

# Circuit Reliability Review **Blythe**

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 Blythe District

**Big River** 

Bluewater

**Blythe** 

East Blythe

Palo Verde

Ripley

# Reliability by SCE District (No Exclusions)

		20	12			20:	13			20	14			20	15			20	16	
	District	SAIDI	District	SAIFI																
District Name	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.

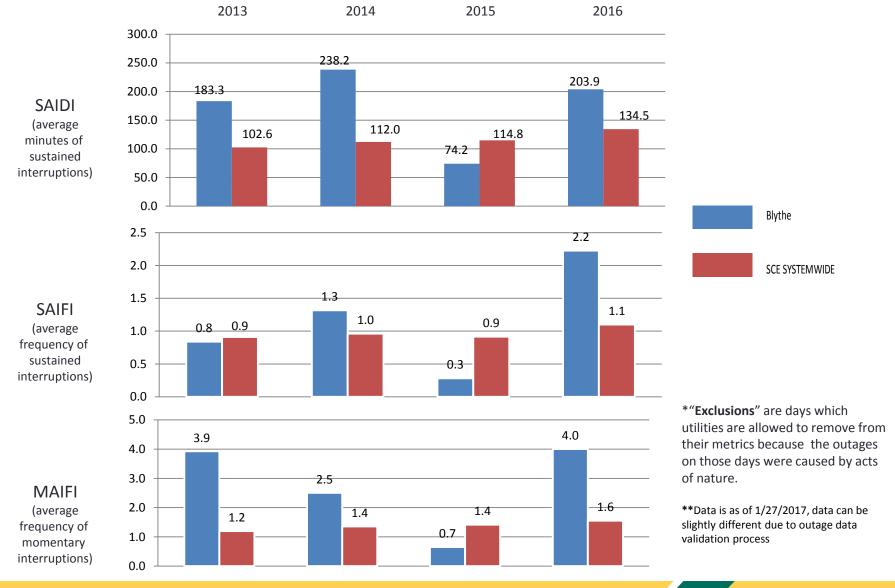
<sup>\*\*</sup>In the columns showing "Rank," lower numbers indicate poorer performance.

# Overview of Blythe There are 15 circuits that serve Blythe

Circuit Type	Sum of Customers	Circuit Type	Sum of Customers	Circuit Type	Sum of Customers	Circuit Type	Sum of Customers
BIGLER(4.8KV)	174						
BOGEY(12KV)	260						
BRUCE PARK(4.8KV)	358						
CHANSLOR(33KV)	3						
DATE(12KV)	529						
DEL JUAN(12KV)	330						
ELHERS(4.8KV)	311						
LEAK(12KV)	399						
LETTUCE(12KV)	384						
MC COY(33KV)	2						
MELON(12KV)	1,418						
ONION(12KV)	1,431						
RIVER BEND(12KV)	562						
WEDGE(12KV)	451						
WINTERS(12KV)	19						

