

# Circuit Reliability Review Porterville

January 2017

# Providing Safe, Reliable, and Affordable Power

Southern California Edison is modernizing the power grid to meet the changing needs and expectations of our customers and to help California achieve its clean energy goals.

We are investing more than \$12 billion into our power grid between 2015 – 2017 with the goal of increasing power reliability through significant upgrades. These investments include:

- Updating thousands of transmission and distribution poles
- Replacing hundreds of miles of underground cables
- Replacing hundreds of underground structures such as vaults and manholes
- Upgrading critical distribution equipment; capacitor banks, switches, and circuit breakers
- Building new distribution circuits to serve electrical demands in our communities
- Inspecting and replacing overhead conductor and equipment to improve public safety

Our investments in local communities will help ensure that customers receive safe, reliable, and affordable electricity now and in the future.

# **Understanding Your Reliability Report**

As your electric utility, we want you to always have power when you need it. To get there, we constantly track and monitor electric outages across our service territory, and we measure our "system reliability" from this data.

The two metrics we rely on are common in the electric utility industry: the System Average Interruption Duration Index (SAIDI) and the System Average Interruption Frequency Index (SAIFI). Both are described in more detail on the next page.

Replacing and upgrading our infrastructure will help SCE maintain or improve SAIDI and SAIFI measurements.

This report provides historical reliability data for the circuits that serve your jurisdiction and our proposed infrastructure upgrades for the current year.

To view other reliability reports, visit <a href="sce.com">sce.com</a>>Outage Center>Maintaining Reliable Service

# Reliability Metrics

**MOMENTARY OUTAGES:** 

**OUTAGES LASTING 5 MINUTES OR LESS** 

#### MAIFI:

 The number of times the average customer is interrupted by Momentary outages each year.

#### **SUSTAINED OUTAGES:**

**OUTAGES LASTING LONGER THAN 5 MINUTES** 

#### SAIFI:

 The number of times the average customer is interrupted by Sustained outages each year.

#### SAIDI:

 The cumulative amount of time the average customer is interrupted by Sustained outages each year.

