SOUTHERN CALIFORNIA EDISON®
An EDISON INTERNATIONAL® Company

Circuit Reliability Review

Brea

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 Fullerton District

Anaheim
Brea
Buena Park
Cypress
East La Mirada
Fullerton
Hacienda Heights
La Habra
La Habra Heights
La Mirada
La Palma
Placentia
Rowland Heights
Stanton
Yorba Linda

Reliability by SCE District (No Exclusions)

	2012				2013				2014				2015				2016			
District Name	District SAIDI	SAIDI RANKING	District SAIFI	SAIFI Ranking	District SAIDI	SAIDI RANKING	District SAIFI	SAIFI Ranking	District SAIDI	SAIDI RANKING	District SAIFI	SAIFI Ranking	District SAIDI	SAIDI RANKING	District SAIFI	SAIFI Ranking	District SAIDI	SAIDI RANKING	District SAIFI	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**	

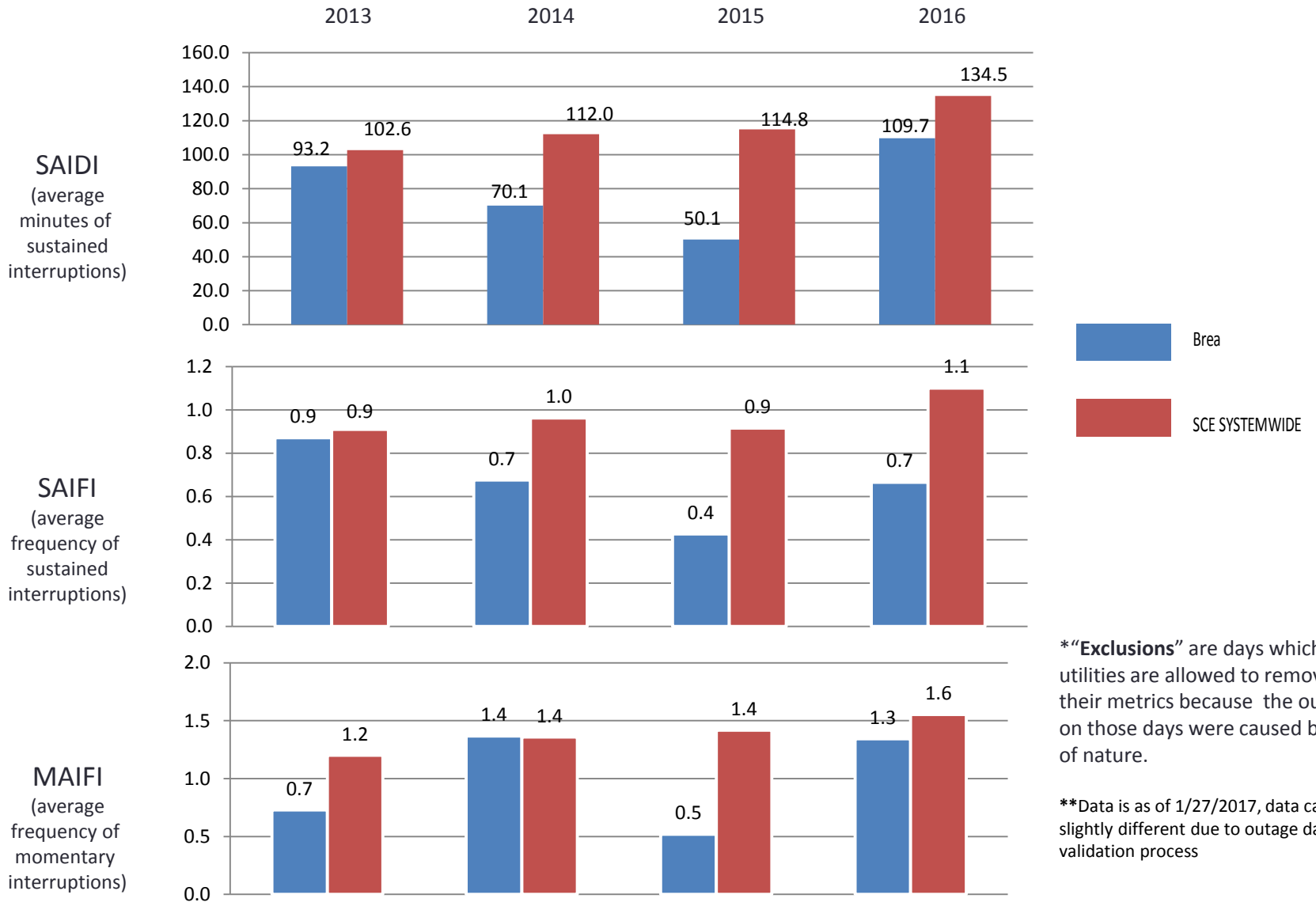
*"Exclusions" are days which utilities are allowed to remove from their metrics because the outages on those days were caused by a severe acts of nature.
**In the columns showing "Rank," lower numbers indicate poorer performance.

