this circuit in the coming months to determine whether there are cost effective actions that can be taken to improve reliability.

v. A quantitative description of the utility's expectation for that circuit's future performance:

As discussed above, PG&E has not determined what can or should cost effectively be done, so we do not anticipate a significant change in the performance of this circuit except for changes due to the weather.

2. BRUNSWICK 1103

i. An explanation of why it was ranked as a "deficient" circuit:
- Three year (2012-2014) average AIFI score of 2.75.

[13] As explained earlier in the report, AIDI is the average time in minutes a customer on this circuit is without power in a given year, and AIFI is the number of times the average customer experiences a sustained outage in a given year.

- Three year (2013-2015) average AIFI score of 2.78.

ii. A historical record of the metric:

- AIFI 2011 = 0.34
- AIFI 2012 = 2.06
- AIFI 2013 = 1.97
- AIFI 2014 = 4.22
- AIFI 2015 = 2.15

iii. An explanation of why it was on the deficiency list again:

Even though this is the first year that PG&E has submitted a “worst performing circuit” list, we are treating this circuit as being “on the deficiency list again” because it was also one of the worst performing circuits based on a review of a three year average AIFI from 2012 through 2014. The results appear to be driven by a poor 2014 performance.

iv. An explanation of what is being done to improve the circuit's future performance:

This circuit was part of the 2012 Targeted Circuit program which installed additional mainline protective devices. PG&E will be reviewing this circuit and see if any additional changes could be made to enhance the circuit reliability.

v. A quantitative description of the utility's expectation for that circuit's future performance:

As discussed above, PG&E has not determined what can or should cost effectively be done, so we do not anticipate a significant change in the performance of this circuit except for changes due to the weather.

3. GARBERVILLE 1102

i. An explanation of why it was ranked as a "deficient" circuit:

- Three year (2012-2014) average AIFI score of 4.21 and AIDI score of 799.24.
- Three year (2013-2015) average AIFI score of 2.62 and AIDI score of 546.46.

ii. A historical record of the metric:

- AIFI 2011 = 4.39
- AIFI 2012 = 7.36
- AIFI 2013 = 1.70
- AIFI 2014 = 3.50
- AIFI 2015 = 2.67

- AIDI 2011 = 488.85
- AIDI 2012 = 1232.92
- AIDI 2013 = 191.92
- AIDI 2014 = 936.09
- AIDI 2015 = 509.61

iii. An explanation of why it was on the deficiency list again:

Even though this is the first year that PG&E has submitted a “worst performing circuit” list, we are treating this circuit as being “on the deficiency list again” because it was also one of the worst performing circuits based on a review of a three year average AIFI and AIDI from 2012 through 2014. The results appear to be driven by poor 2012 and 2014 performance.

iv. An explanation of what is being done to improve the circuit's future performance:

This circuit was part of the 2011 Targeted Circuit program which installed additional mainline protective devices and maintenance work. Additionally, in 2013 PG&E had re-conductored over one mile of OH conductor with larger conductor. PG&E will be reviewing this circuit and see if any changes could be made to enhance the circuit reliability.

v. A quantitative description of the utility's expectation for that circuit's future performance:

As discussed above, PG&E has not determined what can or should cost effectively be done, so we do not anticipate a significant change in the performance of this circuit except for changes due to the weather.

4. TULARE LAKE 1106

i. An explanation of why it was ranked as a "deficient" circuit:

- Three year (2012-2014) average AIFI score of 2.78.
- Three year (2013-2015) average AIFI score of 2.57.

ii. A historical record of the metric:

- AIFI 2011 = 1.00
- AIFI 2012 = 2.66
- AIFI 2013 = 3.48
- AIFI 2014 = 2.21
- AIFI 2015 = 2.01

iii. An explanation of why it was on the deficiency list again:

Even though this is the first year that PG&E has submitted a “worst performing circuit” list, we are treating this circuit as being “on the deficiency list again” because it was also one of the worst performing circuits based on a review of a three year average AIFI from 2012 through 2014. The results appear to be driven by a poor 2013 performance.

iv. An explanation of what is being done to improve the circuit's future performance:

This is the first year of this report. As of the date of this report, PG&E does not have any firm plans with respect to what can cost-effectively be done to improve the performance of this circuit. We will be reviewing this circuit in the coming months to determine whether there are cost effective actions that can be taken to improve reliability.

v. A quantitative description of the utility's expectation for that circuit's future performance:

As discussed above, PG&E has not determined what can or should cost effectively be done, so we do not anticipate a significant change in the performance of this circuit except for changes due to the weather.

5. RIVERBANK 1711

i. An explanation of why it was ranked as a "deficient" circuit:

- Three year (2012-2014) average AIFI score of 2.49
- Three year (2013-2015) average AIFI score of 2.45

ii. A historical record of the metric:

- AIFI 2011 = 0.28
- AIFI 2012 = 2.44
- AIFI 2013 = 2.38
- AIFI 2014 = 2.75

- AIFI 2015 = 2.25

iii. An explanation of why it was on the deficiency list again:

Even though this is the first year that PG&E has submitted a “worst performing circuit” list, we are treating this circuit as being “on the deficiency list again” because it was also one of the worst performing circuits based on a review of a three year average AIFI and AIDI from 2012 through 2014. The results appear to be driven by continued poor performance from 2012-2015.

iv. An explanation of what is being done to improve the circuit's future performance:

This circuit was part of the 2015 Targeted Circuit program with construction being completed in 2016. This project installed additional mainline protective devices and maintenance work.

v. A quantitative description of the utility's expectation for that circuit's future performance:

Based on results shown by other, similar circuits after targeted circuit work, PG&E anticipates that the work proposed will improve reliability performance by 15 percent or more.

6. GARBERVILLE 1101

i. An explanation of why it was ranked as a "deficient" circuit:

- Three year (2012-2014) average AIFI score of 3.24
- Three year (2013-2015) average AIFI score of 2.37

ii. A historical record of the metric:

- AIFI 2011 = 3.43
- AIFI 2012 = 4.83
- AIFI 2013 = 0.93
- AIFI 2014 = 3.90
- AIFI 2015 = 2.28

iii. An explanation of why it was on the deficiency list again:

Even though this is the first year that PG&E has submitted a “worst performing circuit” list, we are treating this circuit as being “on the deficiency list again” because it was also one of the worst performing circuits based on a review of a three year average AIFI and AIDI from 2012 through 2014. The results appear to be driven by poor 2012 and 2014 performance.

iv. An explanation of what is being done to improve the circuit's future performance:

This circuit was part of the 2012 Targeted Circuit program, which reconductored 700 feet of OH conductor, installed additional sectionalizing devices, and performed additional maintenance work. An additional 7,000 feet of mainline reconductor is scheduled for completion in 2017 as part of the deteriorated conductor program. PG&E will be reviewing this circuit and see if any changes could be made to enhance the circuit reliability.

v. A quantitative description of the utility's expectation for that circuit's future performance:

As discussed above, PG&E has not determined what can or should cost effectively be done, so we do not anticipate a significant change in the performance of this circuit except for changes due to the weather. We will be reviewing this circuit in the coming months to determine whether there are cost effective actions that can be taken to improve reliability.

7. SALT SPRINGS 2102

i. An explanation of why it was ranked as a "deficient" circuit:
- Three year (2012-2014) average AIFI score of 2.90
- Three year (2013-2015) average AIFI score of 2.31

ii. A historical record of the metric:
- AIFI 2011 = 8.29
- AIFI 2012 = 2.77
- AIFI 2013 = 0.53
- AIFI 2014 = 5.39
- AIFI 2015 = 1.00

iii. An explanation of why it was on the deficiency list again:

Even though this is the first year that PG&E has submitted a “worst performing circuit” list, we are treating this circuit as being “on the deficiency list again” because it was also one of the worst performing circuits based on a review of a three year average AIFI and AIDI from 2012 through 2014. The results appear to be driven by poor 2014 performance.

iv. An explanation of what is being done to improve the circuit's future performance:

This circuit was part of the 2013 Targeted Circuit program, which installed additional mainline protective devices and reframed over 100 poles. This circuit is 94 miles long through heavily wooded areas with snow loading conditions in the winter. PG&E will be reviewing this circuit and see if any changes could be made to enhance the circuit reliability. We will be reviewing this circuit in the coming months to determine whether there are cost effective actions that can be taken to improve reliability.

v. A quantitative description of the utility's expectation for that circuit's future performance:

As discussed above, PG&E has not determined what can or should cost effectively be done, so we do not anticipate a significant change in the performance of this circuit except for changes due to the weather.

8. RISING RIVER 1101

i. An explanation of why it was ranked as a "deficient" circuit:
- Three year (2012-2014) average AIDI score of 815.56.
- Three year (2013-2015) average AIDI score of 821.19.

ii. A historical record of the metric:
- AIDI 2011 = 0
- AIDI 2012 = 1125
- AIDI 2013 = 439
- AIDI 2014 = 875
- AIDI 2015 = 1154

iii. An explanation of why it was on the deficiency list again:

Even though this is the first year that PG&E has submitted a “worst performing circuit” list, we are treating this circuit as being “on the deficiency list again” because it was also one of the worst performing circuits based on a review of a three year average AIDI from 2012 through 2014.These results appear to be primarily driven by poor performance in 2012 through 2015 performance, especially compared to excellent performance in 2011.

iv. An explanation of what is being done to improve the circuit's future performance:

This circuit is part of the 2017 Targeted Circuit program, which proposes to install additional mainline protective devices.

v. A quantitative description of the utility's expectation for that circuit's future performance:

Based on results shown by other, similar circuits after targeted circuit work, PG&E anticipates that the work proposed will improve reliability performance by 15 percent or more.

9. CHALLENGE 1101

i. An explanation of why it was ranked as a "deficient" circuit:

- Three year (2012-2014) average AIDI score of 1502.17
- Three year (2013-2015) average AIDI score of 791.00.

ii. A historical record of the metric:

- AIDI 2011 = 751.35
- AIDI 2012 = 3029.69
- AIDI 2013 = 337.00
- AIDI 2014 = 1087.45
- AIDI 2015 = 942.24

iii. An explanation of why it was on the deficiency list again:

Even though this is the first year that PG&E has submitted a “worst performing circuit” list, we are treating this circuit as being “on the deficiency list again” because it was also one of the worst performing circuits based on a review of a three year average AIDI from 2012 through 2014. These results appear to be primarily driven by poor 2012, 2014, and 2015 performance.

iv. An explanation of what is being done to improve the circuit's future performance:

This circuit is 71 miles long, including over 70 miles of overhead conductor. This circuit was part of the 2013 Targeted Circuit program, which included installing new mainline protective and sectionalizing devices and maintenance work. We will be reviewing this circuit in the coming months to determine whether there are cost effective actions that can be taken to improve reliability.

v. A quantitative description of the utility's expectation for that circuit's future performance:

As discussed above, PG&E has not determined what can or should cost effectively be done, so we do not anticipate a significant change in the performance of this circuit except for changes due to the weather.

10. FRUITLAND 1141

i. An explanation of why it was ranked as a "deficient" circuit:

- Three year (2012-2014) average AIDI score of 786.06
- Three year (2013-2015) average AIDI score of 760.02

ii. A historical record of the metric:

- AIDI 2011 = 172.01
- AIDI 2012 = 101.76
- AIDI 2013 = 143.97
- AIDI 2014 = 2136.48
- AIDI 2015 = 0

iii. An explanation of why it was on the deficiency list again:

Even though this is the first year that PG&E has submitted a “worst performing circuit” list, we are treating this circuit as being “on the deficiency list again” because it was also one of the worst performing circuits based on a review of a three year average AIDI from 2012 through 2014.

The Fruitland 1141 circuit is on both the 2012-2014 list and on the 2013- 2015 list due to poor performance in 2014. That in turn was due to a single lengthy outage, which was more than four times the combined outages of the other four years shown above. In fact, there were no sustained outages at all in 2015 on this circuit.

iv. An explanation of what is being done to improve the circuit's future performance:

PG&E does not believe that any additional work is needed to improve the performance of the Fruitland 1141 circuit, as 2015’s performance was exemplary.

v. A quantitative description of the utility's expectation for that circuit's future performance:

A single wire-down outage initially caused by vegetation and further complicated by outages to interconnected circuits contributed to 90% of the customer minutes for 2014. The customer minutes for this single outage are more than four times the other four years combined. This circuit will likely be on next year’s list, which will be based on preliminary 2014-2016 data and will therefore include the unusual 2014 results. PG&E does not foresee this circuit being on the worst performing circuits list after next year, in other words once the 2014 data will no longer impact the 3 year average.

