



**Liberty Utilities<sup>®</sup>**

**ELECTRIC SYSTEM RELIABILITY  
ANNUAL REPORT**

**2017**

**LIBERTY UTILITIES (CALPECO ELECTRIC) LLC  
(U 933 E)**

**Prepared for  
California Public Utilities Commission**

**July 15, 2018**

## EXECUTIVE SUMMARY

The Electric System Reliability Annual Report for 2017 has been prepared in response to CPUC Decision 16-01-008, which was approved January 20, 2016. Decision 16-01-008 established reliability recording, calculation, and reporting requirements for Liberty Utilities (CalPeco Electric) LLC.

CalPeco Electric does not provide transmission services. CalPeco Electric does not have an Open Access Transmission Tariff (OATT). Therefore data is presented for the distribution services only. All statistics and calculations include forced distribution outages. Forced outages are those that are not prearranged. For the purposes of this report, sustained outages are outages that lasted more than five minutes in duration, while momentary outages are outages that lasted five minutes or less in duration.

The reliability indicators that are tracked are as follows:

1. SAIDI (System Average Interruption Duration Index) - minutes of sustained outages per customer per year.
2. SAIFI (System Average Interruption Frequency Index) - number of sustained outages per customer per year.
3. MAIFI (Momentary Average Interruption Frequency Index) - number of momentary outages per customer per year.
4. CAIDI (Customer Average Interruption Duration Index) – is the average time required to restore service to a utility customer.

CalPeco Electric presents seven years (2011 through 2017) of data, which represents the period in which Liberty Utilities purchased CalPeco Electric from NV Energy.

Beginning in 2013, the measurement of each reliability performance indicator excludes IEEE Major Event Days (MED) instead of CPUC Major Events. An IEEE Major Event Day is defined in IEEE-1366, Section 4.5 as a day in which the daily system SAIDI exceeds a threshold value. These threshold major event days are referred to as "TMED". Thus, any day in which the total system SAIDI exceeds TMED is excluded from CalPeco Electric's reliability results. The applicable TMED value is calculated at the end of each year using CalPeco Electric's daily SAIDI values for the prior five years. CalPeco Electric's TMED value for 2017 was 113.66 minutes of daily system SAIDI. Other reliability indices in this report are not calculated using methodologies or formulas exactly as described in the IEEE guide for electric power Distribution Reliability indices (IEEE-1366).

## Table of Contents

1) System Indices for the Last 7 Years (Years CalPeco Electric in business)..	1
2) Division (or District) Reliability Indices for the past 7 years.....	10
3) System and Division indices based on IEEE 1366 for the past 7 years including planned outages and including and excluding TMED .....	10
4) Service territory map including divisions of districts .....	20
5) Top two worst performing circuits (WPC) excluding TMED .....	21
6) Top 10 major unplanned power outage events within a reporting year.....	24
7) Summary list of 2017 TMED per IEEE 1366 .....	25
8) Historical 10 largest unplanned outage events for the past 10 years* .....	33
9) Number of customer inquiries on reliability data and the number of days per response .....	37

**1) System Indices for the Last 7 Years (Years CalPeco Electric in business)**

a. Separate tables with SAIDI, SAIFI, MAIFI and CAIDI (Major Event Day (MED)) included and excluded.

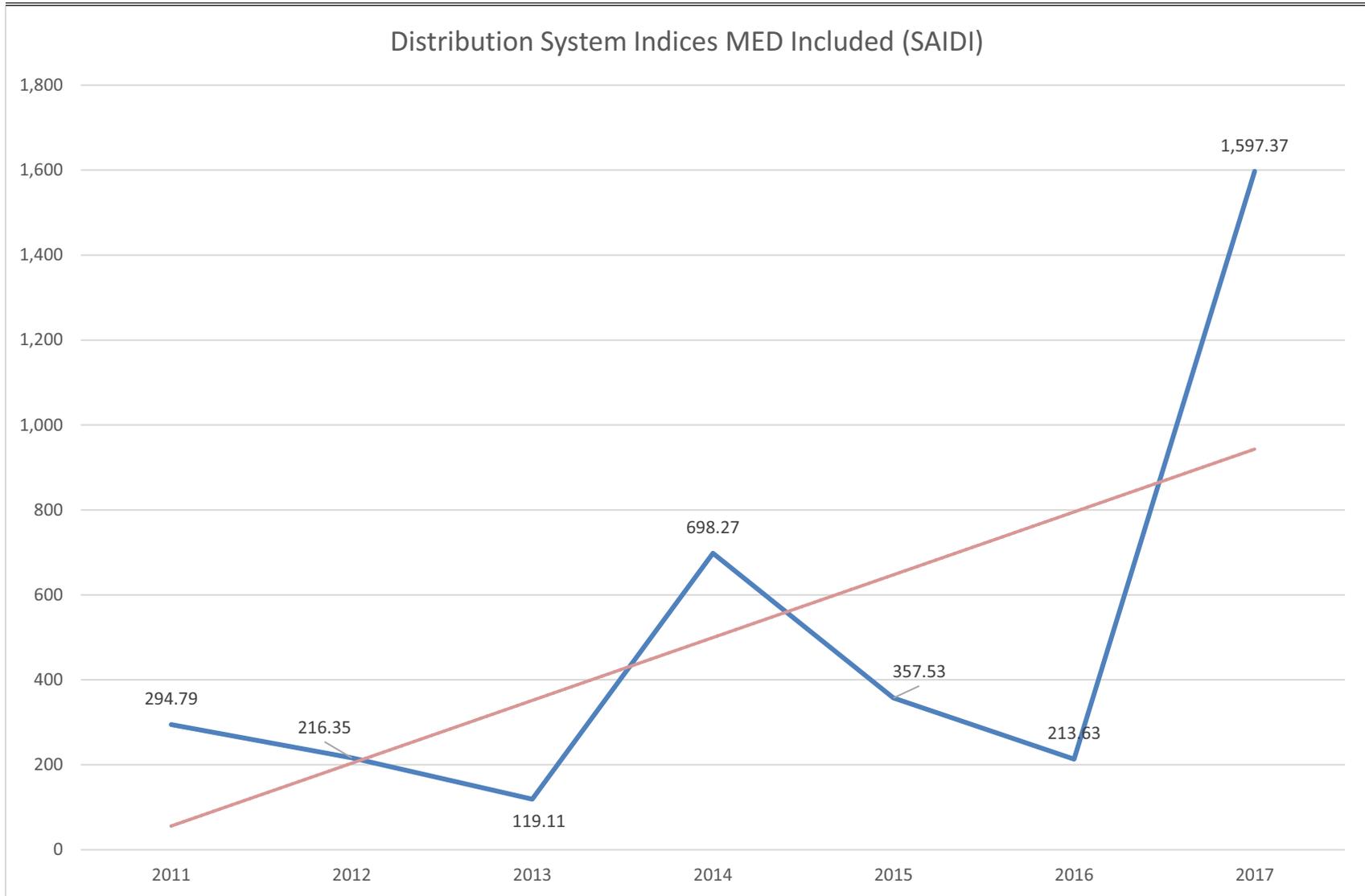
I. Distribution System Indices (Major Event included and excluded)

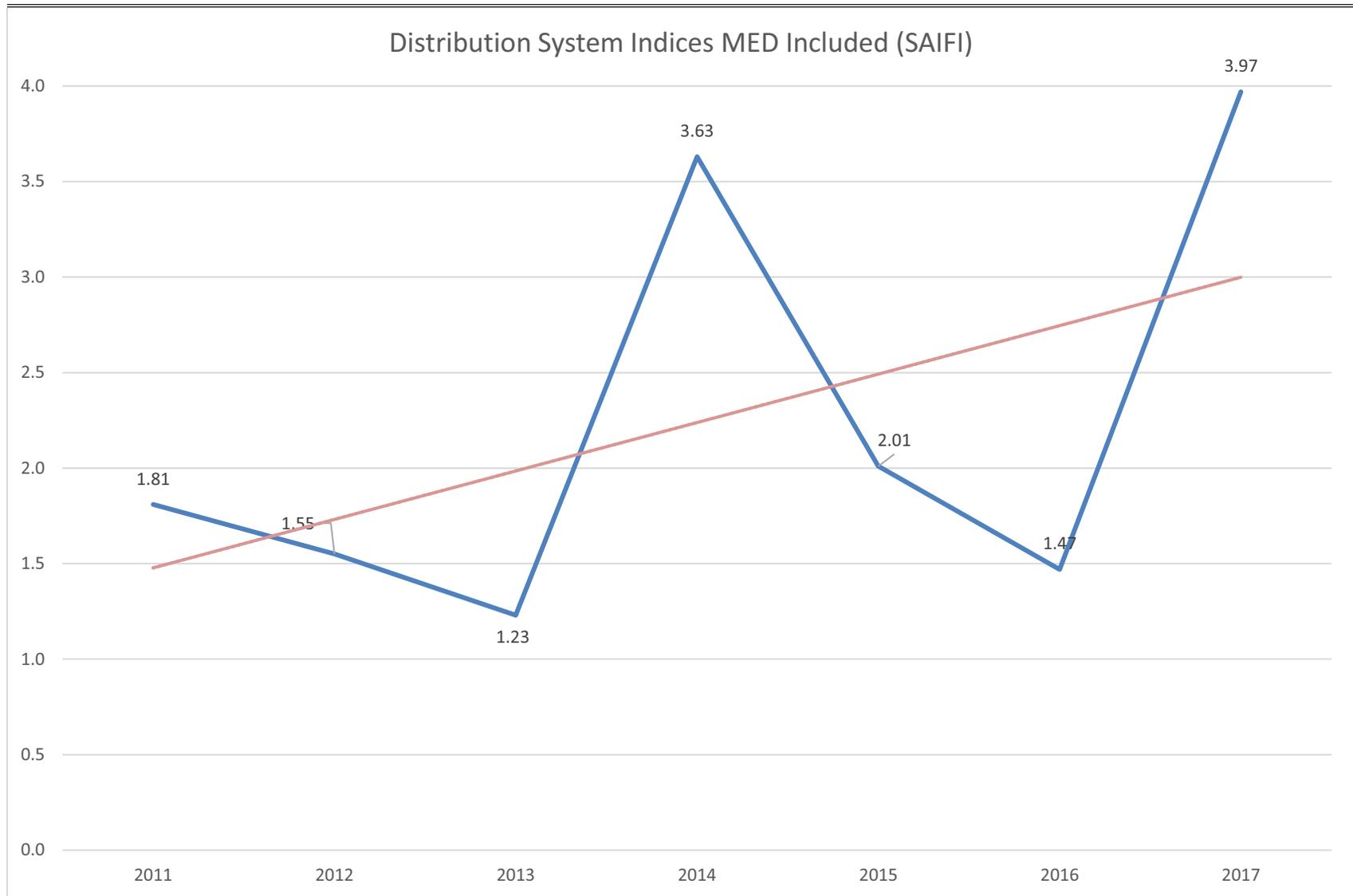
Liberty Utilities (CalPeco Electric), LLC Distribution Historical System Reliability Data 7 Years (Years in Business)								
	Major Event Included				Major Event Excluded			
Year	SAIDI	SAIFI	CAIDI	MAIFI	SAIDI	SAIFI	CAIDI	MAIFI
2017	1597.37	3.97	402.06	1.37	772.83	2.86	270.23	1.37
2016	213.63	1.47	144.98	1.08	213.63	1.47	144.98	1.08
2015	357.53	2.01	177.68	1.15	357.53	2.01	177.68	1.15
2014	698.27	3.63	192.44	2.15	352.37	2.40	146.58	2.15
2013	119.11	1.23	96.75	2.08	119.11	1.23	96.79	2.08
2012	216.35	1.55	139.31	2.75	216.35	1.55	139.31	2.75
2011	294.79	1.81	162.60	1.88	192.22	1.25	154.27	1.88