Overview of Brea

There are 28 circuits that serve Brea

Circuit Type	Sum of Customers	Circuit Type	Sum of Customers	Circuit Type	Sum of Customers	Circuit Type	Sum of Customers
ACAPULCO(12KV)	25						
BAJA(12KV)	983						
CANCUN(12KV)	740						
CONNECTICUT(12KV)	1,527						
DAKOTA(12KV)	91						
DEL CARBON(12KV)	1,419						
DEODARA(12KV)	511						
DRILLER(12KV)	1,714						
FLORIDA(12KV)	1,267						
GRACE(12KV)	1,507						
GUSHER(12KV)	1,050						
HAVENHURST(12KV)	985						
JUAREZ(12KV)	2,226						
KENTUCKY(12KV)	1,030						
MARYLAND(12KV)	1,103						
MASSACHUSETTS(12KV)	2,463						
MAZATLAN(12KV)	980						
MEMORY(12KV)	901						
MINNESOTA(12KV)	23						
OKLAHOMA(12KV)	1,361						
PENMAR(12KV)	1,333						
PIPELINE(12KV)	1,648						
RHODE ISLAND(12KV)	282						
RONWOOD(12KV)	235						
TONNER(12KV)	1,685						
VERA CRUZ(12KV)	1,363						
VERMONT(12KV)	1,880						
YUCATAN(12KV)	938						
Grand Total	31,270						

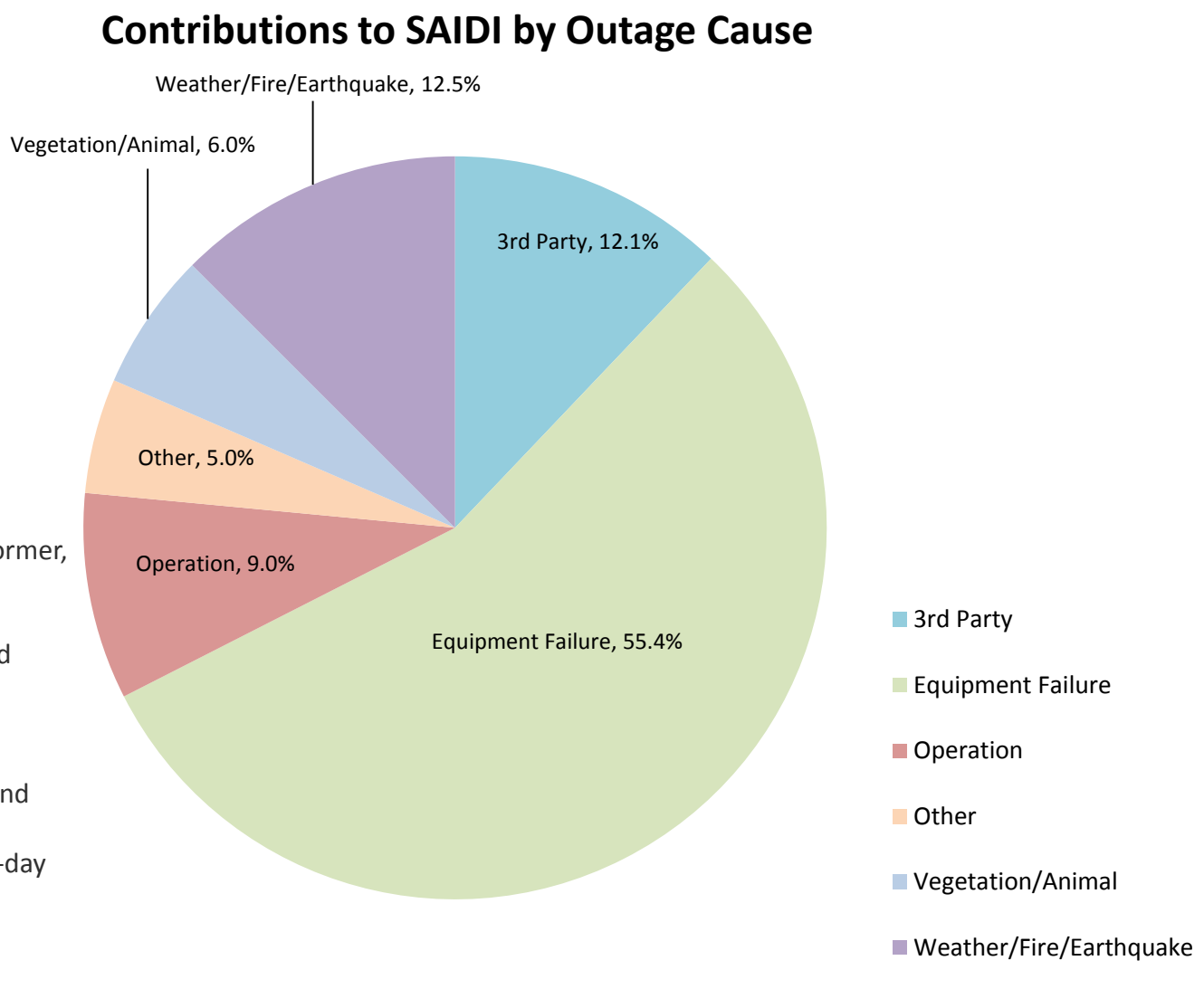
Reliability History of Circuits Serving Brea (No Exclusions)



*"**Exclusions**" are days which utilities are allowed to remove from their metrics because the outages on those days were caused by acts of nature.

