



Circuit Reliability Review

Stanton

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](https://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)

District Name	2012				2013				2014				2015				2016			
	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.

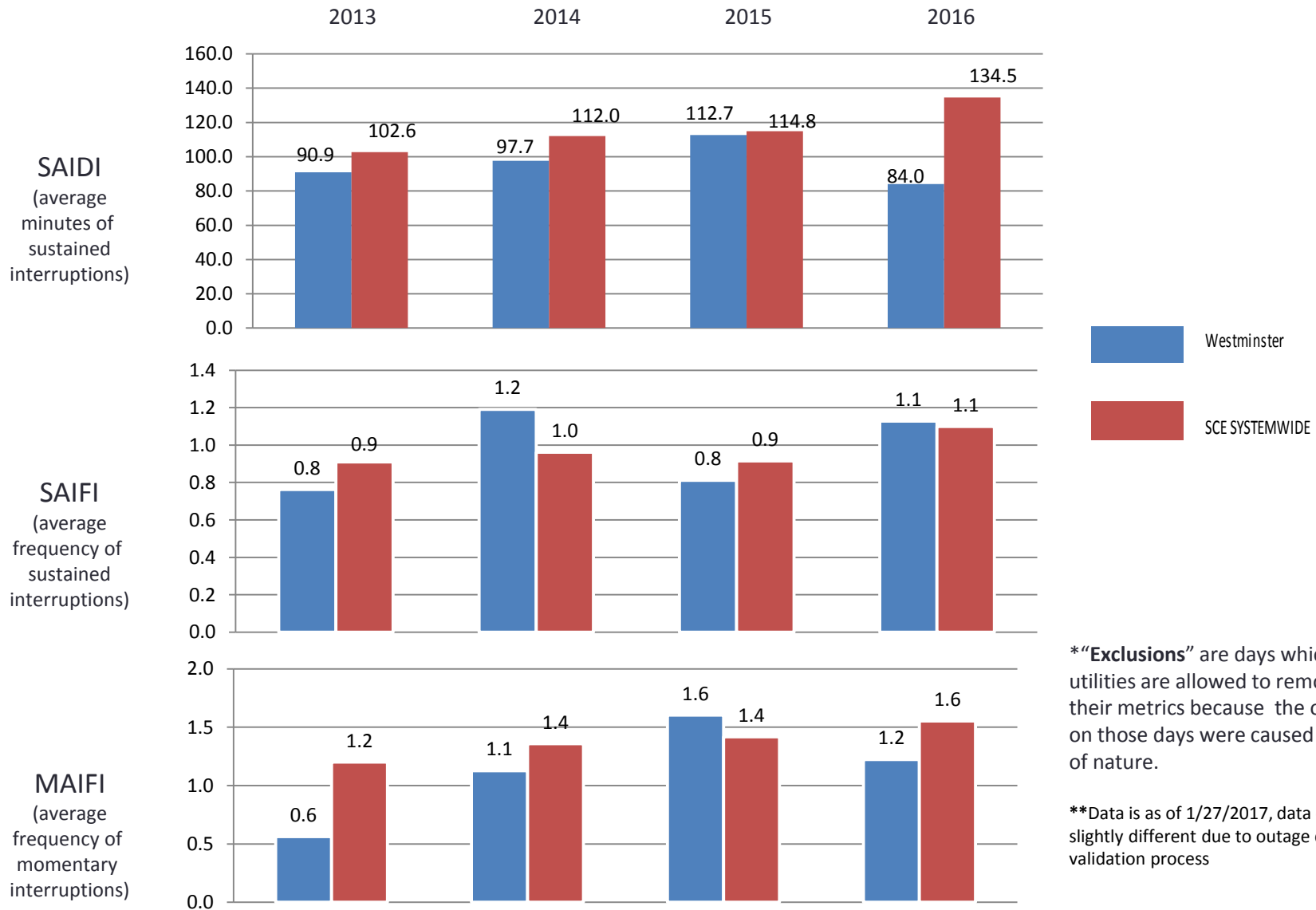
Overview of Stanton

There are 15 circuits that serve Stanton

Circuit Type	Sum of Customers	Circuit Type	Sum of Customers	Circuit Type	Sum of Customers	Circuit Type	Sum of Customers