# Cities in the San Joaquin Region

Armona Springville

Delano Strathmore

Ducor Terra Bella

Earlimart Three Rivers

East Porterville Tipton

Exeter Tulare

Farmersville Visalia

Goshen Woodlake

Sostien woodlake

Hanford Woodville

Ivanhoe

Lemon Cove

Lindsay

Mcfarland

Pixley

Poplar-Cotton Center

**Porterville** 

Richgrove

### Reliability by SCE District (No Exclusions)

	78.60         28         0.56           129.58         13         1.31           184.80         7         1.15				20:	13			20	14			20	15			20	16		
	District	SAIDI	District	SAIFI	District	SAIDI	District	SAIFI	District	SAIDI	District	SAIFI	District	SAIDI	District	SAIFI	District	SAIDI	District	SAIFI
District Name	SAIDI	RANKING	SAIFI	Ranking	SAIDI	RANKING	SAIFI	Ranking	SAIDI	RANKING	SAIFI	Ranking	SAIDI	RANKING	SAIFI	Ranking	SAIDI	RANKING	SAIFI	Ranking
ANTELOPE VALLEY	78.60	28	0.56	31	94.42	22	0.62	31	51.05	35	0.59	34	104.34	22	0.68	30	107.67	24	0.87	29
ARROWHEAD	129.58	13	1.31	7	180.59	7	1.39	8	193.25	5	1.59	5	362.61	4	3.97	1	659.46	3	2.85	5
BARSTOW	184.80	7	1.15	12	204.33	6	1.40	7	201.53	4	1.34	10	187.11	8	1.17	12	134.83	18	1.35	9
BIG CREEK	1184.25	1	4.52	1	176.51	8	3.08	1	920.25	1	1.34	11	422.77	2	3.42	2	1062.01	2	4.99	1
BISHOP	463.09	2	1.25	9	104.44	17	0.51	35	118.79	17	0.59	35	298.11	6	2.22	4	168.59	8	1.22	14
BLYTHE	225.88	6	1.53	3	483.13	1	1.38	9	707.54	2	2.42	2	427.00	1	1.52	7	396.38	5	2.71	6
CATALINA	78.46	30	0.72	29	105.94	16	2.97	2	97.02	24	4.17	1	42.56	35	2.25	3	65.01	35	3.66	3
COVINA	108.73	19	0.92	19	100.51	19	0.86	20	91.60	27	0.87	22	100.08	23	0.81	25	112.13	22	0.97	24
DOMINGUEZ HILLS	117.22	18	0.82	24	89.17	26	0.80	21	82.30	29	0.71	28	130.63	15	0.97	17	146.38	12	1.11	17
FOOTHILL	91.69	25	0.90	20	85.80	27	0.79	24	93.35	25	0.93	21	109.64	20	0.95	20	142.81	14	1.03	21
FULLERTON	68.99	33	0.42	35	90.57	25	0.79	22	82.23	30	0.72	27	76.59	29	0.67	31	92.72	30	0.76	34
HUNTINGTON BEACH	95.78	23	0.89	21	66.51	32	0.68	29	79.61	31	0.78	25	98.32	25	0.95	19	128.02	20	1.26	12
KERNVILLE	226.76	5	1.31	6	232.18	4	1.96	3	178.69	8	1.99	3	286.38	7	0.96	18	2421.32	1	3.67	2
LONG BEACH	75.83	31	0.55	33	75.11	30	0.70	28	66.33	34	0.61	32	164.46	9	0.89	23	135.16	17	0.86	31
MENIFEE	99.32	. 22	0.84	23	107.39	15	1.26	10	156.68	11	1.32	12	111.46	19	0.98	16	156.75	9	1.31	10
MONROVIA	108.11	20	1.13	15	99.12	20	1.02	16	133.32	14	1.16	16	96.68	26	0.88	24	116.57	21	0.84	32
MONTEBELLO	131.06	12	1.13	14	118.08	13	1.17	12	158.34	10	1.16	15	150.28	12	1.18	11	133.52	19	1.17	15
ONTARIO	93.09	24	0.87	22	77.39	29	0.79	23	97.91	23	1.00	19	94.04	27	0.74	27	105.07	27	0.93	27
PALM SPRINGS	175.92	. 8	1.27	8	112.80	14	0.77	25	107.04	20	0.71	29	99.54	24	0.80	26	107.58	25	1.07	19
REDLANDS	120.13	16	1.11	16	96.48	21	1.04	15	154.25	12	1.04	18	124.52	17	1.01	14	137.11	16	0.98	23
RIDGECREST	229.65	4	1.44	4	161.95	9	1.12	13	176.84	9	1.57	6	148.90	13	1.01	15	254.31	6	1.05	20
SADDLEBACK	83.01	. 27	0.73	27	70.69	31	0.53	34	99.07	22	0.74	26	46.03	34	0.39	35	65.99	34	0.65	35
SAN JOAQUIN	135.90	10	1.04	18	244.44	2	1.45	6	138.25	13	1.17	14	127.50	16	1.05	13	108.44	23	1.09	18
SANTA ANA	78.60	29	0.55	32	93.35	24	0.74	26	91.68	26	0.84	23	67.46	32	0.71	29	97.27	29	1.00	22
SANTA BARBARA	153.81	. 9	1.15	13	82.00	28	0.70	27	183.78	7	1.38	9	152.37	11	1.52	6	156.66	10	1.41	8
SANTA MONICA	101.69	21	0.79	25	122.78	12	1.00	17	110.76	19	0.99	20	75.41	30	0.62	32	91.08	31	0.95	26
SOUTH BAY	122.68	15	1.17	10	142.15	10	1.49	5	125.28	16	1.39	8	164.07	10	1.31	8	183.90	7	1.88	7
TEHACHAPI	117.96	17	1.43	5	232.67	3	1.12	14	130.70	15	1.29	13	298.96	5	1.21	9	97.29	28	1.13	16
THOUSAND OAKS	127.73	14	1.05	17	93.86	23	0.91	18	104.37	21	1.10	17	106.59	21	0.92	21	143.78	13	1.31	11
VALENCIA	62.01	35	0.46	34	51.04	34	0.53	33	79.23	32	0.61	33	72.27	31	0.61	33	105.09	26	0.97	25
VENTURA	134.81	. 11	1.15	11	100.52	18	1.21	11	183.79	6	1.65	4	148.85	14	1.19	10	150.41	11	1.24	13
VICTORVILLE	67.70	34	0.66	30	61.33	33	0.63	30	68.85	33	0.63	31	87.03	28	0.91	22	79.35	33	0.92	28
WHITTIER	72.60	32	0.74	26	135.04	11	0.86	19	87.60	28	0.70	30	114.52	18	0.73	28	137.34	15	0.81	33
WILDOMAR	88.54	26	0.72	28	40.51	35	0.56	32	118.49	18	0.81	24	52.70	33	0.60	34	84.01	32	0.87	30
YUCCA VALLEY	319.82	3	3.41	2	216.97	5	1.50	4	304.25	3	1.49	7	389.08	3	1.80	5	463.68	4	3.39	4
SCE SystemWide	108.13		0.89		102.61		0.91		112.00		0.96		114.83		0.92		134.48		1.10	

<sup>\*&</sup>quot;Exclusions" are days which utilities are allowed to remove from their metrics because the outages on those days were caused by a severe acts of nature.

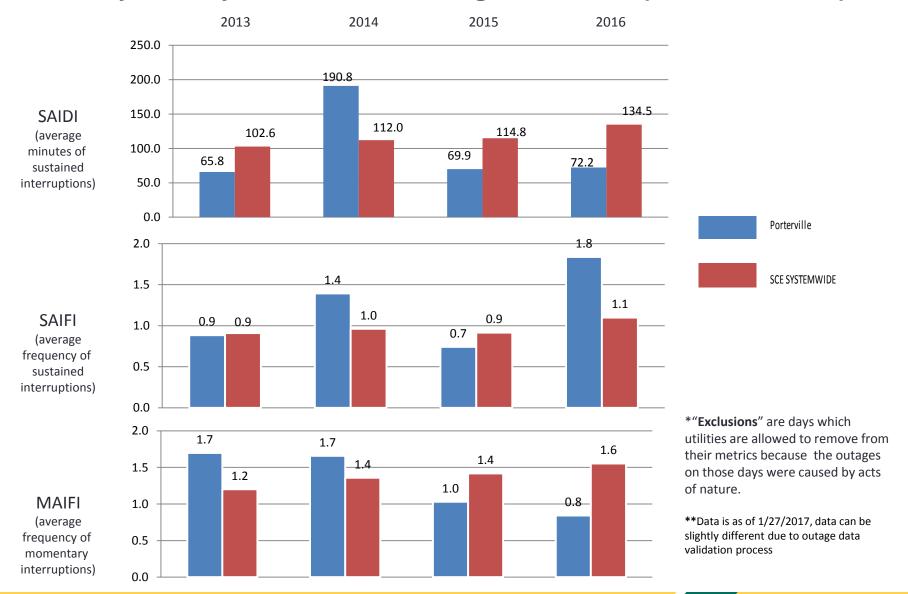
<sup>\*\*</sup>In the columns showing "Rank," lower numbers indicate poorer performance.