****Data is as of 1/27/2017, data can be slightly different due to outage data validation process

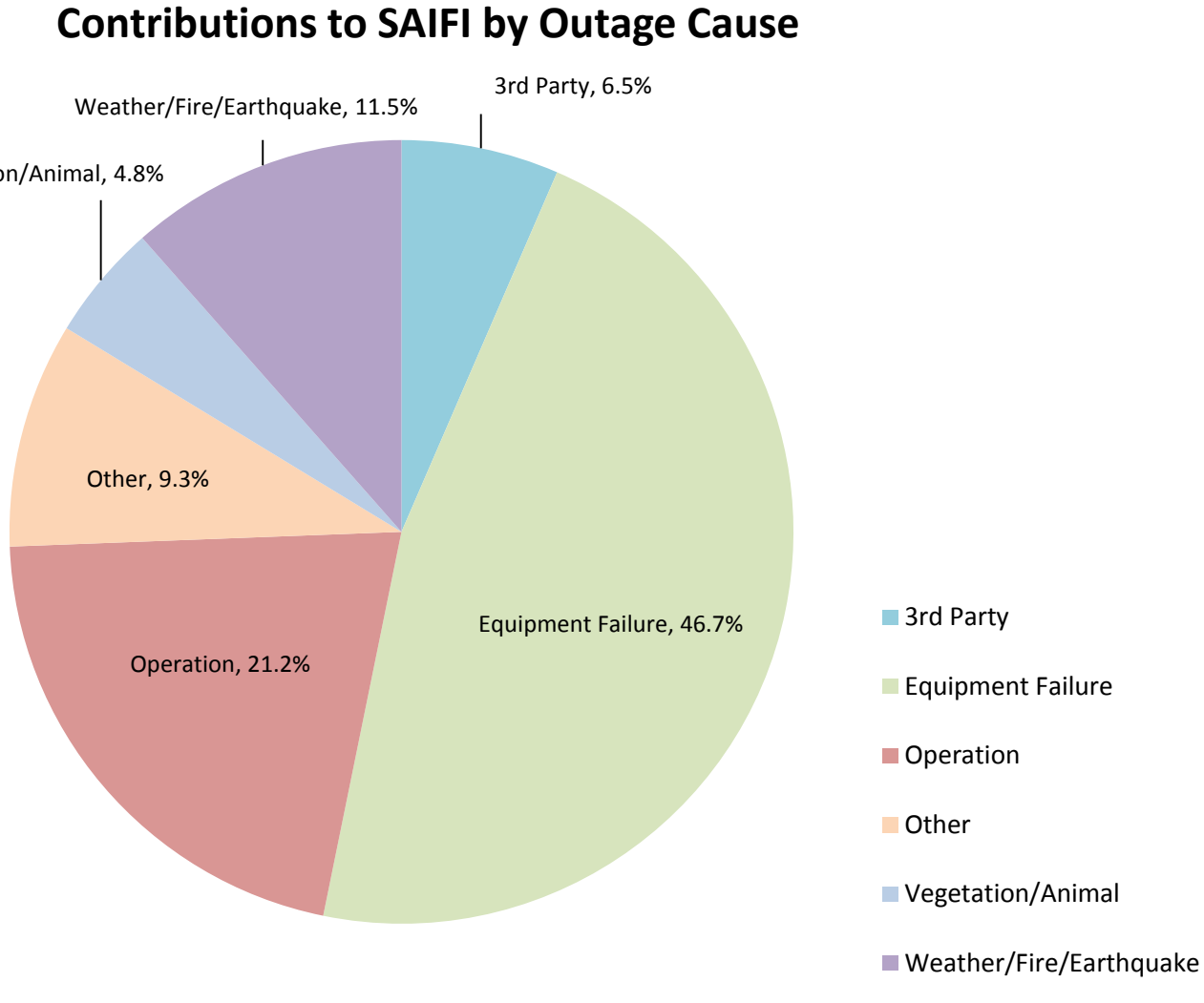
Causes of Repair Outages in Brea Circuits 2016 YTD



- **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
- **3rd 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 Brea Circuits 2016 YTD