AKRON(12KV)	3,216						
APACHE(12KV)	556						
CALLA(12KV)	934						
CARNATION(12KV)	1,244						
CLOVER(12KV)	3,470						
DAFFODIL(12KV)	1,146						
FOXGLOVE(12KV)	1,440						
GRETA(12KV)	222						
KAREN(12KV)	2,355						
LOTUS(12KV)	1,952						
MARIGOLD(12KV)	3,684						
SNAPDRAGON(12KV)	89						
TULIP(12KV)	2,909						
TULSA(12KV)	2,290						
VERBENA(12KV)	2,548						

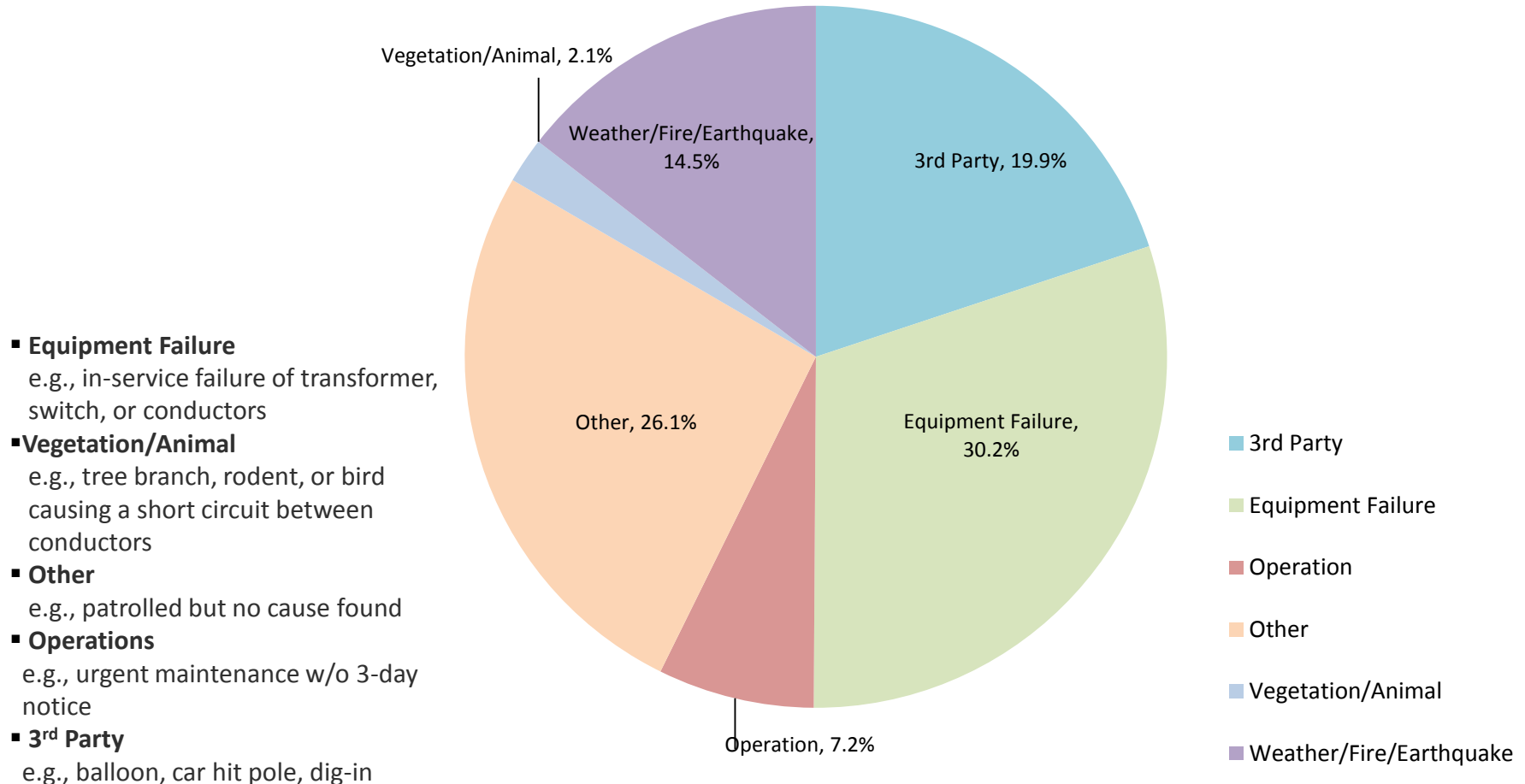
Grand Total 28,055

Reliability History of Circuits Serving Stanton (No Exclusions)