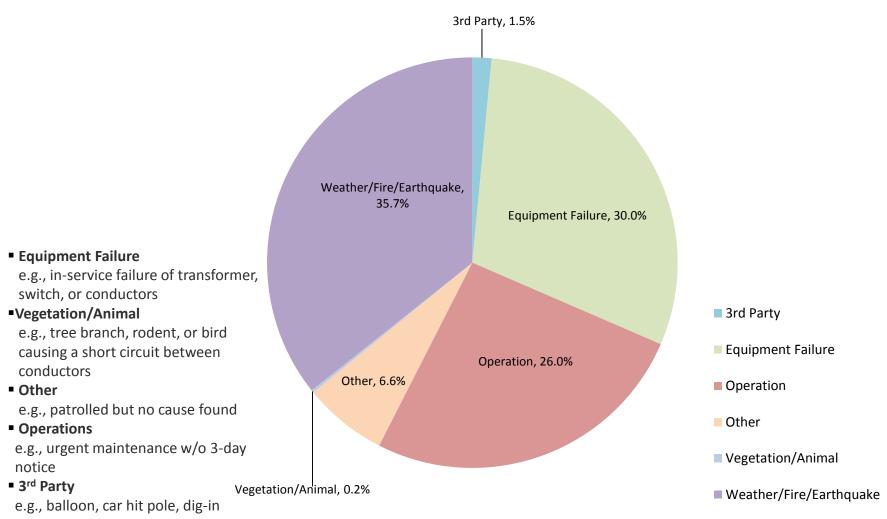
**Grand Total** 6,631

#### **Reliability History of Circuits Serving Blythe (No Exclusions)**



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

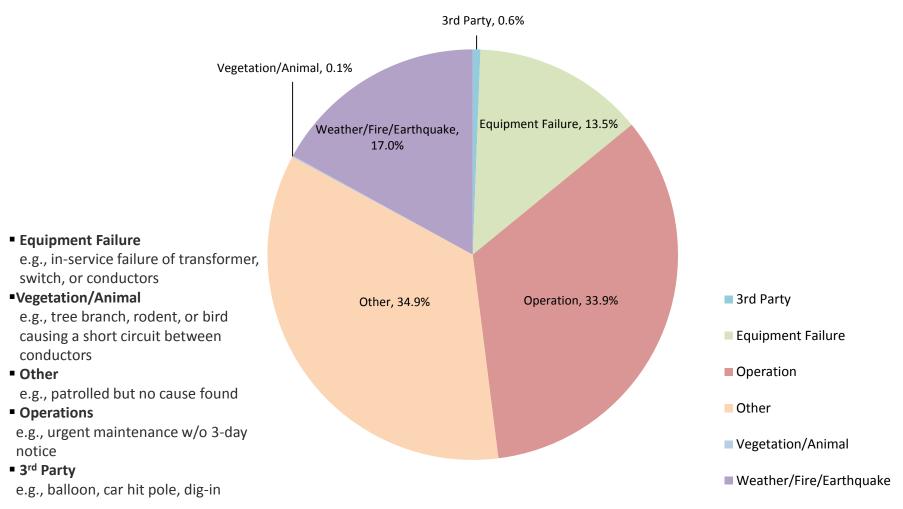
#### **Contributions to SAIDI by Outage Cause**



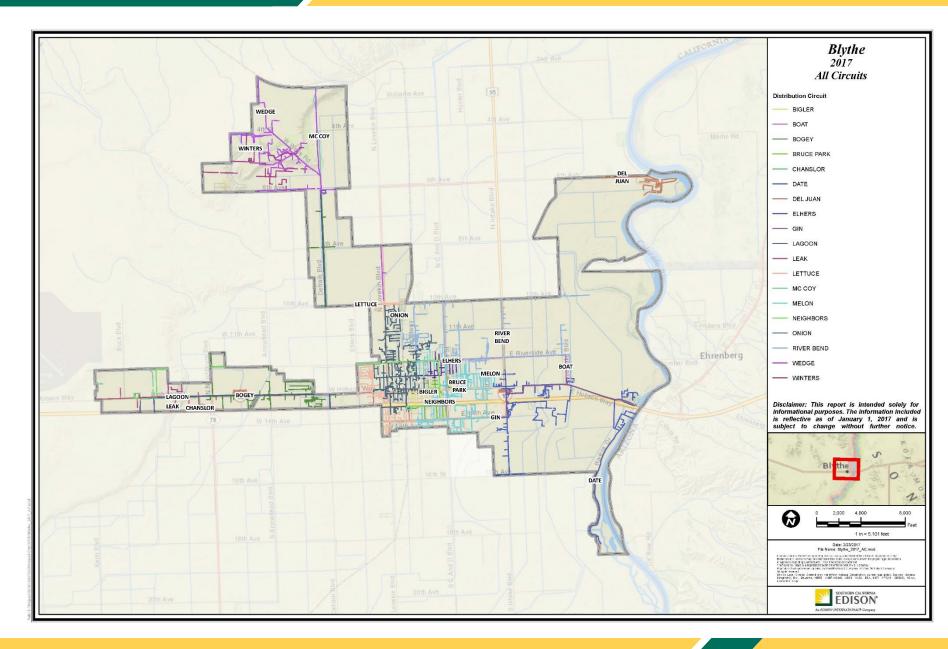
**SAIDI** = the cumulative amount of time the average customer is interrupted by "sustained" outages each year.

