

Circuit Reliability Review Paramount

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 sce.com>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 Dominguez Hills District

Bell

Bell Gardens

Bellflower

Carson

Commerce

Compton

Cudahy

East Compton

East Los Angeles

Florence-Graham

Huntington Park

Los Angeles

Lynwood

Maywood

Paramount

South Gate

Vernon

Walnut Park

West Carson

West Compton

Willowbrook

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	

^{*&}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.

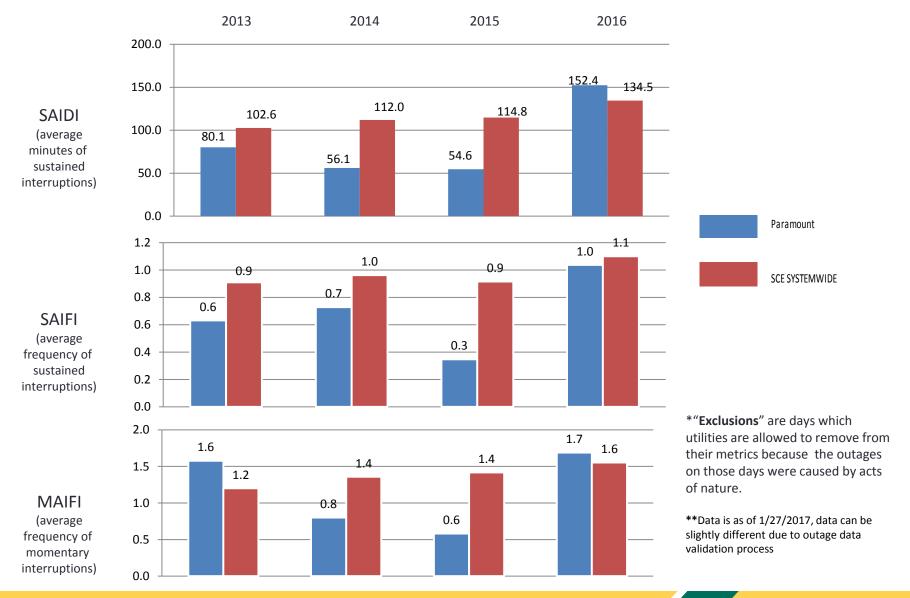
^{**}In the columns showing "Rank," lower numbers indicate poorer performance.

Overview of ParamountThere are 21 circuits that serve Paramount

Circuit Type	Sum of Customers	Circuit Type	Sum of Customers	Circuit Type	Sum of Customers	Circuit Type	Sum of Customers
ALAMEDA(12KV)	2,589						
BLAINE(12KV)	988						
CARO(12KV)	1,569						
FLEMING(12KV)	555						
GARDENDALE(4.16KV)	952						
HATTER(12KV)	1,261						
HONDO(4.16KV)	541						
IRISH(12KV)	690						
KELBER(12KV)	1,051						
LAREDO(12KV)	874						
LOBBY(12KV)	2,823						
LUXOR(12KV)	802						
MAPLEWOOD(12KV)	2,329						
MOTZ(12KV)	476						
NEGEL(4.16KV)	1,344						
QUEBEC(4.16KV)	996						
REX(4.16KV)	981						
RICHUSON(4.16KV)	193						
RONNIE(4.16KV)	241						
SAWYER(12KV)	2,647						
STITZER(12KV)	3,017						