11. HOOPA 1101

i. An explanation of why it was ranked as a "deficient" circuit:

- Three year (2012-2014) average AIDI score of 517.73
- Three year (2013-2015) average AIDI score of 758.57

ii. A historical record of the metric:

- AIDI 2011 = 522.72
- AIDI 2012 = 429.30
- AIDI 2013 = 894.20
- AIDI 2014 = 222.77
- AIDI 2015 = 1152.80

iii. An explanation of why it was on the deficiency list again:

Even though this is the first year that PG&E has submitted a “worst performing circuit” list, we are treating this circuit as being “on the deficiency list again” because it was also one of the worst performing circuits based on a review of a three year average SAIFI from 2012 through 2014.

These results appear to be primarily driven by poor performance in 2013 and 2015.

iv. An explanation of what is being done to improve the circuit's future performance:

This is the first year of this report. As of the date of this report, PG&E does not have any firm plans with respect to what can cost-effectively be done to improve the performance of this circuit.

This circuit length is 199 miles, 187 of which are overhead conductor in remote areas. We will be reviewing this circuit in the coming months to determine whether there are cost effective actions that can be taken to improve reliability.

v. A quantitative description of the utility's expectation for that circuit's future performance:
As discussed above, PG&E has not determined what can or should cost effectively be done for this circuit, so we are not able to provide a quantitative description of anticipated future performance.

12. WILLOW CREEK 1103

i. An explanation of why it was ranked as a "deficient" circuit:
- Three year (2012-2014) average AIDI score of 698.71.
- Three year (2013-2015) average AIDI score of 628.13.

ii. A historical record of the metric:
- AIDI 2011 = 364.77
- AIDI 2012 = 783.93
- AIDI 2013 = 512.16
- AIDI 2014 = 797.36
- AIDI 2015 = 574.53

iii. An explanation of why it was on the deficiency list again:
Even though this is the first year that PG&E has submitted a “worst performing circuit” list, we are treating this circuit as being “on the deficiency list again” because it was also one of the worst performing circuits based on a review of a three year average AIDI from 2012 through 2014. These results appear to be primarily driven by poor 2012 and 2014 performance.

iv. An explanation of what is being done to improve the circuit's future performance:
This circuit is 126 miles long, including over 124 miles of overhead conductor. This circuit was part of the 2014 Targeted Circuit program, which included reconductoring over 900 feet of conductor, installation of mainline protective and sectionalizing devices, and maintenance work.

v. A quantitative description of the utility's expectation for that circuit's future performance:
As shown in the first year after the completion of this project, the AIDI for the circuit has improved by 223 minutes in 2015.

13. ALPINE 1102

i. An explanation of why it was ranked as a "deficient" circuit:
- Three year (2012-2014) average AIDI score of 517.73
- Three year (2013-2015) average AIDI score of 618.70

ii. A historical record of the metric:
- AIDI 2011 = 1562.27
- AIDI 2012 = 681
- AIDI 2013 = 455
- AIDI 2014 = 416.65
- AIDI 2015 = 983.26

iii. An explanation of why it was on the deficiency list again:

Even though this is the first year that PG&E has submitted a “worst performing circuit” list, we are treating this circuit as being “on the deficiency list again” because it was also one of the worst performing circuits based on a review of a three year average SAIFI from 2012 through 2014. These results appear to be primarily driven by poor performance in 2012 and 2015.

iv. An explanation of what is being done to improve the circuit's future performance:
This is the first year of this report. As of the date of this report, PG&E does not have any firm plans with respect to what can cost-effectively be done to improve the performance of this circuit. We will be reviewing this circuit in the coming months to determine whether there are cost effective actions that can be taken to improve reliability.

v. A quantitative description of the utility's expectation for that circuit's future performance:
As discussed above, PG&E has not determined what can or should cost effectively be done, so we do not anticipate a significant change in the performance of this circuit except for changes due to the weather.

14. ALLEGHANY 1101

i. An explanation of why it was ranked as a "deficient" circuit:
- Three year (2012-2014) average AIDI score of 1056.85
- Three year (2013-2015) average AIDI score of 613.67

ii. A historical record of the metric:
- AIDI 2011 = 1248.08
- AIDI 2012 = 1526.30
- AIDI 2013 = 295.72
- AIDI 2014 = 1340.92
- AIDI 2015 = 205.44

iii. An explanation of why it was on the deficiency list again:
Even though this is the first year that PG&E has submitted a “worst performing circuit” list, we are treating this circuit as being “on the deficiency list again” because it was also one of the worst performing circuits based on a review of a three year average AIDI from 2012 through 2014. These results appear to be primarily driven by poor performance in 2012, and 2014, especially when compared to greatly improved performance in 2013 and 2015.

iv. An explanation of what is being done to improve the circuit's future performance:
This is the first year of this report. As of the date of this report, PG&E does not have any firm plans with respect to what can cost-effectively be done to improve the performance of this circuit. This circuit was part of PG&E’s 2013 Targeted Circuit program, which reconductored 2700 feet of OH Conductor with larger wire to withstand snow loading and upgraded to recloser controls for SCADA visibility and remote restoration. 2014 performance was driven by two outages that resulted in over one million customer minutes. Restoration was delayed due to severe weather and remote location. This circuit is 114 miles long, 111 of which is overhead conductor in a remote area. We will be reviewing this circuit in the coming months to determine whether there are cost effective actions that can be taken to improve reliability.

v. A quantitative description of the utility's expectation for that circuit's future performance:

As discussed above, PG&E has not determined what can or should cost effectively be done, so we do not anticipate a significant change in the performance of this circuit except for changes due to the weather.

15. INDIAN FLAT 1104

i. An explanation of why it was ranked as a "deficient" circuit:
- Three year (2012-2014) average AIDI score of 532.79
- Three year (2013-2015) average AIDI score of 556.32

ii. A historical record of the metric:
- AIDI 2011 = 0
- AIDI 2012 = 72.05
- AIDI 2013 = 119.65
- AIDI 2014 = 1413.99
- AIDI 2015 = 136.77

iii. An explanation of why it was on the deficiency list again:
Even though this is the first year that PG&E has submitted a “worst performing circuit” list, we are treating this circuit as being “on the deficiency list again” because it was also one of the worst performing circuits based on a review of a three year average AIDI from 2012 through 2014.

These results appear to be primarily driven by poor performance in 2014.

iv. An explanation of what is being done to improve the circuit's future performance:
This is the first year of this report. As of the date of this report, PG&E does not have any firm plans with respect to what can cost-effectively be done to improve the performance of this circuit.

This circuit is 44 miles long in Yosemite National Park. We will be reviewing this circuit in the coming months to determine if there are cost effective actions that can be taken to improve reliability.

v. A quantitative description of the utility's expectation for that circuit's future performance:
A single outage initially caused by vegetation contributed all the customer outage minutes for 2014. This circuit will likely be on next year’s list, which will be based on preliminary 2014-2016 data and will therefore include the unusual 2014 results. PG&E does not foresee this circuit being on the worst performing circuits list after next year, in other words once the 2014 data will no longer impact the 3 year average.

16. PIKE CITY 1101

i. An explanation of why it was ranked as a "deficient" circuit:
- Three year (2012-2014) average SAIFI score of 584.68
- Three year (2013-2015) average SAIFI score of 527.93

ii. A historical record of the metric:
- AIDI 2011 = 214.15
- AIDI 2012 = 345.25
- AIDI 2013 = 1082.88

- AIDI 2014 = 330.75
- AIDI 2015 = 176.40

iii. An explanation of why it was on the deficiency list again:

Even though this is the first year that PG&E has submitted a “worst performing circuit” list, we are treating this circuit as being “on the deficiency list again” because it was also one of the worst performing circuits based on a review of a three year average SAIFI from 2012 through 2014. These results appear to be primarily driven by poor performance in 2013.

iv. An explanation of what is being done to improve the circuit's future performance:

This is the first year of this report. As of the date of this report, PG&E does not have any firm plans with respect to what can cost-effectively be done to improve the performance of this circuit.

This circuit is approximately 52 miles long, including 50 miles of overhead conductor. PG&E does not believe that any additional work is needed to improve the performance of the Pike City 1101, as 2014 and 2015 performance has improved over 2013 performance.

v. A quantitative description of the utility's expectation for that circuit's future performance:

A single outage initially caused by a failed capacitor bank caused overhead conductors to fall to the ground. This single outage contributed over 75% of the customer minutes for 2013. The customer minutes in 2013 are more than the sum of the other 4 years. PG&E does not foresee this circuit to be on the worst performing circuits list moving forward as 2013 data will no longer impact the 3 year average. Depending on the weather we would anticipate performance in line with the 2014 and 2015, as shown above.

17. DUNLAP 1102

i. An explanation of why it was ranked as a "deficient" circuit:

- Three year (2012-2014) average AIDI score of 817.96.
- Three year (2013-2015) average AIDI score of 523.73.

ii. A historical record of the metric:

- AIDI 2011 = 799.58
- AIDI 2012 = 1016.29
- AIDI 2013 = 922.29
- AIDI 2014 = 510.61
- AIDI 2015 = 137.77

iii. An explanation of why it was on the deficiency list again:

Even though this is the first year that PG&E has submitted a “worst performing circuit” list, we are treating this circuit as being “on the deficiency list again” because it was also one of the worst performing circuits based on a review of a three year average AIDI from 2012 through 2014.

These results appear to be primarily driven by poor 2011, 2012 and 2013 performance, especially compared to excellent performance in 2015.

iv. An explanation of what is being done to improve the circuit's future performance:

This circuit is 115 miles long, including 79 miles of overhead conductor. This circuit was part of the 2014 Targeted Circuit program, which installed additional mainline protective devices and performed maintenance work. PG&E does not believe that any additional work is needed to improve the performance of the Dunlap 1101, as 2014 and 2015 performance has improved over 2013 performance.

v. A quantitative description of the utility's expectation for that circuit's future performance:
Based on the work already completed as part of the Targeted Circuit program, we anticipate future performance to approximate the 2015 performance, depending of course on the weather and other variables beyond our control.

18. DUNLAP 1103

i. An explanation of why it was ranked as a "deficient" circuit:
- Three year (2012-2014) average AIDI score of 629.
- Three year (2013-2015) average AIDI score of 485.15

ii. A historical record of the metric:
- AIDI 2011 = 0.00
- AIDI 2012 = 510.05
- AIDI 2013 = 643.78
- AIDI 2014 = 737.90
- AIDI 2015 = 10.81

iii. An explanation of why it was on the deficiency list again:
Even though this is the first year that PG&E has submitted a “worst performing circuit” list, we are treating this circuit as being “on the deficiency list again” because it was also one of the worst performing circuits based on a review of a three year average AIDI from 2012 through 2014.

These results appear to be primarily driven by poor performance in 2013 and 2014 AIDI performance, especially when compared to excellent performance in 2011 and 2015.

iv. An explanation of what is being done to improve the circuit's future performance:
This is the first year of this report. As of the date of this report, PG&E does not have any firm plans with respect to what can cost-effectively be done to improve the performance of this circuit.

This circuit length is 106 miles, including 99 miles of overhead conductor through remote portions of National Parks and Forests. We will be reviewing this circuit in the coming months to determine whether there are cost effective actions that can be taken to improve reliability.

v. A quantitative description of the utility's expectation for that circuit's future performance:
As discussed above, PG&E has not determined what can or should cost effectively be done, so we do not anticipate a significant change in the performance of this circuit except for changes due to the weather.

6. Top 10 major unplanned power outage events of 2015

Significant Outage Events Of 2015

Table 2015 lists the ten largest outage events experienced during 2015. PG&E interprets this reporting requirement as the ten events (individual days or in some cases a group of consecutive days) with a significant number of customer interruptions in the system or a portion of the system. These events are listed in descending order of customer interruptions.