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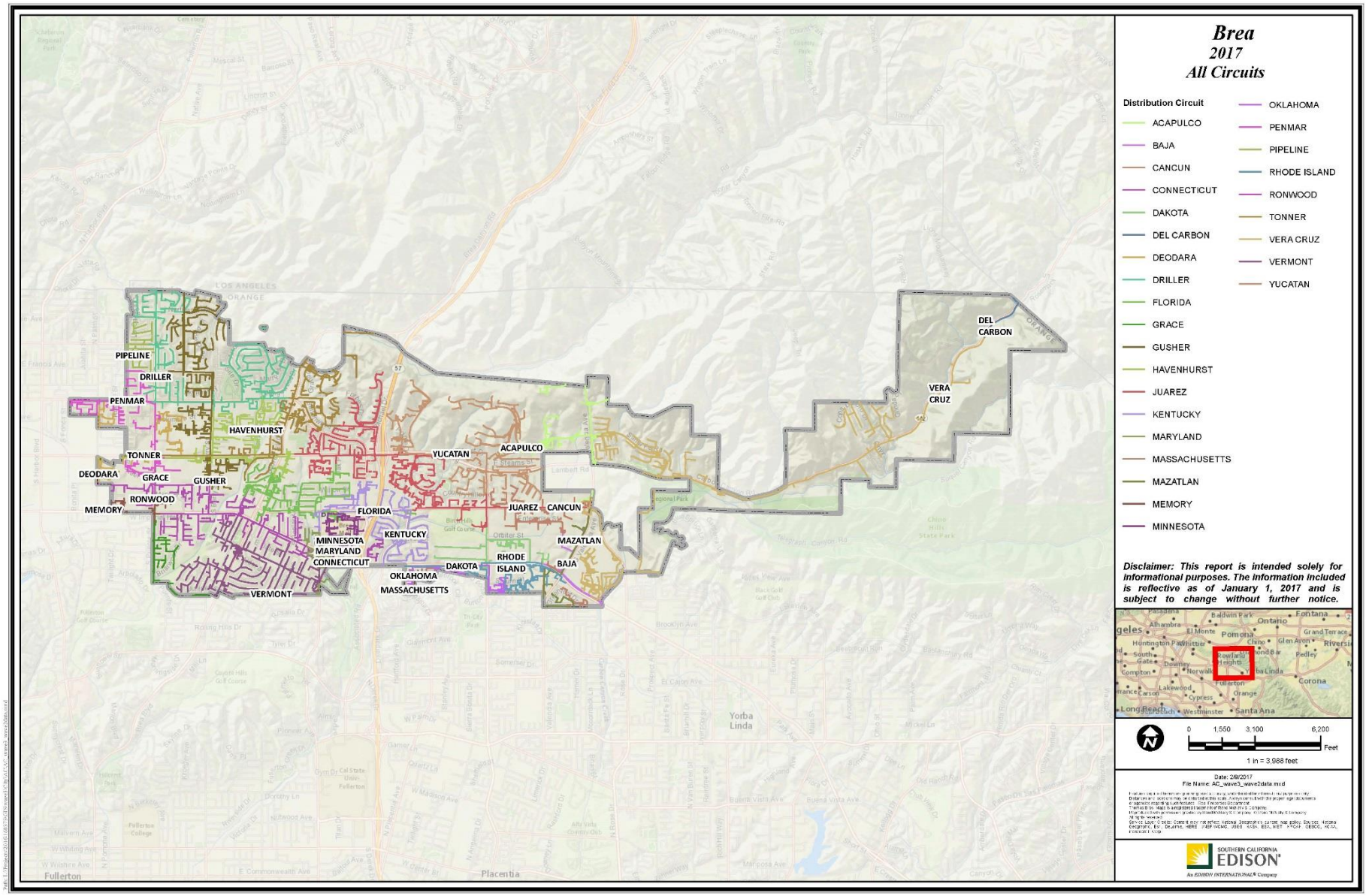
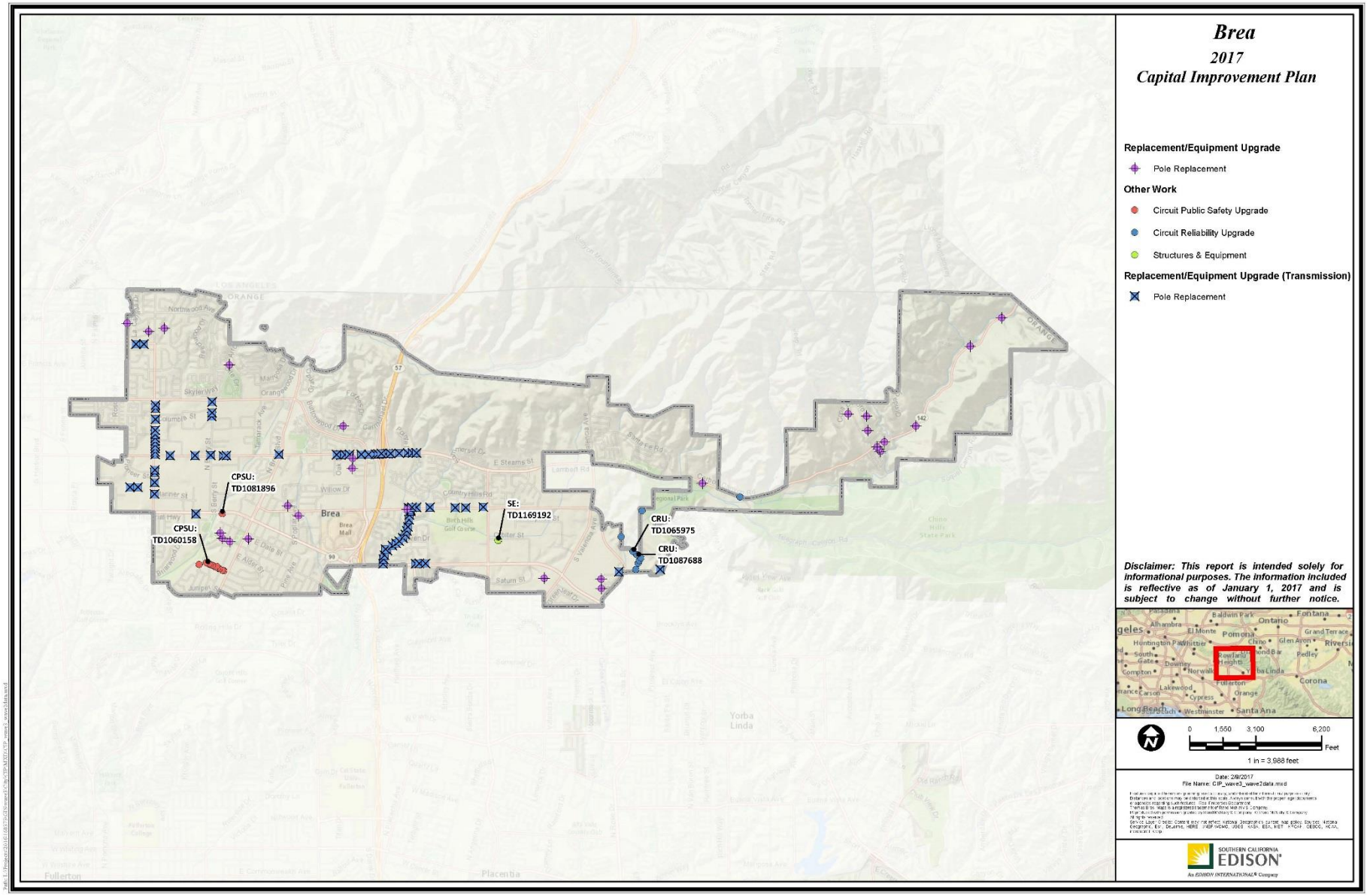
SAIFI = the number of times the average customer is interrupted by "sustained" outages each year.


Brea
2017
All Circuits
Distribution Circuit
ACAPULCO
BAJA
CANCUN
CONNECTICUT
DAKOTA
DEL CARBON
DEODARA
DRILLER
FLORIDA
GRACE
GUSHER
HAVENHURST
JUAREZ
KENTUCKY
MARYLAND
MASSACHUSETTS
MAZATLAN
MEMORY
MINNESOTA
OKLAHOMA
PENMAR
PIPELINE
RHODE ISLAND
RONWOOD
TONNER
VERA CRUZ
VERMONT
YUCATAN
Disclaimer: This report is intended solely for informational purposes. The information included is reflective as of January 1, 2017 and is subject to change without further notice.
0 1,550 3,100 6,200
Feet
1 in = 3,988 feet
Date: 2/9/2017
File Name: AC_wave3_wave2data.mxd
SOUTHERN CALIFORNIA EDISON
An EDISON INTERNATIONAL Company
PIPELINE
DRILLER
PENMAR
HAVENHURST
TONNER
DEODARA
GRACE
GUSHER
RONWOOD
MEMORY
VERMONT
FLORIDA
KENTUCKY
MINNESOTA
MARYLAND
CONNECTICUT
OKLAHOMA
MASSACHUSETTS
YUCATAN
ACAPULCO
JUAREZ
CANCUN
MAZATLAN
RHODE
ISLAND
DAKOTA
BAJA
DEL
CARBON
VERA
CRUZ
Fullerton
Placentia
Yorba
Linda