Causes of Repair Outages in Stanton Circuits 2016 YTD

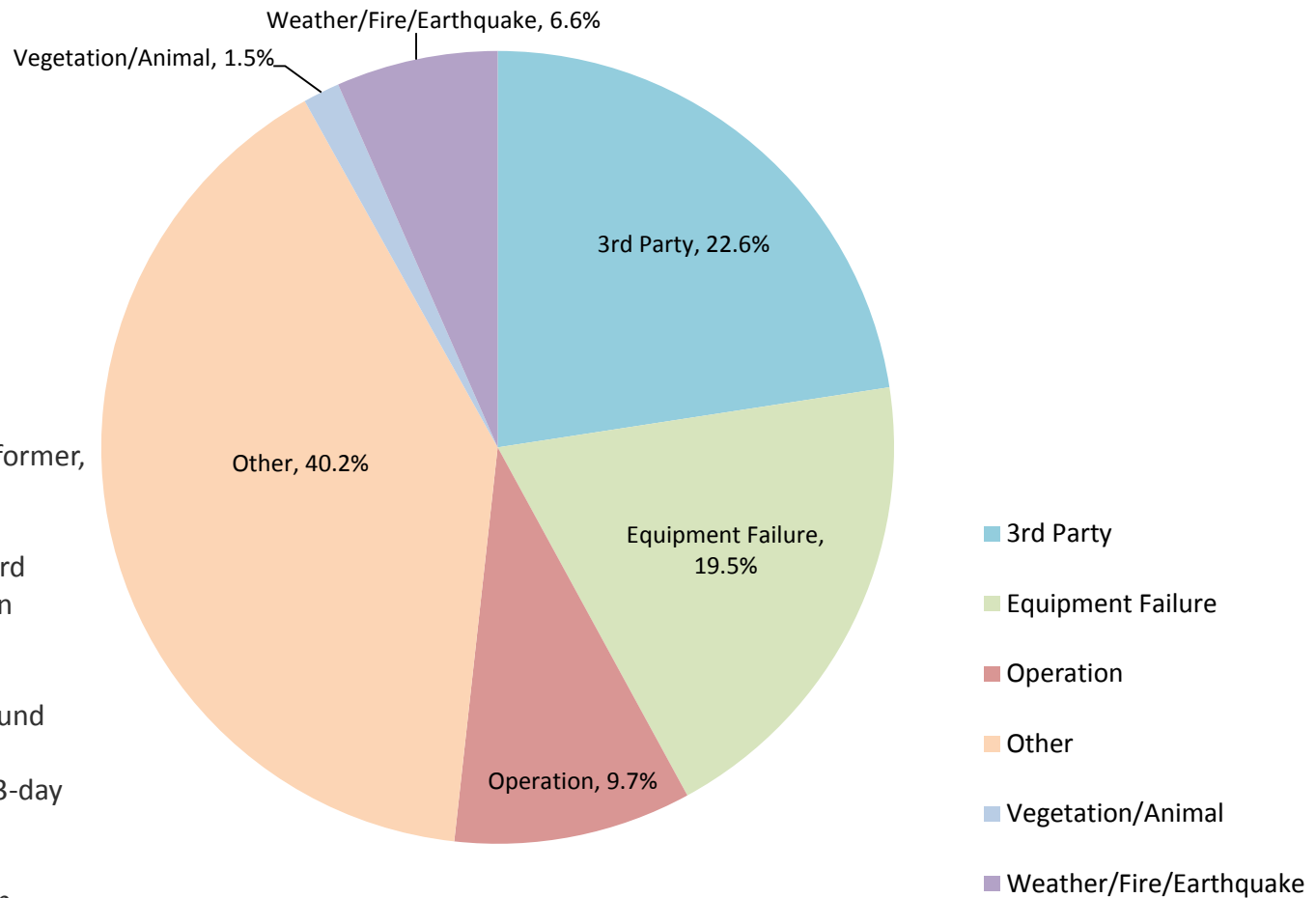
Contributions to SAIDI by Outage Cause