Table 53 - Ten Largest 2015 Outage Events

Rank	Description	Date	Number of Customers Affected *	Longest Customer Interruption (Hours)	# of People Used To Restore Service	IEEE Major Event?
1	A series of strong Pacific storms moved into CA producing very heavy rain and gusty south winds. South wind gusts near 50 mph were observed along the coast with gusts near 60 mph observed in the northern Sacramento Valley. Generally 4 - 8 inches of rain were observed across the elevated terrain in the northern part of the territory. Some locations topped 8 inches with Bucks Lake for example, recording 9 inches of rain during the series.	2/6/2015 - 2/8/2015	389567		2836	Yes
2	Tropical moisture associated with former Hurricane Dolores drifted over the territory. Atmospheric instability combined with the abundant tropical moisture initiated a widespread thunderstorm outbreak across the San Joaquin Valley and Central Coast. More than 6000 cloud to ground strikes were recorded.	7/18/2015 - 7/19/2015	154459		925	Yes
3	A strong cold front (squall line) moved into the northern part of the territory and produced strong wind gusts, a period of very heavy rainfall, and significant outage activity. The front swiftly progressed south through the remainder of the territory. Widespread wind gusts from 40 - 55 mph were observed across the Sacramento Valley and Redding recorded a gust near 60 mph.	12/13/2015	142059		364	Yes
4	A late winter-storm moved through the territory producing moderate rain showers, gusty south winds from 30 - 40 mph, and thunderstorms. Nearly 1000 cloud to ground lighting strikes were recorded across the Sacramento and San Joaquin Valleys	4/6/2015 - 4/7/2015	134789		442	Yes
5	A strong high pressure ridge developed over the territory and produced the first significant heat of the season. Some selected high temperature readings: Redding 107, Fresno 106, Livermore 106, Sacramento 104, Santa Rosa 99, and San Jose 91.	6/8/2015	99439		1104	Yes
6	The first widespread rain and snow producing system of the fall/winter season passed through the territory. Thunderstorms also developed and near 500 cloud to ground lightning strikes were recorded. Wind gusts from 25 - 35 mph were observed.	11/2/2015	92777		33	No
7	A large transmission outage in the central coast at Moss Landing occurred. No significant adverse weather was recorded.	10/18/2015	69906		1080	No
8	A potent Pacific weather system produced wind gusts to 40 - 50 mph across the lower elevations with gusts near 60 - 70 mph across the exposed, higher terrain. Most of the adverse weather and resultant outage impacts were observed across the northern part of the PG&E service territory.	12/10/2015	64533		602	No
9	A cold frontal system with moderate rain showers moved through the territory and was followed by gusty northwest winds primarily along the coast. Peak winds gusts from 40 - 50 mph were observed.	11/15/2015	59547		554	No
10	An upper level weather system moved over the territory and produced rain showers, breezy winds, and thunderstorms. The PG&E lightning detection network recorded 456 lightning strikes in the territory.	5/7/2015	57241		1740	No

* Note: Values exclude single distribution line transformer and planned outages

7. Summary List of Major Event Day (MED) per IEEE 1366

Major Event Day

IEEE Standard 1366 defines MED as follows:

IEEE Standard 1366-2003 uses a statistically-based method of identifying excludable events. Specifically, the IEEE standard provides for the exclusion of all outages occurring on any day where its SAIDI is greater than "TMED" where:

$$T_{MED} \equiv e^{\text{average over 5 yrs. of Ln (daily SAIDI) + 2.5 * STD DEV of 5 yrs. of Ln (daily SAIDI)}}$$

The IEEE 1366 Standard includes outage resulting from the failure of a single line transformer.

Table 54 – 2015 Major Event Day

Date	Description	Reason
2/6/2015 - 2/8/2015	A series of strong Pacific storms moved into CA producing very heavy rain and gusty south winds. South wind gusts near 50 mph were observed along the coast with gusts near 60 mph observed in the northern Sacramento Valley. Generally 4 - 8 inches of rain were observed across the elevated terrain in the northern part of the territory. Some locations topped 8 inches with Bucks Lake for example, recording 9 inches of rain during the series.	IEEE MED*
4/6/2015	A late winter-storm moved through the territory producing moderate rain showers, gusty south winds from 30 - 40 mph, and thunderstorms. Nearly 1000 cloud to ground lighting strikes were recorded across the Sacramento and San Joaquin Valleys	IEEE MED*
6/8/2015	A strong high pressure ridge developed over the territory and produced the first significant heat of the season. Some selected high temperature readings: Redding 107, Fresno 106, Livermore 106, Sacramento 104, Santa Rosa 99, and San Jose 91.	IEEE MED*
7/18/2015 - 7/19/2015	Tropical moisture associated with former Hurricane Dolores drifted over the territory. Atmospheric instability combined with the abundant tropical moisture initiated a widespread thunderstorm outbreak across the San Joaquin Valley and Central Coast. More than 6000 cloud to ground strikes were recorded.	IEEE MED*
12/13/2015	A strong cold front (squall line) moved into the northern part of the territory and produced strong wind gusts, a period of very heavy rainfall, and significant outage activity. The front swiftly progressed south through the remainder of the territory. Widespread wind gusts from 40 - 55 mph were observed across the Sacramento Valley and Redding recorded a gust near 60 mph.	IEEE MED*
12/24/2015	An active Christmas Eve storm moved though the territory producing low elevation snow, isolated thunderstorms, and even a pair of tornadoes	IEEE MED*

*MED is defined as Major Events Day

7.1 Major Event Day (MED) Discussions:

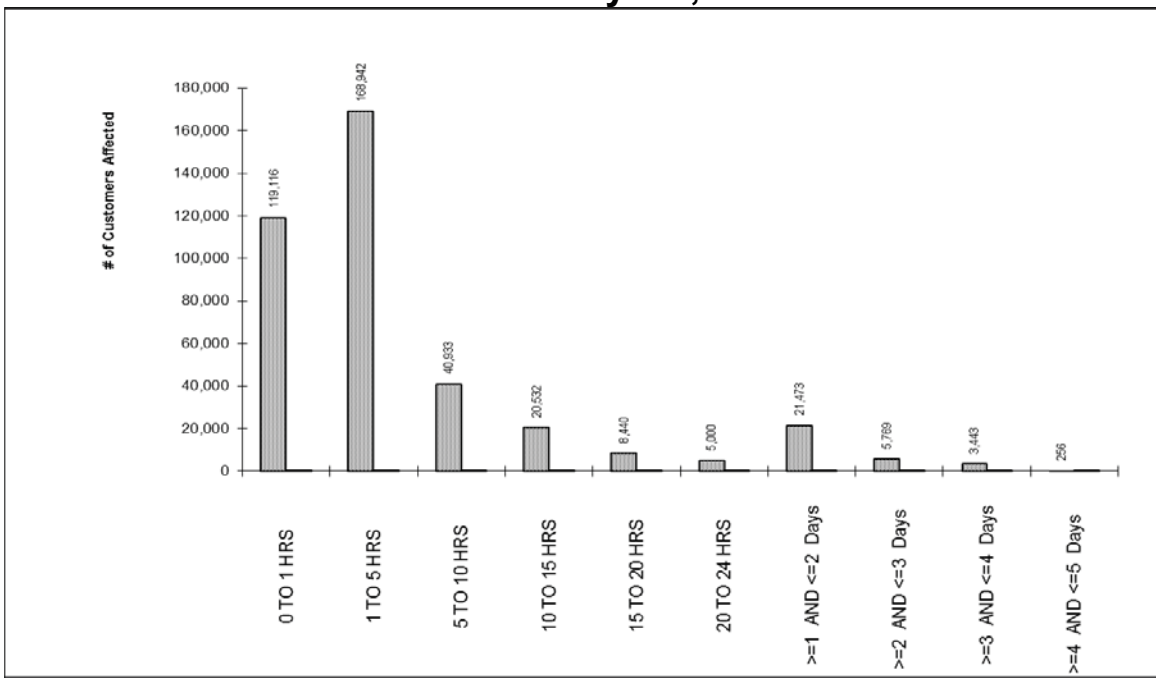
February 6-8, 2015 Major Event Day

Table 55 below indicates the number of customers without service at periodic intervals for this event (02/06/2015 – 02/08/2015). The numbers of customers noted in the table are for only those divisions identified in Table 55, which represents the excludable portion of these events.

Table 55 – February 6-8

Outage Duration	Customers Affected	Cumulative %
0 TO 1 HRS	119,116	30.24%
1 TO 5 HRS	168,942	73.13%
5 TO 10 HRS	40,933	83.52%
10 TO 15 HRS	20,532	88.73%
15 TO 20 HRS	8,440	90.88%
20 TO 24 HRS	5,000	92.15%
>=1 AND <=2 Days	21,473	97.60%
>=2 AND <=3 Days	5,769	99.06%
>=3 AND <=4 Days	3,443	99.94%
>=4 AND <=5 Days	256	100.00%
Total	393,904	

Chart 334: February 6-8, 2015 MED



Note: The number of customer outages segmented by hourly restoration periods requires a level of detail not normally maintained by PG&E in its central computerized records. The information shown here is what PG&E has been able to reconstruct from several databases and may have a margin of error of up to 5%.

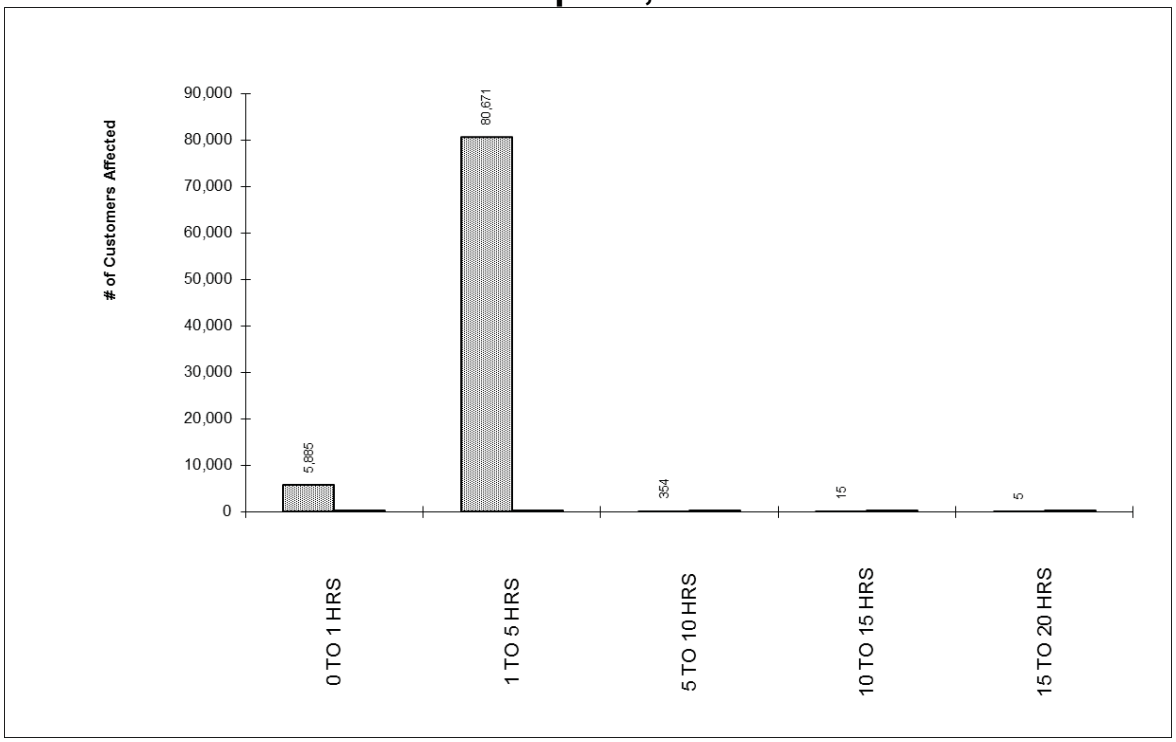
April 6th, 2015 Major Event Day

Table 56 below indicates the number of customers without service at periodic intervals for this event (04/06/2015). The numbers of customers noted in the table are for only those divisions identified in Table 56, which represents the excludable portion of these events.

Table 56 - April 6

Outage Duration	Customers Affected	Cumulative %
0 TO 1 HRS	5,885	6.77%
1 TO 5 HRS	80,671	99.57%
5 TO 10 HRS	354	99.98%
10 TO 15 HRS	15	99.99%
15 TO 20 HRS	5	100.00%
Total	86,930	

Chart 335: April 6, 2015 MED



Note: The number of customer outages segmented by hourly restoration periods requires a level of detail not normally maintained by PG&E in its central computerized records. The information shown here is what PG&E has been able to reconstruct from several databases and may have a margin of error of up to 5%.