Brea
2017
Capital Improvement Plan
Replacement/Equipment Upgrade
Pole Replacement
Other Work
Circuit Public Safety Upgrade
Circuit Reliability Upgrade
Structures & Equipment
Replacement/Equipment Upgrade (Transmission)
Pole Replacement
CPSU: TD1081896
CPSU: TD1060158
SE: TD1169192
CRU: TD1065975
CRU: TD1087688
Brea
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0 1,550 3,100 6,200
Feet
1 in = 3,988 feet
Date: 2/9/2017
File Name: CIP_wave3_wave2data.mxd
SOUTHERN CALIFORNIA EDISON
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Back-up Slides

Reliability Histories of Circuits Serving Brea

Updated through Year-End 2016

Average Reliability of 28 Circuits Serving Brea

	2013			2014			2015			1st Qtr 2016			2nd Qtr 2016			3rd Qtr 2016			4th Qtr 2016			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
Brea	**93.2**	**0.9**	**0.7**	**70.1**	**0.7**	**1.4**	**50.1**	**0.4**	**0.5**	**25.6**	**0.2**	**0.5**	**40.7**	**0.2**	**0.2**	**25.9**	**0.1**	**0.2**	**17.5**	**0.1**	**0.4**	**109.7**	**0.7**	**1.3**
3rd Party	10%	13%	22%	10%	12%	9%	31%	40%	28%	0%	0%	20%	32%	15%	15%	0%	7%	80%	0%	0%	2%	12%	6%	25%
Equipment Failure	57%	57%	45%	49%	31%	3%	50%	43%	6%	67%	54%	6%	51%	55%	5%	71%	52%	20%	26%	14%	25%	55%	47%	14%
Operation	6%	4%	9%	20%	21%	20%	10%	11%	1%	9%	24%	9%	0%	0%	0%	26%	38%	0%	4%	37%	0%	9%	21%	3%
Other	7%	4%	2%	10%	21%	11%	0%	0%	8%	1%	5%	10%	13%	23%	0%	0%	0%	0%	0%	0%	23%	5%	9%	10%
Vegetation/Animal	5%	5%	10%	1%	1%	54%	7%	5%	57%	15%	5%	55%	4%	6%	81%	3%	3%	0%	3%	4%	2%	6%	5%	34%
Weather/Fire/Earthquake	15%	17%	13%	10%	14%	4%	1%	1%	0%	8%	12%	0%	0%	0%	0%	0%	0%	0%	67%	45%	49%	12%	11%	14%
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.

Reliability Histories for Individual Circuits Serving Brea

	2013			2014			2015			1st Qtr 2016			2nd Qtr 2016			3rd Qtr 2016			4th Qtr 2016			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
ACAPULCO(12KV) - Customers: 25	**130.2**	**1.2**	**0.0**	**0.5**	**0.0**	**0.0**	**15.4**	**0.0**	**0.0**	**36.5**	**1.1**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**36.5**	**1.1**	**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	84%	98%	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%	100%	100%	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%	100%	100%	0%	100%	100%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%	100%	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	16%	2%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
BAJA(12KV) - Customers: 983	**93.5**	**1.3**	**0.0**	**170.1**	**1.4**	**0.1**	**11.6**	**0.0**	**0.0**	**0.2**	**0.0**	**1.0**	**29.0**	**0.0**	**1.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**29.2**	**0.0**	**2.0**
3rd Party	0%	0%	0%	95%	95%	100%	0%	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	0%	50%
Equipment Failure	99%	99%	0%	3%	1%	0%	76%	47%	0%	0%	0%	0%	100%	100%	0%	0%	0%	0%	0%	0%	0%	99%	98%	0%
Operation	0%	0%	0%	0%	0%	0%	24%	53%	0%	100%	100%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	1%	2%	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	1%	1%	0%	3%	5%	0%	0%	0%	0%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	50%
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%
CANCUN(12KV) - Customers: 740	**0.0**	**0.0**	**1.0**	**0.0**	**0.0**	**0.0**	**236.9**	**2.2**	**0.0**	**117.4**	**2.0**	**1.9**	**8.3**	**0.1**	**1.0**	**1.8**	**0.0**	**1.0**	**0.0**	**0.0**	**0.0**	**127.5**	**2.1**	**3.9**
3rd Party	0%	0%	0%	0%	0%	0%	52%	45%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	0%	0%	0%	25%
Equipment Failure	0%	0%	0%	0%	0%	0%	43%	51%	0%	6%	1%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	5%	1%	0%
Operation	0%	0%	0%	0%	0%	0%	0%	0%	0%	19%	50%	100%	0%	0%	0%	100%	100%	0%	0%	0%	0%	19%	49%	49%
Other	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	84%	77%	0%	0%	0%	0%	0%	0%	0%	5%	2%	0%
Vegetation/Animal	0%	0%	100%	0%	0%	0%	4%	3%	0%	0%	0%	0%	16%	23%	100%	0%	0%	0%	0%	0%	0%	1%	1%	25%
Weather/Fire/Earthquake	0%	0%	0%	0%	0%	0%	0%	0%	0%	76%	49%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	70%	47%	0%
CONNECTICUT(12KV) - Customers: 1,527	**0.0**	**0.0**	**1.0**	**0.1**	**0.0**	**3.0**	**34.0**	**0.0**	**2.0**	**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%	100%	0%	0%	0%	100%	100%	49%	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%	100%	100%	34%	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%	66%	0%	0%	51%	0%	0%	100%	0%	0%	0%	0%	0%	0%	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%