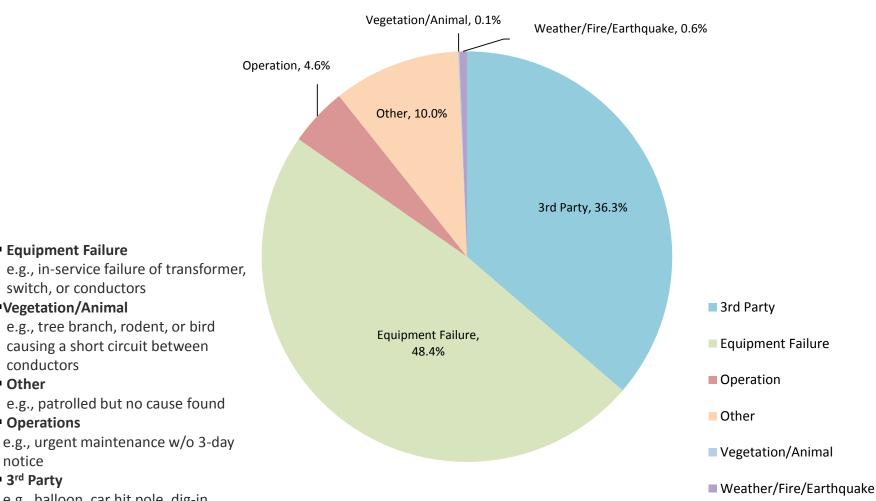
Grand Total 26,919

Reliability History of Circuits Serving Paramount (No Exclusions)



Causes of Repair Outages in Paramount Circuits 2016 YTD

Contributions to SAIDI by Outage Cause



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

Equipment Failure

conductors

Operations

Other

notice ■ 3rd Party

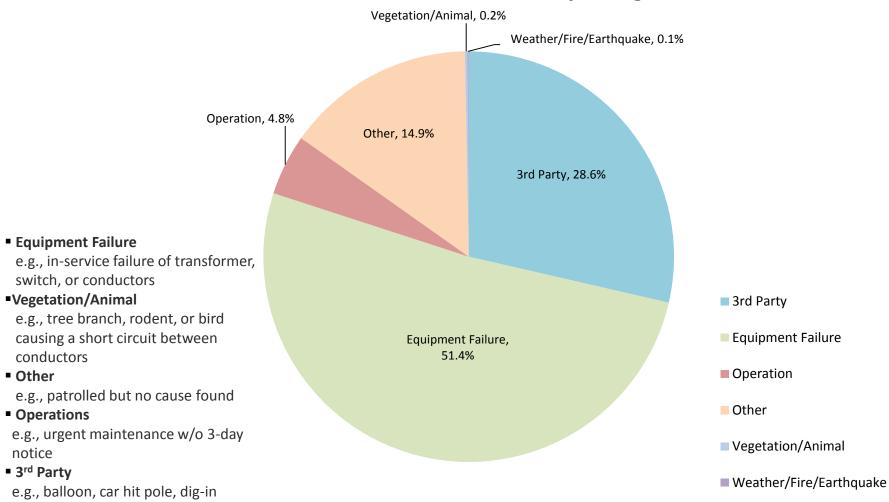
switch, or conductors ■Vegetation/Animal

causing a short circuit between

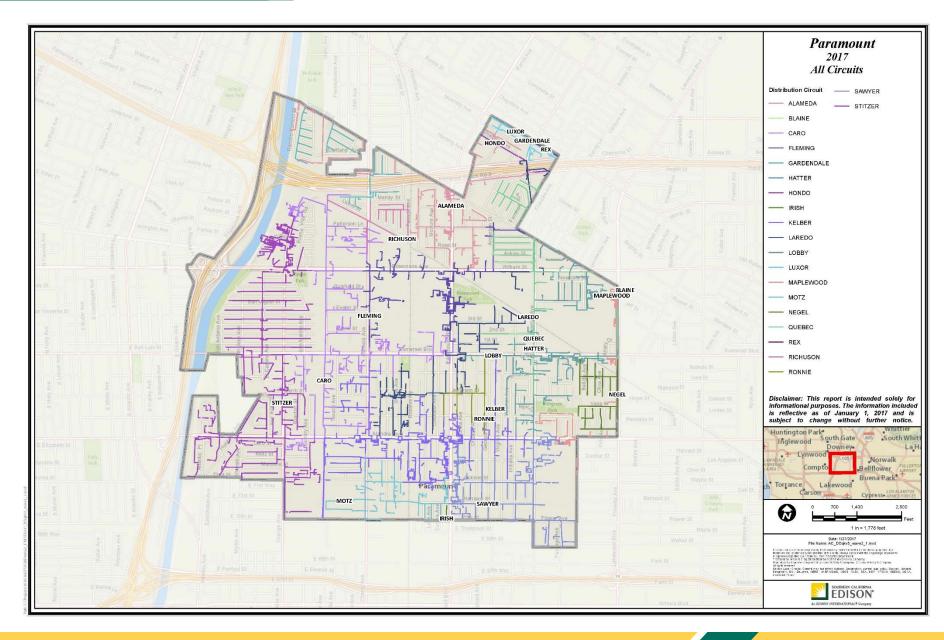
SAIDI = the cumulative amount of time the average customer is interrupted by "sustained" outages each year.