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

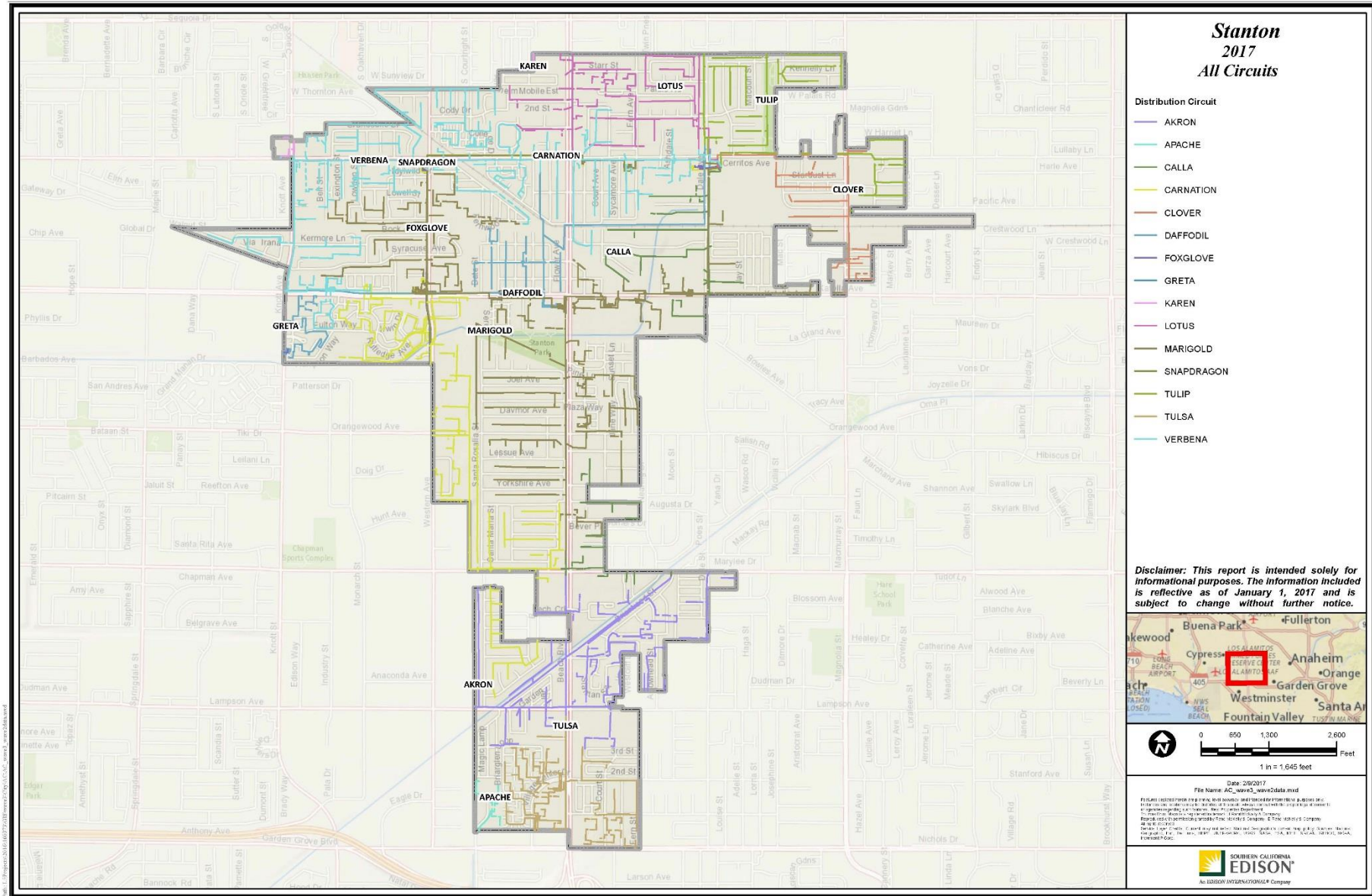
Causes of Repair Outages in Stanton Circuits 2016 YTD