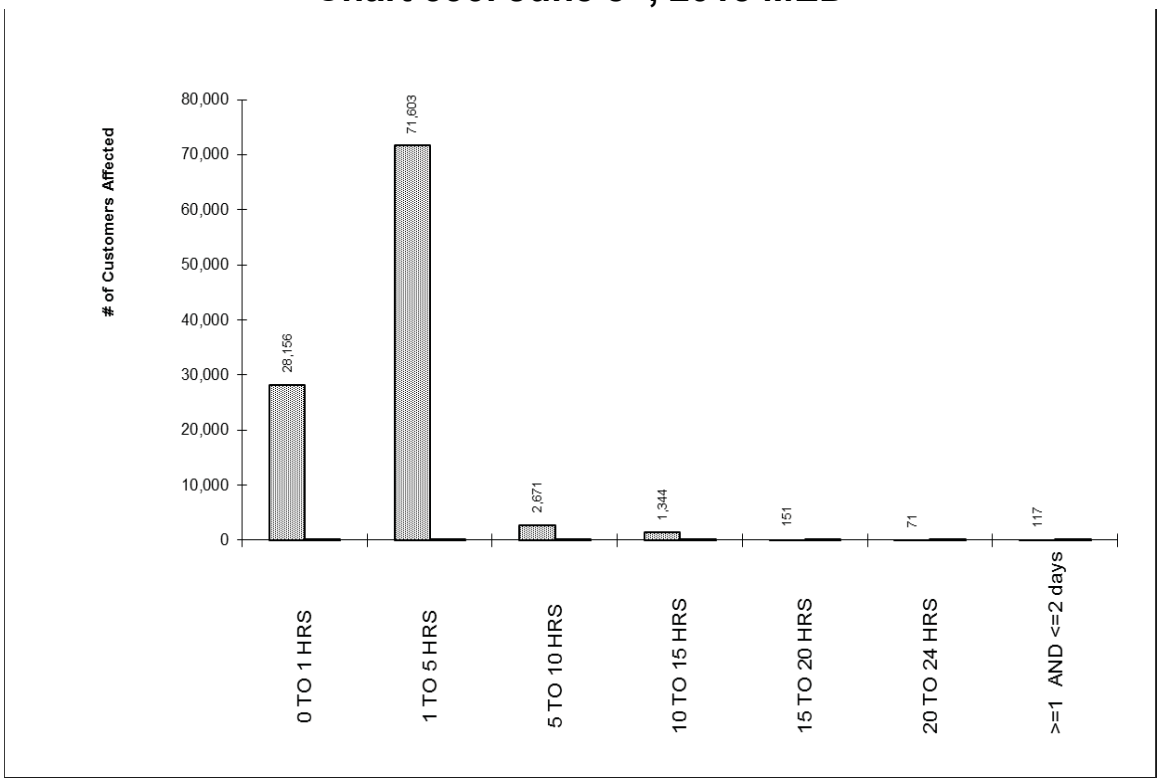
June 8th, 2015 Major Event Day

Table 57 below indicates the number of customers without service at periodic intervals for this event (06/08/2015). The numbers of customers noted in the table are for only those divisions identified in Table 57, which represents the excludable portion of these events.

Table 57 – June 8

Outage Duration	Customers Affected	Cumulative %
0 TO 1 HRS	28,156	27.04%
1 TO 5 HRS	71,603	95.82%
5 TO 10 HRS	2,671	98.38%
10 TO 15 HRS	1,344	99.67%
15 TO 20 HRS	151	99.82%
20 TO 24 HRS	71	99.89%
>=1 AND <=2 days	117	100.00%
Total	104,113	

Chart 336: June 8th, 2015 MED



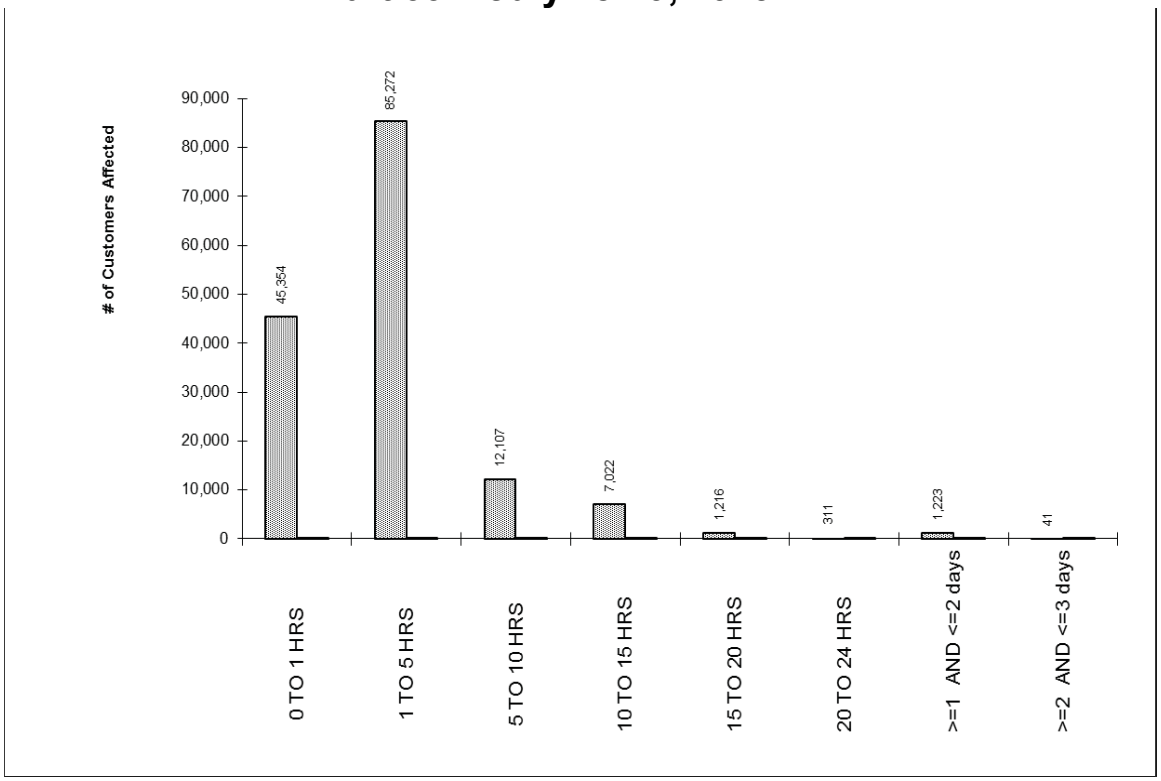
Note: The number of customer outages segmented by hourly restoration periods requires a level of detail not normally maintained by PG&E in its central computerized records. The information shown here is what PG&E has been able to reconstruct from several databases and may have a margin of error of up to 5%.

Table 58 below indicates the number of customers without service at periodic intervals for this event (07/18/2015 – 07/19/2015). The numbers of customers noted in the table are for only those divisions identified in Table 58, which represents the excludable portion of these events.

Table 58 – July 18-19

Outage Duration	Customers Affected	Cumulative %
0 TO 1 HRS	45,354	29.73%
1 TO 5 HRS	85,272	85.63%
5 TO 10 HRS	12,107	93.57%
10 TO 15 HRS	7,022	98.17%
15 TO 20 HRS	1,216	98.97%
20 TO 24 HRS	311	99.17%
>=1 AND <=2 days	1,223	99.97%
>=2 AND <=3 days	41	100.00%
Total	152,546	

Chart 337: July 18-19, 2015 MED



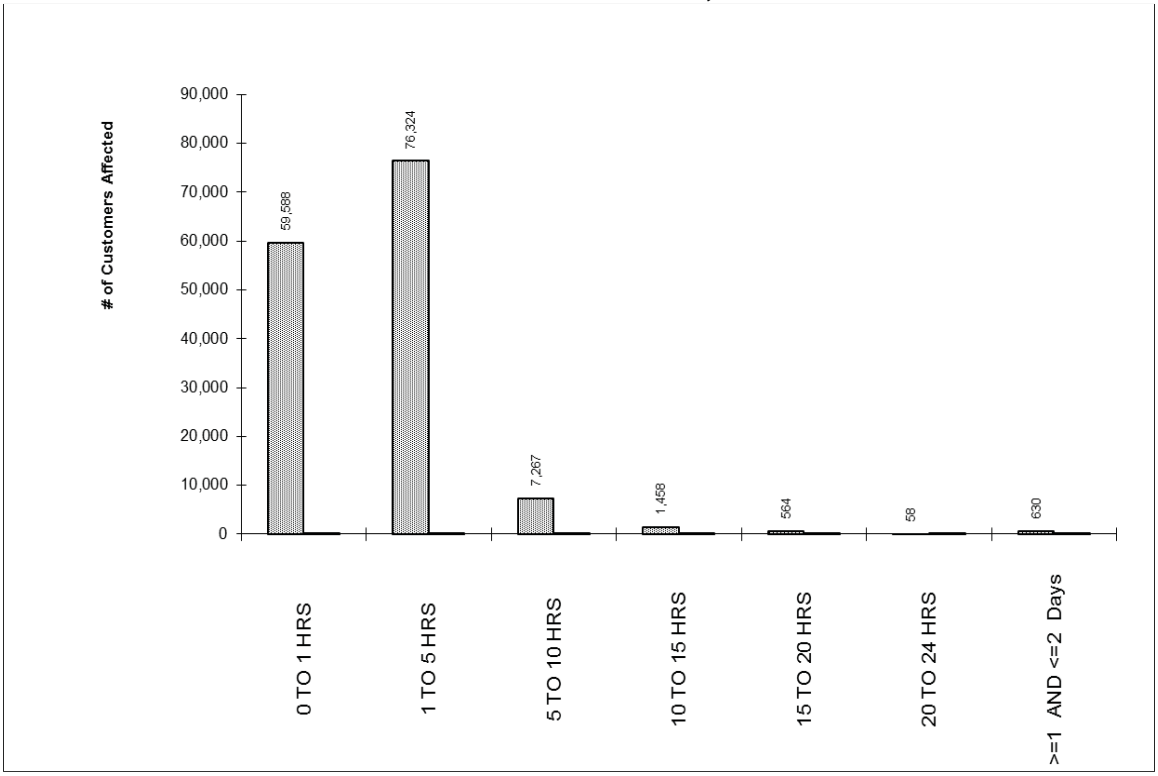
Note: The number of customer outages segmented by hourly restoration periods requires a level of detail not normally maintained by PG&E in its central computerized records. The information shown here is what PG&E has been able to reconstruct from several databases and may have a margin of error of up to 5%.

Table 61 below indicates the number of customers without service at periodic intervals for this event (12/13/2015). The numbers of customers noted in the table are for only those divisions identified in Table 61, which represents the excludable portion of these events.

