

# ANNUAL SYSTEM RELIABILITY REPORT



2016

PREPARED FOR CALIFORNIA PUBLIC UTILITIES  
COMMISSION

# Executive Summary

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The following information contained in this report is for the 2016 Southern California Edison (SCE) reliability information as required by Decision 16-01-008. The data contained in this report is for all outages (planned and unplanned) for distribution customers including and excluding Major Event Days (MED). SCE only excludes MEDs from the data, and no other exclusions exceptions are applied.

The unplanned outages and its calculated reliability indices are captured and generated from our Outage Database and Reliability Metrics (ODRM) system. In October 2015, SCE began collecting SmartMeter data for reporting and calculating planned outage reliability indices. For the purposes of this report, SCE will provide reliability indices for the first full year available, which is for the 2016 reporting year. For each annual reliability report thereafter, SCE will be able to report one additional year's planned outage data.

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

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

**ODRM:** Outage Database and Reliability Metrics

**OMS:** Outage Management System

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

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

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

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

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

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

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

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

**Tmed:** The calculated threshold value used to determine a Major Event Day. SCE's Tmed value is calculated at the beginning of each year using SCE's daily SAIDI values for the prior 5 years. SCE's Tmed value for 2016 was 1.5986.

In years 2006 - 2010, SAIDI, SAIFI, and MAIFI were calculated per IEEE 1366 with the exception of using five years of historical data in applying the "2.5 beta method" to determine excludable days. Per IEEE 1366, days are excluded from a given year's metric if their SAIDI exceeds 2.5 times the standard deviation of the natural logarithm of daily SAIDI over the previous five-year period. However, complete ODRM data did not exist prior to 2006. Therefore, excludable days for years 2006 and 2007 were both determined based on daily SAIDI data in year 2006. Excludable days for 2008 were determined based on daily SAIDI data in years 2006 and 2007. Excludable days for 2009 were determined based on daily SAIDI data in years 2006, 2007, and 2008. Excludable days for 2010 were determined based on daily SAIDI data in years 2006, 2007, 2008, and 2009. This interim approach is consistent with IEEE 1366.

A summary of the 2016 performance for unplanned outages including and excluding MED outages are as follows:

| YEAR                    | Total System Indices (All Interruptions Included) |       |       |        | Total System Indices (Major Event Days Excluded) |       |       |        |
|-------------------------|---|-------|-------|--------|--|-------|-------|--------|
|                         | SAIDI   | SAIFI | MAIFI | CAIDI  | SAIDI  | SAIFI | MAIFI | CAIDI  |
| 2016                    | 134.48  | 1.10  | 1.55  | 122.26 | 109.98   | 0.99  | 1.40  | 110.69 |
| 10 Year Avg (2007-2016) | 132.15  | 0.99  | 1.51  | 133.06 | 97.79  | 0.88  | 1.35  | 110.65 |

SCE experienced a total of 7 MED in 2016 as captured in the below.

| No. | Date       | Event Cause             | SAIDI  | SAIFI | Sustained Customer Impacted | MAFI  | Momentary Customer Impacted | Excluded per IEEE 1366 |
|-----|------------|-------------------------|--------|-------|-----------------------------|-------|-----------------------------|------------------------|
| 1   | 1/7/2016   | Snow / Wind Storm       | 2.475  | 0.013 | 68,019                      | 0.006 | 31,613                      | Y                      |
| 2   | 1/31/2016  | Wind Storm              | 9.580  | 0.037 | 189,397                     | 0.070 | 354,264                     | Y                      |
| 3   | 6/20/2016  | Equipment Failure       | 3.161  | 0.014 | 73,219                      | 0.009 | 46,367                      | Y                      |
| 4   | 6/23/2016  | Fire                    | 4.103  | 0.008 | 42,813                      | 0.005 | 27,355                      | Y                      |
| 5   | 10/17/2016 | Equipment / Fire / Wind | 1.655  | 0.013 | 64,823                      | 0.015 | 77,731                      | Y                      |
| 6   | 10/24/2016 | Lightning Storm         | 1.803  | 0.012 | 62,097                      | 0.034 | 169,737                     | Y                      |
| 7   | 12/24/2016 | Wind / OH Equipment     | 1.724  | 0.008 | 38,239                      | 0.010 | 53,048                      | Y                      |
|     | Total      |                         | 24.500 | 0.106 | 538,607                     | 0.150 | 760,115                     |                        |

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## SECTION 1 – SYSTEM INDICES FOR THE LAST 10 YEARS

### a. System Indices Tables

Table 1 below contains the required SAIDI, SAIFI, MAIFI<sup>1</sup> and CAIDI indices for 2007-2016 including and excluding Major Event Day (MED) for the SCE System unplanned Outages. All calculations contained in the table are based on the IEEE 1366 method for Major Event Day (MED). Reliability indices are for unplanned outages only.

**Table 1 – System Indices (2007-2016)**

| YEAR | Total System Indices (All Interruptions Included) |       |       |        | Total System Indices (Major Event Days Excluded) |       |       |        |
|------|---|-------|-------|--------|--|-------|-------|--------|
|      | SAIDI   | SAIFI | MAIFI | CAIDI  | SAIDI  | SAIFI | MAIFI | CAIDI  |
| 2007 | 151.32  | 1.10  | 1.74  | 137.22 | 85.34  | 0.88  | 1.37  | 97.32  |
| 2008 | 118.91  | 1.06  | 1.73  | 112.33 | 99.35  | 0.95  | 1.56  | 104.05 |
| 2009 | 105.80  | 0.90  | 1.45  | 117.58 | 88.77  | 0.83  | 1.31  | 107.17 |
| 2010 | 140.91  | 1.05  | 1.69  | 134.56 | 98.69  | 0.82  | 1.41  | 120.99 |
| 2011 | 232.39  | 1.04  | 1.53  | 223.75 | 108.15   | 0.91  | 1.36  | 118.30 |
| 2012 | 108.13  | 0.89  | 1.43  | 121.10 | 100.70   | 0.86  | 1.35  | 117.76 |
| 2013 | 102.61  | 0.91  | 1.20  | 112.76 | 94.48  | 0.88  | 1.18  | 107.85 |
| 2014 | 112.10  | 0.97  | 1.36  | 116.04 | 92.30  | 0.86  | 1.23  | 106.82 |
| 2015 | 114.83  | 0.92  | 1.42  | 125.40 | 100.15   | 0.86  | 1.29  | 116.56 |
| 2016 | 134.48  | 1.10  | 1.55  | 122.26 | 109.98   | 0.99  | 1.40  | 110.69 |

### i. Distribution Indices<sup>2</sup>

**Table 2 – Distribution Indices (2007-2016)**

| Distribution Indices (< 50KV) (All Interruptions Included) |       |       |        | Distribution Indices (< 50KV) (Major Event Days Excluded) |       |       |        |
|--|-------|-------|--------|---|-------|-------|--------|
| SAIDI  | SAIFI | MAIFI | CAIDI  | SAIDI   | SAIFI | MAIFI | CAIDI  |
| 149.00   | 1.08  | 1.69  | 137.70 | 85.04   | 0.87  | 1.34  | 98.27  |
| 117.05   | 1.02  | 1.65  | 114.62 | 97.48   | 0.92  | 1.48  | 106.25 |
| 103.95   | 0.84  | 1.40  | 123.71 | 87.12   | 0.77  | 1.27  | 112.85 |
| 139.01   | 1.01  | 1.61  | 138.12 | 97.52   | 0.79  | 1.34  | 124.04 |
| 228.08   | 0.98  | 1.47  | 233.02 | 105.64  | 0.86  | 1.31  | 122.59 |
| 105.58   | 0.88  | 1.35  | 120.63 | 98.30   | 0.84  | 1.28  | 117.06 |
| 94.33  | 0.86  | 1.14  | 109.27 | 92.52   | 0.85  | 1.12  | 108.46 |
| 111.08   | 0.94  | 1.29  | 117.64 | 91.52   | 0.84  | 1.17  | 108.52 |
| 111.87   | 0.88  | 1.35  | 127.54 | 98.34   | 0.83  | 1.24  | 118.88 |
| 129.32   | 1.05  | 1.47  | 123.24 | 106.29  | 0.95  | 1.33  | 112.03 |

<sup>1</sup> SCE calculates MAIFI at every individual outage event

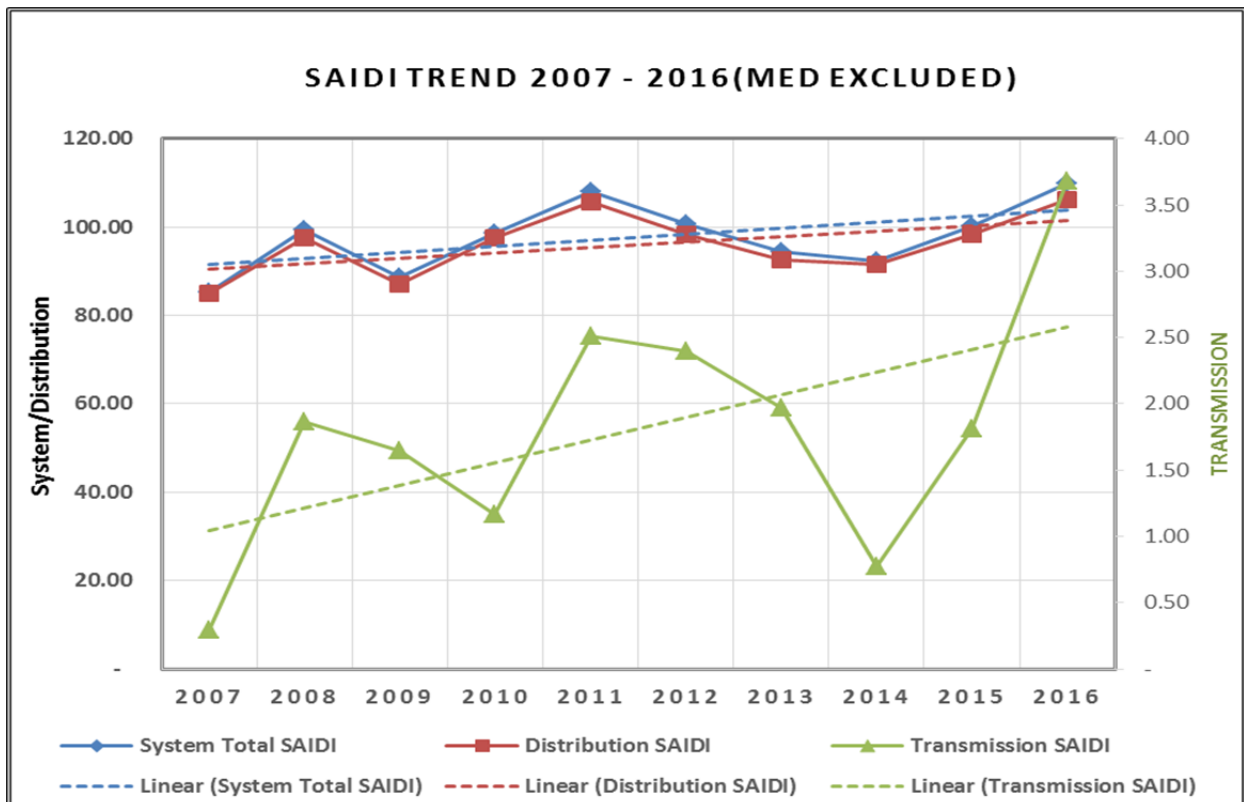
<sup>2</sup> Distribution system outages are defined as outages that are <50kV

ii. Transmission Indices<sup>3</sup>

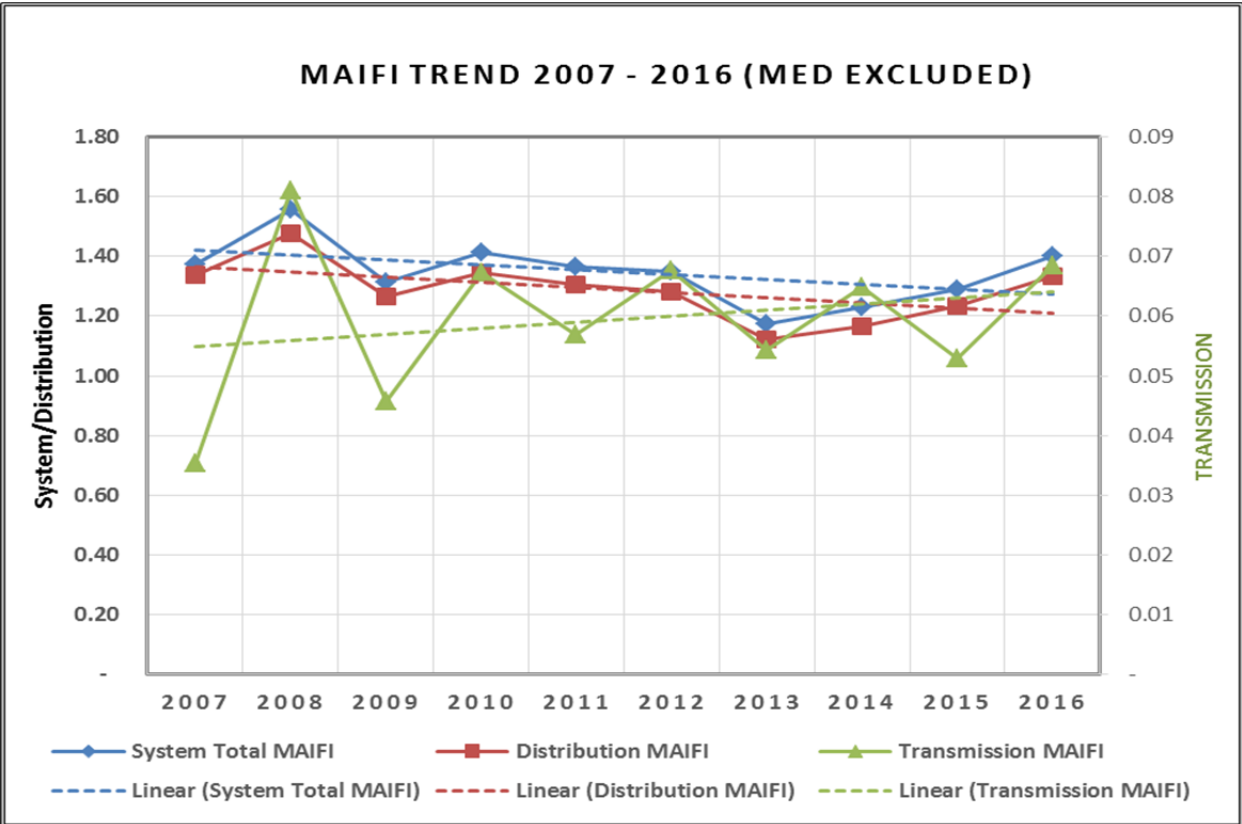
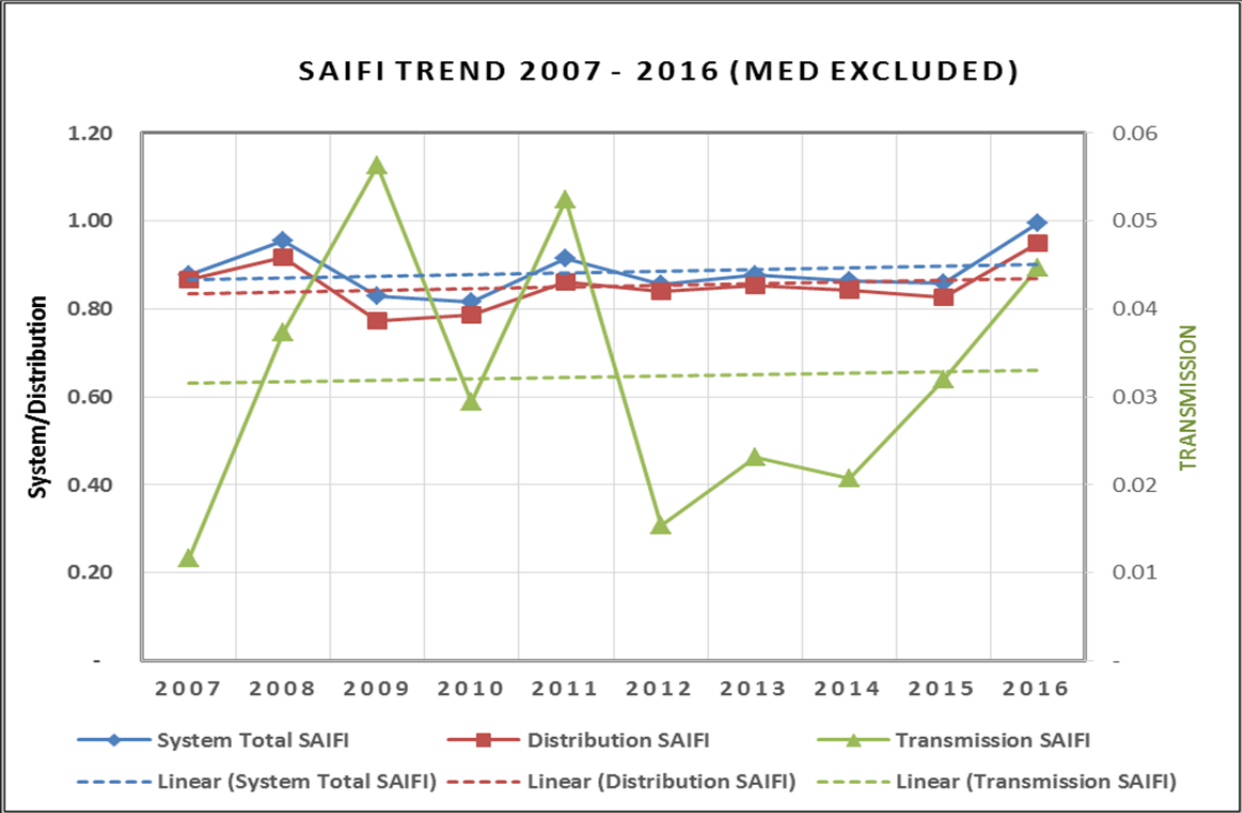
**Table 3 – Transmission Indices (2007-2016)**

| Transmission Indices (>= 50KV) (All Interruptions Included) |       |       |        | Transmission Indices (>= 50KV) (Major Event Days Excluded) |       |       |        |
|---|-------|-------|--------|--|-------|-------|--------|
| SAIDI   | SAIFI | MAIFI | CAIDI  | SAIDI  | SAIFI | MAIFI | CAIDI  |
| 2.32  | 0.02  | 0.04  | 112.08 | 0.30   | 0.01  | 0.04  | 25.75  |
| 1.87  | 0.04  | 0.09  | 49.92  | 1.87   | 0.04  | 0.08  | 49.95  |
| 1.85  | 0.06  | 0.05  | 31.08  | 1.65   | 0.06  | 0.05  | 29.27  |
| 1.90  | 0.04  | 0.08  | 46.64  | 1.16   | 0.03  | 0.07  | 39.54  |
| 4.31  | 0.06  | 0.07  | 72.06  | 2.51   | 0.05  | 0.06  | 47.91  |
| 2.56  | 0.02  | 0.08  | 143.93 | 2.40   | 0.02  | 0.07  | 155.92 |
| 8.29  | 0.05  | 0.06  | 177.25 | 1.97   | 0.02  | 0.05  | 85.29  |
| 1.02  | 0.02  | 0.07  | 46.82  | 0.78   | 0.02  | 0.06  | 37.50  |
| 2.96  | 0.04  | 0.07  | 76.68  | 1.82   | 0.03  | 0.05  | 56.75  |
| 5.15  | 0.05  | 0.08  | 101.92 | 3.68   | 0.04  | 0.07  | 82.39  |

b. System Indices Charts (MED Excluded)

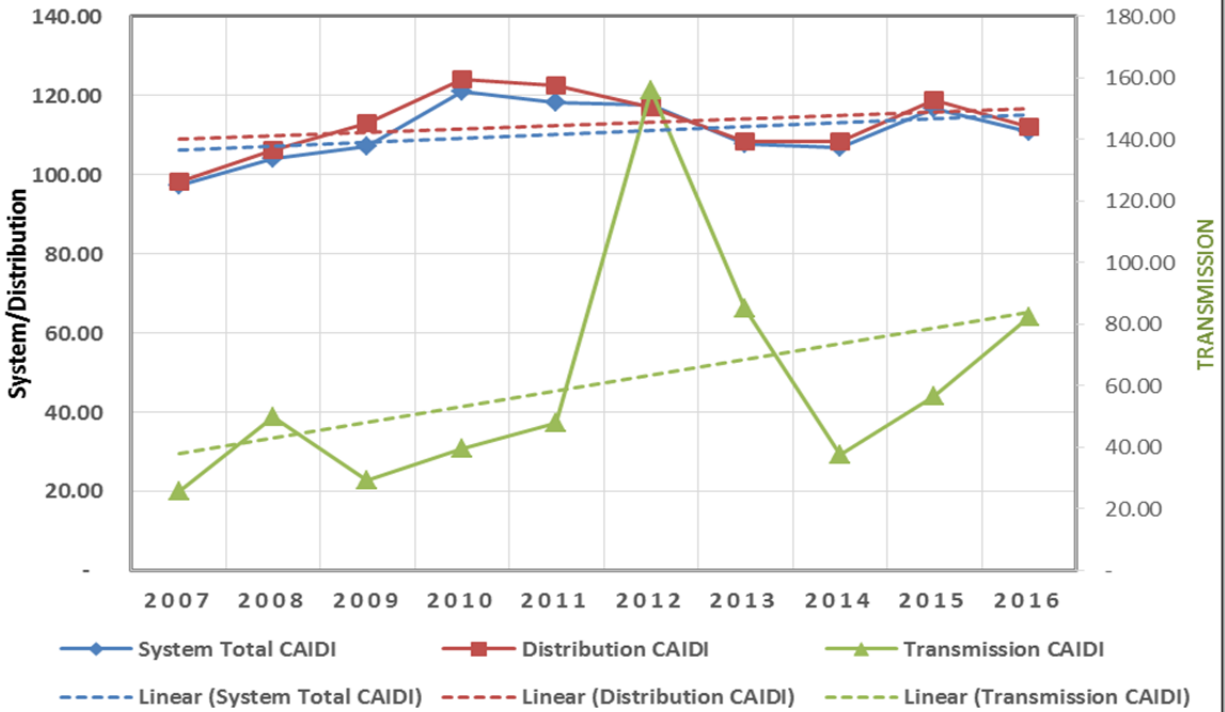


<sup>3</sup> Transmission system outages are defined as outages ≥ 50kV





### CAIDI TREND 2007 - 2016 (MED EXCLUDED)



**SECTION 2 – DISTRICT RELIABILITY INDICES FOR THE PAST 10 YEARS INCLUDING AND EXCLUDING MED**

a. District SAIDI, SAIFI, MAIFI and CAIDI<sup>4</sup> (including and excluding MED) for unplanned outages

| DISTRICT               | All Outage |        |        |          | MED Excluded |        |        |         |
|------------------------|------------|--------|--------|----------|--------------|--------|--------|---------|
|                        | dSAIDI     | dSAIFI | dMAIFI | dCAIDI   | dSAIDI       | dSAIFI | dMAIFI | dCAIDI  |
| <b>ANTELOPE VALLEY</b> |            |        |        |          |              |        |        |         |
| 2007                   | 114.501    | 0.928  | 2.011  | 123.364  | 64.760       | 0.658  | 1.506  | 98.395  |
| 2008                   | 92.185     | 0.956  | 2.414  | 96.458   | 76.570       | 0.825  | 2.124  | 92.802  |
| 2009                   | 71.229     | 0.516  | 1.631  | 137.979  | 68.386       | 0.492  | 1.473  | 139.019 |
| 2010                   | 131.063    | 0.773  | 2.022  | 169.484  | 74.576       | 0.524  | 1.321  | 142.319 |
| 2011                   | 208.159    | 1.247  | 1.669  | 166.965  | 128.137      | 1.144  | 1.595  | 111.981 |
| 2012                   | 78.604     | 0.565  | 1.428  | 139.172  | 76.461       | 0.549  | 1.412  | 139.354 |
| 2013                   | 94.416     | 0.619  | 1.172  | 152.621  | 94.222       | 0.613  | 1.166  | 153.772 |
| 2014                   | 50.956     | 0.593  | 1.153  | 85.927   | 45.595       | 0.548  | 1.070  | 83.156  |
| 2015                   | 104.337    | 0.680  | 1.838  | 153.528  | 70.206       | 0.601  | 1.514  | 116.783 |
| 2016                   | 107.670    | 0.870  | 1.523  | 123.791  | 101.199      | 0.814  | 1.430  | 124.322 |
| <b>ARROWHEAD</b>       |            |        |        |          |              |        |        |         |
| 2007                   | 2892.980   | 2.847  | 3.221  | 1016.258 | 111.494      | 2.102  | 2.459  | 53.043  |
| 2008                   | 1239.362   | 5.427  | 11.469 | 228.387  | 475.902      | 3.642  | 6.678  | 130.682 |
| 2009                   | 534.083    | 3.406  | 7.385  | 156.795  | 440.132      | 2.842  | 4.674  | 154.893 |
| 2010                   | 537.400    | 3.841  | 18.875 | 139.895  | 229.659      | 1.974  | 16.782 | 116.369 |
| 2011                   | 792.792    | 4.403  | 6.090  | 180.074  | 444.698      | 2.992  | 5.736  | 148.605 |
| 2012                   | 129.579    | 1.307  | 3.972  | 99.116   | 89.043       | 1.043  | 3.757  | 85.372  |
| 2013                   | 180.586    | 1.386  | 5.017  | 130.286  | 134.768      | 1.174  | 3.637  | 114.839 |
| 2014                   | 193.249    | 1.590  | 4.018  | 121.532  | 81.968       | 0.898  | 3.035  | 91.277  |
| 2015                   | 362.615    | 3.973  | 5.595  | 91.273   | 186.743      | 2.755  | 2.730  | 67.794  |
| 2016                   | 659.464    | 2.848  | 5.951  | 231.515  | 200.720      | 1.883  | 4.712  | 106.593 |
| <b>BARSTOW</b>         |            |        |        |          |              |        |        |         |
| 2007                   | 126.626    | 1.253  | 3.641  | 101.058  | 101.628      | 1.052  | 3.330  | 96.602  |
| 2008                   | 403.157    | 2.363  | 4.415  | 170.643  | 318.756      | 1.920  | 3.625  | 166.036 |
| 2009                   | 153.493    | 1.139  | 1.824  | 134.766  | 125.148      | 1.060  | 1.773  | 118.040 |
| 2010                   | 123.015    | 1.511  | 3.041  | 81.440   | 96.881       | 1.190  | 2.648  | 81.400  |
| 2011                   | 308.760    | 1.631  | 6.115  | 189.288  | 271.659      | 1.549  | 5.735  | 175.418 |
| 2012                   | 184.797    | 1.152  | 2.645  | 160.377  | 182.786      | 1.144  | 2.524  | 159.819 |
| 2013                   | 204.329    | 1.395  | 3.284  | 146.469  | 185.788      | 1.286  | 2.702  | 144.416 |
| 2014                   | 201.526    | 1.343  | 2.536  | 150.058  | 173.680      | 1.240  | 2.410  | 140.098 |
| 2015                   | 187.113    | 1.174  | 2.859  | 159.416  | 157.379      | 0.997  | 2.131  | 157.841 |
| 2016                   | 134.828    | 1.350  | 2.296  | 99.888   | 130.085      | 1.340  | 2.283  | 97.106  |
| <b>BIG CREEK</b>       |            |        |        |          |              |        |        |         |
| 2007                   | 48.693     | 0.160  | 0.542  | 303.987  | 48.429       | 0.157  | 0.542  | 309.042 |
| 2008                   | 104.921    | 2.499  | 2.291  | 41.977   | 91.752       | 2.059  | 1.466  | 44.558  |
| 2009                   | 259.275    | 1.441  | 1.856  | 179.865  | 259.275      | 1.441  | 1.856  | 179.865 |
| 2010                   | 5700.992   | 12.891 | 7.874  | 442.244  | 683.925      | 6.344  | 3.818  | 107.812 |
| 2011                   | 1667.047   | 4.222  | 3.933  | 394.852  | 984.340      | 1.650  | 2.741  | 596.466 |
| 2012                   | 1184.253   | 4.523  | 2.608  | 261.831  | 842.662      | 4.182  | 1.681  | 201.512 |
| 2013                   | 176.510    | 3.080  | 4.987  | 57.308   | 176.510      | 3.080  | 4.711  | 57.308  |
| 2014                   | 920.254    | 1.342  | 4.901  | 685.961  | 438.216      | 0.581  | 3.960  | 754.138 |
| 2015                   | 422.768    | 3.415  | 9.298  | 123.785  | 422.768      | 3.415  | 9.298  | 123.785 |
| 2016                   | 1062.011   | 4.993  | 4.157  | 212.703  | 773.999      | 2.795  | 2.165  | 276.874 |
| <b>BISHOP</b>          |            |        |        |          |              |        |        |         |
| 2007                   | 121.015    | 0.624  | 2.542  | 193.977  | 121.015      | 0.624  | 2.527  | 193.977 |
| 2008                   | 265.070    | 1.087  | 1.923  | 243.782  | 159.414      | 0.882  | 1.777  | 180.641 |
| 2009                   | 143.545    | 1.362  | 1.493  | 105.382  | 142.174      | 1.356  | 1.491  | 104.869 |
| 2010                   | 407.920    | 2.502  | 5.664  | 163.016  | 293.294      | 2.332  | 4.251  | 125.792 |
| 2011                   | 666.064    | 1.548  | 2.571  | 430.339  | 105.588      | 1.344  | 2.247  | 78.591  |
| 2012                   | 463.093    | 1.248  | 2.288  | 371.138  | 424.766      | 1.103  | 2.205  | 384.980 |
| 2013                   | 104.436    | 0.514  | 1.267  | 203.233  | 104.425      | 0.514  | 1.267  | 203.232 |
| 2014                   | 118.793    | 0.587  | 1.885  | 202.475  | 113.618      | 0.499  | 1.706  | 227.572 |
| 2015                   | 298.106    | 2.218  | 3.332  | 134.431  | 298.106      | 2.218  | 3.272  | 134.431 |
| 2016                   | 168.592    | 1.216  | 2.820  | 138.643  | 168.530      | 1.216  | 2.711  | 138.603 |

<sup>4</sup> dSAIDI, dSAIFI, dMAIFI and dCAIDI are calculated utilizing the district CMI/ district customers.

| DISTRICT               | All Outage |        |        |         | MED Excluded |        |        |         |
|------------------------|------------|--------|--------|---------|--------------|--------|--------|---------|
|                        | dSAIDI     | dSAIFI | dMAIFI | dCAIDI  | dSAIDI       | dSAIFI | dMAIFI | dCAIDI  |
| <b>BLYTHE</b>          |            |        |        |         |              |        |        |         |
| 2007                   | 299.336    | 2.145  | 3.534  | 139.545 | 274.065      | 1.902  | 3.460  | 144.099 |
| 2008                   | 454.705    | 3.094  | 4.795  | 146.982 | 454.705      | 3.094  | 4.042  | 146.982 |
| 2009                   | 83.884     | 0.820  | 1.717  | 102.296 | 83.605       | 0.816  | 1.482  | 102.403 |
| 2010                   | 1332.781   | 2.030  | 2.817  | 656.668 | 294.445      | 1.344  | 2.641  | 219.114 |
| 2011                   | 378.393    | 1.402  | 3.717  | 269.845 | 321.050      | 1.312  | 3.443  | 244.767 |
| 2012                   | 225.884    | 1.529  | 3.749  | 147.714 | 221.814      | 1.498  | 3.749  | 148.058 |
| 2013                   | 483.127    | 1.380  | 5.466  | 349.971 | 482.815      | 1.372  | 5.382  | 351.779 |
| 2014                   | 707.218    | 2.417  | 4.658  | 292.632 | 706.974      | 2.385  | 4.433  | 296.395 |
| 2015                   | 426.997    | 1.515  | 1.396  | 281.754 | 331.521      | 1.129  | 1.163  | 293.751 |
| 2016                   | 396.376    | 2.707  | 6.342  | 146.428 | 302.983      | 1.917  | 4.848  | 158.021 |
| <b>CATALINA</b>        |            |        |        |         |              |        |        |         |
| 2007                   | 1030.400   | 4.784  | 1.789  | 215.399 | 1030.400     | 4.784  | 1.789  | 215.399 |
| 2008                   | 29.733     | 1.357  | 0.888  | 21.915  | 29.733       | 1.357  | 0.888  | 21.915  |
| 2009                   | 98.586     | 2.542  | 1.235  | 38.779  | 98.586       | 2.542  | 1.235  | 38.779  |
| 2010                   | 67.227     | 1.549  | 0.728  | 43.391  | 67.227       | 1.549  | 0.728  | 43.391  |
| 2011                   | 65.029     | 3.454  | 3.317  | 18.828  | 65.029       | 3.454  | 3.317  | 18.828  |
| 2012                   | 78.463     | 0.724  | 0.765  | 108.396 | 78.463       | 0.724  | 0.765  | 108.396 |
| 2013                   | 105.939    | 2.968  | 3.093  | 35.691  | 105.939      | 2.968  | 3.093  | 35.691  |
| 2014                   | 97.024     | 4.170  | 2.321  | 23.269  | 97.024       | 4.170  | 2.321  | 23.269  |
| 2015                   | 42.563     | 2.252  | 2.885  | 18.904  | 42.563       | 2.252  | 2.885  | 18.904  |
| 2016                   | 65.013     | 3.659  | 3.168  | 17.768  | 65.013       | 3.659  | 3.168  | 17.768  |
| <b>COVINA</b>          |            |        |        |         |              |        |        |         |
| 2007                   | 109.919    | 0.825  | 1.259  | 133.295 | 67.746       | 0.696  | 1.110  | 97.388  |
| 2008                   | 84.551     | 0.639  | 1.358  | 132.397 | 74.686       | 0.582  | 1.269  | 128.384 |
| 2009                   | 78.043     | 0.682  | 1.063  | 114.418 | 62.591       | 0.603  | 0.959  | 103.822 |
| 2010                   | 117.660    | 0.810  | 1.130  | 145.299 | 99.323       | 0.708  | 0.983  | 140.232 |
| 2011                   | 166.969    | 0.870  | 1.181  | 191.870 | 86.994       | 0.736  | 1.077  | 118.129 |
| 2012                   | 108.732    | 0.915  | 1.333  | 118.824 | 102.888      | 0.867  | 1.267  | 118.680 |
| 2013                   | 100.505    | 0.856  | 1.004  | 117.414 | 100.297      | 0.853  | 0.992  | 117.582 |
| 2014                   | 91.418     | 0.874  | 1.257  | 104.580 | 81.424       | 0.804  | 1.028  | 101.295 |
| 2015                   | 100.085    | 0.815  | 1.164  | 122.866 | 99.838       | 0.813  | 1.152  | 122.755 |
| 2016                   | 112.134    | 0.974  | 1.319  | 115.182 | 90.930       | 0.875  | 1.145  | 103.915 |
| <b>DOMINGUEZ HILLS</b> |            |        |        |         |              |        |        |         |
| 2007                   | 144.034    | 0.839  | 1.735  | 171.716 | 65.049       | 0.637  | 1.498  | 102.096 |
| 2008                   | 81.303     | 0.699  | 1.386  | 116.316 | 71.633       | 0.644  | 1.313  | 111.283 |
| 2009                   | 89.813     | 0.681  | 1.698  | 131.889 | 81.227       | 0.633  | 1.575  | 128.322 |
| 2010                   | 119.230    | 0.779  | 1.578  | 153.004 | 88.110       | 0.585  | 1.337  | 150.626 |
| 2011                   | 109.414    | 0.718  | 1.566  | 152.338 | 90.548       | 0.644  | 1.433  | 140.680 |
| 2012                   | 117.225    | 0.824  | 1.863  | 142.330 | 110.077      | 0.792  | 1.830  | 139.031 |
| 2013                   | 89.167     | 0.797  | 1.938  | 111.893 | 89.167       | 0.797  | 1.938  | 111.893 |
| 2014                   | 82.192     | 0.711  | 1.603  | 115.553 | 73.493       | 0.656  | 1.560  | 111.977 |
| 2015                   | 130.629    | 0.967  | 2.049  | 135.097 | 126.046      | 0.934  | 1.958  | 134.903 |
| 2016                   | 146.384    | 1.107  | 2.537  | 132.203 | 127.155      | 1.010  | 2.229  | 125.937 |
| <b>FOOTHILL</b>        |            |        |        |         |              |        |        |         |
| 2007                   | 184.288    | 1.384  | 2.401  | 133.203 | 94.017       | 0.969  | 1.545  | 96.979  |
| 2008                   | 85.539     | 0.636  | 1.658  | 134.423 | 76.793       | 0.577  | 1.605  | 133.050 |
| 2009                   | 94.329     | 0.620  | 1.281  | 152.254 | 60.566       | 0.435  | 1.015  | 139.105 |
| 2010                   | 76.599     | 0.460  | 0.975  | 166.649 | 64.982       | 0.405  | 0.857  | 160.634 |
| 2011                   | 117.405    | 0.955  | 1.226  | 122.901 | 97.462       | 0.879  | 0.896  | 110.915 |
| 2012                   | 91.694     | 0.903  | 0.931  | 101.552 | 91.479       | 0.900  | 0.900  | 101.608 |
| 2013                   | 85.800     | 0.787  | 0.987  | 109.087 | 85.800       | 0.787  | 0.987  | 109.087 |
| 2014                   | 93.337     | 0.932  | 1.285  | 100.140 | 88.135       | 0.861  | 1.249  | 102.395 |
| 2015                   | 109.637    | 0.947  | 1.304  | 115.764 | 87.796       | 0.890  | 1.230  | 98.673  |
| 2016                   | 142.807    | 1.028  | 1.507  | 138.926 | 138.177      | 1.008  | 1.483  | 137.029 |
| <b>FULLERTON</b>       |            |        |        |         |              |        |        |         |
| 2007                   | 133.134    | 0.824  | 0.979  | 161.546 | 67.052       | 0.582  | 0.770  | 115.246 |
| 2008                   | 91.886     | 0.779  | 0.967  | 117.957 | 87.406       | 0.738  | 0.888  | 118.371 |
| 2009                   | 62.350     | 0.457  | 0.846  | 136.512 | 60.763       | 0.431  | 0.773  | 140.841 |
| 2010                   | 135.217    | 1.186  | 1.208  | 113.985 | 94.282       | 0.671  | 0.859  | 140.606 |
| 2011                   | 90.110     | 0.607  | 1.076  | 148.499 | 88.745       | 0.604  | 1.075  | 146.940 |
| 2012                   | 68.992     | 0.419  | 0.943  | 164.469 | 64.428       | 0.401  | 0.878  | 160.539 |
| 2013                   | 90.572     | 0.793  | 0.910  | 114.158 | 90.572       | 0.793  | 0.910  | 114.158 |
| 2014                   | 82.201     | 0.723  | 1.004  | 113.714 | 69.996       | 0.649  | 0.974  | 107.848 |
| 2015                   | 76.586     | 0.669  | 1.014  | 114.471 | 75.504       | 0.642  | 0.995  | 117.681 |
| 2016                   | 92.725     | 0.760  | 1.174  | 122.044 | 73.772       | 0.588  | 0.974  | 125.369 |

| DISTRICT                | All Outage |        |        |          | MED Excluded |        |        |         |
|-------------------------|------------|--------|--------|----------|--------------|--------|--------|---------|
|                         | dSAIDI     | dSAIFI | dMAIFI | dCAIDI   | dSAIDI       | dSAIFI | dMAIFI | dCAIDI  |
| <b>HUNTINGTON BEACH</b> |            |        |        |          |              |        |        |         |
| 2007                    | 108.026    | 0.972  | 1.292  | 111.100  | 86.495       | 0.855  | 1.101  | 101.183 |
| 2008                    | 84.497     | 0.776  | 0.954  | 108.846  | 80.194       | 0.739  | 0.898  | 108.503 |
| 2009                    | 109.420    | 1.041  | 1.191  | 105.156  | 97.754       | 0.881  | 1.143  | 111.009 |
| 2010                    | 129.496    | 1.023  | 1.305  | 126.636  | 101.546      | 0.848  | 1.029  | 119.812 |
| 2011                    | 122.539    | 0.956  | 1.488  | 128.169  | 114.519      | 0.885  | 1.406  | 129.457 |
| 2012                    | 95.784     | 0.889  | 1.046  | 107.737  | 94.680       | 0.882  | 1.046  | 107.395 |
| 2013                    | 66.507     | 0.680  | 0.815  | 97.833   | 66.507       | 0.680  | 0.815  | 97.833  |
| 2014                    | 76.901     | 0.738  | 1.093  | 104.152  | 65.367       | 0.676  | 0.964  | 96.710  |
| 2015                    | 98.315     | 0.955  | 1.217  | 102.952  | 94.111       | 0.929  | 1.169  | 101.352 |
| 2016                    | 128.016    | 1.262  | 1.225  | 101.420  | 108.156      | 1.186  | 1.163  | 91.182  |
| <b>KERNVILLE</b>        |            |        |        |          |              |        |        |         |
| 2007                    | 225.015    | 2.386  | 2.217  | 94.288   | 224.908      | 2.385  | 2.217  | 94.283  |
| 2008                    | 590.919    | 3.898  | 7.309  | 151.580  | 228.916      | 2.548  | 4.493  | 89.833  |
| 2009                    | 585.927    | 2.006  | 5.688  | 292.025  | 559.460      | 1.854  | 5.053  | 301.808 |
| 2010                    | 584.742    | 1.795  | 4.336  | 325.686  | 444.191      | 1.490  | 4.011  | 298.084 |
| 2011                    | 165.695    | 1.025  | 3.316  | 161.713  | 138.134      | 0.964  | 2.620  | 143.346 |
| 2012                    | 226.761    | 1.311  | 3.636  | 172.995  | 160.694      | 1.066  | 3.010  | 150.692 |
| 2013                    | 232.181    | 1.964  | 4.925  | 118.189  | 180.865      | 1.577  | 4.824  | 114.682 |
| 2014                    | 178.691    | 1.987  | 1.882  | 89.932   | 142.946      | 1.918  | 1.831  | 74.541  |
| 2015                    | 286.382    | 0.961  | 1.630  | 297.920  | 231.411      | 0.857  | 1.293  | 270.120 |
| 2016                    | 2421.324   | 3.674  | 2.928  | 659.034  | 909.188      | 2.839  | 2.832  | 320.212 |
| <b>LONG BEACH</b>       |            |        |        |          |              |        |        |         |
| 2007                    | 87.178     | 0.733  | 1.065  | 118.869  | 47.569       | 0.602  | 0.911  | 78.958  |
| 2008                    | 52.535     | 0.436  | 0.640  | 120.516  | 48.058       | 0.409  | 0.604  | 117.392 |
| 2009                    | 41.503     | 0.421  | 0.876  | 98.539   | 40.045       | 0.415  | 0.851  | 96.547  |
| 2010                    | 72.284     | 0.633  | 0.897  | 114.156  | 53.982       | 0.546  | 0.774  | 98.809  |
| 2011                    | 58.475     | 0.579  | 0.894  | 100.942  | 52.380       | 0.562  | 0.853  | 93.191  |
| 2012                    | 75.830     | 0.554  | 1.106  | 136.864  | 72.654       | 0.536  | 1.059  | 135.673 |
| 2013                    | 75.107     | 0.699  | 0.779  | 107.497  | 74.628       | 0.694  | 0.775  | 107.551 |
| 2014                    | 66.226     | 0.606  | 1.168  | 109.270  | 57.781       | 0.548  | 1.083  | 105.376 |
| 2015                    | 164.463    | 0.894  | 1.185  | 183.904  | 89.160       | 0.846  | 1.168  | 105.378 |
| 2016                    | 135.163    | 0.857  | 1.308  | 157.701  | 96.978       | 0.695  | 1.095  | 139.507 |
| <b>MENIFEE</b>          |            |        |        |          |              |        |        |         |
| 2007                    | 181.198    | 1.230  | 2.189  | 147.261  | 77.917       | 0.896  | 1.367  | 86.932  |
| 2008                    | 111.189    | 1.570  | 1.757  | 70.808   | 83.826       | 1.490  | 1.726  | 56.272  |
| 2009                    | 106.451    | 1.809  | 1.026  | 58.854   | 97.637       | 1.743  | 0.910  | 56.004  |
| 2010                    | 100.653    | 0.762  | 1.202  | 132.119  | 74.081       | 0.613  | 0.903  | 120.754 |
| 2011                    | 100.482    | 0.891  | 1.339  | 112.728  | 93.705       | 0.804  | 1.299  | 116.607 |
| 2012                    | 99.320     | 0.838  | 1.736  | 118.576  | 98.627       | 0.824  | 1.680  | 119.740 |
| 2013                    | 107.388    | 1.264  | 0.744  | 84.979   | 106.298      | 1.220  | 0.725  | 87.135  |
| 2014                    | 156.641    | 1.323  | 1.573  | 118.410  | 77.367       | 1.004  | 1.276  | 77.030  |
| 2015                    | 111.460    | 0.978  | 1.302  | 113.971  | 85.322       | 0.876  | 1.067  | 97.393  |
| 2016                    | 156.748    | 1.311  | 1.448  | 119.535  | 139.005      | 1.191  | 1.338  | 116.738 |
| <b>MONROVIA</b>         |            |        |        |          |              |        |        |         |
| 2007                    | 142.012    | 1.051  | 2.174  | 135.116  | 71.658       | 0.724  | 1.586  | 99.022  |
| 2008                    | 103.789    | 0.848  | 1.881  | 122.426  | 95.940       | 0.761  | 1.770  | 126.002 |
| 2009                    | 219.773    | 0.869  | 2.029  | 252.948  | 102.119      | 0.744  | 1.614  | 137.210 |
| 2010                    | 124.340    | 1.078  | 2.014  | 115.381  | 93.507       | 0.902  | 1.775  | 103.624 |
| 2011                    | 2414.044   | 1.891  | 2.463  | 1276.874 | 130.692      | 1.025  | 1.740  | 127.514 |
| 2012                    | 108.110    | 1.126  | 1.781  | 95.987   | 99.185       | 1.068  | 1.632  | 92.910  |
| 2013                    | 99.116     | 1.017  | 1.322  | 97.496   | 98.965       | 1.015  | 1.311  | 97.500  |
| 2014                    | 133.311    | 1.157  | 1.258  | 115.176  | 96.360       | 1.005  | 1.069  | 95.846  |
| 2015                    | 96.679     | 0.881  | 1.618  | 109.737  | 95.327       | 0.863  | 1.554  | 110.466 |
| 2016                    | 116.575    | 0.844  | 1.652  | 138.064  | 93.387       | 0.772  | 1.523  | 121.000 |
| <b>MONTEBELLO</b>       |            |        |        |          |              |        |        |         |
| 2007                    | 152.689    | 0.885  | 2.433  | 172.614  | 62.123       | 0.618  | 1.908  | 100.540 |
| 2008                    | 93.833     | 0.712  | 1.678  | 131.832  | 85.623       | 0.665  | 1.633  | 128.688 |
| 2009                    | 192.332    | 1.191  | 2.337  | 161.484  | 87.243       | 1.099  | 2.174  | 79.370  |
| 2010                    | 147.851    | 1.117  | 1.987  | 132.361  | 118.232      | 0.972  | 1.688  | 121.649 |
| 2011                    | 678.332    | 1.214  | 2.388  | 558.556  | 115.694      | 0.853  | 1.821  | 135.577 |
| 2012                    | 131.058    | 1.127  | 1.946  | 116.316  | 107.511      | 1.040  | 1.823  | 103.423 |
| 2013                    | 118.078    | 1.174  | 1.890  | 100.609  | 117.713      | 1.169  | 1.890  | 100.660 |
| 2014                    | 158.316    | 1.164  | 1.959  | 136.010  | 124.669      | 1.020  | 1.763  | 122.179 |
| 2015                    | 150.280    | 1.183  | 2.213  | 126.992  | 145.303      | 1.131  | 2.087  | 128.462 |
| 2016                    | 133.522    | 1.166  | 2.057  | 114.552  | 107.263      | 1.043  | 1.882  | 102.871 |

| DISTRICT            | All Outage |        |        |         | MED Excluded |        |        |         |
|---------------------|------------|--------|--------|---------|--------------|--------|--------|---------|
|                     | dSAIDI     | dSAIFI | dMAIFI | dCAIDI  | dSAIDI       | dSAIFI | dMAIFI | dCAIDI  |
| <b>ONTARIO</b>      |            |        |        |         |              |        |        |         |
| 2007                | 153.294    | 0.961  | 1.798  | 159.526 | 82.715       | 0.704  | 1.115  | 117.505 |
| 2008                | 99.041     | 0.790  | 1.449  | 125.372 | 92.016       | 0.738  | 1.379  | 124.620 |
| 2009                | 88.186     | 0.748  | 1.200  | 117.973 | 80.625       | 0.703  | 1.098  | 114.619 |
| 2010                | 90.448     | 0.811  | 1.480  | 111.528 | 70.279       | 0.655  | 1.258  | 107.242 |
| 2011                | 117.664    | 0.822  | 1.317  | 143.189 | 96.594       | 0.749  | 1.235  | 128.944 |
| 2012                | 93.087     | 0.869  | 1.159  | 107.130 | 91.407       | 0.833  | 1.140  | 109.720 |
| 2013                | 77.392     | 0.791  | 0.933  | 97.841  | 74.037       | 0.782  | 0.926  | 94.728  |
| 2014                | 97.881     | 0.996  | 1.160  | 98.312  | 86.676       | 0.902  | 1.041  | 96.114  |
| 2015                | 94.043     | 0.744  | 0.926  | 126.432 | 81.608       | 0.709  | 0.867  | 115.156 |
| 2016                | 105.067    | 0.930  | 1.282  | 112.936 | 86.158       | 0.803  | 1.095  | 107.337 |
| <b>PALM SPRINGS</b> |            |        |        |         |              |        |        |         |
| 2007                | 179.753    | 1.235  | 1.303  | 145.499 | 133.823      | 1.125  | 1.149  | 118.977 |
| 2008                | 170.541    | 1.506  | 2.405  | 113.251 | 144.142      | 1.400  | 2.213  | 102.984 |
| 2009                | 151.662    | 1.106  | 1.905  | 137.079 | 140.027      | 1.047  | 1.824  | 133.722 |
| 2010                | 180.688    | 1.039  | 1.367  | 173.826 | 162.059      | 0.940  | 1.148  | 172.391 |
| 2011                | 164.765    | 0.886  | 1.182  | 186.029 | 144.131      | 0.842  | 1.117  | 171.272 |
| 2012                | 175.916    | 1.267  | 1.505  | 138.814 | 113.848      | 1.130  | 1.236  | 100.717 |
| 2013                | 112.796    | 0.774  | 0.997  | 145.669 | 112.193      | 0.769  | 0.997  | 145.815 |
| 2014                | 106.960    | 0.708  | 0.941  | 151.072 | 95.065       | 0.667  | 0.885  | 142.620 |
| 2015                | 99.542     | 0.800  | 1.042  | 124.376 | 95.795       | 0.753  | 0.949  | 127.171 |
| 2016                | 107.581    | 1.066  | 1.281  | 100.909 | 101.363      | 1.010  | 1.133  | 100.351 |
| <b>REDLANDS</b>     |            |        |        |         |              |        |        |         |
| 2007                | 180.766    | 1.563  | 2.168  | 115.679 | 93.598       | 1.093  | 1.533  | 85.666  |
| 2008                | 103.674    | 0.911  | 1.602  | 113.832 | 93.720       | 0.842  | 1.477  | 111.282 |
| 2009                | 107.204    | 0.895  | 1.469  | 119.732 | 87.582       | 0.807  | 1.221  | 108.514 |
| 2010                | 216.759    | 1.692  | 3.207  | 128.121 | 95.898       | 1.332  | 2.692  | 71.988  |
| 2011                | 253.703    | 1.630  | 1.323  | 155.689 | 142.273      | 1.428  | 1.244  | 99.628  |
| 2012                | 120.127    | 1.108  | 1.600  | 108.399 | 114.781      | 1.068  | 1.563  | 107.435 |
| 2013                | 96.481     | 1.044  | 0.911  | 92.410  | 95.273       | 1.036  | 0.908  | 91.977  |
| 2014                | 154.227    | 1.040  | 1.312  | 148.311 | 85.520       | 0.872  | 1.149  | 98.024  |
| 2015                | 124.519    | 1.012  | 1.467  | 122.990 | 102.289      | 0.935  | 1.247  | 109.365 |
| 2016                | 137.110    | 0.978  | 1.475  | 140.164 | 118.776      | 0.883  | 1.336  | 134.494 |
| <b>RIDGECREST</b>   |            |        |        |         |              |        |        |         |
| 2007                | 82.358     | 0.724  | 3.358  | 113.726 | 68.306       | 0.583  | 3.155  | 117.120 |
| 2008                | 167.192    | 1.423  | 3.184  | 117.455 | 163.869      | 1.414  | 3.179  | 115.856 |
| 2009                | 58.339     | 0.684  | 3.343  | 85.234  | 40.758       | 0.501  | 2.586  | 81.374  |
| 2010                | 153.378    | 1.410  | 2.219  | 108.746 | 151.176      | 1.394  | 1.850  | 108.443 |
| 2011                | 89.261     | 0.737  | 4.140  | 121.196 | 67.647       | 0.528  | 3.916  | 128.124 |
| 2012                | 229.646    | 1.439  | 3.738  | 159.634 | 228.264      | 1.421  | 3.711  | 160.656 |
| 2013                | 161.952    | 1.122  | 3.828  | 144.376 | 83.920       | 0.824  | 3.315  | 101.793 |
| 2014                | 176.795    | 1.573  | 2.193  | 112.388 | 167.746      | 1.509  | 2.180  | 111.181 |
| 2015                | 148.895    | 1.012  | 2.169  | 147.145 | 139.509      | 0.837  | 1.514  | 166.702 |
| 2016                | 254.311    | 1.048  | 1.283  | 242.667 | 249.209      | 0.941  | 1.160  | 264.837 |
| <b>SADDLEBACK</b>   |            |        |        |         |              |        |        |         |
| 2007                | 199.589    | 1.219  | 0.649  | 163.703 | 129.098      | 0.898  | 0.495  | 143.750 |
| 2008                | 89.743     | 0.925  | 0.572  | 97.007  | 84.923       | 0.874  | 0.567  | 97.138  |
| 2009                | 78.986     | 0.697  | 0.486  | 113.254 | 77.683       | 0.686  | 0.481  | 113.193 |
| 2010                | 137.236    | 0.962  | 0.433  | 142.663 | 96.192       | 0.778  | 0.373  | 123.677 |
| 2011                | 75.942     | 0.547  | 0.818  | 138.842 | 74.783       | 0.527  | 0.753  | 141.934 |
| 2012                | 83.013     | 0.728  | 0.766  | 113.998 | 81.379       | 0.715  | 0.765  | 113.864 |
| 2013                | 70.688     | 0.532  | 0.513  | 132.957 | 70.688       | 0.532  | 0.513  | 132.957 |
| 2014                | 99.074     | 0.745  | 0.556  | 133.025 | 92.899       | 0.708  | 0.549  | 131.230 |
| 2015                | 46.026     | 0.385  | 0.379  | 119.543 | 45.654       | 0.384  | 0.379  | 118.976 |
| 2016                | 65.991     | 0.646  | 0.780  | 102.225 | 62.466       | 0.602  | 0.739  | 103.695 |
| <b>SAN JOAQUIN</b>  |            |        |        |         |              |        |        |         |
| 2007                | 104.148    | 1.692  | 2.125  | 61.550  | 101.996      | 1.664  | 2.001  | 61.299  |
| 2008                | 102.285    | 1.010  | 2.105  | 101.290 | 93.741       | 0.984  | 2.026  | 95.232  |
| 2009                | 96.592     | 0.906  | 2.087  | 106.555 | 93.243       | 0.867  | 2.030  | 107.524 |
| 2010                | 126.684    | 1.043  | 1.642  | 121.481 | 98.341       | 0.932  | 1.503  | 105.567 |
| 2011                | 83.994     | 0.743  | 1.387  | 113.010 | 75.838       | 0.712  | 1.301  | 106.565 |
| 2012                | 135.897    | 1.044  | 1.455  | 130.115 | 123.112      | 1.005  | 1.290  | 122.504 |
| 2013                | 244.439    | 1.448  | 1.698  | 168.757 | 71.744       | 0.800  | 1.548  | 89.668  |
| 2014                | 137.738    | 1.164  | 1.519  | 118.285 | 93.658       | 0.997  | 1.303  | 93.949  |
| 2015                | 127.502    | 1.052  | 1.414  | 121.240 | 99.829       | 0.908  | 1.106  | 109.936 |
| 2016                | 108.444    | 1.091  | 1.105  | 99.370  | 101.822      | 1.040  | 1.082  | 97.895  |

| DISTRICT             | All Outage |        |        |         | MED Excluded |        |        |         |
|----------------------|------------|--------|--------|---------|--------------|--------|--------|---------|
|                      | dSAIDI     | dSAIFI | dMAIFI | dCAIDI  | dSAIDI       | dSAIFI | dMAIFI | dCAIDI  |
| <b>SANTA ANA</b>     |            |        |        |         |              |        |        |         |
| 2007                 | 106.614    | 0.938  | 1.416  | 113.614 | 57.627       | 0.543  | 1.111  | 106.104 |
| 2008                 | 77.542     | 0.681  | 0.943  | 113.881 | 73.380       | 0.649  | 0.852  | 113.109 |
| 2009                 | 67.833     | 0.600  | 0.800  | 113.062 | 59.543       | 0.536  | 0.755  | 111.017 |
| 2010                 | 104.571    | 0.810  | 1.012  | 129.134 | 69.073       | 0.610  | 0.837  | 113.185 |
| 2011                 | 102.008    | 0.816  | 1.104  | 125.033 | 93.837       | 0.778  | 1.068  | 120.566 |
| 2012                 | 78.602     | 0.554  | 1.115  | 141.767 | 78.305       | 0.553  | 1.065  | 141.491 |
| 2013                 | 93.345     | 0.742  | 1.019  | 125.854 | 93.345       | 0.742  | 1.019  | 125.854 |
| 2014                 | 91.651     | 0.843  | 1.274  | 108.710 | 79.414       | 0.755  | 1.179  | 105.222 |
| 2015                 | 67.457     | 0.706  | 1.130  | 95.596  | 66.452       | 0.703  | 1.109  | 94.562  |
| 2016                 | 97.266     | 0.995  | 1.184  | 97.732  | 88.311       | 0.938  | 1.112  | 94.132  |
| <b>SANTA BARBARA</b> |            |        |        |         |              |        |        |         |
| 2007                 | 203.183    | 1.524  | 2.779  | 133.333 | 153.322      | 1.315  | 2.595  | 116.594 |
| 2008                 | 535.533    | 6.309  | 3.588  | 84.883  | 336.797      | 5.121  | 2.604  | 65.764  |
| 2009                 | 178.865    | 1.798  | 1.371  | 99.468  | 173.897      | 1.756  | 1.210  | 99.033  |
| 2010                 | 151.187    | 1.008  | 2.228  | 149.999 | 138.640      | 0.888  | 1.887  | 156.212 |
| 2011                 | 104.820    | 0.866  | 1.727  | 121.045 | 94.368       | 0.811  | 1.635  | 116.427 |
| 2012                 | 153.813    | 1.148  | 1.673  | 133.954 | 149.352      | 1.127  | 1.456  | 132.567 |
| 2013                 | 82.001     | 0.699  | 1.219  | 117.302 | 82.001       | 0.699  | 1.219  | 117.302 |
| 2014                 | 181.231    | 1.335  | 2.549  | 135.717 | 145.165      | 1.141  | 2.012  | 127.238 |
| 2015                 | 152.372    | 1.517  | 1.577  | 100.417 | 143.291      | 1.338  | 1.459  | 107.103 |
| 2016                 | 156.665    | 1.411  | 1.464  | 111.029 | 130.007      | 1.269  | 1.249  | 102.442 |
| <b>SANTA MONICA</b>  |            |        |        |         |              |        |        |         |
| 2007                 | 73.447     | 0.688  | 1.246  | 106.823 | 65.785       | 0.636  | 1.148  | 103.516 |
| 2008                 | 60.490     | 0.800  | 1.211  | 75.635  | 53.518       | 0.755  | 1.163  | 70.847  |
| 2009                 | 86.226     | 0.655  | 1.187  | 131.696 | 82.128       | 0.629  | 1.145  | 130.473 |
| 2010                 | 98.323     | 0.894  | 1.124  | 109.948 | 73.036       | 0.689  | 1.054  | 105.987 |
| 2011                 | 95.085     | 0.583  | 1.476  | 162.996 | 83.791       | 0.537  | 1.177  | 155.914 |
| 2012                 | 101.687    | 0.792  | 0.911  | 128.436 | 98.428       | 0.769  | 0.890  | 127.913 |
| 2013                 | 122.783    | 1.003  | 0.959  | 122.447 | 122.783      | 1.003  | 0.959  | 122.447 |
| 2014                 | 110.742    | 0.992  | 0.852  | 111.609 | 106.656      | 0.943  | 0.772  | 113.131 |
| 2015                 | 75.407     | 0.625  | 1.069  | 120.681 | 64.417       | 0.577  | 1.065  | 111.607 |
| 2016                 | 91.084     | 0.948  | 1.210  | 96.130  | 89.110       | 0.933  | 1.131  | 95.493  |
| <b>SOUTH BAY</b>     |            |        |        |         |              |        |        |         |
| 2007                 | 112.887    | 0.890  | 1.376  | 126.844 | 100.205      | 0.803  | 1.201  | 124.836 |
| 2008                 | 110.983    | 1.074  | 2.058  | 103.324 | 93.443       | 0.937  | 1.817  | 99.722  |
| 2009                 | 158.299    | 1.156  | 1.814  | 136.881 | 135.003      | 1.007  | 1.627  | 134.053 |
| 2010                 | 190.924    | 1.206  | 1.836  | 158.299 | 136.407      | 0.938  | 1.533  | 145.392 |
| 2011                 | 178.724    | 1.347  | 1.481  | 132.690 | 141.550      | 1.207  | 1.169  | 117.293 |
| 2012                 | 122.682    | 1.174  | 1.713  | 104.516 | 120.710      | 1.153  | 1.630  | 104.694 |
| 2013                 | 142.153    | 1.490  | 1.448  | 95.391  | 142.153      | 1.490  | 1.448  | 95.391  |
| 2014                 | 125.154    | 1.390  | 1.650  | 90.009  | 110.254      | 1.281  | 1.502  | 86.094  |
| 2015                 | 164.072    | 1.305  | 1.660  | 125.704 | 160.399      | 1.272  | 1.613  | 126.136 |
| 2016                 | 183.899    | 1.884  | 2.020  | 97.600  | 150.901      | 1.752  | 1.818  | 86.124  |
| <b>TEHACHAPI</b>     |            |        |        |         |              |        |        |         |
| 2007                 | 150.805    | 1.643  | 3.564  | 91.800  | 136.131      | 1.150  | 2.833  | 118.390 |
| 2008                 | 538.562    | 3.013  | 2.695  | 178.746 | 475.358      | 2.737  | 2.517  | 173.697 |
| 2009                 | 168.038    | 2.010  | 3.482  | 83.614  | 155.009      | 1.915  | 3.413  | 80.957  |
| 2010                 | 434.015    | 3.232  | 6.291  | 134.268 | 220.369      | 2.573  | 4.677  | 85.639  |
| 2011                 | 231.229    | 1.814  | 3.190  | 127.454 | 177.911      | 1.694  | 2.582  | 105.026 |
| 2012                 | 117.963    | 1.434  | 1.495  | 82.262  | 117.963      | 1.434  | 1.495  | 82.262  |
| 2013                 | 232.672    | 1.121  | 1.661  | 207.634 | 232.333      | 1.102  | 1.638  | 210.815 |
| 2014                 | 130.704    | 1.290  | 2.090  | 101.348 | 83.519       | 1.097  | 1.783  | 76.126  |
| 2015                 | 298.959    | 1.215  | 3.960  | 246.114 | 236.807      | 1.037  | 2.513  | 228.329 |
| 2016                 | 97.292     | 1.132  | 2.363  | 85.982  | 76.426       | 1.036  | 1.940  | 73.781  |
| <b>THOUSAND OAKS</b> |            |        |        |         |              |        |        |         |
| 2007                 | 220.594    | 2.003  | 2.563  | 110.107 | 124.524      | 1.454  | 1.973  | 85.662  |
| 2008                 | 129.109    | 1.418  | 2.273  | 91.031  | 124.425      | 1.377  | 2.168  | 90.364  |
| 2009                 | 103.160    | 0.987  | 1.850  | 104.469 | 98.658       | 0.948  | 1.833  | 104.026 |
| 2010                 | 124.263    | 1.366  | 1.567  | 91.002  | 92.331       | 0.815  | 1.435  | 113.243 |
| 2011                 | 146.687    | 1.145  | 1.928  | 128.129 | 121.175      | 1.008  | 1.732  | 120.168 |
| 2012                 | 127.732    | 1.049  | 1.196  | 121.739 | 118.833      | 0.991  | 1.161  | 119.968 |
| 2013                 | 93.860     | 0.914  | 1.164  | 102.735 | 93.846       | 0.913  | 1.154  | 102.755 |
| 2014                 | 104.172    | 1.102  | 1.426  | 94.537  | 95.331       | 1.013  | 1.287  | 94.150  |
| 2015                 | 106.589    | 0.919  | 1.893  | 115.938 | 103.685      | 0.889  | 1.845  | 116.643 |
| 2016                 | 143.775    | 1.307  | 2.585  | 110.021 | 128.242      | 1.227  | 2.378  | 104.484 |

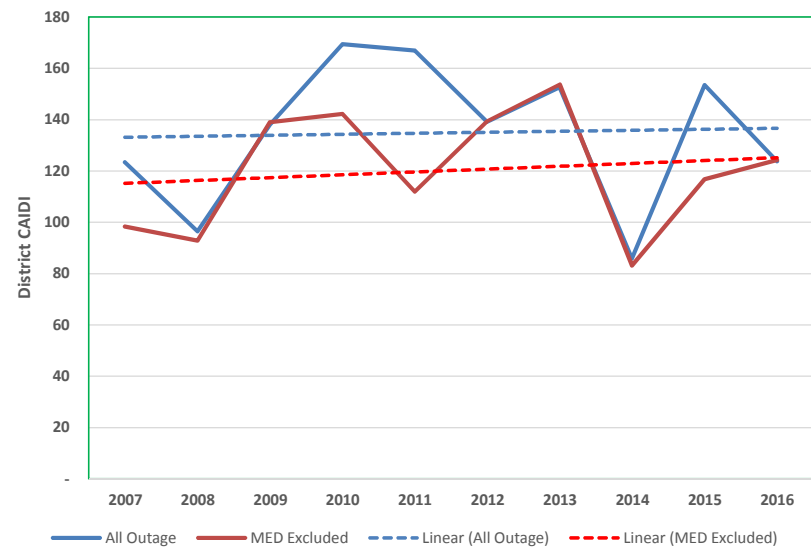
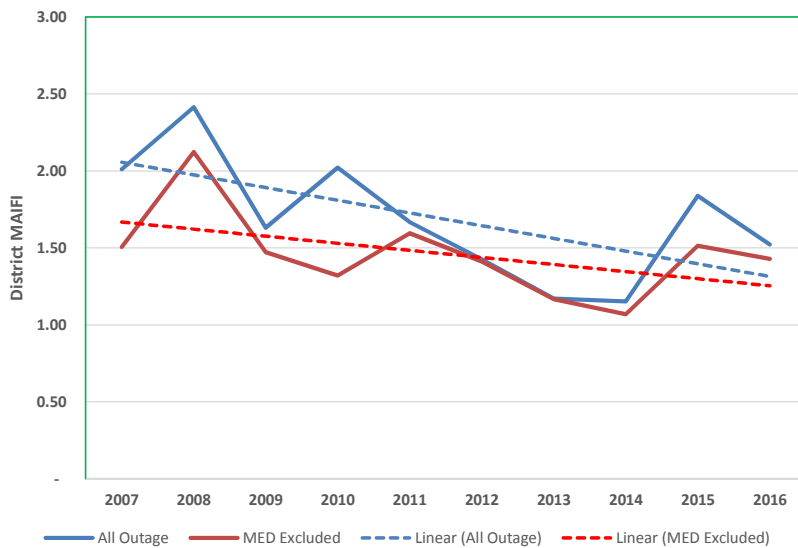
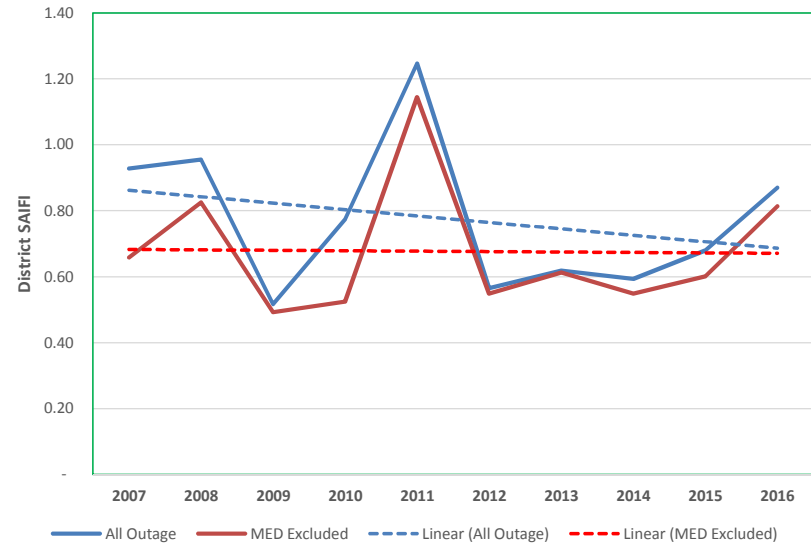
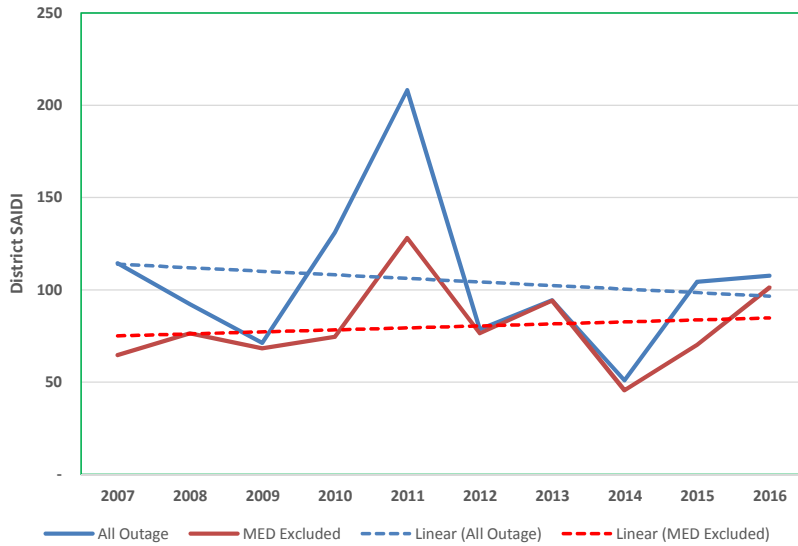
| DISTRICT            | All Outage |        |        |         | MED Excluded |        |        |         |
|---------------------|------------|--------|--------|---------|--------------|--------|--------|---------|
|                     | dSAIDI     | dSAIFI | dMAIFI | dCAIDI  | dSAIDI       | dSAIFI | dMAIFI | dCAIDI  |
| <b>VALENCIA</b>     |            |        |        |         |              |        |        |         |
| 2007                | 169.421    | 1.307  | 1.789  | 129.631 | 121.751      | 1.152  | 1.592  | 105.659 |
| 2008                | 154.448    | 1.283  | 1.280  | 120.341 | 144.819      | 1.251  | 1.209  | 115.786 |
| 2009                | 101.701    | 0.812  | 1.519  | 125.209 | 101.368      | 0.800  | 1.400  | 126.765 |
| 2010                | 117.815    | 0.806  | 2.195  | 146.239 | 103.447      | 0.698  | 2.114  | 148.275 |
| 2011                | 130.855    | 1.036  | 1.412  | 126.276 | 119.058      | 0.986  | 1.379  | 120.768 |
| 2012                | 62.009     | 0.462  | 1.134  | 134.286 | 61.595       | 0.461  | 1.133  | 133.738 |
| 2013                | 50.940     | 0.532  | 0.683  | 95.801  | 50.940       | 0.532  | 0.683  | 95.801  |
| 2014                | 79.216     | 0.605  | 0.998  | 130.876 | 63.729       | 0.533  | 0.935  | 119.499 |
| 2015                | 72.274     | 0.611  | 0.971  | 118.224 | 71.053       | 0.604  | 0.845  | 117.624 |
| 2016                | 105.087    | 0.968  | 1.549  | 108.594 | 97.405       | 0.846  | 1.522  | 115.187 |
| <b>VENTURA</b>      |            |        |        |         |              |        |        |         |
| 2007                | 169.318    | 2.122  | 2.200  | 79.777  | 119.020      | 1.836  | 1.548  | 64.814  |
| 2008                | 134.882    | 1.334  | 2.421  | 101.125 | 118.631      | 1.162  | 2.308  | 102.103 |
| 2009                | 112.422    | 1.288  | 1.743  | 87.292  | 106.956      | 1.242  | 1.651  | 86.140  |
| 2010                | 182.739    | 1.720  | 2.279  | 106.240 | 144.070      | 1.345  | 2.103  | 107.099 |
| 2011                | 167.849    | 2.247  | 1.561  | 74.683  | 139.680      | 2.112  | 1.337  | 66.150  |
| 2012                | 134.807    | 1.155  | 1.507  | 116.752 | 128.528      | 1.140  | 1.469  | 112.780 |
| 2013                | 100.521    | 1.210  | 1.417  | 83.104  | 100.504      | 1.210  | 1.417  | 83.093  |
| 2014                | 183.769    | 1.648  | 2.215  | 111.528 | 151.635      | 1.386  | 2.075  | 109.381 |
| 2015                | 148.848    | 1.190  | 1.447  | 125.112 | 141.430      | 1.149  | 1.375  | 123.110 |
| 2016                | 150.408    | 1.236  | 1.679  | 121.649 | 107.140      | 1.019  | 1.553  | 105.110 |
| <b>VICTORVILLE</b>  |            |        |        |         |              |        |        |         |
| 2007                | 76.182     | 1.022  | 1.498  | 74.522  | 66.404       | 0.959  | 1.295  | 69.233  |
| 2008                | 136.461    | 1.248  | 3.540  | 109.335 | 110.202      | 1.111  | 2.872  | 99.232  |
| 2009                | 61.926     | 0.644  | 1.607  | 96.147  | 52.591       | 0.550  | 1.384  | 95.565  |
| 2010                | 96.446     | 1.008  | 2.081  | 95.727  | 67.510       | 0.610  | 1.368  | 110.738 |
| 2011                | 196.846    | 1.008  | 2.153  | 195.358 | 82.406       | 0.791  | 1.877  | 104.144 |
| 2012                | 67.698     | 0.662  | 1.775  | 102.224 | 57.567       | 0.584  | 1.606  | 98.647  |
| 2013                | 61.333     | 0.632  | 1.312  | 97.109  | 61.010       | 0.620  | 1.179  | 98.380  |
| 2014                | 68.830     | 0.633  | 0.896  | 108.709 | 67.680       | 0.620  | 0.877  | 109.146 |
| 2015                | 87.026     | 0.906  | 1.839  | 96.063  | 72.897       | 0.812  | 1.551  | 89.751  |
| 2016                | 79.352     | 0.917  | 1.396  | 86.493  | 75.943       | 0.888  | 1.327  | 85.547  |
| <b>WHITTIER</b>     |            |        |        |         |              |        |        |         |
| 2007                | 106.778    | 0.542  | 1.147  | 196.856 | 48.283       | 0.443  | 0.953  | 108.987 |
| 2008                | 85.700     | 0.643  | 1.211  | 133.258 | 84.682       | 0.640  | 1.194  | 132.415 |
| 2009                | 74.921     | 0.530  | 0.987  | 141.419 | 64.929       | 0.499  | 0.949  | 129.996 |
| 2010                | 101.330    | 0.696  | 1.127  | 145.626 | 74.586       | 0.572  | 1.023  | 130.480 |
| 2011                | 99.736     | 0.749  | 1.187  | 133.093 | 91.881       | 0.724  | 1.122  | 126.855 |
| 2012                | 72.597     | 0.742  | 1.383  | 97.877  | 72.304       | 0.719  | 1.312  | 100.597 |
| 2013                | 135.043    | 0.859  | 1.055  | 157.172 | 135.043      | 0.859  | 1.055  | 157.172 |
| 2014                | 87.600     | 0.704  | 1.155  | 124.399 | 84.188       | 0.689  | 1.090  | 122.157 |
| 2015                | 114.520    | 0.733  | 1.084  | 156.317 | 104.851      | 0.704  | 0.989  | 148.883 |
| 2016                | 137.336    | 0.814  | 1.416  | 168.756 | 90.212       | 0.616  | 1.290  | 146.361 |
| <b>WILDOMAR</b>     |            |        |        |         |              |        |        |         |
| 2007                | 79.900     | 0.650  | 1.528  | 122.950 | 53.080       | 0.514  | 0.895  | 103.294 |
| 2008                | 65.200     | 0.612  | 0.908  | 106.550 | 58.950       | 0.556  | 0.872  | 105.992 |
| 2009                | 59.707     | 1.484  | 0.998  | 40.246  | 52.853       | 1.368  | 0.839  | 38.632  |
| 2010                | 127.124    | 1.122  | 1.565  | 113.258 | 79.888       | 0.881  | 1.172  | 90.656  |
| 2011                | 109.406    | 1.219  | 1.225  | 89.739  | 108.810      | 1.210  | 1.197  | 89.923  |
| 2012                | 88.539     | 0.725  | 0.805  | 122.193 | 87.186       | 0.690  | 0.756  | 126.346 |
| 2013                | 40.512     | 0.555  | 0.656  | 72.932  | 40.122       | 0.554  | 0.656  | 72.407  |
| 2014                | 118.493    | 0.806  | 0.743  | 147.031 | 112.300      | 0.772  | 0.683  | 145.548 |
| 2015                | 52.699     | 0.597  | 1.255  | 88.256  | 48.313       | 0.566  | 1.054  | 85.401  |
| 2016                | 84.010     | 0.866  | 0.951  | 97.031  | 79.151       | 0.839  | 0.861  | 94.378  |
| <b>YUCCA VALLEY</b> |            |        |        |         |              |        |        |         |
| 2007                | 159.042    | 1.394  | 9.133  | 114.111 | 119.392      | 1.210  | 7.705  | 98.694  |
| 2008                | 465.373    | 2.789  | 10.074 | 166.836 | 351.816      | 2.018  | 7.137  | 174.382 |
| 2009                | 192.279    | 1.158  | 3.193  | 165.979 | 189.316      | 1.151  | 3.140  | 164.451 |
| 2010                | 307.670    | 3.017  | 5.167  | 101.994 | 235.893      | 2.370  | 4.016  | 99.547  |
| 2011                | 436.441    | 2.163  | 6.922  | 201.767 | 354.867      | 1.966  | 5.598  | 180.481 |
| 2012                | 319.821    | 3.413  | 7.170  | 93.708  | 250.377      | 2.806  | 5.467  | 89.239  |
| 2013                | 216.972    | 1.500  | 4.983  | 144.620 | 216.966      | 1.500  | 4.983  | 144.626 |
| 2014                | 304.182    | 1.490  | 4.856  | 204.146 | 293.662      | 1.407  | 4.851  | 208.750 |
| 2015                | 389.085    | 1.804  | 3.922  | 215.688 | 260.176      | 1.189  | 2.708  | 218.766 |
| 2016                | 463.683    | 3.393  | 3.875  | 136.661 | 440.057      | 3.257  | 3.106  | 135.131 |

- b. The linear charts below shows the past 10 years of dSAIDI, dSAIFI, dMAIFI and dCAIDI for all 35 districts. There are separate charts including and excluding MED. The charts shown are listed in district name alphabetical order.