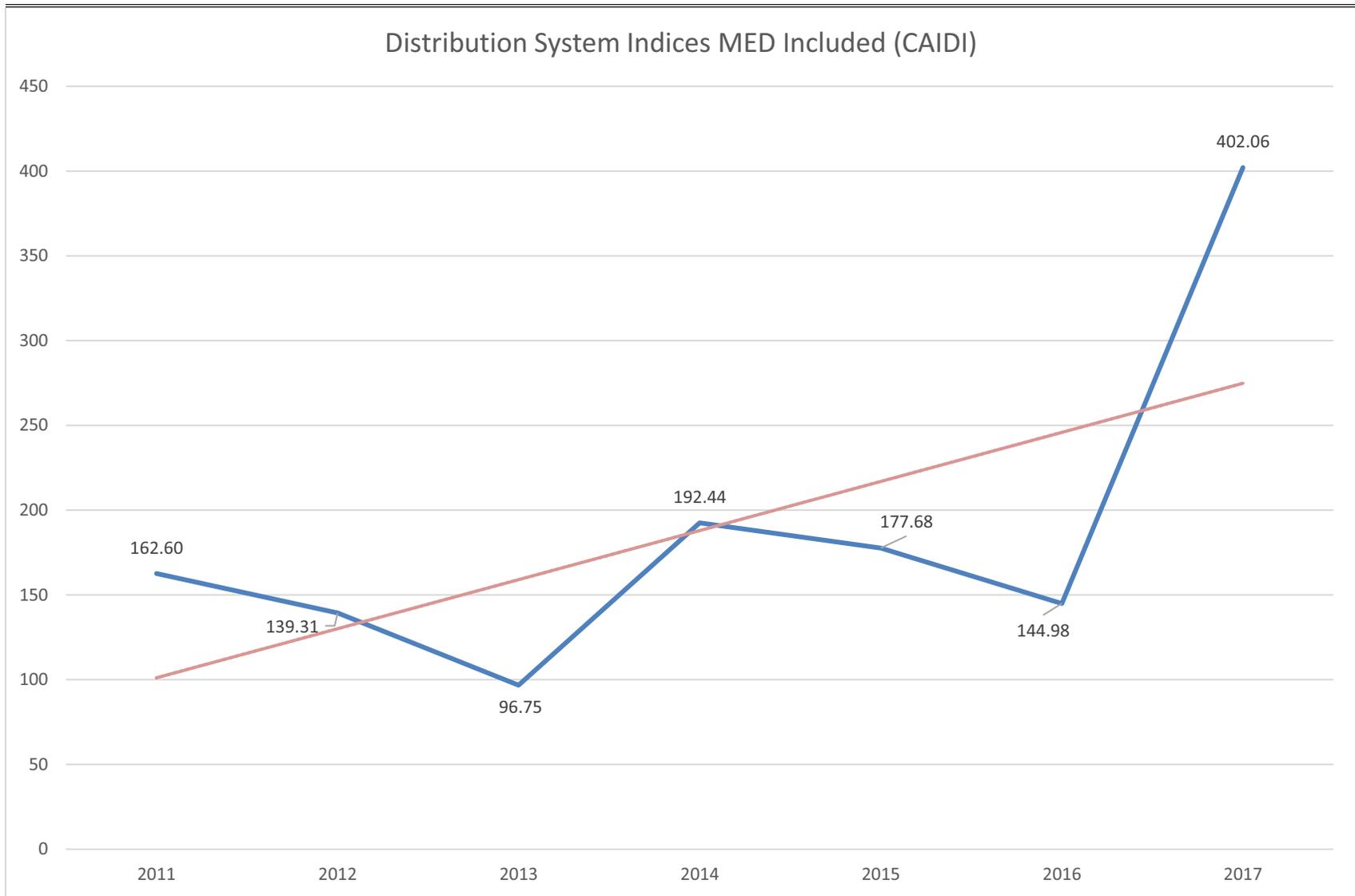
II. Transmission System Indices (MED Included and Excluded)

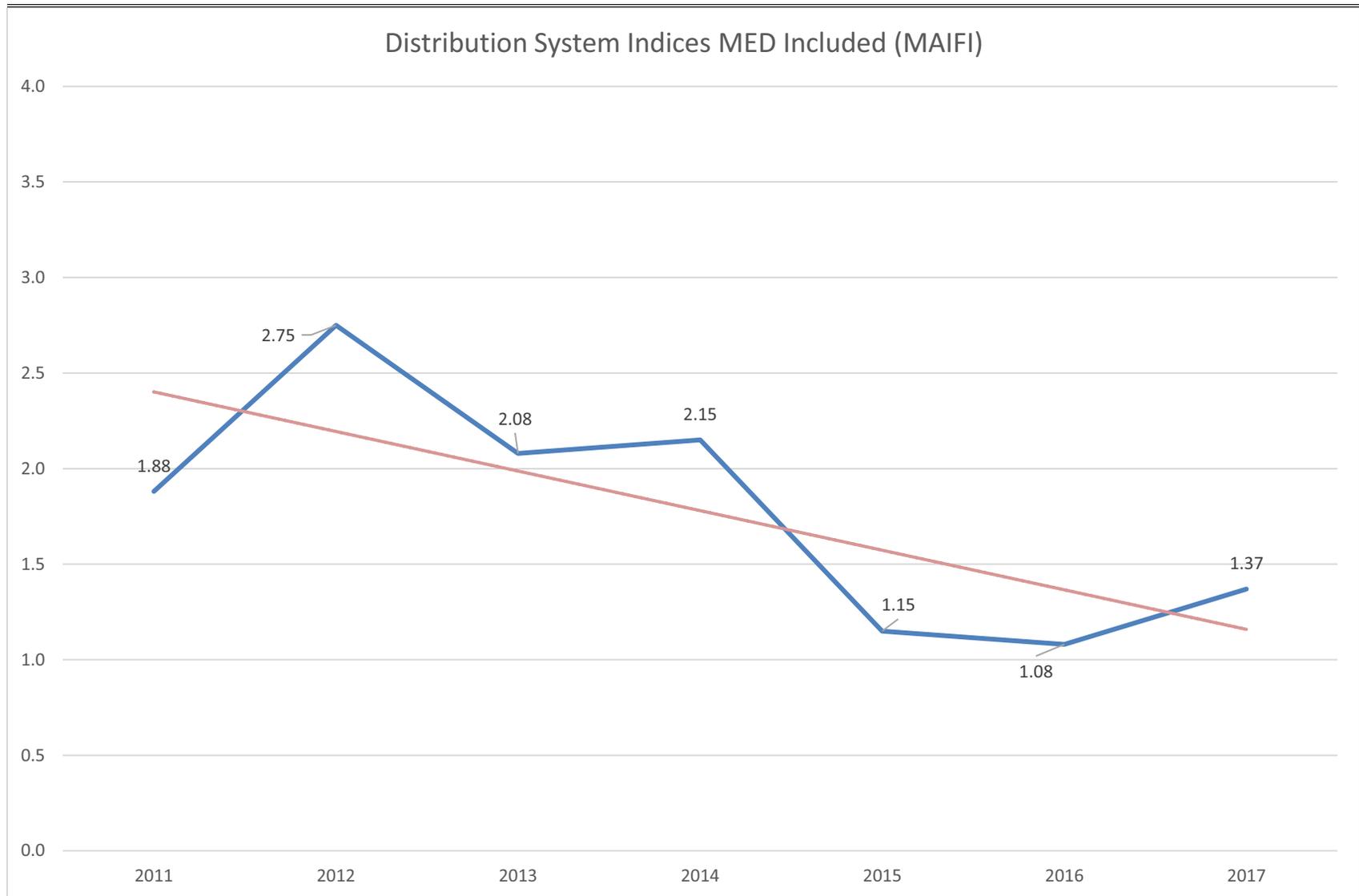
Liberty Utilities (CalPeco Electric), LLC does not own Transmission.

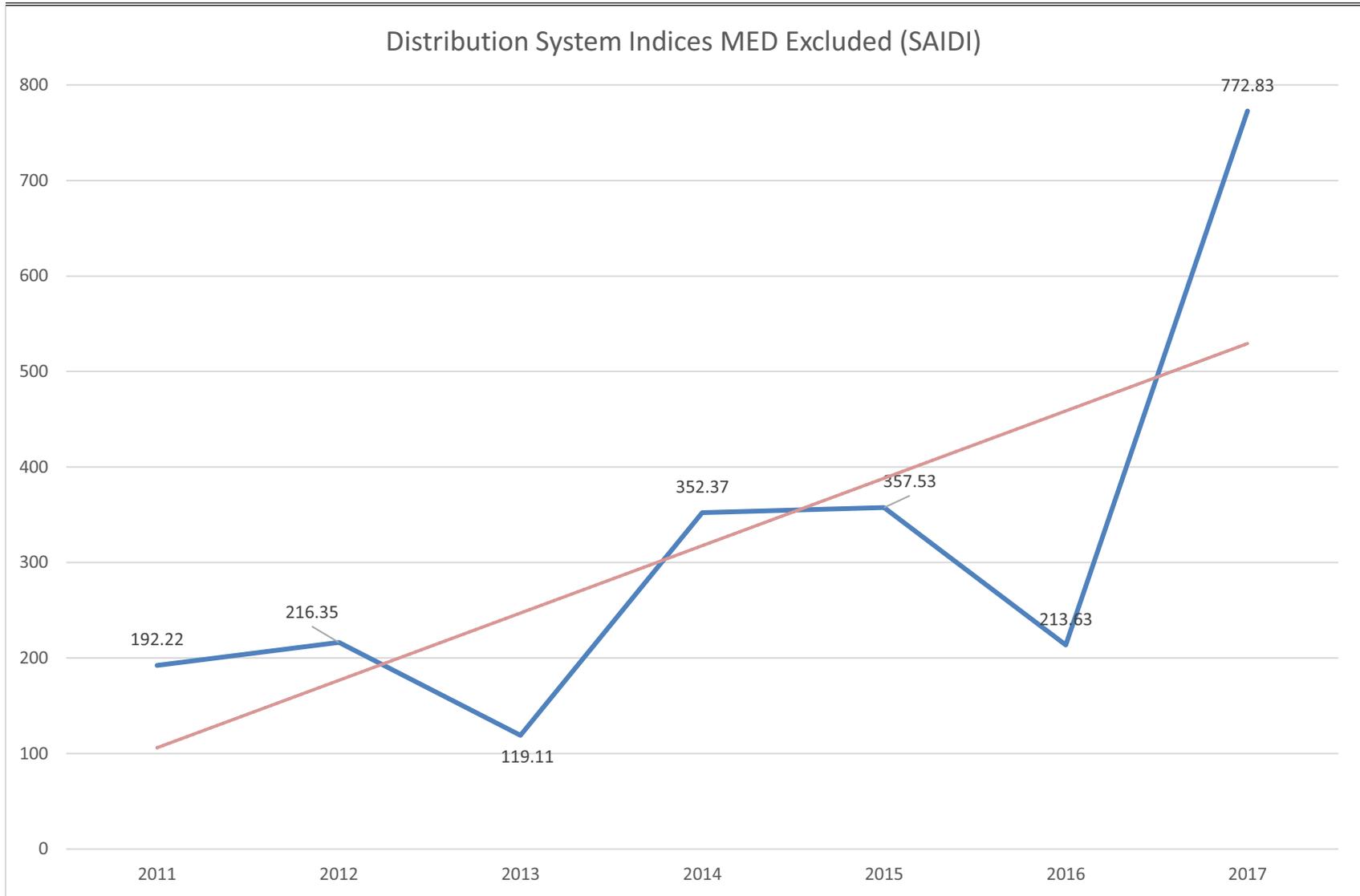
b. Separate charts showing a line graph of distribution system SAIDI, SAIFI, MAIFI, and CAIDI for the past 7 years (year in business) with linear trend line (TMED included and excluded).