Table 60 – December 13

Outage Duration	Customers Affected	Cumulative %
0 TO 1 HRS	59,588	40.84%
1 TO 5 HRS	76,324	93.16%
5 TO 10 HRS	7,267	98.14%
10 TO 15 HRS	1,458	99.14%
15 TO 20 HRS	564	99.53%
20 TO 24 HRS	58	99.57%
>=1 AND <=2 Days	630	100.00%
Total	145,889	

Chart 338: December 13th, 2015 MED



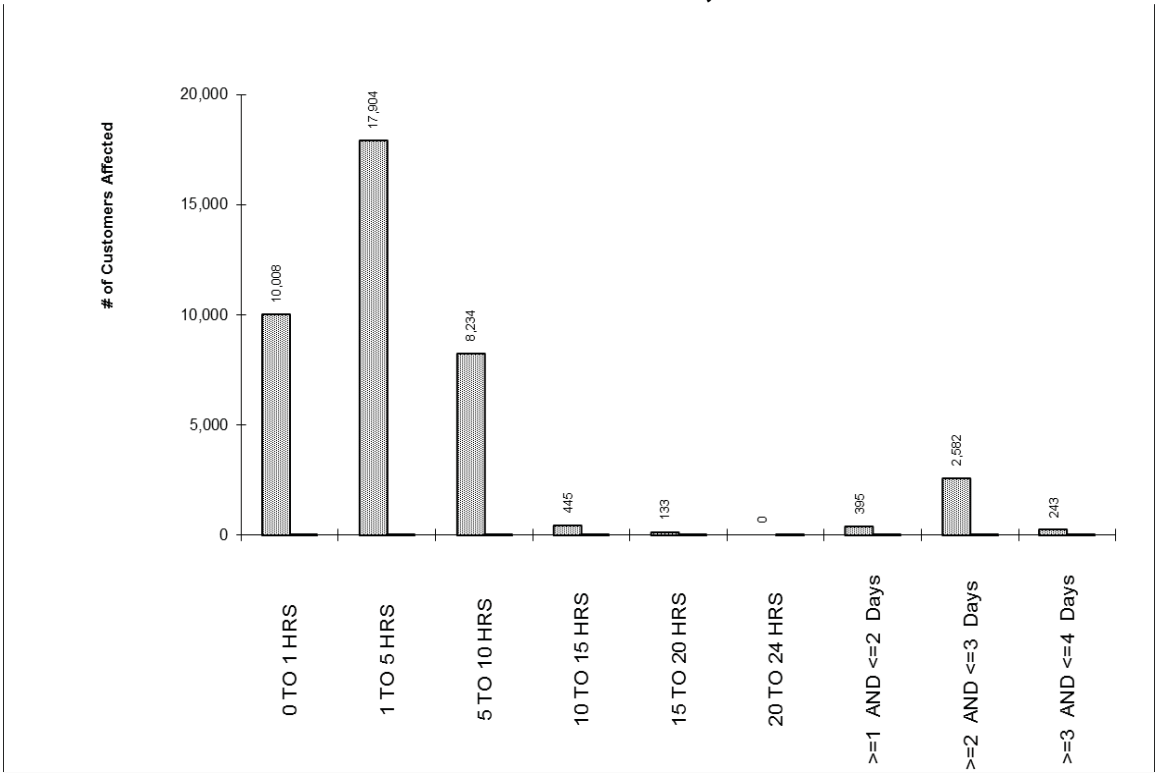
Note: The number of customer outages segmented by hourly restoration periods requires a level of detail not normally maintained by PG&E in its central computerized records. The information shown here is what PG&E has been able to reconstruct from several databases and may have a margin of error of up to 5%.

Table 62 below indicates the number of customers without service at periodic intervals for this event (12/24/2015). The numbers of customers noted in the table are for only those divisions identified in Table 62, which represents the excludable portion of these events.

Table 61 – December 24

Outage Duration	Customers Affected	Cumulative %
0 TO 1 HRS	10,008	25.06%
1 TO 5 HRS	17,904	69.88%
5 TO 10 HRS	8,234	90.49%
10 TO 15 HRS	445	91.61%
15 TO 20 HRS	133	91.94%
20 TO 24 HRS	0	91.94%
>=1 AND <=2 Days	395	92.93%
>=2 AND <=3 Days	2,582	99.39%
>=3 AND <=4 Days	243	100.00%
Total	39,944	

Chart 339: December 24th, 2015 MED



Note: The number of customer outages segmented by hourly restoration periods requires a level of detail not normally maintained by PG&E in its central computerized records. The information shown here is what PG&E has been able to reconstruct from several databases and may have a margin of error of up to 5%.

8. Historical Ten Largest Unplanned Outage Events for 2005-2014

Table 63 - Ten Largest 2014 Outage Events

Rank	Description	Date	Number of Customers Affected *	Longest Customer Interruption (Hours)	# of People Used To Restore Service (Major Events) **	IEEE Major Event?
1	The strongest storm event in more than 3 years slammed the territory with strong winds and heavy rain showers starting on 12/11. Rain and unsettled weather began Wednesday along the north coast and then a very strong cold front developed and intensified Wednesday evening and overnight into Thursday and very slowly progressed through the territory bringing very heavy rain and strong southerly winds. The gusty southerly winds reached up to 50 mph across the Santa Cruz mountains, near 70 mph across elevated Bay Area terrain, and near 120 mph across the Sierra Crest. Over 3 inches of rain fell across many Bay Area locations and over 2 inches for northern Central Valley by Thursday afternoon.	12/11/2014 - 12/12/2014	467394	77		Yes
2	A strong but dry storm system originating from Western Canada dropped south through the Service Area and produced very strong north to northeast winds from Tuesday morning through early Wednesday. Gusts in excess of 60 mph were reported across the Bay Area elevated terrain and foothills across the Sierra Nevada. A strong mountain wave moved into San Jose division from the east, resulting in reported gusts above 50 mph in downtown San Jose.	12/30/2014 – 12/31/2014	296402	67		Yes (Dec 30th)
3	A strong storm moved in from the southwest, bringing heavy rain and gusty southeast winds to many areas, especially the Central Coast and San Joaquin Valley. A secondary line of heavy showers with imbedded thundershowers developed over the San Joaquin Valley during the early afternoon hours, which caused significant outage activity. Wind gusts up to 47 mph were also observed across the lower elevations.	2/28/2014 – 3/1/2014	167137	55		N
4	Two strong Pacific weather systems produced an impressive round of precipitation across the territory Tuesday and Wednesday. Accompanying the rain showers were breezy to gusty southerly winds that developed through the San Joaquin Valley and adjacent elevated terrain. Rainfall totals were 7 inches across the Santa Cruz Mountains and the Central Sierra and generally 2 - 4 inches across the lower elevations in the Bay Area.	12/02/2014 – 12/04/2014	138447	34		Yes (Dec 3rd)
5	An “Atmospheric River” weather event delivered significant rain and high-elevation mountain snow to the territory. The abundant rain and gusty south winds to 40 mph at times produced a prolonged stretch of light to moderate elevated outage activity. Rain totals from the event were highest across the central Sierra and the north coast where 7 – 15 inches of rain fell during the event.	2/7/2014 – 2/8/2014	102832	35		N
6	At 3:20 AM on Sun 8/24/2014 a magnitude 6.0 earthquake was observed in the North Bay Area near American Canyon, Ca. An earthquake summary poster from USGS can be found here: http://earthquake.usgs.gov/earthquakes/eqarchives/poster/2014/20140824.pdf	8/24/2014	99705	30		Yes
7	A strong ridge of high pressure and lack of the marine layer and sea-breeze combined to produce hot temperatures for Bay Area interior valleys and across the interior. Maximum temperatures reached over 100 in Santa Rosa and Livermore on Sunday and up to 105 across the interior Central Valley.	6/8/2014 – 6/9/2014	83962	39		N
8	A wet weather system delivered heavy rain across Northern California and the Sierra, along with moderate rain throughout the Bay Area. After the front moved through, thunderstorms developed and produced 331 lightning strikes within the PG&E territory.	9/25/2014	61597	23		N
9	A weather system delivered the first widespread rain of the season south of a Salinas to Sonora line and also produced a northwest gust front down the San Joaquin Valley where gusts up to 40 mph were observed in Fresno and Bakersfield.	10/31/2014	55145	22		N
10	The weather system with a very moist air mass slid through the Bay Area early Thursday morning and produced light showers and drizzly conditions that resulted in isolated significant outage activity in the east Bay Area.	9/18/2014	39860	17		N

* Note: Values exclude single distribution line transformer and planned outages.

** Note: This data is requested only for Major Event days.

Table 64 - Ten Largest 2013 Outage Events

Rank	Description	Date	Number of Customers Affected *	Longest Customer Interruption (Hours)	# of People Used To Restore Service (Major Events) **	CPUC Major Event?
1	On 11/19 into 11/20, a weather system moved into the territory and delivered up to 2 inches of rain over elevated terrain. It was the first significant rain storm of the season. Then on 11/21 into 11/22 surface low pressure over southern California combined with developing high pressure in Nevada to deliver very strong north to northeast winds across the north half of the Service Territory. Winds were very strong over elevated terrain; wind gusts up to 65 mph were observed in the Oakland hills (Oakland North RAWS) and to 101 mph in the northern Sierra Nevada. (The wind gust at Oakland north was second only to the January 4th mega-storm gust of 71 mph). Wind speeds near 45 - 50 mph were also observed over lower elevation locations such as Oakland and Santa Rosa.	11/19/2013 - 11/22/2013	385,017	143		N
2	The marine layer surged onto the coast and delivered coastal mist and drizzle which ultimately resulted in an insulator flashover event. The event was preceded by a series of brisk wind events which may have increased salt contamination along the coast.	6/23/2013	170,429	15		N
3	Fair and dry weather was observed on 11/12/2013. An unplanned outage occurred in the Bellota substation.	11/12/2013	113,266	10		N
4	High pressure built over California and maximum temperatures from 99 - 107 were observed along the Central Valley. Temperature maximums near the coast were in the 60s to 70s with 70s - 90s for coastal to intermediate valleys. Most customers were impacted by trouble on the Transmission system.	7/19/2013	99,738	18		N
5	Overnight Sunday into the early morning hours of Monday April 8, 2013, a strong Pacific Jet Stream drove a small but intense cold front with very gusty northwest winds into the California coast and Bay Area. Gusts along the coast reached generally into the 50 - 60 mph range with the peak gust of 75 mph recorded at a station on the west edge of San Francisco County.	4/8/2013	93,200	42		N
6	A strong ridge of high pressure built over California bringing extreme heat to all locations except the coast and immediate coastal valleys. High temperatures on 7/1 near the coast ranged from the 70s - 80s with 90s - low 100s for coastal Valleys. Temperatures were extreme in the interior with maximum temperatures up to 111 in the Central Valley. The heat intensified on 7/2 where maximum soared again into the 100s, with Redding observing a 116 degree maximum.	7/1/2013- 7/2/2013	93,194	29		N
7	On Sunday a weak area of low pressure moved west to east through the Territory bringing increasing clouds, light showers and snow showers over the Sierra and a few light stray showers elsewhere, primarily across the south. Most customers were impacted by a fault on a substation relay.	3/3/2013	69,578	11		N
8	A classic California October offshore wind event unfolded 10/3/2013 as surface high pressure built north of the Service Territory. Wind speeds were generally 20 – 35 mph with gusts to 40 – 55 across the Sacramento valley, northern Sierra Nevada and elevated terrain around the Bay Area.	10/3/2013	56,573	25		N
9	The ridge of high pressure dramatically amplified delivering significant heat across the Territory. Maximum temperatures across the interior valley locations reached above 105 with Red Bluff reaching 112 degrees. Overnight temperatures remained warm on the far ends of the valley, with minimum temperatures only dipping into the upper 70s in the southern San Joaquin and mid 80s in the northern Sacramento Valley.	6/8/2013	52,442	22		N
10	A cold and dynamic weather system dropped southwestward into the territory and brought cooler and very unsettled weather in the form of rain, snow and gusty winds. Winds were strongest over elevated terrain of the Bay Area – Altamont pass gusted to 69 mph.	10/27/2013	49,692	36		N

* Note: Values exclude single distribution line transformer and planned outages.
** Note: This data is requested only for Major Event days.