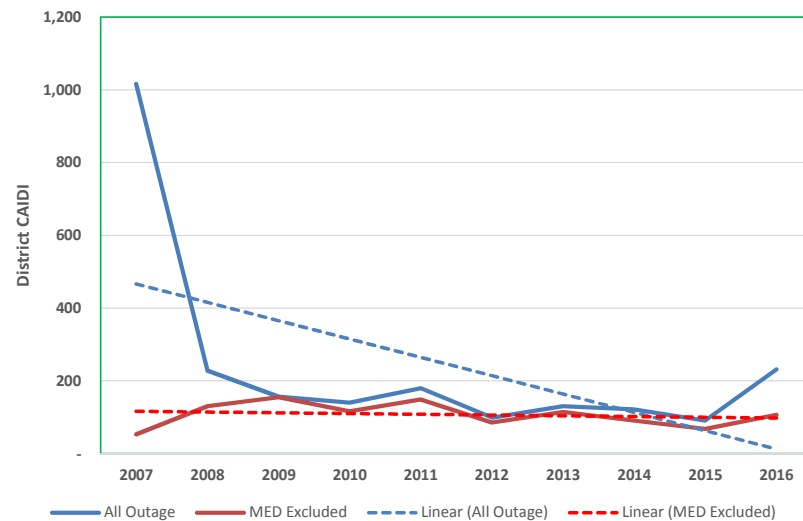
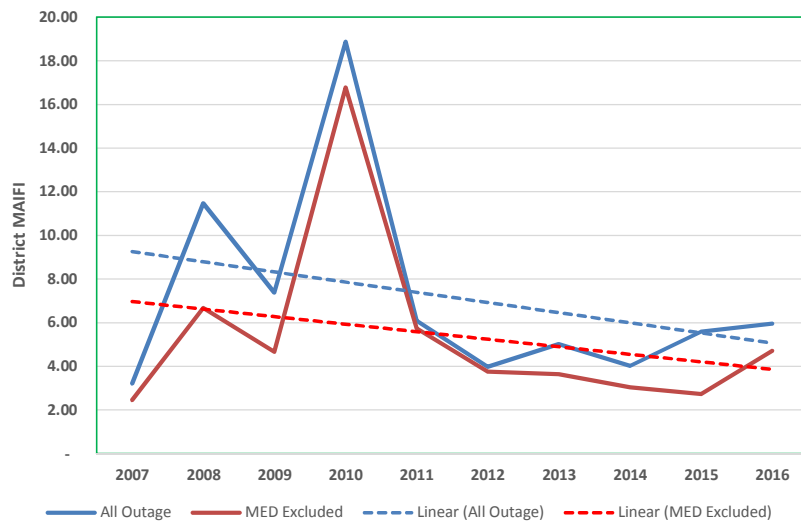
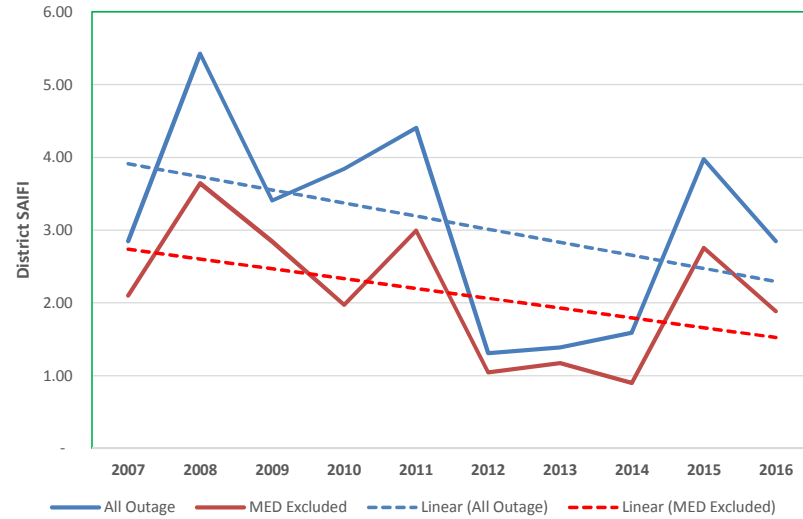
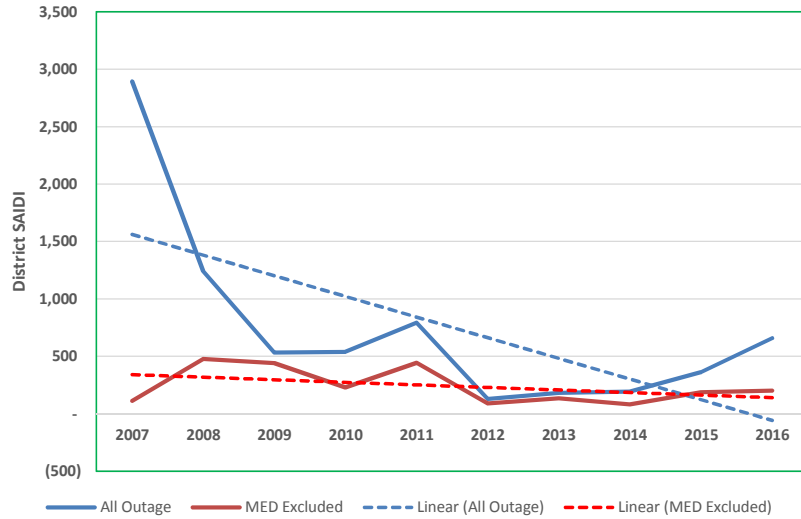
## 2007 -2016 District Reliability Graphs

### ANTELOPE VALLEY District Reliability Performance



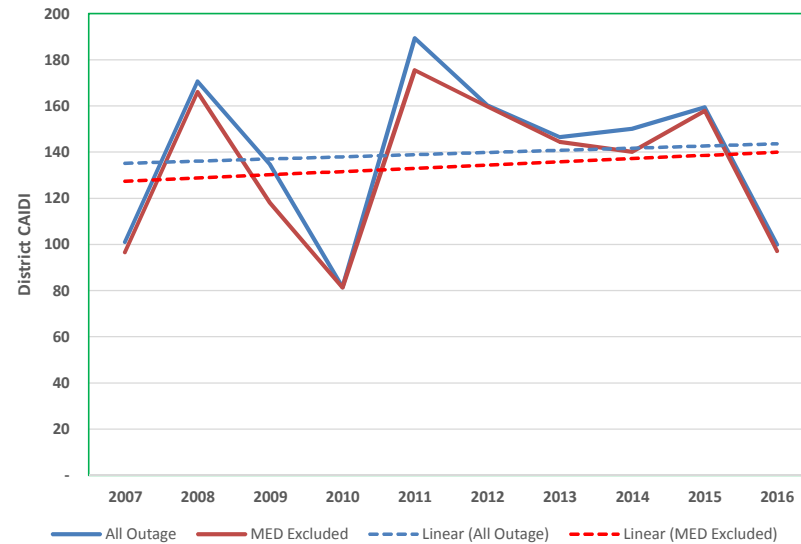
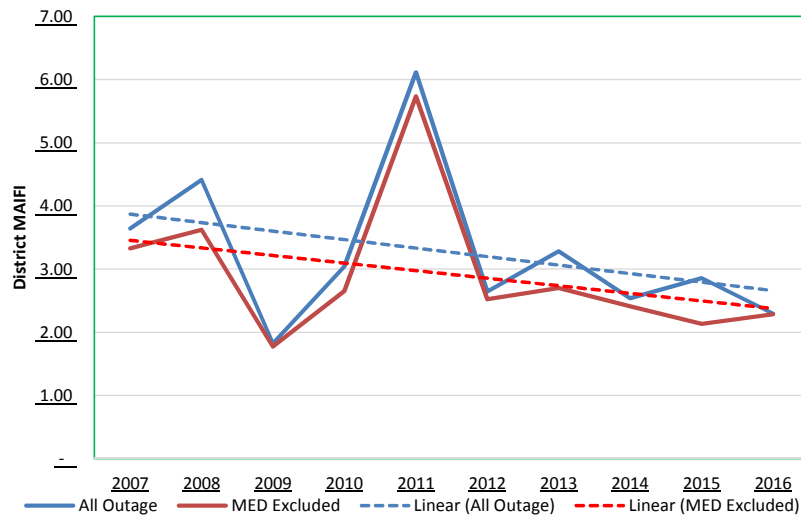
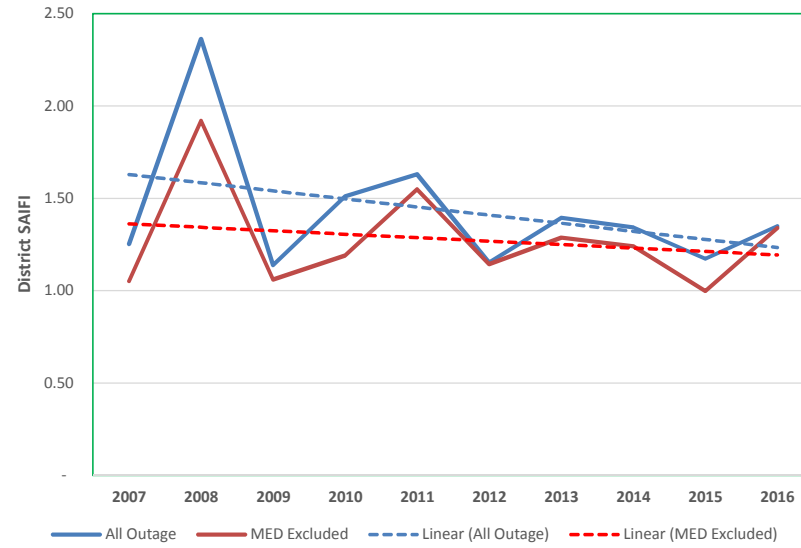
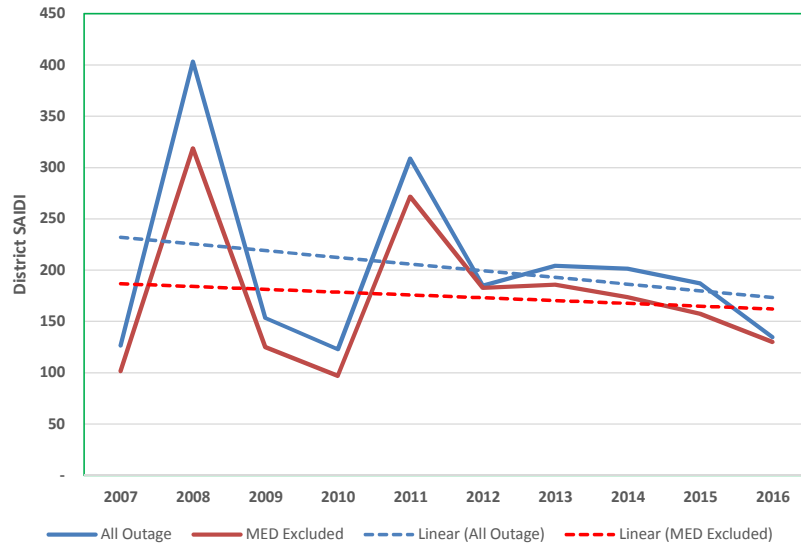
## 2007 -2016 District Reliability Graphs

### ARROWHEAD District Reliability Performance



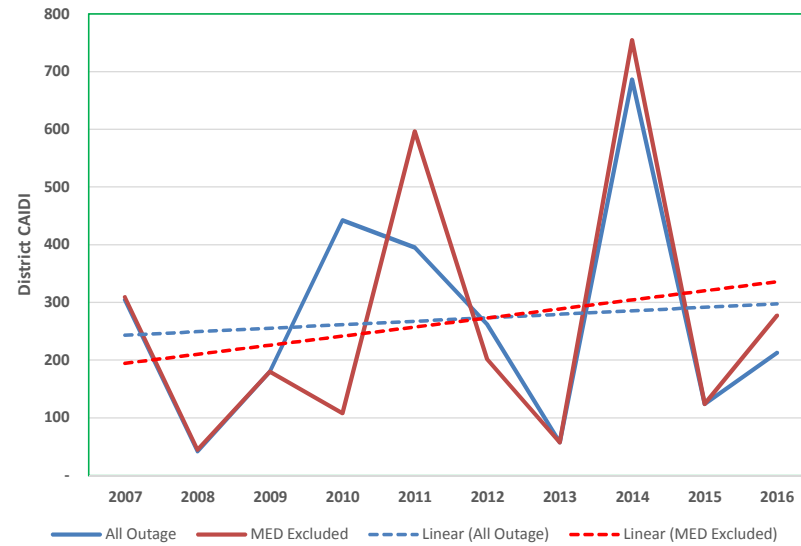
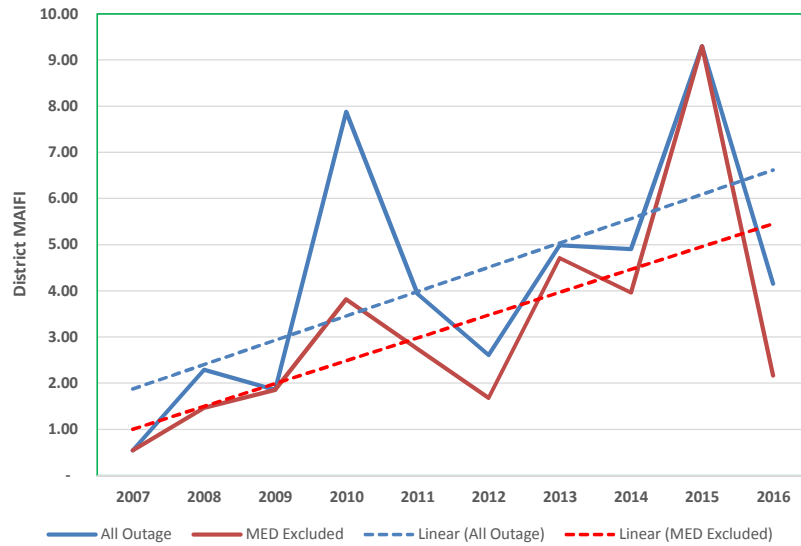
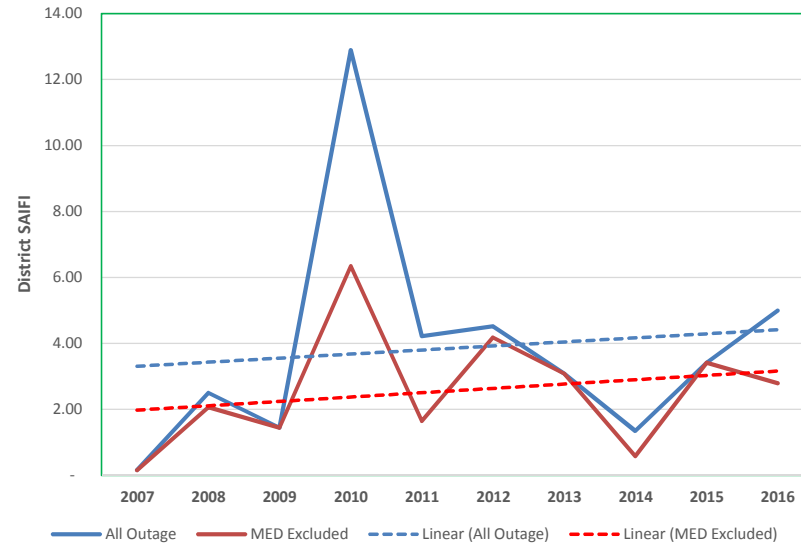
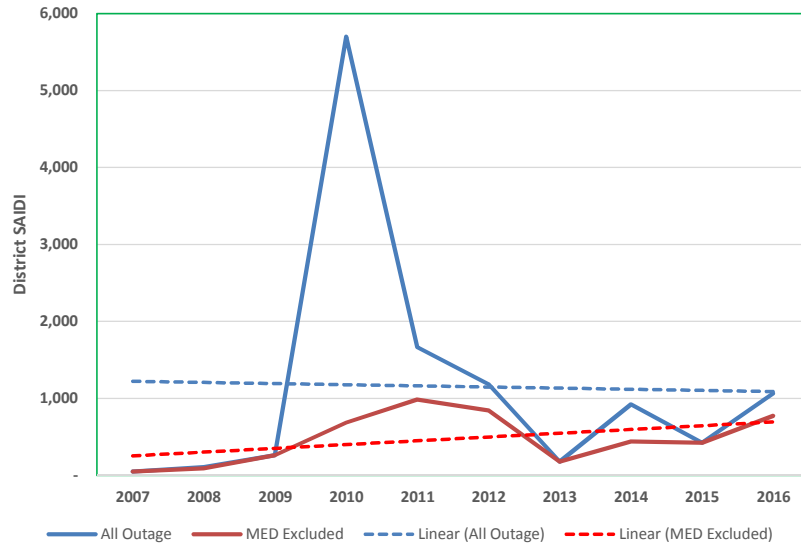
## 2007 -2016 District Reliability Graphs

### BARSTOW District Reliability Performance



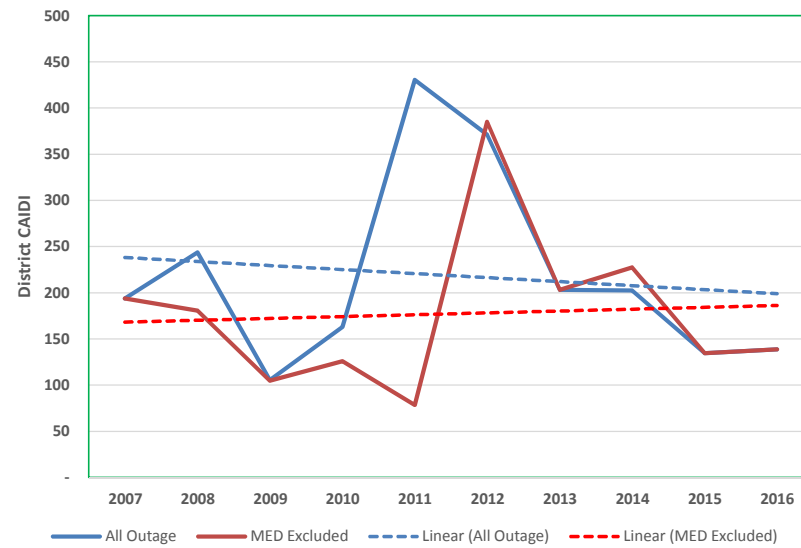
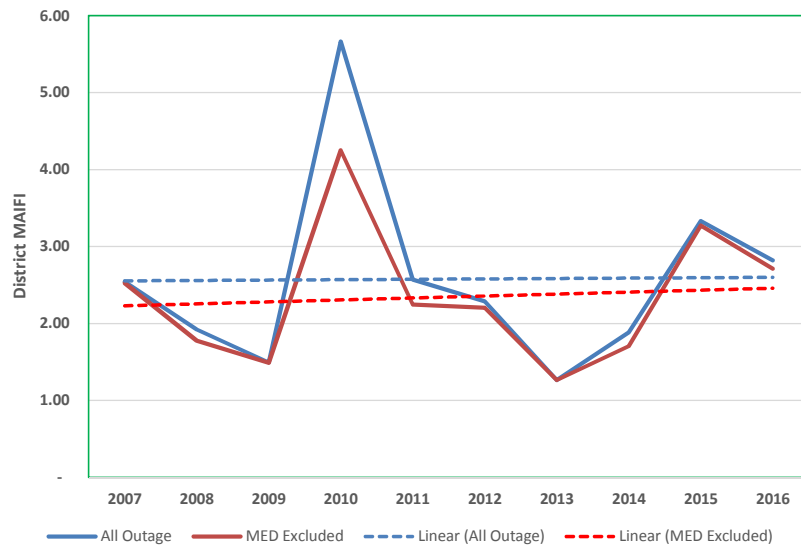
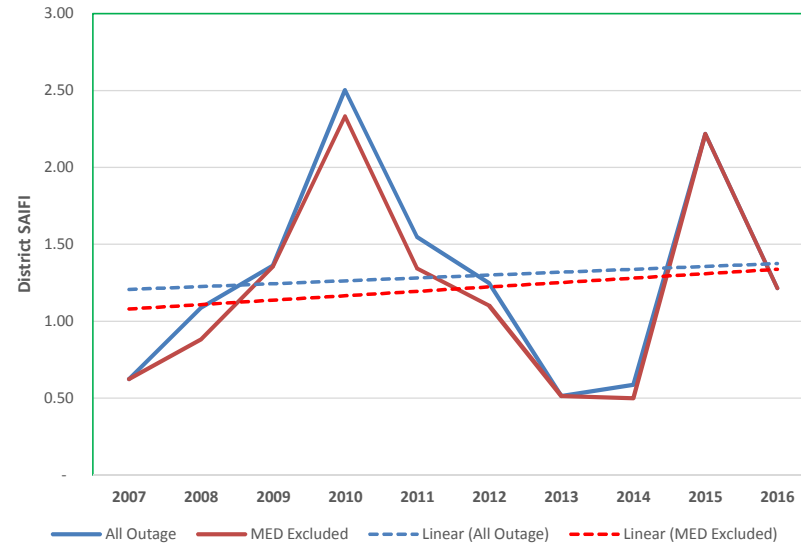
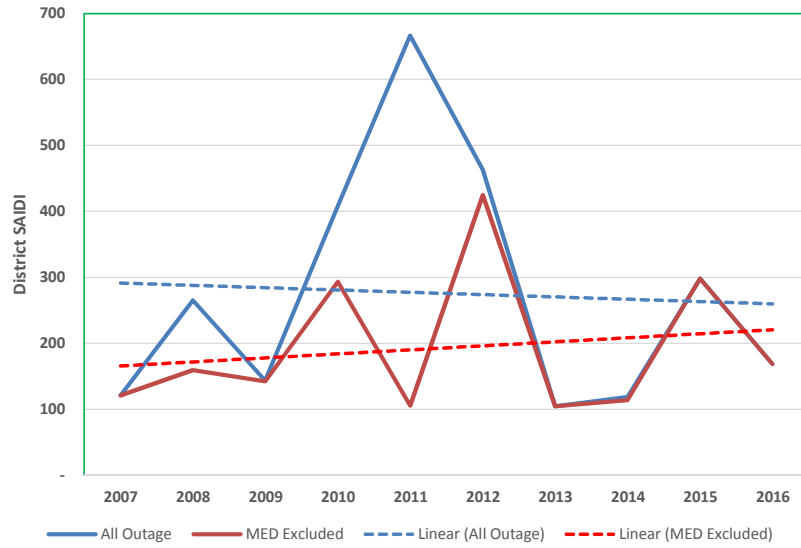
## 2007 -2016 District Reliability Graphs

### BIG CREEK District Reliability Performance



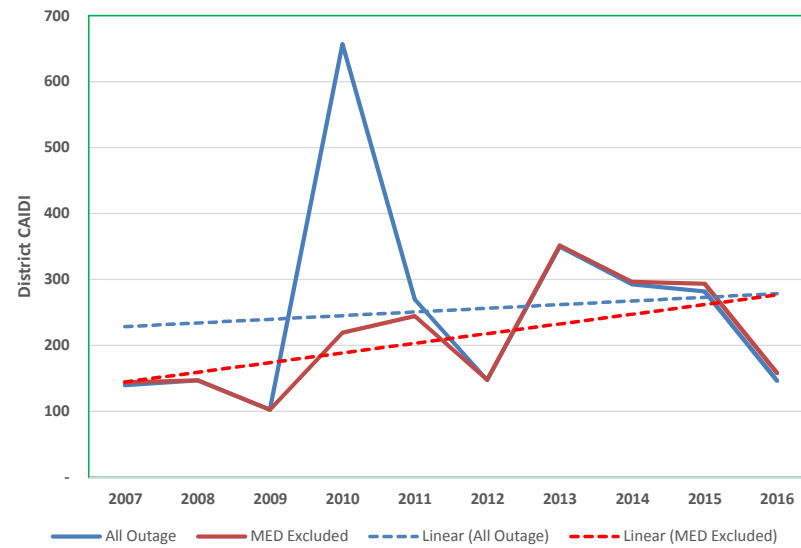
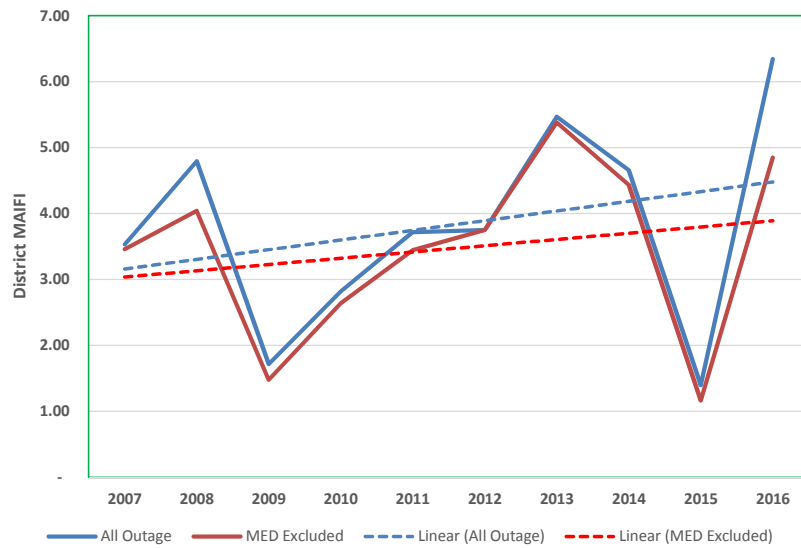
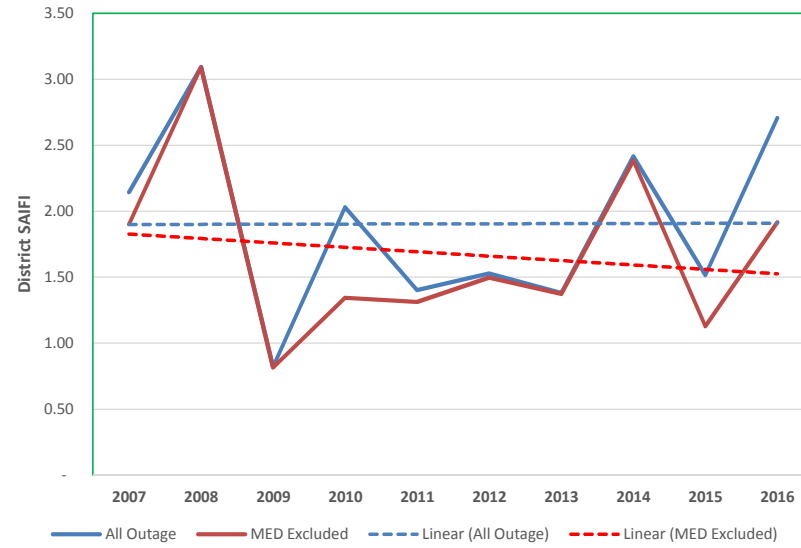
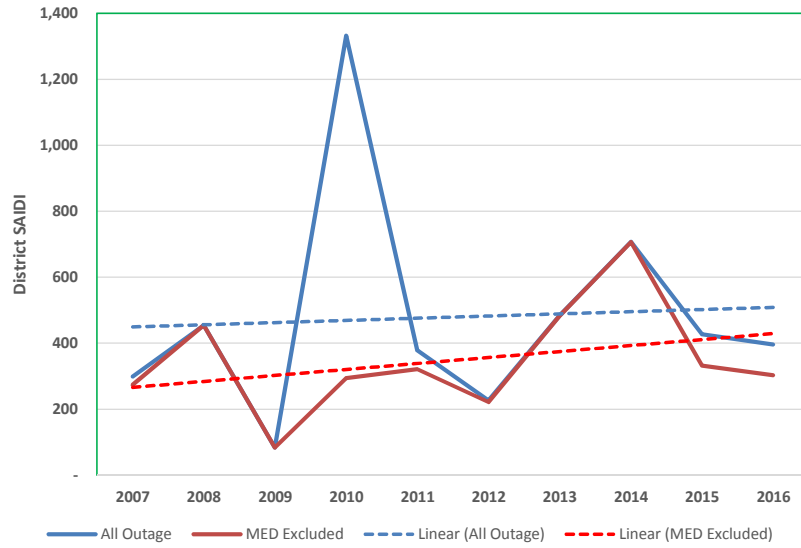
## 2007 -2016 District Reliability Graphs

### BISHOP District Reliability Performance



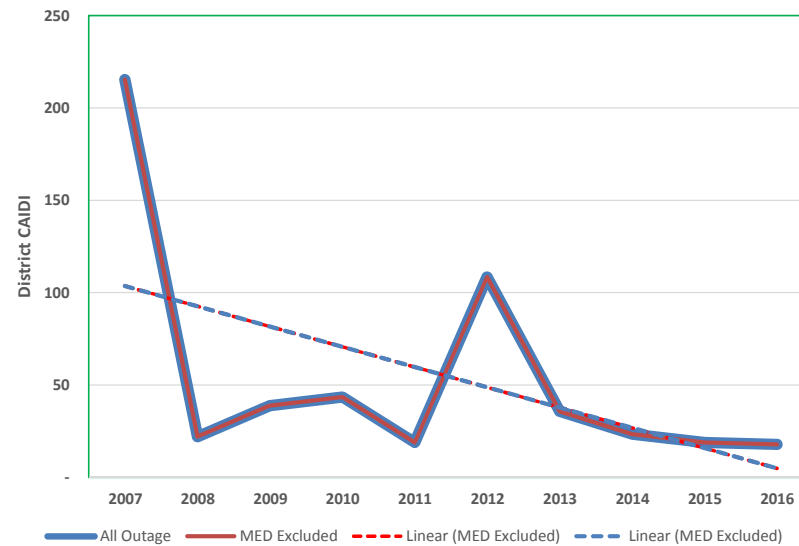
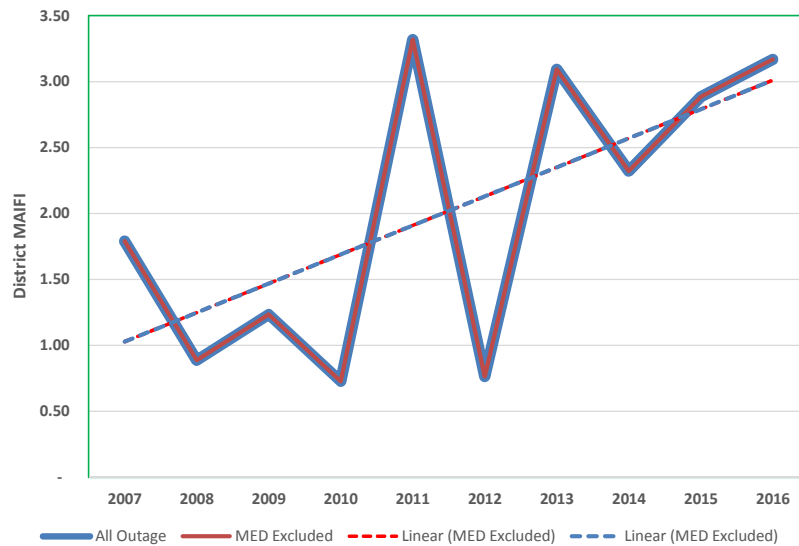
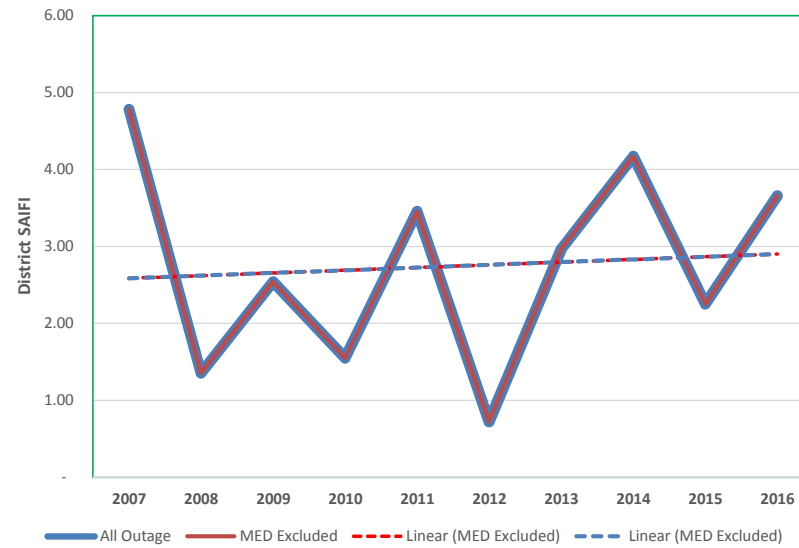
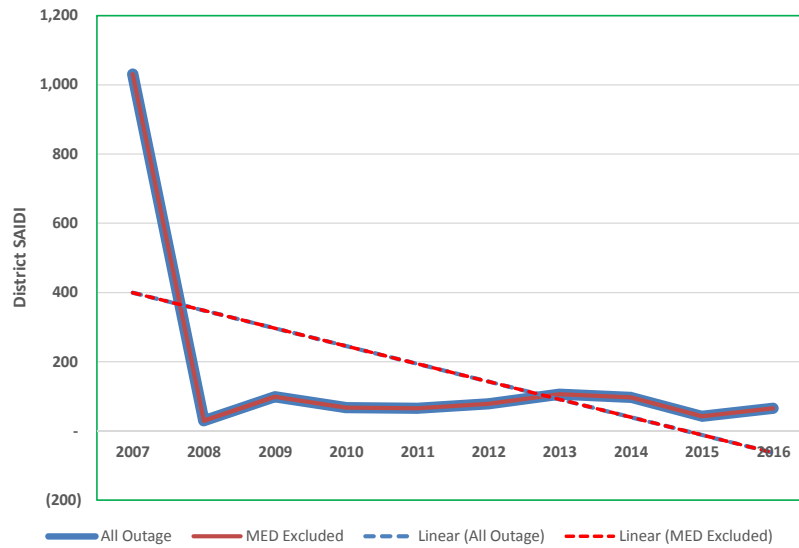
## 2007 -2016 District Reliability Graphs

### BLYTHE District Reliability Performance



## 2007 -2016 District Reliability Graphs

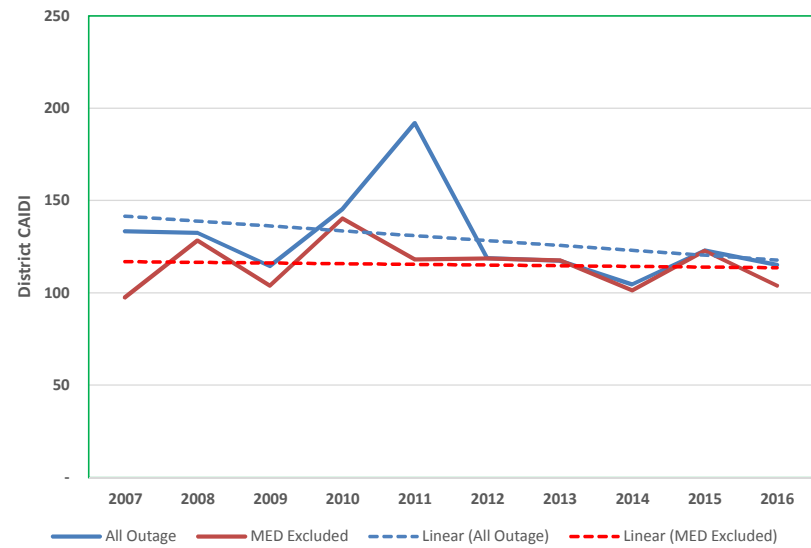
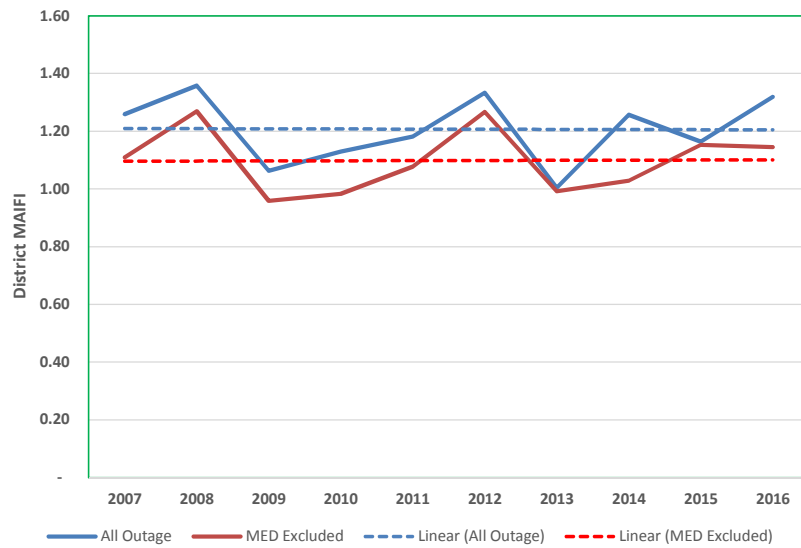
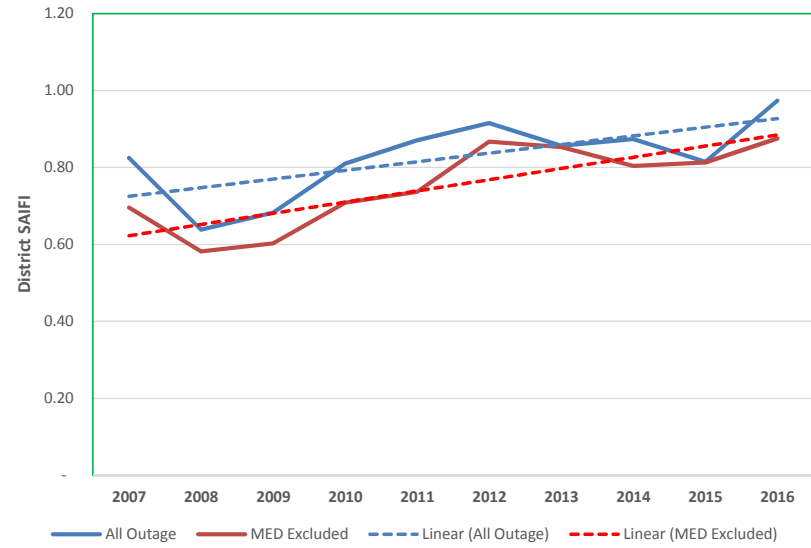
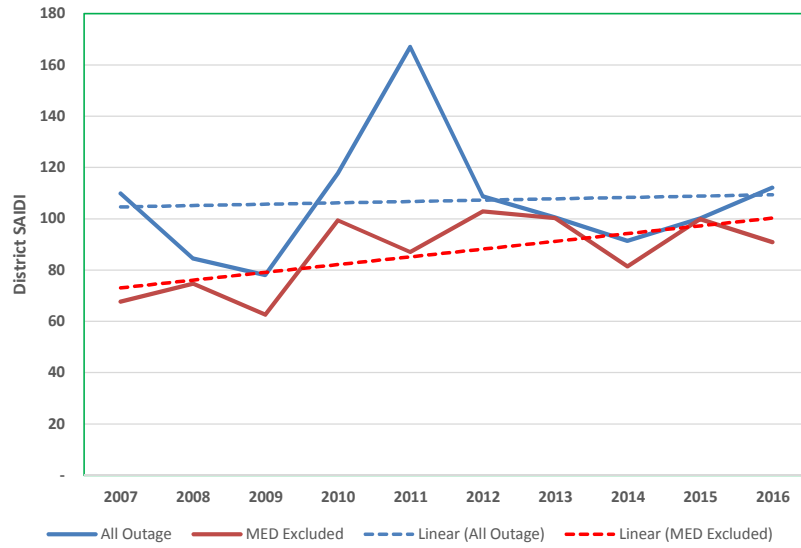
### CATALINA District Reliability Performance



Note: For Catalina, all outage and MED excluded outage data is exactly the same. Catalina did not experience any outages on Major Event Days. For line data to be able to appear clearly in the charts above, the line thickness were increased in size.

## 2007 -2016 District Reliability Graphs

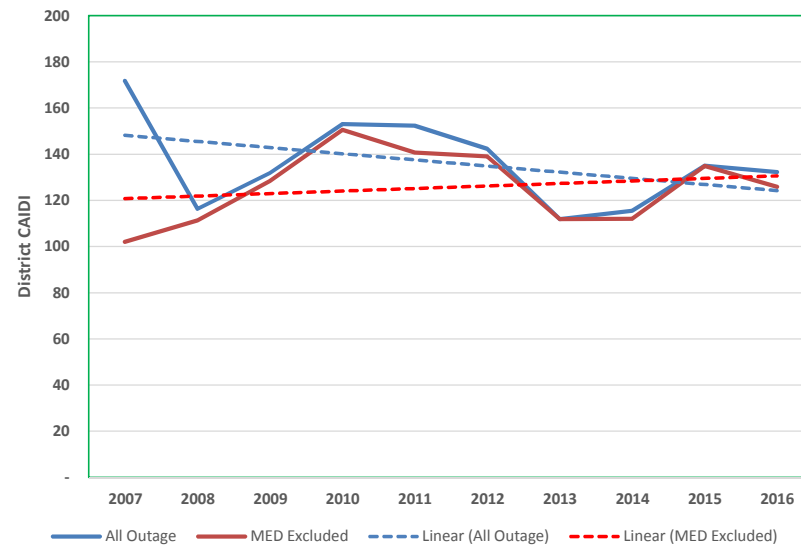
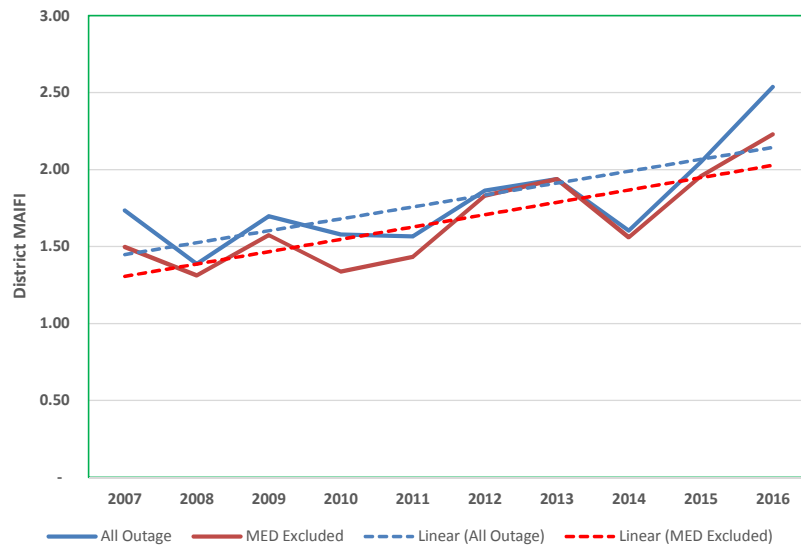
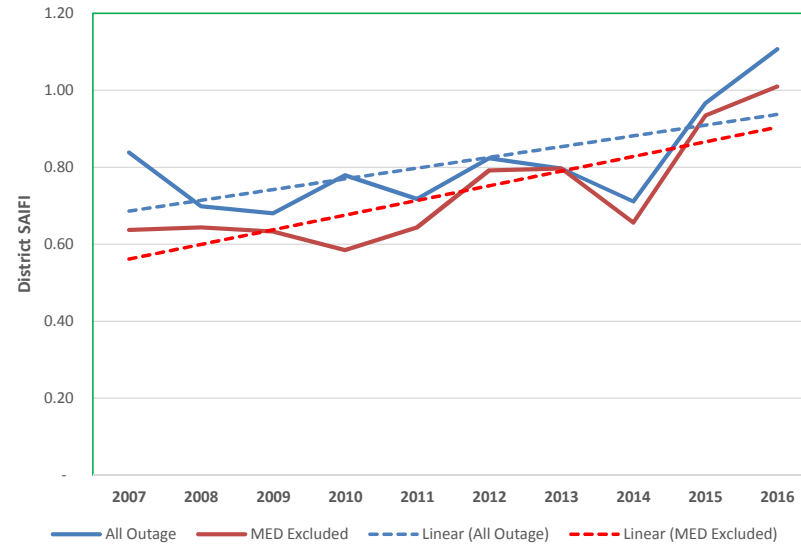
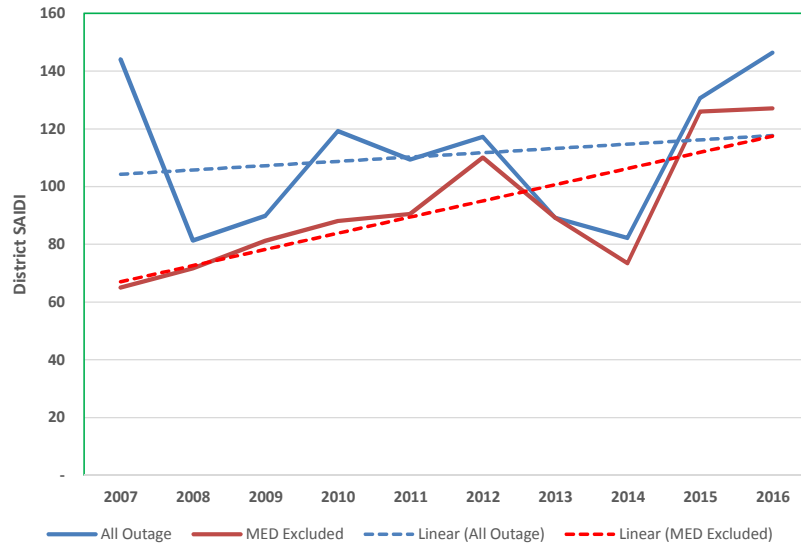
### COVINA District Reliability Performance





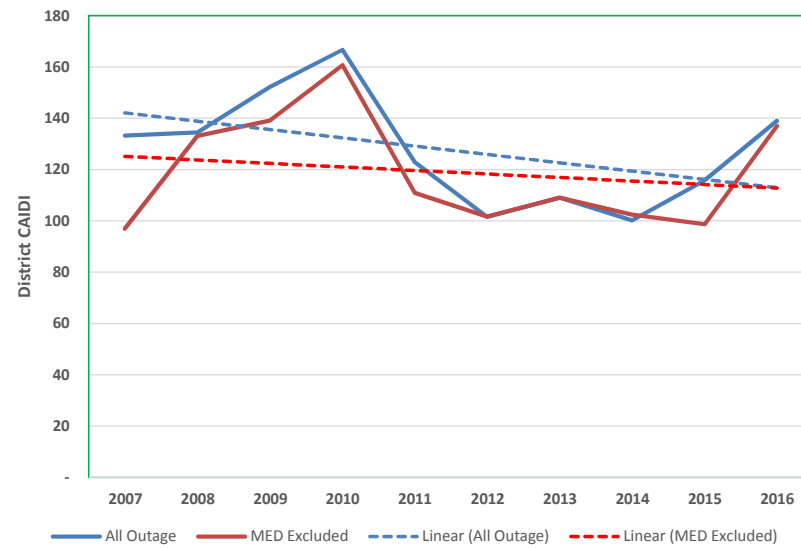
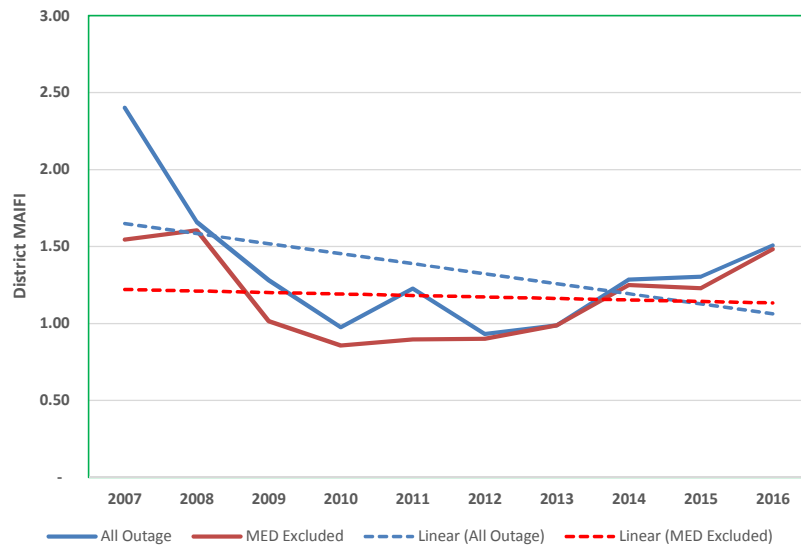
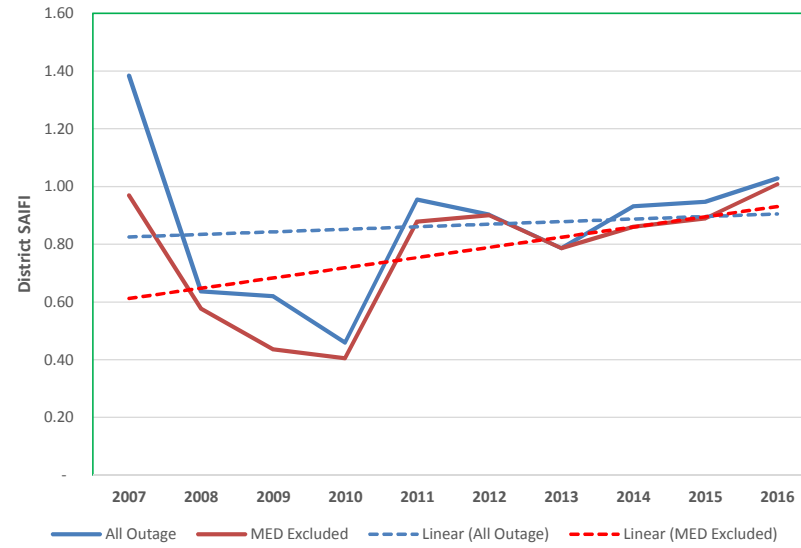
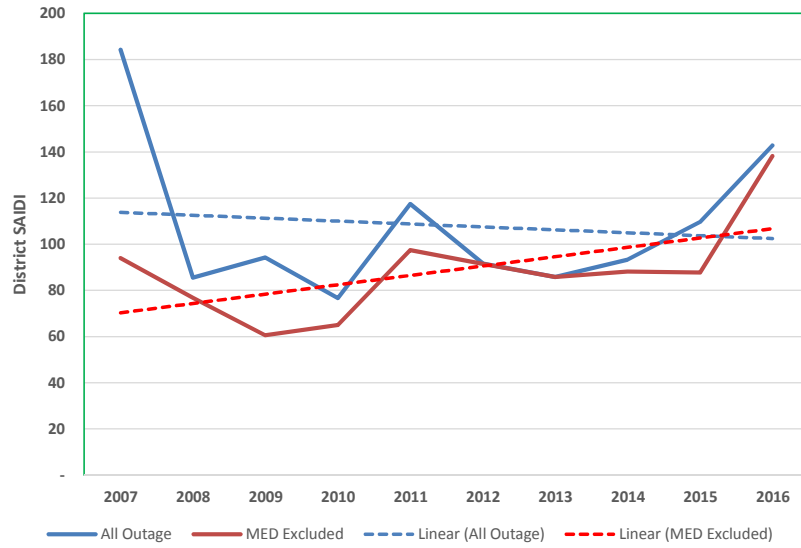
## 2007 -2016 District Reliability Graphs

### DOMINGUEZ HILLS District Reliability Performance



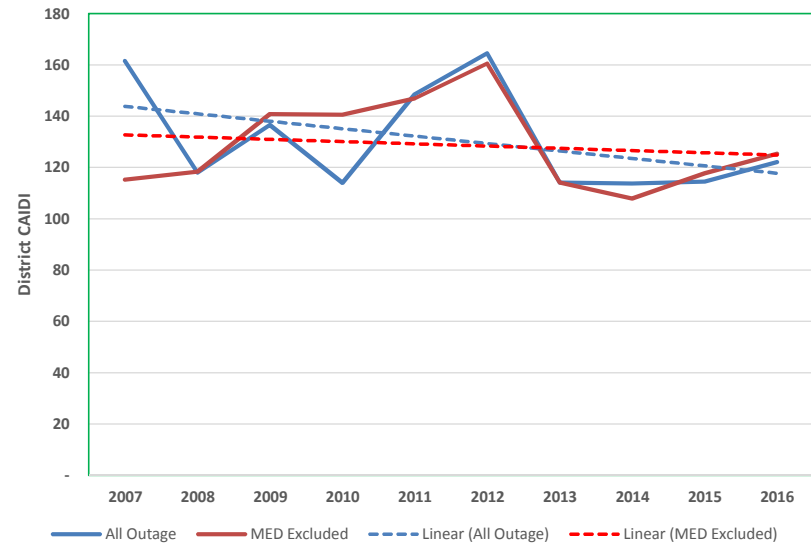
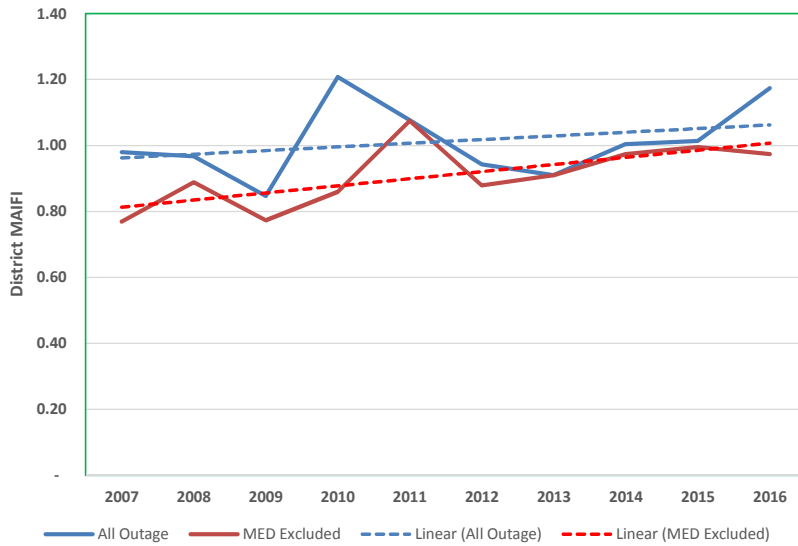
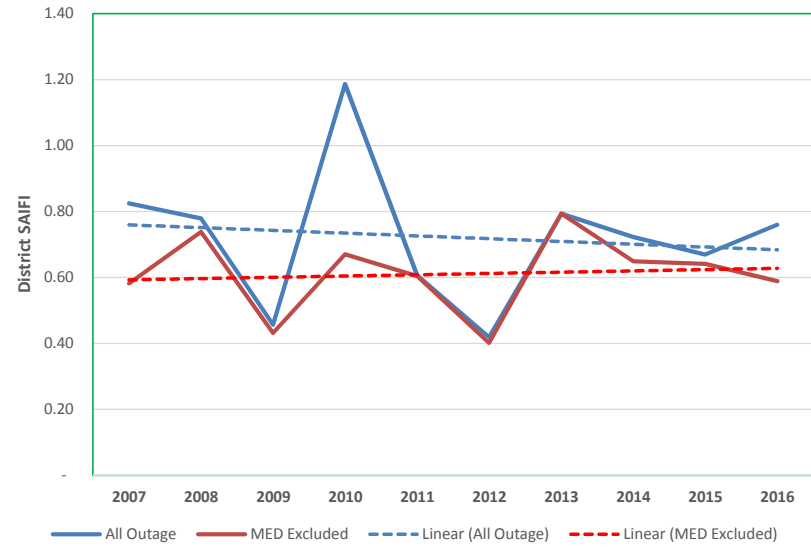
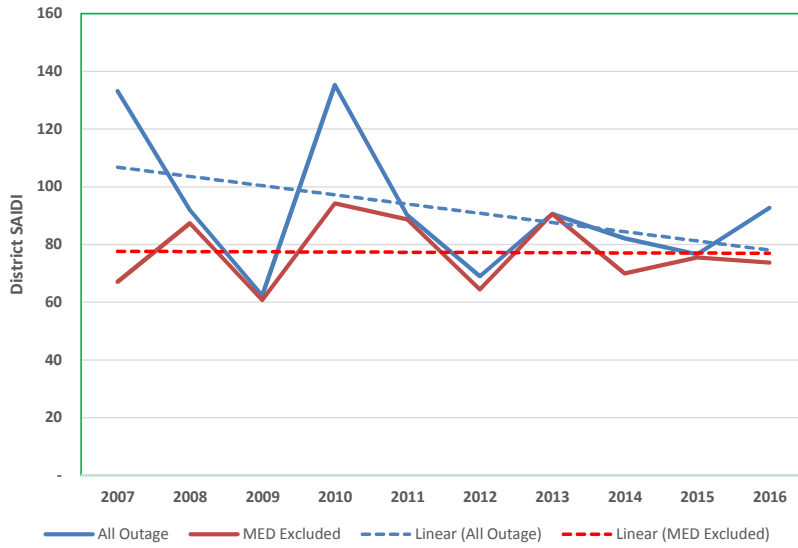
## 2007 -2016 District Reliability Graphs

### FOOTHILL District Reliability Performance



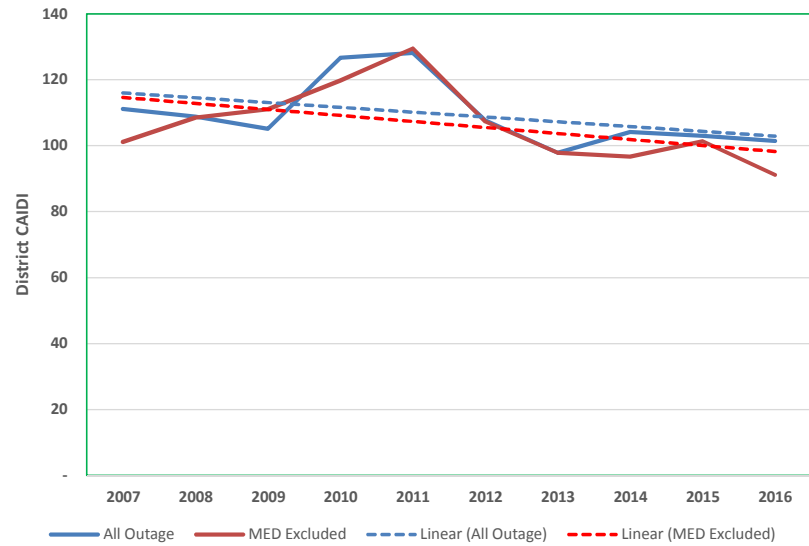
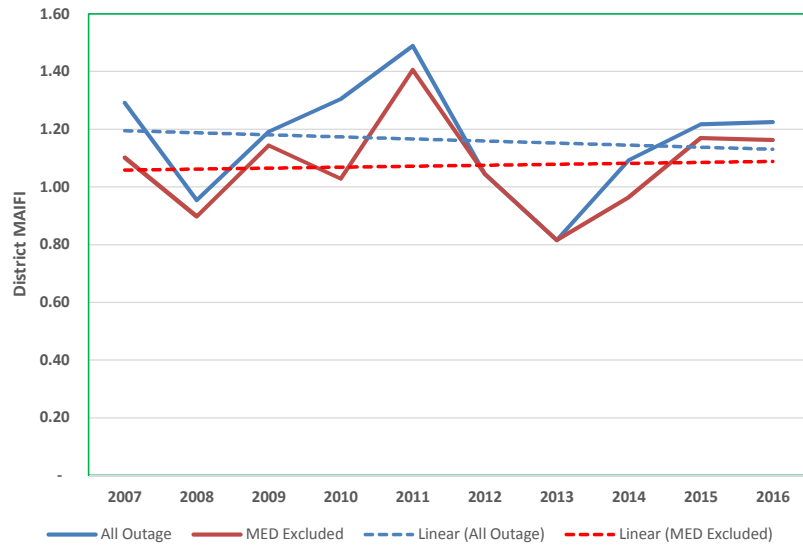
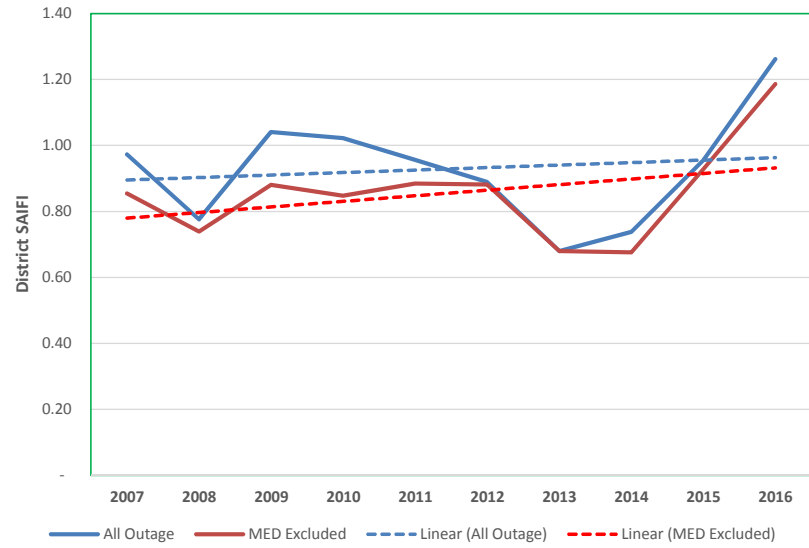
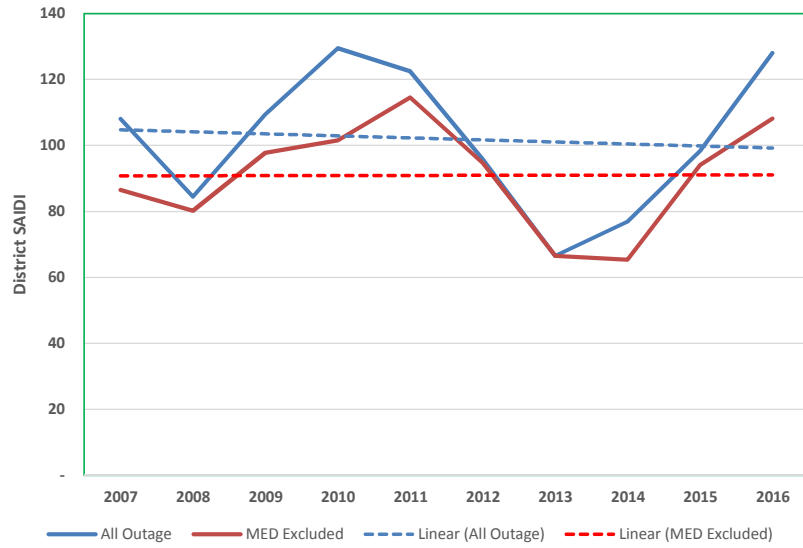
## 2007 -2016 District Reliability Graphs

### FULLERTON District Reliability Performance



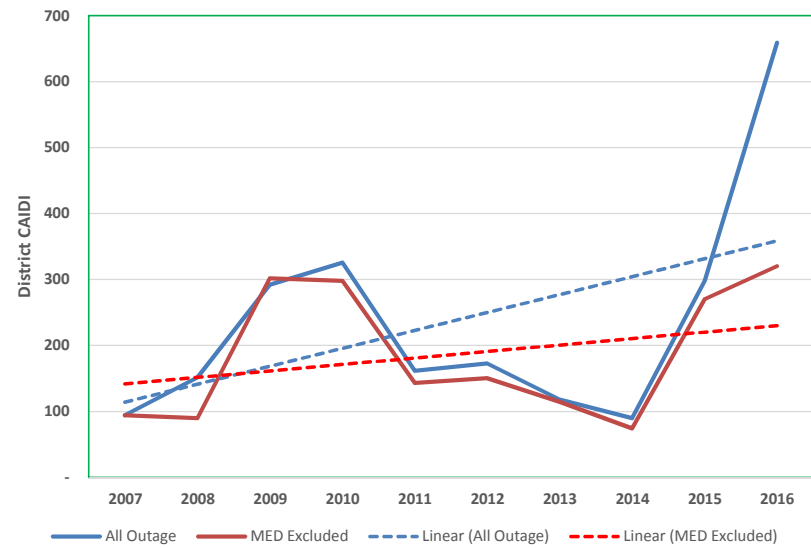
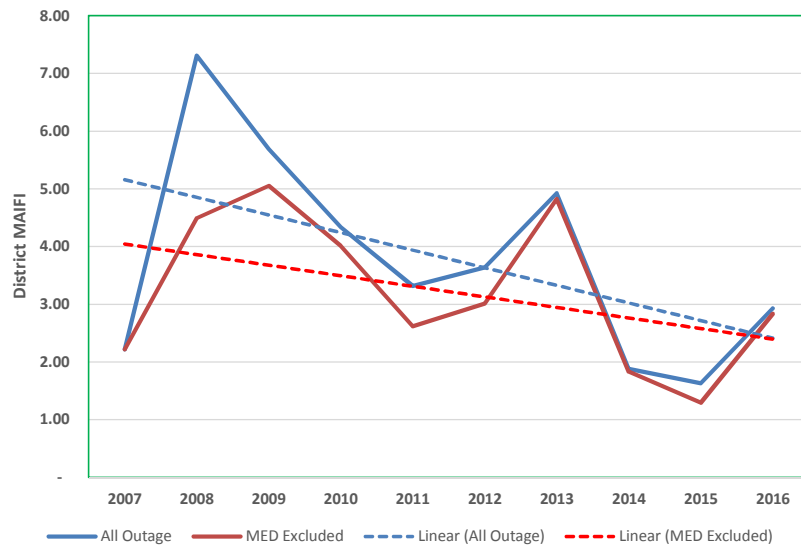
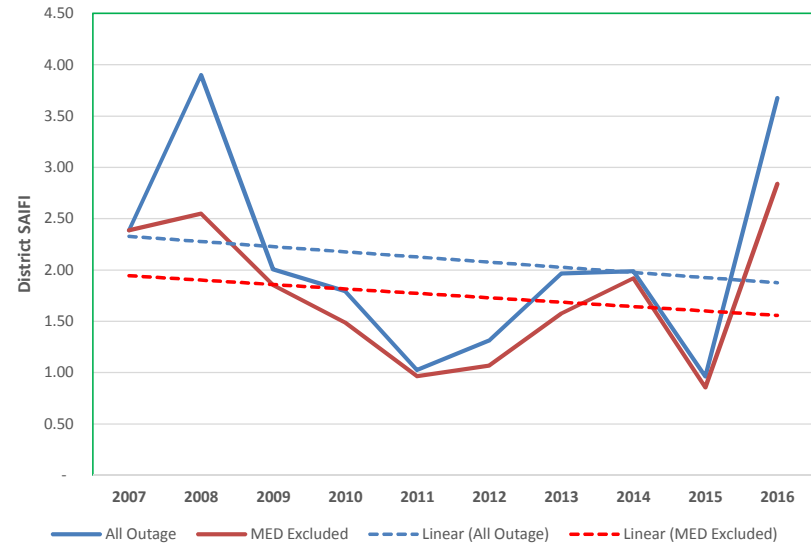
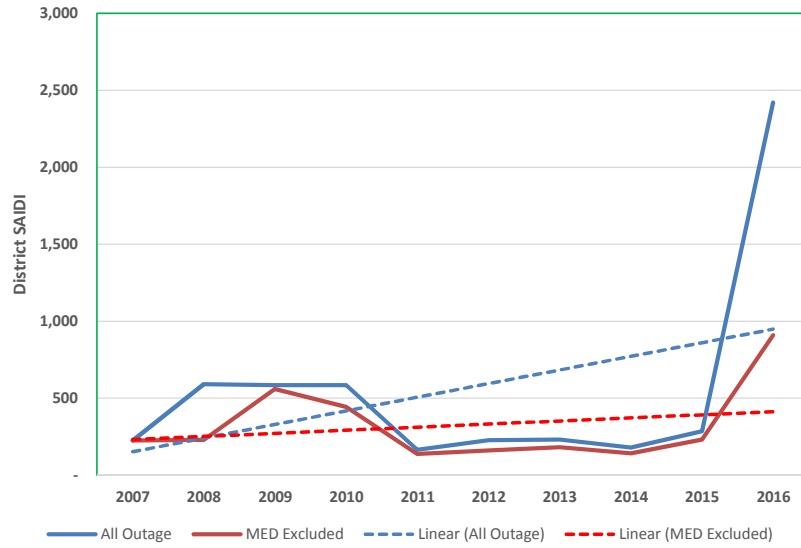
## 2007 -2016 District Reliability Graphs