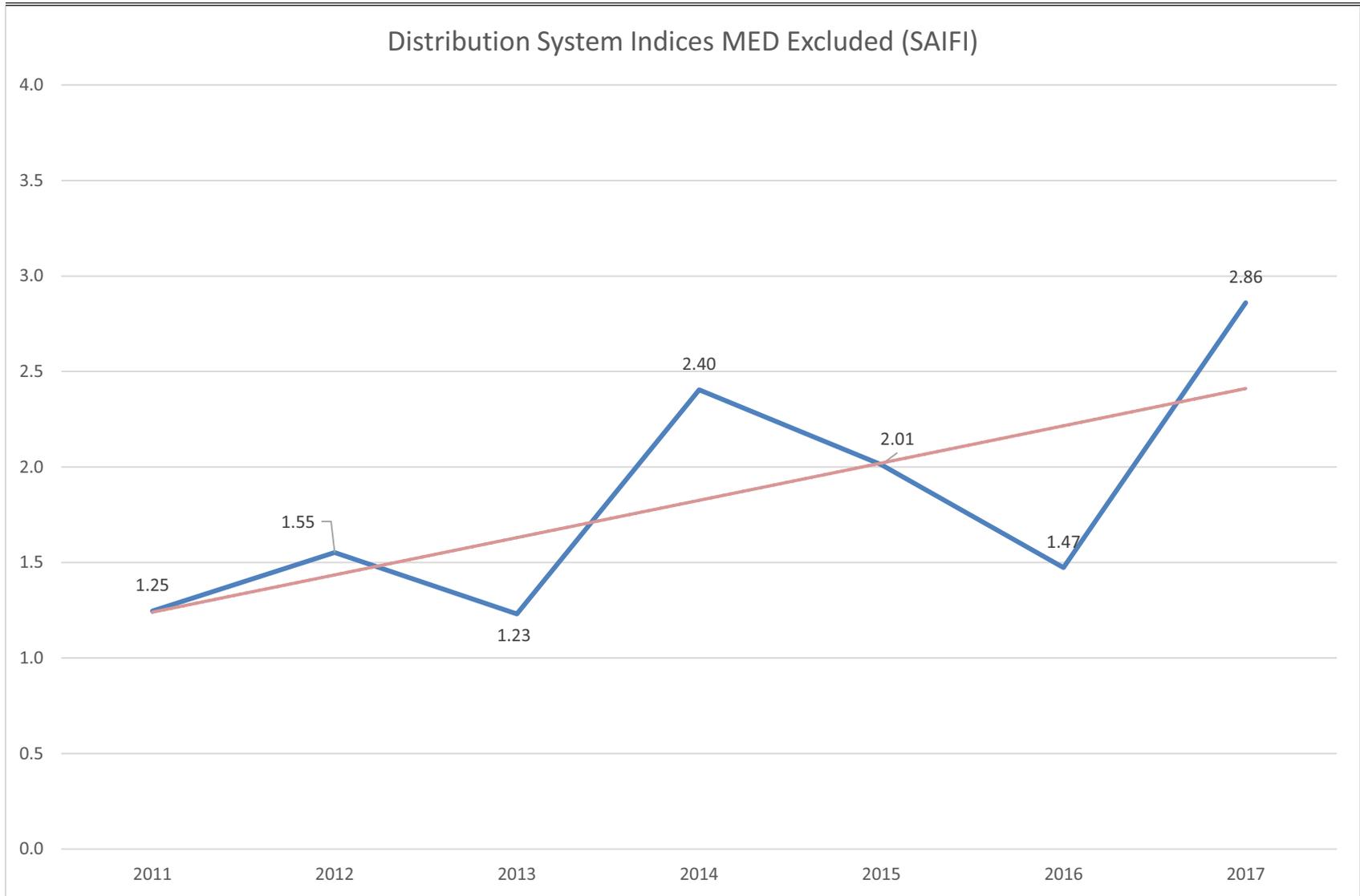


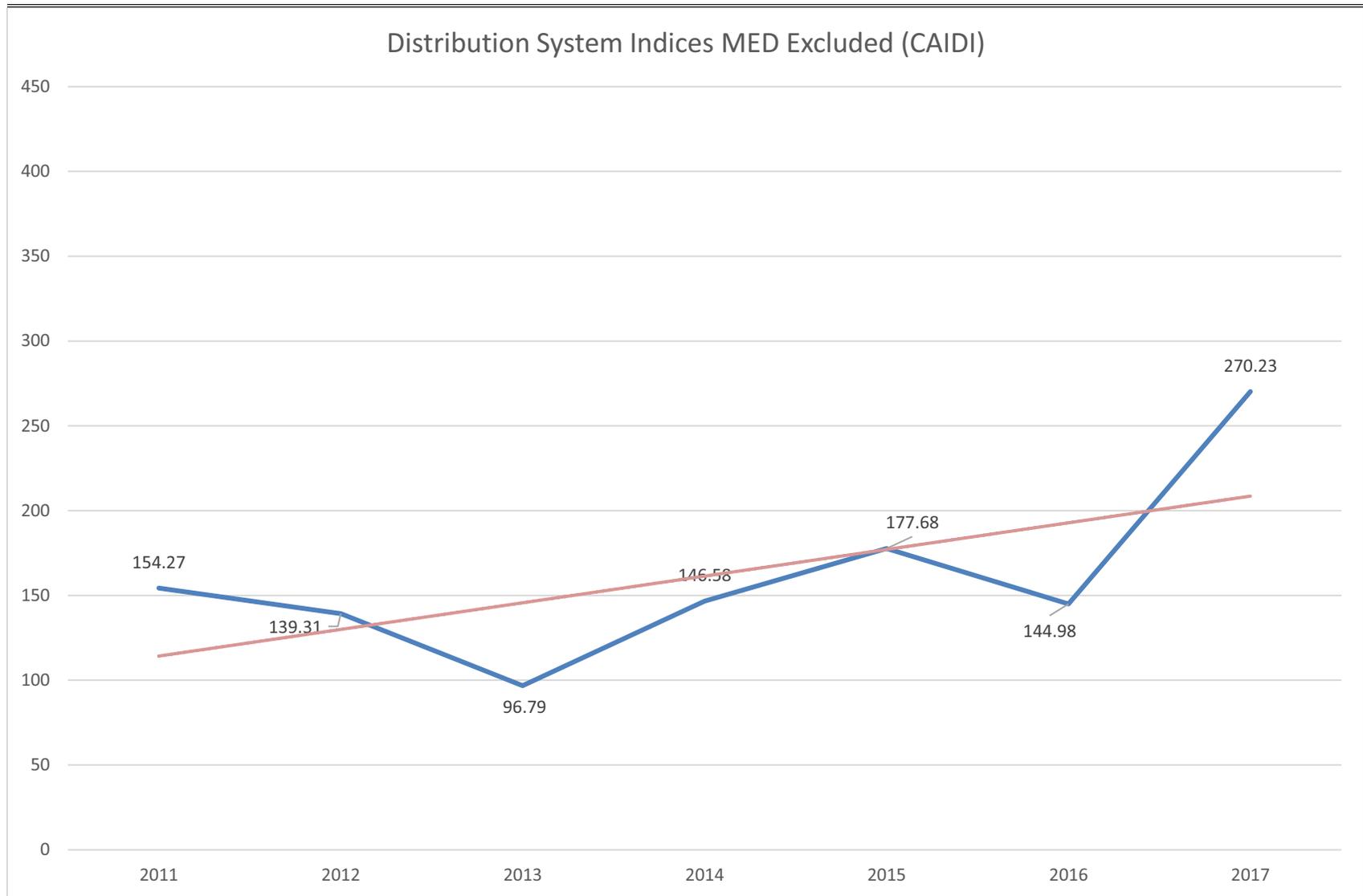


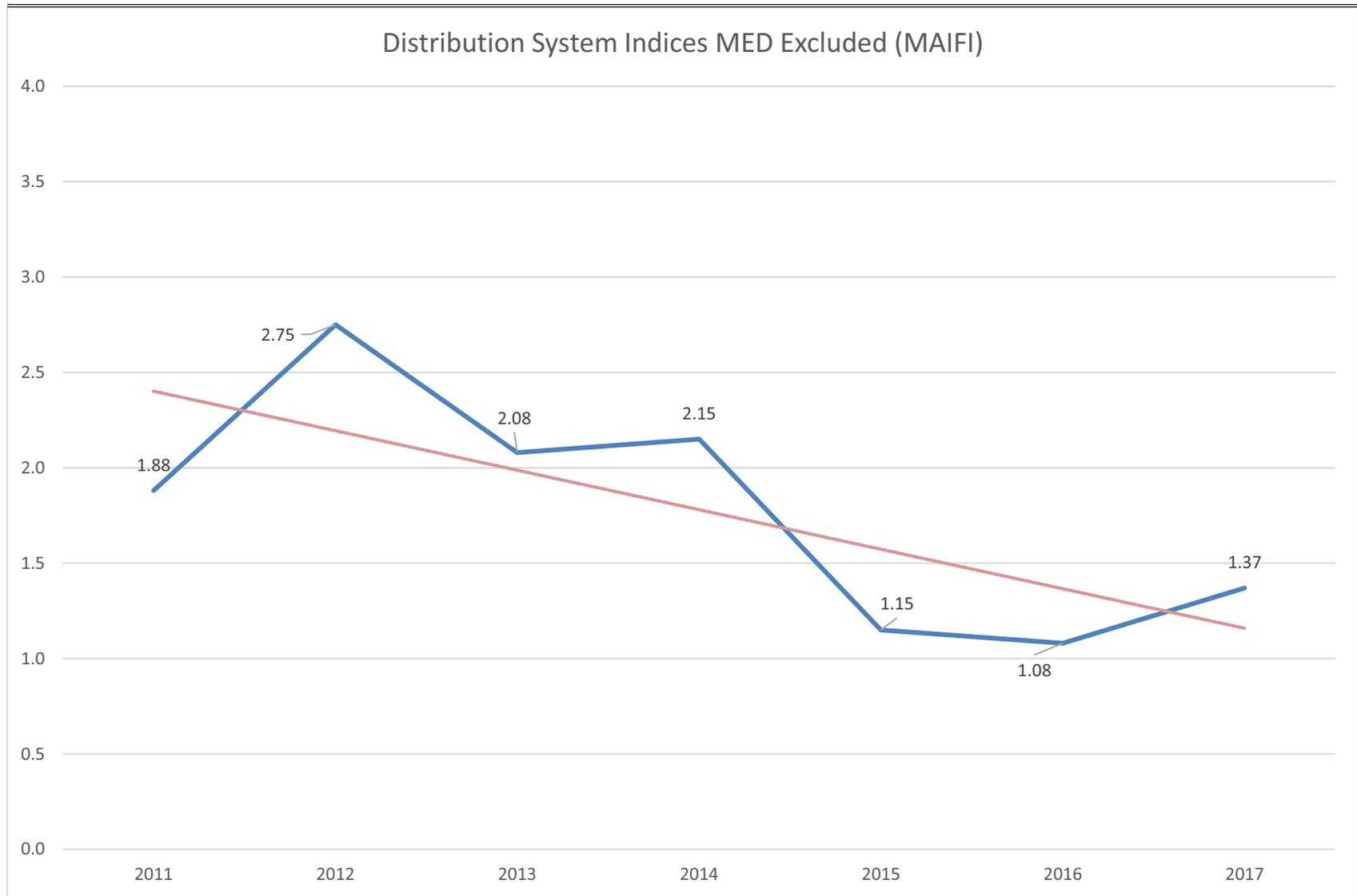












**2) Division (or District) Reliability Indices for the past 7 years**

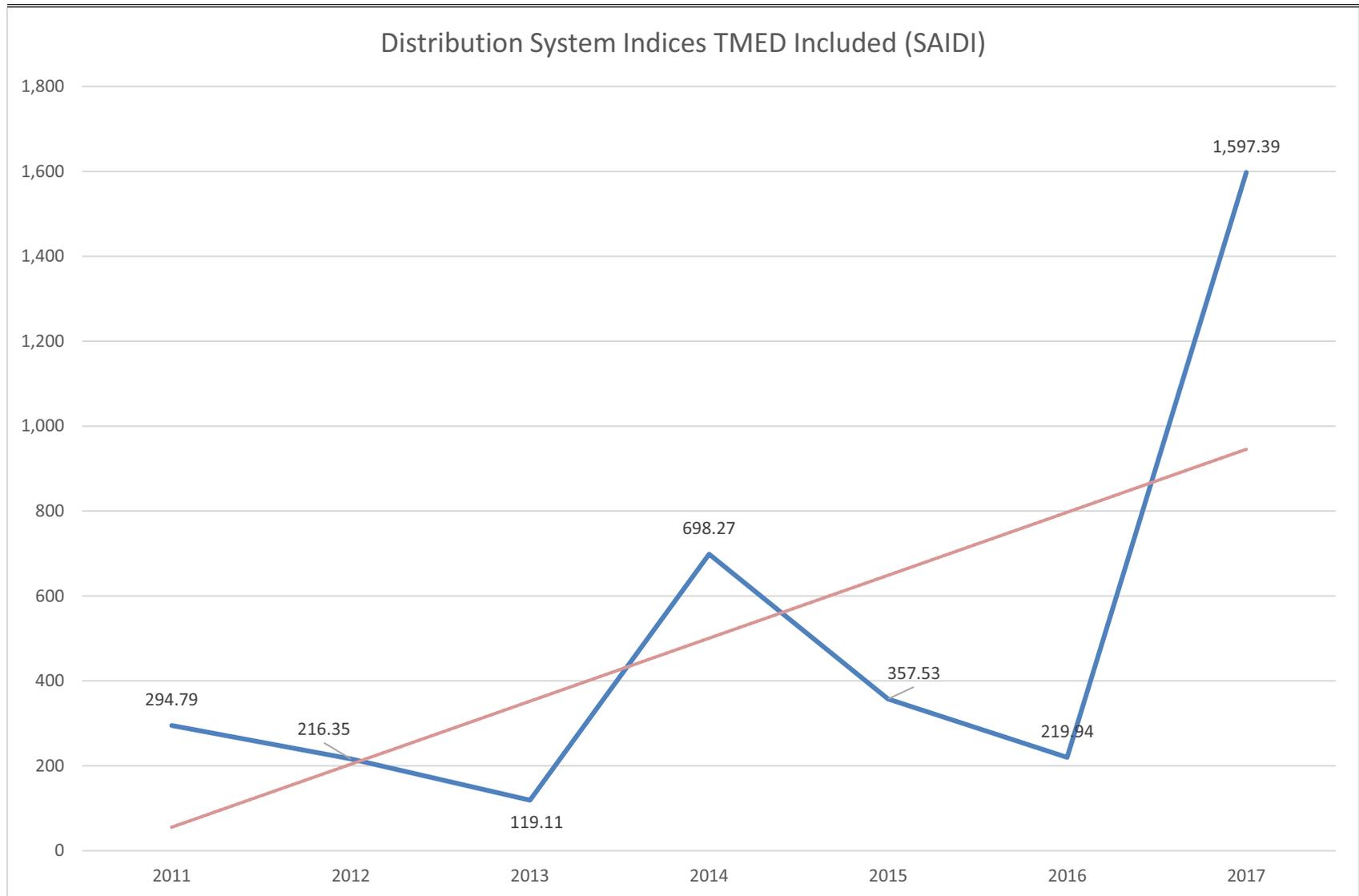
Liberty Utilities (CalPeco Electric), LLC has one division, Lake Tahoe. See section 1 for indices.