Table 65 - Ten Largest 2012 Outage Events

Rank	Description	Date	Number of Customers Affected *	Longest Customer Interruption (Hours)	# of People Used To Restore Service (Major Events)**	CPUC Major Event?
1	The final and strongest storm of an 'Atmospheric River' series moved through the territory on 12/02/2012 delivering widespread gusts of 50-70 mph in the northern Sacramento Valley. The strongest wind observed was in Plumas National Forest where a gust of 102 mph was recorded. This system also brought heavy amounts of rain across northern California where localized flooding and mudslides were reported in numerous locations. Precipitation totals from the entire series (See Rank #3) topped 20 inches in the wettest locations in the north.	12/02/2012	298,393	80		N
2	A series of moderate to strong storms impacted the Service Area delivering rain, wind, thunderstorms and several feet of snow across the northern mountains and Sierra. The second storm in the series moved onto the Humboldt coast during the evening of 12/21 and then progressed south and east through the territory overnight into 12/22. The third and strongest storm of the series developed just off the coast and pushed a vigorous cold front through the Service Area on 12/23. Gusts up to 80 mph were observed over elevated terrain. Yet another round of heavy mountain snow fell across the north and the Sierra. Up to 6 feet of snow fell in some locations across the north during the series making restoration difficult.	12/21/2012 – 12/23/2012	195,099	172		N
3	The first storm of the 'Atmospheric River' series moved into the territory on 11/28 and delivered strong south winds up to 50-60 mph and heavy rains. The second and stronger system impacted the Territory 11/29 through 11/30. This system brought significant rainfall totals across the north half of the Territory with up to 10" observed in the wettest locations across elevated terrain. After a brief break on 12/1 the final and strongest storm of the series moved through on 12/2 (see Rank 1).	11/28/2012 – 11/30/2012	183,145	71		N
4	On 1/20 a strong Pacific weather system with an associated well-organized frontal band pushed north to south through the territory. This system delivered heavy rains and gusty southerly winds to most locations and was the first rain in a month or more for many locations across the south half of the territory.	1/20/2012 – 1/21/2012	168,496	40		N
5	On 3/16 a system impacted Northern Region and the Bay Area with heavy showers, gusty southerly winds, and a few lightning strikes. On 3/17 this system progressed south through Central Coast and Central Valley Divisions bringing heavy rains, thunderstorms and gusty winds. On 3/18, snow levels fell as cold air filtered in resulting in low snow outage activity from Grass Valley south into Fresno division.	3/16/2012 – 3/18/2012	146,602	63		N
6	Overnight Sunday, 10/21/2012 into Monday, 10/22/2012 a cold front associated with a unusually cold, early-season storm swept west to east across the PG&E Service Area bringing a variety of adverse weather including rain, wind, thunderstorms and low snow. Two tornados also formed in the eastern Sacramento Valley and Sierra foothills.	10/22/2012	129,801	22		N
7	A vigorous late season weather system swept through the Service Area on 6/4 – 6/5 and brought a variety of adverse weather conditions. This system delivered over 700 lightning strikes across the Service Territory with the majority occurring in the northern Sacramento Valley. Winds gusting to 40 mph came up abruptly in the San Joaquin causing numerous wind related outages.	6/4/2012 – 6/5/2012	93,735	22		N
8	On 12/17 a weakening front moved through the Service Area bringing rain showers and breezy southerly winds up to 35-40 mph across the Sacramento Valley. Showers progressed into the southern San Joaquin overnight into 12/18. Post-frontal northwest winds then developed across the San Joaquin Valley, with gusts up to 35 mph observed at Fresno.	12/17/2012 – 12/18/2012	83,063	18		N
9	A Pacific storm system and associated cold front and swept through the north half of the PG&E Service Area. The front brought brisk south winds of 30 to 40 mph, with higher gusts over elevated terrain. During the afternoon, thunderstorms formed along the north coast and northern Sacramento Valley in the post-frontal environment.	3/31/2012	68,165	21		N
10	Non weather related event.	7/21/2012	47,182	30		N

* Note: Values exclude single distribution line transformer and planned outages.

** Note: This data is requested only for Major Event days.

Table 66 - Ten Largest 2011 Outage Events

Rank	Description	Date	Number of Customers Affected *	Longest Customer Interruption (Hours)	# of People Used To Restore Service (Major Events)**	CPUC Major Event?
1	A series of cold and powerful storms moved through the Service Area with the majority of outages resulting from low snow and gusty winds. The bulk of outage activity occurred overnight Sat 19th to Sun 20th as strong southeasterly wind gusts were observed in many locations (SF Apt 45 mph, Stockton 44 mph, Redding 45 mph, Bakersfield 40 mph). Excessive low elevation snowfall caused significant outage activity. Yosemite Division was hard hit with low snow (snow totals - 38" reported at 4200' above Oakhurst)	Mar 17 -22	581,949	256	1,839***	Y-Partial (See Table 4)
2	After a short respite from inclement weather, another strong and cold storm moved into the Service Area on March 24th. Once again, strong southerly wind gusts were observed (SF Apt 38 mph, Oakland 37 mph). Low elevation snow was the main adverse weather issue with Sierra, North Valley, Stockton, and Yosemite Divisions hard hit with low snow. (snow totals - 13" in Shingletown, 25" at 3700' along Highway 88, 34" at the 4200' above Oakhurst)	Mar 24 – 27	464,767	504	1,839***	Y-Partial (See Table 4)
3	A series of cold storms moved across the Service Area starting Valentine's day until Feb 19. On the 17th very cold air filtered into the region lowering snow levels enough to create low snow related outages across the Coast Ranges of Humboldt Divisions, and down the entire Sierra Nevada foothills. The hardest hit divisions were Humboldt, Yosemite, and Sierra. (Snow totals - 14" in Shingletown, 38" at 3700' on Highway 88, 12" at 2600' in Humboldt County). Snow recorded down to 500 feet in Humboldt.	Feb 15 – 19	357,802	151		N
4	High pressure in the Great Basin and low pressure off the southern California coast set the stage for strongest northeast wind event to hit the Service Area in the last 20 years. Gusts up to 50 mph were common in the Sierra with the highest gust of 94 mph recorded on Mt. Elizabeth in the Yosemite division. Winds were quite strong in the Valley as well (Stockton 52 mph, Redding 40 mph, Fresno 36 mph)	Nov 30 – Dec 1	325,942	131		N
5	A strong and cold storm affected the entire Service Area with low snow falling in the Northern Region and gusty southerly winds and heavy rains further east and south. The hardest hit divisions were Humboldt, North Valley, and Sierra. (Snow totals – 18" in Shingletown, 20" in Susanville, 19" in Grass Valley). Snow recorded down to 500 feet in Humboldt.	Feb 24 - 25	187,851	152		N
6	An early season storm moved through the Service Area bringing moderate southerly winds and heavy precipitation rates. In Ukiah, more than a half inch of rain fell within one hour in the early morning. The Central Valley Region experienced the most outages. These were mainly pole fires/flashover caused by the first rain to fall in the area after months of prolonged dry weather.	Oct 5	100,357	24		N
7	Widespread thunderstorm activity broke out across the southern part of the Service Area early in the morning with the biggest impacts in Fresno and Kern divisions. The Bakersfield area in Kern was hit particularly hard by lightning, with Kern Division recording 3833 lightning strikes for the day.	Sept 10	77,443	69		N
8	A late season cold storm moved through the Service Area with low snow outage conditions across divisions in the Sierra Nevada, especially the Sierra Division. (8" of snow at 3700' along Highway 88) Thunderstorms and associated lightning also broke out across the Central Valley. Impacts were minimal in the Bay Area and Central Coast Regions.	May 15	62,863	30		N
9	A non-weather related outage day with maximum temperatures along the Central Valley in the mid-80s. The outage count was only slightly above average for a June day; however, a large number of customers in the East Bay were affected by two distribution substation outages.	Jun 12	50,028	15		N
10	The first warm day of the spring was observed in many areas. San Jose had a high of 84. This could have contributed to the above average outage total. No other adverse weather was reported. The largest impacts were recorded in the San Francisco and San Jose Divisions.	Apr 1	44,177	6		N

***** Note: Values exclude single distribution line transformer and planned outages.

** Note: This data is requested only for Major Event days.

*** Note: During the course of the March 17-27, 2011 storms, approximately 1,839 PG&E Operations, Maintenance and Construction (OM&C) employees responded. These employees included electric and gas construction crews, troublemen, meter technicians, clerical staff, gas and electric estimators and meter readers. Resources were dispatched and moved from lesser impacted areas to the more heavily impacted areas. In addition to PG&E personnel, 110 vegetation crews, 10 contract crews (approximately 200 individuals), and 36 mutual aid crews (approximately 175 individuals) were utilized to supplement existing resources.

Table 67 - Ten Largest 2010 Outage Events

Rank	Description	Date	Number of Customers Affected *	Longest Customer Interruption (Hours)	# of People Used To Restore Service (Major Events)**	CPUC Major Event?
1	A strong jet stream developed over the Eastern Pacific, which spawned a series of outage producing weather events that included: - Three impulses of strong winds; gust above 50 mph each day (Jan 18, 19, 20) - Periods of moderate to heavy rainfall (Jan 18, 19, 20, 21) - Bands of thundershower activity (several thousand strikes Jan 18-21) - Heavy snowfall at low elevations of the Sierra Nevada (Jan 21, 22)	Jan 18-24	1,169,513	497	3,830 ***	Y
2	A strong storm system with several impulses moved through the entire Service Area during the Dec 17 – 20 period bringing gusty winds and heavy rain. Wind gusts during the period: 43 mph at Stockton, 43 mph at Salinas, 46 mph at SFO, 43 at Red Bluff.	Dec 17-20	215,116	120		N
3	A series of cold storms brought significant snow to low elevations in the Sierra Nevada foothills. The snow came early in the season, when deciduous trees still retained most of their leaves. Excessive snow loading occurred on trees causing large limbs to break off and fall onto power lines. Snowfall amounts ranged from near 1 foot at the 3000' elevation, to several feet above 5000'. This storm produced the most low elevations snow in November in the last 15 years.	Nov 20-21	215,245	186		N
4	Storm system with strong south winds on Dec 28 (gusts to 47 mph at Marysville, 41mph at Stockton, 46 mph SFO) followed by strong northwest winds on Dec 29 (gusts to 46 mph at San Jose, 41 mph at Stockton, 43 at Bakersfield, 46 mph at SFO).	Dec 28-29	180,370	47		N
5	A late season storm brought rain, thunderstorms, and wind. Over 500 lightning strikes were recorded. The storm was particularly strong along the Central Coast and in the southern San Joaquin Valley. Reported wind gusts: 45 mph at Salinas, 46 mph at Santa Maria, 46 mph at Bakersfield 46.	Apr 11-12	122,050	73		N
6	Early season storm brought thunderstorms to Northern Region (over 1000 strikes recorded) along with rain to other parts of the Service Area. In many cases, this was the first rain of the season causing flashover outages.	Sep 8-10	114,402	60		N
7	An early season storm brought high winds and heavy rain to primarily the Northern Region. Redding recorded a peak wind gust of 49 mph. Santa Rosa recorded 4.75" of rainfall.	Oct 24	111,522	43		N
8	Storm system swept across the Service Area bringing rain and gusty winds. Reported wind gusts: 41 mph at Salinas, 41 mph at Bakersfield.	Dec 4-5	98,041	21		N
9	Heat wave conditions resulted in the hottest two days of the summer. Maximum temperatures exceeded 110 in portions of the Central Valley (111 at Bakersfield on 8/25). Maximum temperatures between 100 and 110 were reported both days at many coastal valley areas (109 at Ukiah on 8/25, 107 at Santa Rosa on 8/24, 105 at Livermore on 8/25).	Aug 24-25	97,616	82		N
10	Heat wave affected the service area, on both days Central Valley maximum temperatures ranged between 100 and 110; maximum temperatures above 100 were reported in coastal valleys on 6/27.	Jun 27-28	87,751	38		N

* Note: Values exclude single distribution line transformer and planned outages.
*** Note: This data is requested only for Major Event days.
*** Note: During the course of the January 18, 2010 Storm approximately 3,830 PG&E Operations, Maintenance and Construction (OM&C) employees responded. These employees included electric and gas construction crews, troublemen, gas service representatives, meter technicians, clerical staff, gas and electric estimators and meter readers. Resources were dispatched and moved from lesser impacted areas to the more heavily impacted areas. In addition to PG&E personnel, 1000 vegetation workers and 60 contract crews (approximately 360 individuals) were utilized to supplement existing resources.