### HUNTINGTON BEACH District Reliability Performance



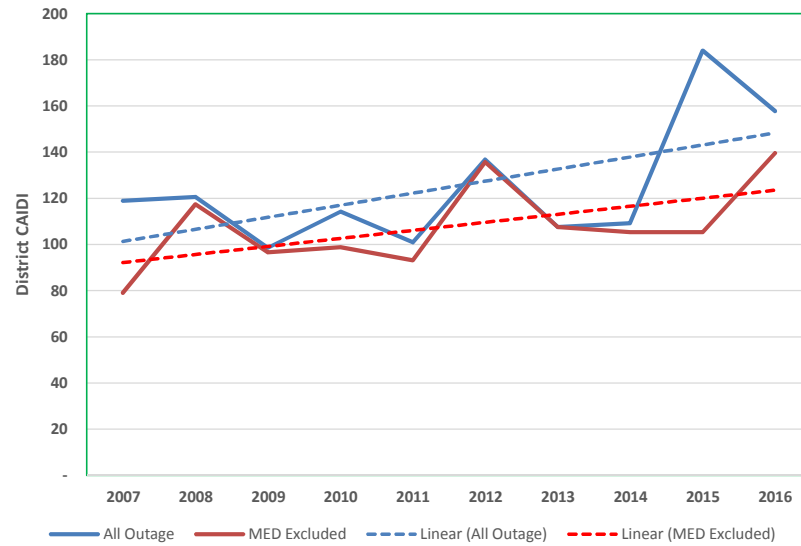
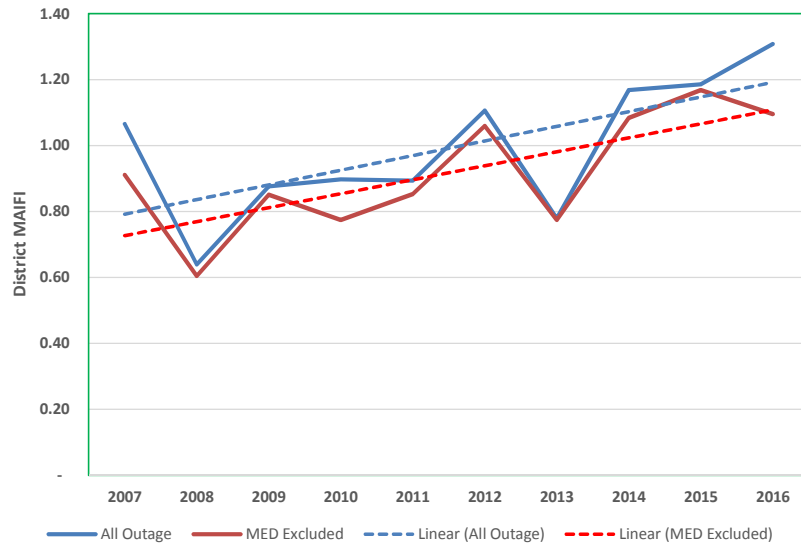
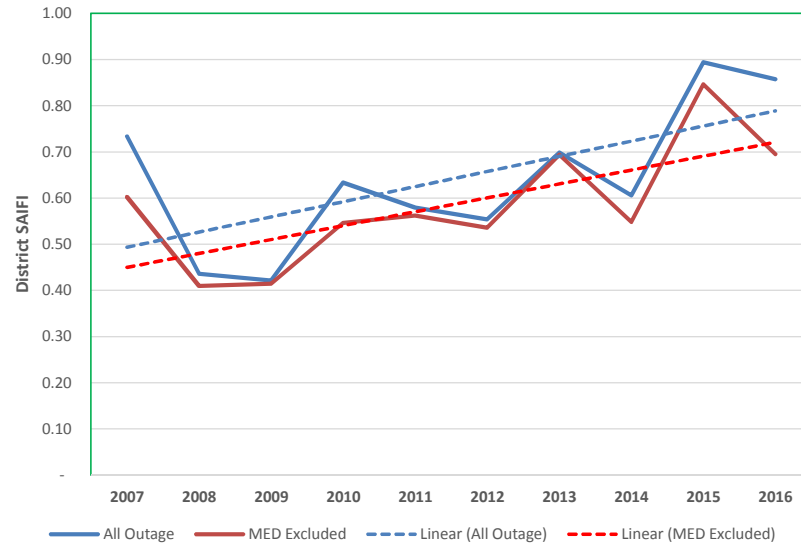
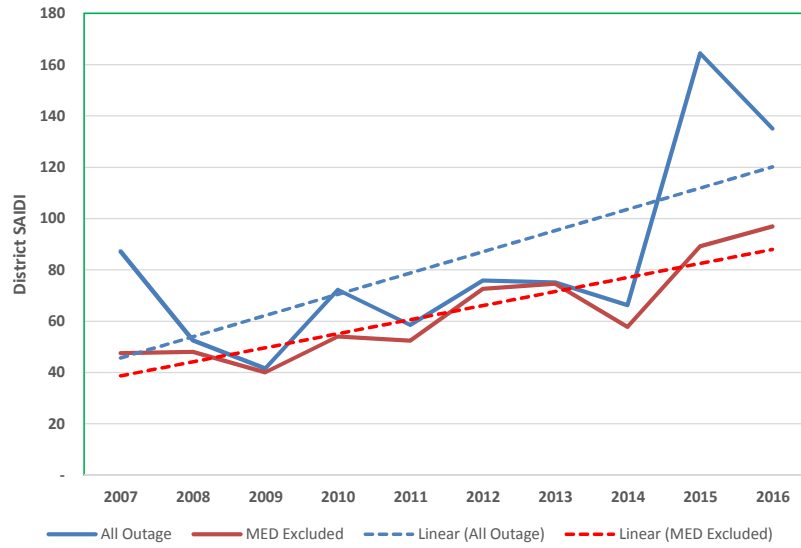
## 2007 -2016 District Reliability Graphs

### KERNVILLE District Reliability Performance



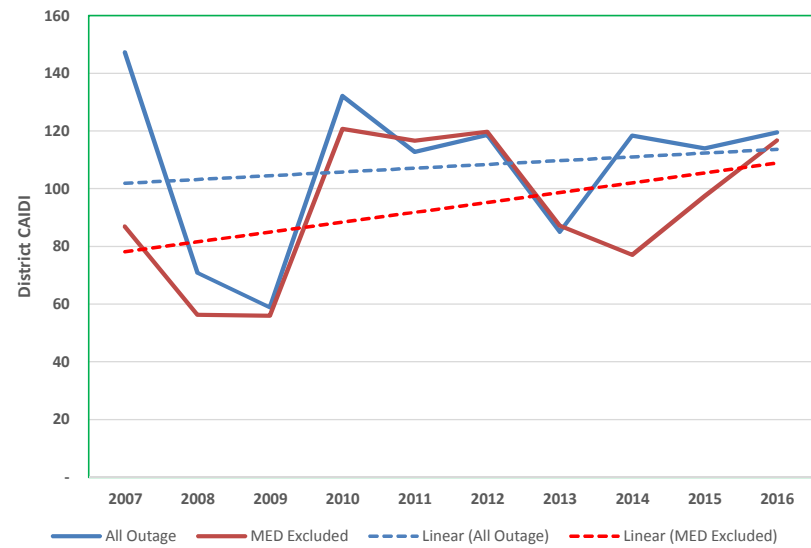
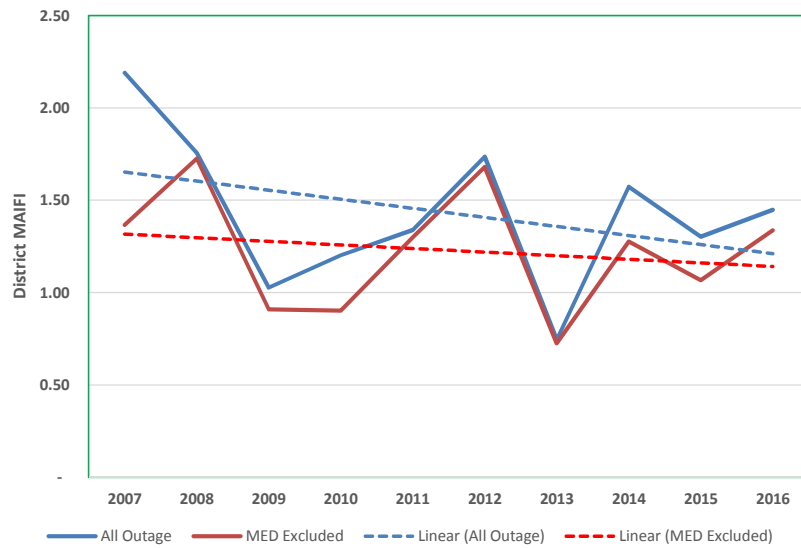
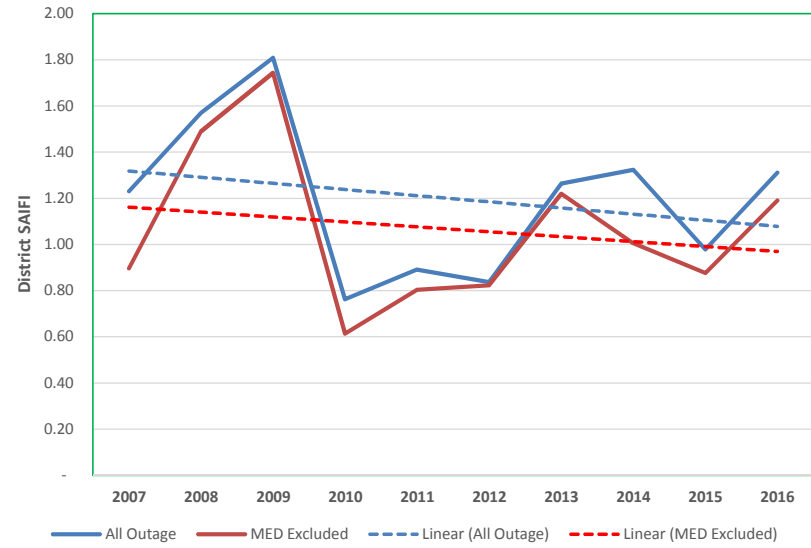
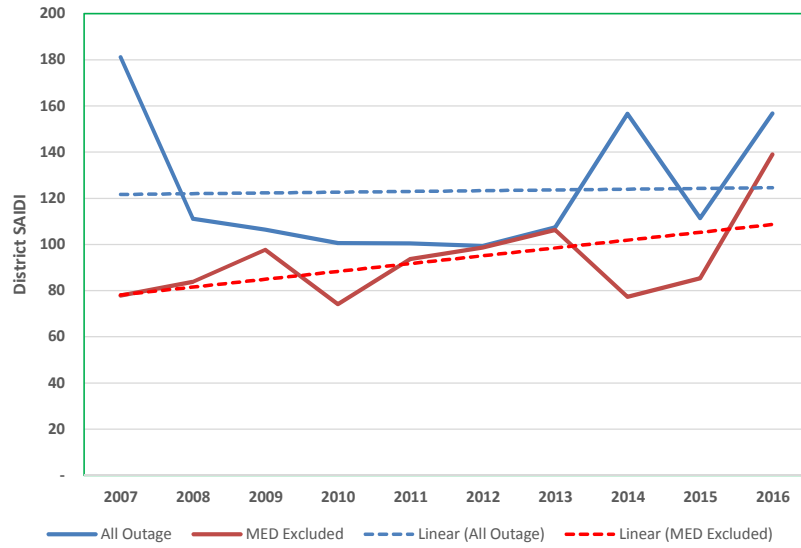
## 2007 -2016 District Reliability Graphs

### LONG BEACH District Reliability Performance



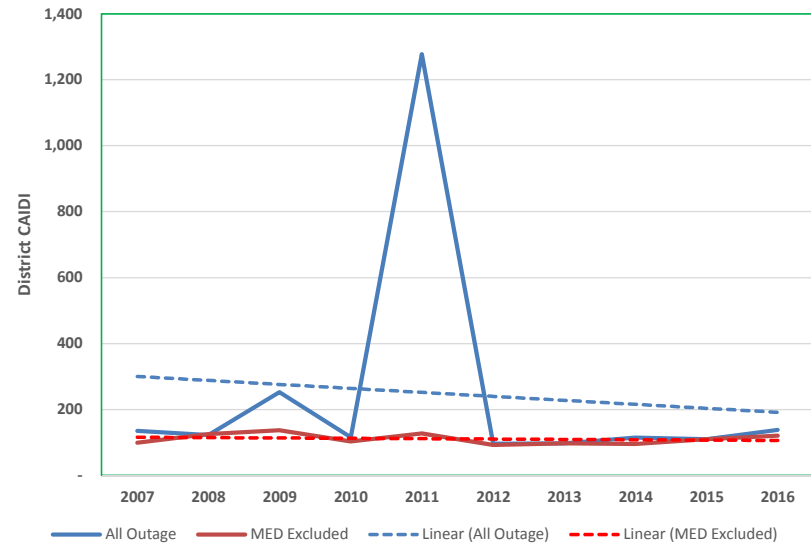
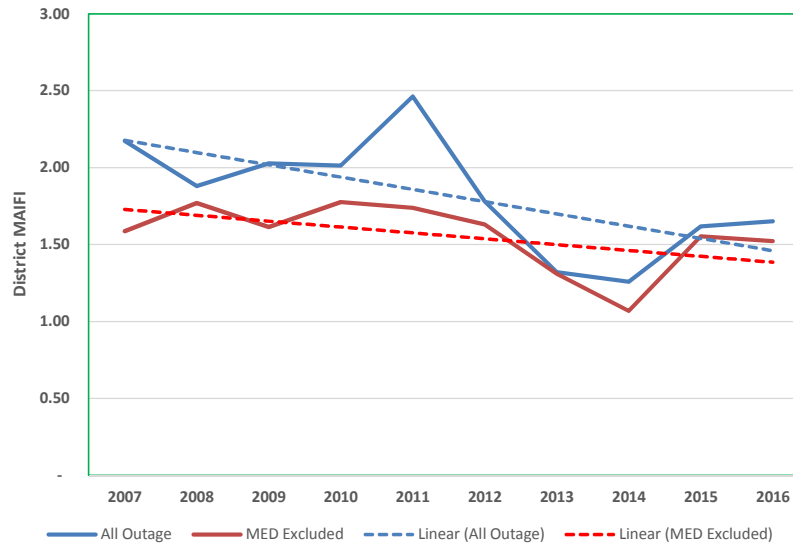
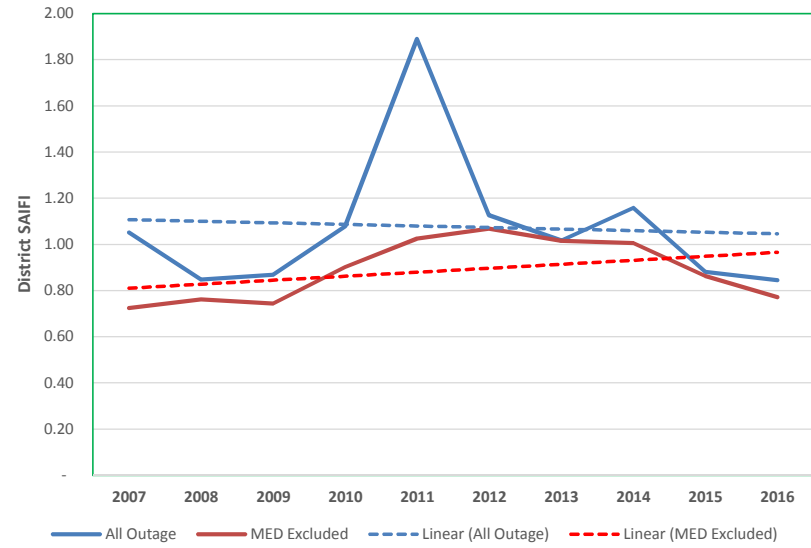
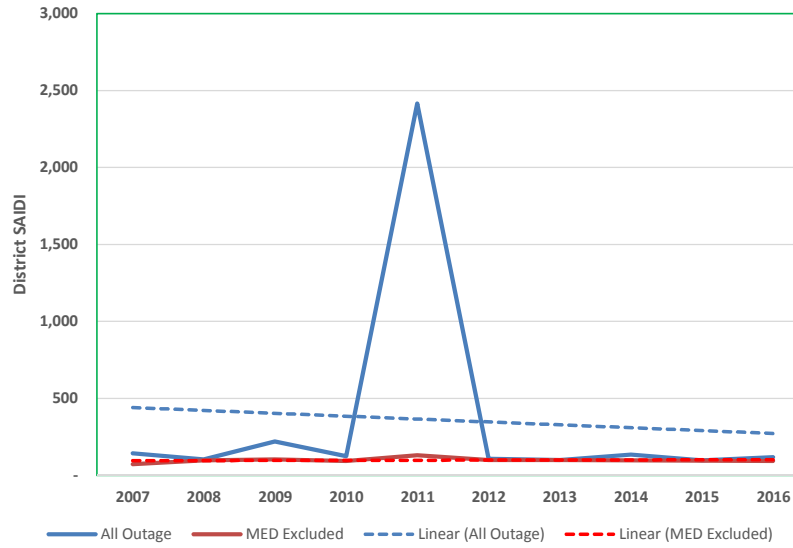
## 2007 -2016 District Reliability Graphs

### MENIFEE District Reliability Performance



## 2007 -2016 District Reliability Graphs

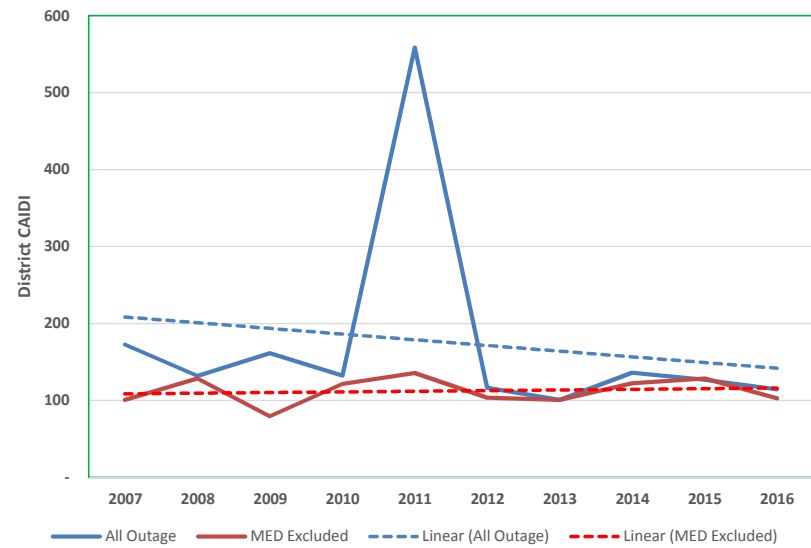
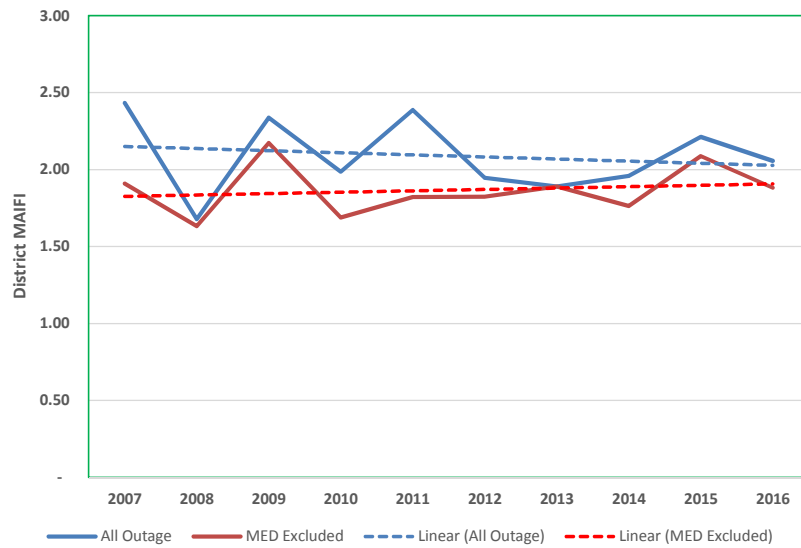
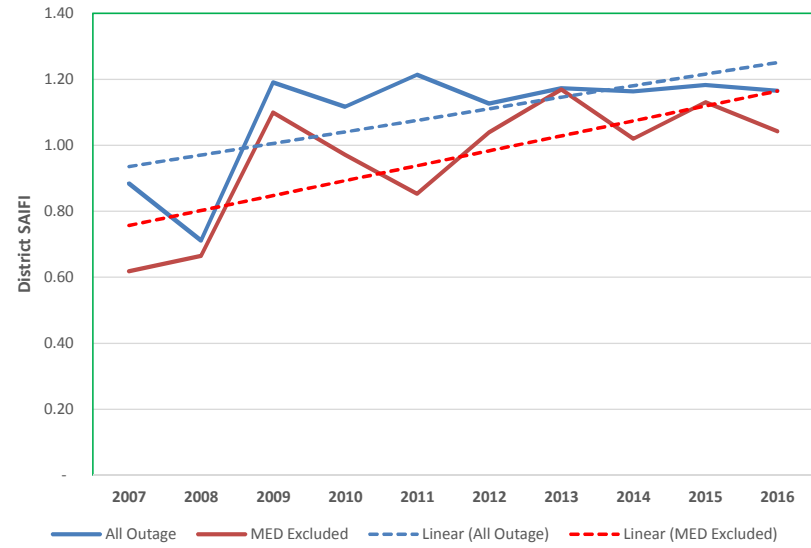
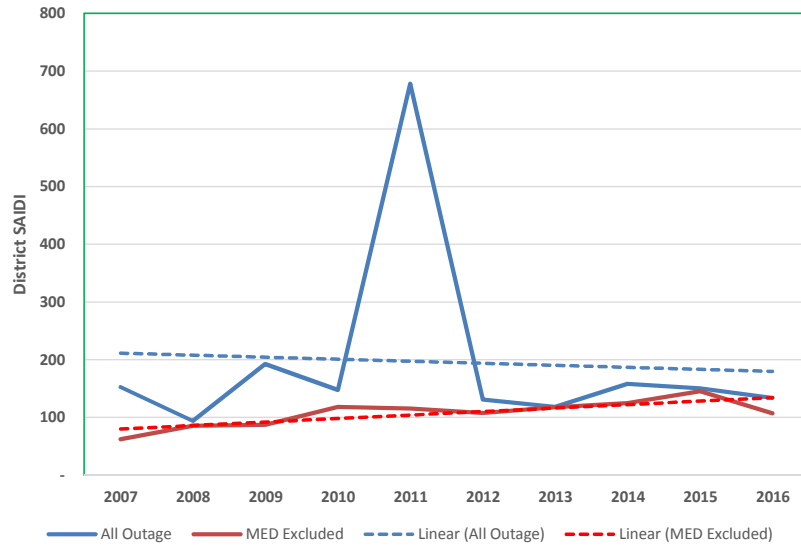
### MONROVIA District Reliability Performance





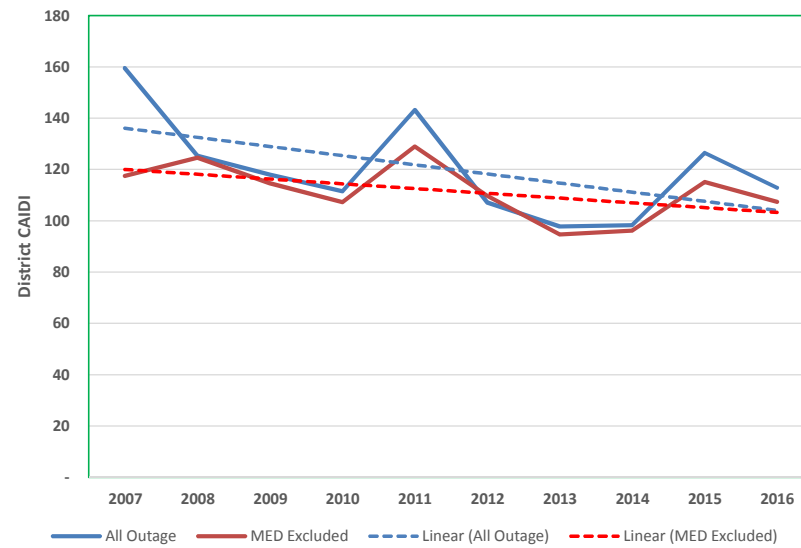
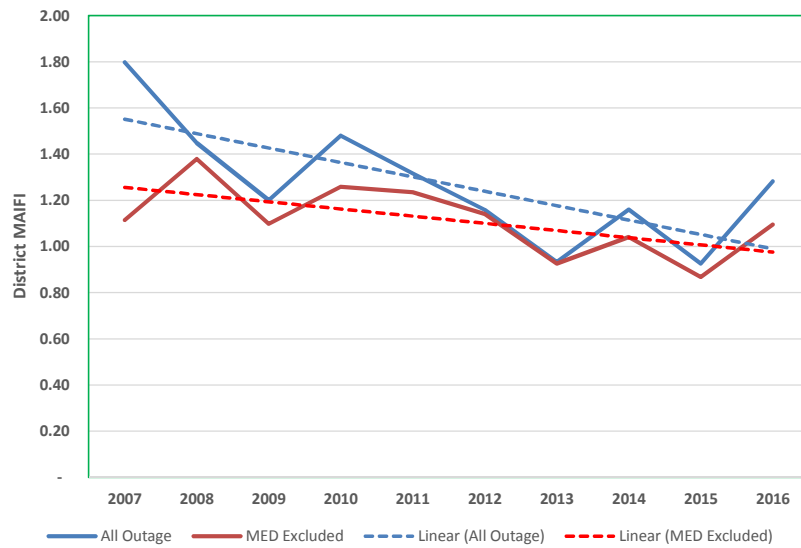
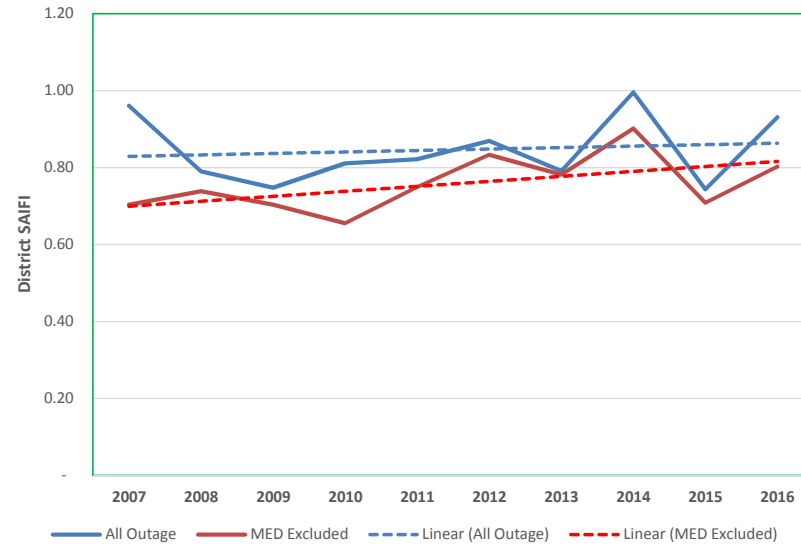
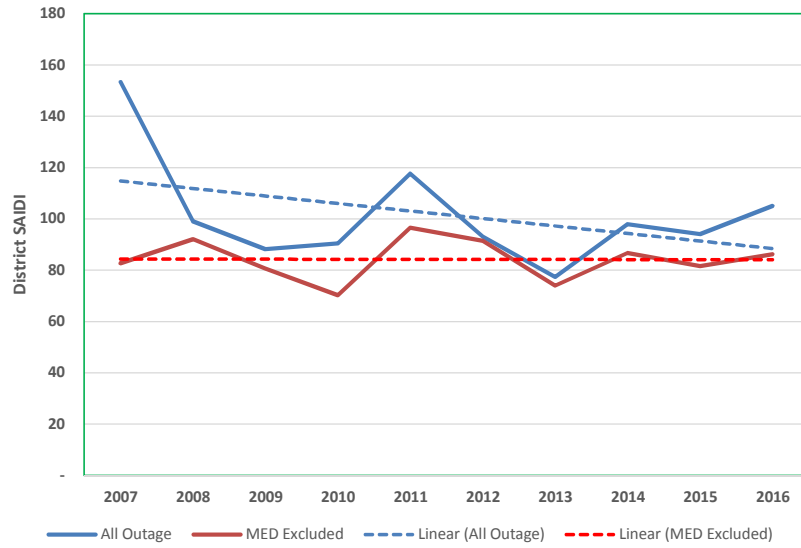
## 2007 -2016 District Reliability Graphs

### MONTEBELLO District Reliability Performance



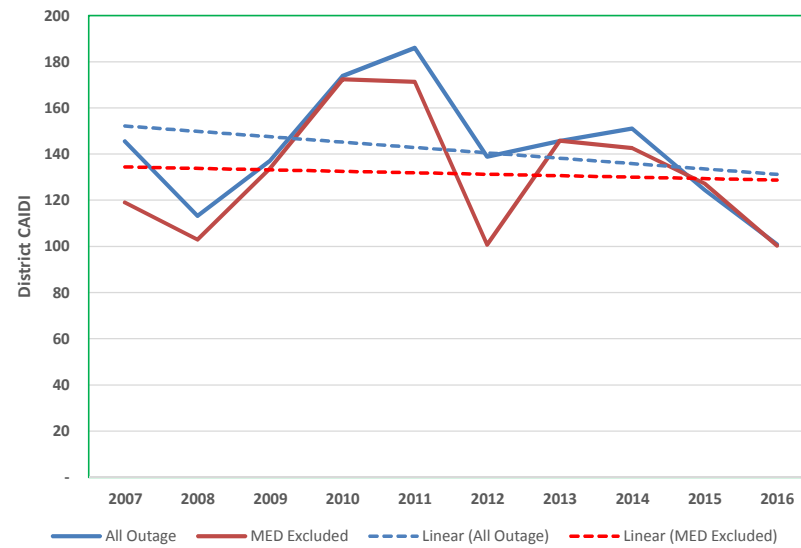
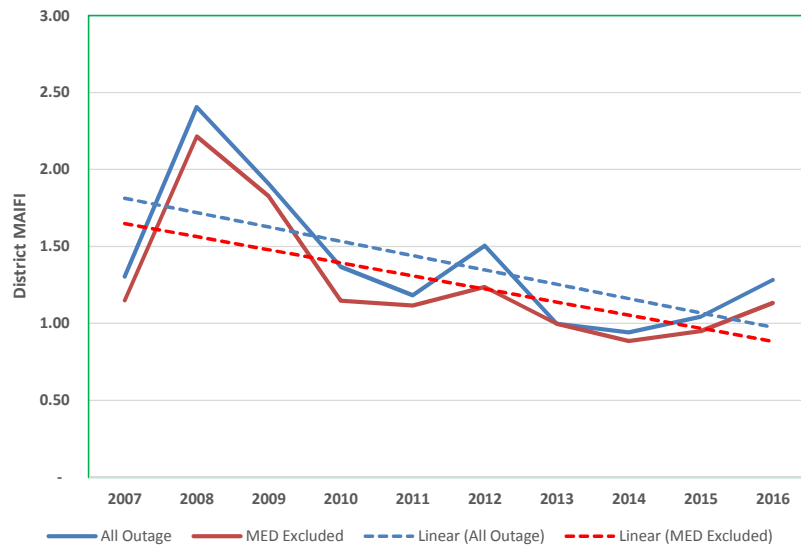
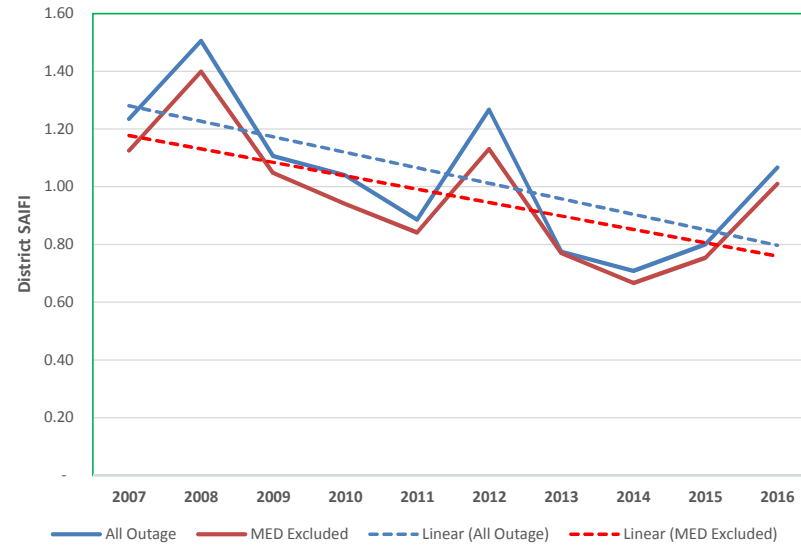
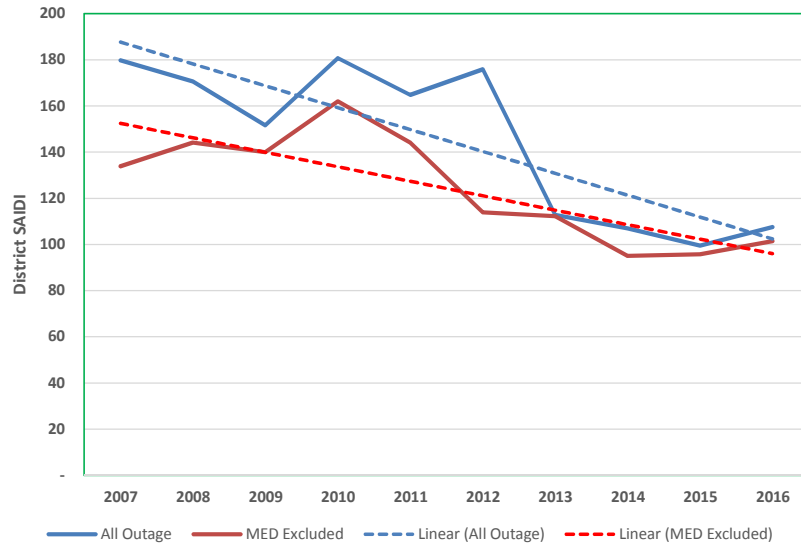
## 2007 -2016 District Reliability Graphs

### ONTARIO District Reliability Performance



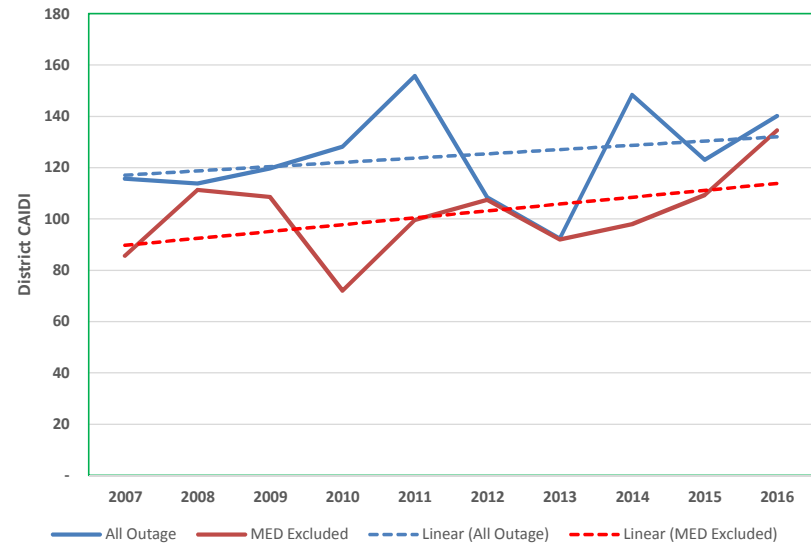
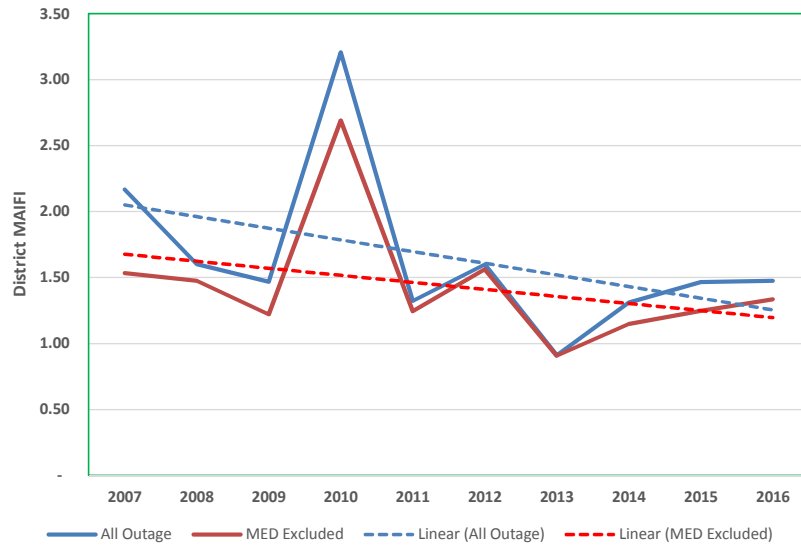
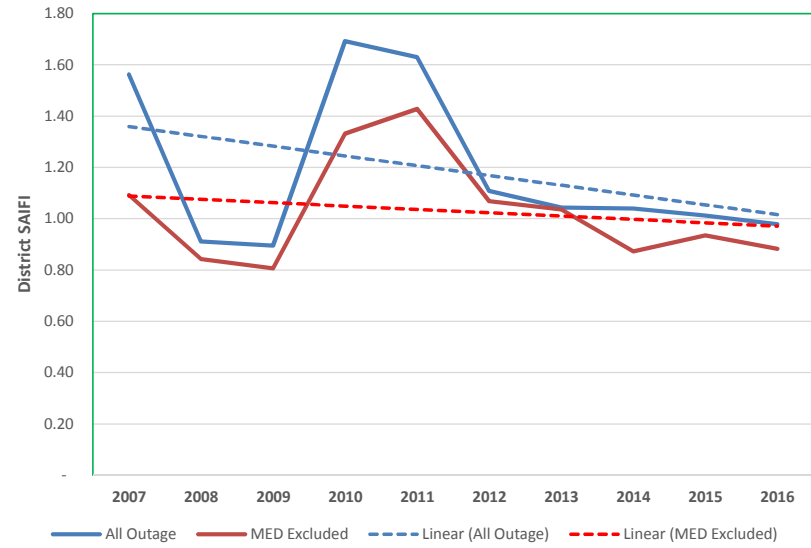
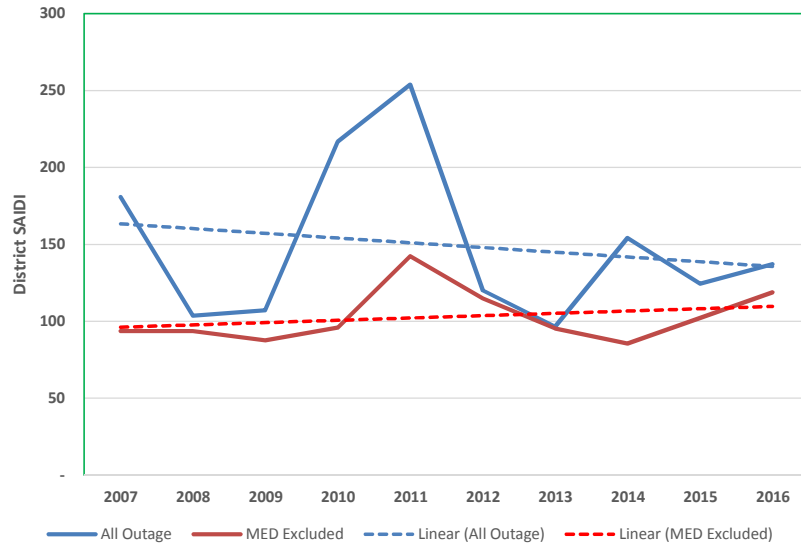
## 2007 -2016 District Reliability Graphs

### PALM SPRINGS District Reliability Performance



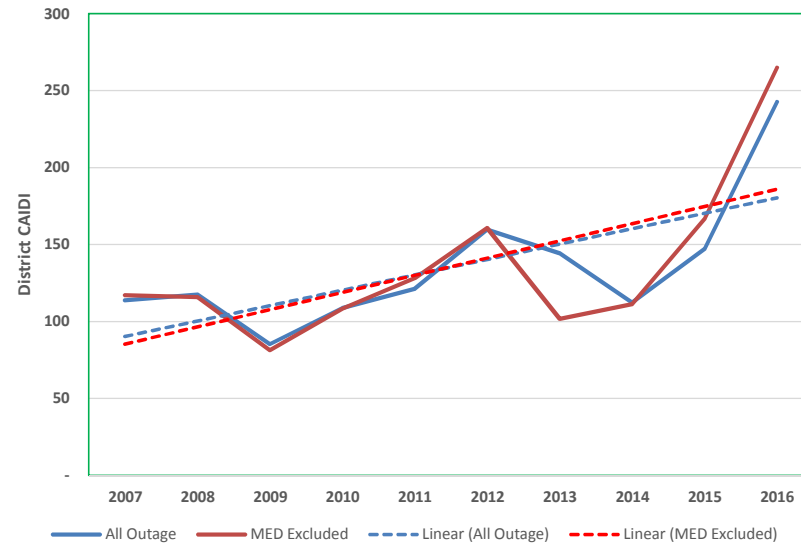
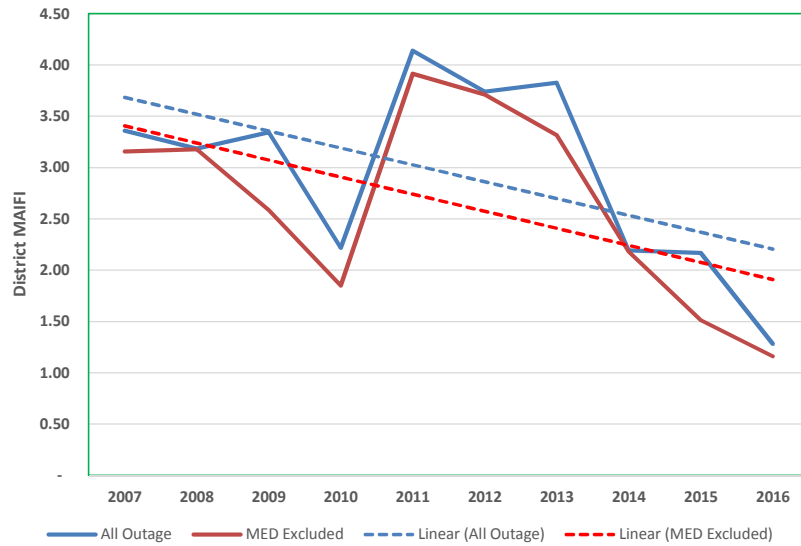
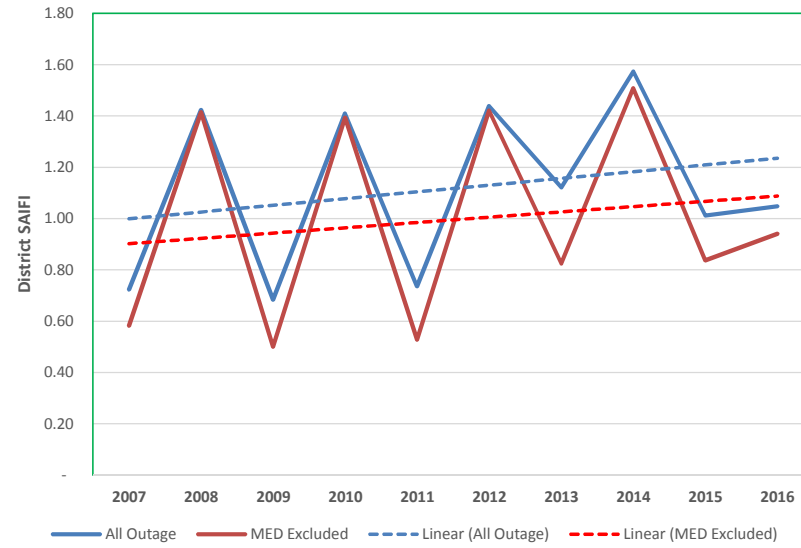
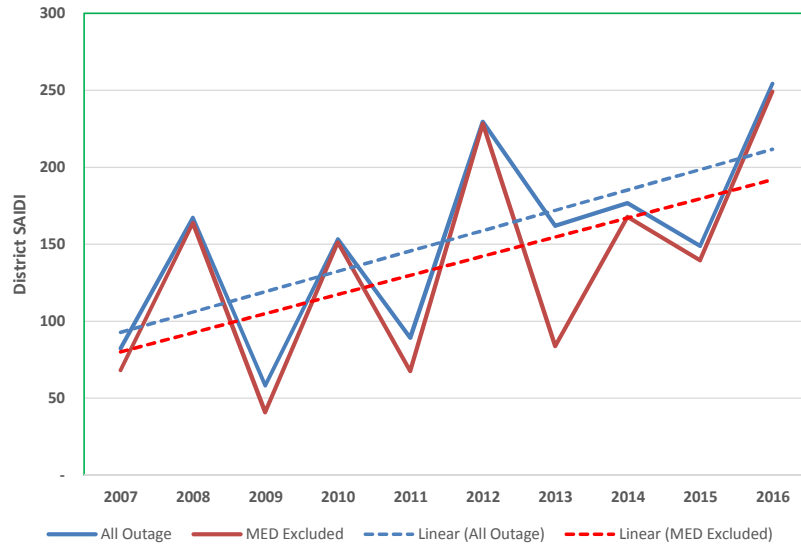
## 2007 -2016 District Reliability Graphs

### REDLANDS District Reliability Performance



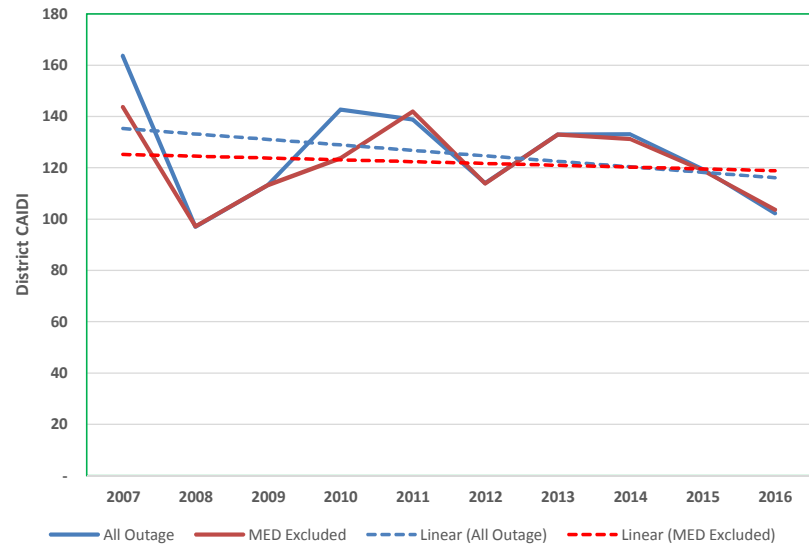
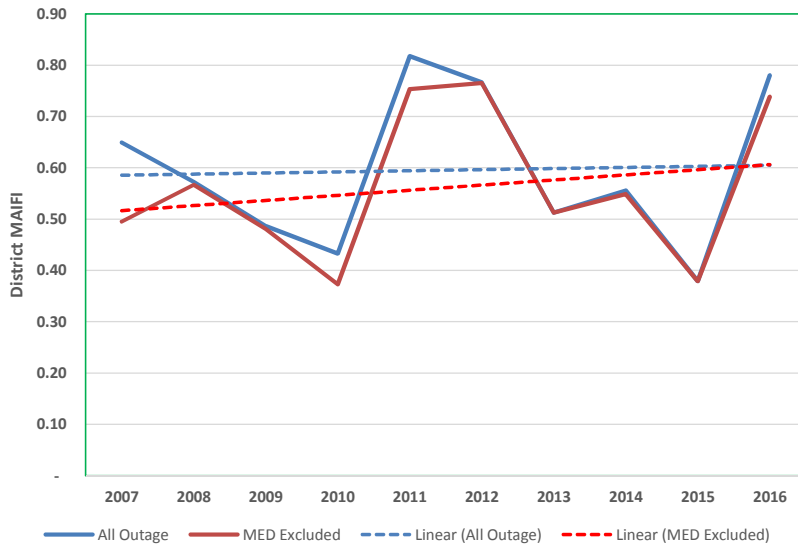
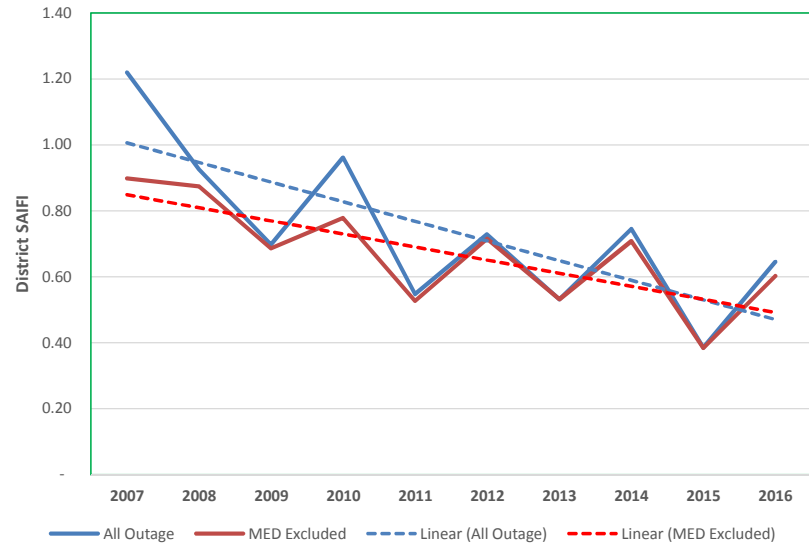
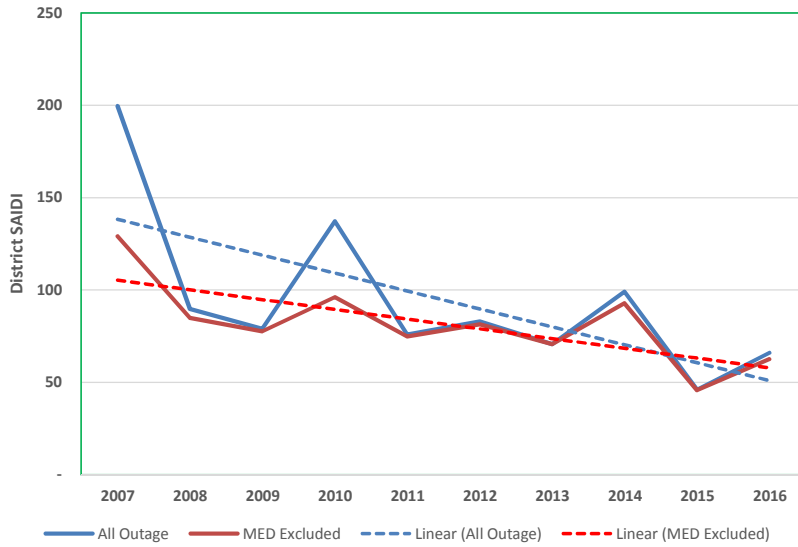
## 2007 -2016 District Reliability Graphs

### RIDGECREST District Reliability Performance



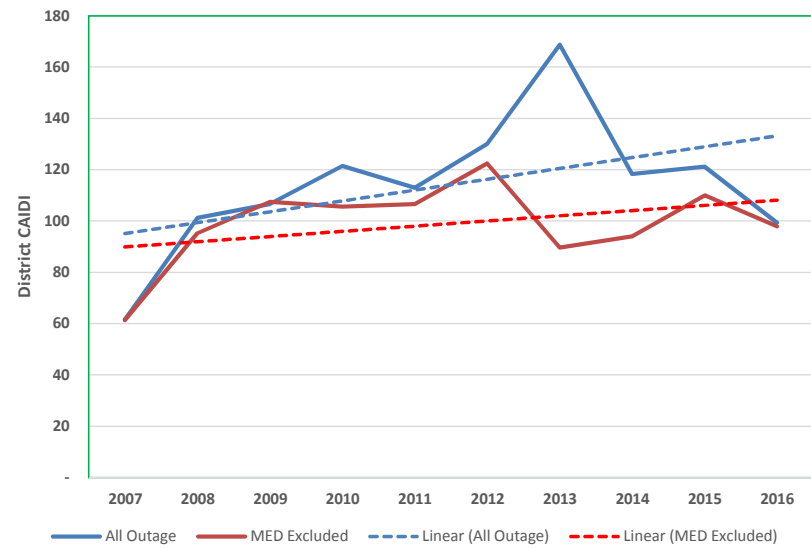
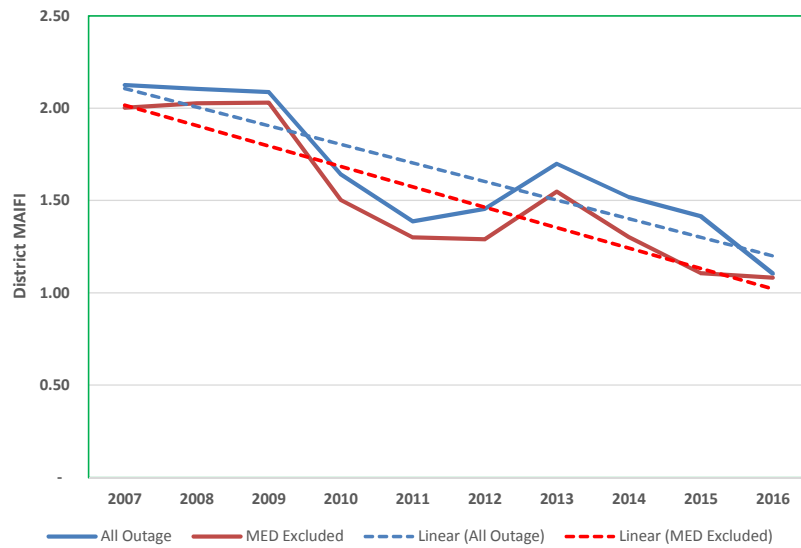
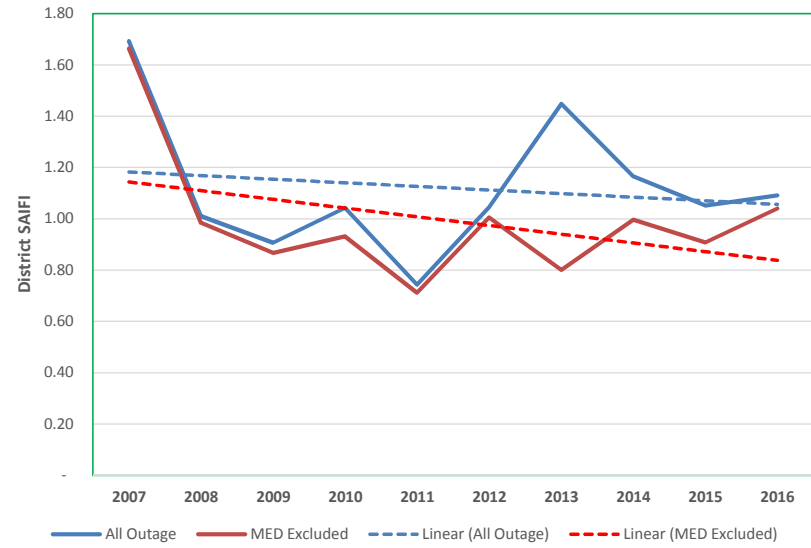
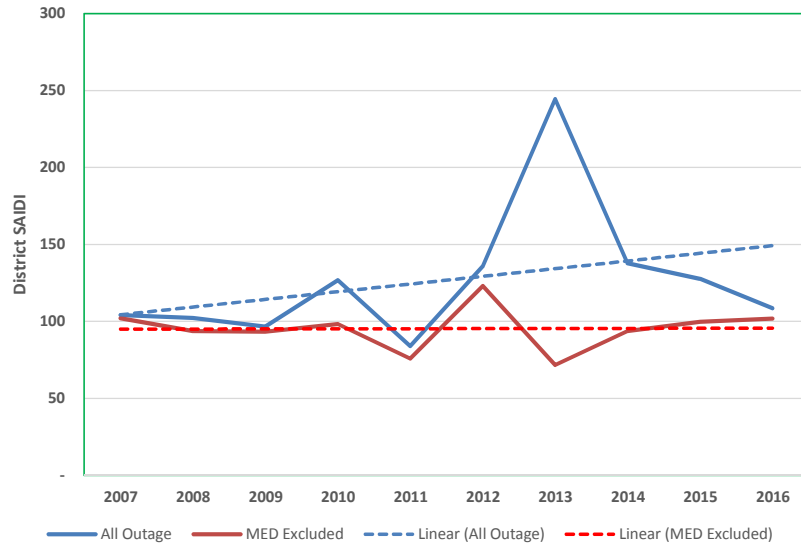
## 2007 -2016 District Reliability Graphs

### SADDLEBACK District Reliability Performance



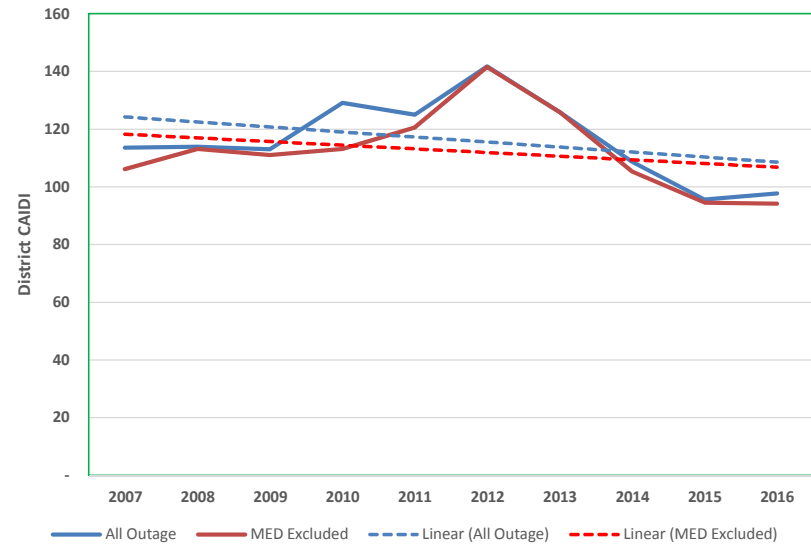
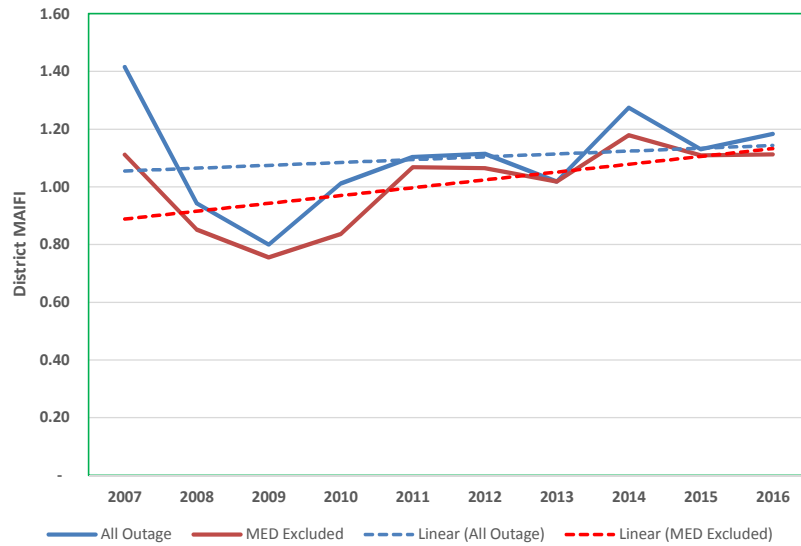
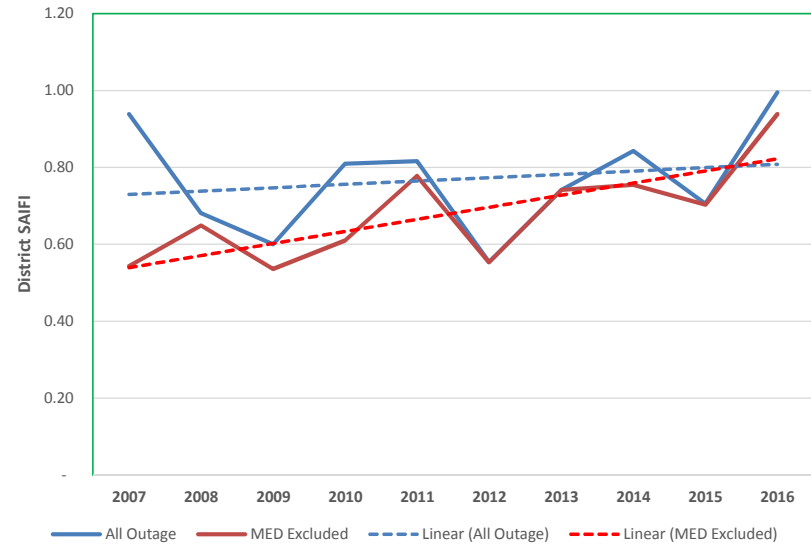
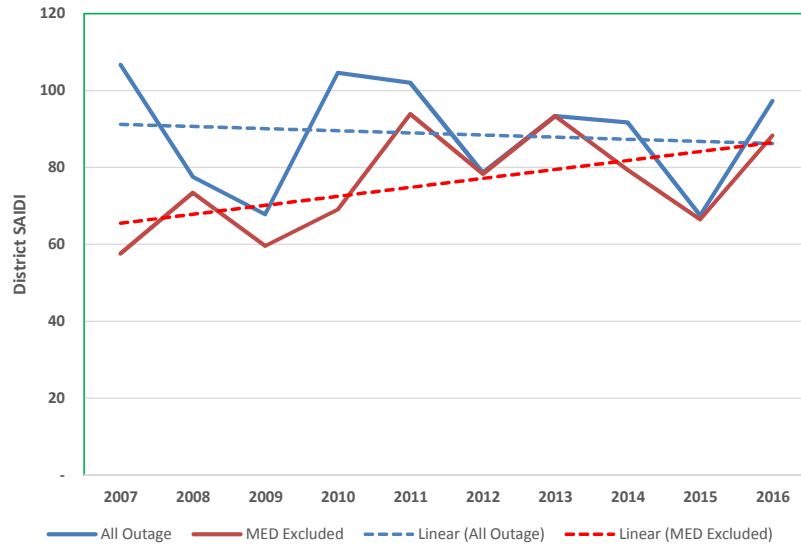
## 2007 -2016 District Reliability Graphs

### SAN JOAQUIN District Reliability Performance



## 2007 -2016 District Reliability Graphs

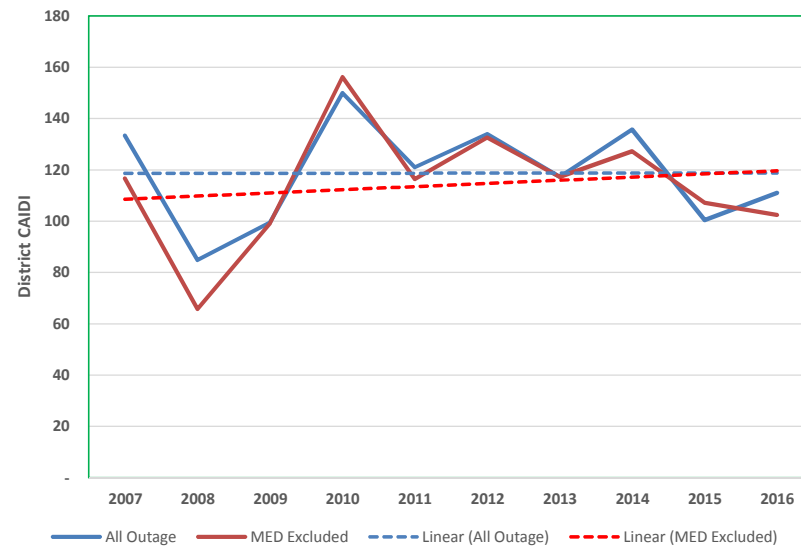
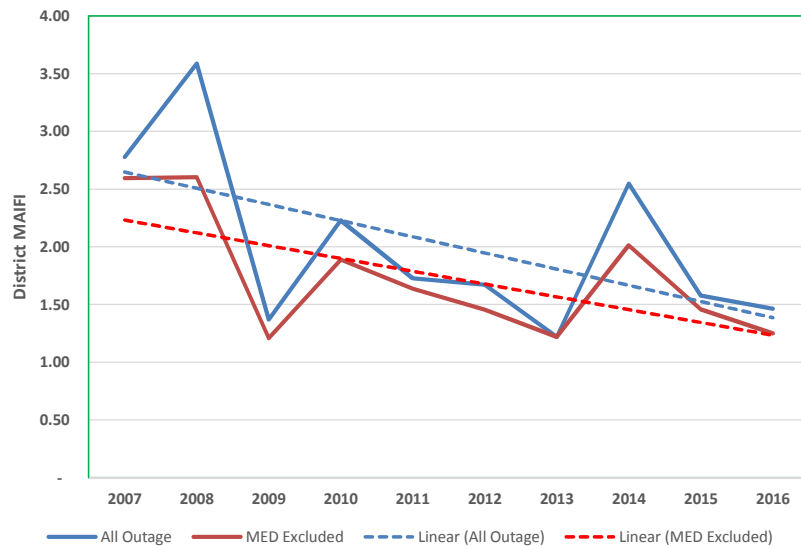
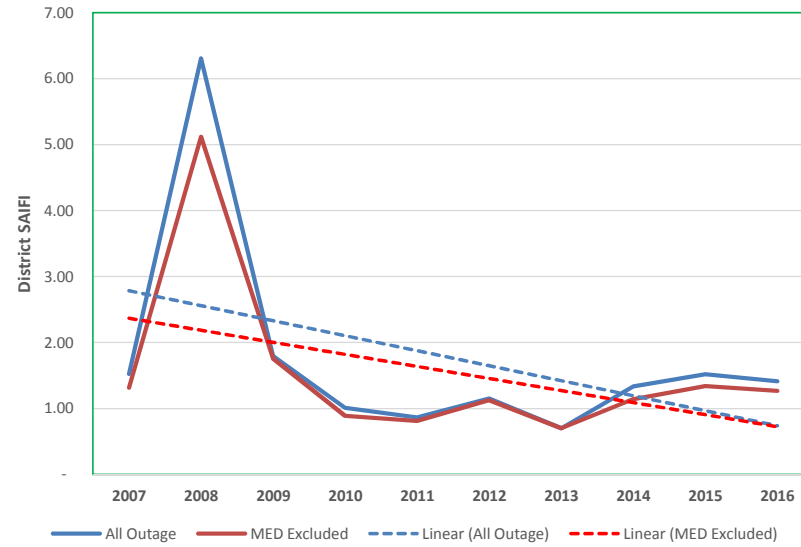
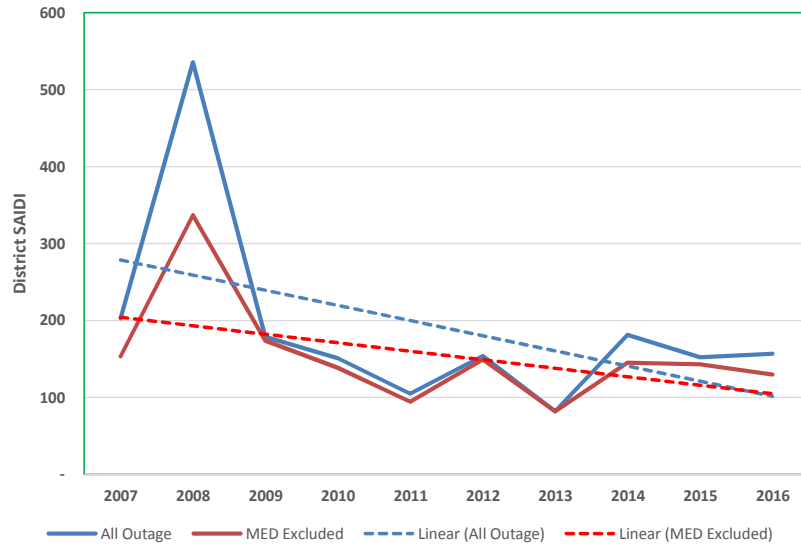
### SANTA ANA District Reliability Performance





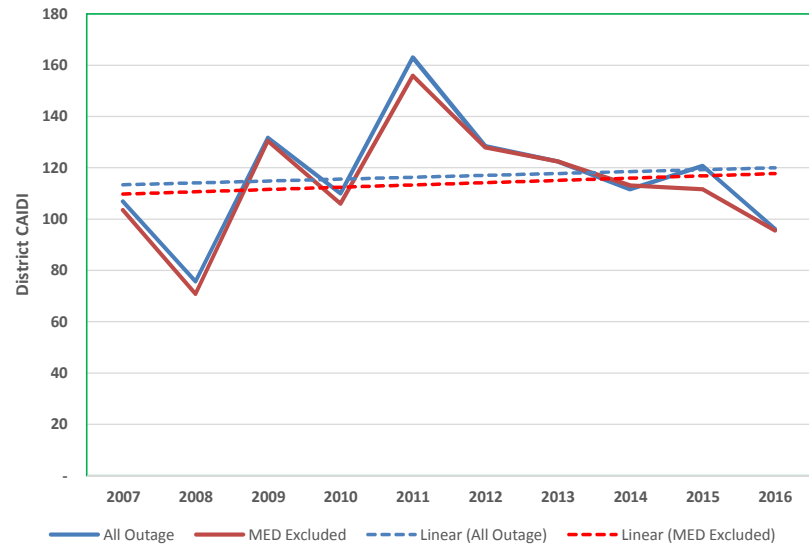
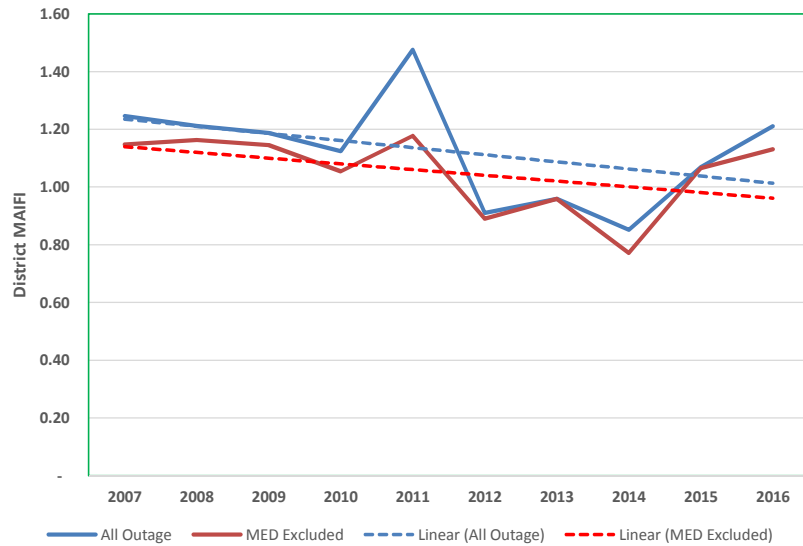
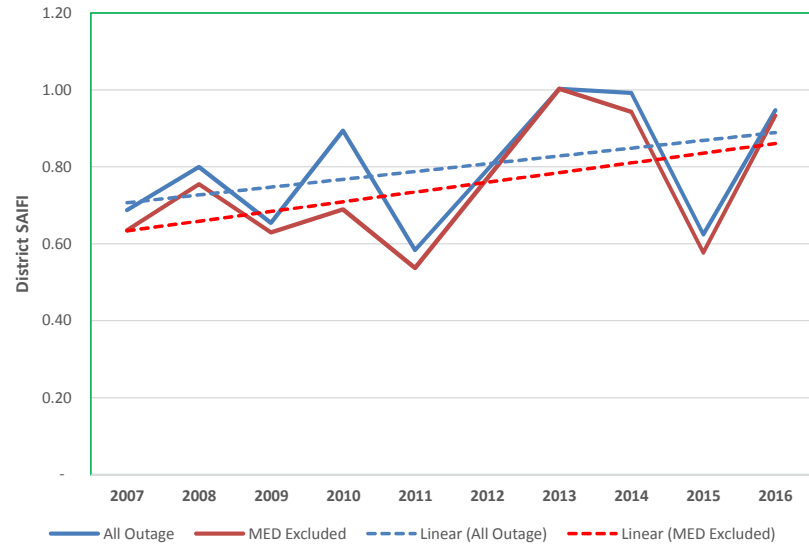
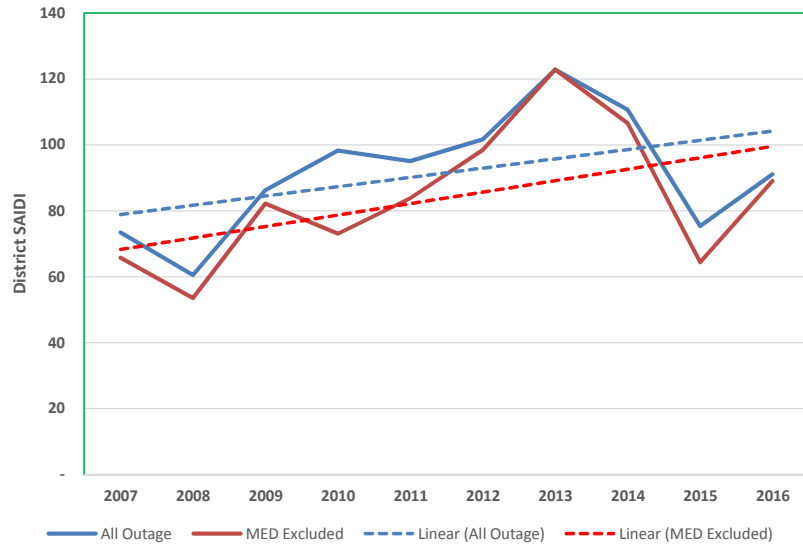
## 2007 -2016 District Reliability Graphs