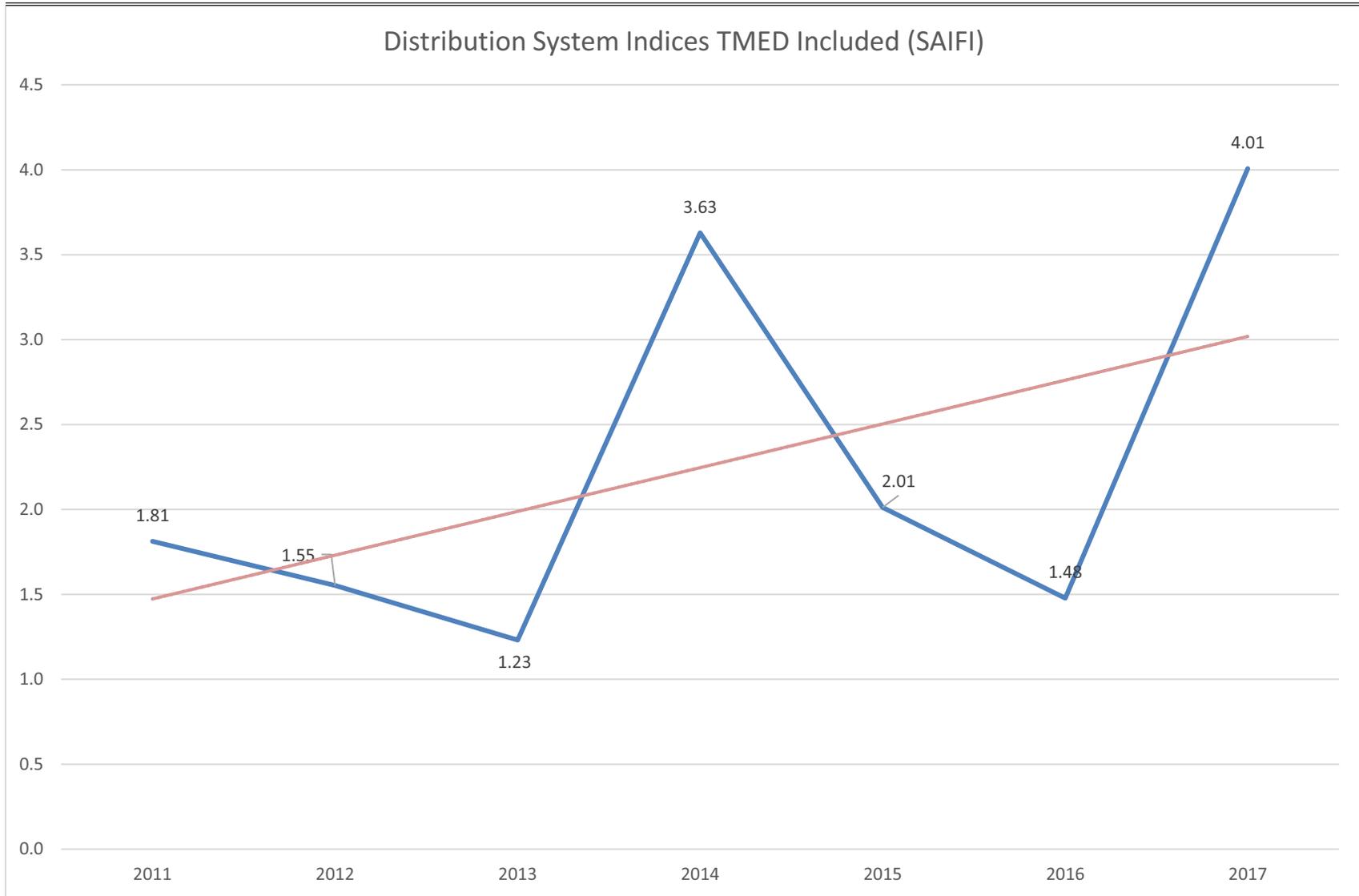
**3) System and Division indices based on IEEE 1366 for the past 7 years including planned outages and including and excluding TMED**

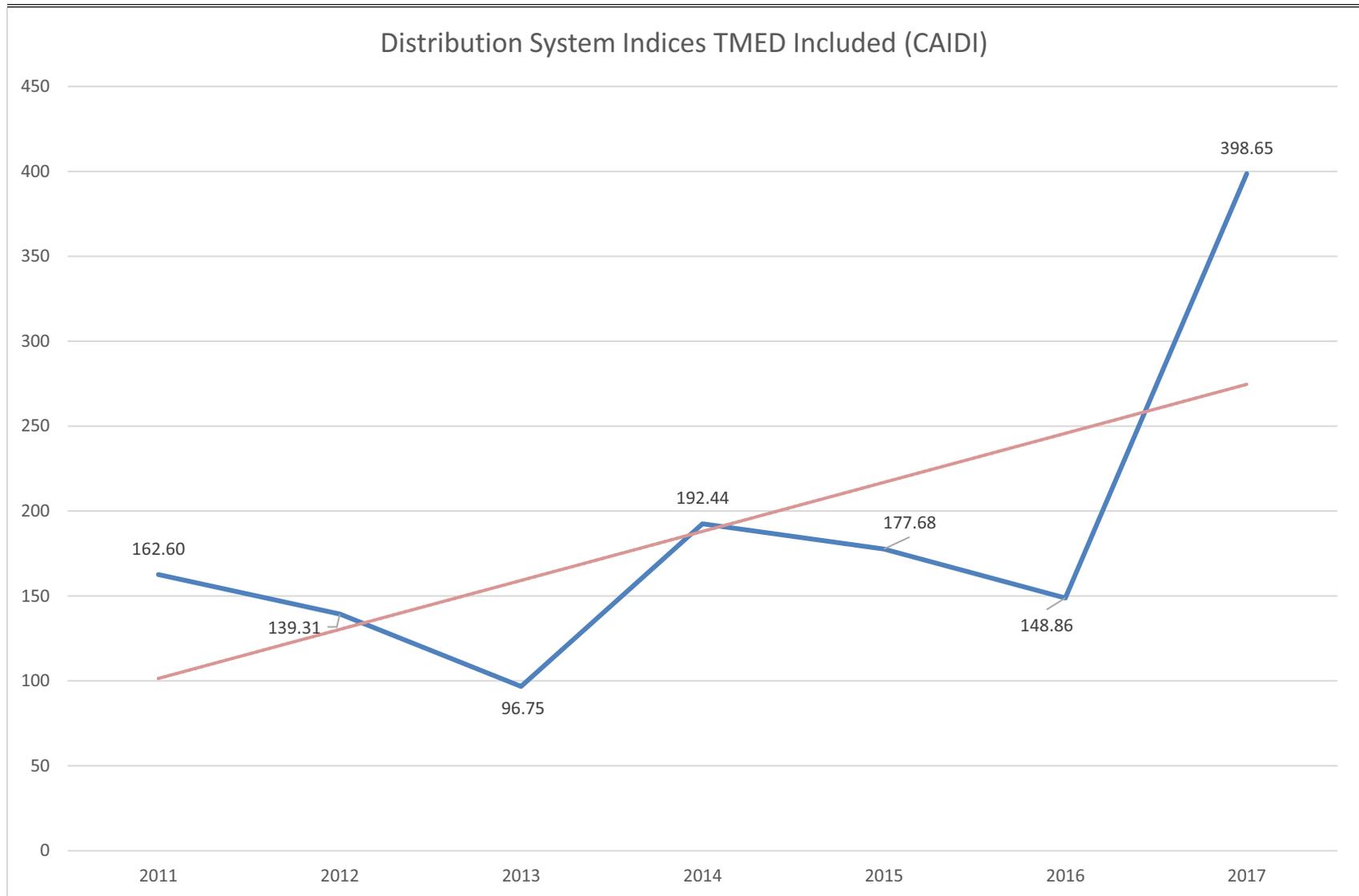
a. SAIDI, SAIFI, MAIFI, and CAIDI Data

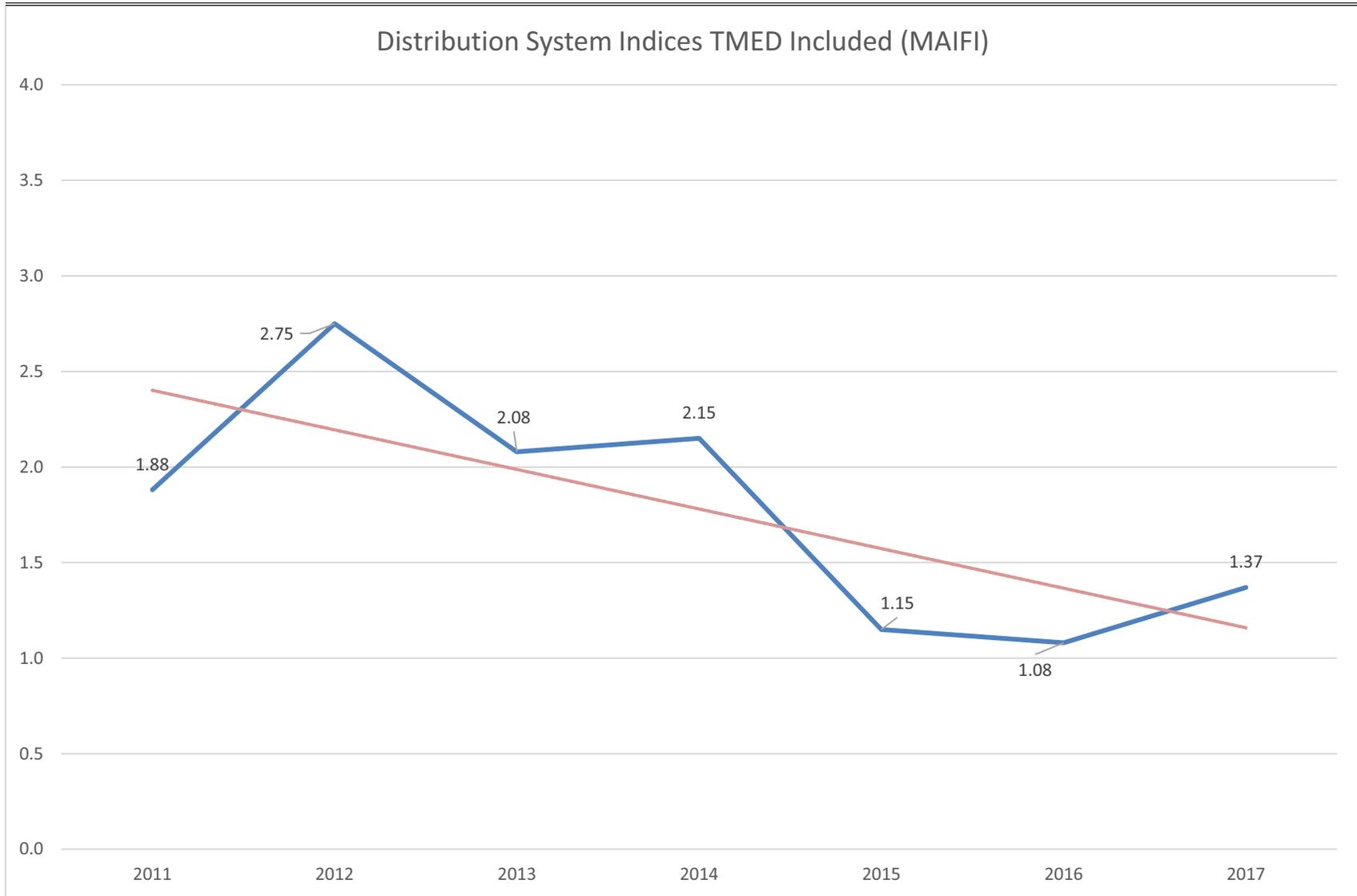
Liberty Utilities (CalPeco Electric), LLC <u>Distribution</u> Historical System Reliability Data 7 Years (Years in Business)								
Year	TMED Included				TMED Excluded			
	SAIDI	SAIFI	CAIDI	MAIFI	SAIDI	SAIFI	CAIDI	MAIFI
2017	1597.39	4.01	398.65	1.37	772.84	2.89	267.42	1.37
2016	219.94	1.48	148.86	1.08	219.94	1.48	148.86	1.08
2015	357.53	2.01	177.68	1.15	357.53	2.01	177.68	1.15
2014	698.27	3.63	192.44	2.15	352.37	2.40	146.58	2.15
2013	119.11	1.23	96.75	2.08	119.11	1.23	96.79	2.08
2012	216.35	1.55	139.31	2.75	216.35	1.55	139.31	2.75
2011	294.79	1.81	162.60	1.88	192.22	1.25	154.27	1.88