Table 68 - Ten Largest 2009 Outage Events

Rank	Description	Date	Number of Customers Affected *	Longest Customer Interruption (Hours)	# of People Used To Restore Service (Major Events)**	CPUC Major Event?
1	A strong early season storm affected the entire service area with many stations reporting wind gusts over 50 mph (57 mph at Ft. Funston (SF), 56 mph at Fairfield, 55 mph at Oroville, 51 mph at Monterey). Single day rainfall totals ranged between two and five inches at many locations (4.54 in. at Watsonville, 4.27 in. at Fairfield, and 3.66 in. at Napa). National Weather Service records indicate this storm was the strongest October rain and wind event since 1962.	10/13–10/14	617,589	244***	4,400 ****	Y
2	A strong cold front produced significant snowfall on Feb. 13 in the 1500-3000 ft. range of the northern and central Sierra foothills (up to 2 feet of snow at 3000 ft. and @ 1 foot at 2000 ft.). A second storm followed on Feb.15 producing widespread heavy rain and strong wind gusts to the entire Service Area (67 mph at Valley Ford, 59 mph at Oroville, 50 mph at Redding, and Ft. Funston (SF), 47 mph at Salinas, 43 mph at San Luis Obispo. A third storm on Feb 16 delivered additional rainfall and wind gusts in the 30 to 40 mph range at several locations.	2/13-2/17	340,582	107		N
3	A large cluster of thunderstorms produced widespread lightning activity in the Bay Area and Sacramento Valley on Sep. 12. The lightning activity was followed by a weak weather front the next day that produced the first light rain of the season over much Northern California resulting in flashover related outages.	9/12-9/14	190,671	92		N
4	A strong cold front produced significant snowfall at the 1000-3000 ft. range of the Sierra foothills (up to 2 feet of snow was observed at 3000 ft., @ 1 foot at 1500 ft.) Light snow was reported at locations in the Central Valley.	12/7	147,630	113		N
5	Strong northerly winds developed across the entire Service Area with the gusts in the 45 to 55 mph range in the Bay Area and Sacramento Valley (52 mph at Fairfield, 49 mph at Sacramento, 45 mph at Red Bluff)	11/28	119,504	84		N
6	Strong north to northwest winds in the 40 to 60 mph range followed the passage of a weak weather front through the service area (58 mph at Ft. Funston (SF), 58 mph at SF Airport, 50 mph at San Carlos, 46 mph at Stockton)	4/14	116,406	45		N
7	An area of low pressure produced a large outbreak of thunderstorms with widespread lightning overnight on Jun. 3, continuing into the morning of June 4.	6/3-6/4	98.187	38		N
8	Strong north to northwest winds in the 45 to 55 mph range were recorded throughout the Sacramento and San Joaquin Valleys following the passage of a weak weather front (52 mph at Merced, 49 mph at Stockton, 47 mph at Modesto and Madera, 46 mph at Red Bluff, 45 mph at Fresno).	10/27	70,901	20		N
9	A winter storm accompanied by periods of moderate to heavy rainfall and scattered thundershower activity crossed the service area. Rainfall totals of up to 2 inches were reported.	12/12	54,111	41		N
10	Widespread thunderstorm activity resulted in several hundred lightning strikes in Areas 4, 5, 6 and 7.	5/28	52,705	22		N

* Note: Values exclude single distribution line transformer and planned outages.
** Note: This data is requested only for Major Event days.
*** Note: This duration was due to the lack of access caused by flooding in the Stockton area. Access was granted after waters receded. Work was the completed and service was restored to the six customers remaining out of service.
**** Note: Approximately 4,400 PG&E Operations, Maintenance & Construction (OM&C) employees responded. In addition to PG&E personnel, 400 vegetation workers and 42 contract crews (approximately 210 individuals) were utilized to supplement existing resources.

Table 69 - Ten Largest 2008 Outage Events

Rank	Description	Date	Number of Customers Affected *	Longest Customer Interruption (Hours)	# of People Used To Restore Service (Major Events)**	CPUC Major Event?
1	Strongest storm system since December 1995 affected the entire service area on Jan 4. Wind gusts exceeded 65 mph at many low elevation sites throughout the service area (Redding 70 mph, Beale AFB 69 mph, Sacramento Apt. 66 mph, Pt. San Pablo 83 mph), with some coastal hills and foothill sites gusting to over 80 mph (Los Gatos, elev. 2000 ft. 105 mph, Big Rock , Marin Co. elev. 1500 ft. 83 mph). Rainfall totals on Jan 4 ranged up to 4 inches with storm totals above 6 inches in the North Bay counties. Multiple lightning strikes were reported on Jan 4 and 5.	1/3 – 1/6	1,631,765	290	7,130 ***	Y
2	A series of cold winter storms crossed the state. The first system (Jan 24-25) delivered gusty winds (generally in the 30 to 50 mph range), up to 2 inches of rain and snow below 2000 ft. A second system focused on the southern half of the service territory brought additional rain and thundershower activity along with even gustier winds (Santa Maria 67 mph, Bakersfield 49 mph).	1/24 – 1/27	303,168	172		N
3	A storm system with wind gusts in the 25 to 40 mph range crossed the state. Most locations reported under one inch of rain with a few coastal stations reaching two inches total.	10/31 – 11/1	189,811	50		N
4	The first rains of the winter season were accompanied by winds generally gusting from 25 to 35 mph (Red Bluff 44 mph). A large number of flashover incidents were likely triggered by the combination of light rain and power lines heavily sooted after the widespread summer season wildfires.	10/3 – 10/4	147,703	65		N
5	Gusty winds with periods of moderate rain accompanied a weather system that crossed the state. Wind gusts were generally in the 30 to 50 mph range (SF Airport 47 mph, Stockton 47 mph, Merced 45 mph).	2/2 – 2/3	121,865	65		N
6	Gusty winds from this storm were strongest in the southern half of the service area. Gusts between 50 and 55 mph were reported at SF Airport, Salinas, Santa Maria, Red Bluff and Bakersfield.	2/23 – 2/24	113,086	101		N
7	A weather front brought gusty winds and periods of moderate to heavy rain to the state. Post-frontal west to northwest wind gusts were strongest in the Bay Area (SF Apt 54 mph, Hayward 63 mph, Oakland 47 mph, Salinas 51 mph)	12/25	111,134	102		N
8	Gusty north winds generally in the 25 to 35 mph range were reported in the north. San Joaquin and Central Coast winds gusted from 30 to over 50 mph (Santa Maria 41 mph, Stockton 45 mph, Madera 52 mph, Merced 47 mph)	5/22	105, 635	102		N
9	Gusty north winds developed on the evening of Feb 13 and continued through Feb 14. Winds were generally in the 30 to 45 mph range, with strongest gusts in the Central Valley (Redding 48 mph, Marysville 48 mph, Sacramento 47 mph)	2/13 – 2/14	98,788	47		N
10	Gusty north winds between 20 and 35 mph resulted in a record breaking early season heat wave. Bay Area and Central Valley temperatures ranged from 100 to 105F	5/15	84,659	28		N

* Note: Values exclude single distribution line transformer and planned outages.

** Note: This data is requested only for Major Event days.

*** Note: Approximately 6,000 PG&E Operations, Maintenance & Construction (OM&C) employees responded. In addition to PG&E personnel, 300-350 vegetation crews (approximately 700 individuals), 70 contract crews (approximately 450 individuals) and 28 mutual assistance crews (approximately 170 individuals) from Southern California Edison (SCE), San Diego Gas and Electric (SDG&E), City of Gridley, City of Redding, and Sierra Pacific Power were utilized to supplement existing resources

Table 70 - Ten Largest 2007 Outage Events

Rank	Description	Date	Number of Customers Affected *	Longest Customer Interruption (Hours)	# of People Used To Restore Service (Major Events)**	CPUC Major Event?
1	Gusty winds and rain Feb 26 and 27. Peak wind speeds of 30-45 mph Bay Area (Oakland 40 mph, SF approximately 43 mph). Interior valley reported 25-40 mph gusts, strongest in the San Joaquin Valley (Fresno 38 mph). Rainfall generally below one inch. Snow levels lowered to 2000 ft. as far south as the San Joaquin Valley on Feb 27.	2/26 - 2/28	266,764	214 ***		N
2	Heat wave centered around July 5. Maximums between 105-115 degrees in the interior valleys, 95-110 degrees in the coastal valleys.	7/4 - 7/7	172,778	20		N
3	Widespread lightning with subtropical rain. Lightning all three days but extensive strikes on Aug 30 over Areas 3 and 4	8/29 - 8/31	149,883	75		N
4	Early summer hot temperatures in the interior; maximums 100-105 degrees in the Central Valley, upper 80's to low 100's in the coastal valleys. North winds 20-25 mph	6/14 - 6/16	137,977	27		N
5	Light rain across Central and North Areas. Winds generally below 25 mph. Lightning on Sep 21 in the evening continuing through Sep 22 mainly in San Joaquin Valley and foothills. Many outages reported due to insulator flashover resulting from light rain.	9/22	100,606	33		N
6	Rain, gusty winds and scattered thundershowers Feb 22. Peak winds at Redding - 51 mph on the Feb 21 and 44 mph on Feb 22nd. Bay Area gusts from 25-35 mph (Oakland 37 mph) on the Feb 22nd. Over 2 inches of rain in Eureka, less than one inch most other locations	2/22 - 2/23	96,420	79		N
7	Light rain far north, winds below 25 mph. Cold morning temperatures.	1/16	91,695	24		N
8	Thunderstorms / lightning in the Sierra foothills of Area 4 and 5. Afternoon temperatures between 95-100 degrees in the Central Valley	7/24	70,602	29		N
9	Light rain across the Service Area. Many outages reported due to insulator flashover resulting from light rain.	10/10	62,434	34		N
10	Moderately strong winds occurred across the Central and Northern Service Areas with gusts up to 50 mph.	12/27	59,594	20		N

* Note: Values exclude single distribution line transformer and planned outages.
** Note: This data is requested only for Major Event days.
*** Note: Reflects an outage at two customer locations in a remote area that experiences deep snow with limited access.

Table 71 - Ten Largest 2006 Outage Events

Rank	Description	Date	Number of Customers Affected	Longest Customer Interruption (Hours)	# of People Used To Restore Service (Major Event)**	CPUC Major Event?
1	A severe and long lasting heat wave affected the service area. In many locations three day average temperatures were the highest recorded in over 50 years. Consecutive days with maximum temperatures over 110 F were recorded throughout the Central Valley, and many coastal valleys reported consecutive days with maximum temperatures over 105 F. Sacramento set an all-time record of 11 days in a row with maximum temperatures over 100 F. An unusual feature of this heat wave was high nighttime temperatures. Sacramento, San Jose and Fresno set records for the highest minimum temperatures ever recorded.	7/21 - 7/27	651,217	119		Y See Table 4
2	A strong storm moved across the service area on Dec 26. Strong post-frontal winds occurred Dec 27-28. Southerly winds gusted from 45 to 55 mph in the Sacramento Valley and Bay Area on Dec 26th, accompanied by rainfall totals ranging from ½ to 3 inches. Gusty west to northwest winds were recorded after the front passed on Dec 27th. Bay Area wind gusts generally ranged from 45-60 mph, and gusts in the 35 to 50 mph range were reported in both northern and southern portions of the service area. North to northwesterly wind gusts in the 25 to 40 mph range continued into the afternoon of Dec 28th	12/26-12/28	528,496	125	2460	Y See Table 4
3	The storm of Jan 1-2 was a continuation of a series of storms that began at the end of the 2005. Gusts from 45 to over 60 mph were common in the Sacramento Valley and Bay Area; 35 to 55 mph along the Central Coast, and 30 to 45 mph in the San Joaquin Valley. Rainfall amounts ranging from ½ to 2 inches fell on grounds that had been saturated by a series of late December storms.	1/1 – 1/5 (12/30/05-1/5/06)*	504,072 (1,101,718)	129 (155)	3522***	Y See Table 4
4	A strong storm occurred on February 27-28. Bay Area wind gusts generally ranged from 45 to 70 mph; SF Airport reported a wind gust of 71 mph. Gusts to 50 mph were reported in many other parts of the service area. Moderate to heavy rain accompanied the strong winds with up to four inches of rain reported along the north coast and in the northern interior. Bands of thunderstorms rolled through the service area on Feb 28.	2/26 – 2/28	331,813	45		Y See Table 4
5	Strong high pressure resulted in heat wave conditions over most of the service area. On June 22, temperatures ranged from 100 to 110 throughout the Central Valley, Bay Area and coastal valley temperatures ranged from 95 to 105. On Jun 23, a weak sea breeze cooled off the Bay Area slightly, but interior valley temperatures continued to climb resulting in readings generally between 105 and 115 through June 25 (117 @ Red Bluff on Jun 25)	6/22 – 6/25	164,582	31		N
6	The first significant wind and rain storm of the winter occurred during the Dec 8-10 period. Wind gusts generally ranged from 30 to 40 mph on Dec 8 and 9 (45 mph @ SF Apt, 45 mph @ Hanford); and from 25-35 mph on Dec 10 (38 mph @ Oakland, 37 mph @ Redding). Rainfall totals were generally under ½ inch on Dec 8 (0,58 at Santa Rosa), between ¼ and ¾ inch on Dec 9 (0.99 inches at Sacramento); and under ¼ inch on Dec 10. Thunderstorms were reported in the Sacramento Valley on Dec 9.	12/8 – 12/10	146,770	39		N
7	A cold air mass brought periods of rain, wind, thundershowers and low elevation snow to the service area. On Mar 9, winds gusts ranged from 25 to 45 mph through most of the service area (46 mph @ SF Apt). Lightning mainly confined to coast areas on Mar 10, and coastal areas and San Joaquin Valley on Mar 11. Large accumulations of low elevation snow were reported in the foothills of the Central (10 inches at Angels Camp) and Southern Sierra (14 inches at 1500 ft.). In the coastal mountains between six and 12 inches was reported.	3/9 – 3/14	138,997	94		Y See Table 4
8	During this four day period, several storms crossed through the service territory. Strong winds, rain and thunderstorms occurred on March 3, especially affecting the San Joaquin Valley. Fresno reported a wind gust of 41 mph. Wind gusts above 40 mph were recorded in Humboldt County on March 4. The final weather front of this series occurred on Mar 5. Peak winds gusted to 55 mph along the north coast, and an additional one to three inches of rain was reported in parts of the Bay Area, North Coast and Sacramento Valley	3/02 – 3/05	113,235	66		Y See Table 4
9	A surge of subtropical moisture moved over the service area resulting in periods of heavy rainfall (1.14 inches at Sacramento, 1.02 inches at Stockton) and moderately gusty winds in the 20-35 mph range. Lightning activity was strong in the northern and central San Joaquin Valley.	4/04 – 4/05	102,052	31		Y See Table 4
10	A weather front produced 40-45 mph wind gusts in the northern Sacramento Valley, 10 mph gusts elsewhere. Rainfall totals ranged from ¼ to one inch along the north coast and northern Sacramento Valley, less than ¼ inch elsewhere.	1/28	85,089	73		N

Note: Values exclude single distribution line transformer and planned outages. The events listed as CPUC Major Events only include the outages for excludable counties. Otherwise the events include the system values. * Note: The values in parenthesis reflect the totals for the entire event from Dec 30, 2005 to Jan 5, 2006 as noted in Section 1.