Contributions to SAIFI 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
- **3rd Party**
e.g., balloon, car hit pole, dig-in

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



Stanton 2017 Capital Improvement Plan

Other Work

- Circuit Rebuild
- Structures & Equipment

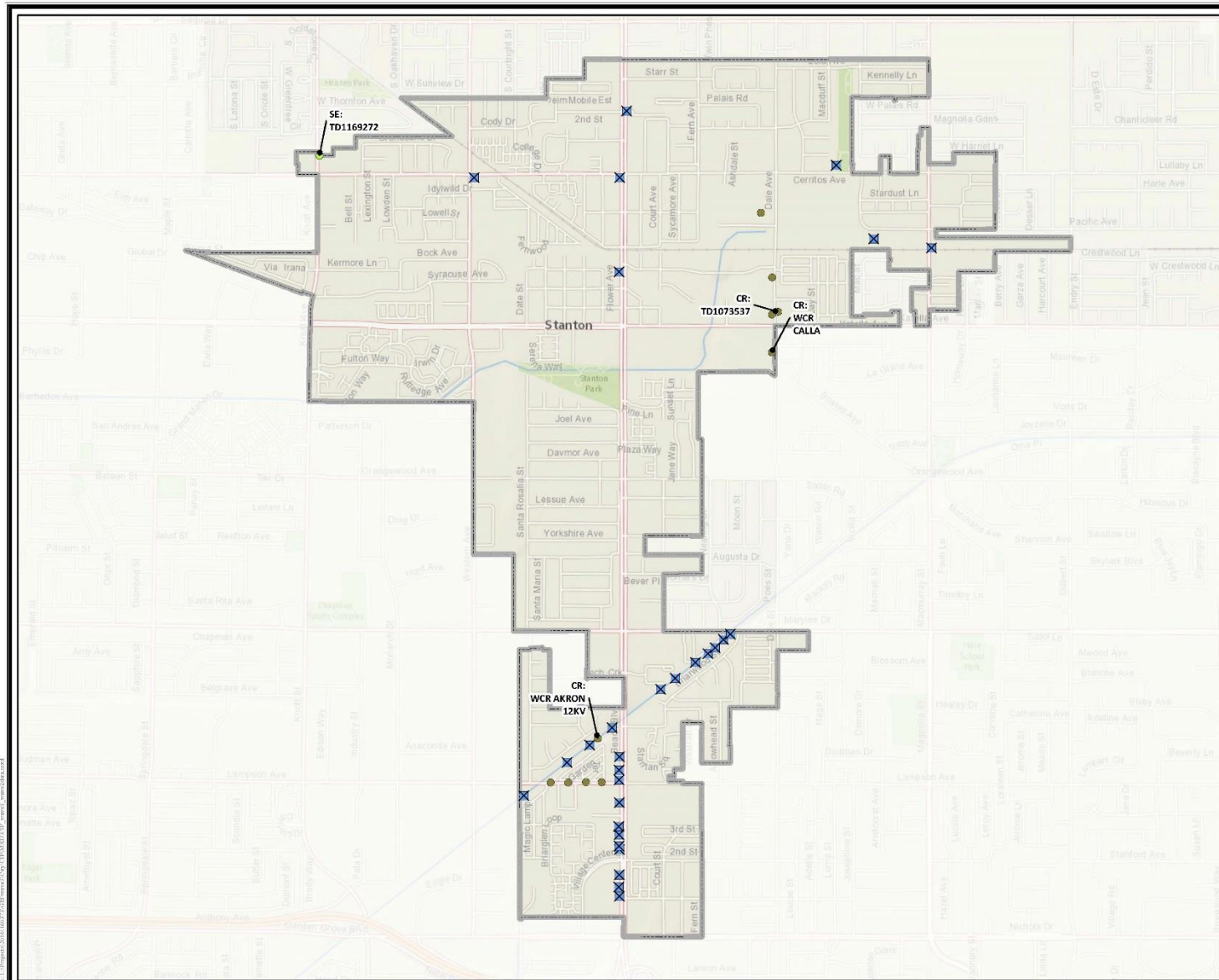
Replacement/Equipment Upgrade (Transmission)

- ✕ Pole Replacement

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.