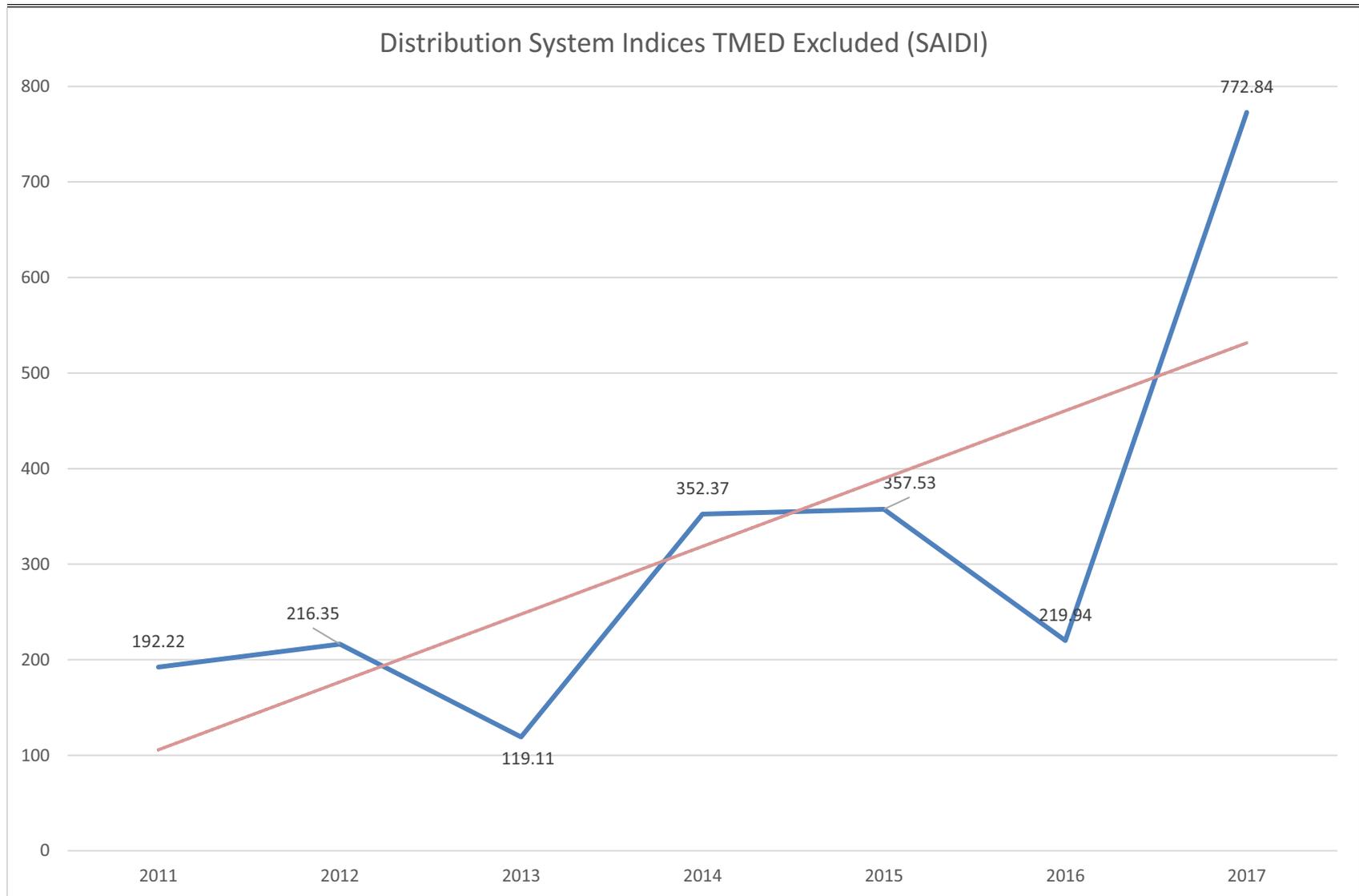
CalPeco Electric has been in business for 7 years and therefore does not have 10 years of data.