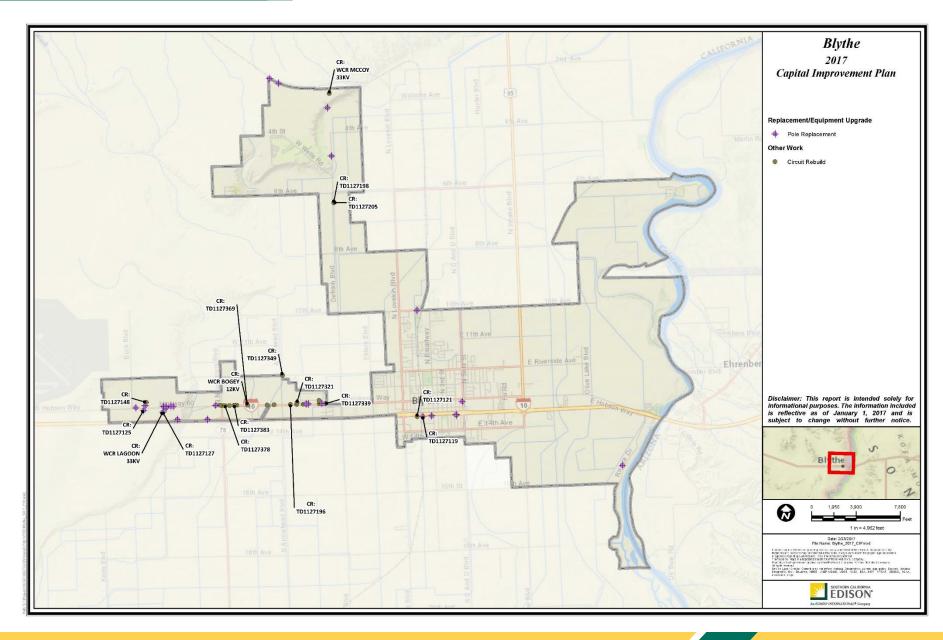
# Causes of Repair Outages in Blythe Circuits 2016 YTD

#### **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 Blythe** 

**Updated through Year-End 2016** 

# **Average Reliability of 15 Circuits Serving Blythe**

		2013			2014			2015		1st	Qtr 20	16	2nd	d Qtr 2	016	3rd	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
Blythe	183.3	0.8	3.9	238.2	1.3	2.5	74.2	0.3	0.7	34.9	0.4	0.3	34.3	0.2	0.2	30.5	0.3	1.7	104.2	1.4	1.9	203.9	2.2	4.0
3rd Party	9%	28%	0%	0%	4%	28%	0%	0%	0%	0%	0%	0%	1%	1%	0%	1%	0%	0%	2%	1%	0%	2%	1%	0%
Equipment Failure	14%	12%	37%	50%	31%	13%	60%	62%	1%	5%	1%	0%	88%	56%	0%	15%	36%	12%	24%	6%	0%	30%	14%	5%
Operation	13%	9%	5%	6%	6%	0%	26%	24%	0%	95%	99%	0%	11%	43%	0%	5%	4%	0%	14%	22%	0%	26%	34%	0%
Other	2%	7%	43%	6%	8%	32%	5%	8%	45%	0%	0%	100%	0%	0%	100%	0%	0%	39%	13%	57%	80%	7%	35%	65%
Vegetation/Animal	44%	25%	4%	0%	0%	11%	2%	1%	42%	0%	0%	0%	1%	1%	0%	0%	0%	0%	0%	0%	4%	0%	0%	2%
Weather/Fire/Earthquake	18%	20%	11%	39%	51%	16%	7%	5%	12%	0%	0%	0%	0%	0%	0%	78%	60%	49%	47%	15%	15%	36%	17%	27%
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