### SANTA BARBARA District Reliability Performance



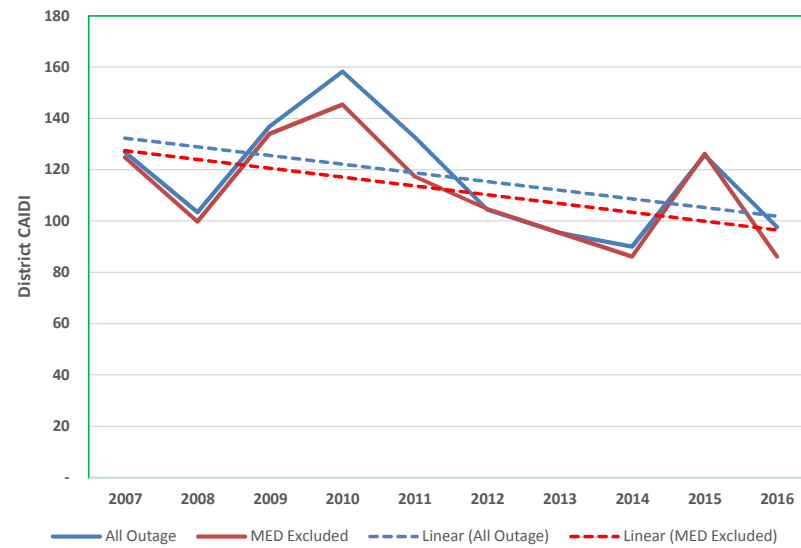
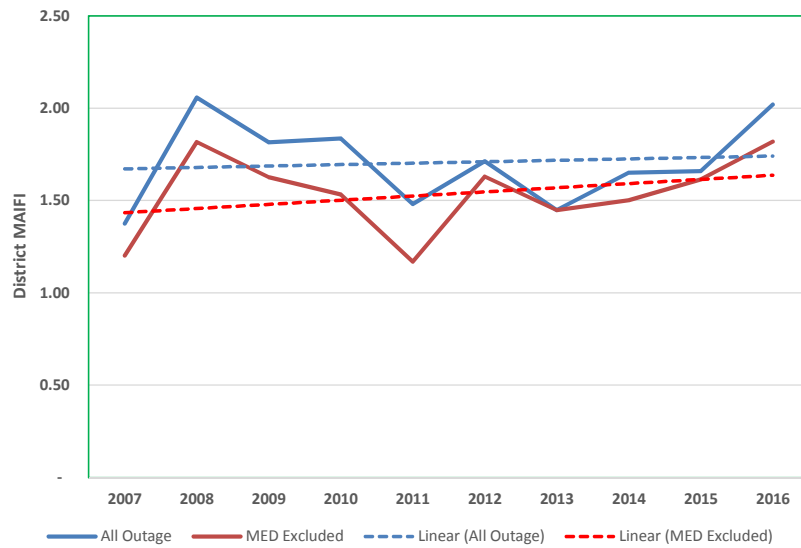
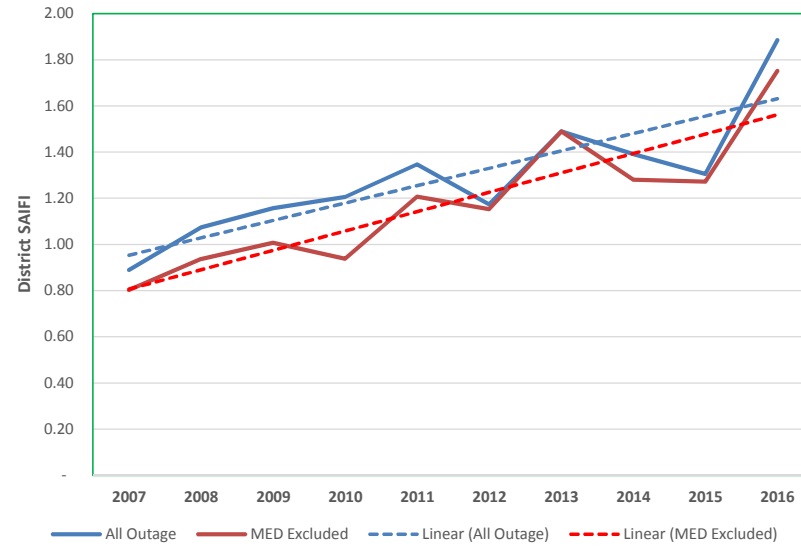
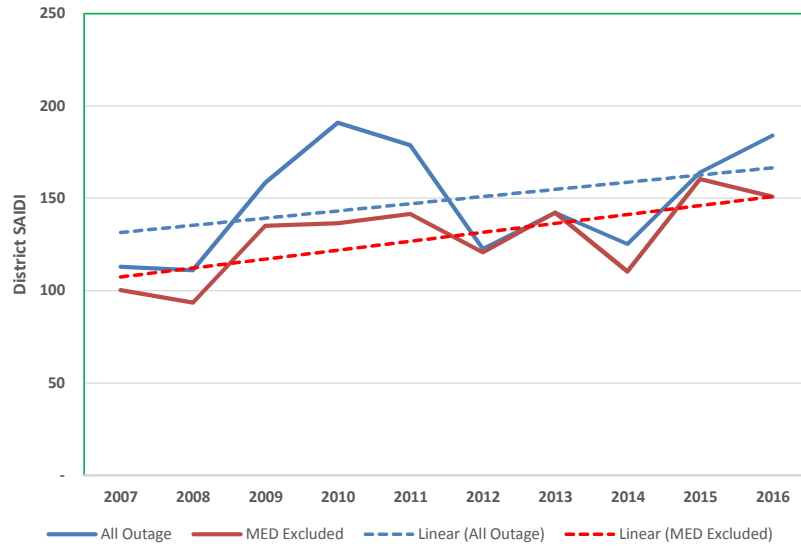
## 2007 -2016 District Reliability Graphs

### SANTA MONICA District Reliability Performance



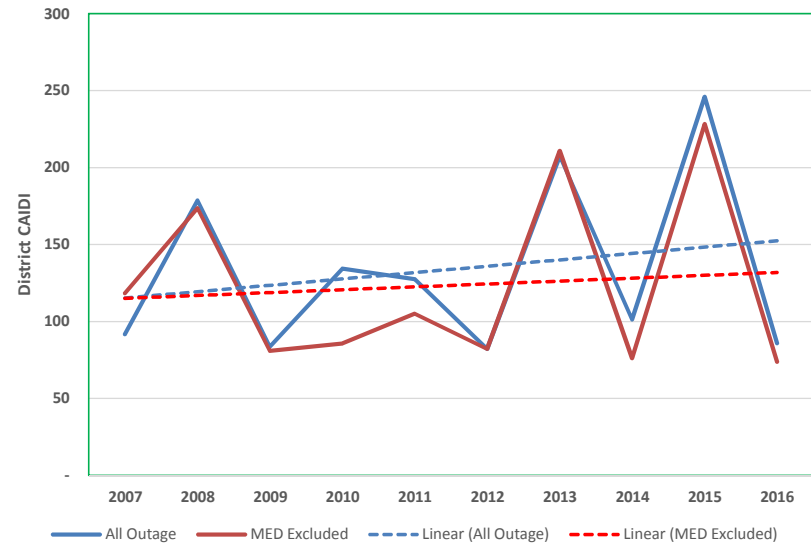
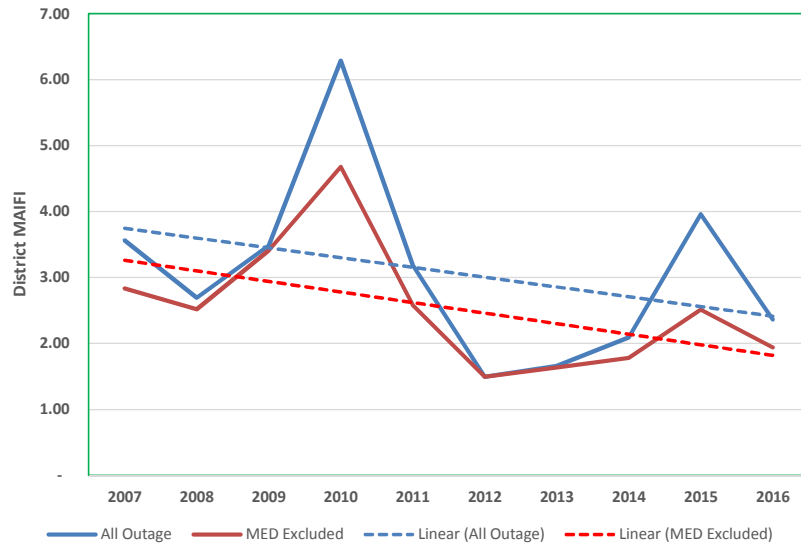
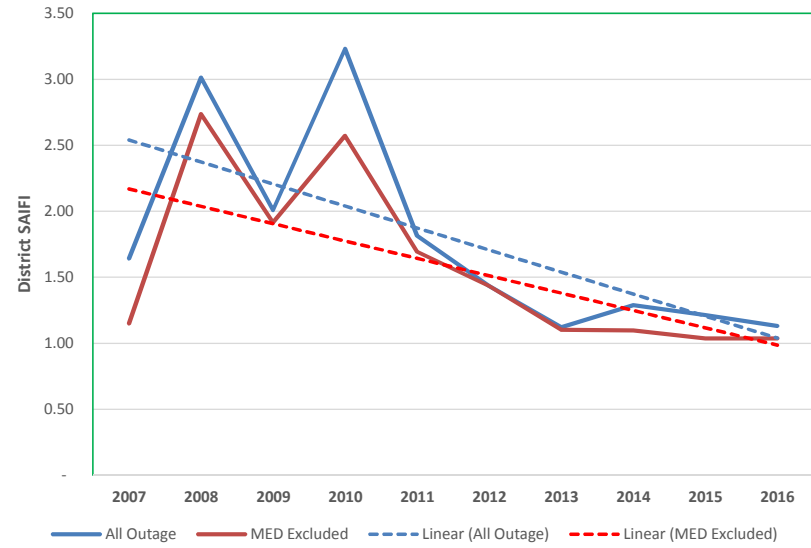
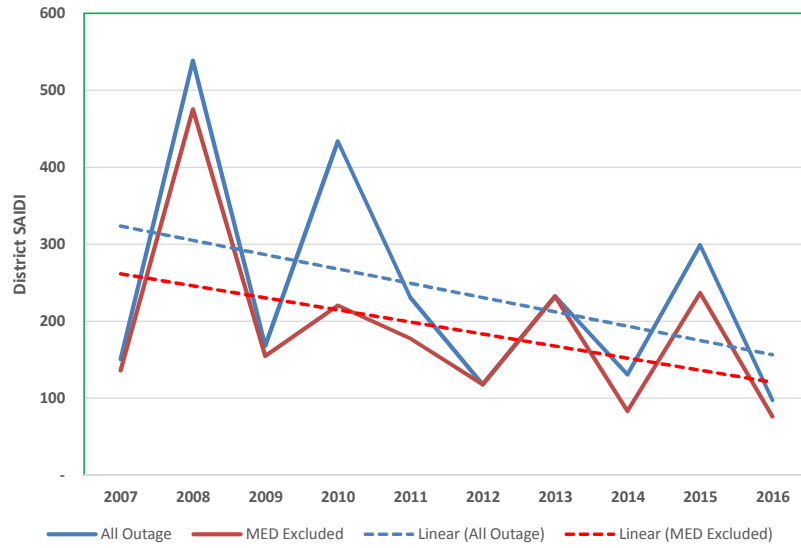
# 2007 -2016 District Reliability Graphs

## SOUTH BAY District Reliability Performance



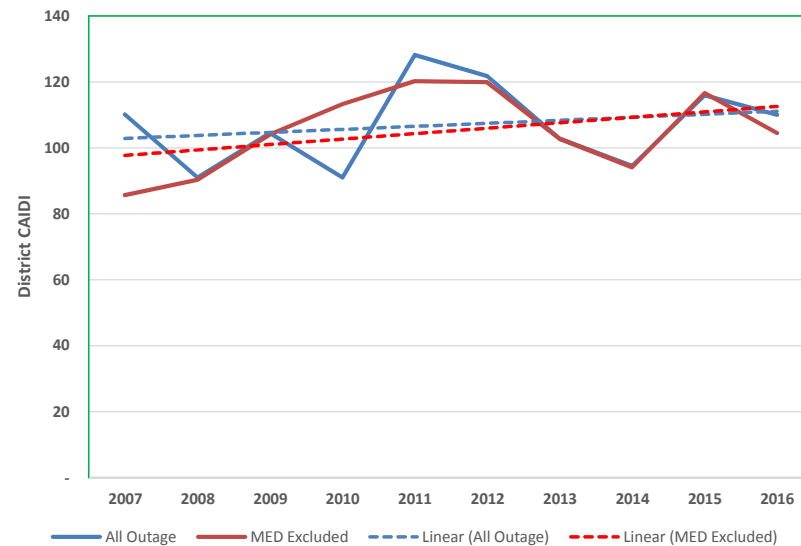
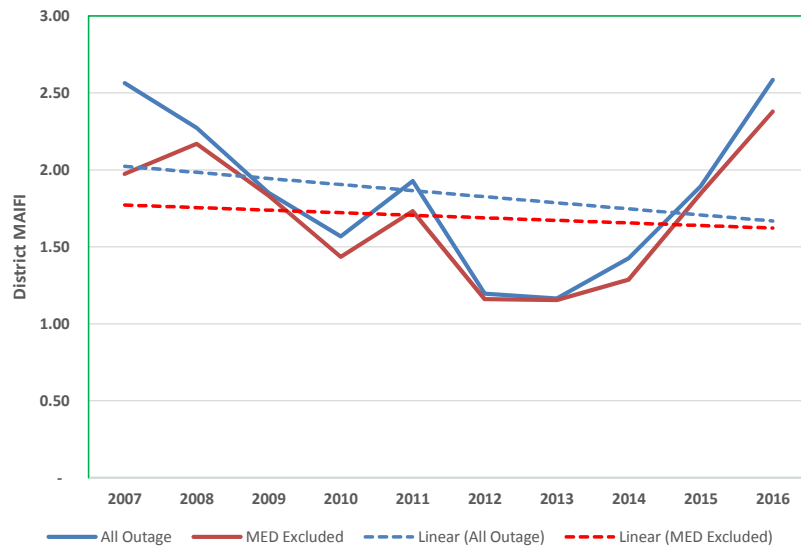
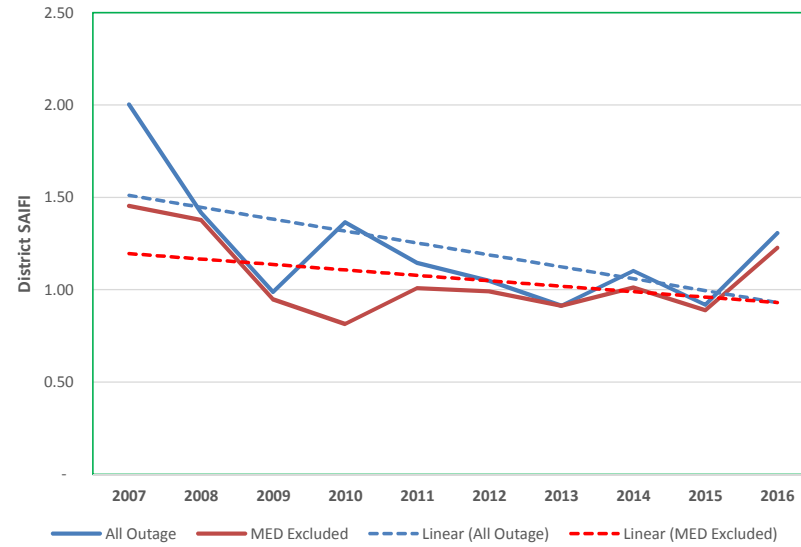
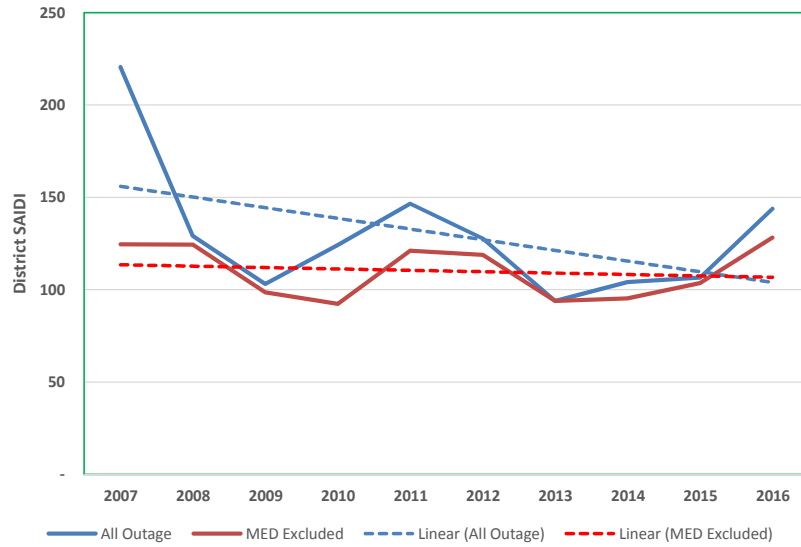
## 2007 -2016 District Reliability Graphs

### TEHACHAPI District Reliability Performance



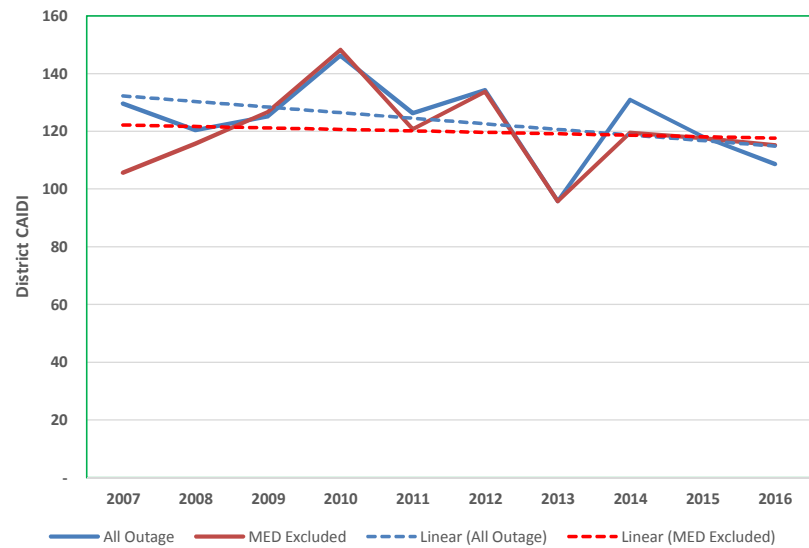
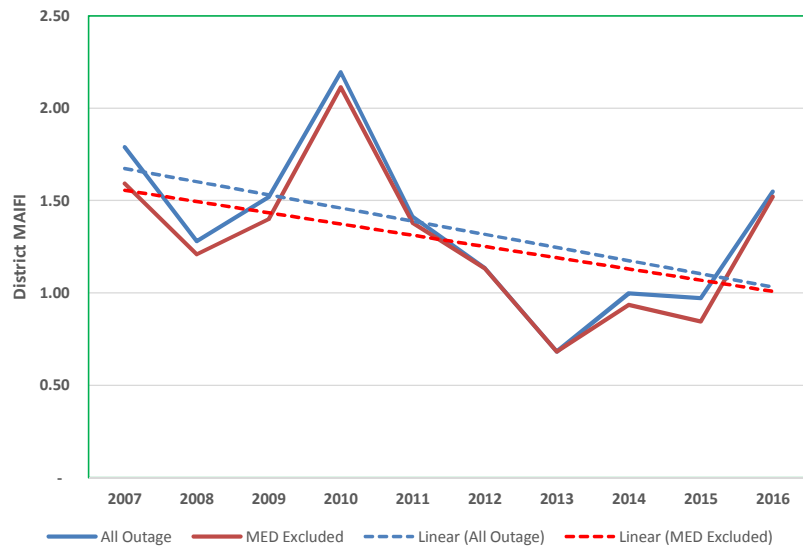
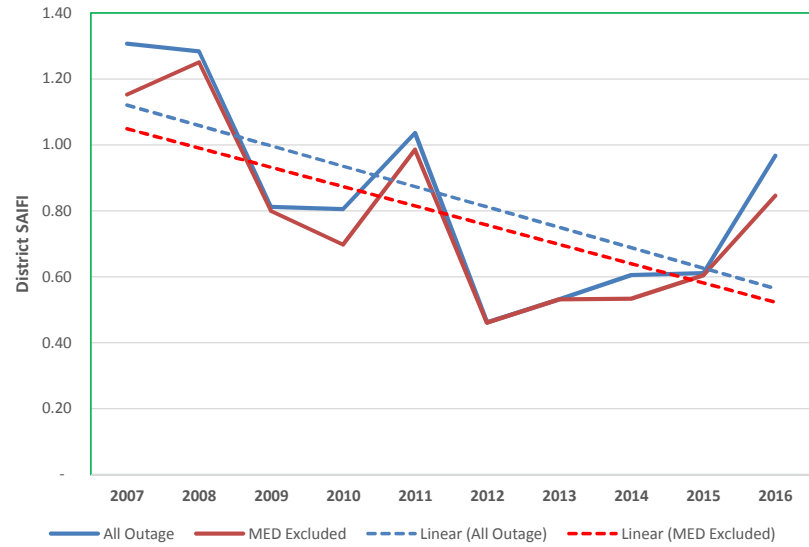
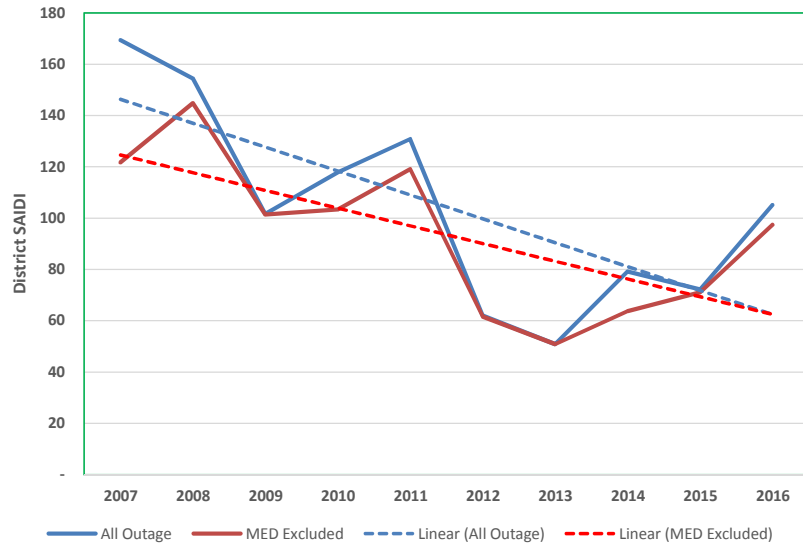
## 2007 -2016 District Reliability Graphs

### THOUSAND OAKS District Reliability Performance



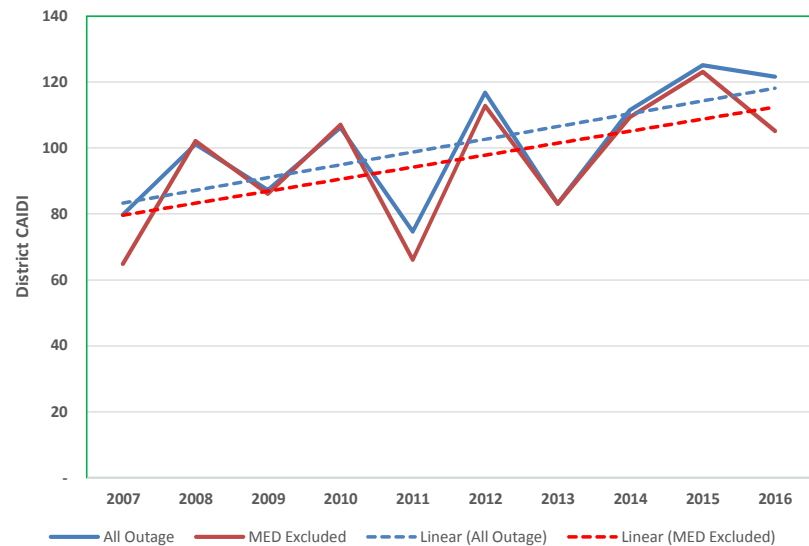
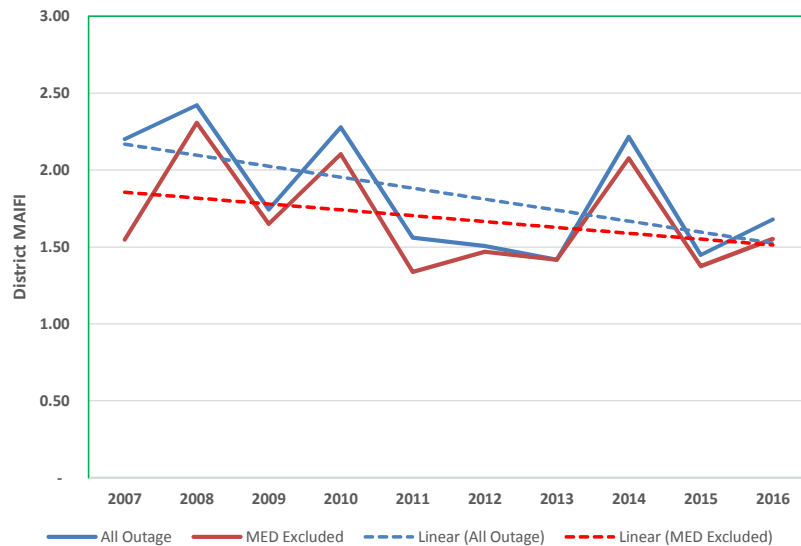
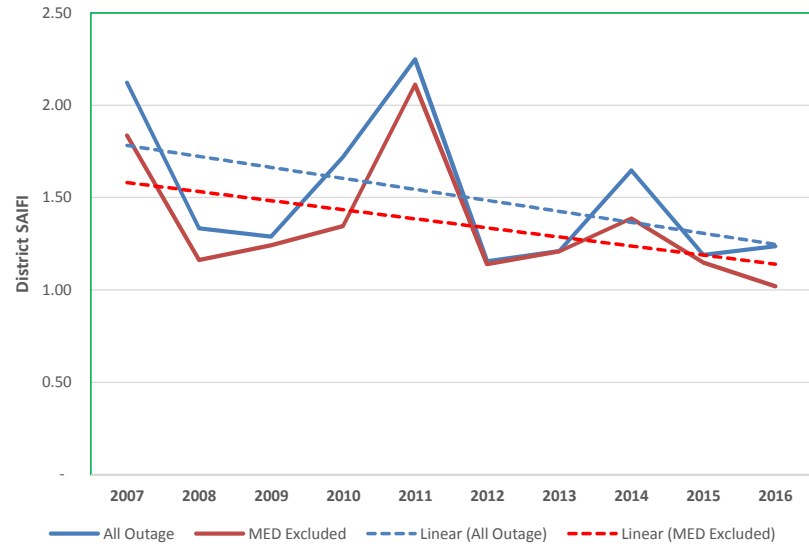
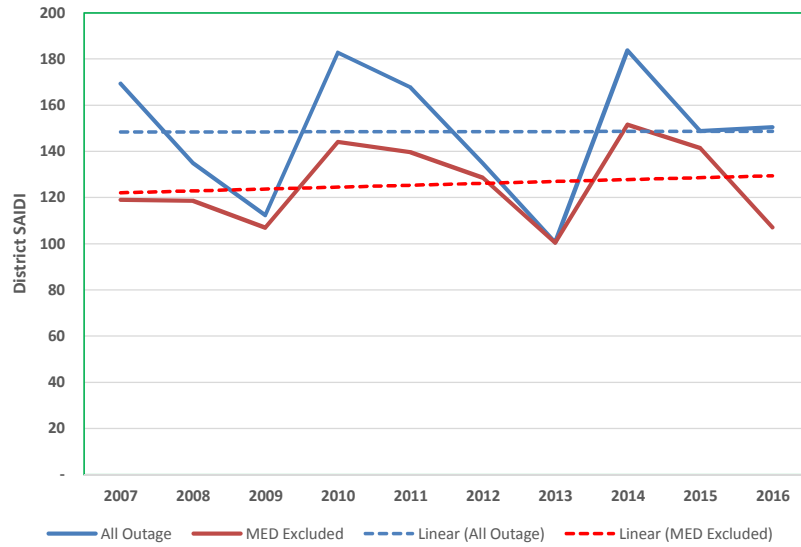
## 2007 -2016 District Reliability Graphs

### VALENCIA District Reliability Performance



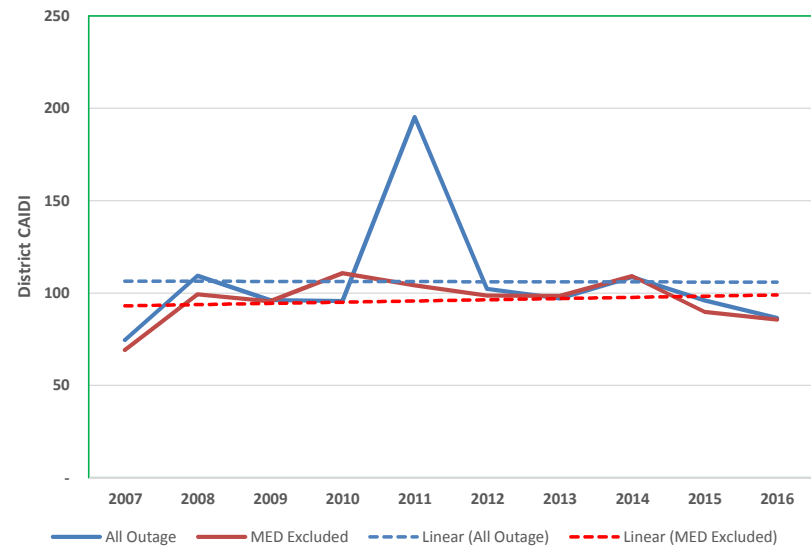
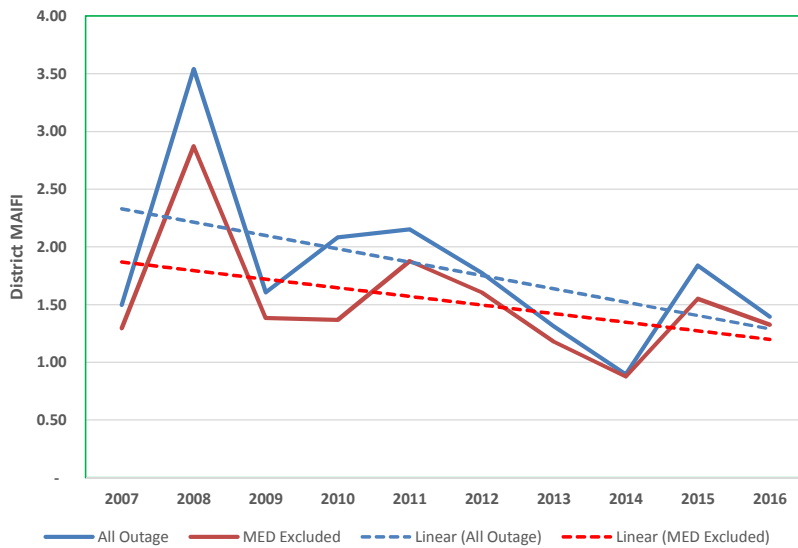
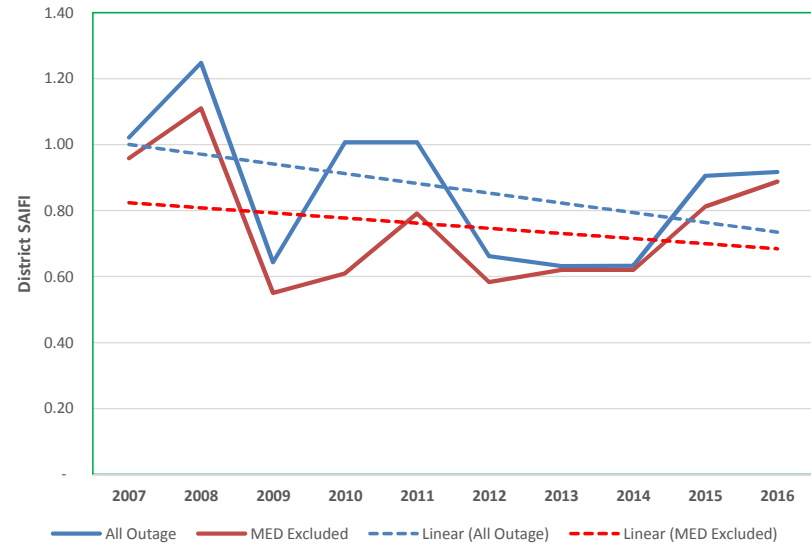
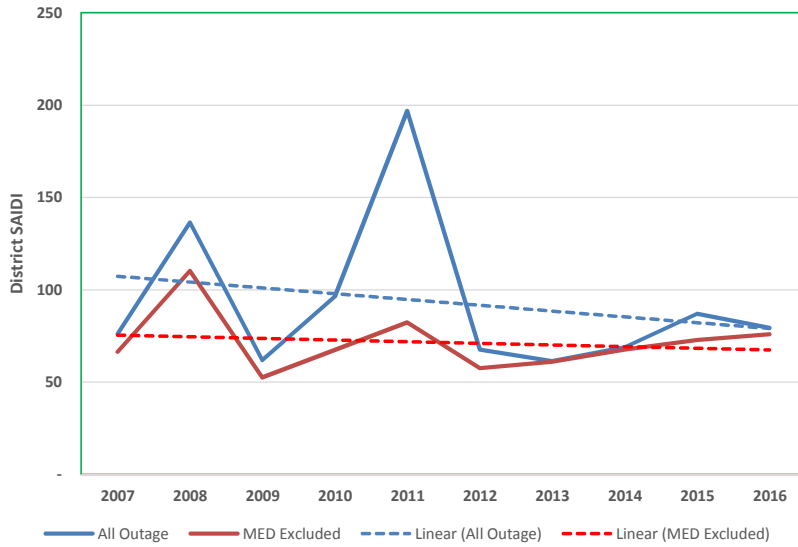
## 2007 -2016 District Reliability Graphs

### VENTURA District Reliability Performance



## 2007 -2016 District Reliability Graphs

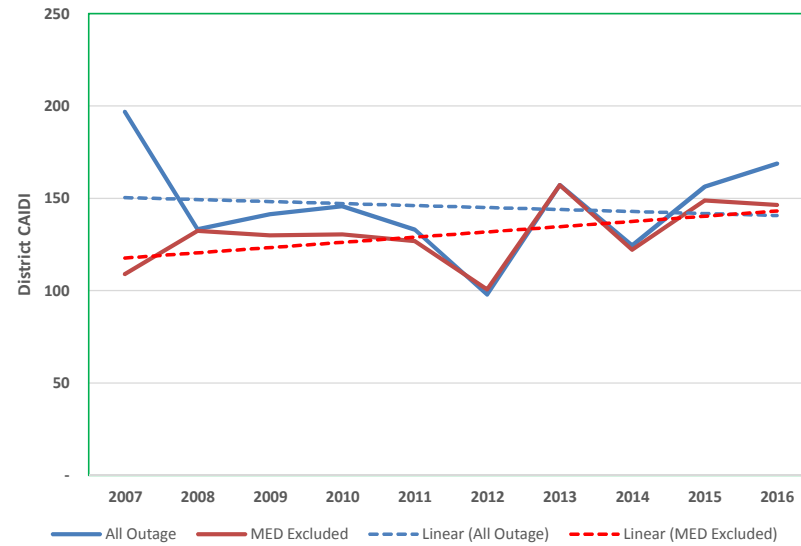
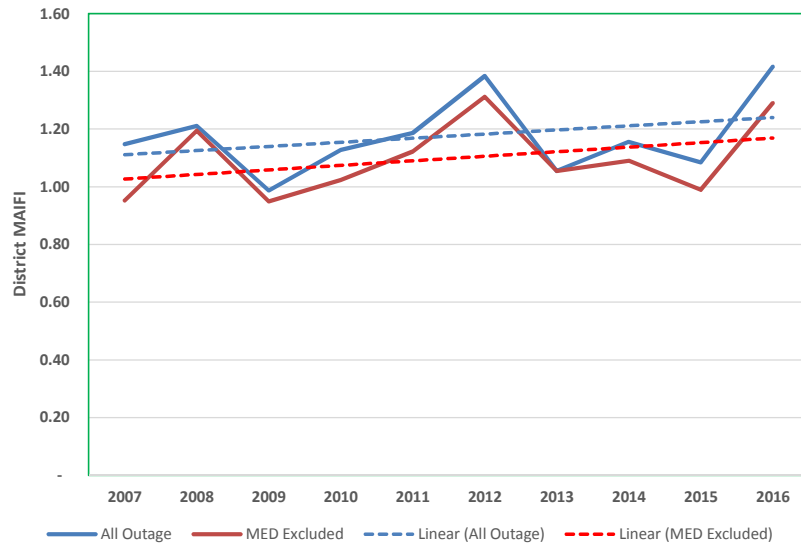
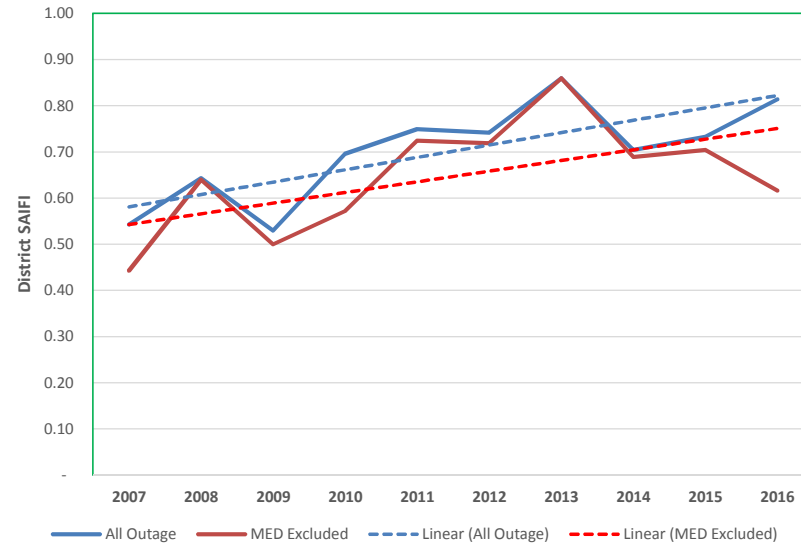
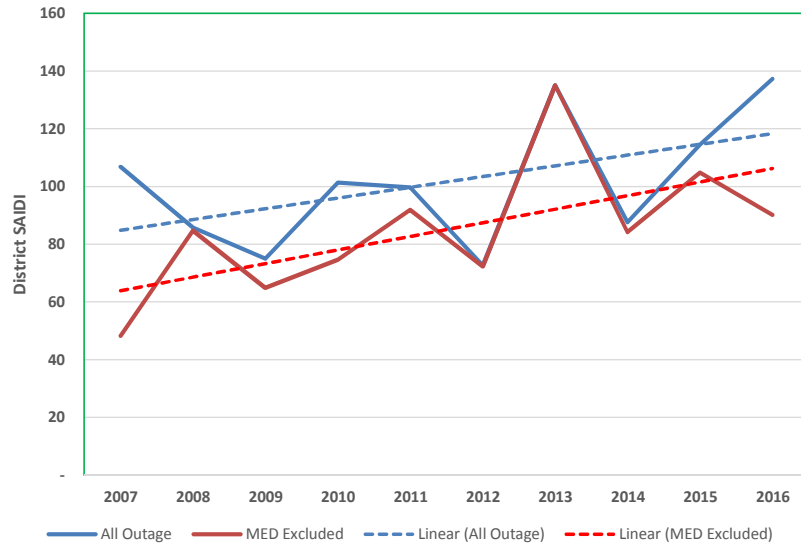
### VICTORVILLE District Reliability Performance





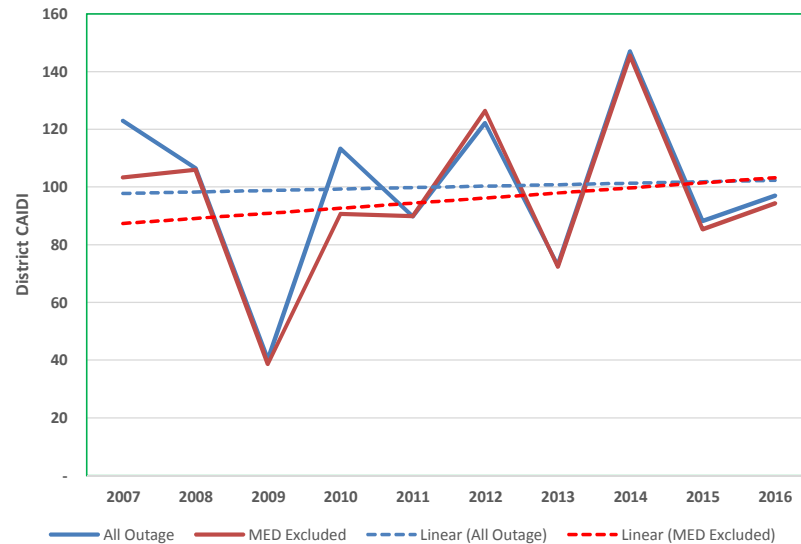
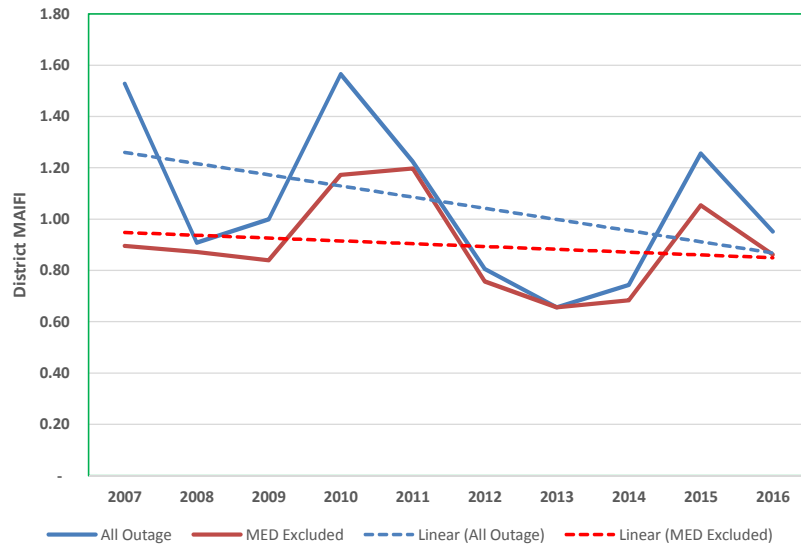
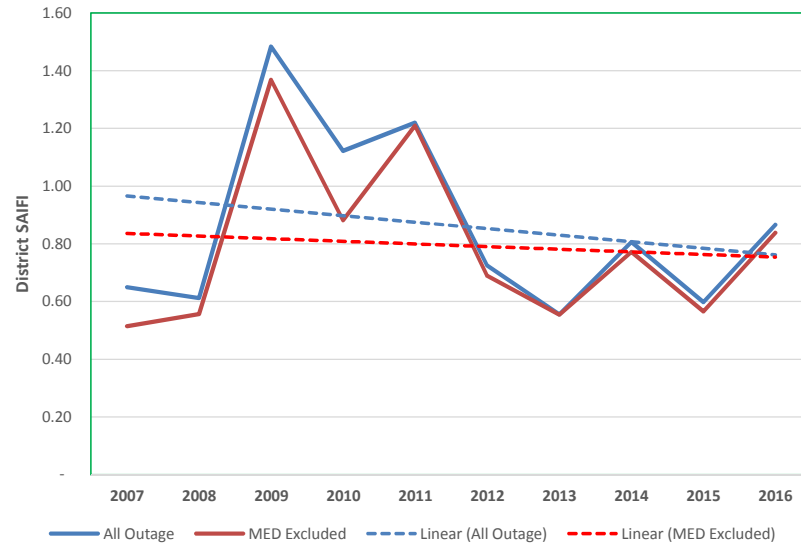
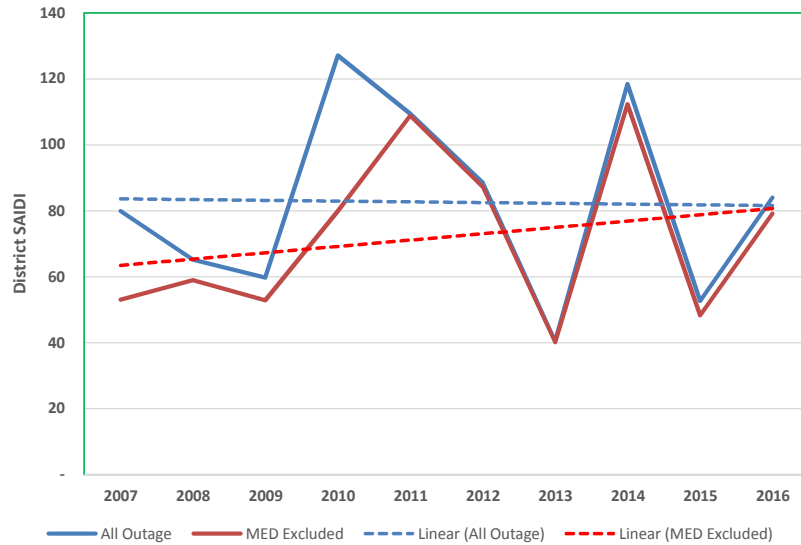
## 2007 -2016 District Reliability Graphs

### WHITTIER District Reliability Performance



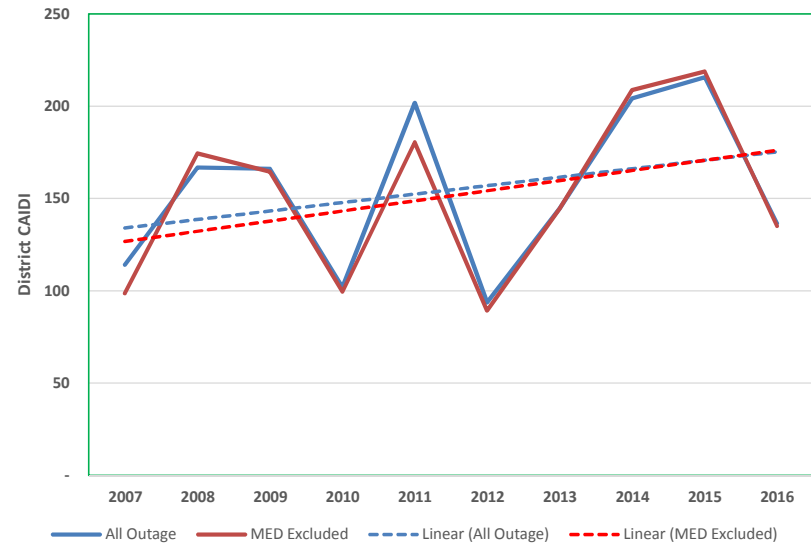
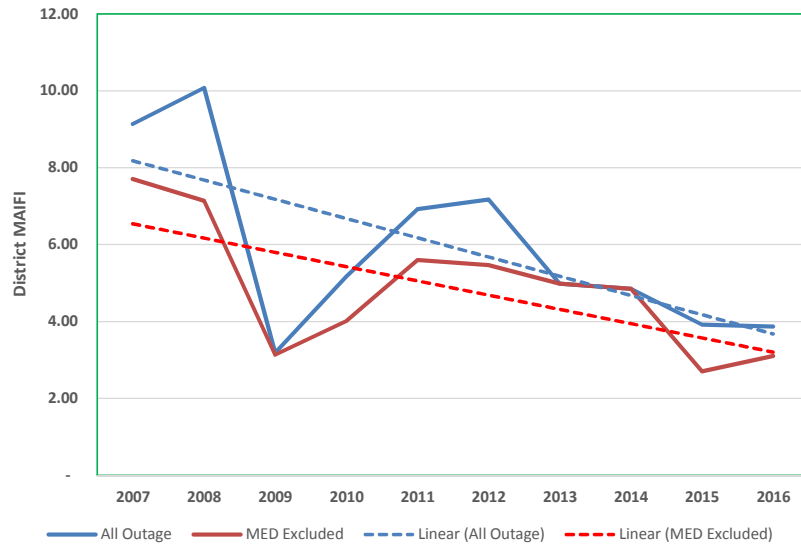
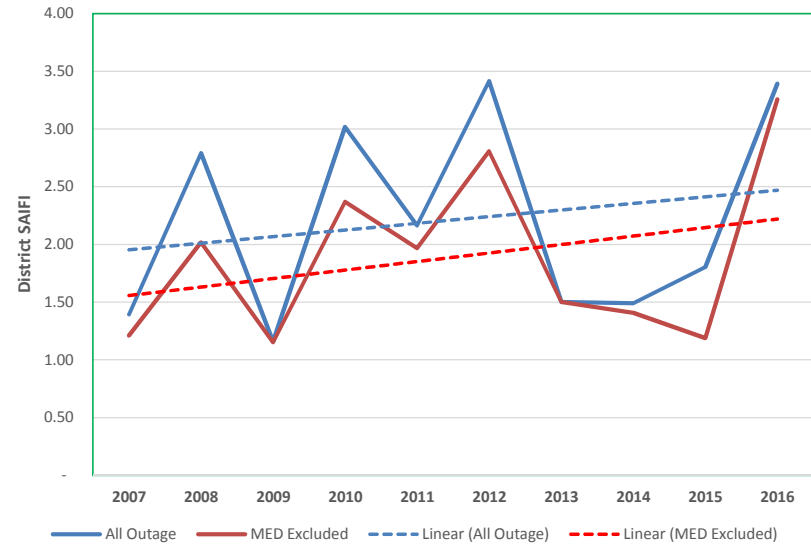
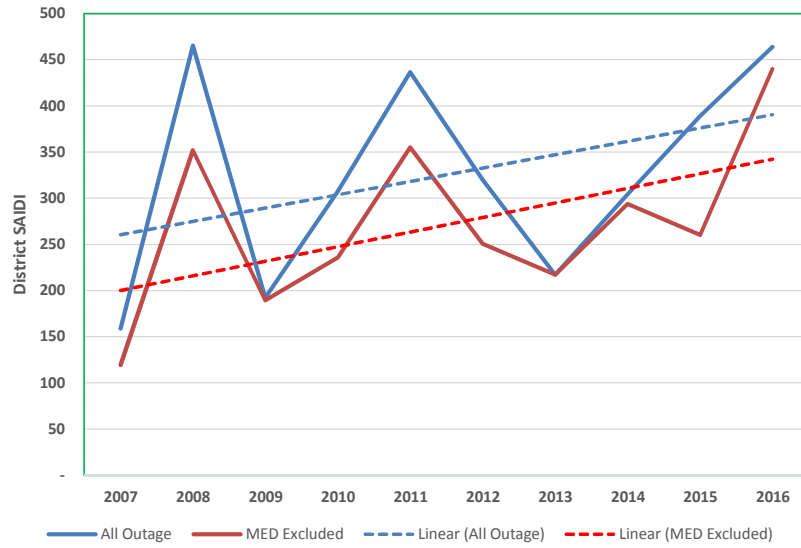
## 2007 -2016 District Reliability Graphs

### WILDOMAR District Reliability Performance



## 2007 -2016 District Reliability Graphs

### YUCCA VALLEY District Reliability Performance



**SECTION 3: SYSTEM AND DISTRICT INDICES BASED ON IEEE 1366 FOR THE PAST 10 YEARS INCLUDING PLANNED AND OUTAGES AND INCLUDING AND EXCLUDING MED**

Table 4 below contains the required SAIDI, SAIFI, MAIFI<sup>5</sup> and CAIDI indices for 2007-2016 including and excluding Major Event Day (MED) for the SCE System, Planned and Unplanned outages combined. All calculations contained in the table are based on the IEEE 1366 method for Major Event Day (MED). Planned outages are not excluded on Major Event Days. There were 101 outages in the 2016 planned outage data where our Smart Meter data did not identify a district. This population accounted for 0.3% of the population and contributed to 0.314 minutes of SAIDI.

**Table 4 – System Indices (2007-2016) Planned and Unplanned**

| YEAR | Total System Indices (All Interruptions Included) |       |       |        | Total System Indices (Major Event Days Excluded) |       |       |        |
|------|---|-------|-------|--------|--|-------|-------|--------|
|      | SAIDI   | SAIFI | MAIFI | CAIDI  | SAIDI  | SAIFI | MAIFI | CAIDI  |
| 2007 | 151.32  | 1.10  | 1.74  | 137.22 | 85.34  | 0.88  | 1.37  | 97.32  |
| 2008 | 118.91  | 1.06  | 1.73  | 112.33 | 99.35  | 0.95  | 1.56  | 104.05 |
| 2009 | 105.80  | 0.90  | 1.45  | 117.58 | 88.77  | 0.83  | 1.31  | 107.17 |
| 2010 | 140.91  | 1.05  | 1.69  | 134.56 | 98.69  | 0.82  | 1.41  | 120.99 |
| 2011 | 232.39  | 1.04  | 1.53  | 223.75 | 108.15   | 0.91  | 1.36  | 118.30 |
| 2012 | 108.13  | 0.89  | 1.43  | 121.10 | 100.70   | 0.86  | 1.35  | 117.76 |
| 2013 | 102.61  | 0.91  | 1.20  | 112.76 | 94.48  | 0.88  | 1.18  | 107.85 |
| 2014 | 112.10  | 0.97  | 1.36  | 116.04 | 92.30  | 0.86  | 1.23  | 106.82 |
| 2015 | 114.83  | 0.92  | 1.42  | 125.40 | 100.15   | 0.86  | 1.29  | 116.56 |
| 2016 | 265.83  | 1.44  | 1.56  | 184.43 | 241.33   | 1.33  | 1.41  | 180.78 |

Table 5 below contains the District SAIDI, SAIFI, MAIFI and CAIDI (including and excluding MED)

**Table 5 – District Indices (2007-2016) Planned and Unplanned**

| DISTRICT               | All Outage |        |        |         | MED Excluded |        |        |         |
|------------------------|------------|--------|--------|---------|--------------|--------|--------|---------|
|                        | dSAIDI     | dSAIFI | dMAIFI | dCAIDI  | dSAIDI       | dSAIFI | dMAIFI | dCAIDI  |
| <b>ANTELOPE VALLEY</b> |            |        |        |         |              |        |        |         |
| 2007                   | 114.501    | 0.928  | 2.011  | 123.364 | 64.760       | 0.658  | 1.506  | 98.395  |
| 2008                   | 92.185     | 0.956  | 2.414  | 96.458  | 76.570       | 0.825  | 2.124  | 92.802  |
| 2009                   | 71.229     | 0.516  | 1.631  | 137.979 | 68.386       | 0.492  | 1.473  | 139.019 |
| 2010                   | 131.063    | 0.773  | 2.022  | 169.484 | 74.576       | 0.524  | 1.321  | 142.319 |
| 2011                   | 208.159    | 1.247  | 1.669  | 166.965 | 128.137      | 1.144  | 1.595  | 111.981 |
| 2012                   | 78.604     | 0.565  | 1.428  | 139.172 | 76.461       | 0.549  | 1.412  | 139.354 |
| 2013                   | 94.416     | 0.619  | 1.172  | 152.621 | 94.222       | 0.613  | 1.166  | 153.772 |
| 2014                   | 50.956     | 0.593  | 1.153  | 85.927  | 45.595       | 0.548  | 1.070  | 83.156  |
| 2015                   | 104.337    | 0.680  | 1.838  | 153.528 | 70.206       | 0.601  | 1.514  | 116.783 |
| 2016                   | 174.941    | 1.096  | 1.528  | 159.616 | 168.470      | 1.040  | 1.435  | 161.952 |

<sup>5</sup> SCE calculates MAIFI at every individual outage event

| DISTRICT         | All Outage |        |        |          | MED Excluded |        |        |         |
|------------------|------------|--------|--------|----------|--------------|--------|--------|---------|
|                  | dSAIDI     | dSAIFI | dMAIFI | dCAIDI   | dSAIDI       | dSAIFI | dMAIFI | dCAIDI  |
| <b>ARROWHEAD</b> |            |        |        |          |              |        |        |         |
| 2007             | 2892.980   | 2.847  | 3.221  | 1016.258 | 111.494      | 2.102  | 2.459  | 53.043  |
| 2008             | 1239.362   | 5.427  | 11.469 | 228.387  | 475.902      | 3.642  | 6.678  | 130.682 |
| 2009             | 534.083    | 3.406  | 7.385  | 156.795  | 440.132      | 2.842  | 4.674  | 154.893 |
| 2010             | 537.400    | 3.841  | 18.875 | 139.895  | 229.659      | 1.974  | 16.782 | 116.369 |
| 2011             | 792.792    | 4.403  | 6.090  | 180.074  | 444.698      | 2.992  | 5.736  | 148.605 |
| 2012             | 129.579    | 1.307  | 3.972  | 99.116   | 89.043       | 1.043  | 3.757  | 85.372  |
| 2013             | 180.586    | 1.386  | 5.017  | 130.286  | 134.768      | 1.174  | 3.637  | 114.839 |
| 2014             | 193.249    | 1.590  | 4.018  | 121.532  | 81.968       | 0.898  | 3.035  | 91.277  |
| 2015             | 362.615    | 3.973  | 5.595  | 91.273   | 186.743      | 2.755  | 2.730  | 67.794  |
| 2016             | 753.996    | 3.192  | 5.974  | 236.234  | 295.253      | 2.226  | 4.734  | 132.620 |
| <b>BARSTOW</b>   |            |        |        |          |              |        |        |         |
| 2007             | 126.626    | 1.253  | 3.641  | 101.058  | 101.628      | 1.052  | 3.330  | 96.602  |
| 2008             | 403.157    | 2.363  | 4.415  | 170.643  | 318.756      | 1.920  | 3.625  | 166.036 |
| 2009             | 153.493    | 1.139  | 1.824  | 134.766  | 125.148      | 1.060  | 1.773  | 118.040 |
| 2010             | 123.015    | 1.511  | 3.041  | 81.440   | 96.881       | 1.190  | 2.648  | 81.400  |
| 2011             | 308.760    | 1.631  | 6.115  | 189.288  | 271.659      | 1.549  | 5.735  | 175.418 |
| 2012             | 184.797    | 1.152  | 2.645  | 160.377  | 182.786      | 1.144  | 2.524  | 159.819 |
| 2013             | 204.329    | 1.395  | 3.284  | 146.469  | 185.788      | 1.286  | 2.702  | 144.416 |
| 2014             | 201.526    | 1.343  | 2.536  | 150.058  | 173.680      | 1.240  | 2.410  | 140.098 |
| 2015             | 187.113    | 1.174  | 2.859  | 159.416  | 157.379      | 0.997  | 2.131  | 157.841 |
| 2016             | 187.771    | 1.538  | 2.300  | 122.114  | 183.028      | 1.527  | 2.287  | 119.823 |
| <b>BIG CREEK</b> |            |        |        |          |              |        |        |         |
| 2007             | 48.693     | 0.160  | 0.542  | 303.987  | 48.429       | 0.157  | 0.542  | 309.042 |
| 2008             | 104.921    | 2.499  | 2.291  | 41.977   | 91.752       | 2.059  | 1.466  | 44.558  |
| 2009             | 259.275    | 1.441  | 1.856  | 179.865  | 259.275      | 1.441  | 1.856  | 179.865 |
| 2010             | 5700.992   | 12.891 | 7.874  | 442.244  | 683.925      | 6.344  | 3.818  | 107.812 |
| 2011             | 1667.047   | 4.222  | 3.933  | 394.852  | 984.340      | 1.650  | 2.741  | 596.466 |
| 2012             | 1184.253   | 4.523  | 2.608  | 261.831  | 842.662      | 4.182  | 1.681  | 201.512 |
| 2013             | 176.510    | 3.080  | 4.987  | 57.308   | 176.510      | 3.080  | 4.711  | 57.308  |
| 2014             | 920.254    | 1.342  | 4.901  | 685.961  | 438.216      | 0.581  | 3.960  | 754.138 |
| 2015             | 422.768    | 3.415  | 9.298  | 123.785  | 422.768      | 3.415  | 9.298  | 123.785 |
| 2016             | 1672.107   | 7.236  | 4.232  | 231.067  | 1384.095     | 5.039  | 2.241  | 274.676 |
| <b>BISHOP</b>    |            |        |        |          |              |        |        |         |
| 2007             | 121.015    | 0.624  | 2.542  | 193.977  | 121.015      | 0.624  | 2.527  | 193.977 |
| 2008             | 265.070    | 1.087  | 1.923  | 243.782  | 159.414      | 0.882  | 1.777  | 180.641 |
| 2009             | 143.545    | 1.362  | 1.493  | 105.382  | 142.174      | 1.356  | 1.491  | 104.869 |
| 2010             | 407.920    | 2.502  | 5.664  | 163.016  | 293.294      | 2.332  | 4.251  | 125.792 |
| 2011             | 666.064    | 1.548  | 2.571  | 430.339  | 105.588      | 1.344  | 2.247  | 78.591  |
| 2012             | 463.093    | 1.248  | 2.288  | 371.138  | 424.766      | 1.103  | 2.205  | 384.980 |
| 2013             | 104.436    | 0.514  | 1.267  | 203.233  | 104.425      | 0.514  | 1.267  | 203.232 |
| 2014             | 118.793    | 0.587  | 1.885  | 202.475  | 113.618      | 0.499  | 1.706  | 227.572 |
| 2015             | 298.106    | 2.218  | 3.332  | 134.431  | 298.106      | 2.218  | 3.272  | 134.431 |
| 2016             | 332.005    | 1.678  | 2.836  | 197.843  | 331.943      | 1.678  | 2.727  | 197.818 |
| <b>BLYTHE</b>    |            |        |        |          |              |        |        |         |
| 2007             | 299.336    | 2.145  | 3.534  | 139.545  | 274.065      | 1.902  | 3.460  | 144.099 |
| 2008             | 454.705    | 3.094  | 4.795  | 146.982  | 454.705      | 3.094  | 4.042  | 146.982 |
| 2009             | 83.884     | 0.820  | 1.717  | 102.296  | 83.605       | 0.816  | 1.482  | 102.403 |
| 2010             | 1332.781   | 2.030  | 2.817  | 656.668  | 294.445      | 1.344  | 2.641  | 219.114 |
| 2011             | 378.393    | 1.402  | 3.717  | 269.845  | 321.050      | 1.312  | 3.443  | 244.767 |
| 2012             | 225.884    | 1.529  | 3.749  | 147.714  | 221.814      | 1.498  | 3.749  | 148.058 |
| 2013             | 483.127    | 1.380  | 5.466  | 349.971  | 482.815      | 1.372  | 5.382  | 351.779 |
| 2014             | 707.218    | 2.417  | 4.658  | 292.632  | 706.974      | 2.385  | 4.433  | 296.395 |
| 2015             | 426.997    | 1.515  | 1.396  | 281.754  | 331.521      | 1.129  | 1.163  | 293.751 |
| 2016             | 649.170    | 3.562  | 6.349  | 182.233  | 555.778      | 2.773  | 4.855  | 200.447 |
| <b>CATALINA</b>  |            |        |        |          |              |        |        |         |
| 2007             | 1030.400   | 4.784  | 1.789  | 215.399  | 1030.400     | 4.784  | 1.789  | 215.399 |
| 2008             | 29.733     | 1.357  | 0.888  | 21.915   | 29.733       | 1.357  | 0.888  | 21.915  |
| 2009             | 98.586     | 2.542  | 1.235  | 38.779   | 98.586       | 2.542  | 1.235  | 38.779  |
| 2010             | 67.227     | 1.549  | 0.728  | 43.391   | 67.227       | 1.549  | 0.728  | 43.391  |
| 2011             | 65.029     | 3.454  | 3.317  | 18.828   | 65.029       | 3.454  | 3.317  | 18.828  |
| 2012             | 78.463     | 0.724  | 0.765  | 108.396  | 78.463       | 0.724  | 0.765  | 108.396 |
| 2013             | 105.939    | 2.968  | 3.093  | 35.691   | 105.939      | 2.968  | 3.093  | 35.691  |
| 2014             | 97.024     | 4.170  | 2.321  | 23.269   | 97.024       | 4.170  | 2.321  | 23.269  |
| 2015             | 42.563     | 2.252  | 2.885  | 18.904   | 42.563       | 2.252  | 2.885  | 18.904  |
| 2016             | 97.450     | 3.700  | 3.207  | 26.338   | 97.450       | 3.700  | 3.207  | 26.338  |

| DISTRICT                | All Outage |        |        |         | MED Excluded |        |        |         |
|-------------------------|------------|--------|--------|---------|--------------|--------|--------|---------|
|                         | dSAIDI     | dSAIFI | dMAIFI | dCAIDI  | dSAIDI       | dSAIFI | dMAIFI | dCAIDI  |
| <b>COVINA</b>           |            |        |        |         |              |        |        |         |
| 2007                    | 109.919    | 0.825  | 1.259  | 133.295 | 67.746       | 0.696  | 1.110  | 97.388  |
| 2008                    | 84.551     | 0.639  | 1.358  | 132.397 | 74.686       | 0.582  | 1.269  | 128.384 |
| 2009                    | 78.043     | 0.682  | 1.063  | 114.418 | 62.591       | 0.603  | 0.959  | 103.822 |
| 2010                    | 117.660    | 0.810  | 1.130  | 145.299 | 99.323       | 0.708  | 0.983  | 140.232 |
| 2011                    | 166.969    | 0.870  | 1.181  | 191.870 | 86.994       | 0.736  | 1.077  | 118.129 |
| 2012                    | 108.732    | 0.915  | 1.333  | 118.824 | 102.888      | 0.867  | 1.267  | 118.680 |
| 2013                    | 100.505    | 0.856  | 1.004  | 117.414 | 100.297      | 0.853  | 0.992  | 117.582 |
| 2014                    | 91.418     | 0.874  | 1.257  | 104.580 | 81.424       | 0.804  | 1.028  | 101.295 |
| 2015                    | 100.085    | 0.815  | 1.164  | 122.866 | 99.838       | 0.813  | 1.152  | 122.755 |
| 2016                    | 239.474    | 1.288  | 1.323  | 185.960 | 218.270      | 1.189  | 1.149  | 183.532 |
| <b>DOMINGUEZ HILLS</b>  |            |        |        |         |              |        |        |         |
| 2007                    | 144.034    | 0.839  | 1.735  | 171.716 | 65.049       | 0.637  | 1.498  | 102.096 |
| 2008                    | 81.303     | 0.699  | 1.386  | 116.316 | 71.633       | 0.644  | 1.313  | 111.283 |
| 2009                    | 89.813     | 0.681  | 1.698  | 131.889 | 81.227       | 0.633  | 1.575  | 128.322 |
| 2010                    | 119.230    | 0.779  | 1.578  | 153.004 | 88.110       | 0.585  | 1.337  | 150.626 |
| 2011                    | 109.414    | 0.718  | 1.566  | 152.338 | 90.548       | 0.644  | 1.433  | 140.680 |
| 2012                    | 117.225    | 0.824  | 1.863  | 142.330 | 110.077      | 0.792  | 1.830  | 139.031 |
| 2013                    | 89.167     | 0.797  | 1.938  | 111.893 | 89.167       | 0.797  | 1.938  | 111.893 |
| 2014                    | 82.192     | 0.711  | 1.603  | 115.553 | 73.493       | 0.656  | 1.560  | 111.977 |
| 2015                    | 130.629    | 0.967  | 2.049  | 135.097 | 126.046      | 0.934  | 1.958  | 134.903 |
| 2016                    | 288.090    | 1.398  | 2.541  | 206.024 | 268.861      | 1.301  | 2.232  | 206.699 |
| <b>FOOTHILL</b>         |            |        |        |         |              |        |        |         |
| 2007                    | 184.288    | 1.384  | 2.401  | 133.203 | 94.017       | 0.969  | 1.545  | 96.979  |
| 2008                    | 85.539     | 0.636  | 1.658  | 134.423 | 76.793       | 0.577  | 1.605  | 133.050 |
| 2009                    | 94.329     | 0.620  | 1.281  | 152.254 | 60.566       | 0.435  | 1.015  | 139.105 |
| 2010                    | 76.599     | 0.460  | 0.975  | 166.649 | 64.982       | 0.405  | 0.857  | 160.634 |
| 2011                    | 117.405    | 0.955  | 1.226  | 122.901 | 97.462       | 0.879  | 0.896  | 110.915 |
| 2012                    | 91.694     | 0.903  | 0.931  | 101.552 | 91.479       | 0.900  | 0.900  | 101.608 |
| 2013                    | 85.800     | 0.787  | 0.987  | 109.087 | 85.800       | 0.787  | 0.987  | 109.087 |
| 2014                    | 93.337     | 0.932  | 1.285  | 100.140 | 88.135       | 0.861  | 1.249  | 102.395 |
| 2015                    | 109.637    | 0.947  | 1.304  | 115.764 | 87.796       | 0.890  | 1.230  | 98.673  |
| 2016                    | 268.951    | 1.422  | 1.512  | 189.100 | 264.322      | 1.403  | 1.488  | 188.437 |
| <b>FULLERTON</b>        |            |        |        |         |              |        |        |         |
| 2007                    | 133.134    | 0.824  | 0.979  | 161.546 | 67.052       | 0.582  | 0.770  | 115.246 |
| 2008                    | 91.886     | 0.779  | 0.967  | 117.957 | 87.406       | 0.738  | 0.888  | 118.371 |
| 2009                    | 62.350     | 0.457  | 0.846  | 136.512 | 60.763       | 0.431  | 0.773  | 140.841 |
| 2010                    | 135.217    | 1.186  | 1.208  | 113.985 | 94.282       | 0.671  | 0.859  | 140.606 |
| 2011                    | 90.110     | 0.607  | 1.076  | 148.499 | 88.745       | 0.604  | 1.075  | 146.940 |
| 2012                    | 68.992     | 0.419  | 0.943  | 164.469 | 64.428       | 0.401  | 0.878  | 160.539 |
| 2013                    | 90.572     | 0.793  | 0.910  | 114.158 | 90.572       | 0.793  | 0.910  | 114.158 |
| 2014                    | 82.201     | 0.723  | 1.004  | 113.714 | 69.996       | 0.649  | 0.974  | 107.848 |
| 2015                    | 76.586     | 0.669  | 1.014  | 114.471 | 75.504       | 0.642  | 0.995  | 117.681 |
| 2016                    | 204.966    | 1.107  | 1.179  | 185.149 | 186.013      | 0.936  | 0.979  | 198.795 |
| <b>HUNTINGTON BEACH</b> |            |        |        |         |              |        |        |         |
| 2007                    | 108.026    | 0.972  | 1.292  | 111.100 | 86.495       | 0.855  | 1.101  | 101.183 |
| 2008                    | 84.497     | 0.776  | 0.954  | 108.846 | 80.194       | 0.739  | 0.898  | 108.503 |
| 2009                    | 109.420    | 1.041  | 1.191  | 105.156 | 97.754       | 0.881  | 1.143  | 111.009 |
| 2010                    | 129.496    | 1.023  | 1.305  | 126.636 | 101.546      | 0.848  | 1.029  | 119.812 |
| 2011                    | 122.539    | 0.956  | 1.488  | 128.169 | 114.519      | 0.885  | 1.406  | 129.457 |
| 2012                    | 95.784     | 0.889  | 1.046  | 107.737 | 94.680       | 0.882  | 1.046  | 107.395 |
| 2013                    | 66.507     | 0.680  | 0.815  | 97.833  | 66.507       | 0.680  | 0.815  | 97.833  |
| 2014                    | 76.901     | 0.738  | 1.093  | 104.152 | 65.367       | 0.676  | 0.964  | 96.710  |
| 2015                    | 98.315     | 0.955  | 1.217  | 102.952 | 94.111       | 0.929  | 1.169  | 101.352 |
| 2016                    | 253.960    | 1.665  | 1.232  | 152.547 | 234.100      | 1.589  | 1.169  | 147.352 |
| <b>KERNVILLE</b>        |            |        |        |         |              |        |        |         |
| 2007                    | 225.015    | 2.386  | 2.217  | 94.288  | 224.908      | 2.385  | 2.217  | 94.283  |
| 2008                    | 590.919    | 3.898  | 7.309  | 151.580 | 228.916      | 2.548  | 4.493  | 89.833  |
| 2009                    | 585.927    | 2.006  | 5.688  | 292.025 | 559.460      | 1.854  | 5.053  | 301.808 |
| 2010                    | 584.742    | 1.795  | 4.336  | 325.686 | 444.191      | 1.490  | 4.011  | 298.084 |
| 2011                    | 165.695    | 1.025  | 3.316  | 161.713 | 138.134      | 0.964  | 2.620  | 143.346 |
| 2012                    | 226.761    | 1.311  | 3.636  | 172.995 | 160.694      | 1.066  | 3.010  | 150.692 |
| 2013                    | 232.181    | 1.964  | 4.925  | 118.189 | 180.865      | 1.577  | 4.824  | 114.682 |
| 2014                    | 178.691    | 1.987  | 1.882  | 89.932  | 142.946      | 1.918  | 1.831  | 74.541  |
| 2015                    | 286.382    | 0.961  | 1.630  | 297.920 | 231.411      | 0.857  | 1.293  | 270.120 |
| 2016                    | 2729.902   | 4.545  | 3.103  | 600.638 | 1217.766     | 3.710  | 3.007  | 328.213 |