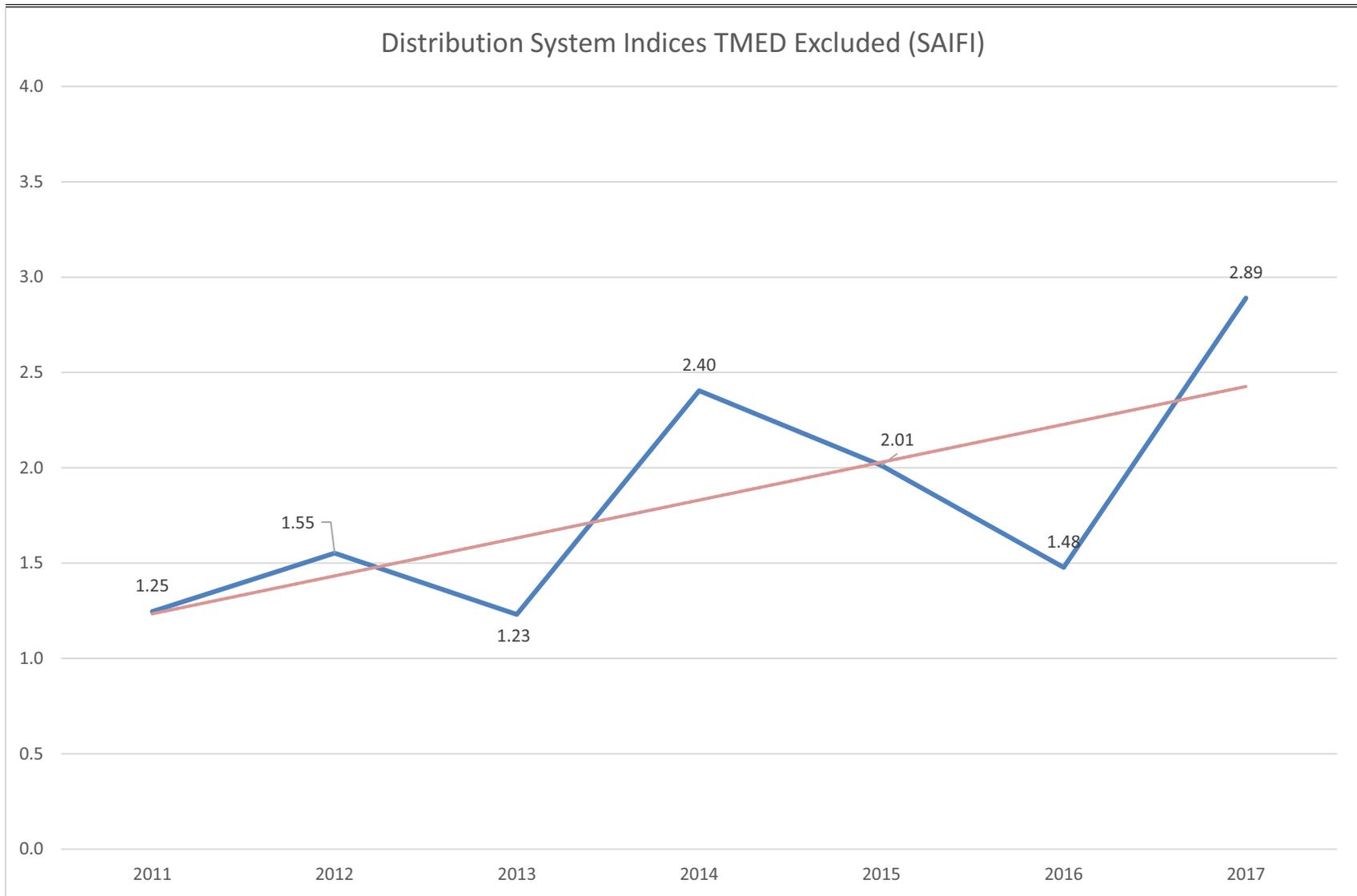


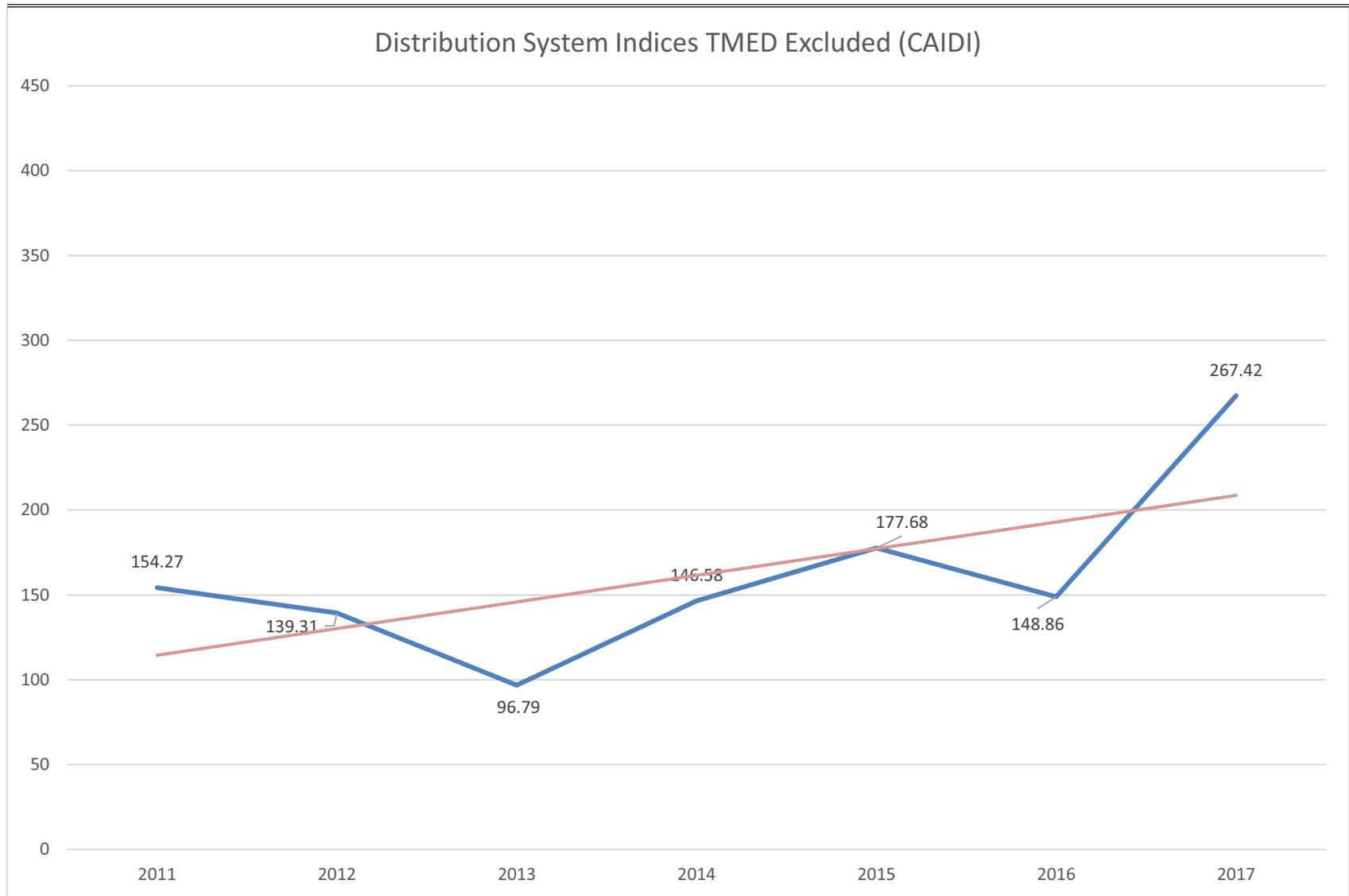


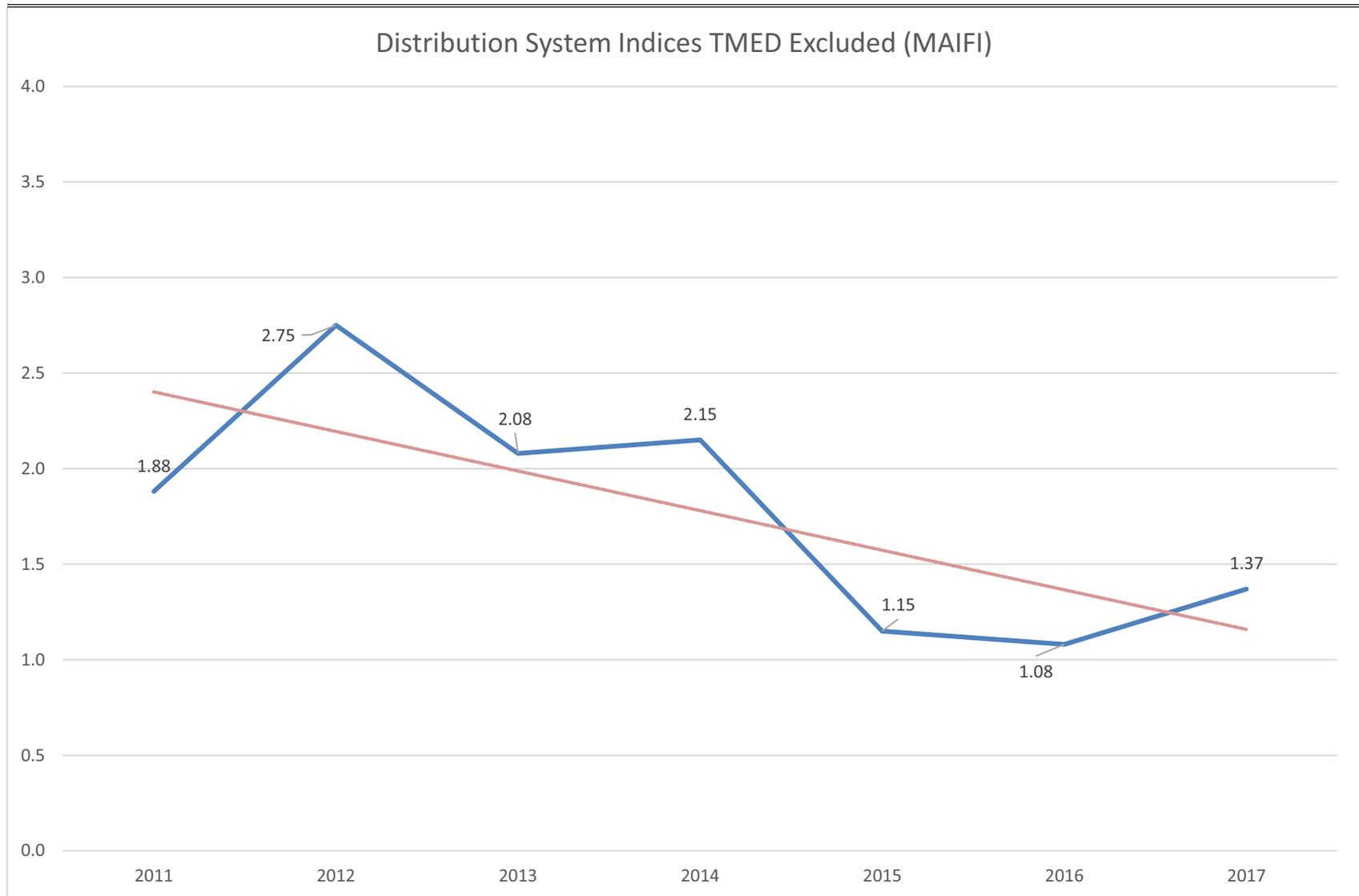












## b. The number, date, and location of planned outages

Circuit	District	Number of Planned Outages By Year						
		2017	2016	2015	2014	2013	2012	2011
31	Tahoe			1				
32	Tahoe	2	1					
41	Tahoe		1					
201	Tahoe					1		
204	Tahoe		1					
619	Tahoe						1	
650	Tahoe			1			1	
1296	Tahoe	2		5	1			
2200	Tahoe			1	1			
2300	Tahoe			1	2		1	
3100	Tahoe	1					1	1
3101	Tahoe				2	2		
3200	Tahoe			1			1	
3300	Tahoe	2		3			2	
3400	Tahoe	3		5		2	4	
3500	Tahoe	6		1				
3501	Tahoe			2	2	4	1	1
4201	Tahoe		1					
4202	Tahoe	4				2	5	1
5100	Tahoe					1	1	
5200	Tahoe	1		4	1	1	3	
5201	Tahoe	5	5	4	1		1	
7100	Tahoe	1			1	1	4	
7200	Tahoe			1	1	1	2	
7201	Tahoe	4	1	2	1			
7202	Tahoe	1		2	3	1		
7203	Tahoe			2	2	4		
7300	Tahoe	5	6	4	16	4	5	2
7400	Tahoe	2	1	1				1
7600	Tahoe			1				1
7700	Tahoe				1			
7800	Tahoe				2			
8200	Tahoe	7	3	2	4			1
8300	Tahoe	2		6			2	
8400	Tahoe							
8500	Tahoe		1			1	2	
8600	Tahoe			4			2	



**5) Top two worst performing circuits (WPC) excluding TMED**

- I. For each of these circuits each utility shall include the following information in its annual report: 1) Circuit Name; 2) District/Division; 3) Customer Count; 4) Substation name; 5) Circuit-miles; 6) Percentage underground, or “% UG”; 7) Percentage overhead or “% OH”; 8) Number of mainline/feeder/backbone outages resulting in the operation of either a circuit breaker (“CB”) or automatic re-closer (“AR”); and, 9) its preferred reliability metric.

Circuit	District	Customer Count	Substation Name	Circuit Miles	Facilities		Number of Mainline/Feeder/Backbone Outages	*Circuit SAIDI	Circuit SAIFI
					OH	UG			
201	Tahoe	66	Washoe	8.7	99.8%	0.2%	8	7667	8.0
7202	Tahoe	187	Truckee	20.5	91.7%	8.3%	3	6082	2.4

Note: Preferred Metric is Circuit SAIDI

- II. Any circuit appearing on this list of “deficient” WPC circuits that also appeared on the previous year's list would be marked by an asterisk. For each asterisked circuit, each utility shall provide the following information:
  - I. An explanation of why it was ranked as a "deficient" circuit, i.e., the value of the metric used to indicate its performance;
  - II. A historical record of the metric;
  - III. An explanation of why it was on the deficiency list again;
  - IV. An explanation of what is being done to improve the circuit's future performance and the anticipated timeline for completing those activities (or an explanation why remediation is not being planned); and
  - V. A quantitative description of the utility's expectation for that circuit's future performance.

This is the first year that the Truckee 7202 and Washoe 201 circuits have appeared on the list of worst performing circuits. Both of these circuits sustained multiple day outages related to the severe storms in January and February, which accounted for 85% and 65% of the circuit SAIDI accumulation, respectively. The Washoe 201 circuit also experienced a significant outage duration related to a wildfire in the Floriston area.

The storms of 2017 were abnormal and record breaking for this Lake Tahoe region. It is not anticipated that either of these circuits will experience outage durations that would place them on the worst performing circuits list in the future.

- III. Language to explain how the IOUs' include a cost effectiveness review as part of their respective internal review processes for circuit remediation projects.
  - I. Definitions of terms, acronyms, limitations, and assumptions;

#### Definitions

WPC- Worst Performing Circuits

### Assumptions

Our analysis excludes planned outages and TMED outages

- II. A clear explanation of the utility's process to determine the worst performing circuits:

The top 2 Worst Performing Circuits (WPC) are determined based upon the calculated Circuit SAIDI. This index is calculated on sustained outages by taking the total customer minutes of interruption and dividing by the number of customers on the circuit.

- III. A clear explanation of the utility's process to determine cost-effective remediation projects. This shall include why the utility may decide to implement a project to address one worst performing circuit issue while deciding to not implement a project to address a different worst performing circuit.

The Regional Engineer presents proposals for reliability improvement projects along with a circuit analysis, cost-benefit analysis, and details on customer impact to the Business Manager, Engineering and Planning Manager, and Vice President of Operations. Collectively, the group determines which projects to approve or suggest alternatives and further analysis.

**6) Top 10 major unplanned power outage events within a reporting year**

- a. The cause of each outage event; and
- b. The location of each outage event.

Rank	Outage Date	Cause	Location	Customer Impact	SAIDI	SAIFI
1	1/10/2017	Loss of Source – External System, Major Storm	Lake Tahoe	22,000	707.17	0.4513
2	8/28/2017	Loss of Source – External System	Lake Tahoe	8,643	12.23	0.1773
3	1/8/2017	Major Storm	Lake Tahoe	4,497	53.97	0.0922
4	2/8/2017	Major Storm	Lake Tahoe	4,497	14.29	0.0922
5	4/7/2017	Trees	Lake Tahoe	4,497	10.61	0.0922
6	2/22/2017	Trees - Major Storm	Lake Tahoe	4,105	8.5	0.0842
7	1/5/2017	Major Storm	Lake Tahoe	3,517	37.73	0.0721
8	2/21/2017	Major Storm	Lake Tahoe	3,517	1.73	0.0721
9	5/30/2017	Underground Cable Failure	Lake Tahoe	3,486	12.08	0.0715
10	6/6/2017	Third Party - Car/Pole	Lake Tahoe	3,486	8.44	0.0715

\*Based on customer impact

## 7) Summary list of 2017 TMED per IEEE 1366

- a. The number of customers without service at periodic intervals for each TMED;
- b. The cause of each Major Event (ME); and
- c. The location of each ME.

TMED as of 2017 = 113.66

CalPeco Electric did experience an event in 2017 where the daily SAIDI was higher than the calculated TMED: January 10. The series of severe storms caused extreme snow accumulation, tree damage, and avalanche danger which slowed restoration efforts. The following table describes the quantity of customers out of service by hour and location.

**Table 1: Customer Outages During the January 10th Major Event**

<b>Description of Outage</b>		Loss of Source - Major Storm			Tree/mud slide during major storm took out 3 transmission sources.				
<b>Location</b>		Lake Tahoe (Truckee)	Lake Tahoe (Brockway)	Lake Tahoe (Squaw Valley)	Lake Tahoe (Tahoe City)	Lake Tahoe (Northstar)	Lake Tahoe (Glenshire)	Lake Tahoe (Meyers)	Lake Tahoe (Portola)
<b>Total Customers Out of Service</b>		1,971	4736	1,343	8574	1,098	1,289	1,968	2,717
<b>1/10/2017</b>	<b>1:00</b>								
	<b>2:00</b>								
	<b>3:00</b>								1229
	<b>4:00</b>								1229
	<b>5:00</b>								1229
	<b>6:00</b>								1229
	<b>7:00</b>								1229
	<b>8:00</b>								1229
	<b>9:00</b>								1229
	<b>10:00</b>								
	<b>11:00</b>								
	<b>12:00</b>								
	<b>13:00</b>								
	<b>14:00</b>								
	<b>15:00</b>								
	<b>16:00</b>								
	<b>17:00</b>								
	<b>18:00</b>								
	<b>19:00</b>								
	<b>20:00</b>								
<b>21:00</b>							1968	2717	
<b>22:00</b>	1971	4736	1,343	8574	1098	1289	1968	2717	
<b>23:00</b>	1971	4736	1,343	8574	1098	1289		2717	
<b>0:00</b>	1971	4736	1,343	8574	1098	1289		2717	

LIBERTY UTILITIES (CALPECO) LLC 2017 ELECTRIC SYSTEM RELIABILITY REPORT

<b>ME Continued</b>		Lake Tahoe (Truckee)	Lake Tahoe (Brockway)	Lake Tahoe (Squaw Valley)	Lake Tahoe (Tahoe City)	Lake Tahoe (Northstar)	Lake Tahoe (Glenshire)	Lake Tahoe (Meyers)	Lake Tahoe (Portola)
<b>1/11/2017</b>	<b>1:00</b>	1971	4736	1,343	8574	1098	1289	1620	2717
	<b>2:00</b>	1971	4736	1,343	8574	1098	1289	1620	2717
	<b>3:00</b>	1971	4736	1,343	8574	1098	1289	1623	2717
	<b>4:00</b>	1971	4736	1,343	8574	1098	1289	1623	2717
	<b>5:00</b>	1971	4736	1,343	8574	1098	1289	3	2717
	<b>6:00</b>	1971	4736	1,343	8574	1098	1289	3	2717
	<b>7:00</b>	1971	4736	1,343	8574	1098	1289	112	2717
	<b>8:00</b>	1971	4736	1,343	8574	1098	1289	642	2717
	<b>9:00</b>	1971	4736	1,343	8574	1098	1289	802	2717
	<b>10:00</b>	1971	4736	1,343	8574	1098	1289	811	2717
	<b>11:00</b>	1971	4736	1,343	8574	1098	1289	886	2717
	<b>12:00</b>	1971	4736	1,343	8574	1098	1289	866	2717
	<b>13:00</b>	1971	4736	1,343	8574		1289	894	2717
	<b>14:00</b>	90	4736		8574			894	2717
	<b>15:00</b>	90	4736		8574			1023	2717
	<b>16:00</b>	90			8574			1033	2717
	<b>17:00</b>	90			8574			1058	2717
	<b>18:00</b>	90			8574			1051	2717
	<b>19:00</b>	90			8574			1051	2
	<b>20:00</b>	90			8574			1051	2
	<b>21:00</b>	90			8574	3		1051	2
	<b>22:00</b>	90			8574	3		734	2
	<b>23:00</b>	90			8574	3		734	2
	<b>0:00</b>	90			4497	3		734	2