# Overview of Porterville There are 23 circuits that serve Porterville

Circuit Type	Sum of Customers	Circuit Type	Sum of Customers	Circuit Type	Sum of Customers	Circuit Type	Sum of Customers
BEATTIE(12KV)	1,322						
BURTON(12KV)	2,011						
CAMPBELL(12KV)	1,993						
CLAMPETT(12KV)	1,577						
CLINE(4.16KV)	339						
CLOER(12KV)	258						
DEER(12KV)	661						
DRAG(12KV)	866						
FRAME(4.16KV)	718						
GRANITE(12KV)	2,128						
HATFIELD(12KV)	2,019						
HENDERSON(12KV)	704						
JOSTEN(12KV)	891						
MONACHE(12KV)	1,129						
MORTON(4.16KV)	512						
OLIVE(4.16KV)	208						
PLANO(12KV)	982						
SUCCESS(12KV)	2,328						
TEAPOT(12KV)	2,041						
ULMER(4.16KV)	67						
VANDALIA(12KV)	1,127						
WORTH(12KV)	940						
ZANTE(12KV)	923						

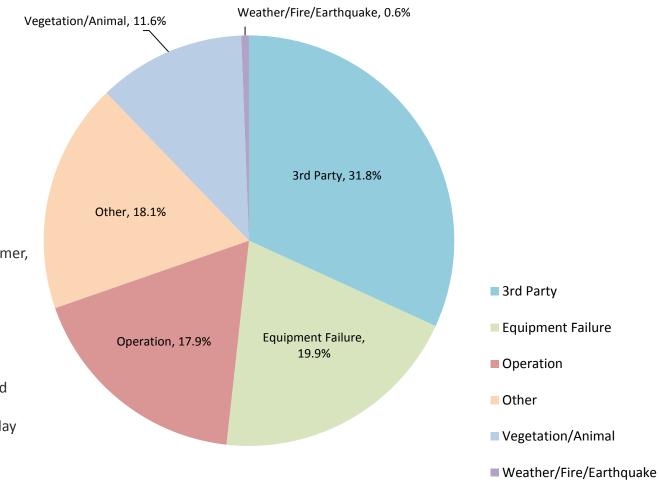
**Grand Total** 25,744

### Reliability History of Circuits Serving Porterville (No Exclusions)



### Causes of Repair Outages in Porterville Circuits 2016 YTD

### **Contributions to SAIDI by Outage Cause**



Equipment Failure

e.g., in-service failure of transformer, switch, or conductors

#### ■Vegetation/Animal

e.g., tree branch, rodent, or bird causing a short circuit between conductors

#### Other

e.g., patrolled but no cause found

#### Operations

e.g., urgent maintenance w/o 3-day notice

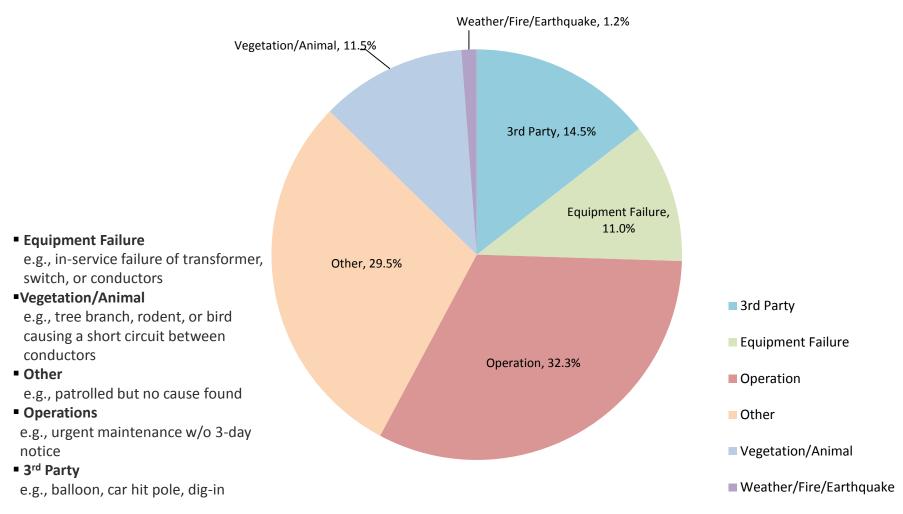
#### ■ 3<sup>rd</sup> Party

e.g., balloon, car hit pole, dig-in

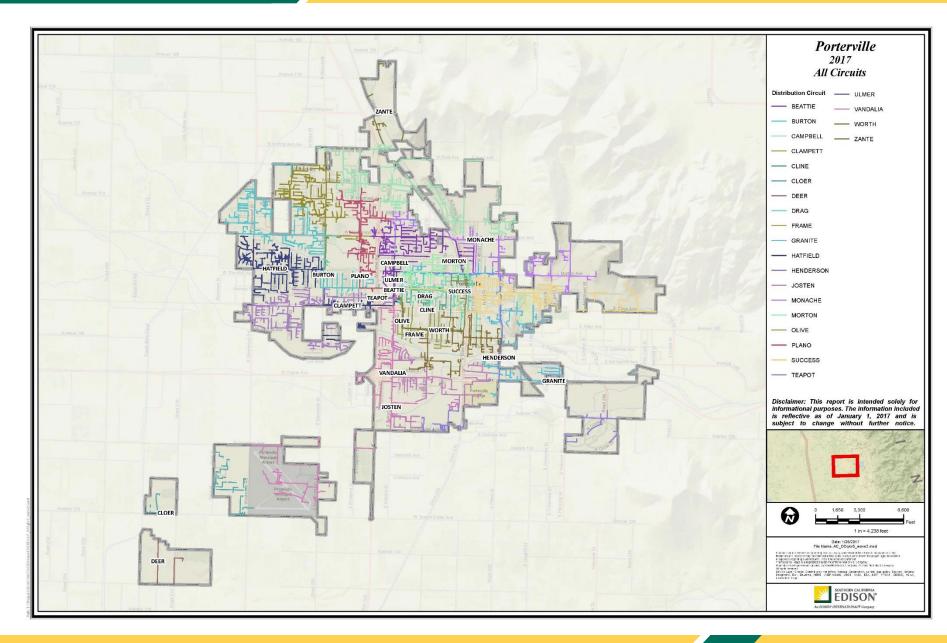
**SAIDI** = the cumulative amount of time the average customer is interrupted by "sustained" outages each year.

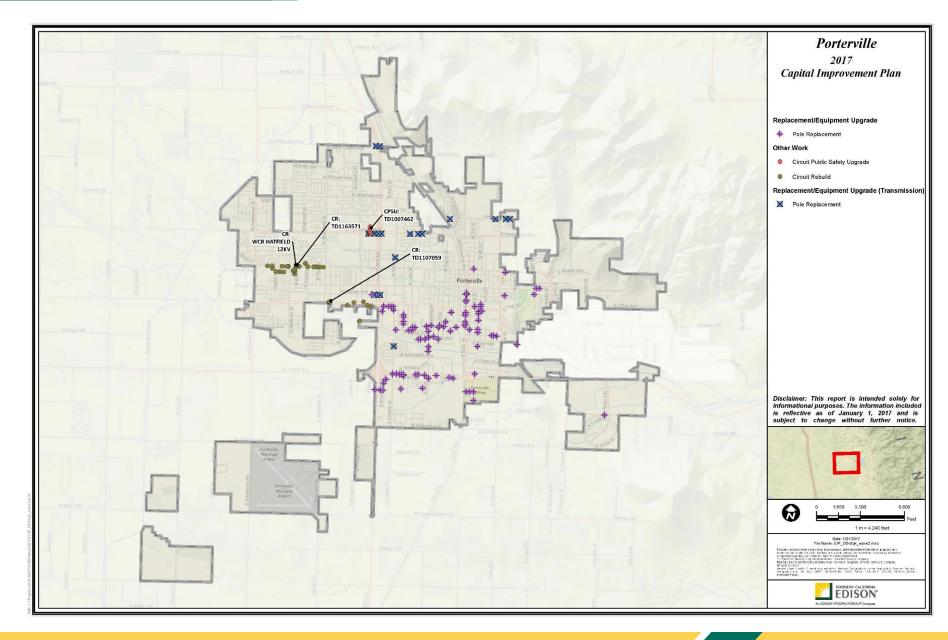