| DISTRICT            | All Outage |        |        |          | MED Excluded |        |        |         |
|---------------------|------------|--------|--------|----------|--------------|--------|--------|---------|
|                     | dSAIDI     | dSAIFI | dMAIFI | dCAIDI   | dSAIDI       | dSAIFI | dMAIFI | dCAIDI  |
| <b>LONG BEACH</b>   |            |        |        |          |              |        |        |         |
| 2007                | 87.178     | 0.733  | 1.065  | 118.869  | 47.569       | 0.602  | 0.911  | 78.958  |
| 2008                | 52.535     | 0.436  | 0.640  | 120.516  | 48.058       | 0.409  | 0.604  | 117.392 |
| 2009                | 41.503     | 0.421  | 0.876  | 98.539   | 40.045       | 0.415  | 0.851  | 96.547  |
| 2010                | 72.284     | 0.633  | 0.897  | 114.156  | 53.982       | 0.546  | 0.774  | 98.809  |
| 2011                | 58.475     | 0.579  | 0.894  | 100.942  | 52.380       | 0.562  | 0.853  | 93.191  |
| 2012                | 75.830     | 0.554  | 1.106  | 136.864  | 72.654       | 0.536  | 1.059  | 135.673 |
| 2013                | 75.107     | 0.699  | 0.779  | 107.497  | 74.628       | 0.694  | 0.775  | 107.551 |
| 2014                | 66.226     | 0.606  | 1.168  | 109.270  | 57.781       | 0.548  | 1.083  | 105.376 |
| 2015                | 164.463    | 0.894  | 1.185  | 183.904  | 89.160       | 0.846  | 1.168  | 105.378 |
| 2016                | 258.116    | 1.151  | 1.312  | 224.274  | 219.930      | 0.989  | 1.100  | 222.387 |
| <b>MENIFEE</b>      |            |        |        |          |              |        |        |         |
| 2007                | 181.198    | 1.230  | 2.189  | 147.261  | 77.917       | 0.896  | 1.367  | 86.932  |
| 2008                | 111.189    | 1.570  | 1.757  | 70.808   | 83.826       | 1.490  | 1.726  | 56.272  |
| 2009                | 106.451    | 1.809  | 1.026  | 58.854   | 97.637       | 1.743  | 0.910  | 56.004  |
| 2010                | 100.653    | 0.762  | 1.202  | 132.119  | 74.081       | 0.613  | 0.903  | 120.754 |
| 2011                | 100.482    | 0.891  | 1.339  | 112.728  | 93.705       | 0.804  | 1.299  | 116.607 |
| 2012                | 99.320     | 0.838  | 1.736  | 118.576  | 98.627       | 0.824  | 1.680  | 119.740 |
| 2013                | 107.388    | 1.264  | 0.744  | 84.979   | 106.298      | 1.220  | 0.725  | 87.135  |
| 2014                | 156.641    | 1.323  | 1.573  | 118.410  | 77.367       | 1.004  | 1.276  | 77.030  |
| 2015                | 111.460    | 0.978  | 1.302  | 113.971  | 85.322       | 0.876  | 1.067  | 97.393  |
| 2016                | 272.761    | 1.691  | 1.450  | 161.345  | 255.018      | 1.570  | 1.340  | 162.435 |
| <b>MONROVIA</b>     |            |        |        |          |              |        |        |         |
| 2007                | 142.012    | 1.051  | 2.174  | 135.116  | 71.658       | 0.724  | 1.586  | 99.022  |
| 2008                | 103.789    | 0.848  | 1.881  | 122.426  | 95.940       | 0.761  | 1.770  | 126.002 |
| 2009                | 219.773    | 0.869  | 2.029  | 252.948  | 102.119      | 0.744  | 1.614  | 137.210 |
| 2010                | 124.340    | 1.078  | 2.014  | 115.381  | 93.507       | 0.902  | 1.775  | 103.624 |
| 2011                | 2414.044   | 1.891  | 2.463  | 1276.874 | 130.692      | 1.025  | 1.740  | 127.514 |
| 2012                | 108.110    | 1.126  | 1.781  | 95.987   | 99.185       | 1.068  | 1.632  | 92.910  |
| 2013                | 99.116     | 1.017  | 1.322  | 97.496   | 98.965       | 1.015  | 1.311  | 97.500  |
| 2014                | 133.311    | 1.157  | 1.258  | 115.176  | 96.360       | 1.005  | 1.069  | 95.846  |
| 2015                | 96.679     | 0.881  | 1.618  | 109.737  | 95.327       | 0.863  | 1.554  | 110.466 |
| 2016                | 256.395    | 1.176  | 1.660  | 218.071  | 233.207      | 1.103  | 1.531  | 211.395 |
| <b>MONTEBELLO</b>   |            |        |        |          |              |        |        |         |
| 2007                | 152.689    | 0.885  | 2.433  | 172.614  | 62.123       | 0.618  | 1.908  | 100.540 |
| 2008                | 93.833     | 0.712  | 1.678  | 131.832  | 85.623       | 0.665  | 1.633  | 128.688 |
| 2009                | 192.332    | 1.191  | 2.337  | 161.484  | 87.243       | 1.099  | 2.174  | 79.370  |
| 2010                | 147.851    | 1.117  | 1.987  | 132.361  | 118.232      | 0.972  | 1.688  | 121.649 |
| 2011                | 678.332    | 1.214  | 2.388  | 558.556  | 115.694      | 0.853  | 1.821  | 135.577 |
| 2012                | 131.058    | 1.127  | 1.946  | 116.316  | 107.511      | 1.040  | 1.823  | 103.423 |
| 2013                | 118.078    | 1.174  | 1.890  | 100.609  | 117.713      | 1.169  | 1.890  | 100.660 |
| 2014                | 158.316    | 1.164  | 1.959  | 136.010  | 124.669      | 1.020  | 1.763  | 122.179 |
| 2015                | 150.280    | 1.183  | 2.213  | 126.992  | 145.303      | 1.131  | 2.087  | 128.462 |
| 2016                | 352.148    | 1.632  | 2.066  | 215.752  | 325.890      | 1.509  | 1.892  | 215.923 |
| <b>ONTARIO</b>      |            |        |        |          |              |        |        |         |
| 2007                | 153.294    | 0.961  | 1.798  | 159.526  | 82.715       | 0.704  | 1.115  | 117.505 |
| 2008                | 99.041     | 0.790  | 1.449  | 125.372  | 92.016       | 0.738  | 1.379  | 124.620 |
| 2009                | 88.186     | 0.748  | 1.200  | 117.973  | 80.625       | 0.703  | 1.098  | 114.619 |
| 2010                | 90.448     | 0.811  | 1.480  | 111.528  | 70.279       | 0.655  | 1.258  | 107.242 |
| 2011                | 117.664    | 0.822  | 1.317  | 143.189  | 96.594       | 0.749  | 1.235  | 128.944 |
| 2012                | 93.087     | 0.869  | 1.159  | 107.130  | 91.407       | 0.833  | 1.140  | 109.720 |
| 2013                | 77.392     | 0.791  | 0.933  | 97.841   | 74.037       | 0.782  | 0.926  | 94.728  |
| 2014                | 97.881     | 0.996  | 1.160  | 98.312   | 86.676       | 0.902  | 1.041  | 96.114  |
| 2015                | 94.043     | 0.744  | 0.926  | 126.432  | 81.608       | 0.709  | 0.867  | 115.156 |
| 2016                | 227.939    | 1.274  | 1.288  | 178.977  | 209.030      | 1.146  | 1.101  | 182.411 |
| <b>PALM SPRINGS</b> |            |        |        |          |              |        |        |         |
| 2007                | 179.753    | 1.235  | 1.303  | 145.499  | 133.823      | 1.125  | 1.149  | 118.977 |
| 2008                | 170.541    | 1.506  | 2.405  | 113.251  | 144.142      | 1.400  | 2.213  | 102.984 |
| 2009                | 151.662    | 1.106  | 1.905  | 137.079  | 140.027      | 1.047  | 1.824  | 133.722 |
| 2010                | 180.688    | 1.039  | 1.367  | 173.826  | 162.059      | 0.940  | 1.148  | 172.391 |
| 2011                | 164.765    | 0.886  | 1.182  | 186.029  | 144.131      | 0.842  | 1.117  | 171.272 |
| 2012                | 175.916    | 1.267  | 1.505  | 138.814  | 113.848      | 1.130  | 1.236  | 100.717 |
| 2013                | 112.796    | 0.774  | 0.997  | 145.669  | 112.193      | 0.769  | 0.997  | 145.815 |
| 2014                | 106.960    | 0.708  | 0.941  | 151.072  | 95.065       | 0.667  | 0.885  | 142.620 |
| 2015                | 99.542     | 0.800  | 1.042  | 124.376  | 95.795       | 0.753  | 0.949  | 127.171 |
| 2016                | 258.243    | 1.521  | 1.285  | 169.743  | 252.026      | 1.465  | 1.137  | 171.990 |

| DISTRICT             | All Outage |        |        |         | MED Excluded |        |        |         |
|----------------------|------------|--------|--------|---------|--------------|--------|--------|---------|
|                      | dSAIDI     | dSAIFI | dMAIFI | dCAIDI  | dSAIDI       | dSAIFI | dMAIFI | dCAIDI  |
| <b>REDLANDS</b>      |            |        |        |         |              |        |        |         |
| 2007                 | 180.766    | 1.563  | 2.168  | 115.679 | 93.598       | 1.093  | 1.533  | 85.666  |
| 2008                 | 103.674    | 0.911  | 1.602  | 113.832 | 93.720       | 0.842  | 1.477  | 111.282 |
| 2009                 | 107.204    | 0.895  | 1.469  | 119.732 | 87.582       | 0.807  | 1.221  | 108.514 |
| 2010                 | 216.759    | 1.692  | 3.207  | 128.121 | 95.898       | 1.332  | 2.692  | 71.988  |
| 2011                 | 253.703    | 1.630  | 1.323  | 155.689 | 142.273      | 1.428  | 1.244  | 99.628  |
| 2012                 | 120.127    | 1.108  | 1.600  | 108.399 | 114.781      | 1.068  | 1.563  | 107.435 |
| 2013                 | 96.481     | 1.044  | 0.911  | 92.410  | 95.273       | 1.036  | 0.908  | 91.977  |
| 2014                 | 154.227    | 1.040  | 1.312  | 148.311 | 85.520       | 0.872  | 1.149  | 98.024  |
| 2015                 | 124.519    | 1.012  | 1.467  | 122.990 | 102.289      | 0.935  | 1.247  | 109.365 |
| 2016                 | 237.564    | 1.273  | 1.478  | 186.559 | 219.230      | 1.178  | 1.339  | 186.054 |
| <b>RIDGECREST</b>    |            |        |        |         |              |        |        |         |
| 2007                 | 82.358     | 0.724  | 3.358  | 113.726 | 68.306       | 0.583  | 3.155  | 117.120 |
| 2008                 | 167.192    | 1.423  | 3.184  | 117.455 | 163.869      | 1.414  | 3.179  | 115.856 |
| 2009                 | 58.339     | 0.684  | 3.343  | 85.234  | 40.758       | 0.501  | 2.586  | 81.374  |
| 2010                 | 153.378    | 1.410  | 2.219  | 108.746 | 151.176      | 1.394  | 1.850  | 108.443 |
| 2011                 | 89.261     | 0.737  | 4.140  | 121.196 | 67.647       | 0.528  | 3.916  | 128.124 |
| 2012                 | 229.646    | 1.439  | 3.738  | 159.634 | 228.264      | 1.421  | 3.711  | 160.656 |
| 2013                 | 161.952    | 1.122  | 3.828  | 144.376 | 83.920       | 0.824  | 3.315  | 101.793 |
| 2014                 | 176.795    | 1.573  | 2.193  | 112.388 | 167.746      | 1.509  | 2.180  | 111.181 |
| 2015                 | 148.895    | 1.012  | 2.169  | 147.145 | 139.509      | 0.837  | 1.514  | 166.702 |
| 2016                 | 287.217    | 1.150  | 1.285  | 249.712 | 282.115      | 1.043  | 1.162  | 270.433 |
| <b>SADDLEBACK</b>    |            |        |        |         |              |        |        |         |
| 2007                 | 199.589    | 1.219  | 0.649  | 163.703 | 129.098      | 0.898  | 0.495  | 143.750 |
| 2008                 | 89.743     | 0.925  | 0.572  | 97.007  | 84.923       | 0.874  | 0.567  | 97.138  |
| 2009                 | 78.986     | 0.697  | 0.486  | 113.254 | 77.683       | 0.686  | 0.481  | 113.193 |
| 2010                 | 137.236    | 0.962  | 0.433  | 142.663 | 96.192       | 0.778  | 0.373  | 123.677 |
| 2011                 | 75.942     | 0.547  | 0.818  | 138.842 | 74.783       | 0.527  | 0.753  | 141.934 |
| 2012                 | 83.013     | 0.728  | 0.766  | 113.998 | 81.379       | 0.715  | 0.765  | 113.864 |
| 2013                 | 70.688     | 0.532  | 0.513  | 132.957 | 70.688       | 0.532  | 0.513  | 132.957 |
| 2014                 | 99.074     | 0.745  | 0.556  | 133.025 | 92.899       | 0.708  | 0.549  | 131.230 |
| 2015                 | 46.026     | 0.385  | 0.379  | 119.543 | 45.654       | 0.384  | 0.379  | 118.976 |
| 2016                 | 159.284    | 0.959  | 0.781  | 166.143 | 155.758      | 0.916  | 0.740  | 170.123 |
| <b>SAN JOAQUIN</b>   |            |        |        |         |              |        |        |         |
| 2007                 | 104.148    | 1.692  | 2.125  | 61.550  | 101.996      | 1.664  | 2.001  | 61.299  |
| 2008                 | 102.285    | 1.010  | 2.105  | 101.290 | 93.741       | 0.984  | 2.026  | 95.232  |
| 2009                 | 96.592     | 0.906  | 2.087  | 106.555 | 93.243       | 0.867  | 2.030  | 107.524 |
| 2010                 | 126.684    | 1.043  | 1.642  | 121.481 | 98.341       | 0.932  | 1.503  | 105.567 |
| 2011                 | 83.994     | 0.743  | 1.387  | 113.010 | 75.838       | 0.712  | 1.301  | 106.565 |
| 2012                 | 135.897    | 1.044  | 1.455  | 130.115 | 123.112      | 1.005  | 1.290  | 122.504 |
| 2013                 | 244.439    | 1.448  | 1.698  | 168.757 | 71.744       | 0.800  | 1.548  | 89.668  |
| 2014                 | 137.738    | 1.164  | 1.519  | 118.285 | 93.658       | 0.997  | 1.303  | 93.949  |
| 2015                 | 127.502    | 1.052  | 1.414  | 121.240 | 99.829       | 0.908  | 1.106  | 109.936 |
| 2016                 | 259.232    | 1.367  | 1.121  | 189.694 | 252.610      | 1.315  | 1.099  | 192.043 |
| <b>SANTA ANA</b>     |            |        |        |         |              |        |        |         |
| 2007                 | 106.614    | 0.938  | 1.416  | 113.614 | 57.627       | 0.543  | 1.111  | 106.104 |
| 2008                 | 77.542     | 0.681  | 0.943  | 113.881 | 73.380       | 0.649  | 0.852  | 113.109 |
| 2009                 | 67.833     | 0.600  | 0.800  | 113.062 | 59.543       | 0.536  | 0.755  | 111.017 |
| 2010                 | 104.571    | 0.810  | 1.012  | 129.134 | 69.073       | 0.610  | 0.837  | 113.185 |
| 2011                 | 102.008    | 0.816  | 1.104  | 125.033 | 93.837       | 0.778  | 1.068  | 120.566 |
| 2012                 | 78.602     | 0.554  | 1.115  | 141.767 | 78.305       | 0.553  | 1.065  | 141.491 |
| 2013                 | 93.345     | 0.742  | 1.019  | 125.854 | 93.345       | 0.742  | 1.019  | 125.854 |
| 2014                 | 91.651     | 0.843  | 1.274  | 108.710 | 79.414       | 0.755  | 1.179  | 105.222 |
| 2015                 | 67.457     | 0.706  | 1.130  | 95.596  | 66.452       | 0.703  | 1.109  | 94.562  |
| 2016                 | 210.964    | 1.315  | 1.187  | 160.413 | 202.009      | 1.258  | 1.115  | 160.572 |
| <b>SANTA BARBARA</b> |            |        |        |         |              |        |        |         |
| 2007                 | 203.183    | 1.524  | 2.779  | 133.333 | 153.322      | 1.315  | 2.595  | 116.594 |
| 2008                 | 535.533    | 6.309  | 3.588  | 84.883  | 336.797      | 5.121  | 2.604  | 65.764  |
| 2009                 | 178.865    | 1.798  | 1.371  | 99.468  | 173.897      | 1.756  | 1.210  | 99.033  |
| 2010                 | 151.187    | 1.008  | 2.228  | 149.999 | 138.640      | 0.888  | 1.887  | 156.212 |
| 2011                 | 104.820    | 0.866  | 1.727  | 121.045 | 94.368       | 0.811  | 1.635  | 116.427 |
| 2012                 | 153.813    | 1.148  | 1.673  | 133.954 | 149.352      | 1.127  | 1.456  | 132.567 |
| 2013                 | 82.001     | 0.699  | 1.219  | 117.302 | 82.001       | 0.699  | 1.219  | 117.302 |
| 2014                 | 181.231    | 1.335  | 2.549  | 135.717 | 145.165      | 1.141  | 2.012  | 127.238 |
| 2015                 | 152.372    | 1.517  | 1.577  | 100.417 | 143.291      | 1.338  | 1.459  | 107.103 |
| 2016                 | 355.518    | 1.829  | 1.477  | 194.407 | 328.861      | 1.687  | 1.263  | 194.963 |



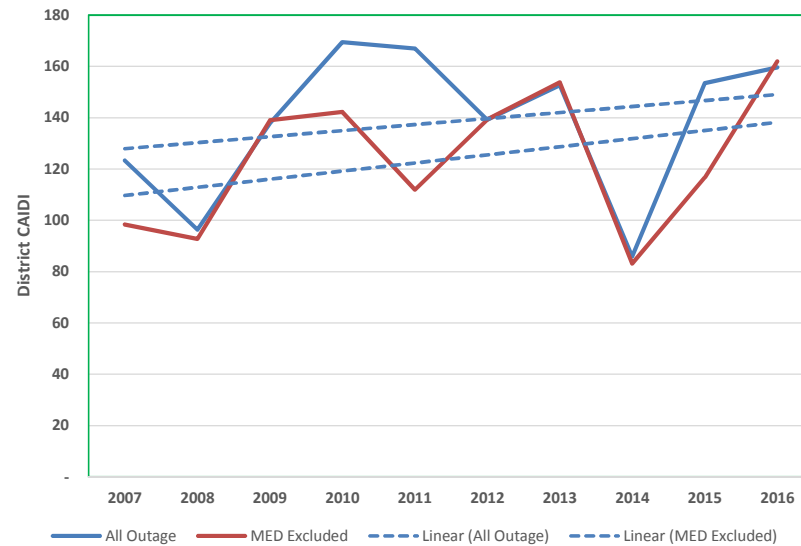
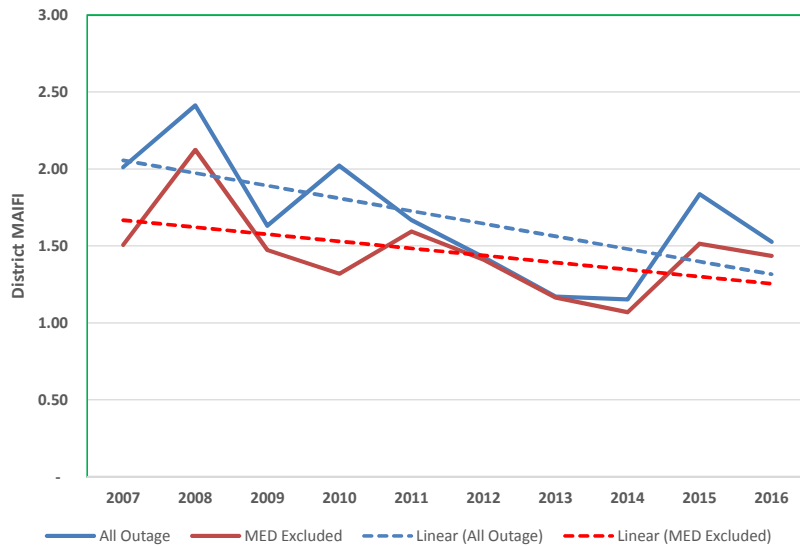
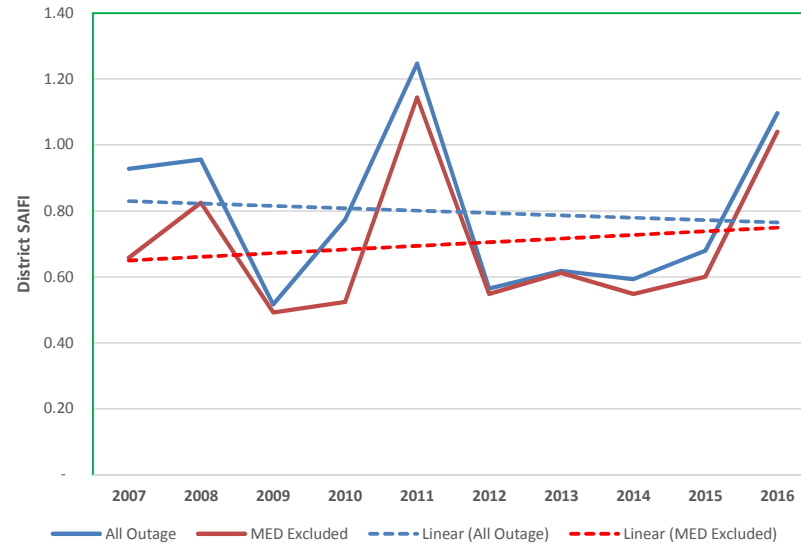
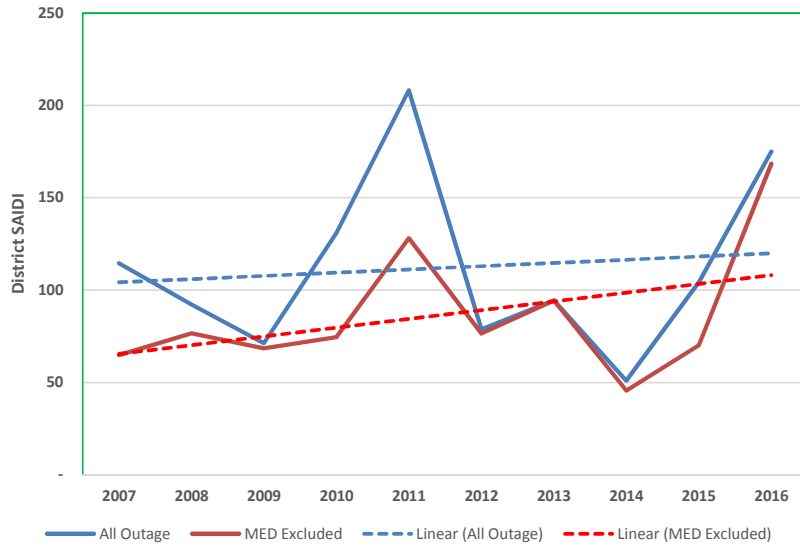
| DISTRICT             | All Outage |        |        |         | MED Excluded |        |        |         |
|----------------------|------------|--------|--------|---------|--------------|--------|--------|---------|
|                      | dSAIDI     | dSAIFI | dMAIFI | dCAIDI  | dSAIDI       | dSAIFI | dMAIFI | dCAIDI  |
| <b>SANTA MONICA</b>  |            |        |        |         |              |        |        |         |
| 2007                 | 73.447     | 0.688  | 1.246  | 106.823 | 65.785       | 0.636  | 1.148  | 103.516 |
| 2008                 | 60.490     | 0.800  | 1.211  | 75.635  | 53.518       | 0.755  | 1.163  | 70.847  |
| 2009                 | 86.226     | 0.655  | 1.187  | 131.696 | 82.128       | 0.629  | 1.145  | 130.473 |
| 2010                 | 98.323     | 0.894  | 1.124  | 109.948 | 73.036       | 0.689  | 1.054  | 105.987 |
| 2011                 | 95.085     | 0.583  | 1.476  | 162.996 | 83.791       | 0.537  | 1.177  | 155.914 |
| 2012                 | 101.687    | 0.792  | 0.911  | 128.436 | 98.428       | 0.769  | 0.890  | 127.913 |
| 2013                 | 122.783    | 1.003  | 0.959  | 122.447 | 122.783      | 1.003  | 0.959  | 122.447 |
| 2014                 | 110.742    | 0.992  | 0.852  | 111.609 | 106.656      | 0.943  | 0.772  | 113.131 |
| 2015                 | 75.407     | 0.625  | 1.069  | 120.681 | 64.417       | 0.577  | 1.065  | 111.607 |
| 2016                 | 180.178    | 1.196  | 1.218  | 150.691 | 178.204      | 1.181  | 1.139  | 150.850 |
| <b>SOUTH BAY</b>     |            |        |        |         |              |        |        |         |
| 2007                 | 112.887    | 0.890  | 1.376  | 126.844 | 100.205      | 0.803  | 1.201  | 124.836 |
| 2008                 | 110.983    | 1.074  | 2.058  | 103.324 | 93.443       | 0.937  | 1.817  | 99.722  |
| 2009                 | 158.299    | 1.156  | 1.814  | 136.881 | 135.003      | 1.007  | 1.627  | 134.053 |
| 2010                 | 190.924    | 1.206  | 1.836  | 158.299 | 136.407      | 0.938  | 1.533  | 145.392 |
| 2011                 | 178.724    | 1.347  | 1.481  | 132.690 | 141.550      | 1.207  | 1.169  | 117.293 |
| 2012                 | 122.682    | 1.174  | 1.713  | 104.516 | 120.710      | 1.153  | 1.630  | 104.694 |
| 2013                 | 142.153    | 1.490  | 1.448  | 95.391  | 142.153      | 1.490  | 1.448  | 95.391  |
| 2014                 | 125.154    | 1.390  | 1.650  | 90.009  | 110.254      | 1.281  | 1.502  | 86.094  |
| 2015                 | 164.072    | 1.305  | 1.660  | 125.704 | 160.399      | 1.272  | 1.613  | 126.136 |
| 2016                 | 335.018    | 2.229  | 2.025  | 150.313 | 302.021      | 2.097  | 1.823  | 144.043 |
| <b>TEHACHAPI</b>     |            |        |        |         |              |        |        |         |
| 2007                 | 150.805    | 1.643  | 3.564  | 91.800  | 136.131      | 1.150  | 2.833  | 118.390 |
| 2008                 | 538.562    | 3.013  | 2.695  | 178.746 | 475.358      | 2.737  | 2.517  | 173.697 |
| 2009                 | 168.038    | 2.010  | 3.482  | 83.614  | 155.009      | 1.915  | 3.413  | 80.957  |
| 2010                 | 434.015    | 3.232  | 6.291  | 134.268 | 220.369      | 2.573  | 4.677  | 85.639  |
| 2011                 | 231.229    | 1.814  | 3.190  | 127.454 | 177.911      | 1.694  | 2.582  | 105.026 |
| 2012                 | 117.963    | 1.434  | 1.495  | 82.262  | 117.963      | 1.434  | 1.495  | 82.262  |
| 2013                 | 232.672    | 1.121  | 1.661  | 207.634 | 232.333      | 1.102  | 1.638  | 210.815 |
| 2014                 | 130.704    | 1.290  | 2.090  | 101.348 | 83.519       | 1.097  | 1.783  | 76.126  |
| 2015                 | 298.959    | 1.215  | 3.960  | 246.114 | 236.807      | 1.037  | 2.513  | 228.329 |
| 2016                 | 235.751    | 1.536  | 2.384  | 153.517 | 214.885      | 1.440  | 1.961  | 149.228 |
| <b>THOUSAND OAKS</b> |            |        |        |         |              |        |        |         |
| 2007                 | 220.594    | 2.003  | 2.563  | 110.107 | 124.524      | 1.454  | 1.973  | 85.662  |
| 2008                 | 129.109    | 1.418  | 2.273  | 91.031  | 124.425      | 1.377  | 2.168  | 90.364  |
| 2009                 | 103.160    | 0.987  | 1.850  | 104.469 | 98.658       | 0.948  | 1.833  | 104.026 |
| 2010                 | 124.263    | 1.366  | 1.567  | 91.002  | 92.331       | 0.815  | 1.435  | 113.243 |
| 2011                 | 146.687    | 1.145  | 1.928  | 128.129 | 121.175      | 1.008  | 1.732  | 120.168 |
| 2012                 | 127.732    | 1.049  | 1.196  | 121.739 | 118.833      | 0.991  | 1.161  | 119.968 |
| 2013                 | 93.860     | 0.914  | 1.164  | 102.735 | 93.846       | 0.913  | 1.154  | 102.755 |
| 2014                 | 104.172    | 1.102  | 1.426  | 94.537  | 95.331       | 1.013  | 1.287  | 94.150  |
| 2015                 | 106.589    | 0.919  | 1.893  | 115.938 | 103.685      | 0.889  | 1.845  | 116.643 |
| 2016                 | 387.439    | 1.782  | 2.600  | 217.455 | 371.906      | 1.702  | 2.392  | 218.476 |
| <b>VALENCIA</b>      |            |        |        |         |              |        |        |         |
| 2007                 | 169.421    | 1.307  | 1.789  | 129.631 | 121.751      | 1.152  | 1.592  | 105.659 |
| 2008                 | 154.448    | 1.283  | 1.280  | 120.341 | 144.819      | 1.251  | 1.209  | 115.786 |
| 2009                 | 101.701    | 0.812  | 1.519  | 125.209 | 101.368      | 0.800  | 1.400  | 126.765 |
| 2010                 | 117.815    | 0.806  | 2.195  | 146.239 | 103.447      | 0.698  | 2.114  | 148.275 |
| 2011                 | 130.855    | 1.036  | 1.412  | 126.276 | 119.058      | 0.986  | 1.379  | 120.768 |
| 2012                 | 62.009     | 0.462  | 1.134  | 134.286 | 61.595       | 0.461  | 1.133  | 133.738 |
| 2013                 | 50.940     | 0.532  | 0.683  | 95.801  | 50.940       | 0.532  | 0.683  | 95.801  |
| 2014                 | 79.216     | 0.605  | 0.998  | 130.876 | 63.729       | 0.533  | 0.935  | 119.499 |
| 2015                 | 72.274     | 0.611  | 0.971  | 118.224 | 71.053       | 0.604  | 0.845  | 117.624 |
| 2016                 | 181.251    | 1.245  | 1.552  | 145.575 | 173.569      | 1.123  | 1.525  | 154.560 |
| <b>VENTURA</b>       |            |        |        |         |              |        |        |         |
| 2007                 | 169.318    | 2.122  | 2.200  | 79.777  | 119.020      | 1.836  | 1.548  | 64.814  |
| 2008                 | 134.882    | 1.334  | 2.421  | 101.125 | 118.631      | 1.162  | 2.308  | 102.103 |
| 2009                 | 112.422    | 1.288  | 1.743  | 87.292  | 106.956      | 1.242  | 1.651  | 86.140  |
| 2010                 | 182.739    | 1.720  | 2.279  | 106.240 | 144.070      | 1.345  | 2.103  | 107.099 |
| 2011                 | 167.849    | 2.247  | 1.561  | 74.683  | 139.680      | 2.112  | 1.337  | 66.150  |
| 2012                 | 134.807    | 1.155  | 1.507  | 116.752 | 128.528      | 1.140  | 1.469  | 112.780 |
| 2013                 | 100.521    | 1.210  | 1.417  | 83.104  | 100.504      | 1.210  | 1.417  | 83.093  |
| 2014                 | 183.769    | 1.648  | 2.215  | 111.528 | 151.635      | 1.386  | 2.075  | 109.381 |
| 2015                 | 148.848    | 1.190  | 1.447  | 125.112 | 141.430      | 1.149  | 1.375  | 123.110 |
| 2016                 | 334.355    | 1.697  | 1.687  | 196.992 | 291.088      | 1.480  | 1.561  | 196.652 |

| DISTRICT            | All Outage |        |        |         | MED Excluded |        |        |         |
|---------------------|------------|--------|--------|---------|--------------|--------|--------|---------|
|                     | dSAIDI     | dSAIFI | dMAIFI | dCAIDI  | dSAIDI       | dSAIFI | dMAIFI | dCAIDI  |
| <b>VICTORVILLE</b>  |            |        |        |         |              |        |        |         |
| 2007                | 76.182     | 1.022  | 1.498  | 74.522  | 66.404       | 0.959  | 1.295  | 69.233  |
| 2008                | 136.461    | 1.248  | 3.540  | 109.335 | 110.202      | 1.111  | 2.872  | 99.232  |
| 2009                | 61.926     | 0.644  | 1.607  | 96.147  | 52.591       | 0.550  | 1.384  | 95.565  |
| 2010                | 96.446     | 1.008  | 2.081  | 95.727  | 67.510       | 0.610  | 1.368  | 110.738 |
| 2011                | 196.846    | 1.008  | 2.153  | 195.358 | 82.406       | 0.791  | 1.877  | 104.144 |
| 2012                | 67.698     | 0.662  | 1.775  | 102.224 | 57.567       | 0.584  | 1.606  | 98.647  |
| 2013                | 61.333     | 0.632  | 1.312  | 97.109  | 61.010       | 0.620  | 1.179  | 98.380  |
| 2014                | 68.830     | 0.633  | 0.896  | 108.709 | 67.680       | 0.620  | 0.877  | 109.146 |
| 2015                | 87.026     | 0.906  | 1.839  | 96.063  | 72.897       | 0.812  | 1.551  | 89.751  |
| 2016                | 143.745    | 1.102  | 1.397  | 130.401 | 140.336      | 1.073  | 1.328  | 130.835 |
| <b>WHITTIER</b>     |            |        |        |         |              |        |        |         |
| 2007                | 106.778    | 0.542  | 1.147  | 196.856 | 48.283       | 0.443  | 0.953  | 108.987 |
| 2008                | 85.700     | 0.643  | 1.211  | 133.258 | 84.682       | 0.640  | 1.194  | 132.415 |
| 2009                | 74.921     | 0.530  | 0.987  | 141.419 | 64.929       | 0.499  | 0.949  | 129.996 |
| 2010                | 101.330    | 0.696  | 1.127  | 145.626 | 74.586       | 0.572  | 1.023  | 130.480 |
| 2011                | 99.736     | 0.749  | 1.187  | 133.093 | 91.881       | 0.724  | 1.122  | 126.855 |
| 2012                | 72.597     | 0.742  | 1.383  | 97.877  | 72.304       | 0.719  | 1.312  | 100.597 |
| 2013                | 135.043    | 0.859  | 1.055  | 157.172 | 135.043      | 0.859  | 1.055  | 157.172 |
| 2014                | 87.600     | 0.704  | 1.155  | 124.399 | 84.188       | 0.689  | 1.090  | 122.157 |
| 2015                | 114.520    | 0.733  | 1.084  | 156.317 | 104.851      | 0.704  | 0.989  | 148.883 |
| 2016                | 296.179    | 1.143  | 1.420  | 259.097 | 249.056      | 0.946  | 1.294  | 263.363 |
| <b>WILDOMAR</b>     |            |        |        |         |              |        |        |         |
| 2007                | 79.900     | 0.650  | 1.528  | 122.950 | 53.080       | 0.514  | 0.895  | 103.294 |
| 2008                | 65.200     | 0.612  | 0.908  | 106.550 | 58.950       | 0.556  | 0.872  | 105.992 |
| 2009                | 59.707     | 1.484  | 0.998  | 40.246  | 52.853       | 1.368  | 0.839  | 38.632  |
| 2010                | 127.124    | 1.122  | 1.565  | 113.258 | 79.888       | 0.881  | 1.172  | 90.656  |
| 2011                | 109.406    | 1.219  | 1.225  | 89.739  | 108.810      | 1.210  | 1.197  | 89.923  |
| 2012                | 88.539     | 0.725  | 0.805  | 122.193 | 87.186       | 0.690  | 0.756  | 126.346 |
| 2013                | 40.512     | 0.555  | 0.656  | 72.932  | 40.122       | 0.554  | 0.656  | 72.407  |
| 2014                | 118.493    | 0.806  | 0.743  | 147.031 | 112.300      | 0.772  | 0.683  | 145.548 |
| 2015                | 52.699     | 0.597  | 1.255  | 88.256  | 48.313       | 0.566  | 1.054  | 85.401  |
| 2016                | 145.671    | 1.092  | 0.955  | 133.411 | 140.811      | 1.065  | 0.865  | 132.249 |
| <b>YUCCA VALLEY</b> |            |        |        |         |              |        |        |         |
| 2007                | 159.042    | 1.394  | 9.133  | 114.111 | 119.392      | 1.210  | 7.705  | 98.694  |
| 2008                | 465.373    | 2.789  | 10.074 | 166.836 | 351.816      | 2.018  | 7.137  | 174.382 |
| 2009                | 192.279    | 1.158  | 3.193  | 165.979 | 189.316      | 1.151  | 3.140  | 164.451 |
| 2010                | 307.670    | 3.017  | 5.167  | 101.994 | 235.893      | 2.370  | 4.016  | 99.547  |
| 2011                | 436.441    | 2.163  | 6.922  | 201.767 | 354.867      | 1.966  | 5.598  | 180.481 |
| 2012                | 319.821    | 3.413  | 7.170  | 93.708  | 250.377      | 2.806  | 5.467  | 89.239  |
| 2013                | 216.972    | 1.500  | 4.983  | 144.620 | 216.966      | 1.500  | 4.983  | 144.626 |
| 2014                | 304.182    | 1.490  | 4.856  | 204.146 | 293.662      | 1.407  | 4.851  | 208.750 |
| 2015                | 389.085    | 1.804  | 3.922  | 215.688 | 260.176      | 1.189  | 2.708  | 218.766 |
| 2016                | 694.456    | 3.917  | 3.894  | 177.297 | 670.831      | 3.780  | 3.125  | 177.445 |

- a. The linear charts below shows the past 10 years of dSAIDI, dSAIFI, dMAIFI and dCAIDI for all 35 districts. There are separate charts including and excluding MED. The charts shown are listed in district name alphabetical order.

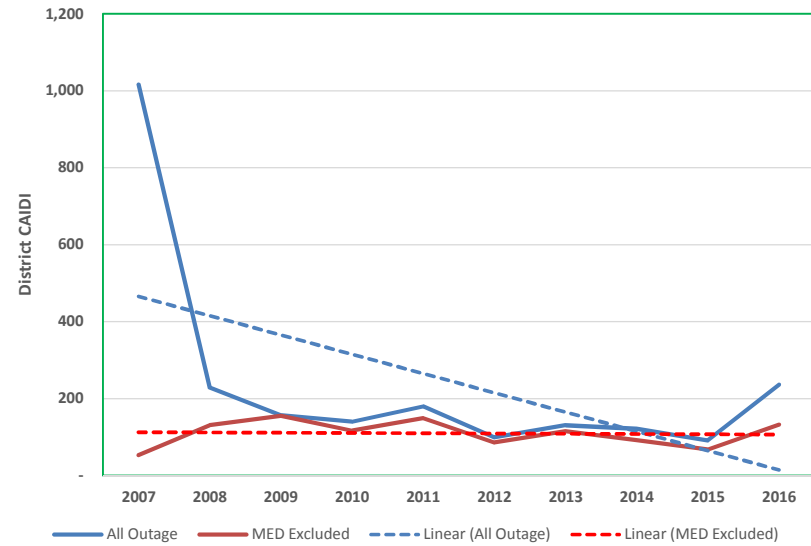
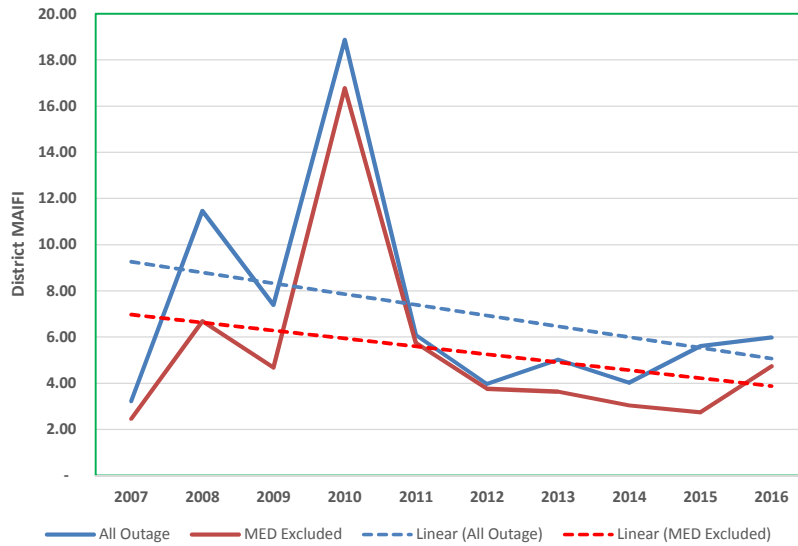
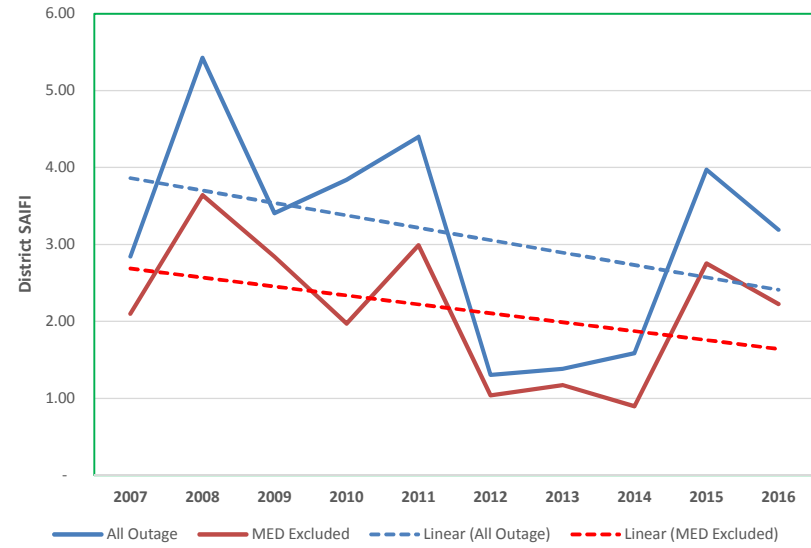
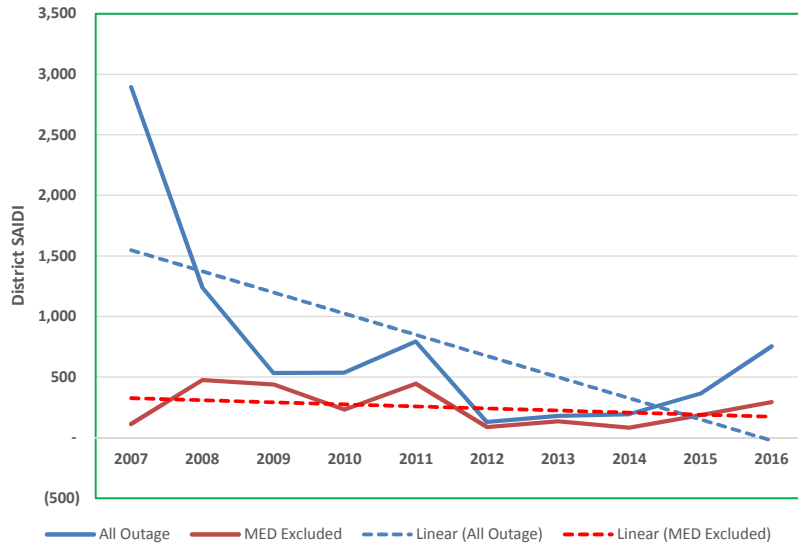
## 2007 - 2016 District Reliability Graphs (With Planned)

### ANTELOPE VALLEY District Reliability Performance



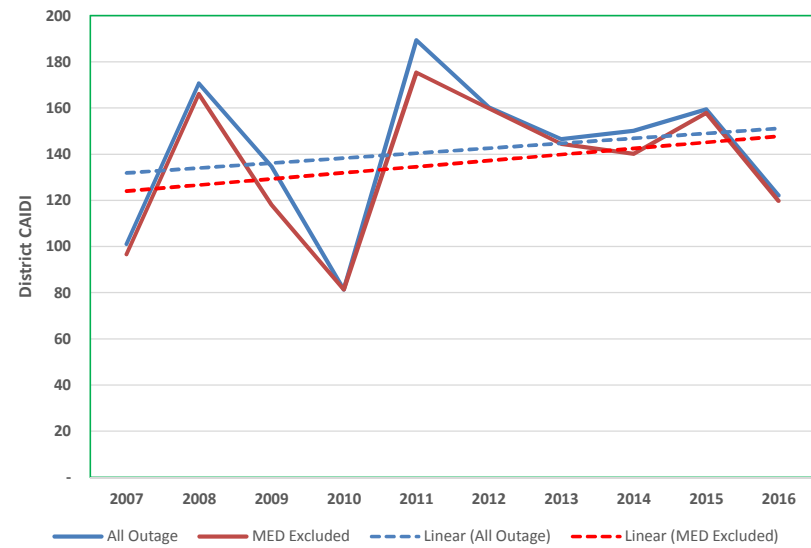
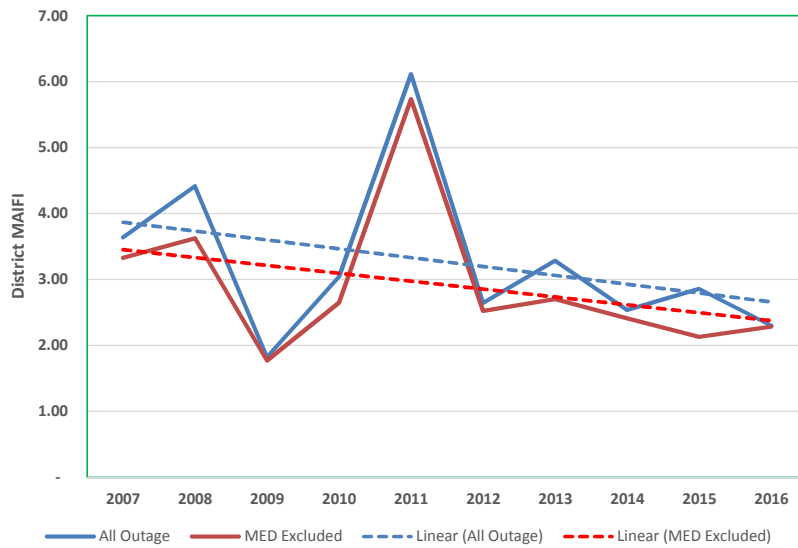
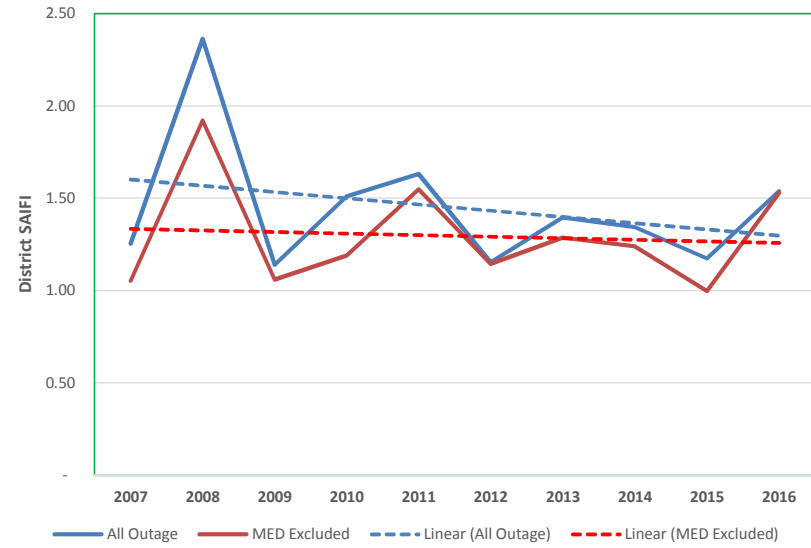
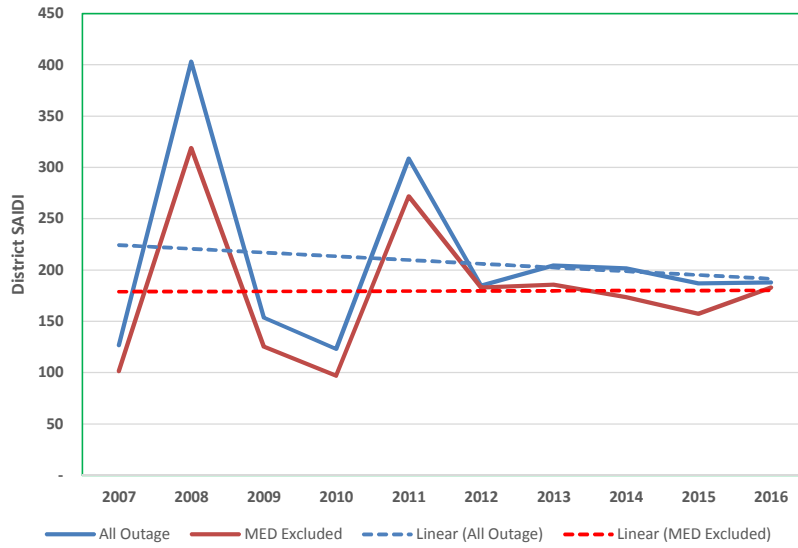
## 2007 - 2016 District Reliability Graphs (With Planned)

### ARROWHEAD District Reliability Performance



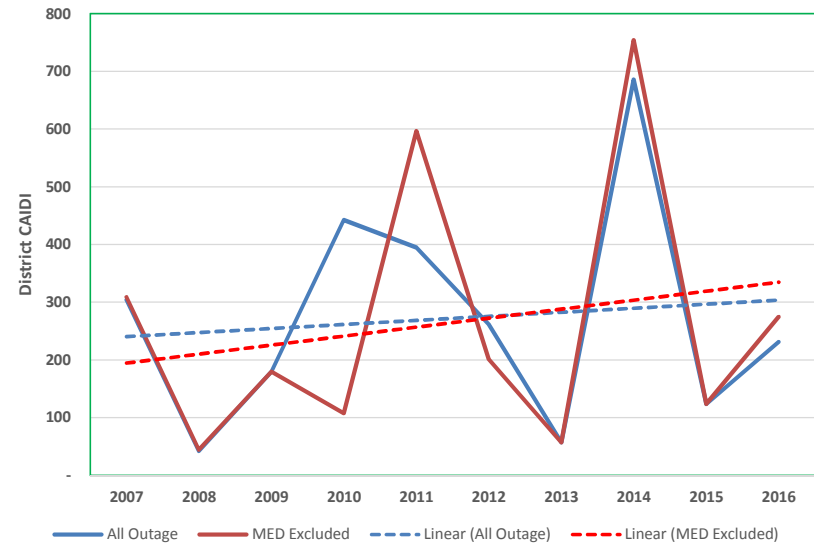
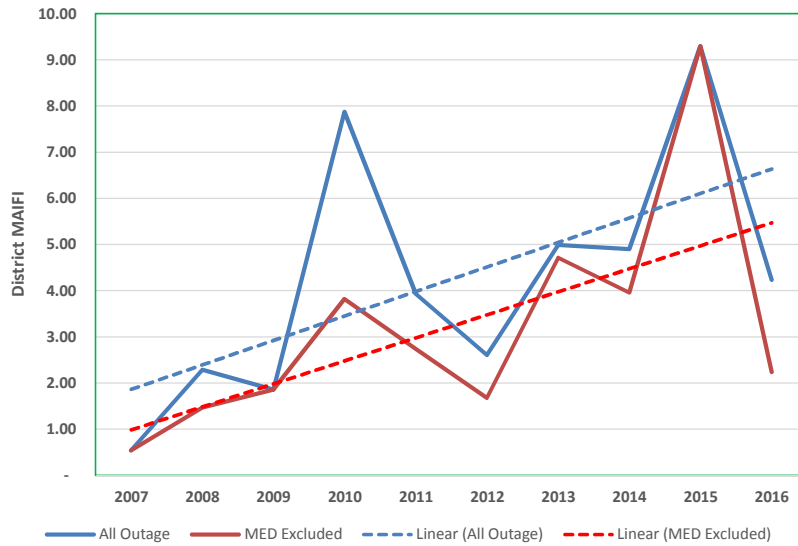
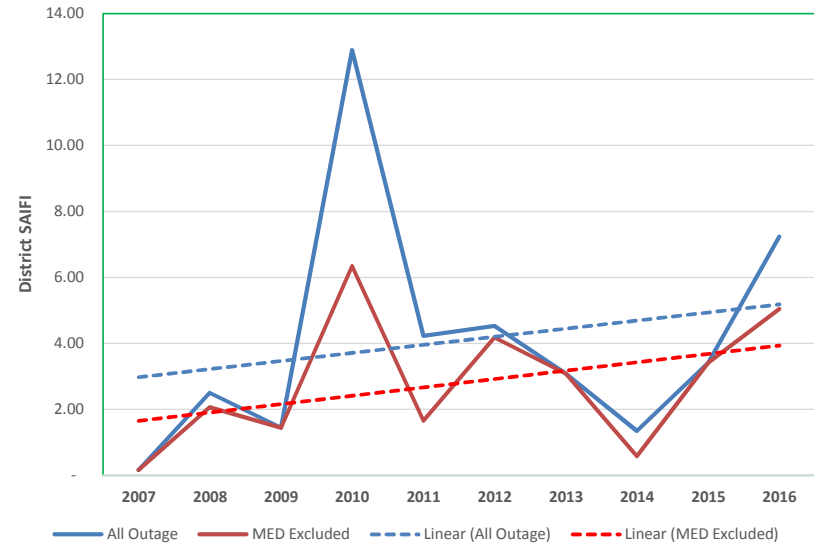
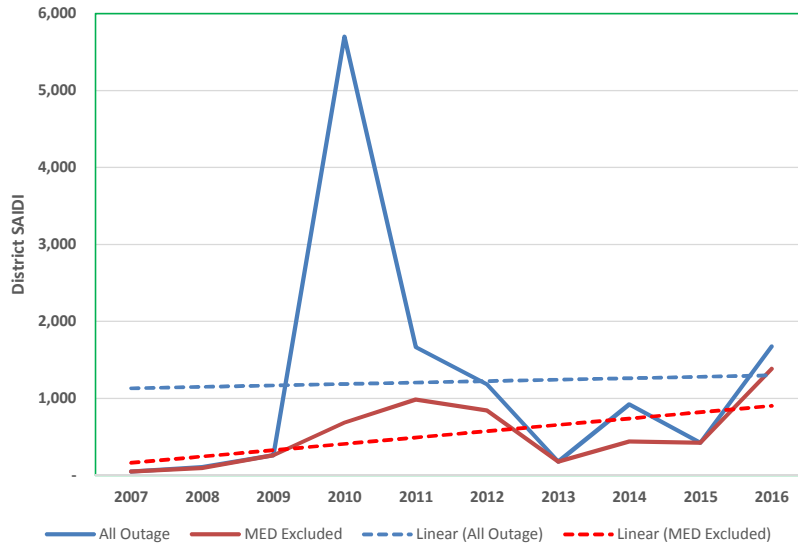
## 2007 - 2016 District Reliability Graphs (With Planned)

### BARSTOW District Reliability Performance



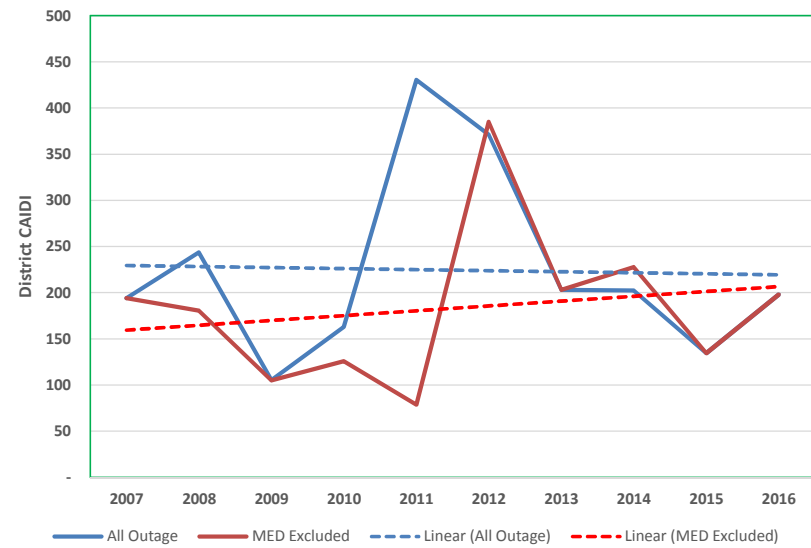
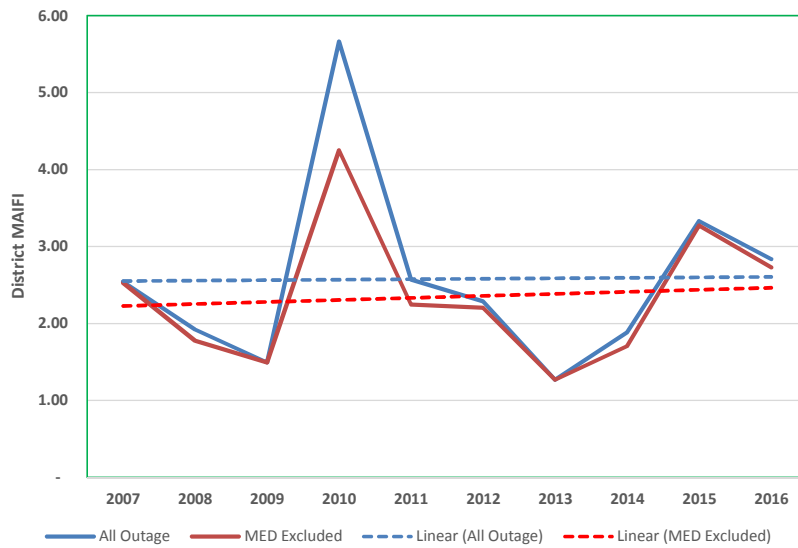
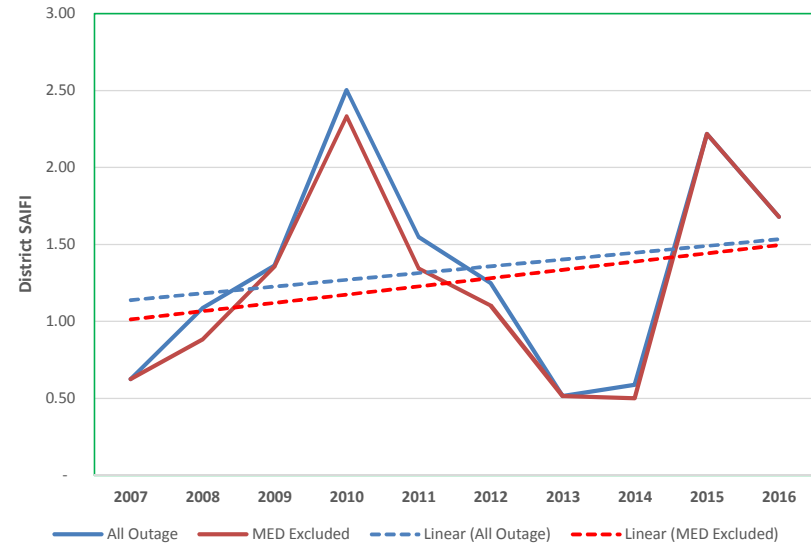
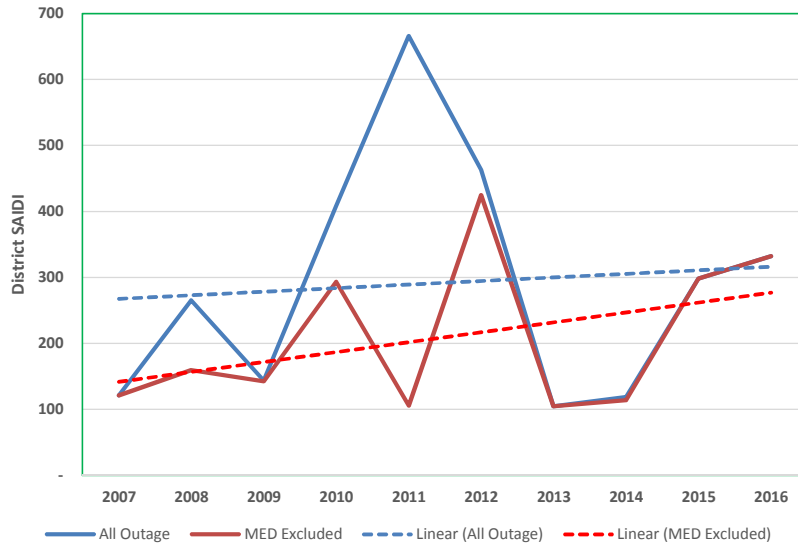
## 2007 - 2016 District Reliability Graphs (With Planned)

### BIG CREEK District Reliability Performance



## 2007 - 2016 District Reliability Graphs (With Planned)

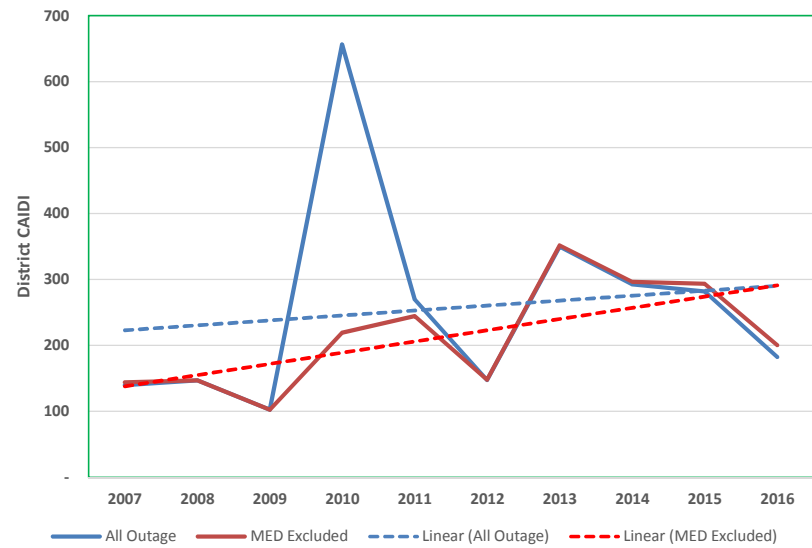
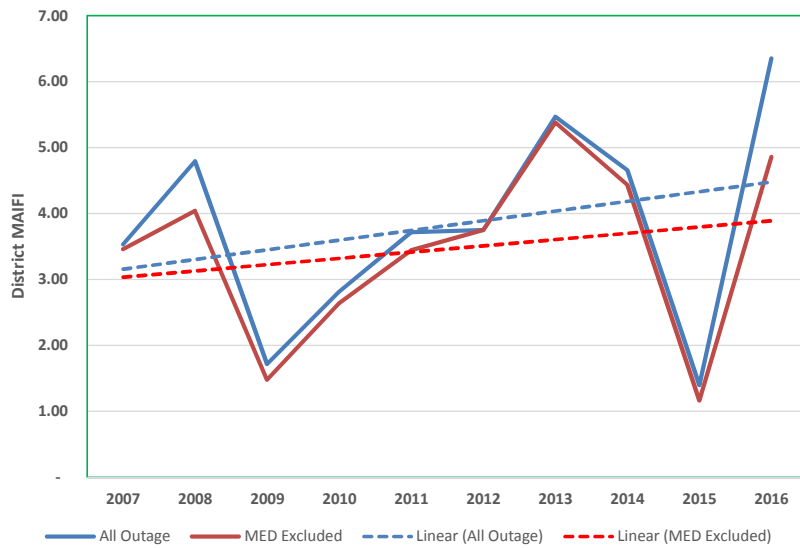
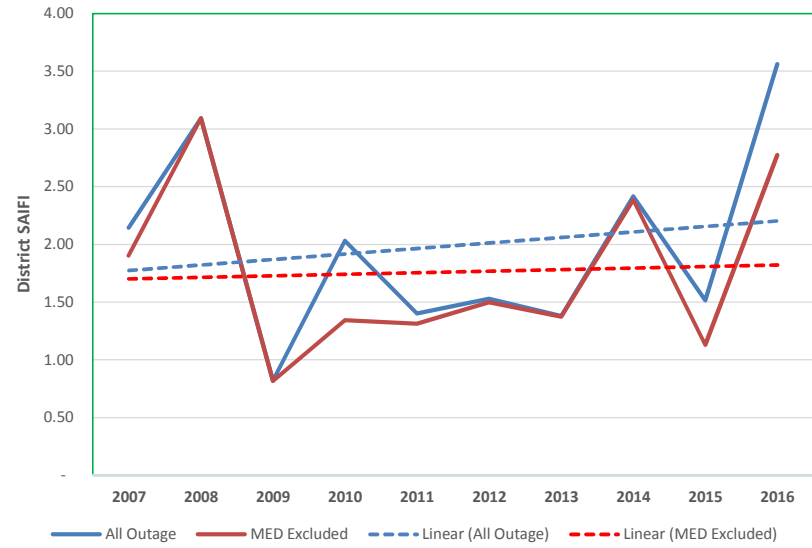
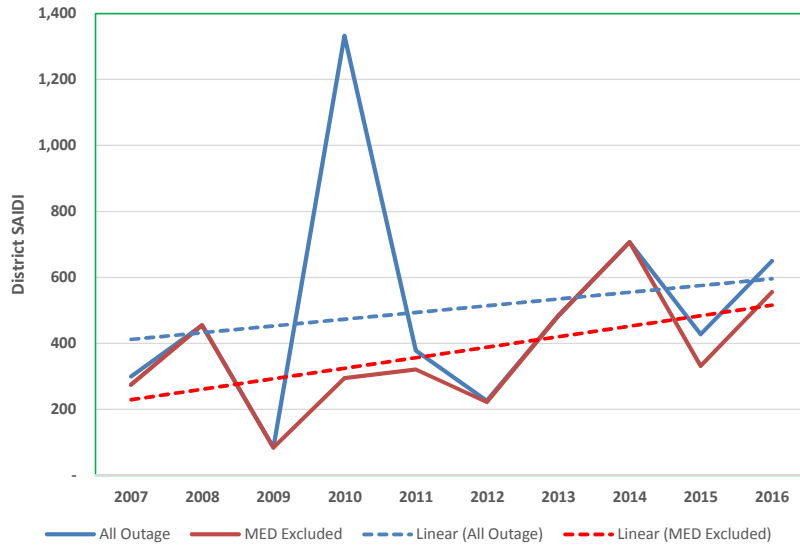
### BISHOP District Reliability Performance





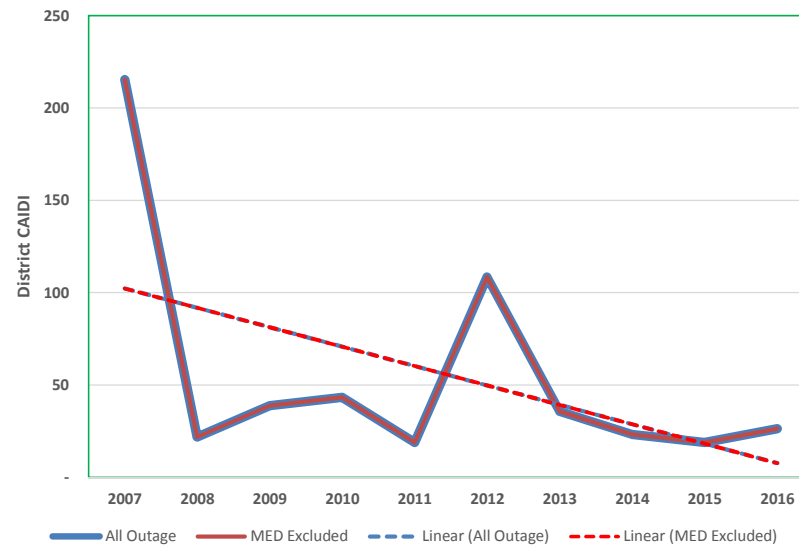
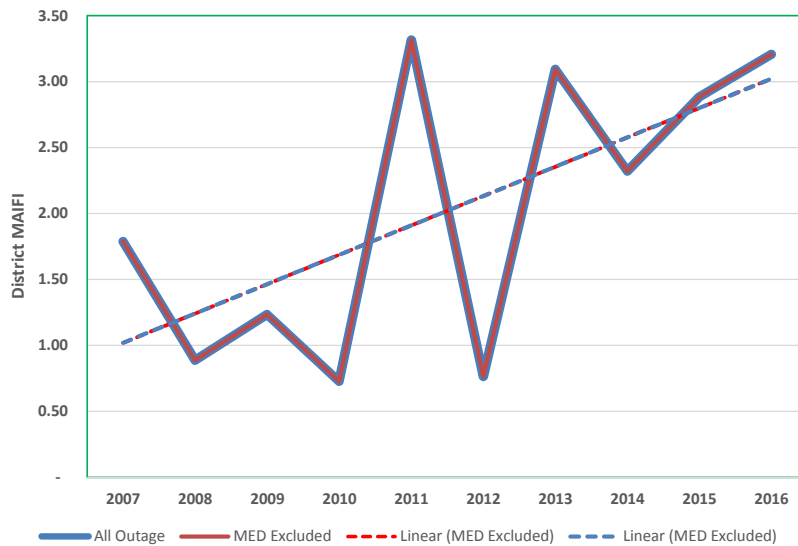
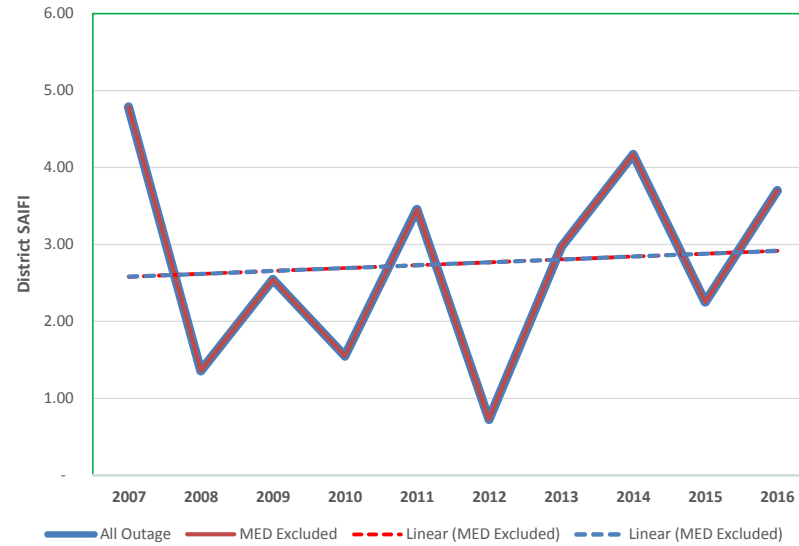
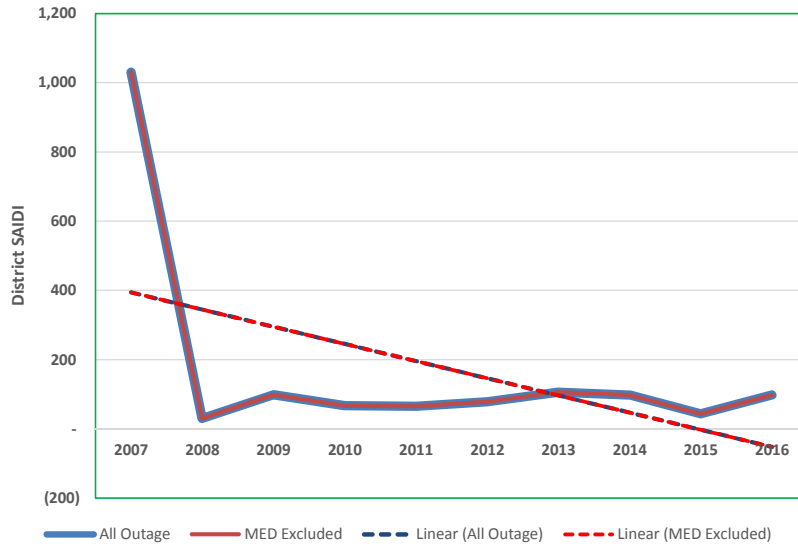
## 2007 - 2016 District Reliability Graphs (With Planned)

### BLYTHE District Reliability Performance



## 2007 - 2016 District Reliability Graphs (With Planned)

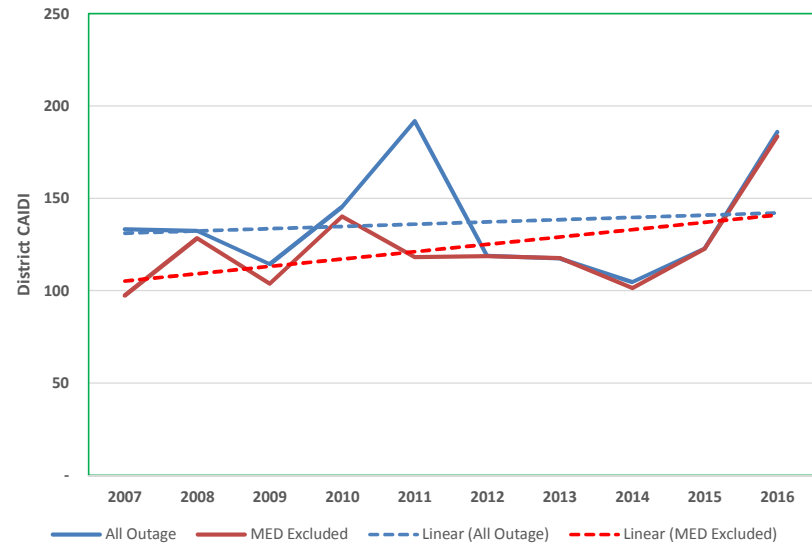
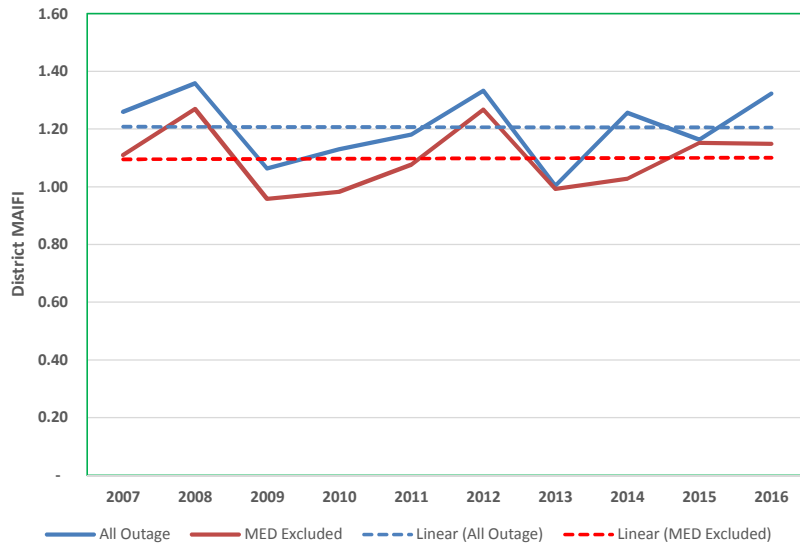
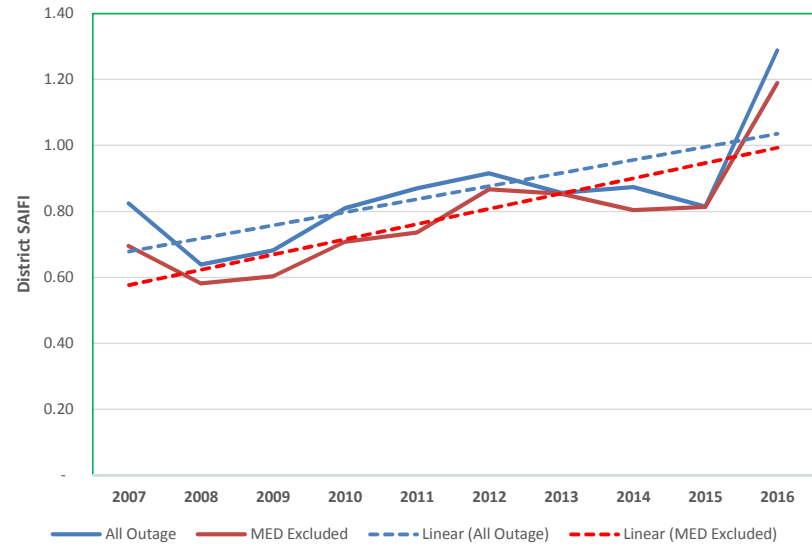
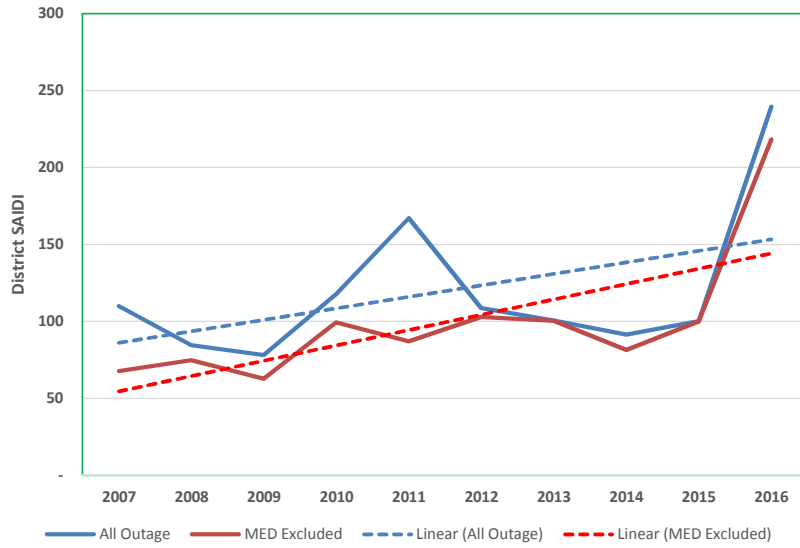
### CATALINA District Reliability Performance



Note: For Catalina, all outage and MED excluded outage data is exactly the same. Catalina did not experience any outages on Major Event Days. For line data to be able to appear clearly in the charts above, the line thickness were increased in size.