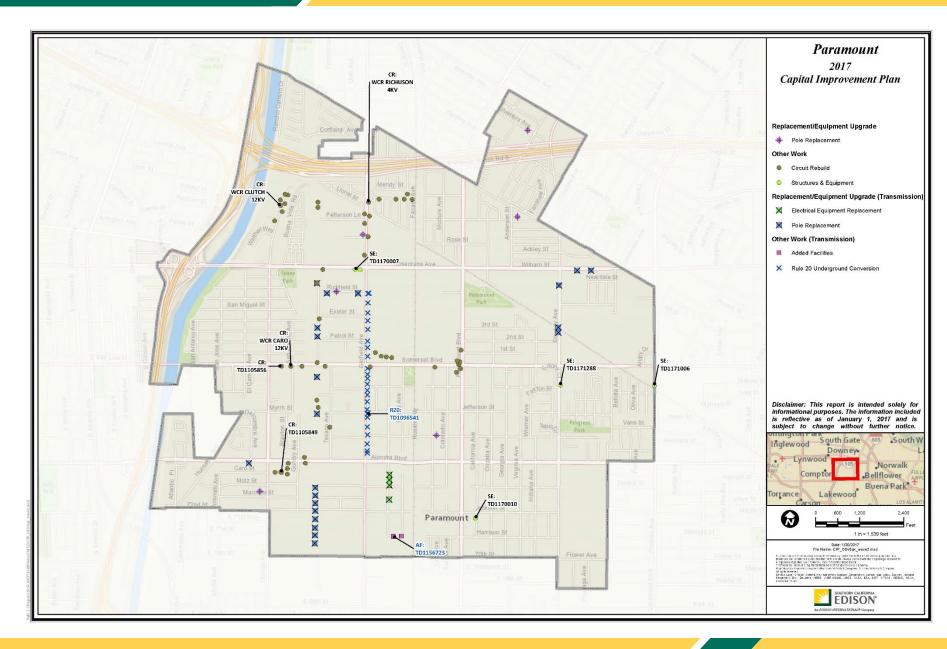
Causes of Repair Outages in Paramount Circuits 2016 YTD