3rd 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			2014			2015		1st	Qtr 20	16	2nd	Qtr 20.	16	3rd	<b>Qtr 20</b> .	16	4th	Qtr 20	016		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
BIGLER(4.8KV) - Customers: 174	0.0	0.0	0.0	26.3	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	1.0	8.3	1.0	1.0	8.3	1.0	2.0
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%	100%	100%	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%	100%	100%	100%	100%	100%	52%
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%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	0%	0%	0%	48%
BOGEY(12KV) - Customers: 260	398.7	1.2	13.0	879.8	5.2	0.0	30.6	0.2	1.0	81.5	1.0	1.0	0.0	0.0	0.0	291.2	2.0	3.0	171.2	2.0	1.9	543.9	5.0	6.0
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	3%	1%	38%	29%	23%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	14%	51%	67%	0%	0%	0%	8%	20%	34%
Operation	7%	14%	0%	0%	0%	0%	69%	78%	0%	100%	100%	0%	0%	0%	0%	0%	0%	0%	39%	49%	0%	27%	40%	0%
Other	0%	0%	31%	10%	19%	0%	31%	22%	100%	0%	0%	100%	0%	0%	0%	0%	0%	0%	6%	2%	50%	2%	1%	33%
Vegetation/Animal	0%	0%	8%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Weather/Fire/Earthquake	90%	86%	23%	62%	58%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	86%	49%	33%	55%	49%	50%	63%	39%	33%
BRUCE PARK(4.8KV) - Customers: 358	19.1	0.0	0.0	101.2	1.1	1.0	23.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	9.1	1.0	1.0	9.1	1.0	2.0
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%	98%	98%	100%	62%	29%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	13%	1%	0%	13%	1%	0%
Operation	0%	0%	0%	2%	2%	0%	38%	71%	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%	87%	99%	100%	87%	99%	50%
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	100%	100%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	0%	0%	0%	50%
CHANSLOR(33KV) - Customers: 3	1426.3	1.0	4.0	444.0	2.0	4.0	0.0	0.0	2.0	0.0	0.0	3.0	0.0	0.0	0.0	1106.7	1.7	4.0	8.0	1.0	1.0	1114.7	2.7	8.0
3rd Party	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	90%	60%	0%	0%	0%	0%	90%	38%	0%
Equipment Failure	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	50%	0%	0%	0%	0%	0%	25%
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	100%	100%	50%	56%	50%	100%	0%	0%	100%	0%	0%	100%	0%	0%	0%	0%	0%	50%	100%	100%	100%	1%	38%	75%
Vegetation/Animal	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	10%	40%	0%	0%	0%	0%	10%	25%	0%
Weather/Fire/Earthquake	0%	0%	50%	44%	50%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