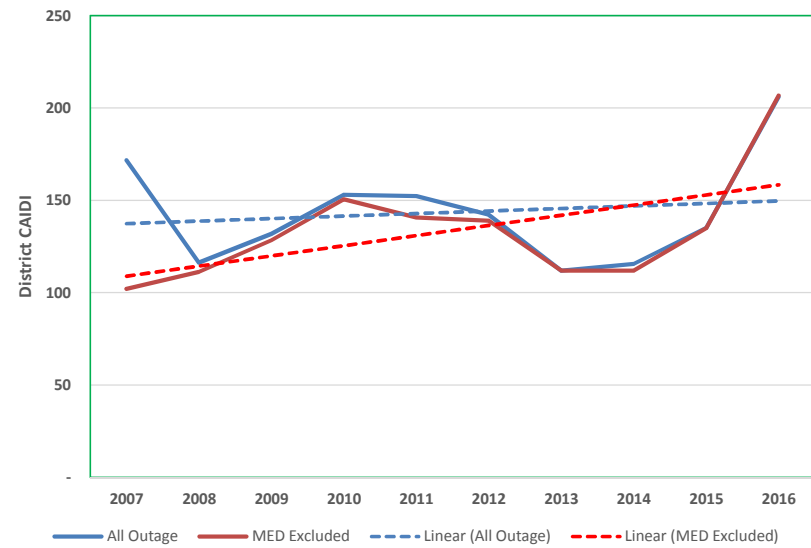
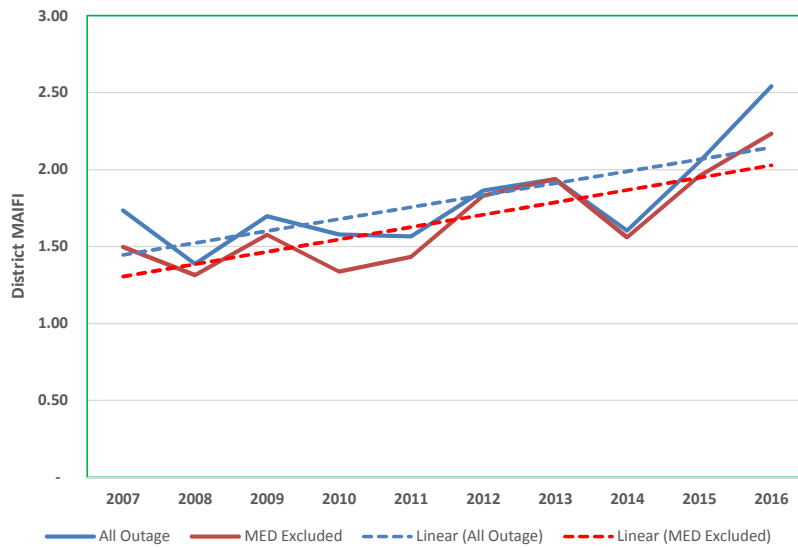
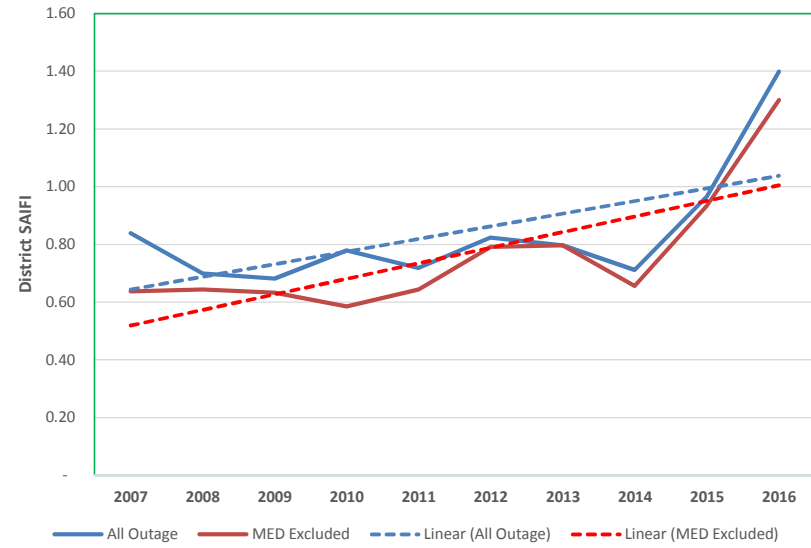
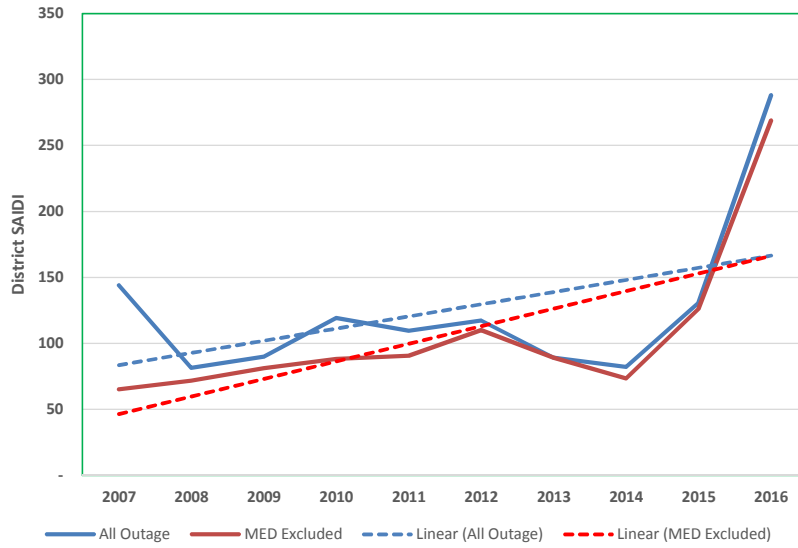
## 2007 - 2016 District Reliability Graphs (With Planned)

### COVINA District Reliability Performance



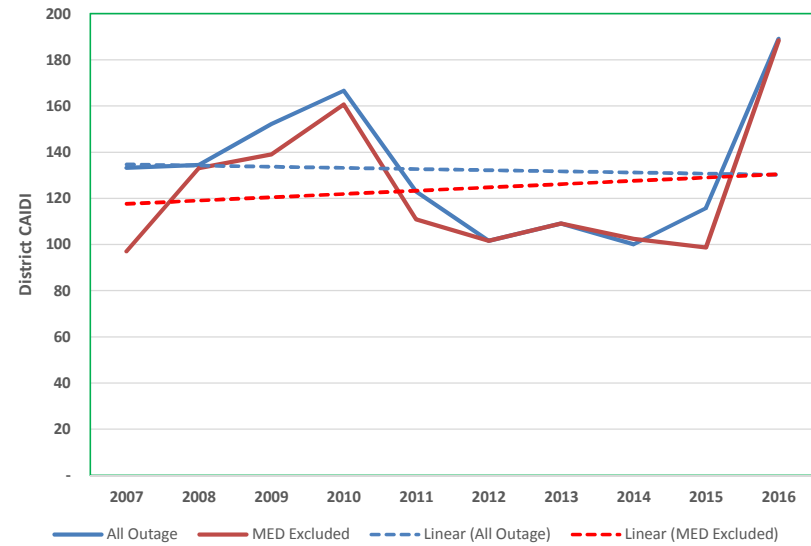
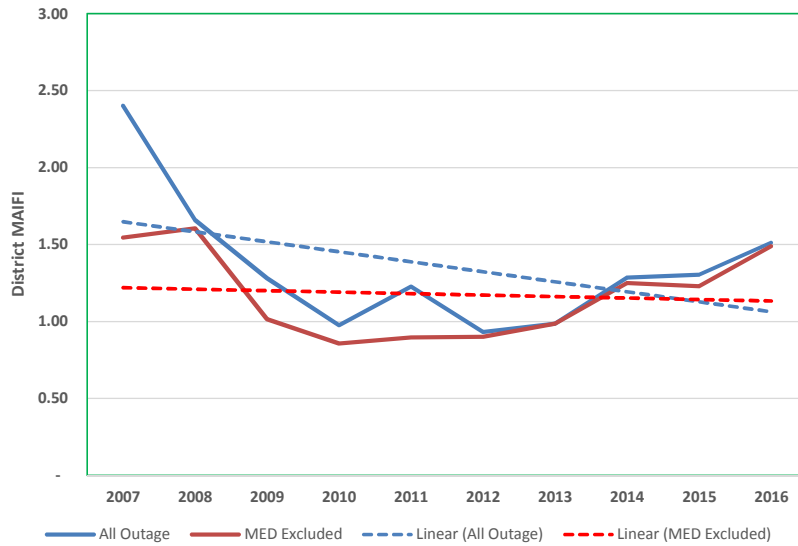
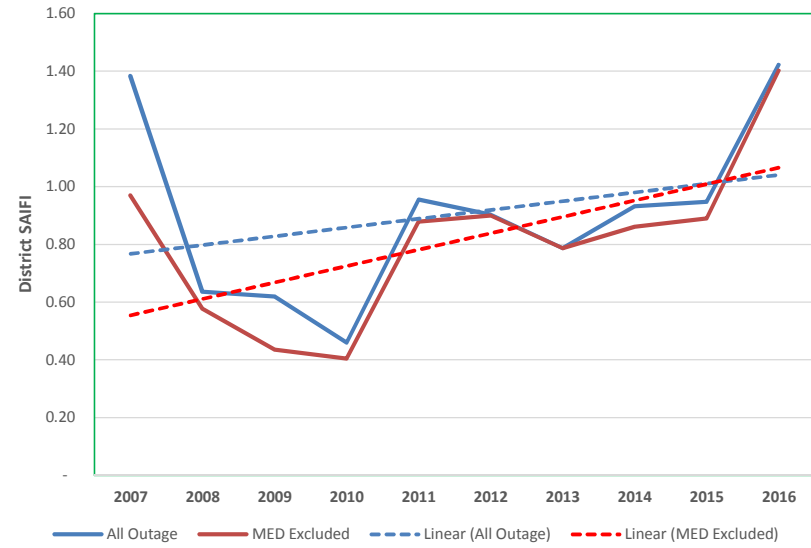
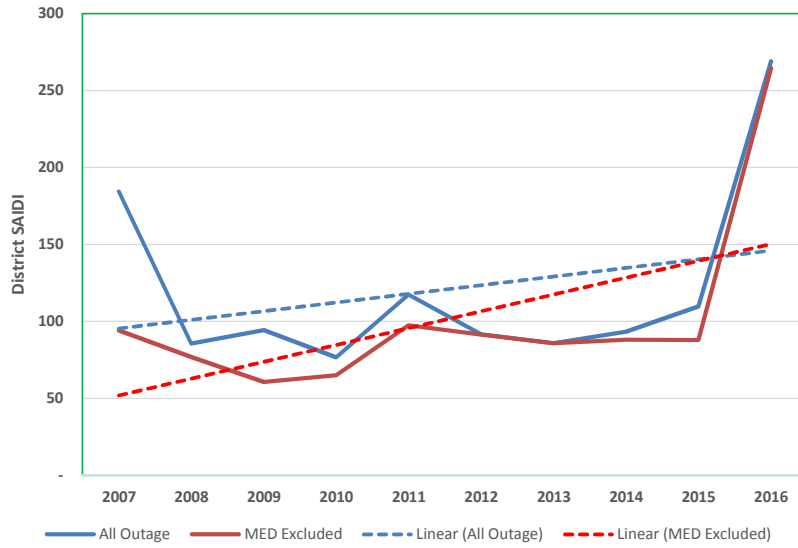
## 2007 - 2016 District Reliability Graphs (With Planned)

### DOMINGUEZ HILLS District Reliability Performance



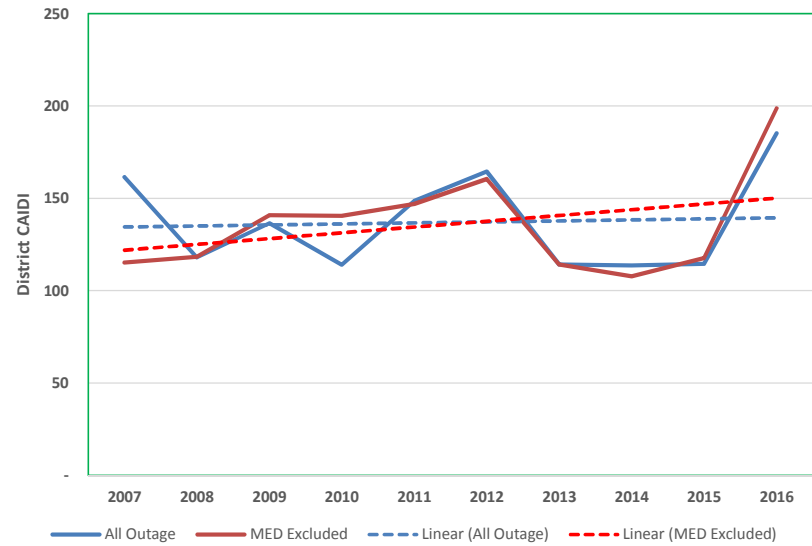
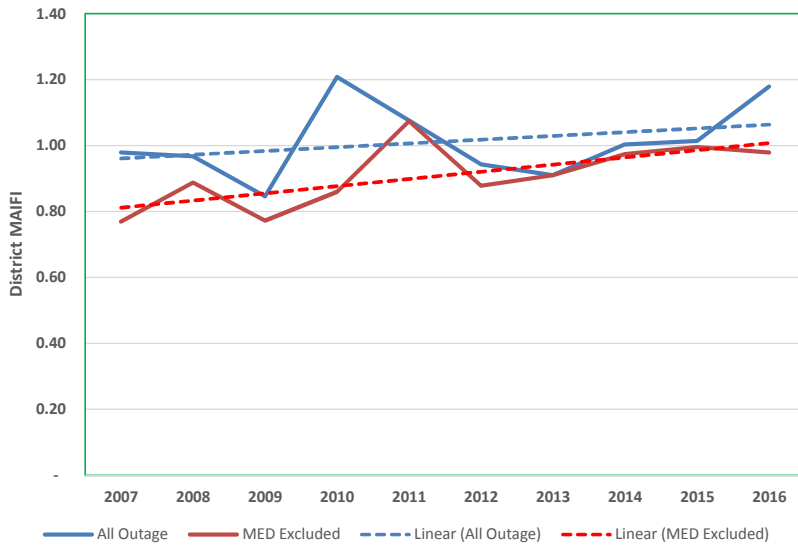
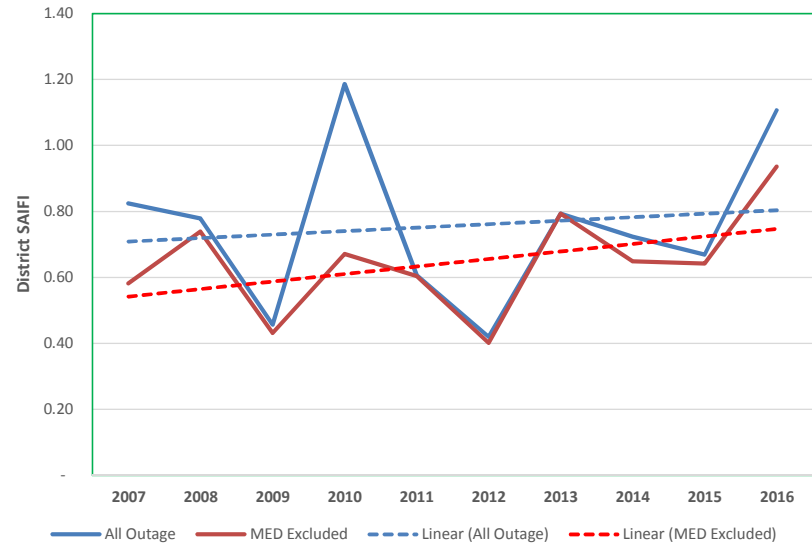
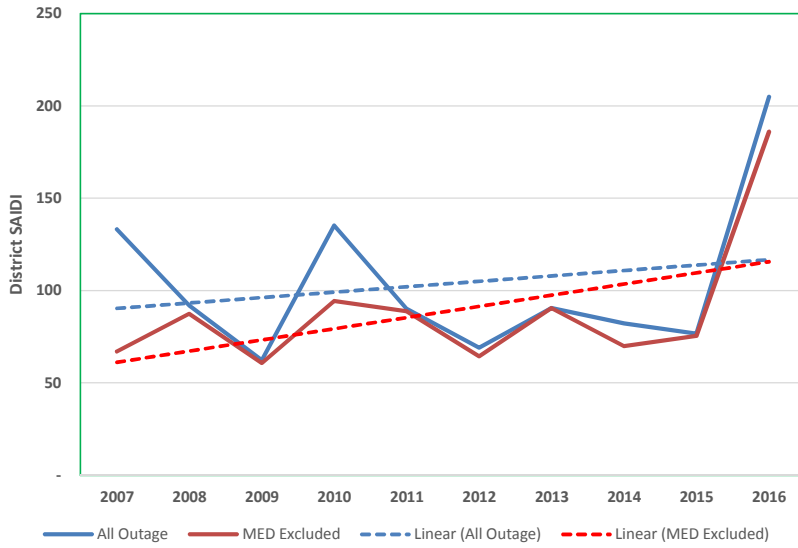
## 2007 - 2016 District Reliability Graphs (With Planned)

### FOOTHILL District Reliability Performance



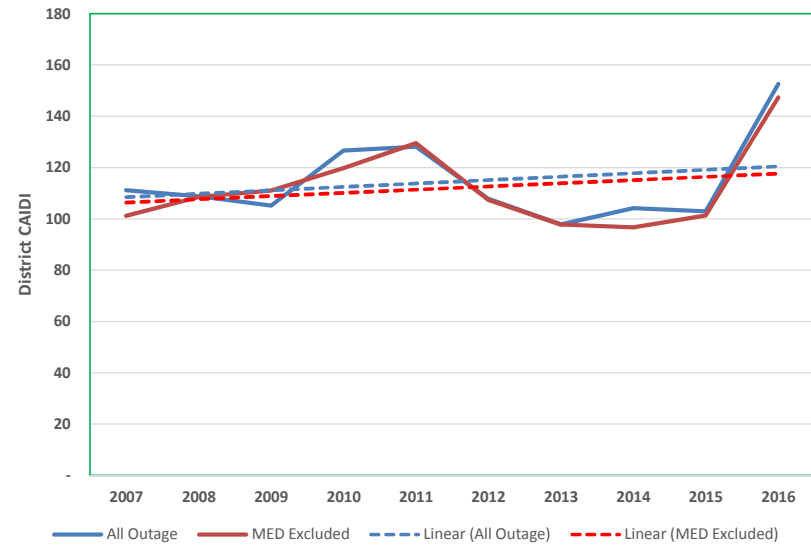
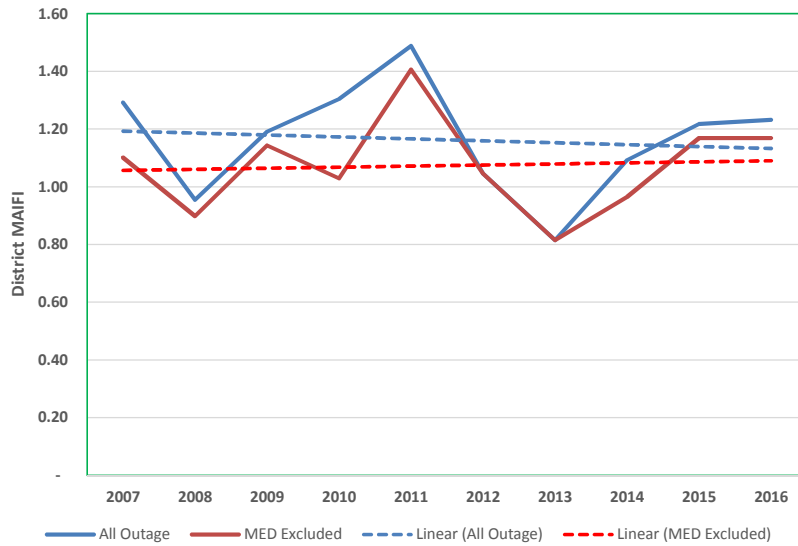
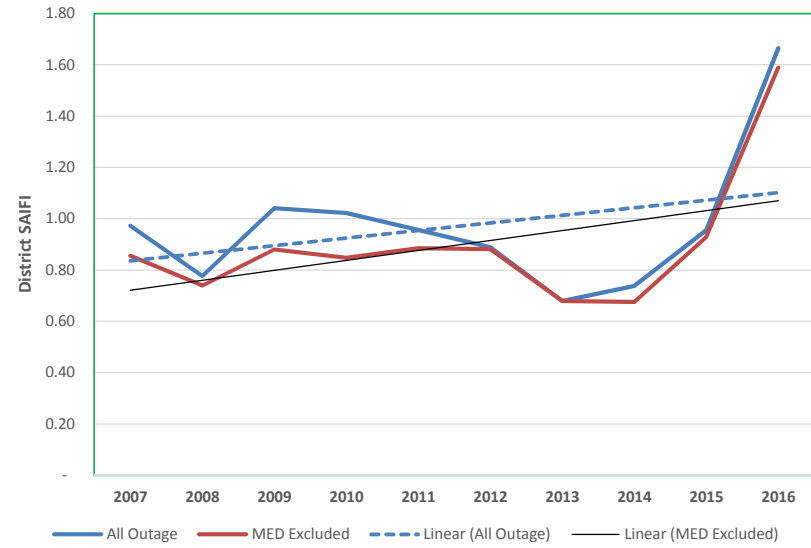
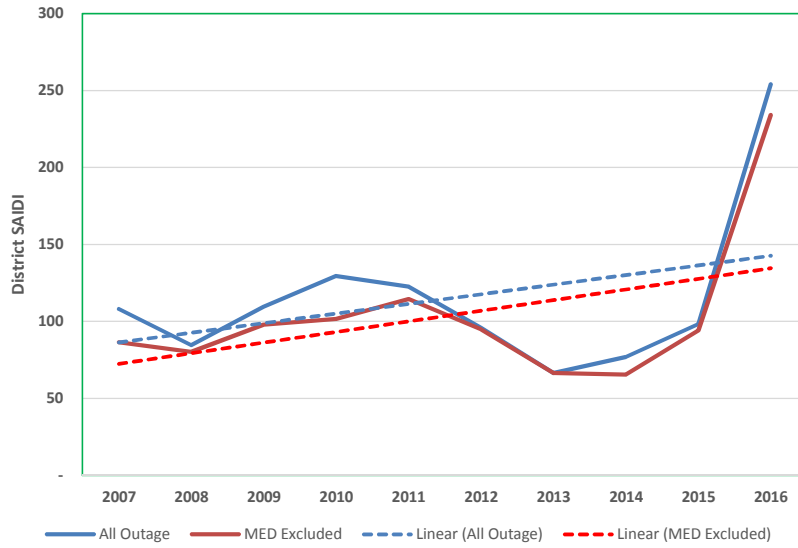
## 2007 - 2016 District Reliability Graphs (With Planned)

### FULLERTON District Reliability Performance



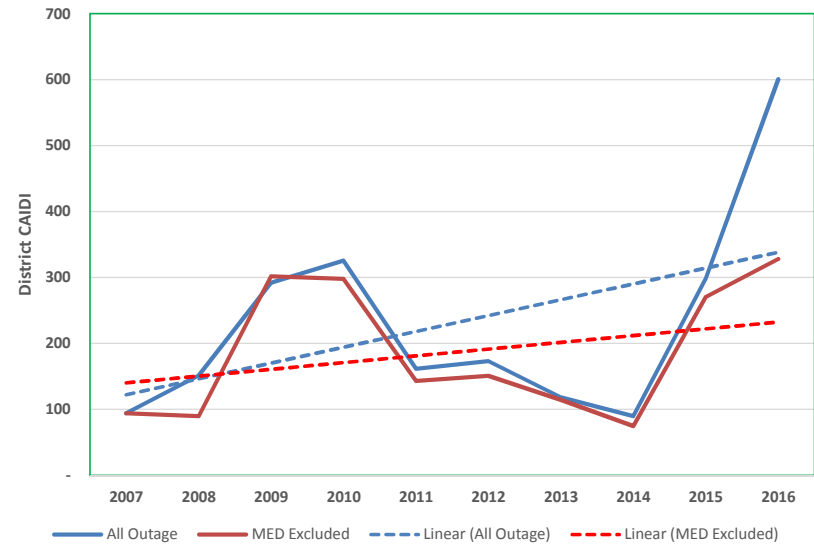
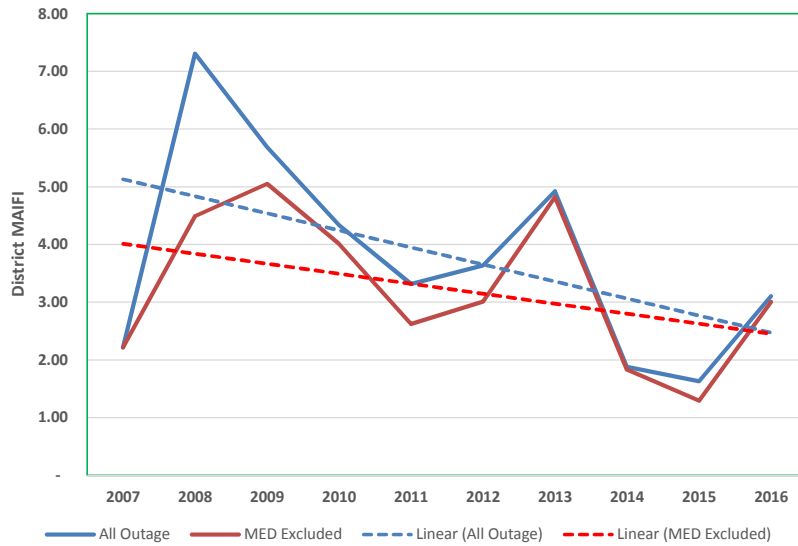
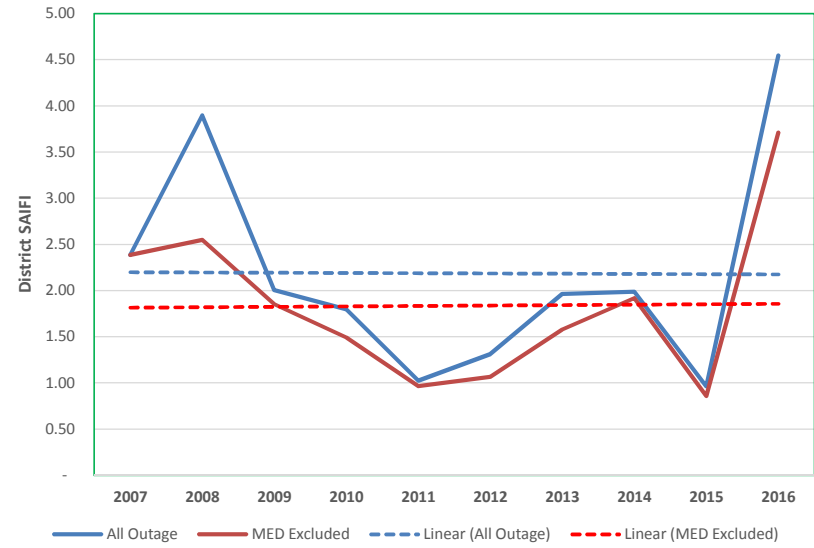
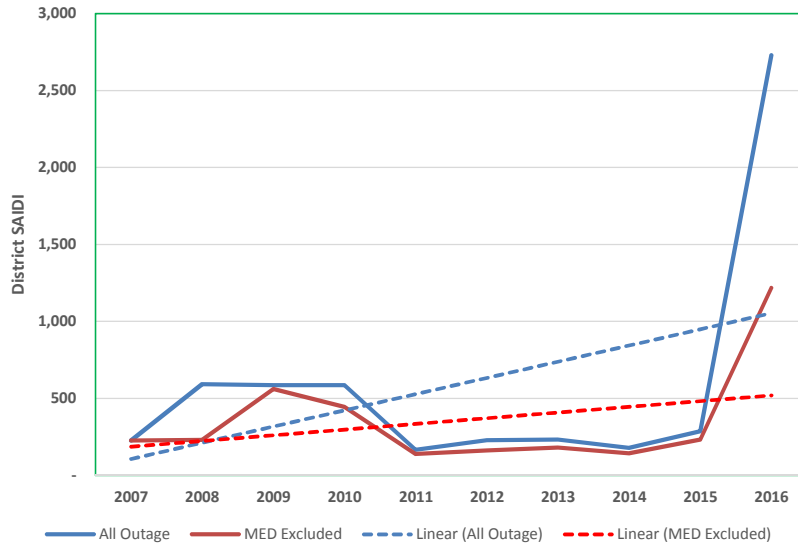
## 2007 - 2016 District Reliability Graphs (With Planned)

### HUNTINGTON BEACH District Reliability Performance



## 2007 - 2016 District Reliability Graphs (With Planned)

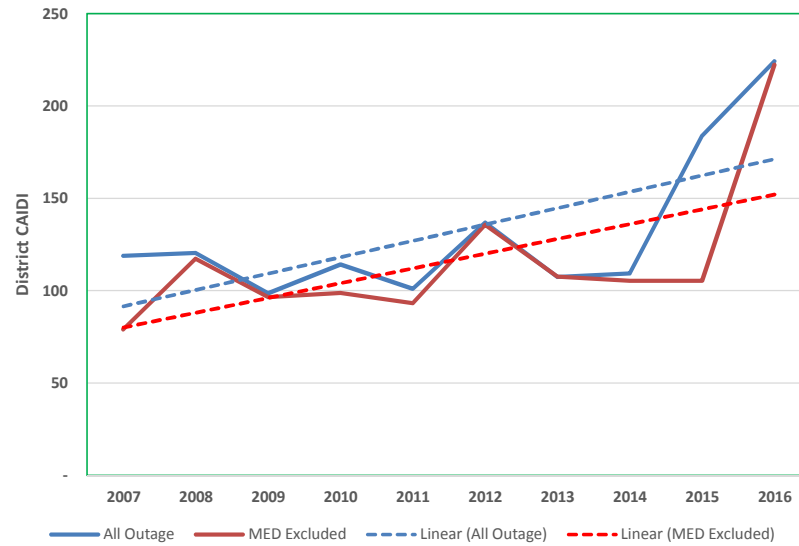
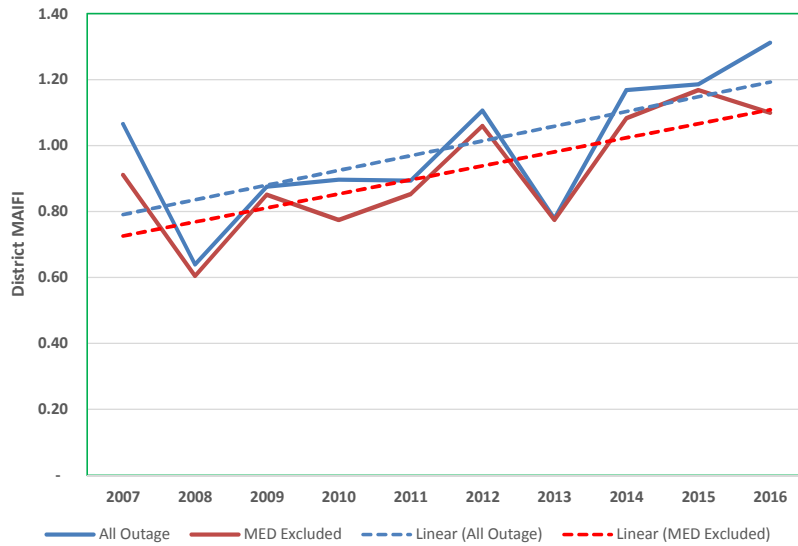
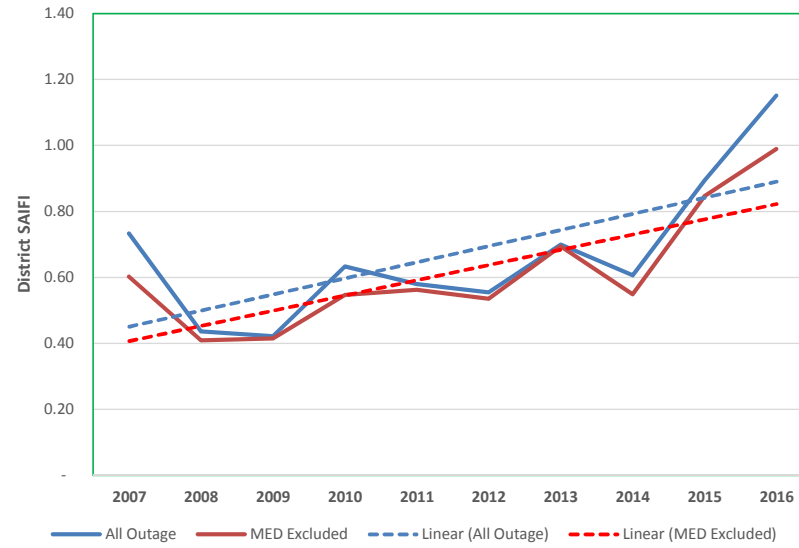
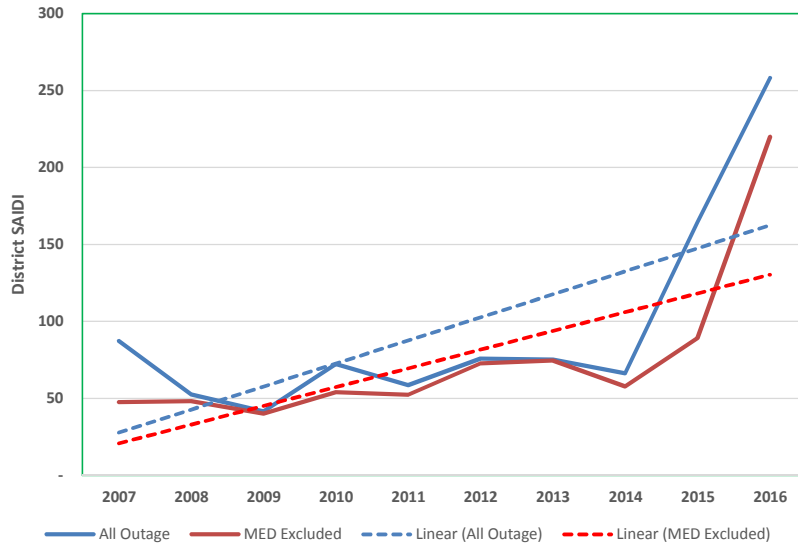
### KERNVILLE District Reliability Performance





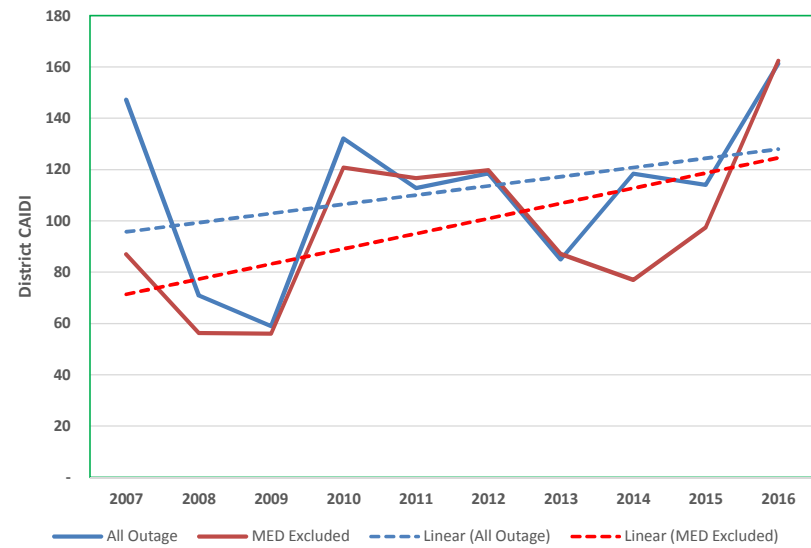
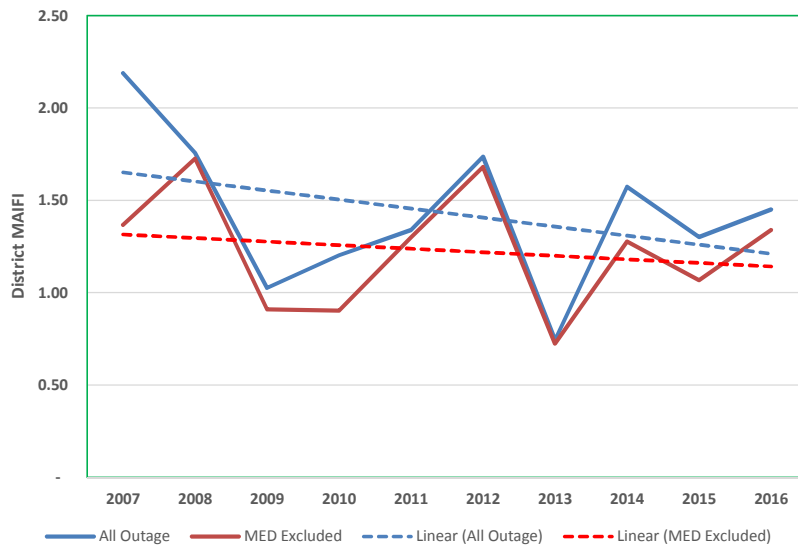
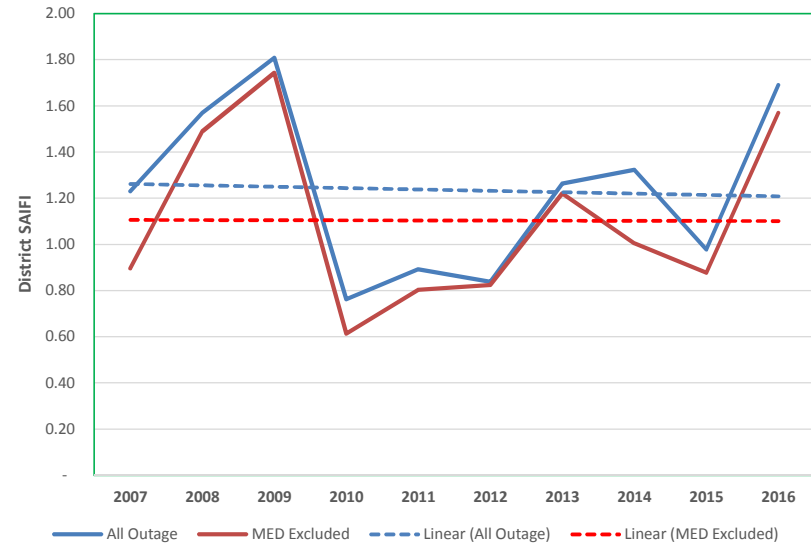
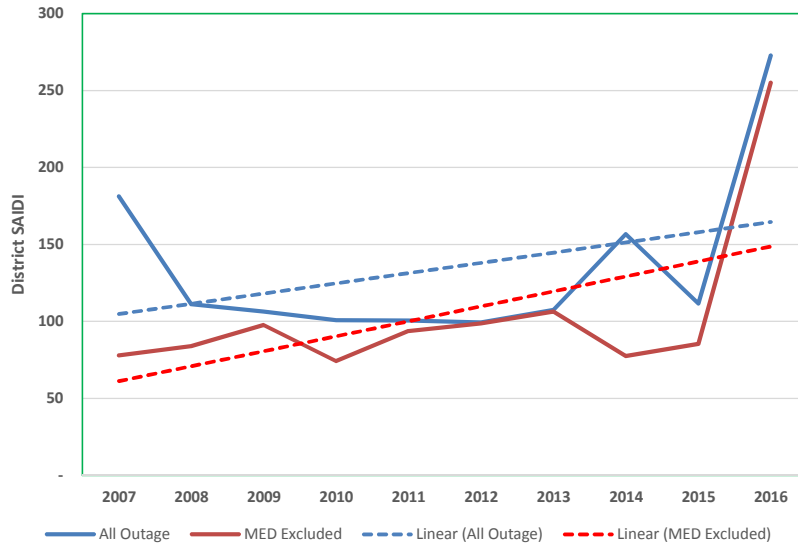
## 2007 - 2016 District Reliability Graphs (With Planned)

### LONG BEACH District Reliability Performance



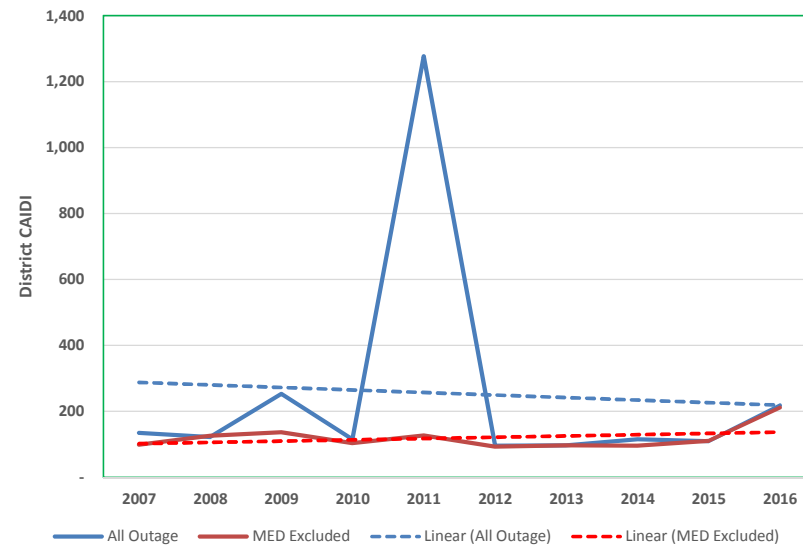
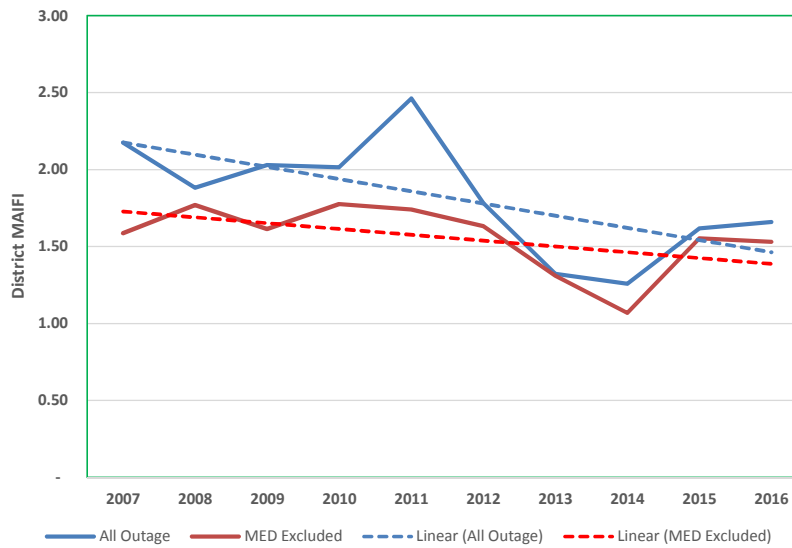
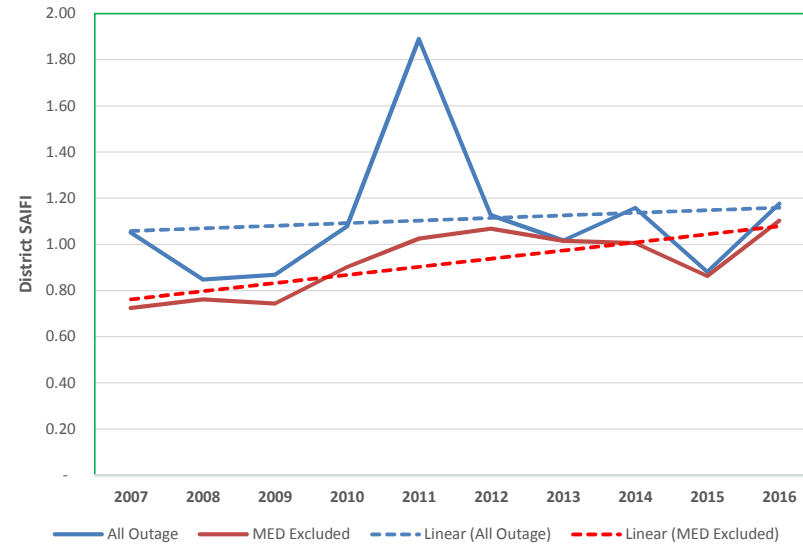
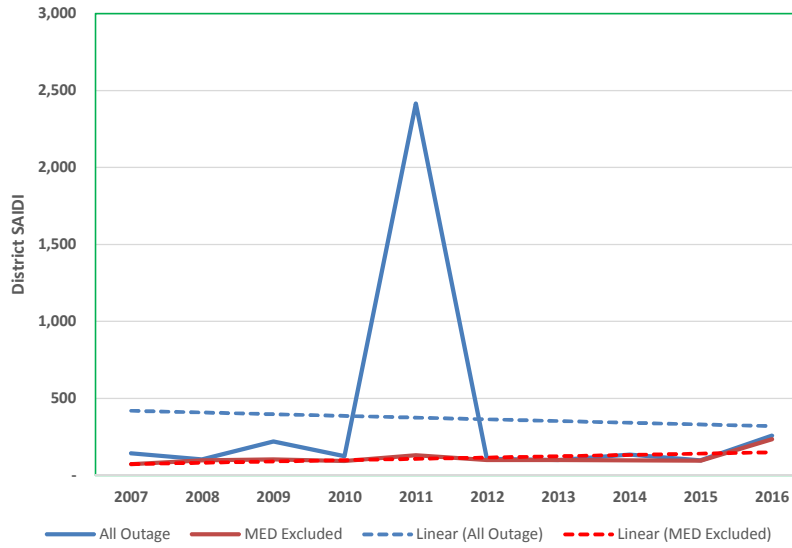
## 2007 - 2016 District Reliability Graphs (With Planned)

### MENIFEE District Reliability Performance



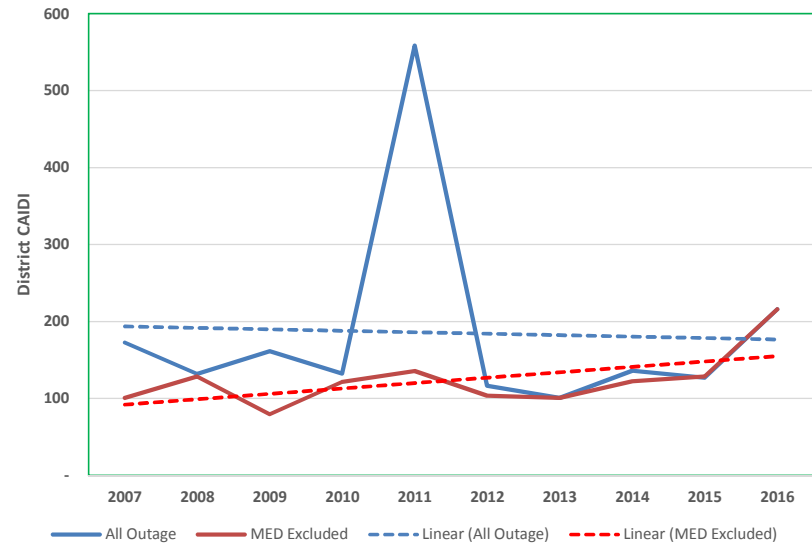
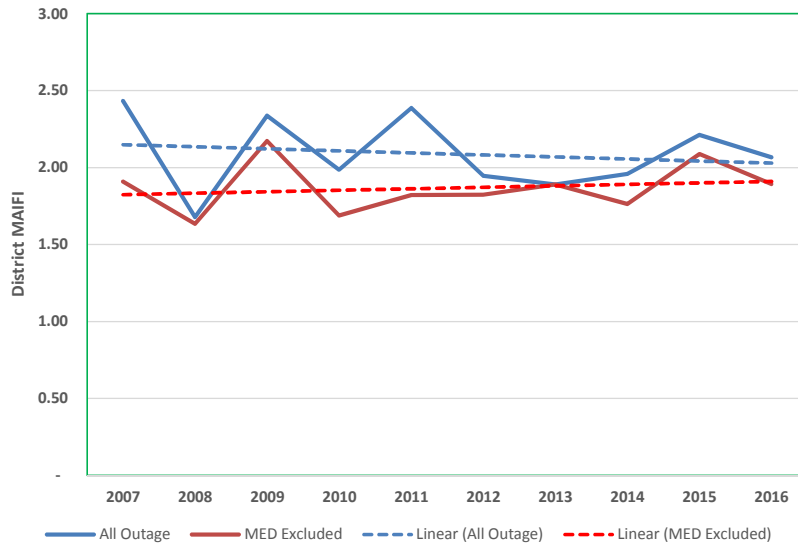
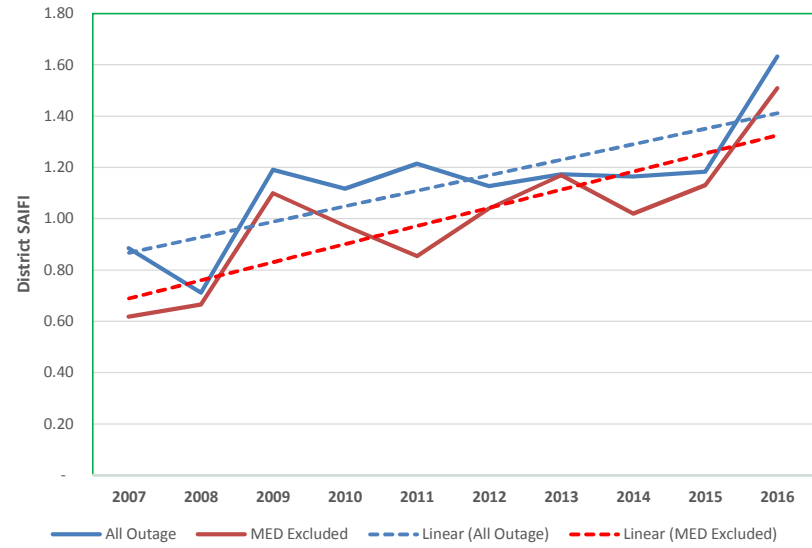
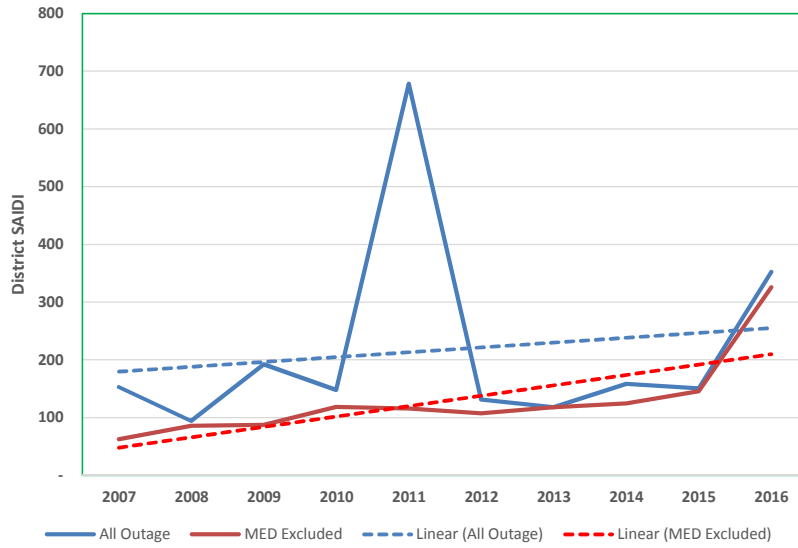
## 2007 - 2016 District Reliability Graphs (With Planned)

### MONROVIA District Reliability Performance



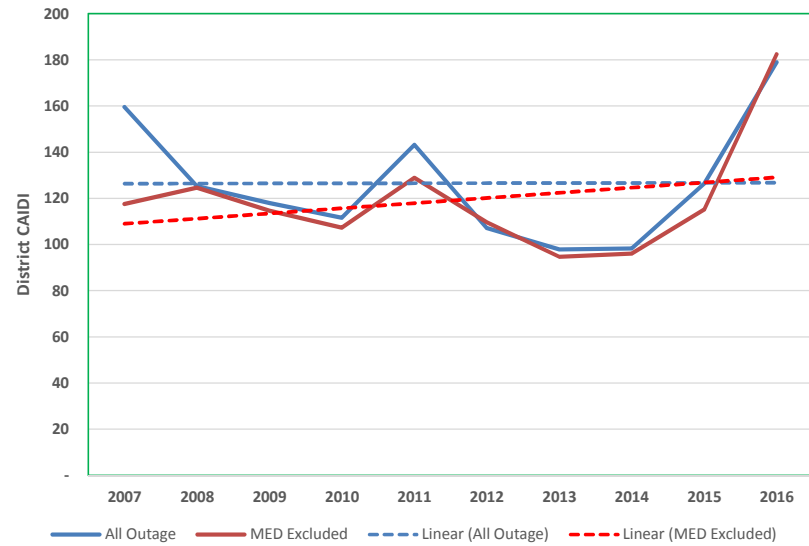
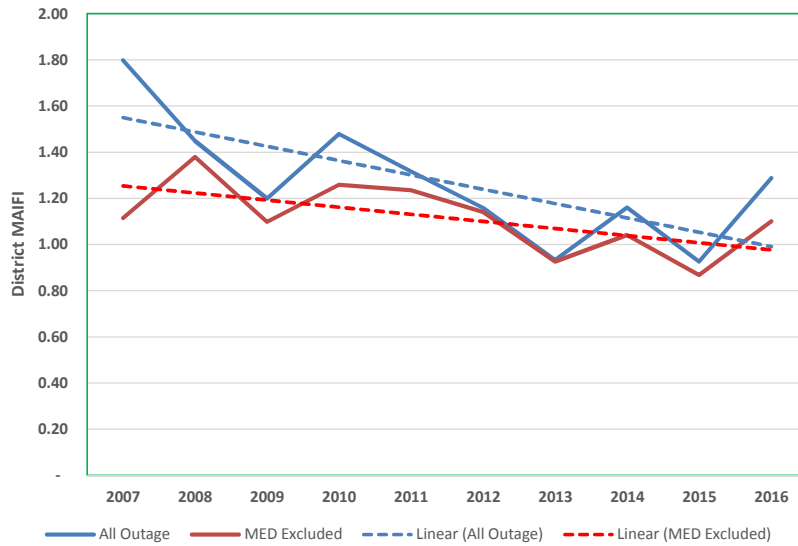
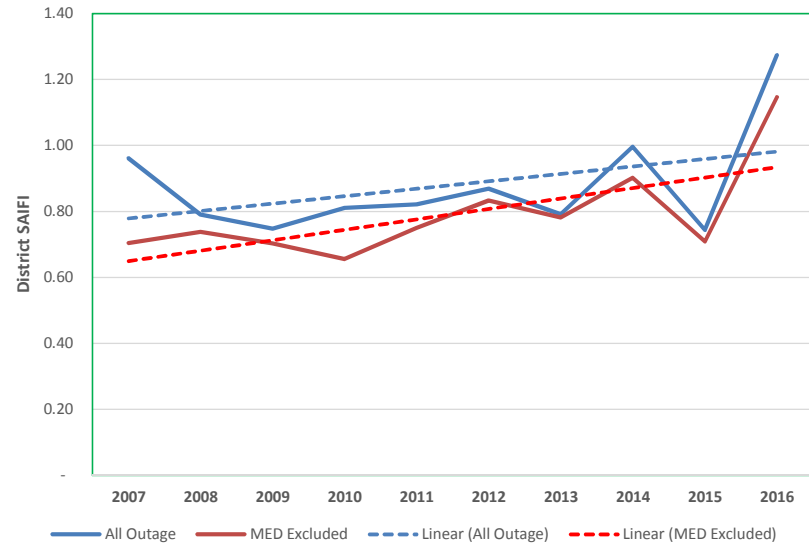
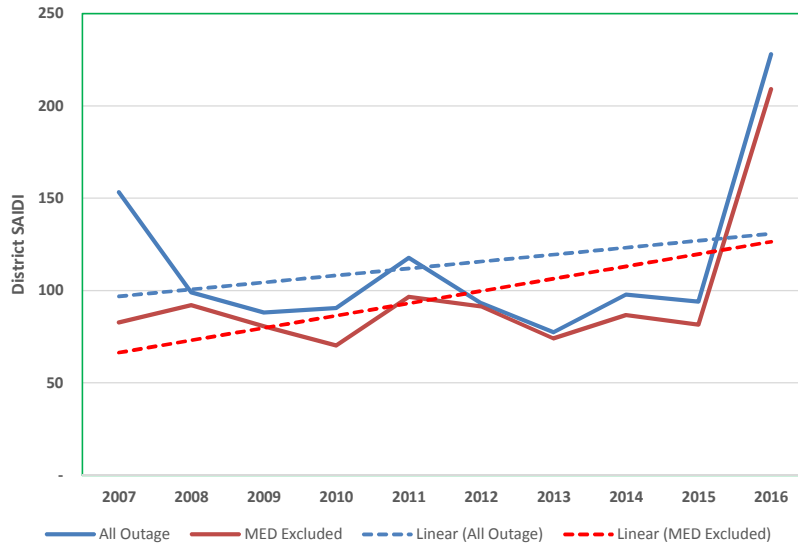
## 2007 - 2016 District Reliability Graphs (With Planned)

### MONTEBELLO District Reliability Performance



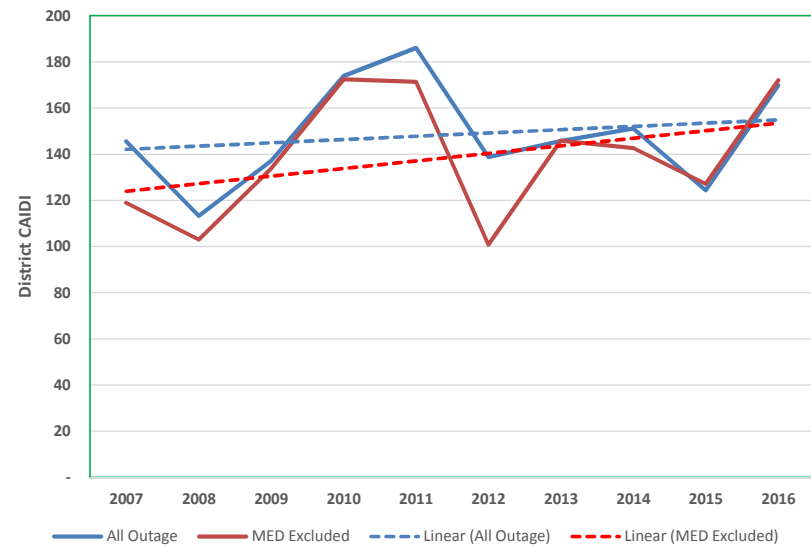
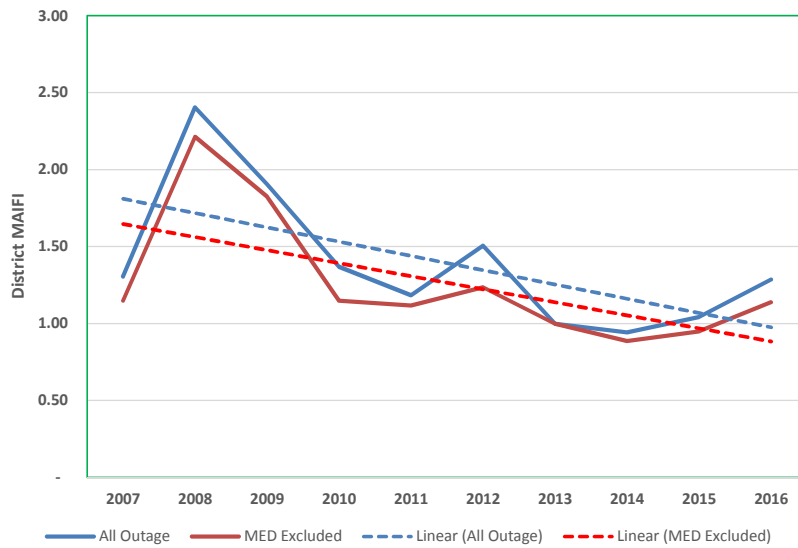
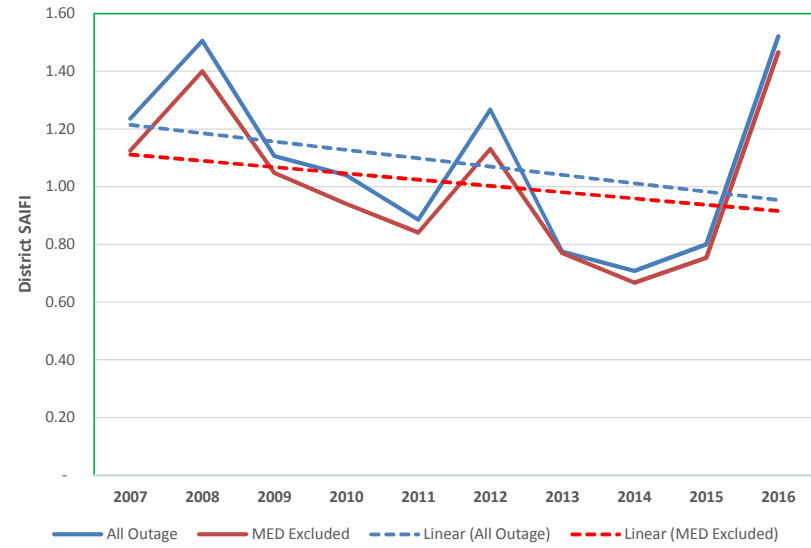
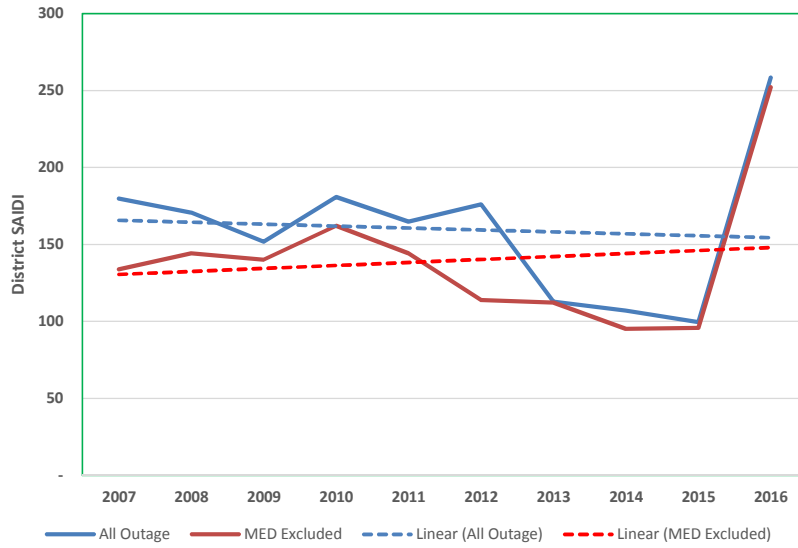
## 2007 - 2016 District Reliability Graphs (With Planned)

### ONTARIO District Reliability Performance



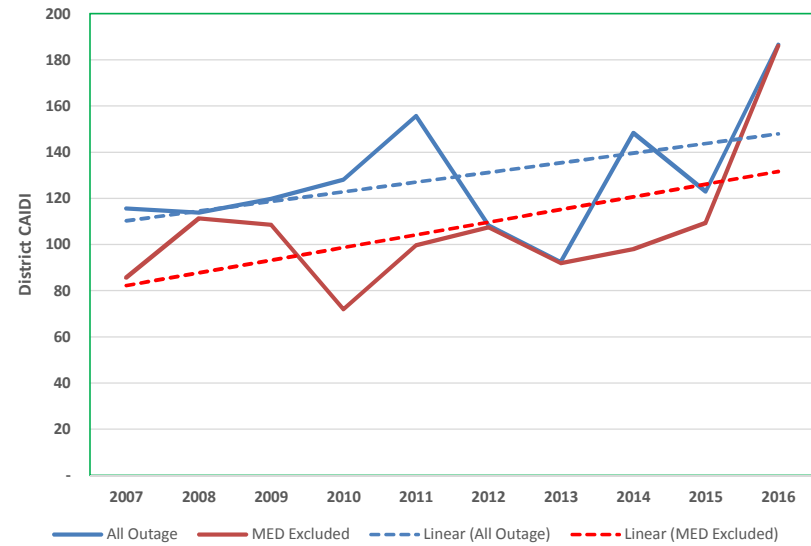
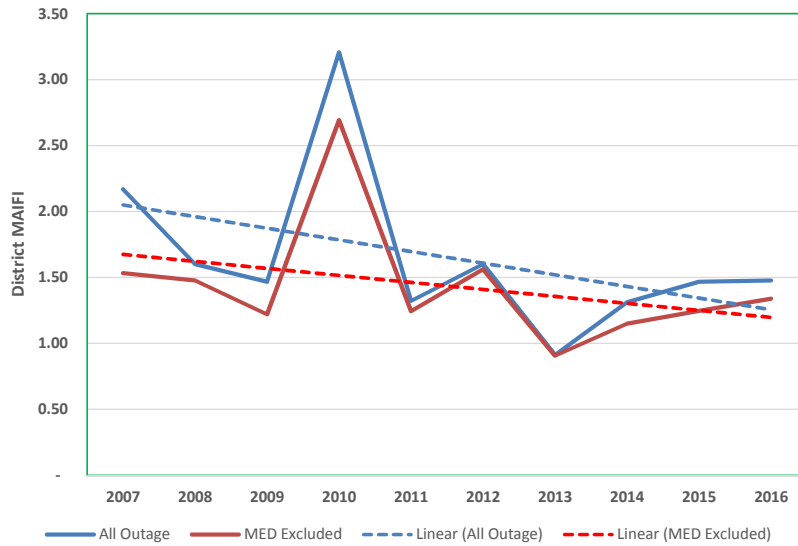
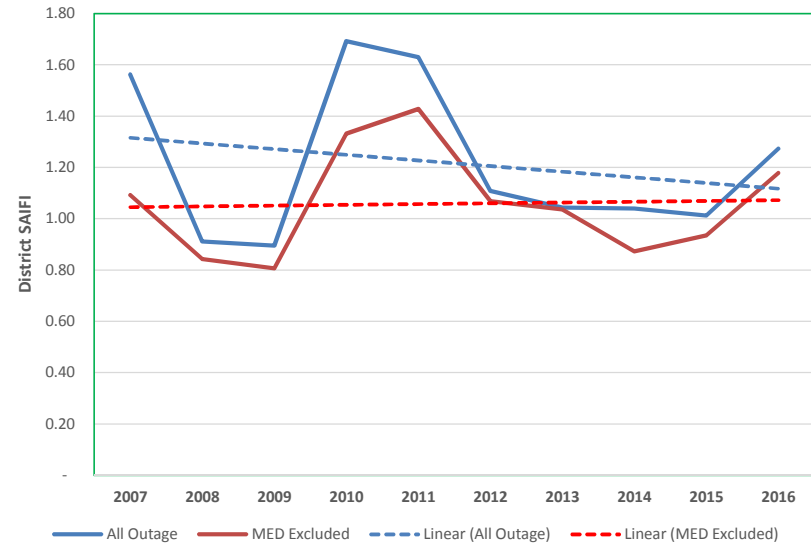
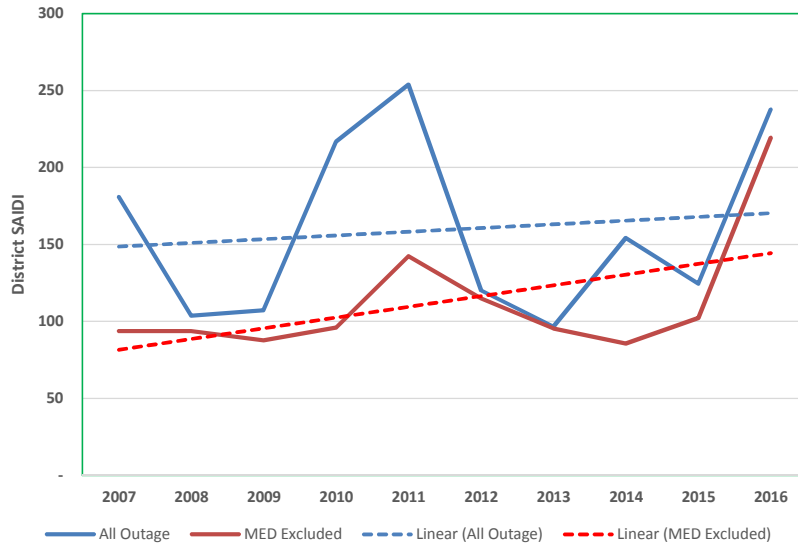
## 2007 - 2016 District Reliability Graphs (With Planned)

### PALM SPRINGS District Reliability Performance



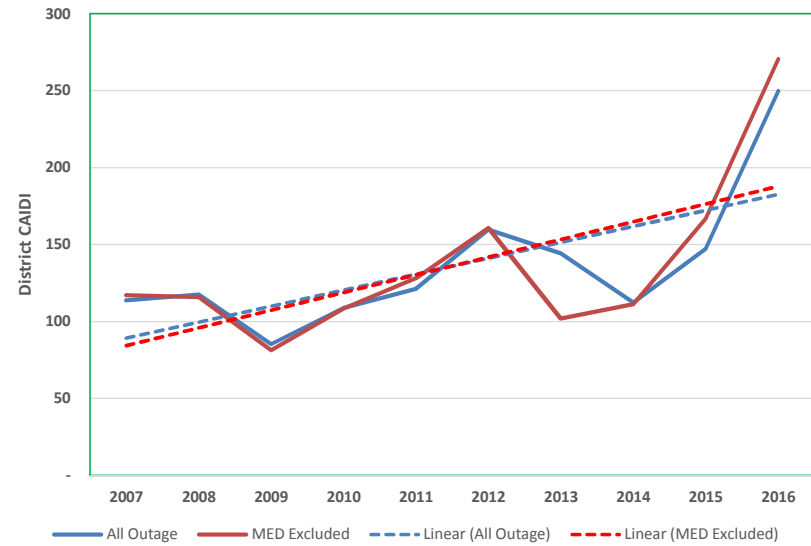
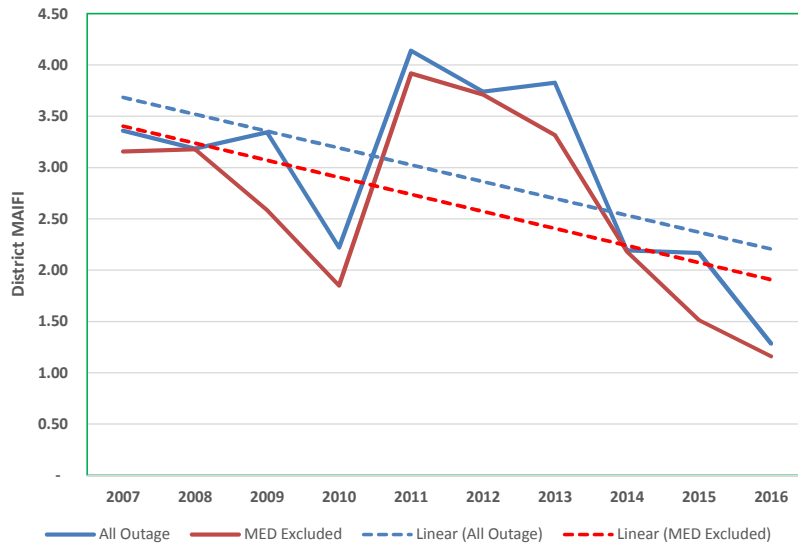
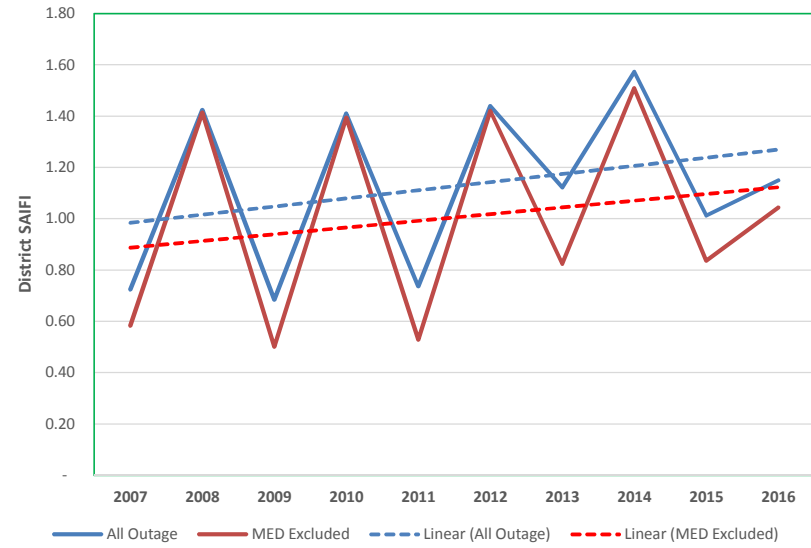
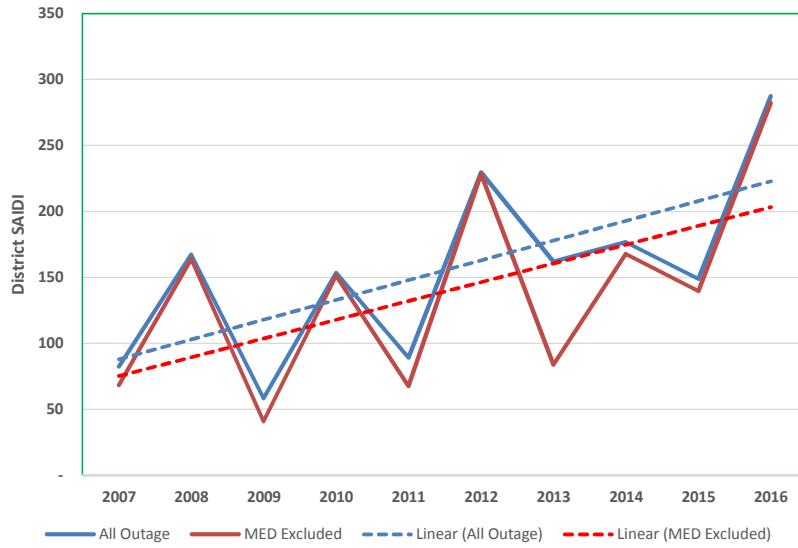
## 2007 - 2016 District Reliability Graphs (With Planned)