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 Paramount

Updated through Year-End 2016

Average Reliability of 21 Circuits Serving Paramount

		2013			2014			2015		1st	Qtr 20	16	2no	d 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
Paramount	80.1	0.6	1.6	56.1	0.7	0.8	54.6	0.3	0.6	35.2	0.1	0.5	49.2	0.3	0.4	19.5	0.3	0.3	48.5	0.3	0.5	152.4	1.0	1.7
3rd Party	40%	50%	31%	9%	6%	13%	24%	37%	45%	13%	15%	17%	55%	51%	63%	44%	42%	67%	31%	4%	28%	36%	29%	40%
Equipment Failure	49%	44%	15%	66%	68%	63%	35%	36%	35%	57%	70%	27%	33%	41%	16%	40%	49%	0%	61%	56%	31%	48%	51%	20%
Operation	10%	4%	0%	11%	2%	0%	4%	13%	0%	2%	5%	0%	6%	6%	0%	16%	8%	12%	1%	1%	0%	5%	5%	2%
Other	2%	3%	35%	13%	23%	13%	37%	15%	19%	26%	9%	13%	5%	2%	21%	0%	0%	21%	7%	39%	41%	10%	15%	25%
Vegetation/Animal	0%	0%	19%	0%	0%	12%	0%	0%	0%	0%	0%	0%	0%	0%	0%	1%	1%	0%	0%	0%	0%	0%	0%	0%
Weather/Fire/Earthquake	0%	0%	0%	1%	1%	0%	0%	0%	0%	3%	1%	43%	0%	0%	0%	0%	0%	0%	0%	0%	0%	1%	0%	12%
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	016	2nd	d Qtr 20	016	3rd	Qtr 20	016	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
										400.0												100.0		
ALAMEDA(12KV) - Customers: 2,589	42.0	0.4	3.7	1.0	0.0	2.0	38.5	0.0	0.0	126.3	0.3	0.8	27.0	0.1	0.0	0.0	0.0	0.0	34.7	1.0	0.0	188.0	1.4	0.8
3rd Party	14%	45%	23%	0%	0%	0%	0%	0%	0%	23%	60%	100%	0%	0%	0%	0%	0%	0%	12%	1%	0%	18%	14%	100%
Equipment Failure	43%	5%	0%	0%	0%	50%	100%	98%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	1%	1%	0%	0%	0%	0%
Operation	5%	2%	0%		100%	0%	0%	2%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Other	39%	48%	50%	0%	0%	0%	0%	0%	0%	77%	40%	0%	100%	100%	0%	0%	0%	0%	86%	98%	0%	82%	86%	0%
Vegetation/Animal	0%	0%	27%	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%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
BLAINE(12KV) - Customers: 988	46.1	0.0	0.0	0.0	0.0	0.0	21.1	0.1	0.0	0.0	0.0	0.0	104.4	1.0	0.0	0.6	0.0	0.0	0.0	0.0	0.0	105.0	1.0	0.0
3rd Party	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%	100%	0%	0%	0%	0%	0%	0%	0%	99%	100%	0%
Equipment Failure	0%	0%	0%	0%	0%	0%	100%	100%	0%	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%	100%	100%	0%	0%	0%	0%	1%	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%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
CARO(12KV) - Customers: 1,569	254.7	2.1	0.0	180.6	4.5	2.2	0.0	0.0	0.0	19.0	0.0	1.0	0.6	0.0	1.0	1.3	0.0	1.0	1.8	0.0	2.0	22.6	0.1	5.0
3rd Party	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	100%	0%	0%	0%	0%	0%	40%
Equipment Failure	100%	100%	0%	58%	65%	82%	0%	0%	0%	100%	100%	0%	100%	100%	0%	0%	0%	0%	100%	100%	50%	94%	85%	20%
Operation	0%	0%	0%	1%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%	100%	0%	0%	0%	0%	6%	15%	0%
Other	0%	0%	0%	41%	35%	18%	0%	0%	0%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	0%	50%	0%	0%	40%
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%	0%	0%	0%	0%	0%	0%	0%
FLEMING(12KV) - Customers: 555	3.4	0.0	1.0	101.1	1.0	0.0	25.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	138.6	1.0	2.0	0.0	0.0	0.0	138.6	1.0	2.0
3rd Party	0%	0%	100%	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%	86%	60%	0%	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%	100%	100%	100%	0%	0%	0%	100%	100%	100%
Other	0%	0%	0%	0%	0%	0%	14%	40%	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%	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	d Qtr 20	16	3rd	Qtr 20	016	4th	Qtr 20	16		2016	
	SAIDI	SAIFI	MAIFI	SAIDI	SAIFI N	MAIFI	SAIDI	SAIFI	MAIFI	SAIDI	SAIFI	MAIFI	SAIDI	SAIFI I	MAIFI	SAIDI	SAIFI	MAIFI	SAIDI	SAIFI	MAIFI	SAIDI	SAIFI	MAIFI
GARDENDALE(4.16KV) - Customers: 952	108.1	1.0	0.0	0.0	0.0	0.0	45.1	0.1	1.0	0.0	0.0	0.0	0.0		0.0	26.8	0.0	1.0	0.0	0.0	0.0	26.8	0.0	1.0
3rd Party	100%	100%	0%	0%	0%	0%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Equipment Failure	0%	0%	0%	0%	0%	0%	98%	89%	0%	0%	0%	0%	0%	0%	0%	100%	100%	0%	0%	0%	0%	100%	100%	0%