LIBERTY UTILITIES (CALPECO) LLC 2017 ELECTRIC SYSTEM RELIABILITY REPORT

<b>ME Continued</b>		Lake Tahoe (Truckee)	Lake Tahoe (Brockway)	Lake Tahoe (Squaw Valley)	Lake Tahoe (Tahoe City)	Lake Tahoe (Northstar)	Lake Tahoe (Glenshire)	Lake Tahoe (Meyers)	Lake Tahoe (Portola)
<b>1/13/2017</b>	<b>1:00</b>	90			810				
	<b>2:00</b>	90			810				
	<b>3:00</b>	90			810				
	<b>4:00</b>	90			810				
	<b>5:00</b>	90			810				
	<b>6:00</b>	90			810				
	<b>7:00</b>	90			810				
	<b>8:00</b>	90			810				
	<b>9:00</b>	90			810				
	<b>10:00</b>	90			810				
	<b>11:00</b>	90			810				
	<b>12:00</b>	90			810				
	<b>13:00</b>	90			810				
	<b>14:00</b>	90			810				
	<b>15:00</b>	90			810				
	<b>16:00</b>	90			810				
	<b>17:00</b>	90			810				
	<b>18:00</b>	90			810				
	<b>19:00</b>	90			810				
	<b>20:00</b>	90			810				
	<b>21:00</b>	90			810				
	<b>22:00</b>	90			810				
	<b>23:00</b>	90			810				
	<b>0:00</b>	90			810				

LIBERTY UTILITIES (CALPECO) LLC 2017 ELECTRIC SYSTEM RELIABILITY REPORT

<b>ME Continued</b>		Lake Tahoe (Truckee)	Lake Tahoe (Brockway)	Lake Tahoe (Squaw Valley)	Lake Tahoe (Tahoe City)	Lake Tahoe (Northstar)	Lake Tahoe (Glenshire)	Lake Tahoe (Meyers)	Lake Tahoe (Portola)
<b>1/14/2017</b>	<b>1:00</b>	90			810				
	<b>2:00</b>	90			810				
	<b>3:00</b>	90			810				
	<b>4:00</b>	90			810				
	<b>5:00</b>	90			810				
	<b>6:00</b>	90			810				
	<b>7:00</b>	90			810				
	<b>8:00</b>	90			810				
	<b>9:00</b>	90			810				
	<b>10:00</b>	90			810				
	<b>11:00</b>	90			810				
	<b>12:00</b>	90			810				
	<b>13:00</b>	90			810				
	<b>14:00</b>	90			810				
	<b>15:00</b>	90			810				
	<b>16:00</b>	90			810				
	<b>17:00</b>	90			810				
	<b>18:00</b>	90			810				
	<b>19:00</b>	90			810				
	<b>20:00</b>	90			810				
	<b>21:00</b>	90			810				
	<b>22:00</b>	90			810				
	<b>23:00</b>	90			810				
	<b>0:00</b>	90			810				

LIBERTY UTILITIES (CALPECO) LLC 2017 ELECTRIC SYSTEM RELIABILITY REPORT

<b>ME Continued</b>		Lake Tahoe (Truckee)	Lake Tahoe (Brockway)	Lake Tahoe (Squaw Valley)	Lake Tahoe (Tahoe City)	Lake Tahoe (Northstar)	Lake Tahoe (Glenshire)	Lake Tahoe (Meyers)	Lake Tahoe (Portola)
<b>1/15/2017</b>	<b>1:00</b>	90			810				
	<b>2:00</b>	90			810				
	<b>3:00</b>	90			810				
	<b>4:00</b>	90			810				
	<b>5:00</b>	90			810				
	<b>6:00</b>	90			810				
	<b>7:00</b>	90			810				
	<b>8:00</b>	90			810				
	<b>9:00</b>	90			810				
	<b>10:00</b>	90			810				
	<b>11:00</b>	90			810				
	<b>12:00</b>	90			810				
	<b>13:00</b>	90			810				
	<b>14:00</b>	90			810				
	<b>15:00</b>	90			810				
	<b>16:00</b>	90			810				
	<b>17:00</b>	90			810				
	<b>18:00</b>	90			810				
	<b>19:00</b>	90			810				
	<b>20:00</b>	90			810				
	<b>21:00</b>	90			810				
	<b>22:00</b>	90			810				
	<b>23:00</b>	90			810				
	<b>0:00</b>	90			810				

LIBERTY UTILITIES (CALPECO) LLC 2017 ELECTRIC SYSTEM RELIABILITY REPORT

<b>ME Continued</b>		Lake Tahoe (Truckee)	Lake Tahoe (Brockway)	Lake Tahoe (Squaw Valley)	Lake Tahoe (Tahoe City)	Lake Tahoe (Northstar)	Lake Tahoe (Glenshire)	Lake Tahoe (Meyers)	Lake Tahoe (Portola)
<b>1/16/2017</b>	<b>1:00</b>	90			810				
	<b>2:00</b>	90			810				
	<b>3:00</b>	90			810				
	<b>4:00</b>	90			810				
	<b>5:00</b>	90			810				
	<b>6:00</b>	90			810				
	<b>7:00</b>	90							
	<b>8:00</b>	90							
	<b>9:00</b>	90							
	<b>10:00</b>	90							
	<b>11:00</b>	90							
	<b>12:00</b>	90							
	<b>13:00</b>	90							
	<b>14:00</b>	90							
	<b>15:00</b>	90							
	<b>16:00</b>	90							
	<b>17:00</b>	90							
	<b>18:00</b>	90							
	<b>19:00</b>	90							
	<b>20:00</b>	90							
	<b>21:00</b>	90							
	<b>22:00</b>	90							
	<b>23:00</b>	90							
	<b>0:00</b>	90							

LIBERTY UTILITIES (CALPECO) LLC 2017 ELECTRIC SYSTEM RELIABILITY REPORT

<b>ME Continued</b>		Lake Tahoe (Truckee)	Lake Tahoe (Brockway)	Lake Tahoe (Squaw Valley)	Lake Tahoe (Tahoe City)	Lake Tahoe (Northstar)	Lake Tahoe (Glenshire)	Lake Tahoe (Meyers)	Lake Tahoe (Portola)
<b>1/17/2017</b>	<b>1:00</b>	90							
	<b>2:00</b>	90							
	<b>3:00</b>	90							
	<b>4:00</b>	90							
	<b>5:00</b>	90							
	<b>6:00</b>	90							
	<b>7:00</b>	90							
	<b>8:00</b>	90							
	<b>9:00</b>	90							
	<b>10:00</b>	90							
	<b>11:00</b>	90							
	<b>12:00</b>	90							
	<b>13:00</b>	90							
	<b>14:00</b>	90							
	<b>15:00</b>	90							
	<b>16:00</b>	90							
	<b>17:00</b>	90							
	<b>18:00</b>								
	<b>19:00</b>								
	<b>20:00</b>								
	<b>21:00</b>								
	<b>22:00</b>								
	<b>23:00</b>								
	<b>0:00</b>								

**8) Historical 10 largest unplanned outage events for the past 10 years\***

\*Based on Customers Affected

Rank	Description	Date	Customers Affected	Longest Interruption (hours)	Customers-hours affected	CPUC Major Event?
1	Loss of Source – External System	1/10/17	22,000	26.12	5,745,66.7	No
2	Loss of Source – External System	8/28/2017	8,643	1.15	9,939.5	No
3	Major Storm	1/8/2017	4,497	9.75	43,845.8	No
4	Major Storm	2/8/2017	4,497	2.58	11,617.3	No
5	Trees	4/7/2017	4,497	1.91	8,619.3	No
6	Trees/Major Storm	2/22/2017	4,105	1.68	6,910.1	No
7	Major Storm	1/5/2017	3,517	8.72	30,656.5	No
8	Major Storm	2/21/2017	3,517	0.4	1,406.8	No
9	Underground Fault	5/30/2017	3,486	2.82	9,818.9	No
10	Carp/Pole	6/6/2017	3,486	1.97	6,855.8	No

LIBERTY UTILITIES (CALPECO) LLC 2017 ELECTRIC SYSTEM RELIABILITY REPORT

Rank	Description	Date	Customers Affected	Longest Interruption (hours)	Customers-hours affected	CPUC Major Event?
1	Loss of Source – External System	3/13/2016	6,882	0.75	5,046.80	No
2	Wind/Trees	10/16/2016	4,125	1.75	7,150.00	No
3	Underground Fault	10/4/2016	4,125	4.31	17,793.30	No
4	Downed Wire	3/22/2016	4,125	1.70	6,294.80	No
5	Car/Pole	3/13/2016	3,517	1.00	3,957.90	No
6	Failed Overhead Hardware/Material	1/1/2016	3,500	5.50	7,250.00	No
7	Trees	3/1/2016	3,258	0.50	1,683.30	No
8	Underground Fault	6/29/2016	2,859	8.42	3,975.10	No
9	Primary Contact – 3 <sup>rd</sup> Party	8/23/2016	2,772	5.15	2,693.25	No
10	Trees	6/15/2016	2,732	8.15	3,822.70	No

Rank	Description	Date	Customers Affected	Longest Interruption (hours)	Customers-hours affected	CPUC Major Event?
1	Storm	4/25/2015	4,120	6.50	12,380.00	No
2	Underground Fault	2/14/2015	3,587	0.50	2,511.00	No
3	Downed Wire	12/11/2015	3,587	10.00	17,251.00	No
4	Trees	2/6/2015	3,548	0.50	1,360.00	No
5	Bird/Animal	5/24/2015	3,000	6.50	12,340.00	No
6	Fire	2/20/2015	3,000	0.50	1,650.00	No
7	Weather/Lightning	7/4/2015	3,000	2.00	5,600.00	No
8	Weather/Lightning	7/7/2015	3,000	0.25	1,000.00	No
9	Operations	8/11/2015	3,000	0.25	750.00	No
10	Weather/Lightning	8/7/2015	3,000	1.75	5,400.00	No

LIBERTY UTILITIES (CALPECO) LLC 2017 ELECTRIC SYSTEM RELIABILITY REPORT

Rank	Description	Date	Customers Affected	Longest Interruption (hours)	Customers-hours affected	CPUC Major Event?
1	NV Energy Outage	9/27/2014	27,046	4.27	115,396.27	Yes
2	Flashing	7/20/2014	26,000	5.12	2,690.45	Yes
3	Tree-Green	12/11/2014	15,853	4.03	63,940.43	No
4	Relay Failure	9/23/2014	8,900	0.22	1,928.33	No
5	Trees	3/11/2014	3,587	1.83	6,521.17	No
6	Weather/Lightning	7/20/2014	3,587	0.75	2,690.25	No
7	Trees	8/30/2014	3,587	0.30	1,195.67	No
8	Trees	1/30/2014	3,548	4.25	2,109.00	No
9	Bird/Animal	8/31/2014	3,548	0.50	1,774.00	No
10	Trees	7/20/2014	3,500	5.00	17,266.67	No

Rank	Description	Date	Customers Affected	Longest Interruption (hours)	Customers-hours affected	CPUC Major Event?
1	Wire Down Transformer	7/4/2013	5,650	9.82	10,816.02	No
2	Tree Trimming	8/14/2013	4,800	2.35	4,334.50	No
3	Car/Pole	10/25/2013	3,548	0.40	1,419.20	No
4	Cable Failure	8/7/2013	3,475	8.50	4,412.50	No
5	Trees	3/14/2013	3,315	0.30	1,049.75	No
6	Hardware Failure	3/6/2013	3,000	8.13	14,740.00	No
7	Weather/Lightning	7/2/2013	3,000	2.10	6,300.00	No
8	Weather/Lightning	7/25/2013	2,042	3.46	911.83	No
9	Bird/Animal	10/5/2013	2,000	4.00	2,108.00	No
10	Unknown Cause	6/30/2013	2,000	0.76	1,533.33	No

LIBERTY UTILITIES (CALPECO) LLC 2017 ELECTRIC SYSTEM RELIABILITY REPORT

Rank	Description	Date	Customers Affected	Longest Interruption (hours)	Customers-hours affected	CPUC Major Event?
1		8/19/2012	8,677	1.08	9,400.08	No
2	Overhead Hardware/Material	11/29/2012	4,200	.067	3,488.33	No
3	Trees	4/1/2012	4,120	12.70	37,471.67	No
4	Hardware Failure	4/13/2012	4,120	2.95	12,154.00	No
5	Trees	5/24/2012	4,120	0.73	3,021.33	No
6	Bird/Animal	6/28/2012	3,587	0.47	1,673.93	No
7	Weather/Lightning	7/23/2012	3,548	1.16	909.50	No
8	Car/Pole	7/16/2012	3,315	8.83	2,724.17	No
9	Bird/Animal	5/11/2012	3,201	2.48	7,949.15	No
10	Bird/Animal	6/25/2012	1,967	5.60	11,015.20	No

Rank	Description	Date	Customers Affected	Longest Interruption (hours)	Customers-hours affected	CPUC Major Event?
1	NV Energy Outage	5/9/2011	24,550	3.02	74,059.17	Yes
2	Relays	2/17/2011	8,005	3.40	12,738.90	No
3	Overcurrent	3/20/2011	4,396	0.98	4,396.00	No
4	Trees	5/25/2011	4,120	10.23	21,658.83	No
5	Trees	11/18/2011	4,120	21.50	15,792.33	No
6	Lateral Fuse	3/16/2011	3,957	2.96	11,739.10	No
7	Bird/Animal	9/24/2011	3,885	0.25	769.50	No
8	Hardware Failure	9/12/2011	3,475	1.12	2,780.42	No
9	Relays	1/25/2011	3,201	1.68	5,388.35	No
10	Trees	6/29/2011	3,200	4.35	11,786.67	No

**9) Number of customer inquiries on reliability data and the number of days per response**

CalPeco Electric received four reliability inquiries in 2017. A response letter was sent out to each within 30 days, addressing the customer questions.