# Causes of Repair Outages in Porterville Circuits 2016 YTD

### **Contributions to SAIFI by Outage Cause**



**SAIFI** = the number of times the average customer is interrupted by "sustained" outages each year.





# **Back-up Slides**

**Reliability Histories of Circuits Serving Porterville** 

**Updated through Year-End 2016** 

### **Average Reliability of 23 Circuits Serving Porterville**

	2013 SAIDI SAIFI MAIF				2014			2015		1st	Qtr 20	16	2nd	Qtr 2	016	3rd	Qtr 20	016	4th	Qtr 20	016		2016	
	SAIDI	SAIFI	MAIFI	SAIDI	SAIFI	MAIFI	SAIDI	SAIFI	MAIFI	SAIDI	SAIFI	MAIFI	SAIDI	SAIFI	MAIFI	SAIDI	SAIFI	MAIFI	SAIDI	SAIFI	MAIFI	SAIDI	SAIFI	MAIFI
Porterville	65.8	0.9	1.7	190.8	1.4	1.7	69.9	0.7	1.0	13.6	0.2	0.3	9.9	0.2	0.1	27.7	0.7	0.3	21.0	0.8	0.2	72.2	1.8	0.8
3rd Party	27%	32%	10%	20%	22%	23%	10%	11%	19%	72%	54%	53%	14%	25%	0%	20%	7%	53%	29%	10%	56%	32%	14%	49%
Equipment Failure	29%	17%	11%	32%	40%	18%	35%	43%	23%	22%	42%	14%	41%	42%	10%	26%	7%	30%	0%	0%	0%	20%	11%	16%
Operation	7%	19%	6%	6%	4%	3%	5%	8%	0%	4%	4%	5%	7%	2%	11%	41%	79%	16%	1%	1%	0%	18%	32%	8%
Other	7%	8%	13%	5%	3%	12%	2%	4%	40%	2%	1%	24%	16%	6%	59%	0%	0%	0%	54%	70%	1%	18%	30%	15%
Vegetation/Animal	20%	16%	59%	1%	6%	14%	2%	3%	0%	0%	0%	0%	17%	13%	0%	12%	7%	1%	16%	18%	43%	12%	12%	10%
Weather/Fire/Earthquake	9%	7%	0%	37%	26%	30%	46%	30%	18%	0%	0%	4%	5%	13%	19%	0%	0%	0%	0%	0%	0%	1%	1%	3%
SCE Systemwide	102.6	0.9	1.2	112.0	1.0	1.4	114.8	0.9	1.4	40.5	0.3	0.4	34.8	0.3	0.4	29.4	0.2	0.3	29.8	0.3	0.4	134.5	1.1	1.6

#### Notes:

No outages are excluded from the metrics.