** Note: This data is requested only for Major Event Days.

*** Note: Approximately 3,300 PG&E Operations, Maintenance & Construction (OM&C) employees responded. In addition to PG&E personnel, a total of 27 Contract Crews (approximately 142 individuals) and 20 Mutual Assistance Crews (approximately 80 individuals) from Southern California Edison (SCE) were utilized to supplement existing resources.

Table 72 - Ten Largest 2005 Outage Events

Rank	Description	Date	Number of Customers Affected *	Longest Customer Interruption (Hours)	# of People Used To Restore Service (Major Events)**	CPUC Major Event?
1	A series of strong storms struck the service area (these storms were preceded by several wet events that affected the North Bay and North Coast). The Dec 30 event was strongest in the north. The Eureka NWS office reported 90+ mph winds in the Humboldt Bay area and widespread gusts in excess of 70 mph. Northern Sacramento Valley locations reported strong wind gusts; e.g. 53 mph at Redding. North Coast and North Bay rainfall amounts were in the 3 to 5 inch range. The Dec 31 event affected the entire service area. Wind gusts above 50 mph were recorded in all areas except the Southern San Joaquin Valley; 59 mph at Red Bluff, 58 mph at Arcata, 51 mph at Santa Rosa; 53 mph at Sonoma; 59 mph at Rio vista; 77 mph at Pt. San Pablo (SF Bay); 62 mph at Ft. Funston (SF); 60 mph at SF Airport; 52 mph at Los Banos. An additional one to three inches of rain fell across northern and central California on Dec 31.	12/30 – 12/31	597,646	155	3522***	Y
2	A strong weather front delivered wind gusts over 50 mph at many locations in the southern 2/3 of the service area; 53 mph at Beale AFB (Marysville), 53 mph at Mather AFB (Sacramento), 48 mph at SF Airport, 53 mph at Bellota, 51 mph at Stockton, 55 mph at San Luis Obispo, 56 mph at Stockdale (Bakersfield). Rainfall totals were generally less than one inch.	01/07 – 01/09	278,360	149		N
3	A strong weather front accompanied by heavy rain and strong gusty winds targeted the central portion of the service area. Peak wind gusts included 50 mph at Valley Ford, 49 mph at Rio Vista, 55 mph at Ft. Funston, 53 mph at SF Airport, 49 mph at San Luis Obispo. Many coastal locations received between one to three inches of rain. The number of customer's affected (252,679) is a system total for December 18-20. However, PG&E excluded only the following divisions on the following days: December 18 (Diablo, East Bay, North Bay, North Coast, Peninsula, Sacramento, Stockton), December 19 (North Coast, Peninsula, Sacramento), December 20 (North Coast).	12/18 – 12/20	252,679	49		Y Noted in Table 4
4	A series of weather fronts affected the service area over this four day period resulting in a prolonged period of rainy and blustery weather. Some localized flooding was reported with rainfall totals in the two to four inch range. The strongest winds were on Mar 22 with peak gusts of 45 mph at SF Airport, 45 mph at Rio Vista, 44 mph at Sacramento, 43 mph at Redding and 33 mph at Fresno.	03/19 – 03/22	209,867	55		N
5	A weather front crossed the service area producing strong gusty winds in the Bay Area and Sacramento Valley. Peak gusts included 54 mph at Valley Ford, 51 mph at Table Mountain and Corning, 63 mph at Pt. San Pablo, 51 mph at Pleasanton, 64 mph at SF Airport, and 55 mph at Ft. Funston. Rainfall totals were generally between one and two inches in the North Bay and Sacramento Valley.	12/01 – 12/02	199,923	26		N
6	The series of storms that affected the service area on Dec 26-28 produced moderate rain and gusty winds (30-45 mph) in the north on Dec 26, heavy rain north (one to three inches) and gusty winds south; 44 mph at Stockton, 46 mph Bakersfield, 45 mph Santa Maria on Dec 27, and another one to two inches of rain north on Dec 28.	12/26 – 12/28	124,753	26		N
7	Transmission relay malfunction (Moraga-Oakland Station X, 115kV line #3).	11/20	116,513	9		N
8	A strong lightning storm developed a band of subtropical moisture that mainly affected the Bay Area, southern Sacramento Valley and San Joaquin Valley.	09/20	110,271	41		N
9	A weather front affected the central part of the service area bringing gusty winds and widespread shower activity. Strongest peak wind gusts were 44 mph at Salinas, 40 mph at Pleasanton, 38 mph at Bethel Island and 28 mph at Fresno. Thunderstorm activity was reported in the Bay Area, southern Sacramento Valley, and San Joaquin Valley, with numerous lightning strikes recorded.	02/21	105,652	37		N
10	A weak weather front crossed the service area followed by gusty northwesterly winds. Peak gusts were 37 mph at SF Airport, 36 mph at Eureka, 36 mph at Redding and 36 mph at Rio Vista. Rainfall totals were less than one-half inch.	10/15	85,802	37		N

* Note: Values exclude single distribution line transformer and planned outages.

** Note: This data is requested only for Major Event Days.

*** Note: Approximately 3,300 PG&E Operations, Maintenance & Construction (OM&C) employees responded. In addition to PG&E personnel, a total of 27 Contract Crews (approximately 142 individuals) and 20 Mutual Assistance Crews (approximately 80 individuals) from Southern California Edison (SCE) were utilized to supplement existing resources.

9. The Number of Customer Inquiries on Reliability Data and the Number of Days per Response

The following table provides the total number of customer inquiries, and PG&E response times for the year 2015.

	2015 ESR CLOSED CASES						
	Total Cases	Closed 0-7 Days	Closed 8-14 Days	Closed > 14 Days	% Closed 0-7 Days	% Closed 8-14 Days	% Closed > 14 Days
NORTH							
AUBURN	**259**	**255**	**4**	**0**	**98%**	**2%**	**0%**
Sacramento	102	100	2	0	98%	2%	0%
Sierra	157	155	2	0	99%	1%	0%
CHICO	**30**	**30**	**0**	**0**	**100%**	**0%**	**0%**
North Valley	30	30	0	0	100%	0%	0%
CONCORD	**177**	**176**	**1**	**0**	**99%**	**1%**	**0%**
Diablo	104	103	1	0	99%	1%	0%
North Bay	73	73	0	0	100%	0%	0%
SAN FRANCISCO	**91**	**89**	**2**	**0**	**98%**	**2%**	**0%**
East Bay	46	45	1	0	98%	2%	0%
San Francisco	45	44	1	0	98%	2%	0%
SANTA ROSA	**68**	**67**	**1**	**0**	**99%**	**1%**	**0%**
Humboldt	18	18	0	0	100%	0%	0%
Sonoma	50	49	1	0	98%	2%	0%
SOUTH							
BAKERSFIELD	**28**	**27**	**1**	**0**	**96%**	**4%**	**0%**
Kern	28	27	1	0	96%	4%	0%
FRESNO	**59**	**59**	**0**	**0**	**100%**	**0%**	**0%**
Fresno	59	59	0	0	100%	0%	0%
HAYWARD	**119**	**118**	**1**	**0**	**99%**	**1%**	**0%**
Mission	119	118	1	0	99%	1%	0%
SALINAS	**82**	**81**	**1**	**0**	**99%**	**1%**	**0%**
Central Coast	41	41	0	0	100%	0%	0%
Los Padres	41	40	1	0	98%	2%	0%
SAN CARLOS	**111**	**111**	**0**	**0**	**100%**	**0%**	**0%**
Peninsula	111	111	0	0	100%	0%	0%
SAN JOSE	**162**	**161**	**1**	**0**	**99%**	**1%**	**0%**
De Anza	44	43	1	0	98%	2%	0%
San Jose	118	118	0	0	100%	0%	0%
STOCKTON	**115**	**111**	**2**	**2**	**97%**	**2%**	**2%**
Stockton	74	72	1	1	97%	1%	1%
Yosemite	41	39	1	1	95%	2%	2%
						-	-
GRAND TOTAL	**1301**	**1285**	**14**	**2**	**99%**	**1%**	**0%**

Note: ESR = Electric Service Reliability (Recurring Outages). This Includes ESR cases created on or after January 1, 2015 and closed as of December 31, 2015.

10. Appendix A – Definitions, Acronyms & Abbreviations

AIDI – Average Interruption Duration Indices

Customer: A metered electrical service point for which an active bill account is established at a specific location.

CAIDI: Customer Average Interruption Duration Index

The Customer Average Interruption Duration Index (CAIDI) represents the average time required to restore service.

CESO: A term that counts the number of Customers Experiencing Sustained Outages.

DART – Distribution Asset Reconciliation Tools – a distribution asset database used by PG&E.

Distribution system: That portion of an electric system that delivers electric energy from transformation points on the transmission system to the customer. PG&E defines its distribution system as line voltage less than 50 kilovolts (KV). The distribution system is generally considered to be anything from the distribution substation fence to the transformer prior to stepping down the voltage to the customer premise.

EON: EON stands for Enhanced Outage Notification, now retired, that was used to identify and record momentary outages. Customers agreed to put EON devices in their homes and the device would send PG&E information when the customer experienced and outages. The EON project was used prior to the availability of SmartMeter data.

IEEE – The Institute of Electrical and Electronics Engineers, Inc.

ILIS – Integrated Logging and Information System – The tool PG&E's distribution operators use to log electric outages.

ISO: The California Independent System Operator. The ISO operates the transmission system throughout most of the State of California, including throughout PG&E's service territory.

Major Event: Designates an event that exceeds reasonable design and or operational limits of the electric power system. A Major Event includes at least one Major Event Day. *See also:* **Major Event Day**.

Major Event Day (MED): A day in which the daily system, System Average Interruption Duration Index (SAIDI) exceeds a Major Event Day threshold value. For the purposes of calculating daily system SAIDI, any interruption that spans multiple calendar days is accrued to the day on which the interruption began.

MAIFI: Momentary Average Interruption Frequency Index

The Momentary Average Interruption Frequency Index (MAIFI) indicates the average frequency of momentary interruptions.

Momentary interruption: The brief (five minutes or less) loss of power delivery to one or more customers caused by the opening and closing operation of an interrupting device**.** Two circuit breaker or recloser operations (each operation being an open followed by a close) that briefly interrupt service to one or more customers are included as two momentary interruptions**.**

ODB – Operations Database - ODB is the outage database for PG&E

Planned outage: The intentional disabling of a component's capability to deliver power, done at a preselected time, usually for the purposes of construction, preventative maintenance, or repair.

SAIDI: System Average Interruption Duration Index

The System Average Interruption Duration Index (SAIDI) indicates the total duration of interruption for the average customer during a predefined period of time. It is commonly measured in minutes or hours of interruption.

SAIFI: System Average Interruption Frequency Index

The System Average Interruption Frequency Index (SAIFI) indicates how often the average customer experiences a sustained interruption over a predefined period of time.

SCADA: Supervisory Control and Data Acquisition – an online database for distribution operators to remotely gather information and control the distribution system.

Sustained interruption: Any interruption not classified as a part of a momentary event. That is, any interruption that lasts more than five minutes.

Unplanned interruption: The loss of electric power to one or more customers that does not result from a planned outage.