### REDLANDS District Reliability Performance



## 2007 - 2016 District Reliability Graphs (With Planned)

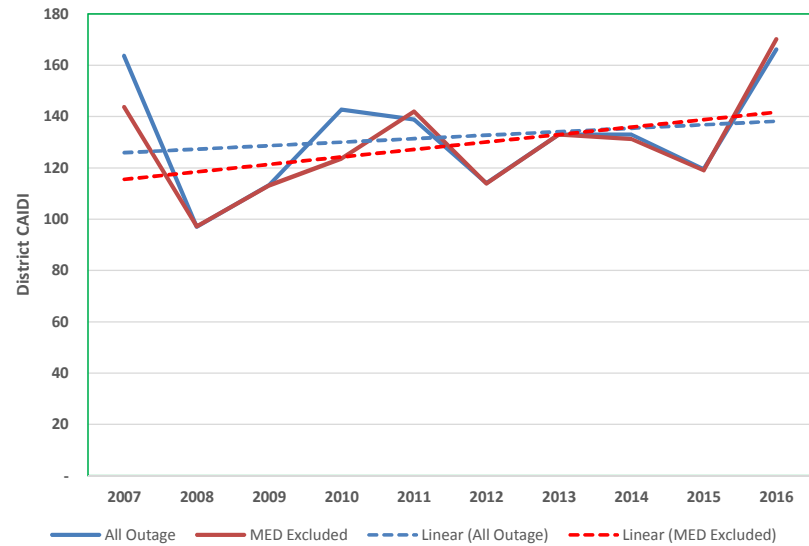
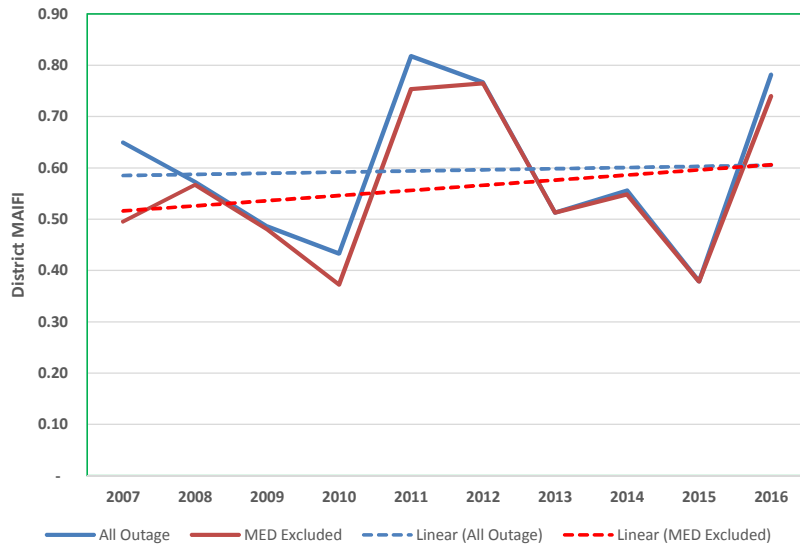
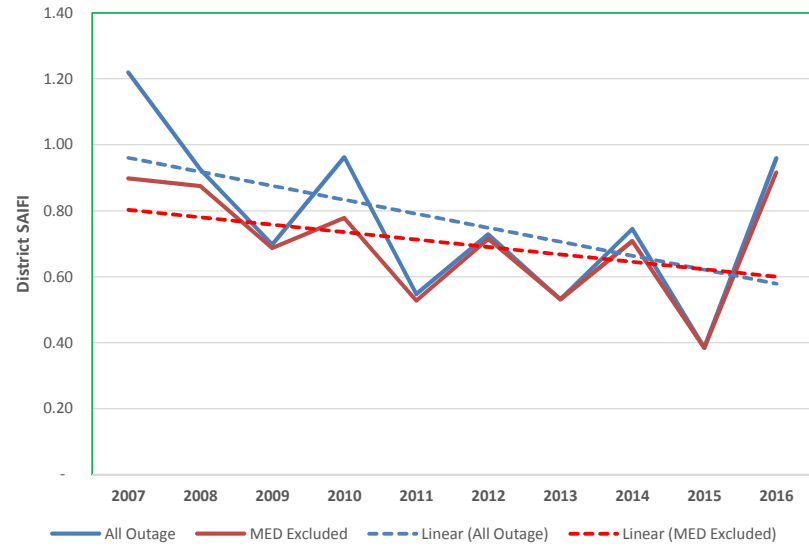
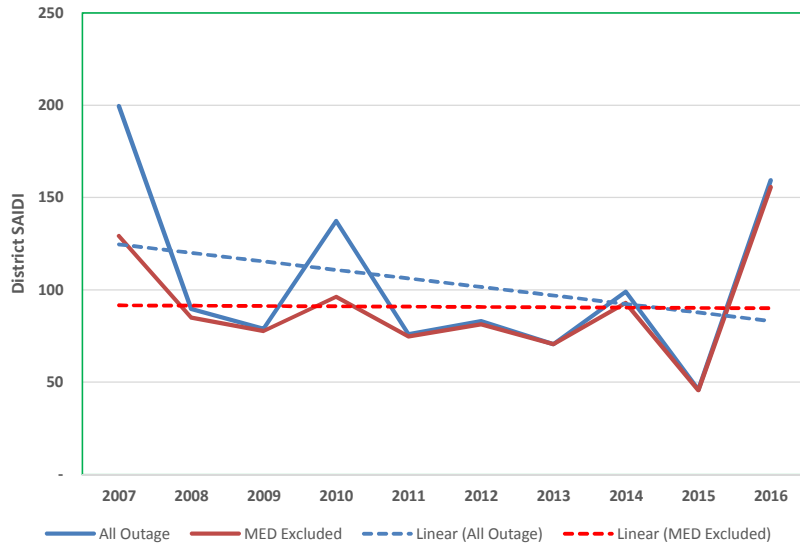
### RIDGECREST District Reliability Performance





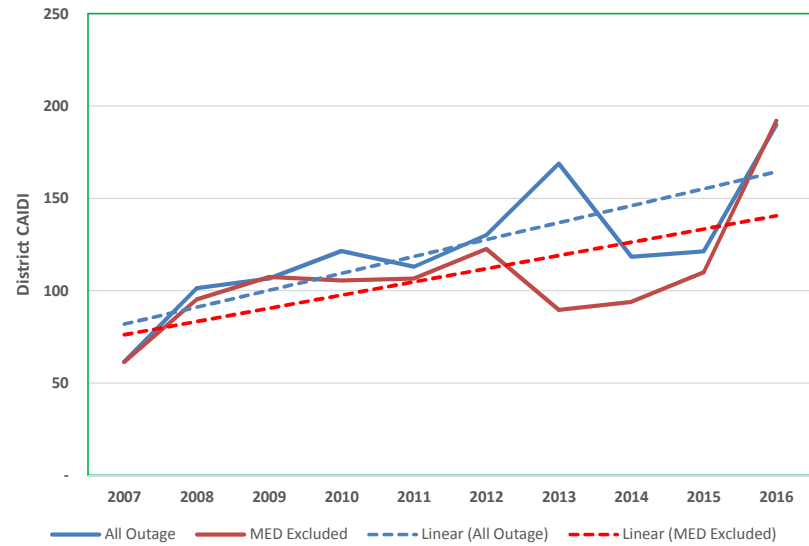
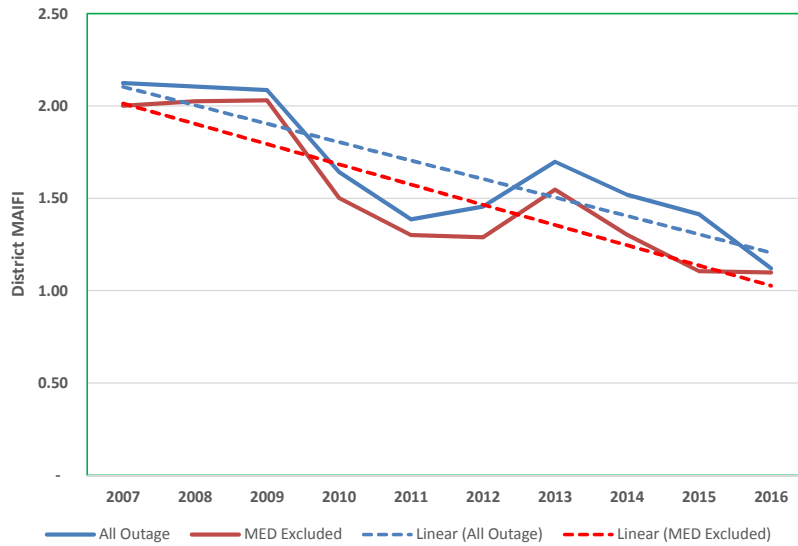
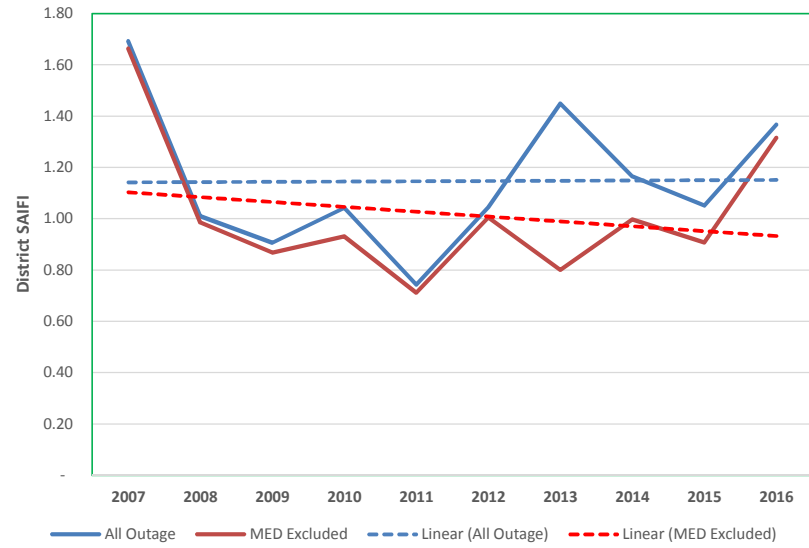
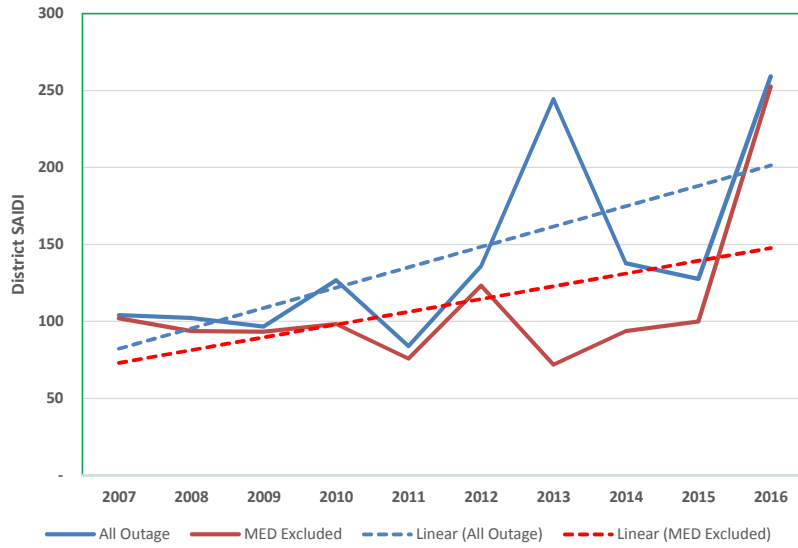
## 2007 - 2016 District Reliability Graphs (With Planned)

### SADDLEBACK District Reliability Performance



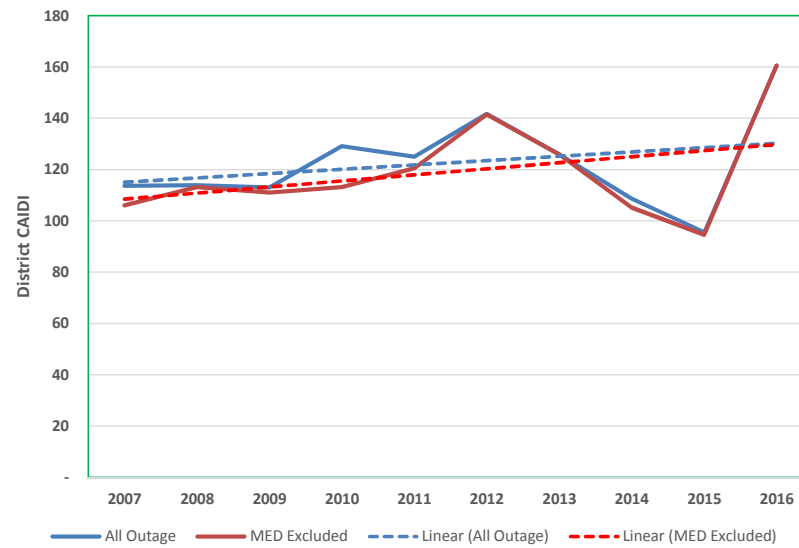
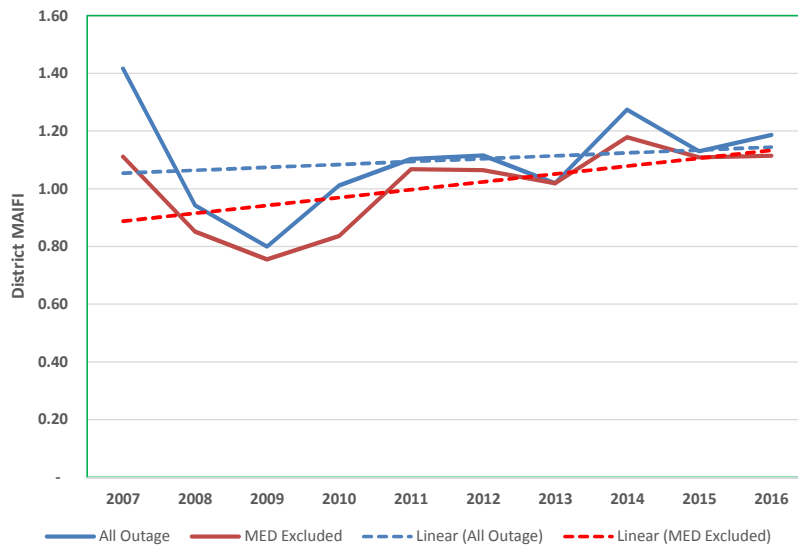
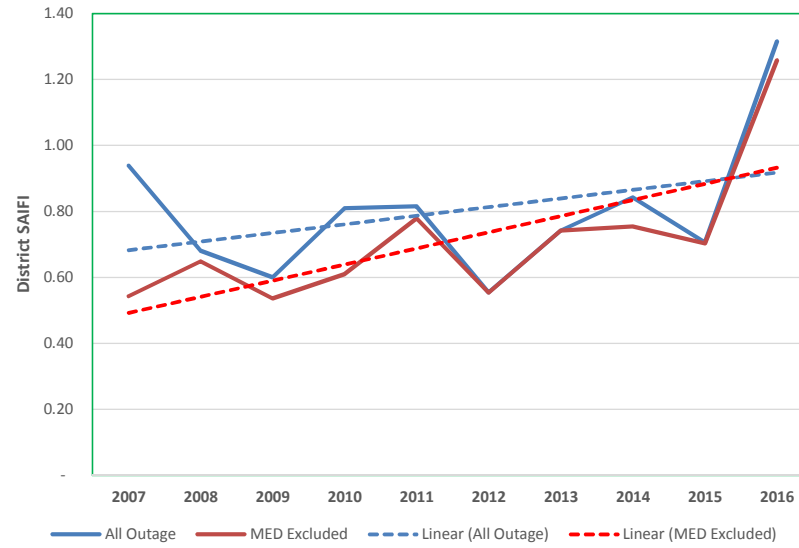
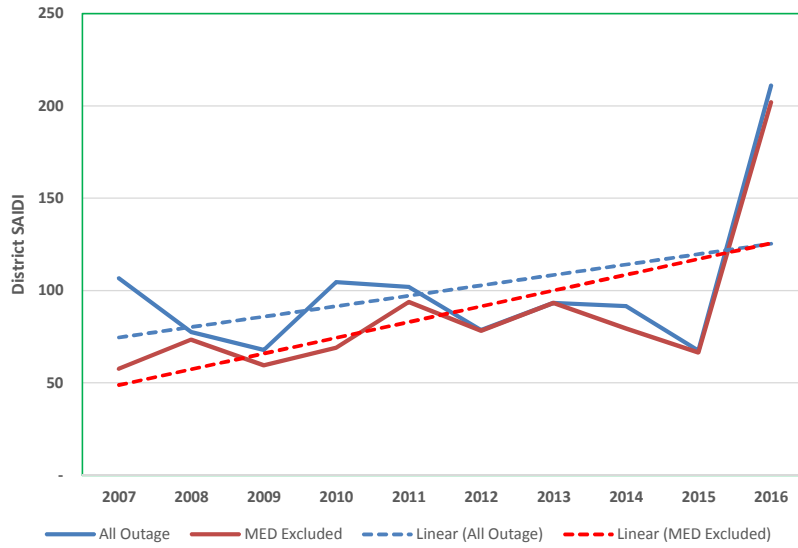
## 2007 - 2016 District Reliability Graphs (With Planned)

### SAN JOAQUIN District Reliability Performance



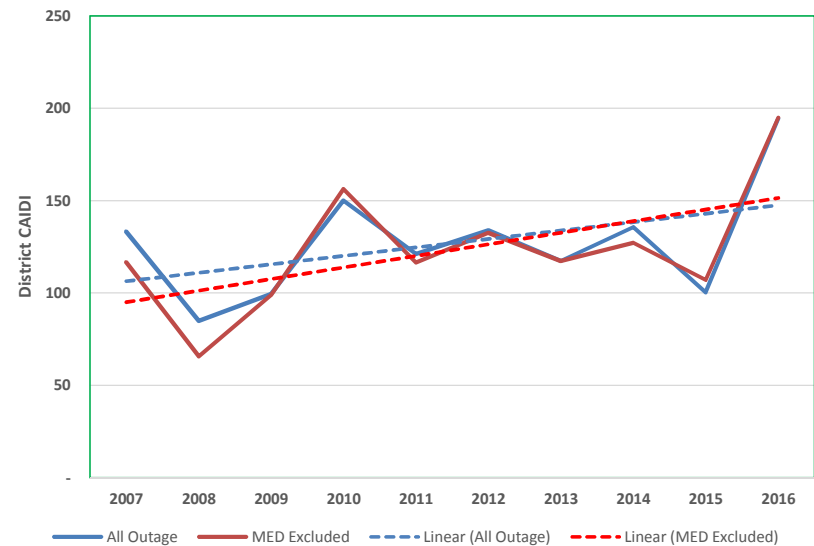
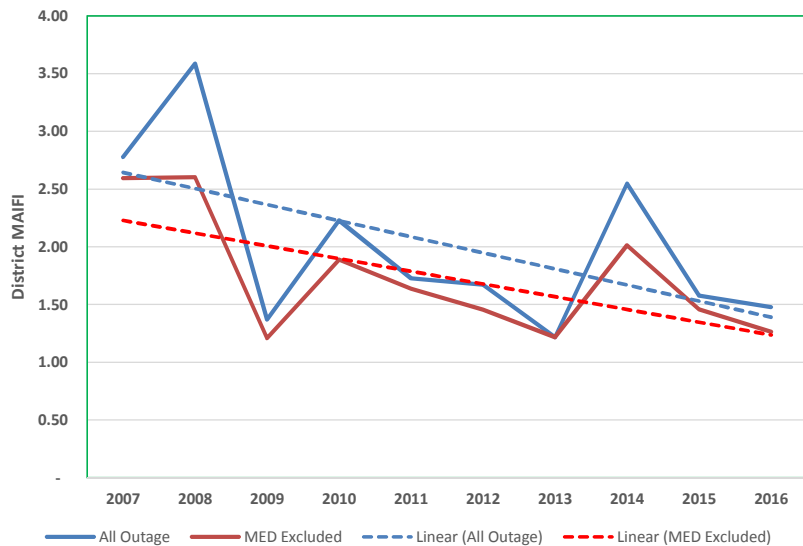
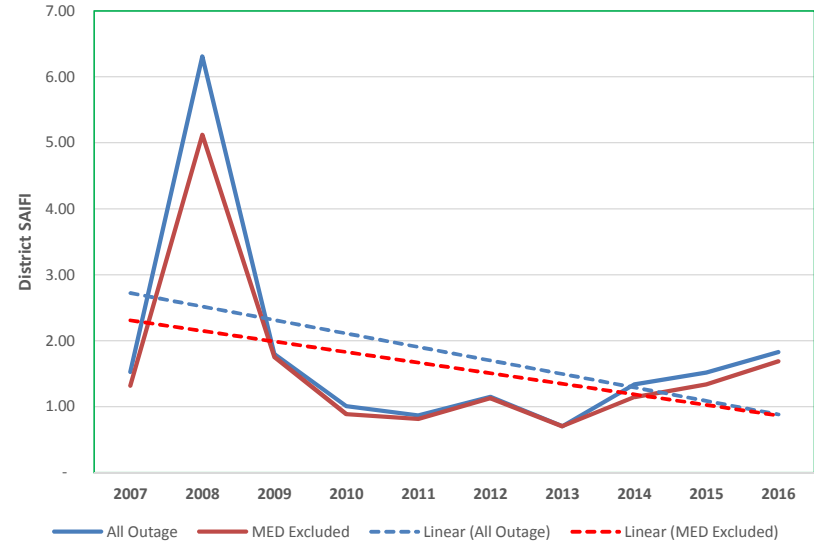
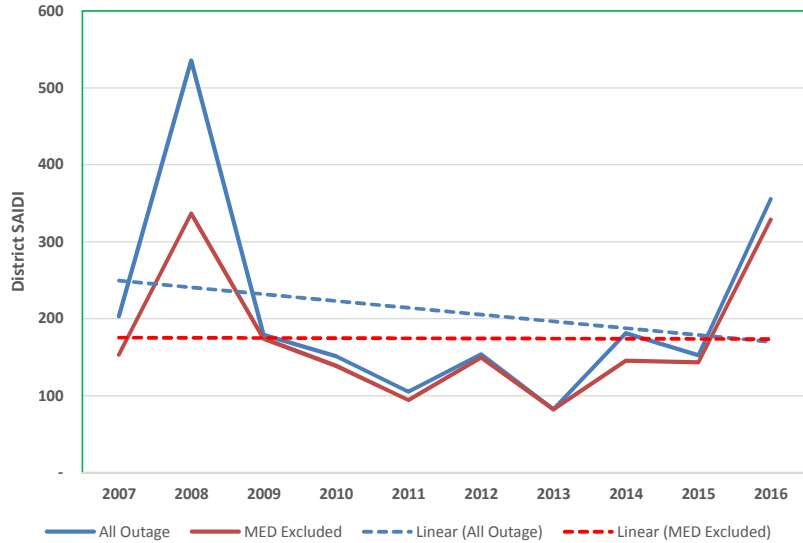
## 2007 - 2016 District Reliability Graphs (With Planned)

### SANTA ANA District Reliability Performance



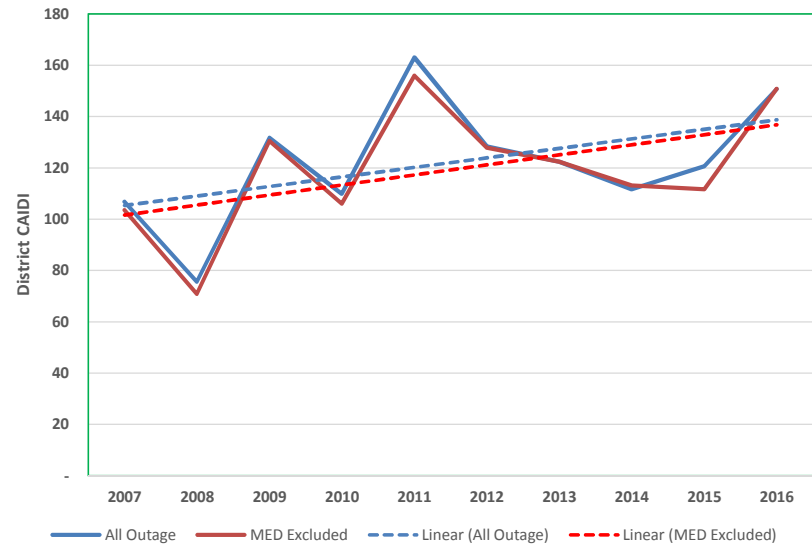
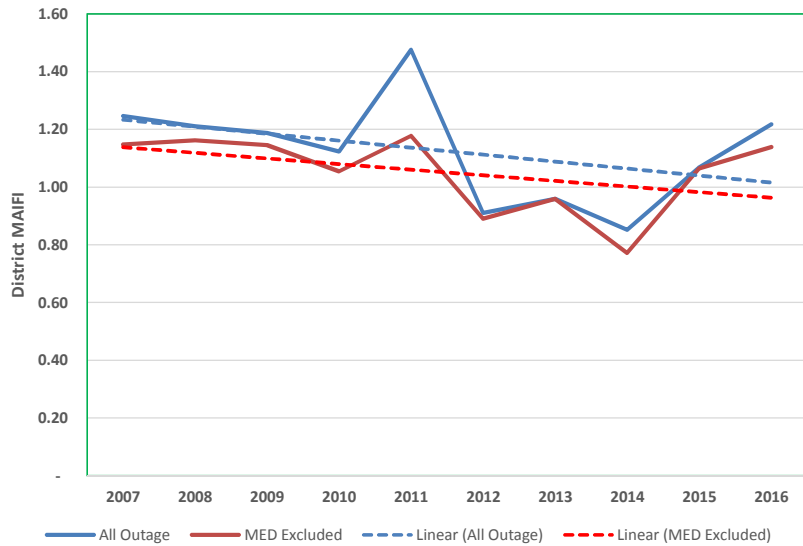
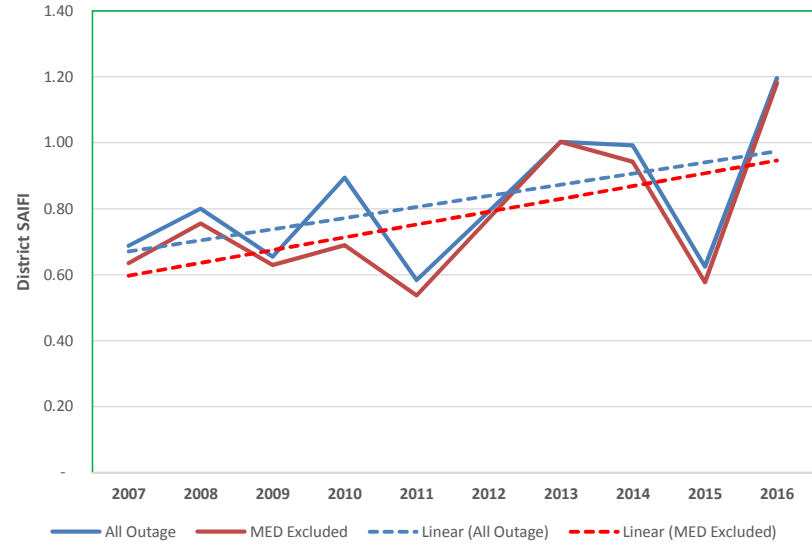
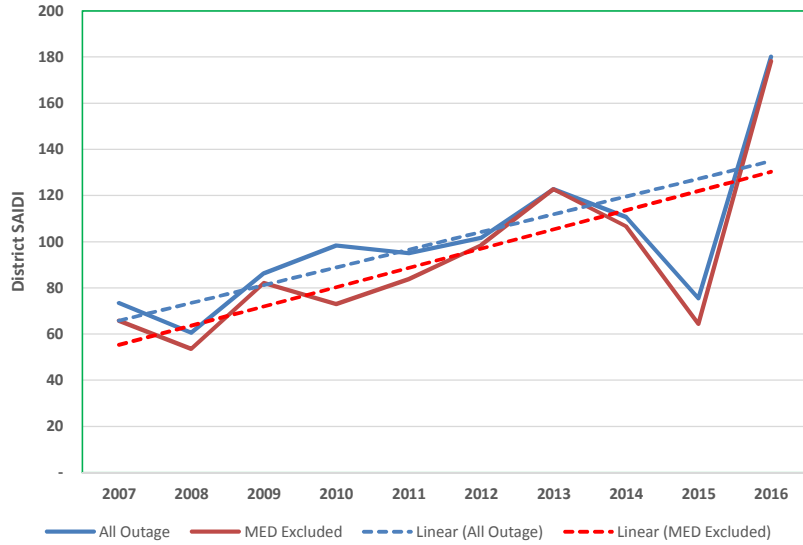
## 2007 - 2016 District Reliability Graphs (With Planned)

### SANTA BARBARA District Reliability Performance



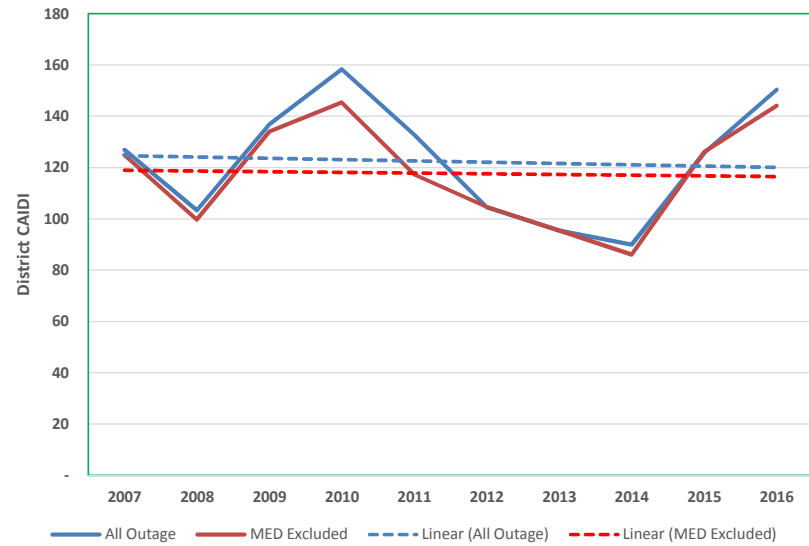
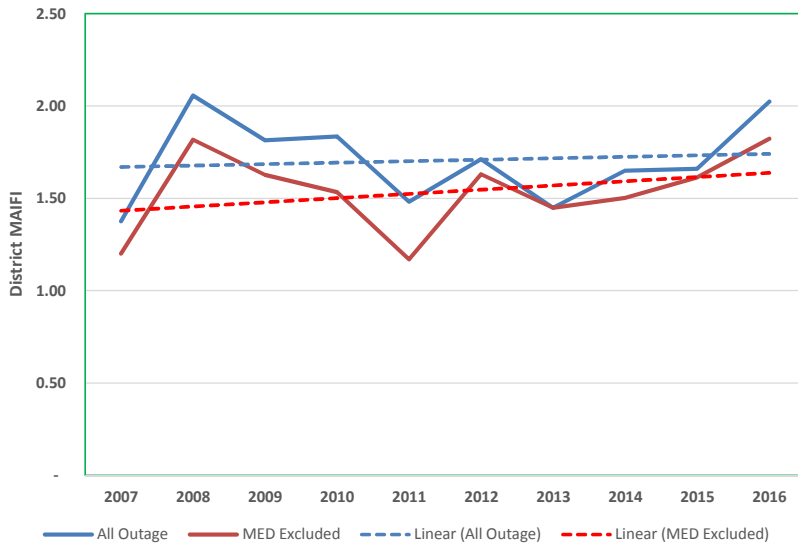
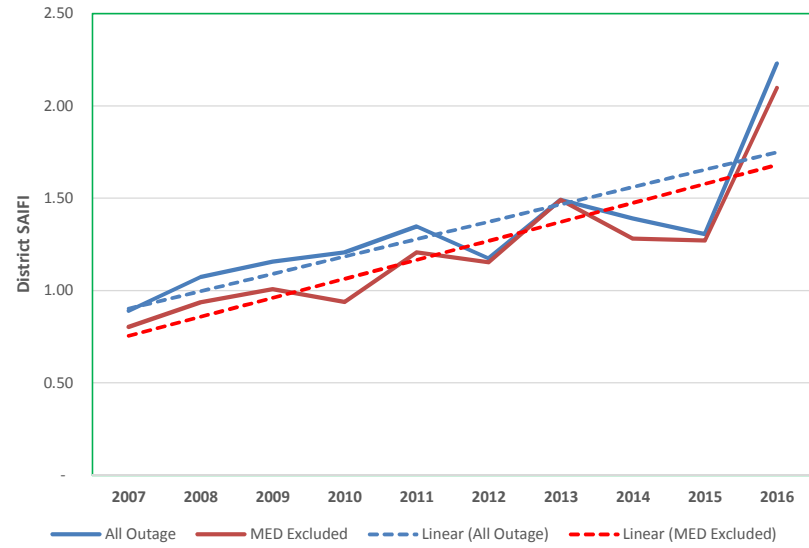
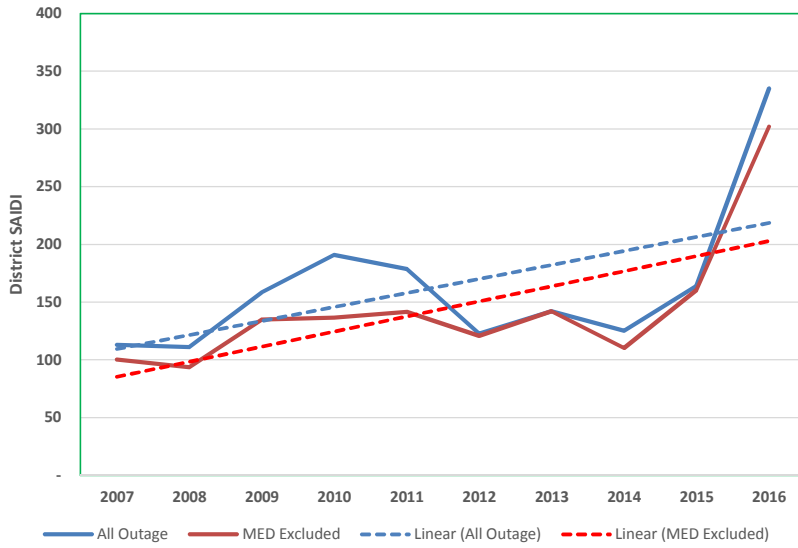
## 2007 - 2016 District Reliability Graphs (With Planned)

### SANTA MONICA District Reliability Performance



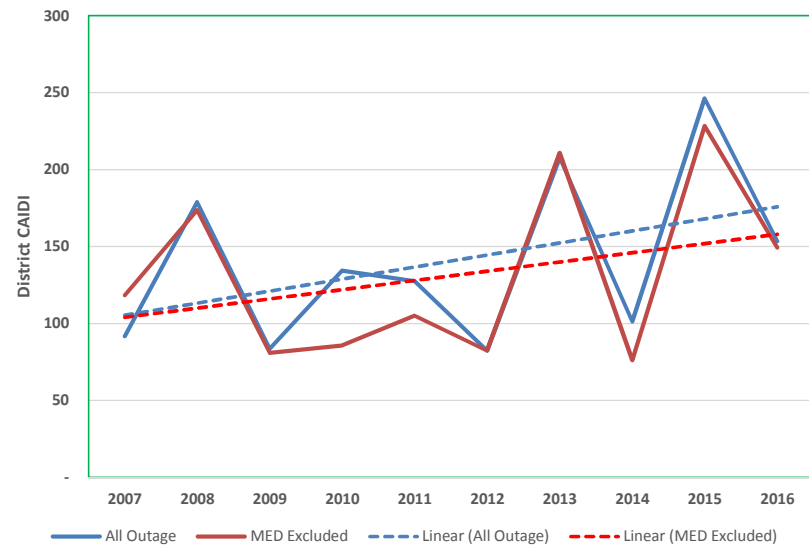
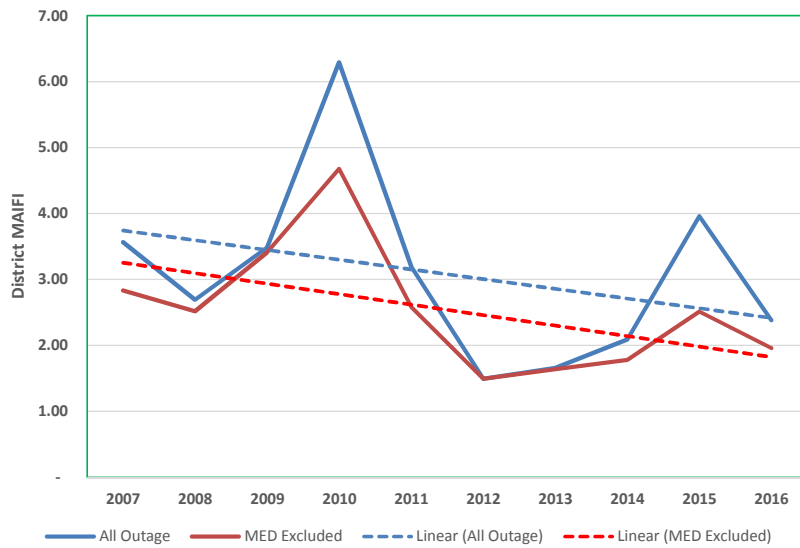
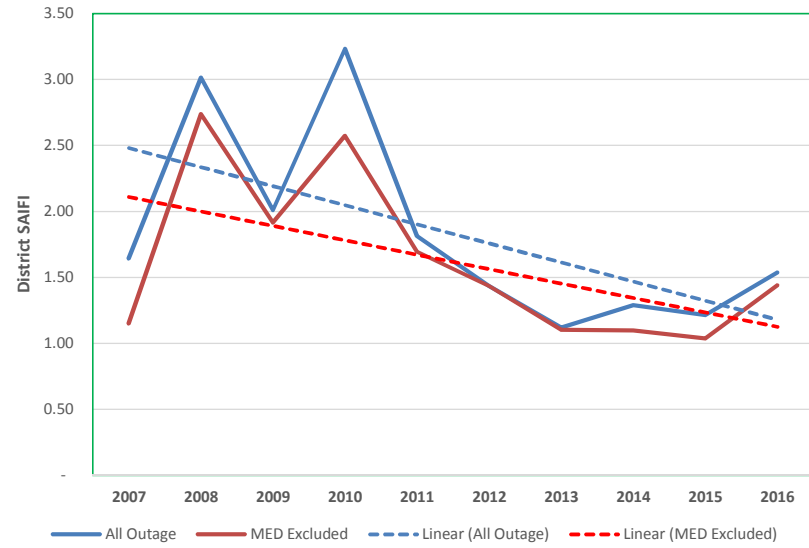
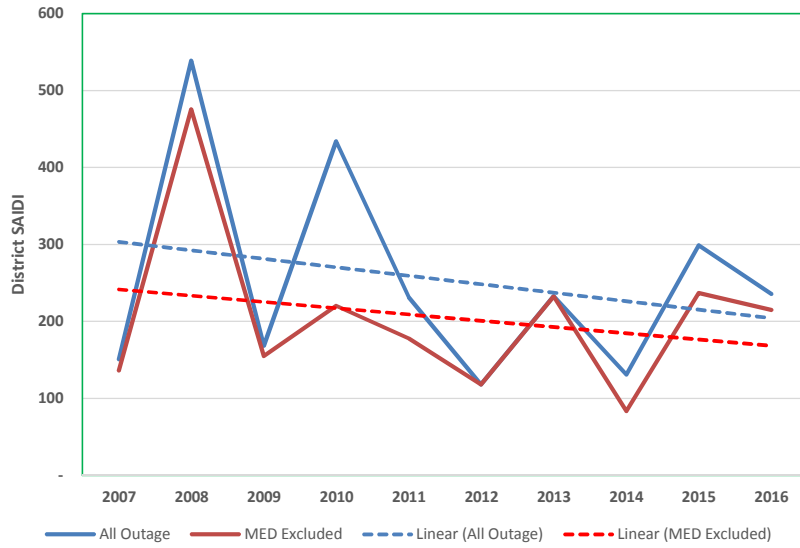
## 2007 - 2016 District Reliability Graphs (With Planned)

### SOUTH BAY District Reliability Performance



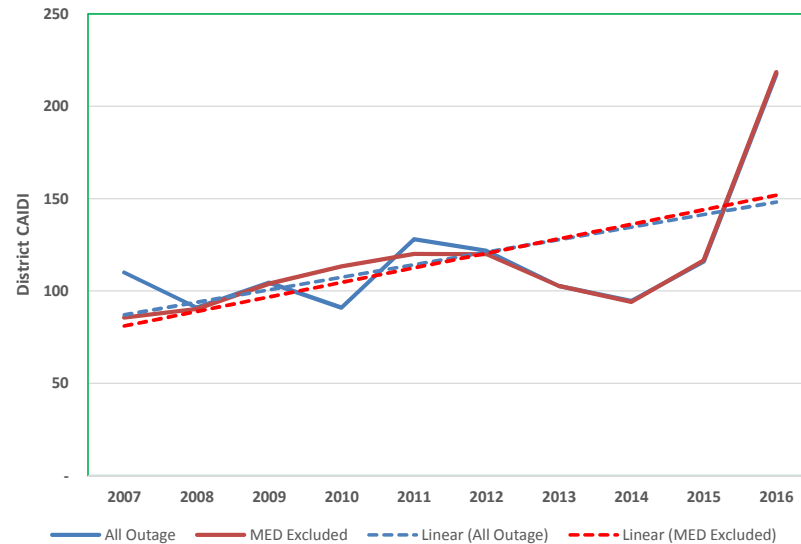
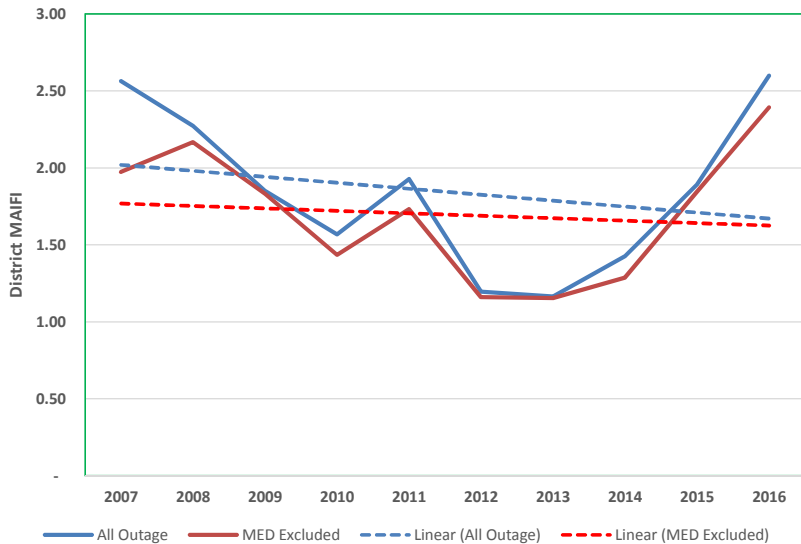
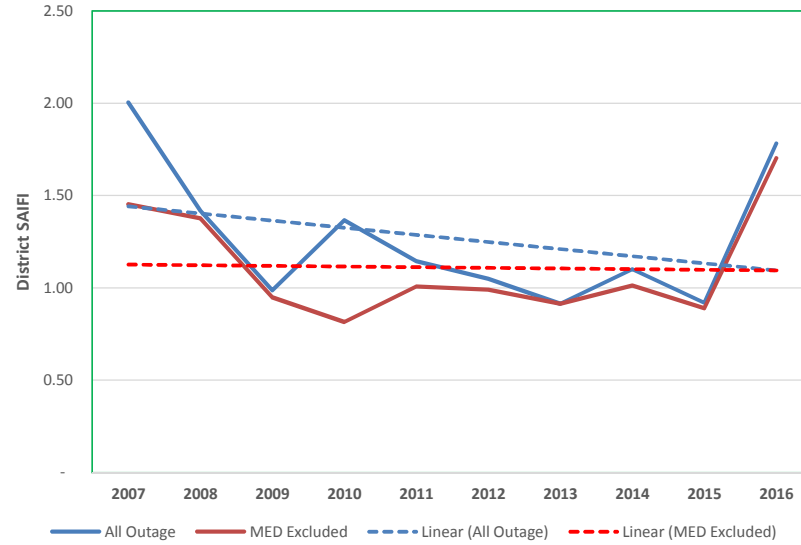
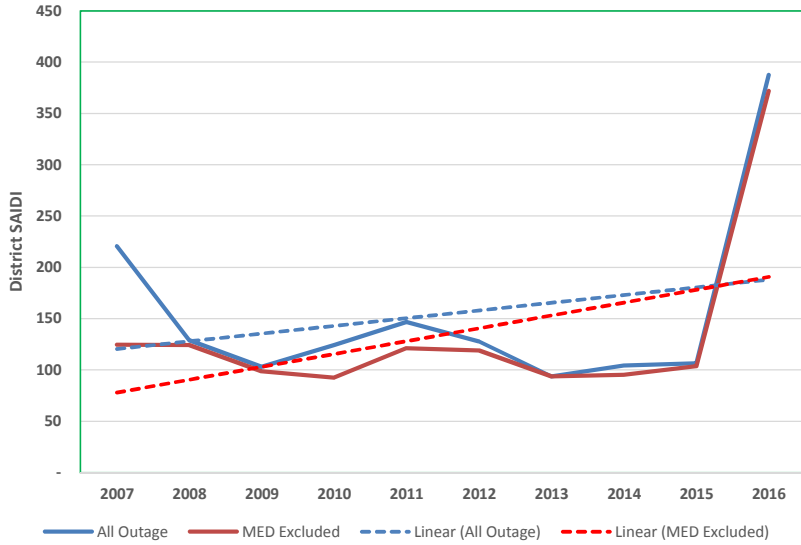
## 2007 - 2016 District Reliability Graphs (With Planned)

### TEHACHAPI District Reliability Performance



## 2007 - 2016 District Reliability Graphs (With Planned)

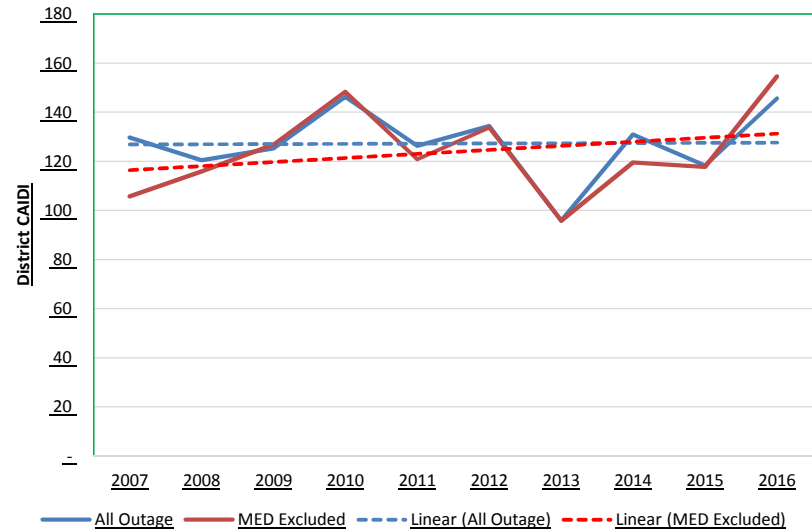
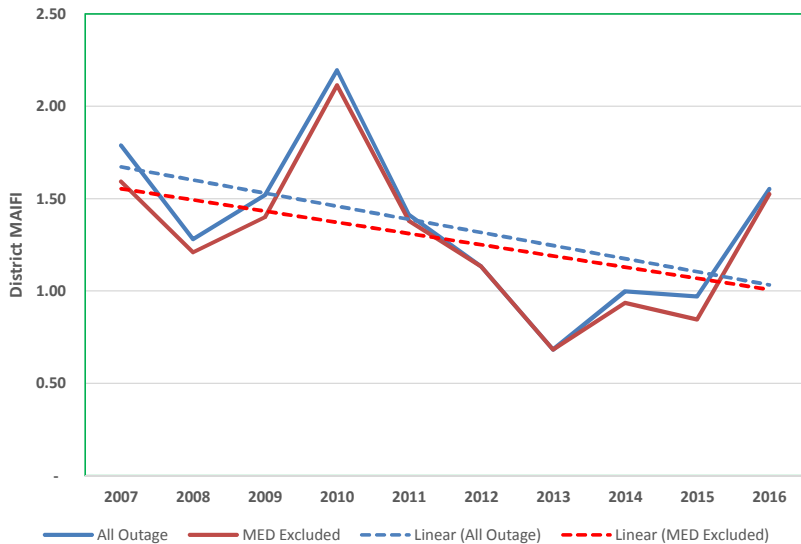
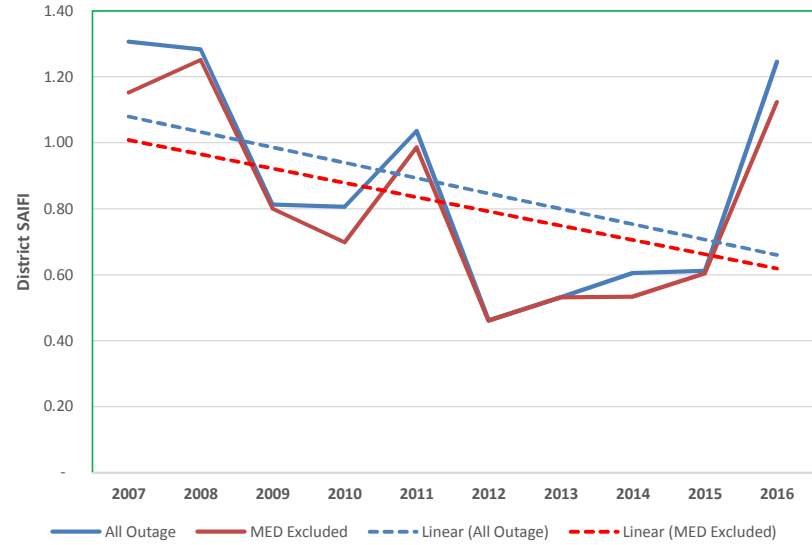
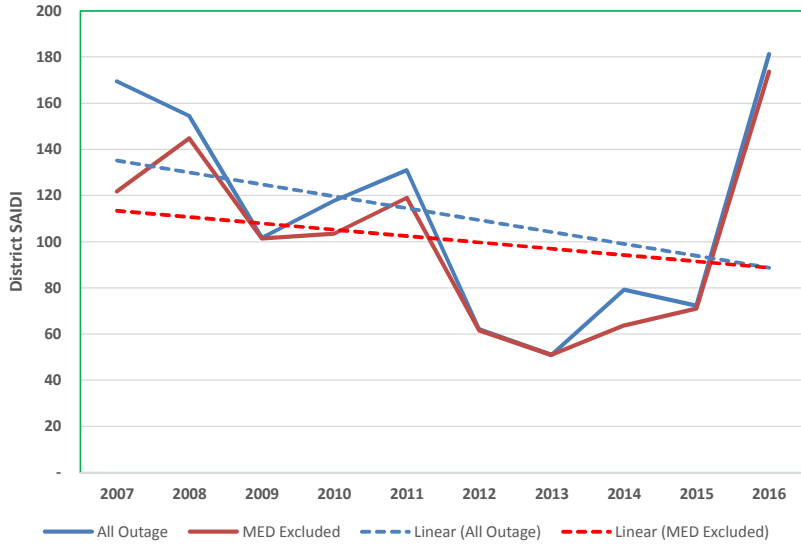
### THOUSAND OAKS District Reliability Performance





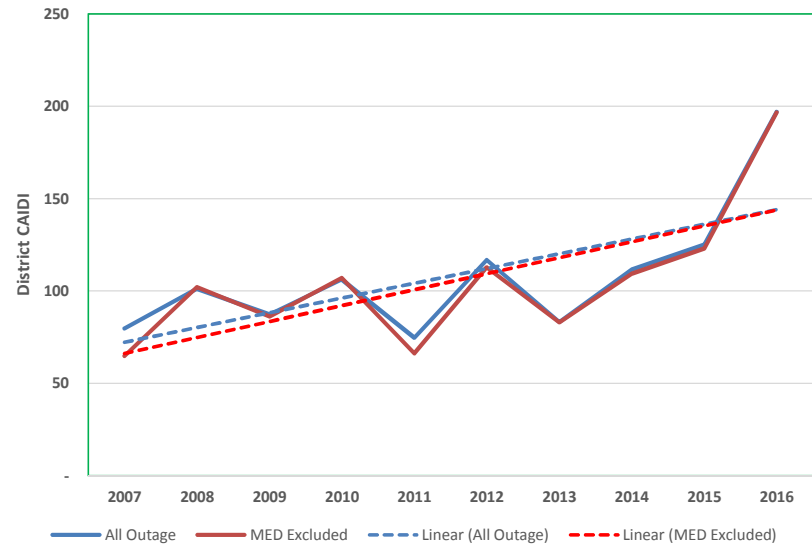
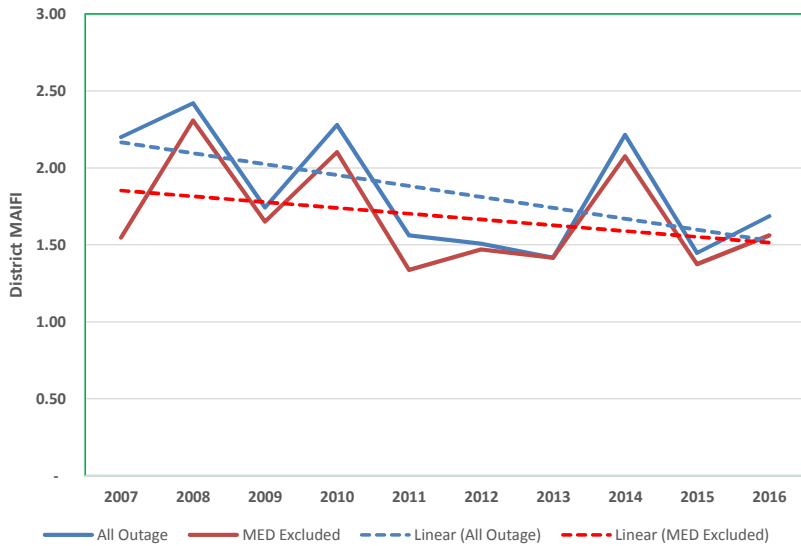
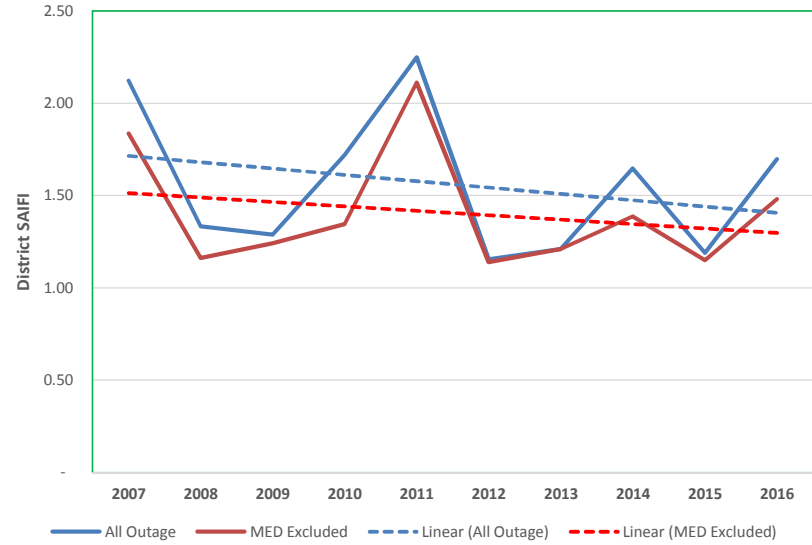
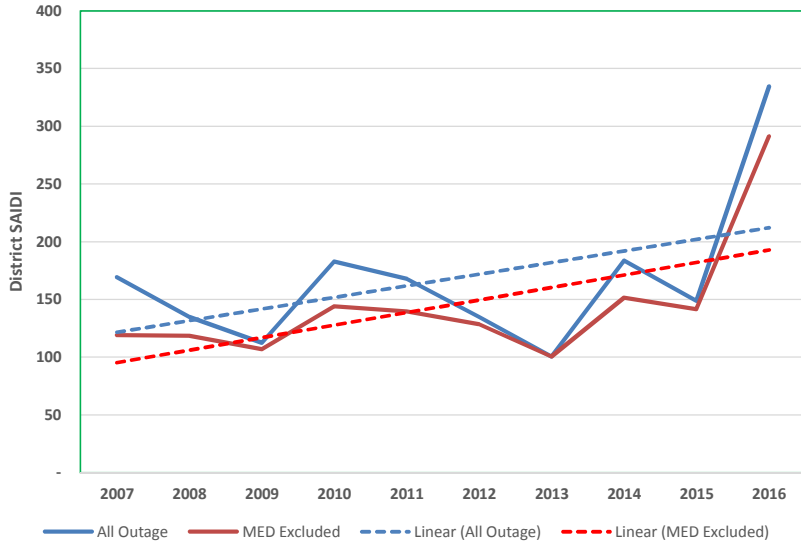
## 2007 - 2016 District Reliability Graphs (With Planned)

### VALENCIA District Reliability Performance



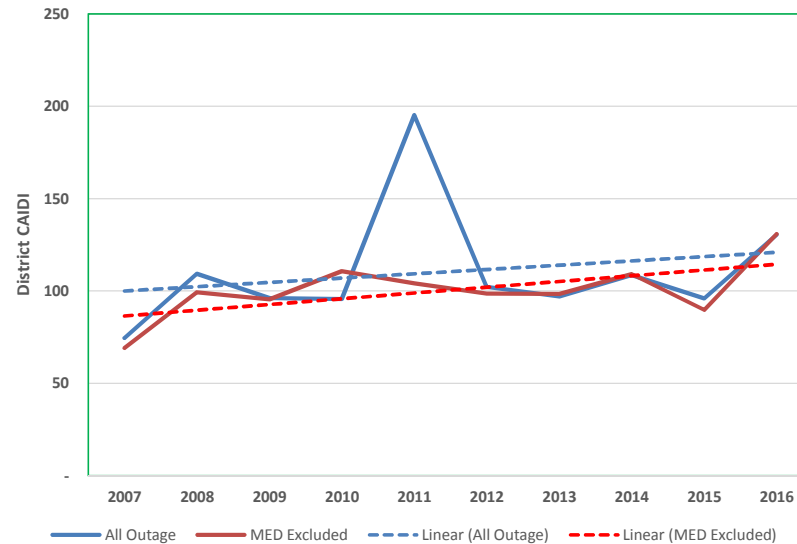
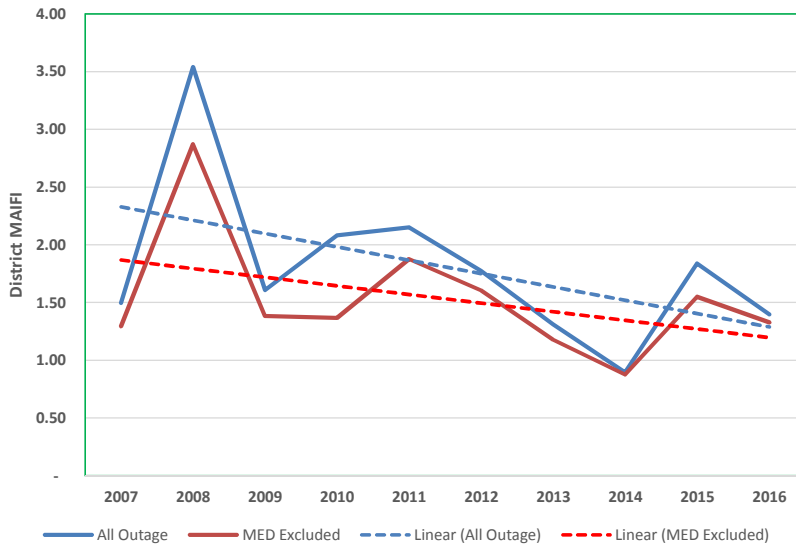
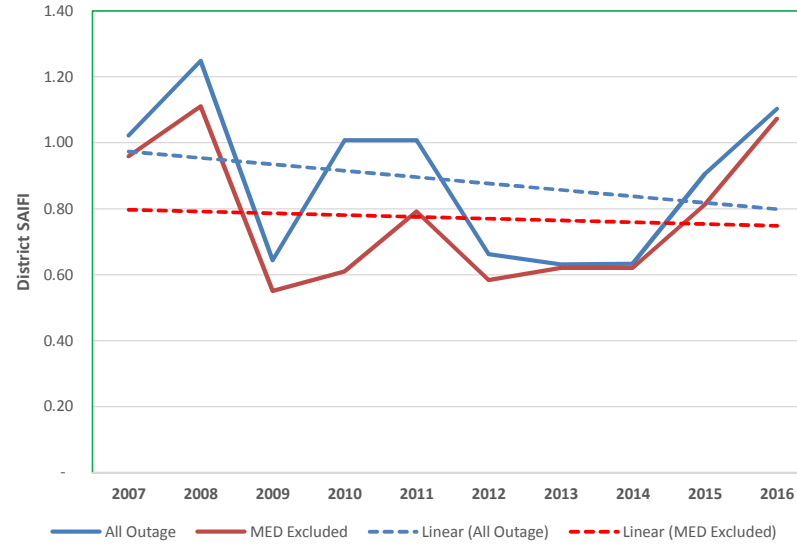
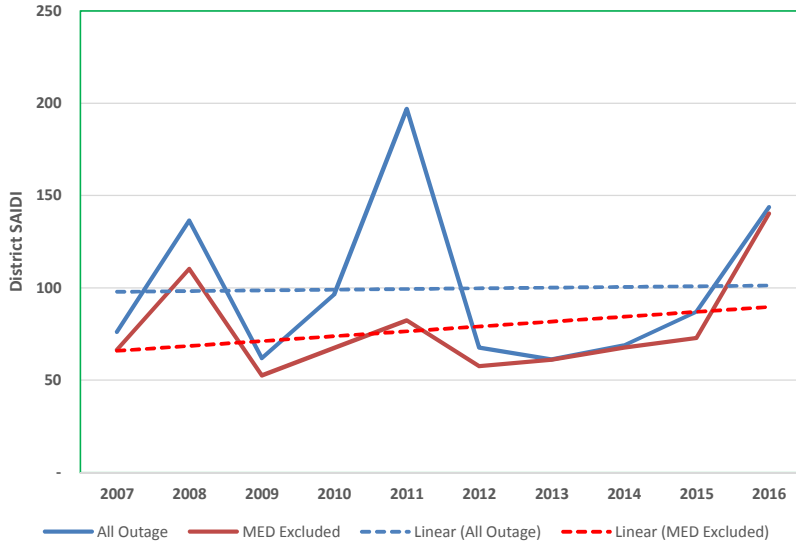
## 2007 - 2016 District Reliability Graphs (With Planned)

### VENTURA District Reliability Performance



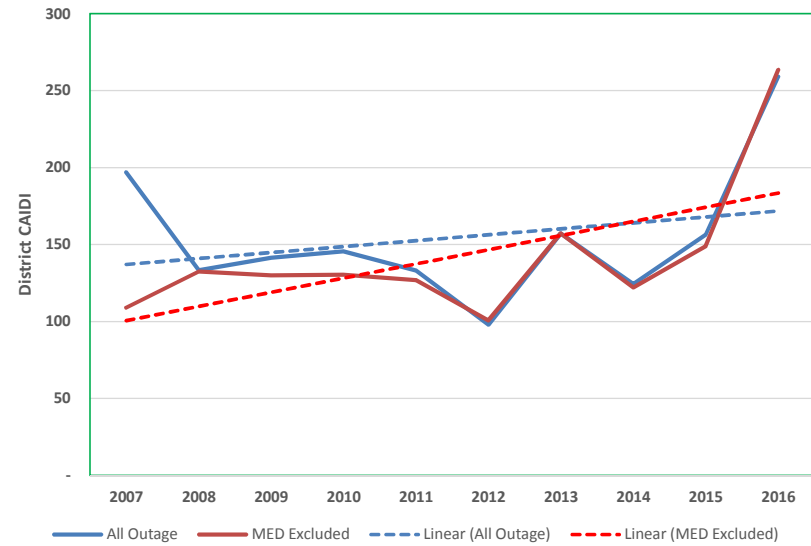
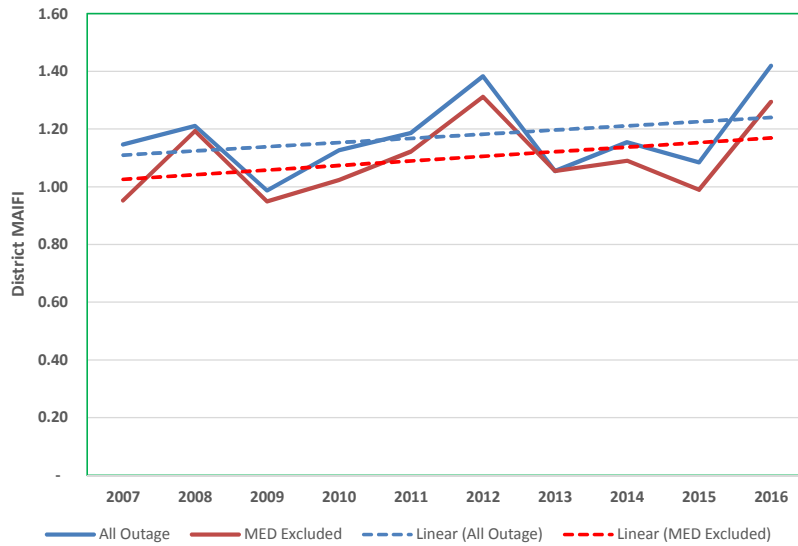
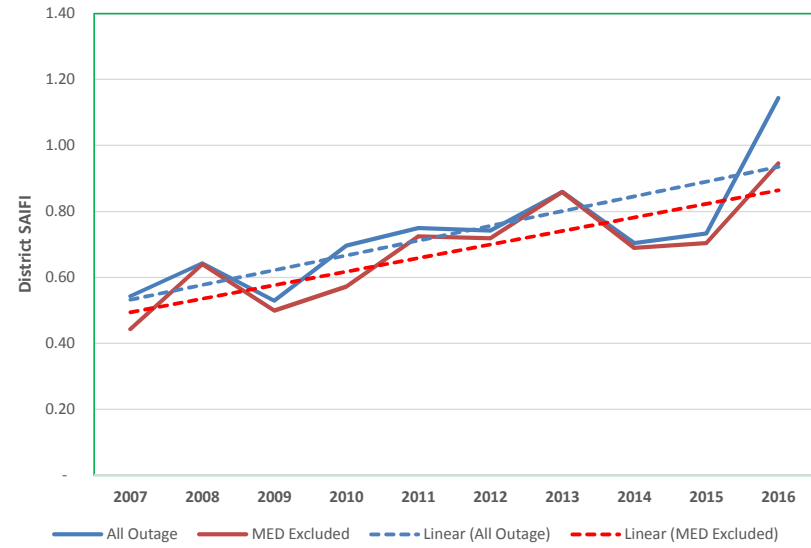
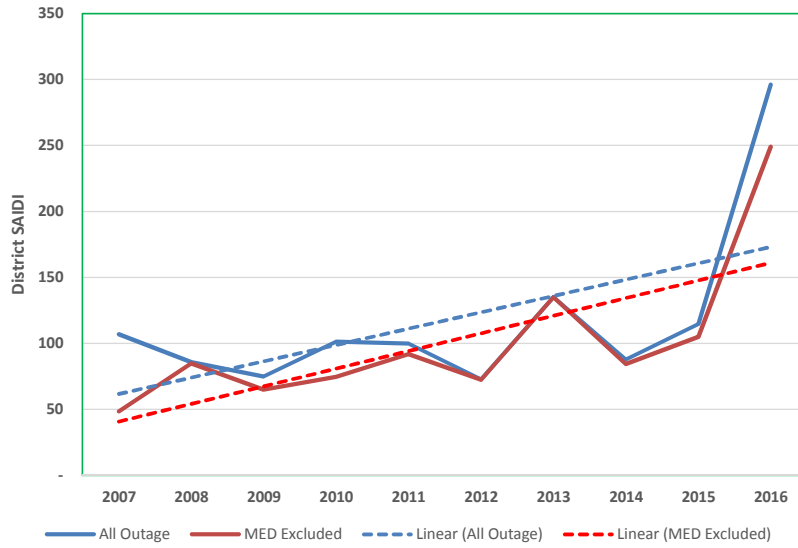
## 2007 - 2016 District Reliability Graphs (With Planned)

### VICTORVILLE District Reliability Performance



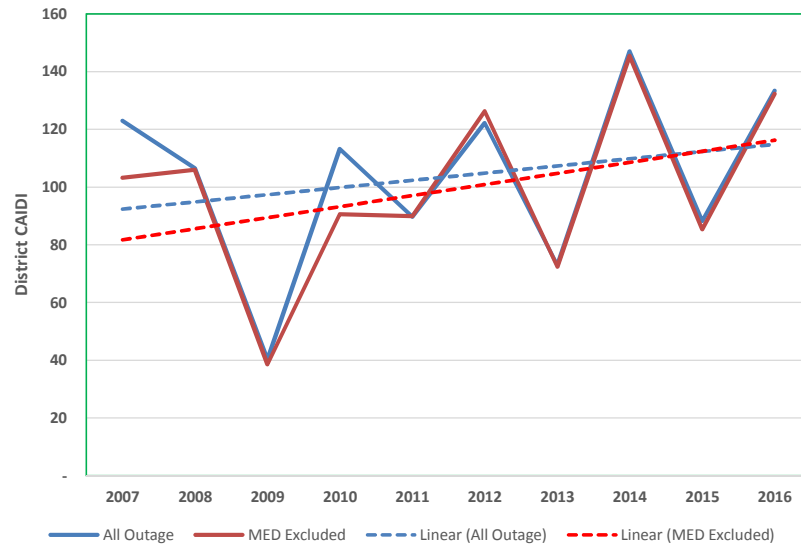
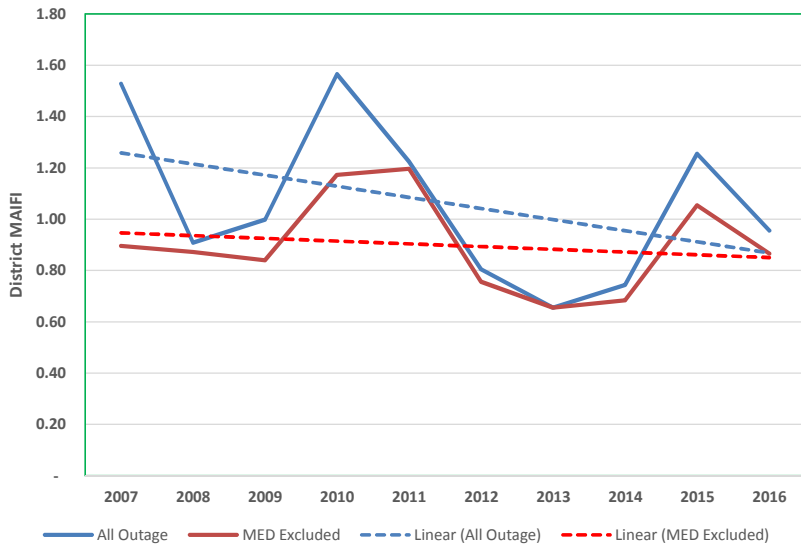
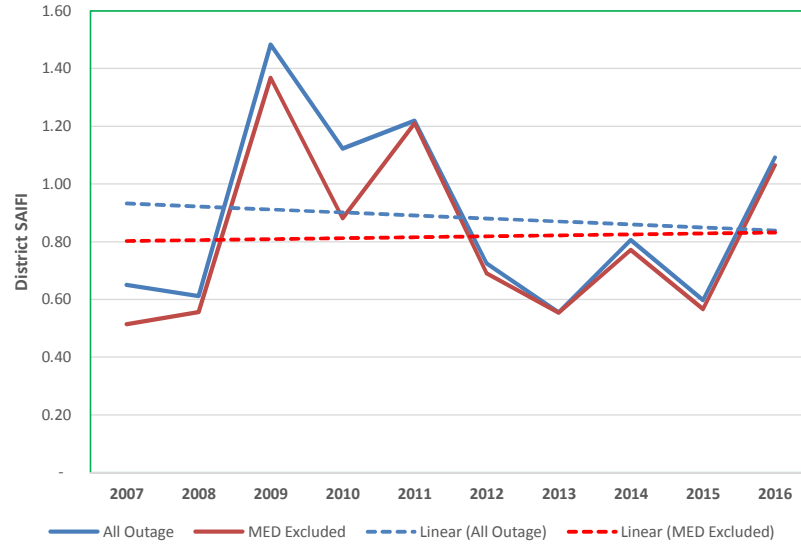
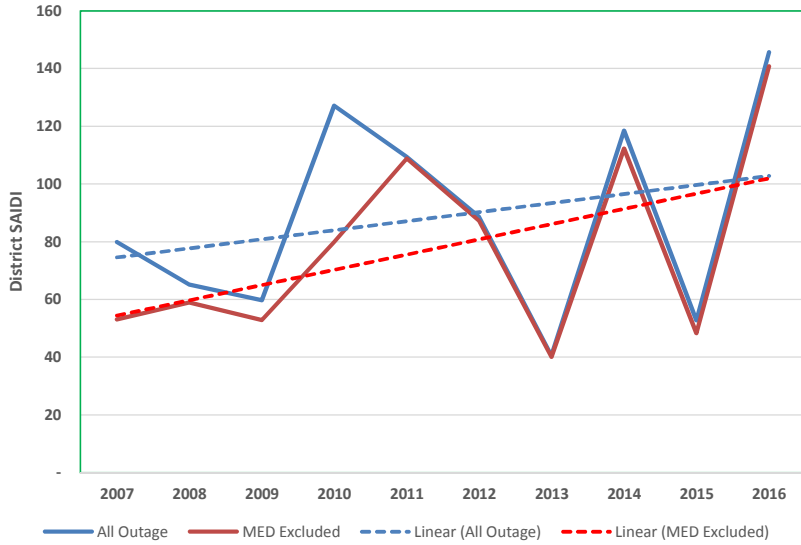
## 2007 - 2016 District Reliability Graphs (With Planned)