#### Outage Causes:

Other: e.g., patrolled but no cause could be found

Operations: e.g., urgent maintenance w/o 3-day notice to customers

3<sup>rd</sup> Party: e.g., balloons, car hit pole, dig-in

Vegetation/Animal: e.g., tree branch, rodent, or bird causing short circuit across conductors

SAIDI (minutes) = the cumulative amount of time the average customer is interrupted by "sustained" (longer than 5 minutes) outages.

SAIFI (interruptions) = the number of times the average customer is interrupted by "sustained" outages.

MAIFI (interruptions) = the number of times the average customer is interrupted by "momentary" (lasting 5 minutes or less) outages.

	2013 SAIDI SAIFI MAIFI				2014			2015		1st	Qtr 20	016	2nd	Qtr 20	16	3rd	Qtr 20	016	4th	<b>Qtr 20</b>	16		2016	
	SAIDI	SAIFI	MAIFI	SAIDI	SAIFI	MAIFI	SAIDI	SAIFI	MAIFI	SAIDI	SAIFI	MAIFI	SAIDI	SAIFI I	MAIFI	SAIDI	SAIFI	MAIFI	SAIDI	SAIFI	MAIFI	SAIDI	SAIFI	MAIFI
BEATTIE(12KV) - Customers: 1,322	0.0	0.0	1.0	316.8	3.0	1.0	88.3	2.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	75.2	1.0	0.0	0.0	0.0	0.0	75.2	1.0	0.0
3rd Party	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Equipment Failure	0%	0%	0%	57%	67%	100%	39%	50%	100%	0%	0%	0%	0%	0%	0%	14%	1%	0%	0%	0%	0%	14%	1%	0%
Operation	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Other	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Vegetation/Animal	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	86%	99%	0%	0%	0%	0%	86%	99%	0%
Weather/Fire/Earthquake	0%	0%	0%	43%	33%	0%	61%	50%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
BURTON(12KV) - Customers: 2,011	181.3	2.8	4.3	62.6	0.8	3.3	42.8	0.9	2.7	1.9	0.0	0.0	0.0	0.0	0.0	22.9	1.0	0.0	96.8	3.5	1.2	121.6	4.5	1.2
3rd Party	61%	37%	0%	79%	84%	9%	0%	0%	0%	0%	0%	0%	0%	0%	0%	9%	3%	0%	42%	22%	20%	35%	18%	20%
Equipment Failure	0%	0%	23%	12%	14%	0%	100%	100%	19%	0%	0%	0%	0%	0%	0%	1%	0%	0%	0%	0%	0%	0%	0%	0%
Operation	17%	38%	23%	0%	0%	0%	0%	0%	0%	100%	100%	0%	0%	0%	0%	90%	97%	0%	0%	0%	0%	19%	23%	0%
Other	0%	0%	24%	0%	0%	30%	0%	0%	81%	0%	0%	0%	0%	0%	0%	0%	0%	0%	14%	28%	1%	11%	22%	1%
Vegetation/Animal	21%	26%	30%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	44%	50%	79%	35%	38%	79%
Weather/Fire/Earthquake	0%	0%	0%	10%	2%	61%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
CAMPBELL(12KV) - Customers: 1,993	71.4	1.0	2.0	350.1	2.4	2.0	15.0	0.0	0.0	1.6	0.0	0.0	0.0	0.0	0.0	20.0	1.0	0.0	11.8	1.0	0.0	33.4	2.0	0.0
3rd Party	0%	0%	50%	44%	42%	0%	0%	0%	0%	69%	67%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	3%	0%	0%
Equipment Failure	98%	100%	0%	9%	11%	100%	88%	63%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Operation	0%	0%	0%	0%	5%	0%	4%	10%	0%	31%	33%	0%	0%	0%	0%	100%	100%	0%	0%	0%	0%	61%	50%	0%
Other	0%	0%	0%	0%	0%	0%	8%	27%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%	100%	0%	35%	50%	0%
Vegetation/Animal	0%	0%	50%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Weather/Fire/Earthquake	2%	0%	0%	47%	42%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
CLAMPETT(12KV) - Customers: 1,577	4.8	0.6	1.4	29.1	0.1	0.0	15.5	0.0	0.0	0.9	0.0	1.0	0.0	0.0	0.0	20.0	1.0	0.0	12.9	1.0	0.0	33.8	2.0	1.0
3rd Party	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%
Equipment Failure	0%	0%	0%	82%	72%	100%	100%	100%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Operation	100%	100%	28%	18%	28%	0%	0%	0%	0%	100%	100%	0%	0%	0%	0%	100%	100%	0%	0%	0%	0%	62%	50%	0%
Other	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%	100%	0%	38%	50%	0%
Vegetation/Animal	0%	0%	72%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Weather/Fire/Earthquake	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