Date Received	Date Responded	Description of Inquiry
1/11/2017	2/10/2017	Inquiring about power outages in the Portola community. Operations manager contacted the customer via phone explaining the causes of recent outages, in conjunction with a response letter with the explanation.
1/15/2017	2/10/2017	Inquiry about reliability in Rubicon Bay, particularly related to outages during the severe storm events of early January 2017. A response letter was sent out on February 10 <sup>th</sup> explaining the impact of the severe storms.
4/7/2017	5/2/2017	Inquiring about plans to improve safety and reliability in Alpine Meadows after experiencing significant storm outages in January and February of 2017. A response letter was sent out on May 2 <sup>nd</sup> explaining the severe storm impact.
6/9/2017	6/27/2017	A customer requested data regarding outages their property experienced over the past two years. A summary explanation of outages was sent on June 27 <sup>th</sup> .

**Form No. 14**

(N)

**CONFIDENTIALITY AND NON-DISCLOSURE AGREEMENT**

This agreement ("Agreement"), with an effective date of 7/12/2018, is by and between Liberty Utilities CalPeco Electric LLC. ("Disclosing Party") and California Public Utility Commission, ("Receiving Party") (jointly referred to as "Parties").

In consideration of the foregoing mutual covenants and promises contained herein, the Parties agree as follows:

**1 PURPOSE**

1.1 This Agreement allows Liberty Utilities CalPeco Electric LLC to release specific customer information to the Receiving Party for purposes of calculating fees such as taxes, etc. and/or for the implementation of energy conservation programs. The Parties agree to enter into a confidential relationship with respect to the disclosure of certain proprietary and/or confidential information ("Confidential Information") as defined in Section 2 below.

**2 CONFIDENTIAL INFORMATION**

2.1 For purposes of this Agreement, "Confidential Information" means any and all information, whether in oral, written, graphic or electronic form, provided by the Disclosing Party to the Receiving Party, including but not limited to, data, ideas, samples, media, techniques, sketches, blueprints, plans, drawings, maps, data, works of authorship, models, inventions (whether patentable or not), know-how, processes, algorithms, software documents, formulae related to the current, future, and proposed products and services of Disclosing Party, information concerning research, experimental work, development, design details and specifications, engineering, financial information, procurement requirements, customer lists, pricing, investors, employees, business and contractual relationships, business forecasts, sales and merchandising, marketing plans, copyrights, trademarks, trade names, service marks, trade secrets, patent disclosures, patent applications, provisional patent applications, patents of any kind, information the Disclosing Party provides regarding third parties, any third party proprietary information rightfully held and disclosed by the Disclosing Party, information by its nature or circumstances surrounding its disclosure should be reasonably regarded as confidential, or any document that refers or relates to Confidential Information.

2.2 By way of further example and not as a limitation hereof, Confidential Information shall include the Disclosing Party's customer records such as Account Number, Customer Number, Customer Name, Service Address, Meter Size, Consumption Usage, Usage Read Days, Service Establishment Date, Service Termination Date, Meter Size, Meter Type, Type of Service and other data relating to the Disclosing Party's customers.

2.3 Confidential Information does not include information which can be shown by the Receiving Party as: (i) already known or in its possession without an obligation of confidentiality prior to the execution of this Agreement; (ii) hereafter rightfully furnished to the Receiving Party by a third party without a breach of any legal or contractual obligation; (iii) that is or becomes publicly available without breach of this Agreement; or (iv) independently developed by the Receiving Party without reliance on the Confidential Information.

(continued)

(N)

(To be inserted by utility)

(To be inserted by Cal. P.U.C.)

Advice No. \_\_\_\_\_ GREG SORENSEN \_\_\_\_\_  
Name

Date Filed \_\_\_\_\_

Dec. No. \_\_\_\_\_ WEST REGION PRESIDENT \_\_\_\_\_  
Title

Effective \_\_\_\_\_

Resolution No. \_\_\_\_\_

**Form No. 14**

(N)

**CONFIDENTIALITY AND NON-DISCLOSURE AGREEMENT**

(continued)

**3 TERM.**

3.1 The term of this Agreement shall be unlimited.

**4 TREATMENT OF CONFIDENTIAL INFORMATION.**

4.1 During the term of this Agreement, Receiving Party agrees to: (i) hold the Disclosing Party's Confidential Information in the strictest confidence and to take all reasonable precautions to protect such Confidential Information including, without limitation, all precautions that Receiving Party employs with respect to its own confidential and proprietary materials, but in no event less than reasonable care; (ii) not to make any use whatsoever at any time of disclosed Confidential Information except for purposes specifically approved by the Disclosing Party; (iii) not to copy, decompile, disassemble or reverse engineer any disclosed Confidential Information; and (iv) not to use any Confidential Information to create any intellectual property, product, service, or technology that is based upon, developed with, derived from, uses, employs, or incorporates, any Confidential Information.

**5 USES OF INFORMATION.**

5.1 Without the written consent of Disclosing Party, Receiving Party will make no commercial use of Confidential Information for its own or any third party's benefit, other than for purposes specifically approved by the Disclosing Party. In the event Receiving Party discovers that Confidential Information has been used, disseminated or published in violation of this Agreement, the Receiving Party will immediately: (i) notify Disclosing Party; (ii) take all reasonable action to minimize the impact of the use, dissemination or publication; and (iii) take any necessary steps to prevent a further disclosure of any Confidential Information.

**6 RETURN OF CONFIDENTIAL INFORMATION.**

6.1 Upon Disclosing Party's written request, all Confidential Information and all copies thereof shall be returned by Receiving Party within 15 days of receipt of Disclosing Party's request. At the Disclosing Party's option, Confidential Information and all copies thereof may instead be destroyed by Receiving Party, provided that Receiving Party certifies such destruction in writing. Return or destruction of Confidential Information shall not waive a party's obligations of confidentiality under this Agreement. If a breach of any condition of this Agreement occurs or if the Disclosing Party has reasonable grounds for believing that such a breach occurred or will occur, then Receiving Party will immediately return or destroy all Confidential Information upon Disclosing Party's request.

**7 NON-DISCLOSURE OF RELATIONSHIP OR POSSIBLE TRANSACTION.**

7.1 Each Party agrees that it will not, without the prior written consent of the other, disclose to any third party the fact that Confidential Information has been made available hereunder or, that discussions, talks, or negotiations are occurring between the Parties concerning a possible business relationship.

(continued)

(N)

(To be inserted by utility)

(To be inserted by Cal. P.U.C.)

Advice No.	_____	GREG SORENSEN	Date Filed	_____
		Name		
Dec. No.	_____	WEST REGION PRESIDENT	Effective	_____
		Title	Resolution No.	_____

**Form No. 14**

(N)

**CONFIDENTIALITY AND NON-DISCLOSURE AGREEMENT**  
(continued)

**8 MANDATORY DISCLOSURE.**

8.1.1 If disclosure of Confidential Information is required by judicial or other governmental action, Receiving Party will: (i) immediately notify Disclosing Party; (ii) not make the disclosure without first allowing Disclosing Party the opportunity to oppose the action; (iii) cooperate fully with Disclosing Party in opposing and limiting the scope of the disclosure; (iv) continue to protect Confidential Information not otherwise made public by the court or governmental body; and (v) be released from its obligations under this Agreement to the extent, but only to the extent, of the compelled disclosure.

**9 NO EXCLUSIVITY.**

9.1 The Parties acknowledge that this Agreement is non-exclusive. Nothing herein shall prohibit either Party from entering into talks, discussions, or negotiations with a third party for any reason whatsoever regarding any product, service or business relationship that does not refer to or include Confidential Information disclosed by the other party under this Agreement.

**10 RELATIONSHIP OF PARTIES.**

10.1 For the purposes of this Agreement, each Party shall be and act as an independent contractor and not as a partner, joint venturer, or agent of the other and shall not bind, nor attempt to bind, the other to any contract or obligation with a third party.

**11 NO WAIVER.**

11.1 Nothing in this Agreement shall be construed to constitute: (i) a waiver by the Disclosing Party of any of its rights in or to any Confidential Information that constitutes a copyright, patent, trademark, or trade secret; (ii) a release or waiver of the Receiving Party's legal obligation not to disclose or misappropriate any copyright, patent, trademark, or trade secret of Disclosing Party during or after the term of this Agreement; or (iii) a limit on any statutory or common law rights that provide Disclosing Party with broader protection than that provided in this Agreement.

**12 INDEMNIFICATION.**

12.1 Receiving Party agrees to indemnify and hold Disclosing Party (and its officers and employees) harmless from and against any and all losses, costs, damages and expenses arising as a result of any breach of this Agreement by Receiving Party.

**13 ADDITIONAL PROVISIONS**

13.1 Sections 4, 5, 6 and 7 shall survive for a period of 3 years following the termination of this Agreement for any reason whatsoever.

(continued)

(N)

(To be inserted by utility)

(To be inserted by Cal. P.U.C.)

Advice No. _____	GREG SORENSEN Name	Date Filed _____
Dec. No. _____	WEST REGION PRESIDENT Title	Effective _____
		Resolution No. _____

**Form No. 14**

(N)

**CONFIDENTIALITY AND NON-DISCLOSURE AGREEMENT**  
(continued)

13.2 Any and all notices or consents under this Agreement will be in writing. Notices shall be deemed sufficiently given when delivered personally or 48 hours after deposit with a receipted commercial courier service or the U.S. Postal Service as registered or certified mail, postage prepaid to the above addresses of the Parties. Any and all notices will be sent "Attention: Legal Counsel."

13.3 The Parties agree that each can be held liable for damages resulting from the disclosure of Confidential Information in breach of this Agreement by the Receiving Party's employees, officers, directors, contractors, consultants, agents, representatives, attorneys and advisors. The Parties acknowledge that there can be no adequate remedy at law for any breach of obligations hereunder and, therefore, that upon any such breach or any threat thereof, the Disclosing Party shall be entitled to appropriate equitable relief, including injunctions without the posting of a bond, in addition to any other remedies it might have at law.

13.4 In any action brought under this Agreement, the prevailing Party shall be entitled to recover from the non-prevailing Party all reasonable costs and expenses, including attorneys' fees, incurred in enforcing this Agreement.

13.5 This Agreement contains the entire understanding of the Parties regarding the treatment of their Confidential Information. All previous agreements or understandings concerning Confidential Information, whether written or oral, are superseded.

13.6 No amendment or modification of this Agreement shall be valid and binding on the Parties unless made in writing and signed on behalf of each of the Parties by their respective duly authorized officers or representatives.

13.7 This Agreement will be governed by and construed in accordance with the laws of the State of California. The Parties agree that the State Courts of California shall have exclusive jurisdiction over any matters arising under or out of this Agreement.

13.8 The Agreement shall bind and inure to the benefit of the Parties and their respective successors and assigns.

**Liberty Utilities CalPeco Electric LLC (Disclosing Party)**

**Receiving Party**

  
\_\_\_\_\_  
Signature

\_\_\_\_\_  
Signature

Greg Campbell  
\_\_\_\_\_  
Name (Printed or Typed)

\_\_\_\_\_  
Name (Printed or Typed)

7/12/2018  
\_\_\_\_\_  
Date

\_\_\_\_\_  
Date

(N)

Advice No. \_\_\_\_\_

GREG SORENSEN  
\_\_\_\_\_  
Name

Date Filed \_\_\_\_\_

Dec. No. \_\_\_\_\_

WEST REGION PRESIDENT  
\_\_\_\_\_  
Title

Effective \_\_\_\_\_

Resolution No. \_\_\_\_\_

LIBERTY UTILITIES  
933 ELOISE ROAD  
SOUTH LAKE TAHOE, CALIFORNIA 96150

ORIGINAL Cal. P.U.C. Sheet No. \_\_\_\_\_

\_\_\_\_\_ Cal. P.U.C. Sheet No. \_\_\_\_\_

(To be inserted by utility)

(To be inserted by Cal. P.U.C.)