		2013			2014			2015		1st	Qtr 20	16	2nc	l Qtr 20	16	3rd	<b>Qtr 20</b> .	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
DATE(12KV) - Customers: 529	287.6	1.3	12.1	310.2	1.4	4.1	126.8	0.3	1.1	1.5	0.0	1.0	31.2	1.0	0.0	31.3	0.1		126.3	2.1	2.2	190.3		6.0
3rd Party	3%	9%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	21%	2%	4%	14%		2%
Equipment Failure	0%	1%	41%	88%	75%	49%	0%	0%	0%	40%	17%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Operation	5%	13%	0%	11%	25%	0%	53%	52%	0%	60%	83%	0%	100%	100%	0%	0%	0%	0%	5%	48%	0%	20%	63%	0%
Other	0%	0%	59%	0%	0%	27%	0%	0%	9%	0%	0%	100%	0%	0%	0%	0%	0%	68%	74%	50%	96%	49%	32%	83%
Vegetation/Animal	91%	78%	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%	24%	47%	48%	91%	0%	0%	0%	0%	0%	0%	100%	100%	32%	0%	0%	0%	16%	3%	15%
DEL JUAN(12KV) - Customers: 330	789.2	2.0	1.0	696.3	1.2	5.0	8.2	0.0	1.0	0.0	0.0	0.0	396.3	1.0	0.0	0.0	0.0	1.0	510.2	1.0	3.0	906.4	2.0	4.0
3rd Party	0%	1%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Equipment Failure	1%	1%	0%	95%	84%	0%	23%	14%	0%	0%	0%	0%	99%	97%	0%	0%	0%	0%	0%	0%	0%	43%	49%	0%
Operation	0%	0%	0%	4%	14%	0%	14%	29%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	2%	0%	0%	1%	0%
Other	4%	49%	0%	0%	0%	40%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	100%	0%	0%	100%
Vegetation/Animal	95%	49%	100%	1%	3%	0%	63%	57%	0%	0%	0%	0%	1%	3%	0%	0%	0%	0%	0%	0%	0%	0%	1%	0%
Weather/Fire/Earthquake	0%	0%	0%	0%	0%	60%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%	98%	0%	56%	49%	0%
ELHERS(4.8KV) - Customers: 311	0.0	0.0	0.0	11.3	0.0	0.0	82.9	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	8.0	1.0	1.0	8.0	1.0	2.0
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%	100%	100%	0%	100%	100%	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%	100%	100%	100%	100%	100%	50%
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%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	0%	0%	0%	50%
LEAK(12KV) - Customers: 399	77.3	0.2	2.2	350.4	2.0	1.0	635.7	2.0	0.8	0.0	0.0	0.0	0.0	0.0	1.6	1.8	0.0	0.2	6.6	0.0	0.3	8.4	0.0	2.1
3rd Party	88%	89%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Equipment Failure	1%	1%	0%	56%	50%	0%	97%	98%	0%	0%	0%	0%	0%	0%	0%	100%	100%	0%	0%	0%	0%	22%	8%	0%
Operation	2%	4%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%	100%	0%	78%	92%	0%
Other	0%	0%	47%	44%	50%	100%	3%	2%	100%	0%	0%	0%	0%	0%	100%	0%	0%	100%	0%	0%	100%	0%	0%	100%
Vegetation/Animal	0%	0%	8%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Weather/Fire/Earthquake	10%	5%	45%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

		2013			2014			2015		1st	Qtr 20	16	2nd	Qtr 20.	16	3rd	<b>Qtr 20</b> .	16	4th	Qtr 20	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
LETTUCE(12KV) - Customers: 384	453.7	0.9	0.9	48.7	0.2	6.9	20.7	0.1	1.0	26.5	0.0	0.0	25.5	1.0	0.0	0.2	0.0	2.0	405.1	3.1	4.0	457.4	4.1	6.0
3rd Party	0%	0%	0%	17%	46%	28%	0%	0%	0%	1%	7%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Equipment Failure	74%	69%	100%	69%	43%	29%	0%	0%	0%	99%	93%	0%	97%	100%	0%	100%	100%	0%	30%	32%	0%	38%	49%	0%
Operation	26%	31%	0%	14%	11%	0%	0%	0%	0%	0%	0%	0%	3%	0%	0%	0%	0%	0%	9%	3%	0%	8%	2%	0%
Other	0%	0%	0%	0%	0%	43%	14%	46%	0%	0%	0%	0%	0%	0%	0%	0%	0%	50%	2%	33%	25%	2%	24%	33%
Vegetation/Animal	0%	0%	0%	0%	0%	0%	86%	54%	100%	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%	50%	59%	32%	75%	53%	24%	67%
MC COY(33KV) - Customers: 2	0.0	0.0	0.0	0.0	0.0	2.0	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	0.0	0.0	0.0	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%	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%	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%	100%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
MELON(12KV) - Customers: 1,418	72.3	1.1	0.0	202.0	1.1	2.0	0.6	0.0	0.0	0.0	0.0	0.0	48.6	0.1	0.0	6.7	0.0	2.0	9.3	1.0	1.0	64.6	1.1	3.0
3rd Party	78%	94%	0%	0%	0%	50%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	15%	3%	0%	2%	3%	0%
Equipment Failure	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	89%	52%	0%	0%	0%	0%	0%	0%	0%	67%	4%	0%
Operation	12%	4%	0%	7%	7%	0%	100%	100%	0%	0%	0%	0%	11%	48%	0%	100%	100%	0%	0%	0%	0%	19%	7%	0%
Other	10%	2%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	50%	85%	97%	100%	12%	86%	67%
Vegetation/Animal	0%	0%	0%	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%	93%	93%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	50%	0%	0%	0%	0%	0%	33%
ONION(12KV) - Customers: 1,431	71.1	0.1	2.0	34.8	1.0	1.0	55.1	0.2	1.0	109.5	1.1	0.0	0.0	0.0	0.0	0.0	0.0	1.0	102.6	1.2	1.9	212.1	2.3	2.9
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	25%	16%	50%	1%	0%	0%	1%	3%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	79%	8%	0%	38%	4%	0%
Operation	75%	84%	50%	10%	1%	0%	85%	66%	0%	100%	100%	0%	0%	0%	0%	0%	0%	0%	14%	8%	0%	58%	53%	0%
Other	0%	0%	0%	0%	0%	100%	14%	31%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	8%	84%	100%	4%	43%	66%
Vegetation/Animal	0%	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Weather/Fire/Earthquake	0%	0%	0%	89%	99%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	0%	0%	0%	34%