Reliability Histories for Individual Circuits Serving Brea

	2013			2014			2015			1st Qtr 2016			2nd Qtr 2016			3rd Qtr 2016			4th Qtr 2016			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
DAKOTA(12KV) - Customers: 91	**0.0**	**0.0**	**1.0**	**0.0**	**0.0**	**2.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**49.8**	**1.0**	**1.0**	**0.0**	**0.0**	**0.0**	**49.8**	**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%	0%	0%	0%	0%	0%	0%	100%	100%	100%	0%	0%	0%	100%	100%	100%
Operation	0%	0%	0%	0%	0%	50%	0%	0%	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%	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%
DEL CARBON(12KV) - Customers: 1,419	**212.9**	**1.3**	**0.6**	**79.6**	**0.4**	**1.3**	**113.8**	**0.4**	**2.2**	**0.6**	**0.0**	**0.0**	**79.5**	**0.6**	**0.2**	**1.8**	**0.0**	**0.0**	**12.0**	**1.0**	**2.1**	**93.8**	**1.7**	**2.3**
3rd Party	0%	0%	0%	0%	0%	0%	0%	0%	45%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Equipment Failure	77%	76%	0%	0%	0%	0%	57%	39%	0%	0%	0%	0%	100%	98%	100%	0%	0%	0%	9%	0%	0%	85%	36%	9%
Operation	23%	24%	0%	48%	11%	0%	5%	14%	0%	100%	100%	0%	0%	2%	0%	100%	100%	0%	91%	100%	0%	15%	64%	0%
Other	0%	0%	51%	0%	0%	100%	0%	0%	42%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	91%
Vegetation/Animal	0%	0%	49%	0%	0%	0%	38%	47%	14%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Weather/Fire/Earthquake	0%	0%	0%	52%	89%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
DEODARA(12KV) - Customers: 511	**130.7**	**1.1**	**1.0**	**19.3**	**0.0**	**0.0**	**9.7**	**1.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**6.4**	**0.0**	**0.0**	**6.4**	**0.0**	**0.0**
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	82%	64%	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%	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%	0%	0%	0%	0%
Vegetation/Animal	18%	36%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%	100%	0%	100%	100%	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%
DRILLER(12KV) - Customers: 1,714	**250.3**	**3.6**	**1.7**	**214.8**	**2.4**	**1.0**	**71.9**	**1.0**	**0.0**	**0.0**	**0.0**	**1.0**	**195.0**	**2.1**	**0.0**	**12.2**	**0.1**	**0.0**	**0.0**	**0.0**	**0.0**	**207.3**	**2.1**	**1.0**
3rd Party	0%	0%	0%	0%	0%	0%	79%	96%	0%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%
Equipment Failure	84%	69%	42%	49%	42%	0%	11%	1%	0%	0%	0%	0%	48%	49%	0%	42%	21%	0%	0%	0%	0%	48%	48%	0%
Operation	0%	3%	0%	46%	57%	0%	10%	2%	0%	0%	0%	0%	0%	0%	0%	6%	21%	0%	0%	0%	0%	0%	1%	0%
Other	0%	0%	0%	5%	2%	100%	0%	0%	0%	0%	0%	0%	50%	49%	0%	0%	0%	0%	0%	0%	0%	47%	47%	0%
Vegetation/Animal	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	2%	2%	0%	52%	57%	0%	0%	0%	0%	5%	4%	0%
Weather/Fire/Earthquake	16%	28%	58%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Reliability Histories for Individual Circuits Serving Brea

	2013			2014			2015			1st Qtr 2016			2nd Qtr 2016			3rd Qtr 2016			4th Qtr 2016			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
FLORIDA(12KV) - Customers: 1,267	**182.0**	**1.0**	**2.0**	**184.8**	**1.3**	**1.9**	**170.5**	**1.2**	**0.0**	**67.4**	**0.1**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**67.4**	**0.1**	**0.0**
3rd Party	0%	0%	50%	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%	73%	76%	1%	87%	88%	0%	100%	100%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%	100%	0%
Operation	0%	0%	0%	27%	24%	46%	13%	12%	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%	53%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Weather/Fire/Earthquake	100%	100%	50%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
GRACE(12KV) - Customers: 1,507	**4.4**	**0.0**	**0.0**	**18.2**	**0.1**	**0.9**	**6.5**	**0.1**	**0.0**	**77.0**	**1.3**	**1.1**	**0.0**	**0.0**	**1.0**	**25.0**	**0.3**	**0.0**	**0.1**	**0.0**	**1.0**	**102.2**	**1.6**	**3.0**
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%	35%
Equipment Failure	0%	0%	0%	0%	0%	0%	0%	0%	0%	70%	83%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	53%	68%	0%
Operation	100%	100%	0%	0%	0%	0%	0%	0%	0%	30%	17%	0%	0%	0%	0%	100%	100%	0%	100%	100%	0%	47%	32%	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%	100%	100%	0%	0%	0%	0%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	0%	32%
Weather/Fire/Earthquake	0%	0%	0%	100%	100%	100%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	32%
GUSHER(12KV) - Customers: 1,050	**297.7**	**1.3**	**0.0**	**110.5**	**1.0**	**0.0**	**207.1**	**2.0**	**1.9**	**1.7**	**0.0**	**0.0**	**200.8**	**1.1**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**202.5**	**1.1**	**0.0**
3rd Party	0%	0%	0%	0%	0%	0%	25%	50%	53%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Equipment Failure	94%	94%	0%	96%	98%	0%	75%	50%	47%	0%	0%	0%	100%	100%	0%	0%	0%	0%	0%	0%	0%	99%	99%	0%
Operation	0%	0%	0%	4%	2%	0%	0%	0%	0%	100%	100%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	1%	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	6%	6%	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%
HAVENHURST(12KV) - Customers: 985	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**11.7**	**0.1**	**0.9**	**78.4**	**1.0**	**1.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**78.4**	**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%	100%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%	100%	100%
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%	100%	100%	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%	0%	0%	0%	0%	0%	0%	0%