Operation	0%	0%	0%	0%	0%	0%	2%	11%	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%	100%	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	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
HATTER(12KV) - Customers: 1,261	56.3	0.5	1.3	0.0	0.0	0.0	298.2	1.1	1.2	0.0	0.0	0.0	27.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	27.5	0.0	0.0
3rd Party	0%	0%	0%	0%	0%	0%	9%	48%	40%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Equipment Failure	99%	98%	100%	0%	0%	0%	9%	4%	0%	0%	0%	0%	100%	100%	0%	0%	0%	0%	0%	0%	0%	100%	100%	0%
Operation	1%	2%	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%	83%	48%	60%	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%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
HONDO(4.16KV) - Customers: 541	108.1	1.0	0.0	3.0	0.1	0.0	22.2	0.1	0.0	12.2	0.1	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	13.2	0.2	0.0
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%	100%	100%	0%	13%	7%	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%	100%	100%	0%	100%	100%	0%	0%	0%	0%	0%	0%	0%	100%	100%	0%
Other	0%	0%	0%	0%	0%	0%	87%	93%	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%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
IRISH(12KV) - Customers: 690	0.0	0.0	0.0	0.0	0.0	0.0	11.6	0.2	0.9	5.7	0.0	0.0	0.0	0.0	0.0	4.5	0.1	0.0	0.0	0.0	1.0	10.2	0.1	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%	100%	100%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	56%	38%	0%
Other	0%	0%	0%	0%	0%	0%	93%	99%	100%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	100%
Vegetation/Animal	0%	0%	0%	0%	0%	0%	7%	1%	0%	0%	0%	0%	0%	0%	0%	100%	100%	0%	0%	0%	0%	44%	62%	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			2014			2015		1 s	t Qtr 20	16	2nc	l Qtr 20	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
KELBER(12KV) - Customers: 1,051	103.4	0.8	0.1	12.9	0.0	0.0	191.3	0.9	0.0	41.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	41.3	0.0	1.0
3rd Party	0%	0%	0%	0%	0%	0%	91%	93%	0%	100%	100%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%	100%	0%
Equipment Failure	100%	99%	100%	62%	43%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Operation	0%	0%	0%	38%	57%	0%	7%	6%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Other	0%	0%	0%	0%	0%	0%	2%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	100%
Vegetation/Animal	0%	1%	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%	0%	0%	0%	0%	0%	0%	0%
LAREDO(12KV) - Customers: 874	123.0	1.4	1.0	209.9	1.9	1.1	0.3	0.0	0.0	4.7	0.1	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	4.7	0.1	1.0
3rd Party	92%	82%	100%	41%	48%	6%	0%	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	0%	100%
Equipment Failure	8%	18%	0%	59%	52%	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%	100%	100%	0%	100%	100%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%	100%	0%
Other	0%	0%	0%	0%	0%	94%	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%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
LOBBY(12KV) - Customers: 2,823	36.6	0.1	4.0	28.0	0.7	1.4	11.0	0.1	0.0	8.7	0.0	1.0	27.7	0.2	0.0	4.9	0.0	0.0	139.5	0.6	0.4	180.8	0.8	1.4
3rd Party	0%	0%	50%	44%	1%	72%	84%	93%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Equipment Failure	0%	0%	25%	0%	0%	0%	12%	2%	0%	0%	0%	0%	0%	0%	0%	100%	94%	0%	100%	100%	100%	80%	78%	27%
Operation	100%	100%	0%	0%	0%	0%	4%	5%	0%	0%	0%	0%	100%	100%	0%	0%	6%	0%	0%	0%	0%	15%	21%	0%
Other	0%	0%	0%	26%	87%	28%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Vegetation/Animal	0%	0%	25%	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%	30%	12%	0%	0%	0%	0%	100%	100%	100%	0%	0%	0%	0%	0%	0%	0%	0%	0%	5%	1%	73%
LUXOR(12KV) - Customers: 802	0.0	0.0	0.0	0.0	0.0	0.0	2.6	0.0	2.0	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	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%	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%	100%	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%	0%	0%	0%	100%	100%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%	100%	0%