	2013				2014			2015		1st	Qtr 20	16	2nd	d Qtr 20	016	3rd	Qtr 20.	16	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	MAIF
RIVER BEND(12KV) - Customers: 562	302.3	1.6	10.2	104.2	1.3	8.4	41.5	0.2	1.0	3.8	0.0	1.0	1.0	0.0	1.0	6.1	0.0	3.0	23.1	2.0	4.0	34.0	2.0	9.0
3rd Party	0%	0%	0%	4%	47%	52%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Equipment Failure	8%	38%	31%	34%	34%	0%	9%	2%	0%	0%	0%	0%	100%	100%	0%	47%	20%	0%	0%	0%	0%	11%	0%	0%
Operation	0%	0%	0%	59%	18%	0%	71%	92%	0%	100%	100%	0%	0%	0%	0%	34%	60%	0%	66%	50%	0%	62%	51%	0%
Other	0%	0%	69%	4%	2%	24%	0%	0%	100%	0%	0%	100%	0%	0%	100%	0%	0%	67%	34%	50%	75%	23%	49%	78%
Vegetation/Animal	92%	62%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	19%	20%	0%	0%	0%	25%	3%	0%	11%
Weather/Fire/Earthquake	0%	0%	0%	0%	0%	24%	20%	6%	0%	0%	0%	0%	0%	0%	0%	0%	0%	33%	0%	0%	0%	0%	0%	11%
WEDGE(12KV) - Customers: 451	264.7	2.0	15.0	843.7	2.9	1.0	26.5	0.0	1.0	88.9	1.1	1.1	0.0	0.0	0.0	213.3	2.8	1.9	168.1	2.0	1.9	470.3	5.9	4.9
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%	33%	57%	34%	0%	98%	80%	0%	3%	1%	0%	0%	0%	0%	19%	34%	100%	0%	0%	0%	9%	16%	38%
Operation	0%	0%	0%	0%	0%	0%	2%	20%	0%	97%	99%	0%	0%	0%	0%	0%	0%	0%	43%	51%	0%	33%	36%	0%
Other	0%	0%	33%	0%	0%	0%	0%	0%	100%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	0%	49%	0%	0%	41%
Vegetation/Animal	0%	0%	7%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Weather/Fire/Earthquake	100%	100%	27%	43%	66%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	81%	66%	0%	57%	49%	51%	57%	48%	20%
WINTERS(12KV) - Customers: 19	44.7	0.2	2.1	28.8	0.1	2.6	0.0	0.0	2.1	0.0	0.0	0.0	81.3	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.5	81.3	0.5	0.5
3rd Party	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%	100%	0%	0%	0%	0%	0%	0%	0%	100%	100%	0%
Equipment Failure	0%	0%	0%	100%	100%	0%	0%	0%	74%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Operation	100%	100%	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%	100%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%	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	0%	0%	0%	0%	0%	0%	0%	0%	26%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%