		2013 SAIDI SAIFI MAIFI			2014			2015		1st	Qtr 20	16	2nd	Qtr 2	016	3rd	l Qtr 20	16	4th	<b>Qtr 20</b>	16		2016	
	SAIDI	SAIFI	MAIFI	SAIDI	SAIFI	MAIFI	SAIDI	SAIFI	MAIFI	SAIDI	SAIFI	MAIFI	SAIDI	SAIFI	MAIFI	SAIDI	SAIFI	MAIFI	SAIDI	SAIFI	MAIFI	SAIDI	SAIFI	MAIFI
CLINE(4.16KV) - Customers: 339	0.0	0.0	1.0	0.0	0.0	4.0	73.2	0.8	1.6	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0
3rd Party	0%	0%	0%	0%	0%	0%	100%	100%	50%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Equipment Failure	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Operation	0%	0%	0%	0%	0%	25%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Other	0%	0%	0%	0%	0%	0%	0%	0%	50%	0%	0%	0%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	0%	100%
Vegetation/Animal	0%	0%	100%	0%	0%	50%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Weather/Fire/Earthquake	0%	0%	0%	0%	0%	25%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
CLOER(12KV) - Customers: 258	31.8	1.1	1.0	18.9	1.0	0.2	62.9	1.0	3.0	28.1	0.1	1.1	3.0	0.1	0.9	0.0	0.0	0.0	0.0	0.0	0.0	31.1	0.1	2.0
3rd Party	12%	5%	0%	0%	0%	0%	4%	0%	33%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Equipment Failure	56%	3%	0%	59%	1%	100%	0%	0%	0%	3%	6%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	3%	3%	0%
Operation	0%	0%	100%	0%	0%	0%	0%	0%	0%	97%	94%	0%	100%	100%	100%	0%	0%	0%	0%	0%	0%	97%	97%	45%
Other	0%	0%	0%	41%	99%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Vegetation/Animal	32%	93%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Weather/Fire/Earthquake	0%	0%	0%	0%	0%	0%	96%	100%	67%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	55%
DEER(12KV) - Customers: 661	130.8	0.8	0.0	420.8	3.2	2.4	274.8	3.6	6.6	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0
3rd Party	84%	33%	0%	24%	31%	79%	10%	28%	9%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Equipment Failure	12%	34%	0%	43%	60%	0%	21%	28%	9%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Operation	4%	33%	0%	0%	0%	11%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%	100%	0%	0%	0%	0%	100%	100%	0%
Other	0%	0%	0%	33%	8%	11%	9%	28%	30%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Vegetation/Animal	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Weather/Fire/Earthquake	0%	0%	0%	0%	0%	0%	60%	15%	53%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
DRAG(12KV) - Customers: 866	0.3	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd Party	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Equipment Failure	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Operation	100%	100%	1%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Other	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Vegetation/Animal	0%	0%	99%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Weather/Fire/Earthquake	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

		2013 SAIDI SAIFI MAIFI S			2014			2015		151	Qtr 201	16	2nc	l Qtr 20	16	3ra	Qtr 20	16	4th	Qtr 20	16		2016	
	SAIDI	SAIFI	MAIFI	SAIDI	SAIFI	MAIFI	SAIDI	SAIFI	MAIFI	SAIDI	SAIFI I	MAIFI	SAIDI	SAIFI I	MAIFI	SAIDI	SAIFI	MAIFI	SAIDI	SAIFI	MAIFI	SAIDI	SAIFI	MAIFI
FRAME(4.16KV) - Customers: 718	10.4	0.1	1.0	107.2	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	133.5	1.0	0.0	259.3	2.4	0.4	0.0	0.0	0.0	392.7	3.5	0.4
3rd Party	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	29%	41%	0%	0%	0%	0%	19%	29%	0%
Equipment Failure	100%	100%	0%	98%	96%	0%	0%	0%	0%	0%	0%	0%	87%	96%	0%	71%	59%	100%	0%	0%	0%	77%	70%	100%
Operation	0%	0%	0%	2%	4%	0%	0%	0%	0%	0%	0%	0%	13%	4%	0%	0%	0%	0%	0%	0%	0%	4%	1%	0%
Other	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Vegetation/Animal	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Weather/Fire/Earthquake	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
GRANITE(12KV) - Customers: 2,128	41.9	1.0	1.9	404.4	2.5	2.0	4.1	0.1	0.0	7.2	0.1	0.0	0.0	0.0	0.0	20.0	1.0	0.0	11.0	1.0	0.0	38.2	2.1	0.0
3rd Party	78%	95%	0%	56%	45%	91%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Equipment Failure	9%	0%	0%	35%	47%	0%	0%	0%	0%	66%	50%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	12%	1%	0%
Operation	13%	5%	0%	0%	0%	0%	26%	45%	0%	0%	0%	0%	0%	0%	0%	100%	100%	0%	0%	0%	0%	52%	49%	0%
Other	0%	0%	50%	0%	0%	0%	74%	55%	0%	34%	50%	0%	0%	0%	0%	0%	0%	0%	100%	100%	0%	35%	50%	0%
Vegetation/Animal	0%	0%	50%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Weather/Fire/Earthquake	0%	0%	0%	9%	7%	9%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
HATFIELD(12KV) - Customers: 2,019	157.0	1.2	2.2	178.6	2.4	2.0	24.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	20.0	1.0	0.0	74.1	1.0	0.0	94.2	2.0	0.0
3rd Party	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Equipment Failure	13%	4%	0%	22%	12%	50%	100%	100%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Operation	2%	15%	0%	7%	3%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%	100%	0%	0%	0%	0%	21%	50%	0%
Other	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%	100%	0%	79%	50%	0%
Vegetation/Animal	85%	81%	100%	7%	42%	50%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Weather/Fire/Earthquake	0%	0%	0%	64%	42%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
HENDERSON(12KV) - Customers: 704	41.6	0.2	0.0	163.3	1.5	3.3	426.4	2.1	0.2	0.6	0.0	0.0	4.8	0.0	0.0	21.6	1.0	1.0	28.8	1.2	0.2	55.8	2.2	1.2
3rd Party	0%	0%	0%	23%	40%	60%	2%	2%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	55%	14%	100%	29%	8%	19%
Equipment Failure	100%	100%	0%	0%	0%	7%	5%	50%	0%	100%	100%	0%	0%	0%	0%	7%	0%	100%	0%	0%	0%	4%	0%	81%
Operation	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%	100%	0%	93%	100%	0%	0%	0%	0%	44%	46%	0%
Other	0%	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	0%	0%	45%	86%	0%	23%	46%	0%
Vegetation/Animal	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Weather/Fire/Earthquake	0%	0%	0%	77%	59%	32%	93%	48%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