Reliability Histories for Individual Circuits Serving Brea

	2013			2014			2015			1st Qtr 2016			2nd Qtr 2016			3rd Qtr 2016			4th Qtr 2016			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
JUAREZ(12KV) - Customers: 2,226	**134.4**	**1.7**	**4.1**	**20.1**	**0.1**	**0.0**	**45.5**	**0.2**	**0.0**	**121.7**	**0.2**	**0.0**	**0.0**	**0.0**	**0.0**	**0.8**	**0.0**	**0.0**	**0.6**	**0.0**	**1.0**	**123.2**	**0.2**	**1.0**
3rd Party	0%	0%	0%	0%	0%	0%	32%	18%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Equipment Failure	84%	89%	100%	40%	28%	0%	0%	0%	0%	100%	100%	0%	0%	0%	0%	0%	0%	0%	100%	100%	100%	99%	96%	100%
Operation	16%	11%	0%	48%	62%	0%	66%	77%	0%	0%	0%	0%	0%	0%	0%	100%	100%	0%	0%	0%	0%	1%	4%	0%
Other	0%	0%	0%	0%	0%	0%	2%	5%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Vegetation/Animal	0%	0%	0%	12%	10%	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%
KENTUCKY(12KV) - Customers: 1,030	**278.8**	**1.2**	**0.1**	**105.7**	**1.1**	**3.0**	**37.1**	**0.2**	**1.0**	**0.0**	**0.0**	**1.0**	**95.4**	**0.2**	**0.0**	**190.6**	**0.1**	**0.0**	**54.5**	**0.1**	**0.9**	**340.5**	**0.4**	**1.9**
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	16%	10%	100%	27%	8%	0%	91%	85%	0%	0%	0%	0%	100%	100%	0%	100%	100%	0%	100%	100%	100%	100%	100%	48%
Operation	15%	10%	0%	73%	92%	34%	9%	15%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Other	69%	80%	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%	66%	0%	0%	100%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	52%
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%
MARYLAND(12KV) - Customers: 1,103	**69.7**	**0.8**	**0.0**	**7.0**	**0.1**	**2.0**	**185.8**	**2.1**	**1.0**	**0.0**	**0.0**	**0.0**	**386.5**	**1.0**	**0.0**	**156.4**	**1.0**	**0.0**	**0.0**	**0.0**	**0.0**	**542.9**	**2.0**	**0.0**
3rd Party	95%	99%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%	100%	0%	0%	0%	0%	0%	0%	0%	71%	50%	0%
Equipment Failure	5%	1%	0%	0%	0%	0%	97%	98%	1%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Operation	0%	0%	0%	3%	8%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%	100%	0%	0%	0%	0%	29%	50%	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%	97%	92%	100%	3%	2%	99%	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%
MASSACHUSETTS(12KV) - Customers: 2,463	**71.0**	**1.0**	**0.0**	**50.8**	**1.0**	**2.0**	**0.0**	**0.0**	**1.0**	**5.5**	**0.0**	**1.0**	**35.4**	**0.1**	**0.0**	**109.0**	**0.7**	**1.9**	**22.3**	**0.1**	**0.0**	**172.2**	**0.9**	**2.9**
3rd Party	100%	100%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	1%	17%	100%	0%	0%	0%	1%	12%	65%
Equipment Failure	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	76%	40%	0%	99%	83%	0%	79%	41%	0%	88%	69%	0%
Operation	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%	100%	0%	0%	3%	0%	0%	0%	0%	0%	0%	0%	3%	6%	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%	100%	0%	0%	100%	0%	0%	100%	24%	57%	0%	0%	0%	0%	21%	59%	0%	8%	13%	35%
Weather/Fire/Earthquake	0%	0%	0%	100%	100%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Reliability Histories for Individual Circuits Serving Brea

	2013			2014			2015			1st Qtr 2016			2nd Qtr 2016			3rd Qtr 2016			4th Qtr 2016			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
MAZATLAN(12KV) - Customers: 980	**38.3**	**0.4**	**1.0**	**48.9**	**0.2**	**0.1**	**36.9**	**0.2**	**0.0**	**142.8**	**0.3**	**0.9**	**3.2**	**0.0**	**0.0**	**12.8**	**0.1**	**1.0**	**0.0**	**0.0**	**0.0**	**158.7**	**0.4**	**1.9**
3rd Party	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	0%	0%	0%	53%
Equipment Failure	16%	10%	0%	77%	54%	100%	6%	8%	0%	25%	25%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	22%	19%	0%
Operation	20%	5%	0%	23%	46%	0%	86%	70%	0%	5%	50%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	4%	39%	0%
Other	12%	12%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Vegetation/Animal	53%	72%	100%	0%	0%	0%	8%	23%	0%	70%	25%	100%	100%	100%	0%	100%	100%	0%	0%	0%	0%	73%	42%	47%
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%
MEMORY(12KV) - Customers: 901	**137.0**	**2.8**	**2.0**	**0.0**	**0.0**	**1.0**	**10.0**	**0.1**	**0.0**	**0.0**	**0.0**	**1.8**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**304.2**	**1.0**	**1.0**	**304.2**	**1.0**	**2.8**
3rd Party	0%	0%	50%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Equipment Failure	40%	61%	0%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Operation	1%	2%	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%	100%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	63%
Vegetation/Animal	59%	38%	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%	100%	100%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%	100%	100%	100%	100%	37%
MINNESOTA(12KV) - Customers: 23	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**2.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**201.0**	**0.7**	**1.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**201.0**	**0.7**	**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	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%	100%	100%	0%	0%	0%	0%	0%	0%	100%	100%	100%
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%	100%	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%
OKLAHOMA(12KV) - Customers: 1,361	**74.4**	**1.0**	**0.0**	**103.7**	**0.3**	**5.0**	**27.2**	**0.1**	**0.0**	**1.5**	**0.1**	**0.0**	**0.0**	**0.0**	**1.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**1.5**	**0.1**	**1.0**
3rd Party	0%	0%	0%	0%	0%	0%	0%	0%	0%	33%	16%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	33%	16%	0%
Equipment Failure	100%	99%	0%	99%	84%	0%	96%	88%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Operation	0%	1%	0%	1%	16%	40%	3%	11%	0%	67%	84%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	67%	84%	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%	60%	1%	1%	0%	0%	0%	0%	0%	0%	100%	0%	0%	0%	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%