Date: 2/6/2017
File Name: CIP_2017_0206Data.mxd
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Back-up Slides

Reliability Histories of Circuits Serving Westminster

Updated through Year-End 2016

Average Reliability of 34 Circuits Serving Westminster

	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
Stanton	90.9	0.8	0.6	97.7	1.2	1.1	112.7	0.8	1.6	45.6	0.6	0.4	14.9	0.3	0.1	8.1	0.1	0.7	15.5	0.2	0.0	84.0	1.1	1.2
3rd Party	42%	49%	53%	35%	36%	54%	49%	59%	41%	24%	18%	0%	10%	60%	81%	0%	0%	22%	0%	0%	0%	15%	24%	20%
Equipment Failure	34%	33%	23%	31%	39%	32%	30%	25%	12%	16%	10%	19%	75%	10%	0%	96%	93%	78%	84%	75%	100%	47%	26%	55%
Operation	6%	1%	24%	24%	20%	10%	17%	15%	3%	37%	35%	50%	13%	30%	0%	4%	7%	0%	12%	24%	0%	25%	30%	14%
Other	18%	16%	0%	6%	1%	4%	0%	0%	5%	22%	37%	5%	2%	0%	0%	0%	0%	0%	4%	1%	0%	13%	20%	2%
Vegetation/Animal	1%	0%	0%	4%	4%	0%	1%	0%	19%	0%	0%	0%	0%	0%	19%	0%	0%	0%	0%	0%	0%	0%	0%	2%
Weather/Fire/Earthquake	0%	0%	0%	0%	0%	0%	2%	1%	20%	2%	0%	25%	0%	0%	0%	0%	0%	0%	0%	0%	0%	1%	0%	7%
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 Westminster

	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
AKRON(12KV) - Customers: 3,216	90.7	0.9	2.1	164.0	4.0	4.0	5.4	0.0	1.0	89.9	1.3	0.8	48.5	0.1	0.0	53.9	0.5	1.5	59.8	0.6	0.4	252.2	2.4	2.7
3rd Party	31%	50%	72%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Equipment Failure	69%	50%	28%	42%	81%	75%	0%	0%	0%	8%	3%	0%	100%	100%	0%	100%	99%	100%	100%	100%	100%	67%	48%	69%
Operation	0%	0%	0%	58%	19%	25%	5%	45%	0%	51%	16%	100%	0%	0%	0%	0%	1%	0%	0%	0%	0%	18%	9%	31%
Other	0%	0%	0%	0%	0%	0%	0%	0%	0%	41%	81%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	15%	43%	0%
Vegetation/Animal	0%	0%	0%	0%	0%	0%	95%	55%	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%
APACHE(12KV) - Customers: 556	5.4	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	49.9	1.0	1.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	49.9	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%	0%	0%	100%	0%	0%	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%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Other	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%	100%	100%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%	100%	50%
Vegetation/Animal	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%	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%
CALLA(12KV) - Customers: 934	97.1	1.1	0.0	350.1	3.4	1.0	43.7	0.1	5.0	0.9	0.0	0.0	12.0	1.2	1.2	0.0	0.0	1.2	0.0	0.0	0.0	12.9	1.2	2.3
3rd Party	44%	11%	0%	45%	59%	99%	0%	0%	20%	0%	0%	0%	87%	100%	100%	0%	0%	0%	0%	0%	0%	81%	99%	50%
Equipment Failure	53%	89%	0%	26%	7%	1%	57%	35%	20%	0%	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	0%	0%	0%	50%
Operation	3%	1%	0%	13%	29%	0%	11%	20%	0%	100%	100%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	7%	1%	0%
Other	0%	0%	0%	15%	4%	0%	0%	0%	0%	0%	0%	0%	13%	0%	0%	0%	0%	0%	0%	0%	0%	12%	0%	0%
Vegetation/Animal	0%	0%	0%	1%	0%	0%	0%	0%	20%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Weather/Fire/Earthquake	0%	0%	0%	0%	0%	0%	32%	45%	40%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
CARNATION(12KV) - Customers: 1,244	0.0	0.0	0.0	237.4	1.2	1.9	157.4	0.8	0.4	0.0	0.0	0.0	3.2	0.0	0.0	36.9	0.1	2.0	3.4	0.0	0.0	43.5	0.2	2.0
3rd Party	0%	0%	0%	8%	3%	100%	28%	68%	100%	0%	0%	0%	0%	0%	0%	0%	0%	50%	0%	0%	0%	0%	0%	50%
Equipment Failure	0%	0%	0%	58%	17%	0%	65%	14%	0%	0%	0%	0%	0%	0%	0%	97%	50%	50%	100%	100%	0%	90%	45%	50%
Operation	0%	0%	0%	0%	1%	0%	7%	18%	0%	0%	0%	0%	0%	0%	0%	3%	50%	0%	0%	0%	0%	3%	42%	0%
Other	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%	100%	0%	0%	0%	0%	0%	0%	0%	7%	14%	0%
Vegetation/Animal	0%	0%	0%	33%	80%	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%