		2013 SAIDI SAIFI MAIFI S			2014			2015		1st	Qtr 20	16	2nd	d Qtr 20	016	3rc	l Qtr 20	16	4th	Qtr 20.	16		2016	
	SAIDI	SAIFI	MAIFI	SAIDI	SAIFI	MAIFI	SAIDI	SAIFI	MAIFI	SAIDI	SAIFI	MAIFI	SAIDI	SAIFI	MAIFI	SAIDI	SAIFI	MAIFI	SAIDI	SAIFI I	MAIFI	SAIDI	SAIFI	MAIFI
JOSTEN(12KV) - Customers: 891	67.7	1.3	1.0	0.0	0.0	0.0	14.3	1.0	0.0	0.0	0.0	0.0	46.6	0.3	1.0	0.0	0.0	0.0	0.0	0.0	0.0	46.6	0.3	1.0
3rd Party	100%	100%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Equipment Failure	0%	0%	0%	0%	0%	0%	27%	1%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Operation	0%	0%	0%	0%	0%	0%	73%	99%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Other	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%	100%	100%	0%	0%	0%	0%	0%	0%	100%	100%	100%
Vegetation/Animal	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Weather/Fire/Earthquake	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
MONACHE(12KV) - Customers: 1,129	58.0	0.7	1.3	1.0	0.1	0.1	25.6	0.0	1.0	31.0	0.7	1.0	1.4	0.0	0.0	20.1	1.0	0.0	13.2	1.0	0.0	65.7	2.7	1.0
3rd Party	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Equipment Failure	100%	100%	23%	0%	0%	0%	6%	11%	100%	100%	100%	100%	100%	100%	0%	0%	0%	0%	0%	0%	0%	49%	26%	100%
Operation	0%	0%	0%	100%	100%	100%	67%	62%	0%	0%	0%	0%	0%	0%	0%	100%	100%	0%	0%	0%	0%	31%	37%	0%
Other	0%	0%	0%	0%	0%	0%	27%	27%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%	100%	0%	20%	37%	0%
Vegetation/Animal	0%	0%	77%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Weather/Fire/Earthquake	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
MORTON(4.16KV) - Customers: 512	2.8	0.0	1.0	0.5	0.0	1.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd Party	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Equipment Failure	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Operation	100%	100%	0%	100%	100%	100%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Other	0%	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Vegetation/Animal	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Weather/Fire/Earthquake	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
OLIVE(4.16KV) - Customers: 208	22.4	1.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	21.0	1.0	1.0	90.2	1.0	0.0	0.0	0.0	0.0	111.2	2.0	1.0
3rd Party	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Equipment Failure	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%	100%	100%	100%	100%	0%	0%	0%	0%	100%	100%	100%
Operation	100%	100%	50%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Other	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Vegetation/Animal	0%	0%	50%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Weather/Fire/Earthquake	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