Reliability Histories for Individual Circuits Serving Brea

	2013			2014			2015			1st Qtr 2016			2nd Qtr 2016			3rd Qtr 2016			4th Qtr 2016			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
PENMAR(12KV) - Customers: 1,333	**33.8**	**0.1**	**2.0**	**23.3**	**0.1**	**1.0**	**2.9**	**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	100%	100%	49%	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%	62%	52%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Operation	0%	0%	51%	100%	100%	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%	100%	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%	38%	48%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
PIPELINE(12KV) - Customers: 1,648	**80.5**	**1.1**	**0.0**	**111.4**	**1.0**	**1.0**	**1.4**	**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%	100%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Equipment Failure	7%	4%	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%	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	93%	96%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
RHODE ISLAND(12KV) - Customers: 282	**0.0**	**0.0**	**0.0**	**4.4**	**0.1**	**3.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**93.5**	**1.0**	**0.0**	**93.5**	**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%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%	100%	0%	100%	100%	0%
Operation	0%	0%	0%	100%	100%	34%	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%	66%	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%
RONWOOD(12KV) - Customers: 235	**63.0**	**1.0**	**0.0**	**241.8**	**2.0**	**1.7**	**5.0**	**0.0**	**3.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**19.0**	**0.1**	**0.9**	**19.0**	**0.1**	**0.9**
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	100%	100%	0%	47%	50%	58%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Operation	0%	0%	0%	53%	50%	42%	100%	100%	33%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Other	0%	0%	0%	0%	0%	0%	0%	0%	33%	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%	33%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%	100%	100%	100%	100%	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%

Reliability Histories for Individual Circuits Serving Brea

	2013			2014			2015			1st Qtr 2016			2nd Qtr 2016			3rd Qtr 2016			4th Qtr 2016			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
TONNER(12KV) - Customers: 1,685	**156.0**	**0.4**	**0.2**	**36.9**	**0.8**	**1.2**	**18.6**	**0.2**	**0.0**	**14.6**	**0.1**	**0.0**	**9.8**	**0.1**	**0.0**	**0.0**	**0.0**	**0.0**	**10.1**	**0.1**	**0.0**	**34.4**	**0.3**	**0.0**
3rd Party	0%	0%	0%	98%	99%	100%	22%	40%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Equipment Failure	85%	68%	0%	2%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%	100%	0%	29%	23%	0%
Operation	0%	0%	0%	1%	1%	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	15%	32%	100%	0%	0%	0%	78%	60%	0%	100%	100%	0%	100%	100%	0%	0%	0%	0%	0%	0%	0%	71%	77%	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%
VERA CRUZ(12KV) - Customers: 1,363	**18.2**	**0.3**	**0.0**	**147.7**	**2.0**	**1.0**	**12.4**	**0.2**	**0.1**	**0.0**	**0.0**	**0.1**	**0.0**	**0.0**	**0.0**	**17.5**	**0.2**	**0.8**	**25.7**	**0.3**	**2.1**	**43.2**	**0.6**	**3.0**
3rd Party	41%	3%	0%	1%	0%	1%	72%	49%	100%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	5%	0%	0%	4%
Equipment Failure	27%	96%	0%	40%	2%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%	100%	100%	0%	0%	0%	41%	42%	27%
Operation	0%	0%	0%	0%	1%	0%	14%	47%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	15%	3%	0%	9%	2%	0%
Other	0%	0%	0%	57%	96%	99%	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%	14%	4%	0%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	4%
Weather/Fire/Earthquake	32%	1%	0%	2%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	85%	97%	95%	50%	56%	66%
VERMONT(12KV) - Customers: 1,880	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**3.0**	**88.8**	**0.8**	**1.4**	**0.0**	**0.0**	**1.0**	**0.5**	**0.0**	**1.0**	**0.0**	**0.0**	**0.0**	**38.3**	**0.1**	**0.0**	**38.8**	**0.1**	**2.0**
3rd Party	0%	0%	0%	0%	0%	0%	97%	98%	27%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Equipment Failure	0%	0%	0%	0%	0%	0%	2%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Operation	0%	0%	0%	0%	0%	33%	1%	1%	0%	0%	0%	0%	100%	100%	0%	0%	0%	0%	0%	0%	0%	1%	4%	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%	67%	0%	0%	73%	0%	0%	100%	0%	0%	100%	0%	0%	0%	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%	100%	100%	0%	99%	96%	0%
YUCATAN(12KV) - Customers: 938	**0.0**	**0.0**	**0.0**	**144.1**	**1.1**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**62.8**	**0.1**	**0.0**	**0.0**	**0.0**	**0.0**	**62.8**	**0.1**	**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%	56%	9%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%	100%	0%	0%	0%	0%	100%	100%	0%
Operation	0%	0%	0%	2%	4%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Other	0%	0%	0%	42%	87%	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%