Reliability Histories for Individual Circuits Serving Westminster

	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
CLOVER(12KV) - Customers: 3,470	22.6	1.0	1.0	60.2	0.5	0.8	195.5	1.9	0.0	5.3	0.0	0.0	1.4	0.0	0.0	0.0	0.0	1.0	12.4	0.4	0.0	19.1	0.4	1.0
3rd Party	60%	97%	100%	77%	59%	100%	33%	54%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	0%	0%	0%	100%
Equipment Failure	14%	1%	0%	3%	1%	0%	3%	0%	0%	0%	0%	0%	100%	100%	0%	0%	0%	0%	1%	1%	0%	8%	1%	0%
Operation	0%	0%	0%	20%	40%	0%	62%	45%	0%	100%	100%	0%	0%	0%	0%	0%	0%	0%	99%	99%	0%	92%	99%	0%
Other	25%	2%	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%	0%	0%	0%	0%	0%	3%	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%
DAFFODIL(12KV) - Customers: 1,146	268.2	2.2	2.0	84.6	1.1	0.0	46.8	0.2	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	4%	4%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Equipment Failure	60%	90%	50%	100%	100%	0%	100%	100%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Operation	36%	6%	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%	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%
FOXGLOVE(12KV) - Customers: 1,440	23.5	0.1	0.6	0.0	0.0	0.0	64.3	0.1	0.0	120.0	1.0	0.0	0.2	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	120.2	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	100%	100%	100%	0%	0%	0%	15%	42%	0%	100%	100%	0%	0%	0%	0%	0%	0%	100%	0%	0%	0%	100%	99%	100%
Operation	0%	0%	0%	0%	0%	0%	85%	58%	0%	0%	0%	0%	100%	100%	0%	0%	0%	0%	0%	0%	0%	0%	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%	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%
GRETA(12KV) - Customers: 222	0.0	0.0	0.0	46.6	1.0	0.0	9.0	1.0	0.0	64.8	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	64.8	1.0	0.0
3rd Party	0%	0%	0%	0%	0%	0%	100%	100%	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%	100%	100%	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%	100%	100%	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%