		2013			2014			2015		1st	Qtr 20	16	2nd	d Qtr 20	016	3ra	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	MAIFI
MAPLEWOOD(12KV) - Customers: 2,329	151.6	1.1	4.0	122.0	0.4	1.7	0.0	0.0	0.0	0.0	0.0	0.0	48.7	0.3	0.7	0.0	0.0	1.0		1.5	0.6		1.8	2.3
3rd Party	85%	95%	25%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	0%	0%	0%	44%
Equipment Failure	3%	1%	25%	96%	93%	100%	0%	0%	0%	0%	0%	0%	100%	100%	100%	0%	0%	0%	100%	100%	100%	100%	100%	56%
Operation	12%	4%	0%	4%	7%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Other	0%	0%	50%	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%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
MOTZ(12KV) - Customers: 476	0.0	0.0	0.0	0.0	0.0	0.0	2.8	0.0	0.0	11.1	0.0	0.0	0.0	0.0	0.0	65.8	1.0	0.0	0.0	0.0	1.0	76.9	1.0	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%	100%	100%	0%	0%	0%	0%	100%	100%	0%	0%	0%	0%	100%	100%	0%
Operation	0%	0%	0%	0%	0%	0%	100%	100%	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%	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%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
NEGEL(4.16KV) - Customers: 1,344	63.1	1.0	3.0	1.8	0.0	1.2	233.0	2.0	2.0	0.0	0.0	0.0	236.1	0.8	0.0	0.5	0.0	0.0	0.0	0.0	0.0	236.6	0.8	0.0
3rd Party	100%	100%	67%	0%	0%	0%	3%	49%	100%	0%	0%	0%	60%	28%	0%	0%	0%	0%	0%	0%	0%	60%	28%	0%
Equipment Failure	0%	0%	0%	0%	0%	100%	88%	11%	0%	0%	0%	0%	40%	72%	0%	0%	0%	0%	0%	0%	0%	40%	71%	0%
Operation	0%	0%	0%	100%	100%	0%	9%	40%	0%	0%	0%	0%	0%	0%	0%	100%	100%	0%	0%	0%	0%	0%	1%	0%
Other	0%	0%	33%	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%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
QUEBEC(4.16KV) - Customers: 996	111.4	1.0	0.0	0.0	0.0	0.0	1.9	0.0	0.0	0.0	0.0	0.0	104.3	1.3	3.0	0.0	0.0	2.0	0.0	0.0	0.0	104.3	1.3	5.0
3rd Party	97%	98%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	4%	3%	33%	0%	0%	50%	0%	0%	0%	4%	3%	40%
Equipment Failure	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	96%	97%	0%	0%	0%	0%	0%	0%	0%	96%	97%	0%
Operation	3%	2%	0%	0%	0%	0%	100%	100%	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%	67%	0%	0%	50%	0%	0%	0%	0%	0%	60%
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%	0%	0%	0%	0%	0%	0%	0%