### WHITTIER District Reliability Performance



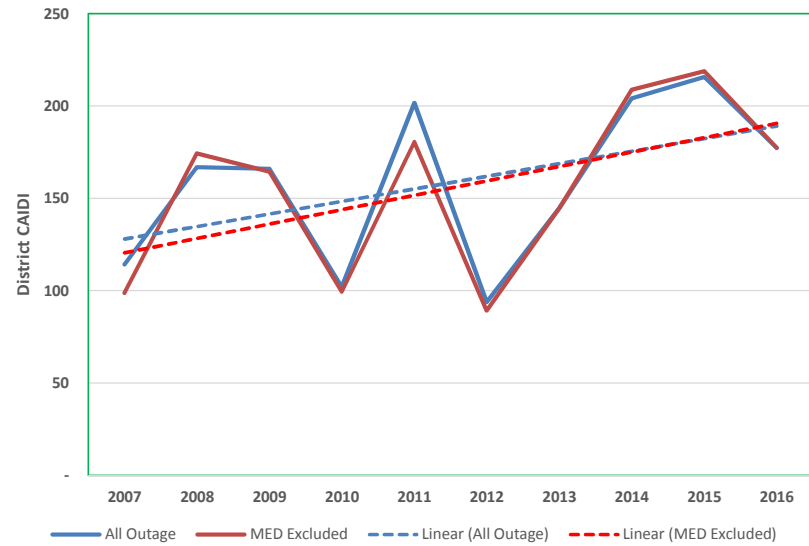
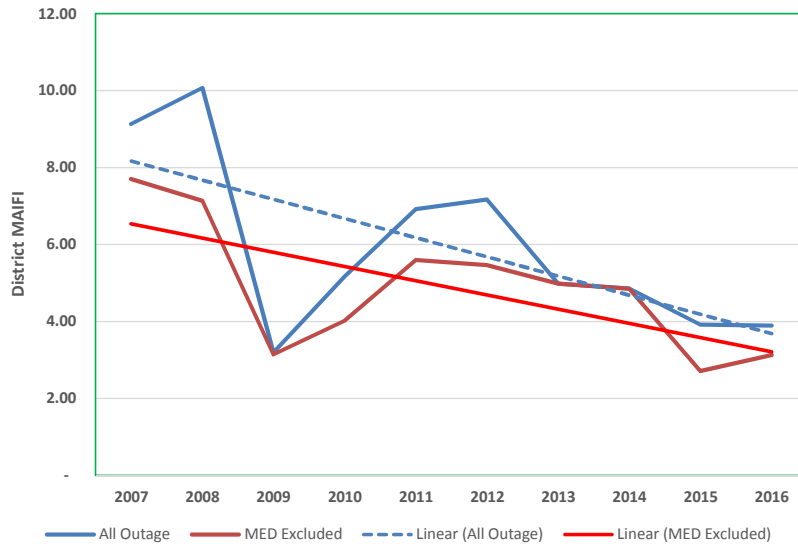
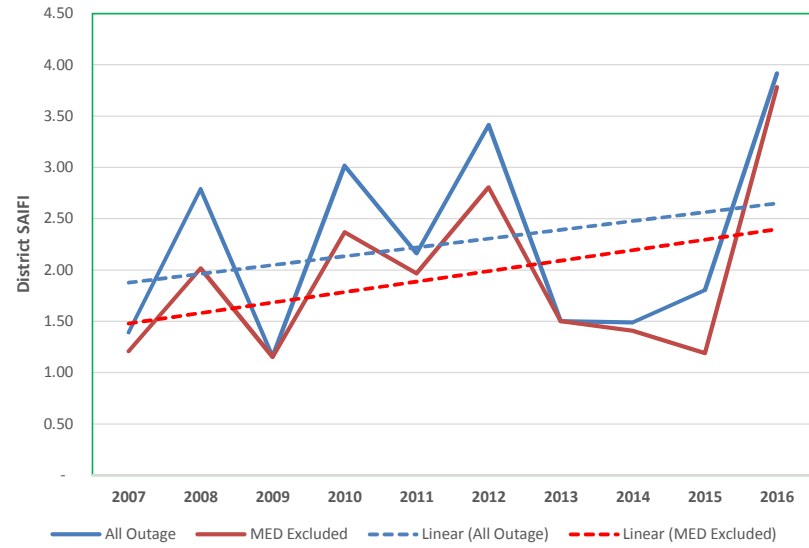
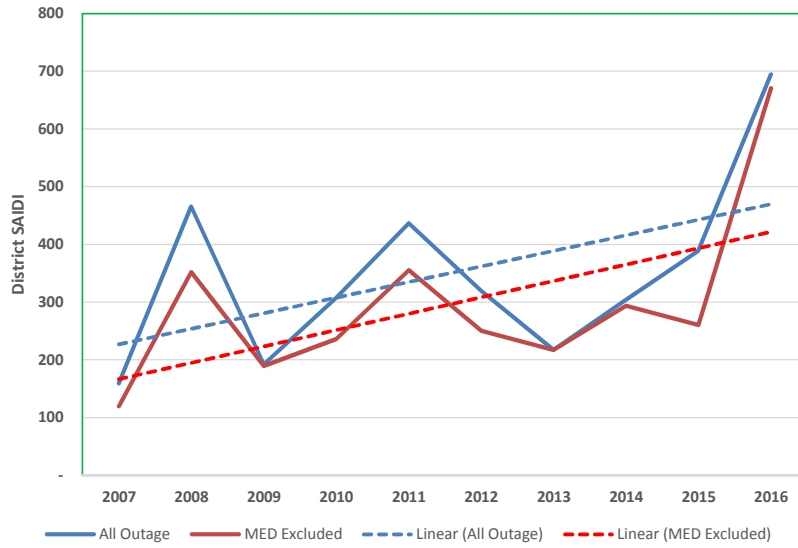
## 2007 - 2016 District Reliability Graphs (With Planned)

### WILDOMAR District Reliability Performance



## 2007 - 2016 District Reliability Graphs (With Planned)

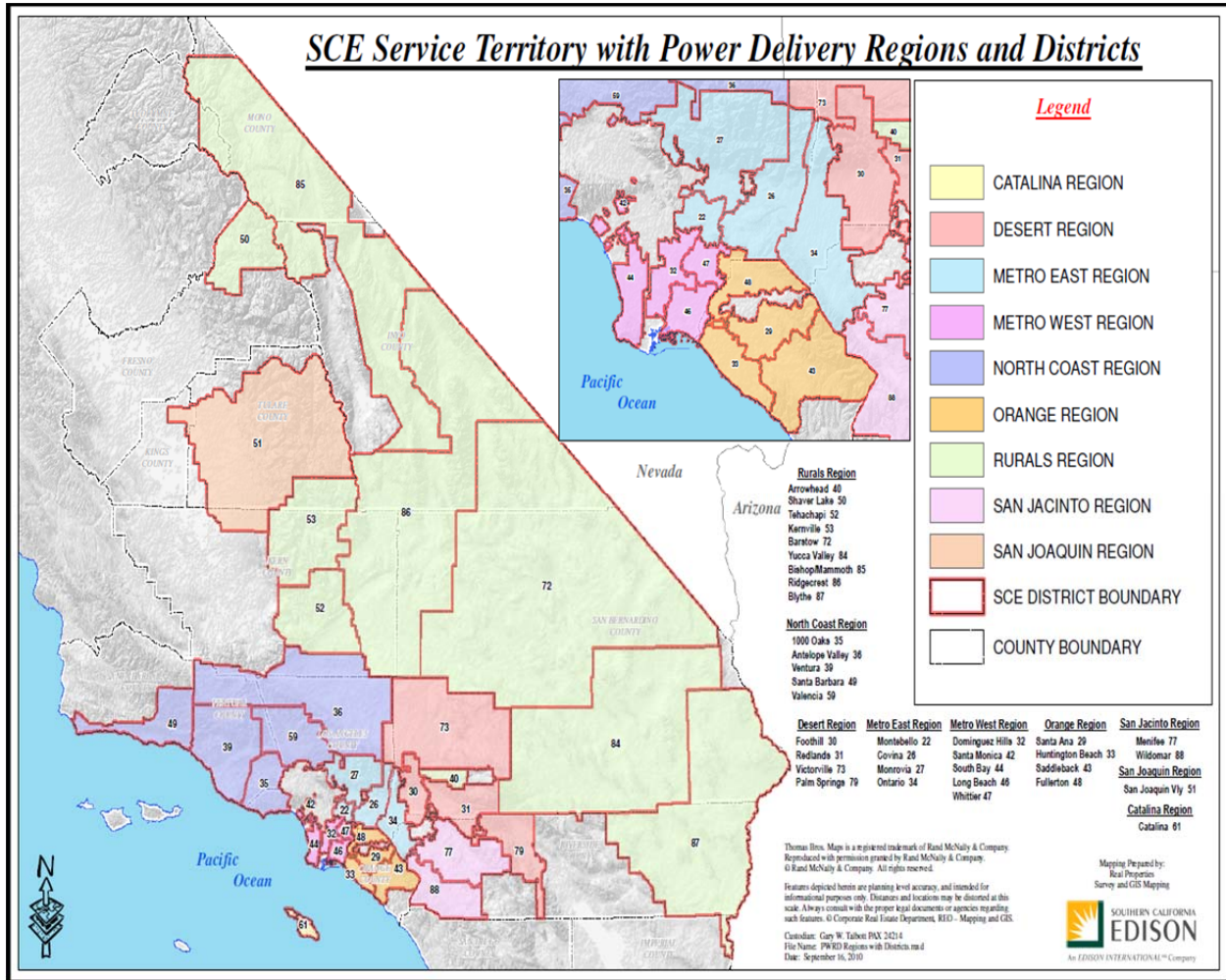
### YUCCA VALLEY District Reliability Performance



- b. The information on the number, date, and location of planned outages are provided under seal in a separate report to the Directors of the Energy Division and the Safety Enforcement Division.

## SECTION 4 – SERVICE TERRITORY MAP

The following is the SCE Service Territory with Power Delivery Regions and Districts Map. The map contains both SCE district boundaries and county boundaries. SCE has 8 regions and 35 districts.





## **SECTION 5 – TOP 1% OF WORST PERFORMING CIRCUITS (WPC) EXCLUDING MAJOR EVENT DAY (MED)**

The following describes Southern California Edison’s (SCE) process to address Worst Performing Circuits (WPC’s) in 2016 under the 2019 Worst Circuit Rehabilitation (WCR) program. WCR does typically take two years to complete. This accounts for Engineering to identify the WCR and develop a scope package which is submitted to Technical Planning, overseen by project management. Once Technical Planning completes the work package, project management releases the project to be constructed. 2019 WCR Process

### **2019 WCR Process**

#### **A. Budget Allocation**

The 2019 WCR budget was developed by Distribution Engineering based on an approved five year operating plan. The budget was based on each region’s contribution to the three year average of equipment outages from 2014 through 2016. Seventy percent of the budget was allocated based on SAIFI contribution, and thirty percent on SAIDI contribution.

#### **B. WCR Circuit Ranking and Selection**

The 2019 WCR circuit ranking was produced using circuit performance over the 2014 to 2016 time period. Circuit performance was weighted by a factor of 61%, 28% and 11% for 2016, 2015 and 2014 respectively. Additional categories were added in an effort to target additional reliability concerns. These include Source Loss, CEMI6 (Customers Experiencing Multiple Interruptions<sup>6</sup>), Circuits experiencing 4 or more cable failures, and Circuits experiencing greater or equal to 20 equipment failures and one year of data. (See Appendix-A)

Circuits are selected in ascending order starting with System SAIFI, then System SAIDI, followed by the circuit level indices. Selected circuits are grouped by substation and the engineer has complete oversight of the area allowing them to develop comprehensive reliability solutions.

A worst circuit rehabilitation typically begins with identification of each circuit’s most risk-significant mainline cable, and then additional enhancements are identified to improve the overall circuit reliability. These circuit enhancements include equipment such as automation, automatic reclosers, branch line fuses, and fault indicators wherever judged to be cost effective.

Please see below Table 5 and Table 6 that capture the top 1% WPC. Table 1 contains the Top 1% WPC using the preferred metric SAIDI. Table 2 contains the Top 1% WPC using the preferred metric SAIFI.

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<sup>6</sup> The numerical value (6) indicates any circuit where a customer has experienced greater or equal to 6 outages.

**Table 5 – Top 1% SAIDI WPC (Excluding MED)**

| Circuit             | District            | 2016 Customer Count | Substation                | Circuit-Miles | % UG | % OH | # of Circuit Breaker or Automatic Re-Closer Operation <sup>1</sup> 2016 | Sys. SAIDI RANK | Sys. SAIDI <sup>2</sup> |
|---------------------|---------------------|---------------------|---------------------------|---------------|------|------|---|-----------------|-------------------------|
| Jordan 12kV         | 53-Kernville        | 1,088               | Glennville 66/12 (D)      | 174.8         | 0.03 | 0.97 | 8   | 1               | 0.4965300               |
| Blue Cut 12kV       | 30-Foothill         | 296                 | Blue Cut P.T. 33/12 (A)   | 36.17         | 0.04 | 0.96 | 19  | 2               | 0.4532350               |
| *Fantail 16kV       | 42-Santa Monica     | 4,580               | Tahiti 66/16 (D)          | 15.26         | 0.88 | 0.12 | 8   | 3               | 0.4075100               |
| *Grapevine 12kV     | 86-Ridgecrest       | 15                  | Grapevine P.T. 25/12 (A)  | 7.035         | 0.01 | 0.99 | 2   | 4               | 0.3823040               |
| *Landers 25kV       | 84-Yucca Valley     | 1,779               | Nugget 33/25 (D)          | 141.2         | 0.01 | 0.99 | 25  | 5               | 0.3389890               |
| *Telstar 16kV       | 22-Montebello       | 2,834               | Rosemead 66/16 (D)        | 11.85         | 0.21 | 0.79 | 7   | 6               | 0.3101870               |
| Crump 12kV          | 31-Redlands         | 481                 | Crump P.T. 33/12 (A)      | 5.27          | 0.11 | 0.89 | 9   | 7               | 0.3097170               |
| Sugarloaf 2.4kV     | 53-Kernville        | 129                 | Sugarloaf P.T. 12/2.4 (A) | 4.591         | 0    | 1    | 13  | 8               | 0.3041910               |
| Roble 12kV          | 46-Long Beach       | 2,739               | State Street 66/12 (D)    | 7.376         | 0.23 | 0.77 | 7   | 9               | 0.2779180               |
| *Bryce 16kV         | 22-Montebello       | 2,803               | Amador 66/16 (D)          | 21.8          | 0.4  | 0.6  | 12  | 10              | 0.2646580               |
| *Cimarron 16kV      | 44-South Bay        | 3,773               | Inglewood 66/16 (D)       | 15.58         | 0.23 | 0.77 | 11  | 11              | 0.2598050               |
| *Azores 12kV        | 26-Covina           | 1,912               | Puente 66/12 (D)          | 20.01         | 0.16 | 0.84 | 7   | 12              | 0.2556610               |
| *Sundown 12kV       | 73-Victorville      | 2,902               | Helendale 33/12 (D)       | 58.55         | 0.77 | 0.23 | 13  | 13              | 0.2434990               |
| *Asteroid 16kV      | 22-Montebello       | 4,247               | Alhambra 66/16 (D)        | 21.08         | 0.41 | 0.59 | 12  | 14              | 0.2402520               |
| Bauxite 16kV        | 44-South Bay        | 2,342               | Crest 66/16 (D)           | 20.83         | 0.86 | 0.14 | 7   | 15              | 0.2383890               |
| *Fairhaven 16kV     | 44-South Bay        | 3,058               | Inglewood 66/16 (D)       | 18.74         | 0.62 | 0.38 | 18  | 16              | 0.2367660               |
| Patriot 16kV        | 35-Thousand Oaks    | 2,629               | Newbury 66/16 (D)         | 31.07         | 0.8  | 0.2  | 15  | 17              | 0.2300430               |
| *Melody 25kV        | 84-Yucca Valley     | 1,868               | Hi Desert 33/25 (D)       | 314.4         | 0    | 1    | 40  | 18              | 0.2290350               |
| Decosta 12kV        | 47-Whittier         | 2,493               | Passons 66/12 (D)         | 17.96         | 0.29 | 0.71 | 6   | 19              | 0.2259000               |
| Denker 4kV          | 44-South Bay        | 2,203               | Howard 66/4.16 (D)        | 7.159         | 0.04 | 0.96 | 5   | 20              | 0.2257900               |
| *Surfside 16kV      | 39-Ventura          | 5,612               | Channel Island 66/16 (D)  | 32.29         | 0.66 | 0.34 | 15  | 21              | 0.2249880               |
| Butane 16kV         | 44-South Bay        | 4,231               | Sepulveda 66/16 (D)       | 15.33         | 0.26 | 0.74 | 13  | 22              | 0.2185450               |
| Crowder 12kV        | 36-Antelope Valley  | 2,519               | Lancaster 66/12 (D)       | 26.01         | 0.68 | 0.32 | 8   | 23              | 0.2184570               |
| *Rhumba 16kV        | 44-South Bay        | 4,005               | Brighton 66/16 (D)        | 16.81         | 0.42 | 0.58 | 8   | 24              | 0.2183410               |
| Hackler 12kV        | 77-Menifee          | 1,876               | Maxwell 115/12 (D)        | 26.72         | 0.86 | 0.14 | 9   | 25              | 0.2141360               |
| *Deborah 16kV       | 44-South Bay        | 2,800               | Felton 66/16 (D)          | 11.69         | 0.12 | 0.88 | 6   | 26              | 0.2110410               |
| Sewell 12kV         | 33-Huntington Beach | 4,081               | Hamilton 66/12 (D)        | 27.41         | 0.56 | 0.44 | 5   | 27              | 0.2082420               |
| *Campanula 25kV     | 84-Yucca Valley     | 1,951               | Nugget 33/25 (D)          | 134.3         | 0.08 | 0.92 | 36  | 28              | 0.2069530               |
| *Octane 16kV        | 44-South Bay        | 3,418               | Yukon 66/16 (D)           | 11.53         | 0.24 | 0.76 | 12  | 29              | 0.2050470               |
| Ketch 12kV          | 33-Huntington Beach | 2,559               | Bolsa 66/12 (D)           | 20.71         | 0.51 | 0.49 | 16  | 30              | 0.2031290               |
| Forint 12kV         | 43-Saddleback       | 2,536               | Santiago 66/12 (D)        | 17.23         | 1    | 0    | 5   | 31              | 0.1996690               |
| *Arvana 16kV        | 44-South Bay        | 3,385               | Victoria 66/16 (D)        | 20.09         | 0.56 | 0.44 | 3   | 32              | 0.1995860               |
| *King 16kV          | 44-South Bay        | 3,887               | Victoria 66/16 (D)        | 14.78         | 0.52 | 0.48 | 11  | 33              | 0.1972340               |
| *Sago 16kV          | 44-South Bay        | 3,762               | Torrance 66/16 (D)        | 18.66         | 0.36 | 0.64 | 13  | 34              | 0.1965170               |
| Snead 12kV          | 33-Huntington Beach | 3,050               | Lafayette 66/12 (D)       | 19.16         | 0.86 | 0.14 | 15  | 35              | 0.1934780               |
| Driskill 16kV       | 49-Santa Barbara    | 3,580               | San Marcos 66/16 (D)      | 43.5          | 0.47 | 0.53 | 16  | 36              | 0.1934380               |
| Galahad 16kV        | 35-Thousand Oaks    | 2,253               | Latigo 66/16 (D)          | 80.25         | 0.35 | 0.65 | 31  | 37              | 0.1923260               |
| *Margaret 16kV      | 44-South Bay        | 5,105               | Felton 66/16 (D)          | 15.34         | 0.32 | 0.68 | 5   | 38              | 0.1900170               |
| Jeep 12kV           | 40-Arrowhead        | 2,125               | Arrowhead 33/12 (D)       | 29.69         | 0.23 | 0.77 | 14  | 39              | 0.1882610               |
| Harlem Springs 12kV | 31-Redlands         | 2,477               | Cardiff 66/12 (D)         | 27.53         | 0.46 | 0.54 | 4   | 40              | 0.1870900               |
| Calico 12kV         | 29-Santa Ana        | 3,163               | Sullivan 66/12 (D)        | 16.12         | 0.22 | 0.78 | 5   | 41              | 0.1841070               |
| *Pawnee 12kV        | 77-Menifee          | 2,631               | Gavilan (115) 33/12 (D)   | 104.9         | 0.13 | 0.87 | 14  | 42              | 0.1798750               |
| Score 12kV          | 33-Huntington Beach | 4,149               | Hamilton 66/12 (D)        | 20.81         | 0.35 | 0.65 | 11  | 43              | 0.1785390               |
| *Cresta 16kV        | 22-Montebello       | 3,381               | Alhambra 66/16 (D)        | 10.67         | 0.48 | 0.52 | 3   | 44              | 0.1776800               |
| Casmalia 12kV       | 30-Foothill         | 1,973               | Alder 66/12 (D)           | 34.65         | 0.42 | 0.58 | 3   | 45              | 0.1774550               |
| Cota 4kV            | 46-Long Beach       | 1,174               | Larder 12/4.16 (D)        | 5.906         | 0.05 | 0.95 | 2   | 46              | 0.1724740               |

Repeat circuits are from the 2015 base case year and are marked with an asterisk (\*) per D. 16-01-008 Annual Electric Report

<sup>1</sup> Includes Sustain and Momentary outages that affected the Circuit Breaker

<sup>2</sup> SAIDI is based on a three year weighted average

**Table 6 – Top 1% SAIFI WPC (Excluding MED)**

| Circuit         | District            | 2016 Customer Count | Substation               | Circuit-Miles | % UG | % OH | # of Circuit Breaker or Automatic Re-Closer Operation <sup>1</sup> 2016 | Sys. SAIFI RANK | Sys. SAIFI <sup>2</sup> |
|-----------------|---------------------|---------------------|--------------------------|---------------|------|------|---|-----------------|-------------------------|
| *Sundown 12kV   | 73-Victorville      | 2,902               | Helendale 33/12 (D)      | 58.55         | 0.77 | 0.23 | 13  | 1               | 0.0046148               |
| *Asteroid 16kV  | 22-Montebello       | 4,247               | Alhambra 66/16 (D)       | 21.08         | 0.41 | 0.59 | 12  | 2               | 0.0036558               |
| *Galahad 16kV   | 35-Thousand Oaks    | 2,253               | Latigo 66/16 (D)         | 80.25         | 0.35 | 0.65 | 31  | 3               | 0.0034966               |
| *Fairhaven 16kV | 44-South Bay        | 3,058               | Inglewood 66/16 (D)      | 18.74         | 0.62 | 0.38 | 18  | 4               | 0.0032055               |
| *Bryce 16kV     | 22-Montebello       | 2,803               | Amador 66/16 (D)         | 21.8          | 0.4  | 0.6  | 12  | 5               | 0.0029493               |
| *Malden 16kV    | 32-Dominguez Hills  | 5,913               | Vail 66/16 (D)           | 25.61         | 0.3  | 0.7  | 7   | 6               | 0.0028928               |
| *Blocker 16kV   | 44-South Bay        | 4,509               | Walteria 66/16 (D)       | 22            | 0.23 | 0.77 | 10  | 7               | 0.0028872               |
| *Margaret 16kV  | 44-South Bay        | 5,105               | Felton 66/16 (D)         | 15.34         | 0.32 | 0.68 | 5   | 8               | 0.0027934               |
| *Cimarron 16kV  | 44-South Bay        | 3,773               | Inglewood 66/16 (D)      | 15.58         | 0.23 | 0.77 | 11  | 9               | 0.0026926               |
| *Mapes 12kV     | 46-Long Beach       | 4,269               | Eric 66/12 (D)           | 21.69         | 0.14 | 0.86 | 4   | 10              | 0.0026187               |
| Albatross 16kV  | 42-Santa Monica     | 4,736               | Santa Monica 66/16 (D)   | 9.363         | 0.49 | 0.51 | 9   | 11              | 0.0026118               |
| *Rosa 16kV      | 39-Ventura          | 4,815               | Camarrillo 66/16 (D)     | 48.96         | 0.91 | 0.09 | 13  | 12              | 0.0026013               |
| Fantail 16kV    | 42-Santa Monica     | 4,580               | Tahiti 66/16 (D)         | 15.26         | 0.88 | 0.12 | 8   | 13              | 0.0025798               |
| *Surfside 16kV  | 39-Ventura          | 5,612               | Channel Island 66/16 (D) | 32.29         | 0.66 | 0.34 | 15  | 14              | 0.0024966               |
| *Sago 16kV      | 44-South Bay        | 3,762               | Torrance 66/16 (D)       | 18.66         | 0.36 | 0.64 | 13  | 15              | 0.0024433               |
| Driskill 16kV   | 49-Santa Barbara    | 3,580               | San Marcos 66/16 (D)     | 43.5          | 0.47 | 0.53 | 16  | 16              | 0.0023637               |
| *Cerveza 16kV   | 22-Montebello       | 3,290               | Mesa 66/16 (D)           | 21.41         | 0.34 | 0.66 | 12  | 17              | 0.0023589               |
| Almond 12kV     | 29-Santa Ana        | 3,912               | Chestnut 66/12 (D)       | 12.77         | 0.18 | 0.82 | 7   | 18              | 0.0022430               |
| Milpas 16kV     | 49-Santa Barbara    | 4,928               | Santa Barbara 66/16 (D)  | 25.45         | 0.48 | 0.52 | 21  | 19              | 0.0022252               |
| *King 16kV      | 44-South Bay        | 3,887               | Victoria 66/16 (D)       | 14.78         | 0.52 | 0.48 | 11  | 20              | 0.0022023               |
| *Rhumba 16kV    | 44-South Bay        | 4,005               | Brighton 66/16 (D)       | 16.81         | 0.42 | 0.58 | 8   | 21              | 0.0021598               |
| Roble 12kV      | 46-Long Beach       | 2,739               | State Street 66/12 (D)   | 7.376         | 0.23 | 0.77 | 7   | 22              | 0.0021500               |
| Cuthbert 16kV   | 35-Thousand Oaks    | 2,238               | Latigo 66/16 (D)         | 34.68         | 0.39 | 0.61 | 16  | 23              | 0.0021234               |
| Score 12kV      | 33-Huntington Beach | 4,149               | Hamilton 66/12 (D)       | 20.81         | 0.35 | 0.65 | 11  | 24              | 0.0020327               |
| Redstone 16kV   | 39-Ventura          | 1,808               | Estero 66/16 (D)         | 34.94         | 0.46 | 0.54 | 9   | 25              | 0.0020322               |
| Norwood 12kV    | 31-Redlands         | 2,437               | Highland 66/12 (D)       | 23.99         | 0.38 | 0.62 | 11  | 26              | 0.0020257               |
| Butane 16kV     | 44-South Bay        | 4,231               | Sepulveda 66/16 (D)      | 15.33         | 0.26 | 0.74 | 13  | 27              | 0.0019503               |
| *Highway 16kV   | 39-Ventura          | 4,997               | Saticoy 66/16 (D)        | 35.21         | 0.57 | 0.43 | 13  | 28              | 0.0019454               |
| *Duffer 16kV    | 49-Santa Barbara    | 3,602               | San Marcos 66/16 (D)     | 22.47         | 0.41 | 0.59 | 10  | 29              | 0.0019305               |
| Pence 12kV      | 43-Saddleback       | 2,831               | Santiago 66/12 (D)       | 19.62         | 1    | 0    | 6   | 30              | 0.0019009               |
| January 12kV    | 33-Huntington Beach | 4,345               | Lafayette 66/12 (D)      | 23.37         | 0.92 | 0.08 | 16  | 31              | 0.0018794               |
| Pablo 12kV      | 46-Long Beach       | 3,748               | Bowl 66/12 (D)           | 18.8          | 0.6  | 0.4  | 9   | 32              | 0.0018735               |
| *Cresta 16kV    | 22-Montebello       | 3,381               | Alhambra 66/16 (D)       | 10.67         | 0.48 | 0.52 | 3   | 33              | 0.0018585               |
| Kanan 16kV      | 35-Thousand Oaks    | 2,638               | Malibu 66/16 (D)         | 25.19         | 0.98 | 0.02 | 11  | 34              | 0.0018565               |
| Gehrig 12kV     | 33-Huntington Beach | 3,762               | Hamilton 66/12 (D)       | 22.31         | 0.32 | 0.68 | 10  | 35              | 0.0018273               |
| *Deborah 16kV   | 44-South Bay        | 2,800               | Felton 66/16 (D)         | 11.69         | 0.12 | 0.88 | 6   | 36              | 0.0018249               |
| Landers 25kV    | 84-Yucca Valley     | 1,779               | Nugget 33/25 (D)         | 141.2         | 0.01 | 0.99 | 25  | 37              | 0.0018138               |
| Otis 16kV       | 32-Dominguez Hills  | 3,285               | Cudahy 66/16 (D)         | 24.15         | 0.4  | 0.6  | 8   | 38              | 0.0018082               |
| Appleton 16kV   | 35-Thousand Oaks    | 2,739               | Royal 66/16 (D)          | 24.53         | 0.54 | 0.46 | 12  | 39              | 0.0018038               |
| Campanula 25kV  | 84-Yucca Valley     | 1,951               | Nugget 33/25 (D)         | 134.3         | 0.08 | 0.92 | 36  | 40              | 0.0017910               |
| Macho 12kV      | 43-Saddleback       | 2,550               | Borrego 66/12 (D)        | 18.3          | 1    | 0    | 19  | 41              | 0.0017475               |
| Jeep 12kV       | 40-Arrowhead        | 2,125               | Arrowhead 33/12 (D)      | 29.69         | 0.23 | 0.77 | 14  | 42              | 0.0017274               |
| Morrison 12kV   | 33-Huntington Beach | 3,347               | Ellis 66/12 (D)          | 25.4          | 0.56 | 0.44 | 8   | 43              | 0.0017203               |
| Turtle 12kV     | 43-Saddleback       | 3,853               | Cabrillo 66/12 (D)       | 29.66         | 1    | 0    | 3   | 44              | 0.0016944               |
| Warriors 12kV   | 33-Huntington Beach | 3,667               | Team 66/12 (D)           | 18.11         | 0.33 | 0.67 | 13  | 45              | 0.0016943               |
| Bauxite 16kV    | 44-South Bay        | 2,342               | Crest 66/16 (D)          | 20.83         | 0.86 | 0.14 | 7   | 46              | 0.0016805               |

Repeat circuits are from the 2015 base case year and are marked with an asterisk (\*) per D. 16-01-008 Annual Electric Report

<sup>1</sup> Includes Sustain and Momentary outages that affected the Circuit Breaker

<sup>2</sup> SAIFI is based on a three year weighted average

Tables 7 and 8 below identify the circuits that are top 1% WPC (by SAIDI or SAIFI this year) **and** were top 1% circuits by SAIDI or SAIFI on SCE's WCR program last year. The information contained in the tables captures the following information:

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

**Table 7 – (SAIDI Preferred Metric – “Repeat Deficient” List)**

| Circuit        | i.                        |                      | ii.                       |                      | iii.<br>Explanation of Repeat Deficiency     | Submitted  | iv.<br>Engineering Scope   | Anticipated Completion year |
|----------------|---------------------------|----------------------|---------------------------|----------------------|--|------------|--|-----------------------------|
|                | 2014-2016 Sys. SAIDI RANK | 2014-2016 Sys. SAIDI | 2013-2015 Sys. SAIDI RANK | 2013-2015 Sys. SAIDI |  |            |  |                             |
| Fantail 16kV   | 3                         | 0.40751              | 30                        | 0.20103              | Project identified, but not yet constructed. | 9/30/2016  | 2.5 Cond Mi of UG Cable<br>1.57 Cond Mi of OH Conductor<br>2 UG Switches<br>4 FI's<br>Civil  | 2018                        |
| Grapevine 12kV | 4                         | 0.38230              | 15                        | 0.23878              | Project identified, but not yet constructed. | 5/31/2017  | 2 RFI's  | 2018                        |
| Landers 25kV   | 5                         | 0.33899              | 3                         | 0.34766              | Project identified, but not yet constructed. | 10/27/2016 | 78 BLF's<br>2 Automated Switches<br>1 RAR  | 2018                        |
| Telstar 16kV   | 6                         | 0.31019              | 10                        | 0.28651              | Project identified, but not yet constructed. | 9/30/2016  | 2 FI's<br>2 RFI's<br>6 Automated Switches<br>2 BLF's   | 2018                        |
| Bryce 16kV     | 10                        | 0.26466              | 5                         | 0.32654              | Project identified, but not yet constructed. | 10/27/2016 | 4 Automated Switches<br>3 RFI's<br>1 UG Switch   | 2018                        |
| Cimarron 16kV  | 11                        | 0.25981              | 27                        | 0.20606              | Project identified, but not yet constructed. | 10/27/2016 | 12 BLF's<br>3 Automated Switches   | 2018                        |
| Azores 12kV    | 12                        | 0.25566              | 24                        | 0.21293              | Project identified, but not yet constructed. | 9/30/2016  | 1.8 Cond Mi OH Conductor<br>2.7 Cond Mi UG Cable<br>2 RFI<br>4 Automated Switches<br>2 Overhead Switches<br>37 BLF<br>1 UG Switch<br>Civil | 2018                        |
| Sundown 12kV   | 13                        | 0.24350              | 32                        | 0.19138              | Project identified, but not yet constructed. | 11/23/2016 | 7.37 Cond Mi of UG Cable<br>32 BLF's<br>2 Automated Switches<br>6 UG Switches<br>Civil   | 2018                        |
| Asteroid 16kV  | 14                        | 0.24025              | 17                        | 0.23508              | Project identified, but not yet constructed. | 9/30/2016  | 1.6 Cond Mi UG Cable<br>3.3 Cond Mi OH Conductor<br>3 RFI's<br>3 Automated Switches<br>2 OH Switches<br>33 BLF's                           | 2018                        |
| Fairhaven 16kV | 16                        | 0.23677              | 22                        | 0.21786              | Project identified, but not yet constructed. | 10/27/2016 | 2.24 Conductor Mi UG Cable<br>6 Automated Switches   | 2018                        |
| Melody 25kV    | 18                        | 0.22904              | 25                        | 0.21291              | Project identified, but not yet constructed. | 11/23/2016 | 22 BLF's<br>2 RFI's  | 2018                        |
| Surfside 16kV  | 21                        | 0.22499              | 1                         | 0.40516              | Project identified, but not yet constructed. | 10/27/2016 | 2.2 Conductor Mi Of OH Conductor<br>4 Automated Switches<br>10 BLF's   | 2018                        |
| Rhumba 16kV    | 24                        | 0.21834              | 13                        | 0.25283              | Project identified, but not yet constructed. | 10/27/2016 | 6 Automation Switches  | 2018                        |
| Deborah 16kV   | 26                        | 0.21104              | 8                         | 0.31490              | Project identified, but not yet constructed. | 10/27/2016 | .40 Cond Mi OH Conductor<br>12 BLF's<br>2 OH Switches  | 2018                        |

| Circuit        | i.                                 |                            | ii.                                |                            | iii.<br>Explanation of Repeat Deficiency     | Submitted  | iv.  |                                |
|----------------|------------------------------------|----------------------------|------------------------------------|----------------------------|--|------------|--|--------------------------------|
|                | 2014-2016<br>Sys.<br>SAIDI<br>RANK | 2014-2016<br>Sys.<br>SAIDI | 2013-2015<br>Sys.<br>SAIDI<br>RANK | 2013-2015<br>Sys.<br>SAIDI |  |            | Engineering Scope  | Anticipated<br>Completion year |
| Campanula 25kV | 28                                 | 0.20695                    | 12                                 | 0.27118                    | Project identified, but not yet constructed. | 10/27/2016 | 24 BLF's<br>1 Automated Switch<br>1 RFI  | 2018                           |
| Octane 16kV    | 29                                 | 0.20505                    | 39                                 | 0.17460                    | Project identified, but not yet constructed. | 10/27/2016 | .72 Cond Mi of OH Conductor<br>6 Automated Switches<br>6 RFI<br>2 OH Switches  | 2018                           |
| Arvana 16kV    | 32                                 | 0.19959                    | 7                                  | 0.31647                    | Project identified, but not yet constructed. | 10/27/2016 | 2018 WCR<br>4 Automated Switches<br>2 RFI  | 2018                           |
| King 16kV      | 33                                 | 0.19723                    | 21                                 | 0.21957                    | Project identified, but not yet constructed. | 10/27/2016 | .3 Con Mi of UG Cable<br>4 Overhead Switches<br>6 Automated Switches<br>1 RFI<br>1 BLF<br>4 Fused BURD<br>Civil<br>1 UG Switch | 2018                           |
| Sago 16kV      | 34                                 | 0.19652                    | 28                                 | 0.20536                    | Project identified, but not yet constructed. | 9/30/2016  | 1.0 Cond Mi of OH Conductor<br>37 BLF's<br>3 Automated Switches  | 2018                           |
| Margaret 16kV  | 38                                 | 0.19002                    | 18                                 | 0.22321                    | Project identified, but not yet constructed. | 10/27/2016 | 5 Automated Switches<br>19 BLF's   | 2018                           |
| Pawnee 12kV    | 42                                 | 0.17988                    | 6                                  | 0.32359                    | Project identified, but not yet constructed. | 3/23/2017  | 2.7 Cond Mi of OH Conductor  | 2017                           |
| Cresta 16kV    | 44                                 | 0.17768                    | 2                                  | 0.39425                    | Project identified, but not yet constructed. | 9/30/2016  | 1.5 Cond Mi OH Conductor<br>1.0 Cond Mi UG Cable<br>27 BLF's<br>1 UG FI<br>2 BURD Switches                                     | 2018                           |

**Table 8 – (SAIFI Preferred Metric – “Repeat Deficient” List)**

| Circuit        | i.                                 |                            | ii.                                |                            | iii.   | iv.        |   |                                |
|----------------|------------------------------------|----------------------------|------------------------------------|----------------------------|--|------------|---|--------------------------------|
|                | 2014-2016<br>Sys.<br>SAIFI<br>RANK | 2014-2016<br>Sys.<br>SAIFI | 2013-2015<br>Sys.<br>SAIFI<br>RANK | 2013-2015<br>Sys.<br>SAIFI | Explanation of Repeat Deficiency             | Submitted  | Engineering Scope   | Anticipated<br>Completion year |
| Sundown 12kV   | 1                                  | 0.00461                    | 8                                  | 0.00221                    | Project identified, but not yet constructed. | 11/23/2016 | 7.37 Cond Mi of UG Cable<br>32 BLF's<br>2 Automated Switches<br>6 UG Switches<br>Civil                                      | 2018                           |
| Asteroid 16kV  | 2                                  | 0.00366                    | 14                                 | 0.00191                    | Project identified, but not yet constructed. | 9/30/2016  | 1.6 Cond Mi UG Cable<br>3.3 Cond Mi OH Conductor<br>3 RFI's<br>3 Automated Switches<br>2 OH Swithes<br>33 BLF's             | 2018                           |
| Galahad 16kV   | 3                                  | 0.00350                    | 36                                 | 0.00142                    | Project identified, but not yet constructed. | 11/23/2016 | 3.7 Cond Mi of UG Cable<br>2.0 Cond Mi of OH Conductor<br>129 BLF's<br>5 FI's<br>1 OH Switch<br>1 Automated Switch<br>Civil | 2018                           |
| Fairhaven 16kV | 4                                  | 0.00321                    | 7                                  | 0.00227                    | Project identified, but not yet constructed. | 10/27/2016 | 2.24 Conductor Mi UG Cable<br>6 Automated Switches  | 2018                           |
| Bryce 16kV     | 5                                  | 0.00295                    | 3                                  | 0.00276                    | Project identified, but not yet constructed. | 10/27/2016 | 4 Automated Switches<br>3 RFI's<br>1 UG Switches  | 2018                           |
| Malden 16kV    | 6                                  | 0.00289                    | 23                                 | 0.00166                    | Project identified, but not yet constructed. | 10/27/2016 | .07 Cond Mi of UG Cable<br>.49 Cond Mi of OH Conductor<br>6 Automated Switches<br>1 RFI<br>1 FI<br>118 BLF's                | 2017                           |
| Blocker 16kV   | 7                                  | 0.00289                    | 40                                 | 0.00141                    | Project identified, but not yet constructed. | 10/27/2016 | 6 Automated Switches  | 2018                           |
| Margaret 16kV  | 8                                  | 0.00279                    | 4                                  | 0.00261                    | Project identified, but not yet constructed. | 10/27/2016 | 5 Automated Switches<br>19 BLF's  | 2018                           |
| Cimarron 16kV  | 9                                  | 0.00269                    | 12                                 | 0.00203                    | Project identified, but not yet constructed. | 10/27/2016 | 12 BLF's<br>3 Automated Switches  | 2018                           |
| Mapes 12kV     | 10                                 | 0.00262                    | 18                                 | 0.00183                    | Project identified, but not yet constructed. | 10/27/2016 | 1.7 Cond Mi of UG Cable<br>.4 Cond Mi of OH Conductor<br>3 Automated Switches<br>3 RFI's<br>46 Fuses                        | 2018                           |
| Rosa 16kV      | 12                                 | 0.00260                    | 15                                 | 0.00185                    | Project identified, but not yet constructed. | 11/23/2016 | .12 Conductor Mi of OH Conductor<br>3 Automated Switches<br>3 BLF's   | 2018                           |
| Surfside 16kV  | 14                                 | 0.00250                    | 1                                  | 0.00426                    | Project identified, but not yet constructed. | 10/27/2016 | 2.2 Conductor Mi Of OH Conductor<br>4 Automated Switches<br>10 BLF's  | 2018                           |

| Circuit      | i.                        |                      | ii.                       |                      | iii.   | Submitted  | iv.  | Anticipated Completion year |
|--------------|---------------------------|----------------------|---------------------------|----------------------|--|------------|--|-----------------------------|
|              | 2014-2016 Sys. SAIFI RANK | 2014-2016 Sys. SAIFI | 2013-2015 Sys. SAIFI RANK | 2013-2015 Sys. SAIFI |  |            |  |                             |
| Sago 16kV    | 15                        | 0.00244              | 6                         | 0.00234              | Project identified, but not yet constructed. | 9/30/2016  | 1.0 Cond Mi of OH Conductor<br>37 BLF's<br>3 Automated Switches  | 2018                        |
| Cerveza 16kV | 17                        | 0.00236              | 44                        | 0.00137              | Project identified, but not yet constructed. | 1/31/2017  | 5.24 Conductor Mi OH Conductor<br>2.8 Conductor Mi UG Cable<br>5 Automated Switch<br>4 RFI's<br>59 BLF's<br>Civil<br>2 UG Switches | 2018                        |
| King 16kV    | 20                        | 0.00220              | 35                        | 0.00143              | Project identified, but not yet constructed. | 10/27/2016 | .3 Con Mi of UG Cable<br>4 Overhead Switches<br>6 Automated Switches<br>1 RFI<br>1 BLF<br>4 Fused BURD<br>Civil<br>1 UG Switch     | 2018                        |
| Rhumba 16kV  | 21                        | 0.00216              | 9                         | 0.00216              | Project identified, but not yet constructed. | 10/27/2016 | 6 Automation Switches  | 2018                        |
| Highway 16kV | 28                        | 0.00195              | 11                        | 0.00203              | Project identified, but not yet constructed. | 9/30/2016  | 1.78 Cond Mi of UG Cable<br>3 OH Switches<br>4 Automated Switches<br>4 RIS   | 2018                        |
| Duffer 16kV  | 29                        | 0.00193              | 30                        | 0.00150              | Project identified, but not yet constructed. | 11/23/2016 | .14 Cond Mi of UG Cable<br>.21 Cond Mi of OH Conductor<br>2 BLF's<br>6 RFI's   | 2018                        |
| Cresta 16kV  | 33                        | 0.00186              | 2                         | 0.00335              | Project identified, but not yet constructed. | 9/30/2016  | 1.5 Cond Mi OH Conductor<br>1.0 Cond Mi UG Cable<br>27 BLF's<br>1 UG FI<br>2 BURD Switches   | 2018                        |
| Deborah 16kV | 36                        | 0.00182              | 24                        | 0.00162              | Project identified, but not yet constructed. | 10/27/2016 | .40 Cond Mi OH Conductor<br>12 BLF's<br>2 OH Switches  | 2018                        |

- v) Historically, SCE has projected reliability improvements for WCR projects at the system level, not at the individual circuit level. For additional details, see discussion in SCE's 2018 General Rate Case Testimony, SCE-02 Volume 08, pages 23 ("quantitative benefits")



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

Table 9 below captures the top 10 major unplanned outage events for 2016 including the cause and location of the outage.

**Table 9 – Top 10 Major Unplanned Outage Events (2016)**

| Rank | Cause Description                                      | System Outage ID | Date       | SAIDI | Number of Customers Affected | Longest Individual Customer Interruption (minutes) | Location         |
|------|--|------------------|------------|-------|------------------------------|--|------------------|
|      |  |                  |            |       |                              |  | Switching Center |
| 1    | OPEN FOR REPAIRS   STANDARD OPERATION   OPERATOR/CREW  | 272685           | 4/29/2016  | 1.507 | 40,012                       | 451  | VALLEY           |
| 2    | OPEN FOR REPAIRS   STANDARD OPERATION   OPERATOR/CREW  | 278786           | 8/19/2016  | 1.298 | 1,238                        | 18,457   | RECTOR           |
| 3    | FIRE   STRUCTURE   POLE                                | 276042           | 6/23/2016  | 1.171 | 7,608                        | 3,666  | RECTOR           |
| 4    | VEGETATION BLOWN   OVERHEAD EQUIPMENT   CONDUCTOR/WIRE | 267639           | 1/7/2016   | 0.979 | 12,812                       | 2,424  | VISTA            |
| 5    | OVERLOAD/FATIGUE   OVERHEAD EQUIPMENT   CONDUCTOR/WIRE | 275066           | 6/20/2016  | 0.928 | 16,162                       | 1,572  | LIGHTHIPE        |
| 6    | FIRE   OVERHEAD EQUIPMENT   CONDUCTOR/WIRE             | 276005           | 6/23/2016  | 0.880 | 1,678                        | 9,359  | RECTOR           |
| 7    | FIRE   OVERHEAD EQUIPMENT   CONDUCTOR/WIRE             | 276561           | 6/23/2016  | 0.840 | 664                          | 11,716   | RECTOR           |
| 8    | FIRE   OVERHEAD EQUIPMENT   CONDUCTOR/WIRE             | 275884           | 6/23/2016  | 0.830 | 440                          | 9,546  | RECTOR           |
| 9    | SUBSTATION MAINTENANCE   ERROR   DURING ROUTINE WORK   | 280501           | 10/11/2016 | 0.694 | 103,448                      | 304  | EL NIDO          |
| 10   | BALLOON   OVERHEAD EQUIPMENT   CONDUCTOR/WIRE          | 269108           | 2/15/2016  | 0.640 | 8,220                        | 696  | EL NIDO          |

**SECTION 7 – SUMMARY LIST OF MED PER IEEE 1366**

Table 10 below captures all MED occurring in 2016 per IEEE 1366 definition of MED. The information includes the number of customers without service at periodic intervals, the cause and the location of each Major Event.

**Table 10 – Summary list of MED Per IEEE (2016)**

| Cause           | Snow / Wind Storm | Wind Storm     | Equipment Failure | Fire          | Equipment / Fire / Wind | Lightning Storm | Wind / OH Equipment |
|-----------------|-------------------|----------------|-------------------|---------------|-------------------------|-----------------|---------------------|
| Location        | R, O, D, SJC      | MW, NC, O, ME  | MW, ME, O, NC     | R             | ME, NC, MW              | ME, D, R, SJC   | R, ME, MW           |
| Outage Duration | 1/7/2016          | 1/31/2016      | 6/20/2016         | 6/23/2016     | 10/17/2016              | 10/24/2016      | 12/24/2016          |
| 0 to 1 hour     | 57,049            | 395,178        | 63,155            | 56,967        | 112,786                 | 204,613         | 65,835              |
| 1 to 5 hours    | 25,359            | 98,648         | 41,870            | 9,046         | 22,400                  | 18,917          | 18,627              |
| 5 to 10 hours   | 14,646            | 29,305         | 9,102             | 381           | 4,234                   | 4,167           | 1,296               |
| 10 to 15 hours  | 1,151             | 10,649         | 3,349             | 316           | 2,473                   | 1,955           | 2,407               |
| 15 to 20 hours  | 826               | 4,481          | 681               | 291           | 389                     | 1,095           | 1,487               |
| 20 to 24 hours  | 155               | 1,387          | 889               | 6             | 245                     | 703             | 490                 |
| 1 to 2 days     | 300               | 3,994          | 435               | 31            | 26                      | 368             | 1,099               |
| 2 to 3 days     | 94                | 19             |                   | 1,918         | 1                       | 13              | 46                  |
| 3 to 4 days     | 21                |                | 18                |               |                         |                 |                     |
| 4 to 5 days     | 3                 |                |                   |               |                         |                 |                     |
| 5 to 6 days     | 28                |                |                   | 177           |                         |                 |                     |
| 6 to 7 days     |                   |                | 1                 | 920           |                         | 3               |                     |
| >= 7 days       |                   |                | 86                | 115           |                         |                 |                     |
| <b>Total</b>    | <b>99,632</b>     | <b>543,661</b> | <b>119,586</b>    | <b>70,168</b> | <b>142,554</b>          | <b>231,834</b>  | <b>91,287</b>       |

Note:

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

**SECTION 8 - Historical Ten Largest Unplanned Outage Events for the past 10 Years**

Table 11 below captures the ten largest unplanned outage events for each of the years from 2007-2016.

**Table 11 – Summary list of MED Per IEEE (2016)**

| Rank        | Cause Description  | System Outage ID | Date       | SAIDI | Number of Customers Affected | Longest Individual Customer Interruption (minutes) | Location<br>Switching Center |
|-------------|--|------------------|------------|-------|------------------------------|--|------------------------------|
| <b>2016</b> |  |                  |            |       |                              |  |                              |
| 1           | OPEN FOR REPAIRS   STANDARD OPERATION   OPERATOR/CREW            | 272685           | 4/29/2016  | 1,507 | 40,012                       | 451  | VALLEY                       |
| 2           | OPEN FOR REPAIRS   STANDARD OPERATION   OPERATOR/CREW            | 278786           | 8/19/2016  | 1,298 | 1,238                        | 18,457   | RECTOR                       |
| 3           | FIRE   STRUCTURE   POLE  | 276042           | 6/23/2016  | 1,171 | 7,608                        | 3,666  | RECTOR                       |
| 4           | VEGETATION BLOWN   OVERHEAD EQUIPMENT   CONDUCTOR/WIRE           | 267639           | 1/7/2016   | 0,979 | 12,812                       | 2,424  | VISTA                        |
| 5           | OVERLOAD/FATIGUE   OVERHEAD EQUIPMENT   CONDUCTOR/WIRE           | 275066           | 6/20/2016  | 0,928 | 16,162                       | 1,572  | LIGHTHIPE                    |
| 6           | FIRE   OVERHEAD EQUIPMENT   CONDUCTOR/WIRE                       | 276005           | 6/23/2016  | 0,880 | 1,678                        | 9,359  | RECTOR                       |
| 7           | FIRE   OVERHEAD EQUIPMENT   CONDUCTOR/WIRE                       | 276561           | 6/23/2016  | 0,840 | 664                          | 11,716   | RECTOR                       |
| 8           | FIRE   OVERHEAD EQUIPMENT   CONDUCTOR/WIRE                       | 275884           | 6/23/2016  | 0,830 | 440                          | 9,546  | RECTOR                       |
| 9           | SUBSTATION MAINTENANCE   ERROR   DURING ROUTINE WORK             | 280501           | 10/11/2016 | 0,694 | 103,448                      | 304  | EL NIDO                      |
| 10          | BALLOON   OVERHEAD EQUIPMENT   CONDUCTOR/WIRE                    | 269108           | 2/15/2016  | 0,640 | 8,220                        | 696  | EL NIDO                      |
| <b>2015</b> |  |                  |            |       |                              |  |                              |
| 1           | OPEN FOR REPAIRS   STANDARD OPERATION   OPERATOR/CREW            | 257095           | 7/15/2015  | 2,316 | 3,849                        | 3,035  | LIGHTHIPE                    |
| 2           | OPEN FOR REPAIRS   STANDARD OPERATION   OPERATOR/CREW            | 257307           | 7/15/2015  | 0,783 | 1,329                        | 3,372  | LIGHTHIPE                    |
| 3           | UNKNOWN   OVERHEAD EQUIPMENT   CONDUCTOR/WIRE                    | 258625           | 8/13/2015  | 0,611 | 5,884                        | 1,136  | DEVERS                       |
| 4           | TOPPLED/BROKEN   STRUCTURE   POLE                                | 261130           | 9/9/2015   | 0,467 | 4,301                        | 7,215  | MIRA LOMA                    |
| 5           | UNKNOWN   UNDERGROUND EQUIPMENT   CABLE                          | 257337           | 7/15/2015  | 0,452 | 1,801                        | 3,539  | LIGHTHIPE                    |
| 6           | OTHER-SEE NOTES   STRUCTURE   POLE                               | 257205           | 7/19/2015  | 0,446 | 3,906                        | 1,247  | VALLEY                       |
| 7           | N/A   UNKNOWN   NOT PATROLLED                                    | 262924           | 10/15/2015 | 0,436 | 10,130                       | 581  | VISTA                        |
| 8           | UNKNOWN   UNDERGROUND EQUIPMENT   CABLE                          | 261743           | 9/19/2015  | 0,411 | 4,024                        | 906  | ORANGE COUNTY                |
| 9           | UNKNOWN   SUBSTATION EQUIPMENT   CIRCUIT BREAKER                 | 261051           | 9/15/2015  | 0,387 | 17,282                       | 135  | LIGHTHIPE                    |
| 10          | LANDSLIDE/MUDSLIDE   STRUCTURE   POLE                            | 267353           | 10/18/2015 | 0,382 | 18                           | 106,745  | ELDORADO                     |
| <b>2014</b> |  |                  |            |       |                              |  |                              |
| 1           | BUSHING   SUBSTATION EQUIPMENT   CIRCUIT BREAKER                 | 247325           | 12/22/2014 | 2,155 | 20,314                       | 741  | VISTA                        |
| 2           | LOST   SOURCE   SUBSTATION                                       | 239280           | 7/24/2014  | 0,808 | 29,678                       | 345  | ORANGE COUNTY                |
| 3           | TOPPLED/BROKEN   STRUCTURE   POLE                                | 236393           | 5/14/2014  | 0,739 | 5,694                        | 1,033  | VALLEY                       |
| 4           | UNKNOWN   UNDERGROUND EQUIPMENT   CABLE                          | 247704           | 12/31/2014 | 0,464 | 1,308                        | 4,188  | VALLEY                       |
| 5           | UNKNOWN   OVERHEAD EQUIPMENT   POTHOLE                           | 245855           | 11/23/2014 | 0,401 | 1,395                        | 1,440  | DEVERS                       |
| 6           | OTHER-SEE NOTES   STRUCTURE   SUBSTATION STRUCTURE/RACK          | 239913           | 7/30/2014  | 0,399 | 6,895                        | 503  | MESA                         |
| 7           | OVERLOADED   SUBSTATION EQUIPMENT   TRANSFORMER BANK             | 243293           | 10/2/2014  | 0,384 | 51,167                       | 293  | VENTURA                      |
| 8           | TOPPLED/BROKEN   STRUCTURE   POLE                                | 245458           | 11/16/2014 | 0,365 | 785                          | 2,329  | DEVERS                       |
| 9           | LOST   SOURCE   SUBSTATION                                       | 232941           | 2/28/2014  | 0,351 | 25,087                       | 87   | VENTURA                      |
| 10          | TESTING/TROUBLESHOOTING   STANDARD OPERATION   OPERATOR/CREW     | 246973           | 12/15/2014 | 0,348 | 2,423                        | 2,398  | ORANGE COUNTY                |
| <b>2013</b> |  |                  |            |       |                              |  |                              |
| 1           | LOST   SOURCE   SUBSTATION                                       | 224692           | 8/19/2013  | 6,316 | 125,876                      | 1,729  | RECTOR                       |
| 2           | UNKNOWN   TRANSMISSION EQUIPMENT   CONDUCTOR                     | 226855           | 9/15/2013  | 1,500 | 107,741                      | 381  | EL NIDO                      |
| 3           | SUDDEN PRESSURE DEVICE   SUBSTATION EQUIPMENT   TRANSFORMER BANK | 221685           | 6/28/2013  | 1,111 | 64,709                       | 164  | LIGHTHIPE                    |
| 4           | UNKNOWN   OVERHEAD EQUIPMENT   TRANSFORMER                       | 217672           | 4/9/2013   | 0,801 | 5,613                        | 1,453  | LIGHTHIPE                    |
| 5           | LIGHTNING   SUBSTATION EQUIPMENT   CIRCUIT BREAKER               | 215922           | 2/8/2013   | 0,728 | 30,145                       | 883  | LIGHTHIPE                    |
| 6           | UNKNOWN   UNDERGROUND EQUIPMENT   CABLE                          | 223292           | 7/26/2013  | 0,618 | 5,904                        | 1,443  | ORANGE COUNTY                |
| 7           | UNKNOWN   UNDERGROUND EQUIPMENT   CABLE                          | 229947           | 12/15/2013 | 0,543 | 1,572                        | 1,867  | EL NIDO                      |
| 8           | VANDALISM   SUBSTATION EQUIPMENT   BUS/CONDUCTOR                 | 218242           | 4/24/2013  | 0,519 | 22,217                       | 304  | VALLEY                       |
| 9           | PULLED APART   OVERHEAD EQUIPMENT   SPLICE/CONNECTOR/TAP         | 214695           | 1/1/2013   | 0,440 | 4,979                        | 1,395  | MESA                         |
| 10          | UNKNOWN   OVERHEAD EQUIPMENT   CONDUCTOR/WIRE                    | 218132           | 4/26/2013  | 0,437 | 2,911                        | 1,483  | LIGHTHIPE                    |
| <b>2012</b> |  |                  |            |       |                              |  |                              |
| 1           | UNKNOWN   UNDERGROUND EQUIPMENT   CABLE                          | 200972           | 2/3/2012   | 0,923 | 31                           | 147,812  | CONTROL                      |
| 2           | UTILITY CONTACT   TRANSMISSION EQUIPMENT   INSULATOR             | 206814           | 8/21/2012  | 0,711 | 815                          | 4,320  | RECTOR                       |
| 3           | UNKNOWN   SUBSTATION EQUIPMENT   RELAY                           | 195706           | 2/14/2012  | 0,570 | 21,253                       | 181  | ORANGE COUNTY                |
| 4           | VEGETATION BLOWN   OVERHEAD EQUIPMENT   CONDUCTOR/WIRE           | 211557           | 11/10/2012 | 0,491 | 7,670                        | 1,202  | VENTURA                      |
| 5           | DETERIORATION   STRUCTURE   POLE                                 | 201705           | 6/5/2012   | 0,490 | 5,117                        | 978  | VINCENT                      |
| 6           | UNKNOWN   STRUCTURE   CROSSARM                                   | 212445           | 12/11/2012 | 0,477 | 15,674                       | 170  | VISTA, DEVERS                |
| 7           | OTHER-SEE NOTES   SUBSTATION EQUIPMENT   TRANSFORMER BANK        | 207499           | 9/15/2012  | 0,443 | 3,320                        | 1,320  | MESA, MIRA LOMA              |
| 8           | LOST   SOURCE   SUBSTATION                                       | 206078           | 8/23/2012  | 0,427 | 17,529                       | 189  | RECTOR                       |
| 9           | LIGHTNING   OVERHEAD EQUIPMENT   CONDUCTOR/WIRE                  | 210892           | 10/11/2012 | 0,410 | 3,687                        | 1,981  | MESA                         |
| 10          | UNKNOWN   UNDERGROUND EQUIPMENT   CABLE                          | 199511           | 4/20/2012  | 0,352 | 3,559                        | 4,022  | LIGHTHIPE                    |
| <b>2011</b> |  |                  |            |       |                              |  |                              |
| 1           | TOPPLED/BROKEN   STRUCTURE   POLE                                | 193063           | 11/30/2011 | 3,000 | 6,321                        | 8,373  | MESA                         |
| 2           | VEGETATION BLOWN   OVERHEAD EQUIPMENT   CONDUCTOR/WIRE           | 193495           | 11/30/2011 | 2,917 | 3,722                        | 8,575  | MESA                         |
| 3           | WIND   OVERHEAD EQUIPMENT   CONDUCTOR/WIRE                       | 193921           | 11/30/2011 | 2,810 | 4,118                        | 3,379  | MESA                         |
| 4           | TOPPLED/BROKEN   STRUCTURE   POLE                                | 193361           | 11/30/2011 | 2,654 | 4,566                        | 8,337  | MESA                         |
| 5           | VEGETATION BLOWN   OVERHEAD EQUIPMENT   CONDUCTOR/WIRE           | 192988           | 11/30/2011 | 2,498 | 4,068                        | 8,072  | MESA                         |
| 6           | TOPPLED/BROKEN   STRUCTURE   POLE                                | 193802           | 11/30/2011 | 2,203 | 2,062                        | 7,552  | MESA                         |
| 7           | VEGETATION BLOWN   OVERHEAD EQUIPMENT   CONDUCTOR/WIRE           | 192826           | 12/1/2011  | 2,166 | 2,429                        | 8,105  | MESA                         |
| 8           | ICE/SNOW   TRANSMISSION EQUIPMENT   CONDUCTOR HARDWARE           | 176231           | 3/20/2011  | 1,970 | 15,135                       | 6,305  | VINCENT                      |
| 9           | WIND   OVERHEAD EQUIPMENT   CONDUCTOR/WIRE                       | 193447           | 12/1/2011  | 1,796 | 2,324                        | 7,165  | MESA                         |
| 10          | N/A   UNKNOWN   PATROLLED  | 182898           | 1/1/2011   | 1,742 | 33                           | 260,236  | CONTROL                      |

| Rank        | Cause Description  | System Outage ID | Date       | SAIDI | Number of Customers Affected | Longest Individual Customer Interruption (minutes) | Location         |
|-------------|--|------------------|------------|-------|------------------------------|--|------------------|
|             |  |                  |            |       |                              |  | Switching Center |
| <b>2010</b> |  |                  |            |       |                              |  |                  |
| 1           | TOPPLED/BROKEN   STRUCTURE   POLE                              | 135650           | 1/21/2010  | 1.207 | 2,651                        | 6,142  | DEVERS           |
| 2           | VEGETATION BLOWN   OVERHEAD EQUIPMENT   CONDUCTOR/WIRE         | 135801           | 1/20/2010  | 1.038 | 2,011                        | 13,285   | RECTOR           |
| 3           | UNKNOWN   OVERHEAD EQUIPMENT   SPLICE/CONNECTOR/TAP            | 137790           | 2/27/2010  | 0.813 | 6,878                        | 1,128  | EL NIDO          |
| 4           | LIGHTNING   SUBSTATION EQUIPMENT   BUS/CONDUCTOR               | 163903           | 10/1/2010  | 0.797 | 113,070                      | 1,479  | ORANGE COUNTY    |
| 5           | VEGETATION BLOWN   OVERHEAD EQUIPMENT   CONDUCTOR/WIRE         | 136464           | 1/21/2010  | 0.765 | 479                          | 8,718  | VISTA            |
| 6           | OPEN FOR REPAIRS   STANDARD OPERATION   OPERATOR/CREW          | 145558           | 6/7/2010   | 0.758 | 3,876                        | 996  | DEVERS           |
| 7           | UNKNOWN   OVERHEAD EQUIPMENT   CONDUCTOR/WIRE                  | 136448           | 1/22/2010  | 0.742 | 562                          | 12,184   | VISTA            |
| 8           | TOPPLED/BROKEN   STRUCTURE   POLE                              | 135277           | 1/21/2010  | 0.675 | 1,679                        | 8,438  | DEVERS           |
| 9           | EXTERNAL COMPONENT   OVERHEAD EQUIPMENT   SWITCH/DISCONNECT/AR | 135727           | 1/23/2010  | 0.673 | 1,918                        | 1,727  | RECTOR           |
| 10          | PROTECTION   SUBSTATION EQUIPMENT   CIRCUIT BREAKER            | 164418           | 10/19/2010 | 0.585 | 77,652                       | 145  | VENTURA          |
| <b>2009</b> |  |                  |            |       |                              |  |                  |
| 1           | OTHER-SEE NOTES   STRUCTURE   SUBSTATION STRUCTURE/RACK        | 125285           | 8/31/2009  | 3.536 | 9,102                        | 2,774  | MESA             |
| 2           | FIRE   STRUCTURE   POLE  | 133178           | 8/27/2009  | 2.007 | 54                           | 181,485  | MESA             |
| 3           | FIRE   OVERHEAD EQUIPMENT   CONDUCTOR/WIRE                     | 127698           | 8/29/2009  | 1.125 | 117                          | 62,056   | MESA             |
| 4           | OPEN FOR REPAIRS   STANDARD OPERATION   OPERATOR/CREW          | 116570           | 5/20/2009  | 1.102 | 12,400                       | 3,346  | RECTOR           |
| 5           | OVERLOADED   OVERHEAD EQUIPMENT   SPLICE/CONNECTOR/TAP         | 123338           | 7/10/2009  | 0.739 | 3,710                        | 973  | ORANGE COUNTY    |
| 6           | OTHER-SEE NOTES   OVERHEAD EQUIPMENT   CONDUCTOR/WIRE          | 128583           | 10/15/2009 | 0.667 | 4,075                        | 1,979  | EL NIDO          |
| 7           | FIRE   STRUCTURE   POLE  | 133358           | 8/30/2009  | 0.547 | 197                          | 177,730  | VINCENT          |
| 8           | VEHICLE HIT   STRUCTURE   POLE                                 | 107726           | 2/7/2009   | 0.504 | 842                          | 3,296  | EL NIDO          |
| 9           | OVERLOADED   OVERHEAD EQUIPMENT   SPLICE/CONNECTOR/TAP         | 112977           | 4/20/2009  | 0.504 | 13,464                       | 474  | MESA             |
| 10          | TOPPLED/BROKEN   STRUCTURE   POLE                              | 112798           | 4/3/2009   | 0.458 | 1,650                        | 2,841  | DEVERS           |
| <b>2008</b> |  |                  |            |       |                              |  |                  |
| 1           | FIRE   TRANSMISSION EQUIPMENT   CONDUCTOR                      | 95472            | 7/2/2008   | 1.980 | 83,116                       | 869  | VENTURA          |
| 2           | FIRE   TRANSMISSION EQUIPMENT   CONDUCTOR                      | 95488            | 7/2/2008   | 1.131 | 39,023                       | 325  | VENTURA          |
| 3           | FIRE   TRANSMISSION EQUIPMENT   CONDUCTOR                      | 95625            | 7/3/2008   | 0.815 | 45,604                       | 87   | VENTURA          |
| 4           | OPEN FOR REPAIRS   STANDARD OPERATION   OPERATOR/CREW          | 90296            | 6/16/2008  | 0.768 | 19,568                       | 194  | MESA             |
| 5           | FIRE   TRANSMISSION EQUIPMENT   CONDUCTOR                      | 95867            | 7/7/2008   | 0.723 | 45,670                       | 77   | VENTURA          |
| 6           | UNKNOWN   STRUCTURE   SUBSTATION STRUCTURE/RACK                | 78460            | 1/24/2008  | 0.632 | 1,116                        | 4,343  | VISTA            |
| 7           | UNKNOWN   OVERHEAD EQUIPMENT   CONDUCTOR/WIRE                  | 104308           | 12/17/2008 | 0.504 | 3,327                        | 5,703  | VALLEY           |
| 8           | OTHER-SEE NOTES   STRUCTURE   SUBSTATION STRUCTURE/RACK        | 76338            | 1/7/2008   | 0.489 | 7,523                        | 417  | VINCENT          |
| 9           | UNKNOWN   OVERHEAD EQUIPMENT   SPLICE/CONNECTOR/TAP            | 79988            | 2/23/2008  | 0.468 | 4,136                        | 733  | EL NIDO          |
| 10          | OPEN FOR REPAIRS   STANDARD OPERATION   OPERATOR/CREW          | 77991            | 1/24/2008  | 0.453 | 22,147                       | 6,183  | VISTA            |
| <b>2007</b> |  |                  |            |       |                              |  |                  |
| 1           | OTHER-SEE NOTES   STANDARD OPERATION   OPERATOR/CREW           | 72159            | 10/22/2007 | 4.745 | 4,578                        | 15,556   | VISTA            |
| 2           | OTHER-SEE NOTES   STANDARD OPERATION   OPERATOR/CREW           | 72138            | 10/22/2007 | 3.879 | 1,277                        | 21,702   | VISTA            |
| 3           | OTHER-SEE NOTES   STANDARD OPERATION   OPERATOR/CREW           | 72178            | 10/22/2007 | 2.001 | 1,610                        | 20,334   | VISTA            |
| 4           | VEGETATION BLOWN   OVERHEAD EQUIPMENT   CONDUCTOR/WIRE         | 72038            | 10/22/2007 | 1.943 | 4,113                        | 20,980   | VISTA            |
| 5           | OTHER-SEE NOTES   STRUCTURE   TOWER                            | 47041            | 3/27/2007  | 1.715 | 18,853                       | 3,044  | LIGHTHIPE, MESA  |
| 6           | INTERNAL COMPONENT   UNDERGROUND EQUIPMENT   CABLE SPLICE      | 62678            | 8/31/2007  | 0.818 | 4,130                        | 1,009  | DEVERS           |
| 7           | OPEN FOR REPAIRS   STANDARD OPERATION   OPERATOR/CREW          | 75439            | 10/22/2007 | 0.702 | 1,867                        | 11,218   | ORANGE COUNTY    |
| 8           | OTHER-SEE NOTES   STANDARD OPERATION   OPERATOR/CREW           | 72158            | 10/22/2007 | 0.650 | 714                          | 10,080   | VISTA            |
| 9           | WIND   OVERHEAD EQUIPMENT   CONDUCTOR/WIRE                     | 72299            | 10/21/2007 | 0.634 | 5,536                        | 3,507  | VALLEY           |
| 10          | OVERLOAD   STANDARD OPERATION   PROTECTIVE DEVICE              | 61617            | 9/1/2007   | 0.620 | 4,790                        | 2,770  | VINCENT          |

Note: Location of outage event may occur at more than one switching center and is identified by commas if it occurs

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

In 2016, SCE received a total of 74 customer inquiries relating to circuit outage history or reliability data. SCE responded to 54% of the inquiries within 7 business days, 38% of the inquiries within 15 business days and 8% were greater than 15 business days.

## Appendix-A

### Circuit SAIFI

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

### Circuit SAIDI

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

### Frequency \*Peak Load/#Customers

The number of outages (AR or CB, sustained +momentary) multiplied by the peak load in the past year all divided by the number of customers

### Source Loss

Circuits that caused other circuits/circuits to experience an outage will have the CI and CMI rolled up into them and ranked. This ranking is based on all distribution outages from 2013 through 2016.

### Circuits experiencing $\geq 4$ cable failures

Any circuit experiencing greater or equal to 4 sustained cable failures will be flagged in the circuit rankings. This ranking is based on all distribution outages from 2012 through 2016.

### Circuits experiencing $>20$ equipment failures

Any circuit experiencing greater or equal to 20 sustained equipment failures will be flagged in the circuit rankings. This ranking is based on all distribution outages from 2012 through 2016.

### CEMI6

Any circuit where a customer has experienced greater or equal to 6 outages in 2016 will be flagged in the circuit rankings.