Reliability Histories for Individual Circuits Serving Westminster

	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
KAREN(12KV) - Customers: 2,355	104.3	1.1	1.0	53.4	0.1	1.0	32.3	1.1	0.0	91.4	1.3	0.0	5.7	0.9	0.0	2.6	0.0	0.0	23.0	0.1	0.0	122.6	2.3	0.0
3rd Party	15%	11%	0%	2%	12%	100%	43%	95%	0%	5%	5%	0%	100%	100%	0%	0%	0%	0%	0%	0%	0%	8%	44%	0%
Equipment Failure	0%	0%	0%	11%	36%	0%	51%	3%	0%	8%	3%	0%	0%	0%	0%	0%	0%	0%	99%	96%	0%	24%	4%	0%
Operation	2%	0%	100%	87%	52%	0%	3%	1%	0%	88%	93%	0%	0%	0%	0%	100%	100%	0%	1%	4%	0%	68%	52%	0%
Other	82%	89%	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%	4%	1%	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%
LOTUS(12KV) - Customers: 1,952	101.2	0.2	0.0	70.5	1.1	0.8	270.1	1.5	3.2	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%	88%	94%	100%	77%	28%	68%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Equipment Failure	0%	0%	0%	0%	0%	0%	20%	70%	0%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%
Operation	0%	0%	0%	12%	6%	0%	4%	2%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Other	100%	100%	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%	32%	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%
MARIGOLD(12KV) - Customers: 3,684	306.3	1.1	0.0	17.8	0.1	1.0	312.4	2.2	0.0	6.0	0.0	0.7	48.3	0.2	0.0	0.0	0.0	1.1	1.9	0.0	0.0	56.2	0.2	1.8
3rd Party	97%	97%	0%	18%	58%	100%	42%	47%	0%	0%	0%	0%	4%	11%	0%	0%	0%	0%	0%	0%	0%	4%	10%	0%
Equipment Failure	1%	1%	0%	11%	3%	0%	56%	51%	0%	0%	0%	0%	96%	87%	0%	0%	0%	100%	100%	100%	0%	86%	81%	59%
Operation	0%	0%	0%	54%	12%	0%	3%	2%	0%	0%	0%	0%	0%	2%	0%	0%	0%	0%	0%	0%	0%	0%	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	3%	2%	0%	17%	27%	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%	100%	0%	0%	0%	0%	0%	0%	0%	0%	0%	11%	7%	41%
SNAPDRAGON(12KV) - Customers: 89	0.0	0.0	0.0	70.1	1.2	0.0	288.1	2.3	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%	100%	100%	0%	100%	100%	100%	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%	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 Westminster

	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
TULIP(12KV) - Customers: 2,909	38.0	1.0	0.0	11.6	0.0	1.0	174.7	0.5	2.9	106.0	1.0	0.0	6.5	0.0	0.0	0.3	0.0	0.0	3.8	0.0	0.0	116.5	1.1	0.0
3rd Party	74%	97%	0%	0%	0%	100%	89%	94%	84%	100%	100%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	91%	95%	0%
Equipment Failure	2%	1%	0%	96%	76%	0%	8%	2%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Operation	2%	1%	0%	4%	24%	0%	3%	4%	16%	0%	0%	0%	100%	100%	0%	100%	100%	0%	100%	100%	0%	9%	5%	0%
Other	22%	2%	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%
TULSA(12KV) - Customers: 2,290	0.0	0.0	0.0	5.9	0.0	0.5	78.6	1.0	0.9	102.5	2.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	56.1	1.0	0.0	158.6	3.0	1.0
3rd Party	0%	0%	0%	0%	0%	0%	97%	96%	100%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Equipment Failure	0%	0%	0%	100%	100%	0%	1%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	85%	97%	0%	30%	32%	0%
Operation	0%	0%	0%	0%	0%	0%	0%	0%	0%	44%	50%	100%	0%	0%	0%	0%	0%	0%	0%	0%	0%	29%	33%	100%
Other	0%	0%	0%	0%	0%	100%	0%	0%	0%	56%	50%	0%	0%	0%	0%	0%	0%	0%	15%	3%	0%	41%	34%	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%	2%	3%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
VERBENA(12KV) - Customers: 2,548	126.4	0.2	0.0	72.1	1.1	0.0	30.6	0.1	3.9	0.0	0.0	0.0	14.7	0.9	0.0	0.0	0.0	1.0	0.0	0.0	0.0	14.7	0.9	1.0
3rd Party	0%	0%	0%	83%	94%	0%	0%	0%	25%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Equipment Failure	89%	63%	0%	17%	6%	0%	87%	83%	24%	0%	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	0%	0%	0%	100%
Operation	11%	22%	0%	0%	0%	0%	13%	17%	0%	0%	0%	0%	100%	100%	0%	0%	0%	0%	0%	0%	0%	100%	100%	0%
Other	0%	16%	0%	0%	0%	0%	0%	0%	25%	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%	26%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%