		2013			2014			2015		151	t Qtr 20	16	2 n	d 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
REX(4.16KV) - Customers: 981	359.6	2.7	2.0	0.0	0.0	0.0	2.2	0.0	0.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	3.0	0.0	1.0
3rd Party	30%	38%	0%	0%	0%	0%	65%	76%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	0%	0%	0%	100%
Equipment Failure	70%	62%	0%	0%	0%	0%	0%	0%	0%	100%	100%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%	100%	0%
Operation	0%	0%	0%	0%	0%	0%	35%	24%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Other	0%	0%	100%	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%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
RICHUSON(4.16KV) - Customers: 193	159.0	1.9	0.0	179.2	5.0	2.0	930.2	2.0	0.0	0.0	0.0	0.0	115.7	0.8	0.0	0.0	0.0	1.0	0.0	0.0	2.0	115.7	0.8	3.0
3rd Party	0%	0%	0%	0%	0%	0%	46%	50%	0%	0%	0%	0%	100%	100%	0%	0%	0%	100%	0%	0%	0%	100%	100%	34%
Equipment Failure	100%	100%	0%	39%	60%	100%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	50%	0%	0%	33%
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%	61%	40%	0%	54%	50%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	50%	0%	0%	33%
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%	0%	0%	0%	0%	0%	0%	0%
RONNIE(4.16KV) - Customers: 241	60.1	1.0	0.0	196.3	2.0	1.0	5.2	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	0.0	0.0	0.0	1.0
3rd Party	100%	100%	0%	42%	50%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	0%	100%
Equipment Failure	0%	0%	0%	58%	50%	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%	100%	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%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
SAWYER(12KV) - Customers: 2,647	41.8	0.0	2.0	123.9	2.0	1.0	14.3	1.0	2.0	187.0	0.8	1.2	154.0	1.0	0.9	0.0	0.0	0.0	151.0	0.1	1.5	492.1	2.0	3.6
3rd Party	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%	100%	100%	0%	0%	0%	100%	100%	100%	62%	58%	68%
Equipment Failure	89%	48%	0%	100%	100%	100%	71%	100%	100%	100%	100%	14%	0%	0%	0%	0%	0%	0%	0%	0%	0%	38%	42%	4%
Operation	11%	52%	0%	0%	0%	0%	29%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Other	0%	0%	50%	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%	86%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	28%

		2013 DI SAIFI MAIFI SA			2014			2015		1 s:	t Qtr 20)16	2nd	d Qtr 20	016	3rd	Qtr 20	016	4th	Qtr 20	16		2016	
	SAIDI	SAIF	MAIFI	SAIDI	SAIFI	MAIFI	SAIDI	SAIFI	MAIFI	SAIDI	SAIFI	MAIFI	SAIDI	SAIFI	MAIFI	SAIDI	SAIFI	MAIFI	SAIDI	SAIFI	MAIFI	SAIDI	SAIFI	MAIFI
STITZER(12KV) - Customers: 3,017	0.0	0.0	0.0	60.2	0.1	0.0	39.1	0.1	0.9	2.8	0.0	1.0	25.7	0.1	0.0	122.7	2.0	0.0	10.8	0.4	0.6	162.0	2.5	1.6
3rd Party	0%	0%	5 0%	0%	0%	0%	0%	0%	100%	0%	0%	0%	12%	7%	0%	62%	50%	0%	0%	0%	0%	49%	40%	0%
Equipment Failure	0%	0%	0%	11%	6%	0%	0%	0%	0%	100%	100%	100%	88%	93%	0%	37%	50%	0%	29%	2%	0%	45%	45%	61%
Operation	0%	0%	6 0%	69%	70%	0%	2%	5%	0%	0%	0%	0%	0%	0%	0%	1%	0%	0%	34%	6%	0%	3%	1%	0%
Other	0%	0%	5 0%	20%	24%	0%	98%	95%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	38%	92%	100%	3%	15%	39%
Vegetation/Animal	0%	0%	5 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%	6 0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%