		2013 SAIDI SAIFI MAIFI S			2014			2015		1st	Qtr 20.	16	2nd	Qtr 20	016	3rd	Qtr 20	016	4th	Qtr 20	016		2016	
	SAIDI	SAIFI	MAIFI	SAIDI	SAIFI	MAIFI	SAIDI	SAIFI	MAIFI	SAIDI	SAIFI	MAIFI	SAIDI	SAIFI	MAIFI	SAIDI	SAIFI	MAIFI	SAIDI	SAIFI	MAIFI	SAIDI	SAIFI	MAIFI
PLANO(12KV) - Customers: 982	19.8	1.0	1.4	429.8	0.8	0.9	39.2	0.1	0.0	2.1	0.0	0.0	11.8	0.6	0.4	0.0	0.0	0.0	0.0	0.0	0.0	13.9	0.6	0.4
3rd Party	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Equipment Failure	0%	0%	0%	14%	12%	0%	91%	59%	0%	100%	100%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	15%	3%	0%
Operation	0%	0%	0%	54%	73%	0%	9%	41%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Other	100%	100%	29%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Vegetation/Animal	0%	0%	71%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Weather/Fire/Earthquake	0%	0%	0%	32%	15%	100%	0%	0%	0%	0%	0%	0%	100%	100%	100%	0%	0%	0%	0%	0%	0%	85%	97%	100%
SUCCESS(12KV) - Customers: 2,328	123.5	0.8	2.4	215.3	2.2	1.5	139.6	1.4	1.8	65.4	0.8	1.3	18.7	0.3	0.0	0.2	0.0	0.0	4.3	0.1	0.0	88.7	1.2	1.3
3rd Party	0%	0%	0%	7%	9%	66%	30%	22%	55%	99%	97%	44%	0%	0%	0%	0%	0%	0%	61%	4%	0%	76%	68%	44%
Equipment Failure	53%	29%	34%	38%	69%	0%	36%	33%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	2%	0%	0%	0%	0%	0%
Operation	10%	20%	0%	0%	0%	0%	14%	11%	0%	1%	3%	0%	0%	1%	0%	0%	0%	0%	37%	95%	0%	3%	11%	0%
Other	35%	50%	25%	26%	13%	34%	0%	0%	21%	0%	0%	56%	0%	0%	0%	100%	100%	0%	0%	0%	0%	0%	0%	56%
Vegetation/Animal	0%	0%	41%	1%	0%	0%	11%	19%	0%	0%	0%	0%	100%	99%	0%	0%	0%	0%	0%	0%	0%	21%	21%	0%
Weather/Fire/Earthquake	1%	0%	0%	29%	9%	0%	10%	15%	24%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
TEAPOT(12KV) - Customers: 2,041	11.8	0.0	1.0	46.2	0.1	3.0	1.7	0.2	1.0	0.2	0.0	0.0	0.0	0.0	0.0	74.8	1.3	1.9	39.5	1.1	0.9	114.4	2.4	2.8
3rd Party	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	56%	17%	100%	72%	12%	100%	62%	14%	100%
Equipment Failure	100%	100%	0%	32%	57%	0%	74%	95%	100%	90%	50%	0%	0%	0%	0%	12%	5%	0%	0%	0%	0%	8%	3%	0%
Operation	0%	0%	0%	8%	25%	0%	0%	0%	0%	10%	50%	0%	0%	0%	0%	32%	79%	0%	0%	0%	0%	21%	42%	0%
Other	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	28%	88%	0%	10%	41%	0%
Vegetation/Animal	0%	0%	100%	0%	0%	0%	26%	5%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Weather/Fire/Earthquake	0%	0%	0%	60%	18%	100%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
ULMER(4.16KV) - Customers: 67	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	1.0
3rd Party	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Equipment Failure	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Operation	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Other	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Vegetation/Animal	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	0%	0%	0%	100%
Weather/Fire/Earthquake	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

	2013				2014			2015		151	Qtr 20	016	2nd	d Qtr 20	016	3rc	l Qtr 20	16	4th	Qtr 20	16		2016	
	SAIDI	SAIFI	MAIFI	SAIDI	SAIFI	MAIFI	SAIDI	SAIFI	MAIFI	SAIDI	SAIFI	MAIFI	SAIDI	SAIFI	MAIFI	SAIDI	SAIFI	MAIFI	SAIDI	SAIFI	MAIFI	SAIDI	SAIFI	MAIFI
VANDALIA(12KV) - Customers: 1,127	9.9	1.3	2.1	804.8	3.0	2.6	365.6	3.2	1.6	26.6	1.0	0.4	32.0	1.0	0.0	13.7	1.0	2.0	0.0	0.0	0.0	72.4	3.0	2.4
3rd Party	74%	79%	48%	0%	0%	0%	8%	6%	60%	0%	0%	0%	100%	100%	0%	0%	0%	0%	0%	0%	0%	44%	33%	0%
Equipment Failure	5%	0%	0%	39%	33%	0%	38%	51%	0%	99%	100%	0%	0%	0%	0%	8%	0%	50%	0%	0%	0%	38%	33%	42%
Operation	21%	21%	0%	0%	0%	0%	1%	1%	0%	1%	0%	100%	0%	0%	0%	92%	100%	50%	0%	0%	0%	18%	34%	58%
Other	0%	0%	4%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Vegetation/Animal	0%	0%	48%	0%	0%	76%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Weather/Fire/Earthquake	0%	0%	0%	60%	67%	24%	53%	42%	40%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
WORTH(12KV) - Customers: 940	28.4	0.8	1.2	54.2	1.0	3.0	0.4	0.0	2.0	95.8	0.7	1.3	17.4	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	113.2	1.7	1.3
3rd Party	100%	100%	20%	0%	0%	0%	0%	0%	0%	100%	100%	100%	0%	0%	0%	0%	0%	0%	0%	0%	0%	85%	41%	100%
Equipment Failure	0%	0%	0%	100%	100%	0%	100%	100%	0%	0%	0%	0%	98%	99%	0%	0%	0%	0%	0%	0%	0%	15%	59%	0%
Operation	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	2%	1%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Other	0%	0%	0%	0%	0%	67%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Vegetation/Animal	0%	0%	80%	0%	0%	33%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Weather/Fire/Earthquake	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
ZANTE(12KV) - Customers: 923	187.0	2.1	2.0	47.0	1.0	1.0	121.9	1.4	1.9	9.4	0.0	0.2	0.2	0.0	0.0	1.7	0.0	0.0	0.0	0.0	0.0	11.3	0.0	0.2
3rd Party	11%	16%	50%	99%	100%	100%	7%	23%	37%	96%	95%	0%	0%	0%	0%	87%	90%	0%	0%	0%	0%	93%	90%	0%
Equipment Failure	5%	1%	50%	1%	0%	0%	19%	4%	0%	4%	5%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	3%	3%	0%
Operation	1%	3%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%	100%	0%	13%	10%	0%	0%	0%	0%	4%	7%	0%
Other	0%	0%	0%	0%	0%	0%	0%	0%	63%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%
Vegetation/Animal	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Weather/Fire/Earthquake	83%	81%	0%	0%	0%	0%	74%	73%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%