



Circuit Reliability Review

Covina

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/OutageCenter/MaintainingReliableService)

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 Covina District

Avocado Heights

Azusa

Charter Oak

Citrus

Claremont

Covina

Diamond Bar

Glendora

Hacienda Heights

Industry

La Puente

La Verne

Pomona

Rowland Heights

San Dimas

South San Jose Hills

Valinda

Vincent

Walnut

West Covina

West Puente Valley

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.

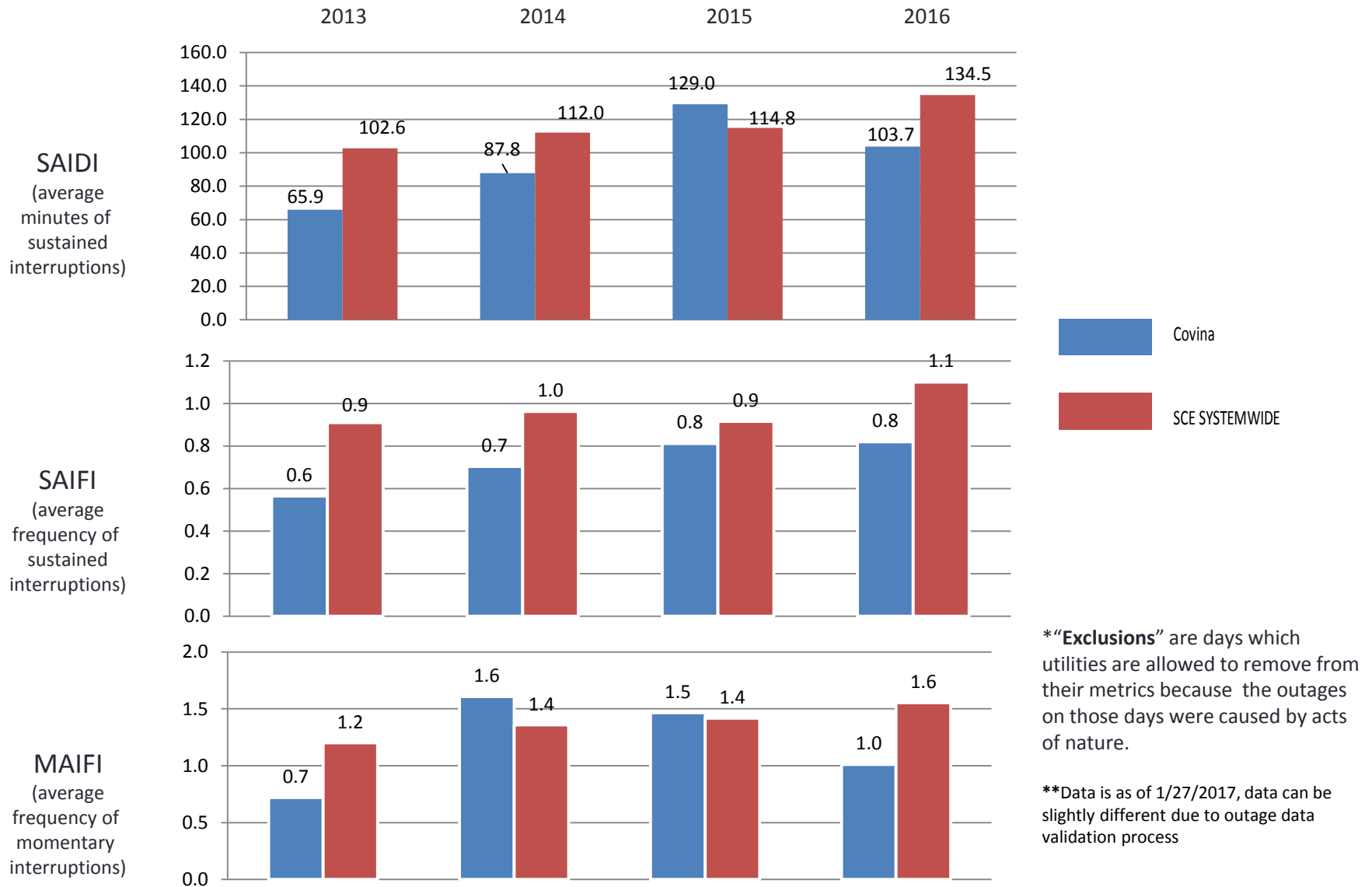
**In the columns showing "Rank," lower numbers indicate poorer performance.

Overview of Covina

There are 30 circuits that serve Covina

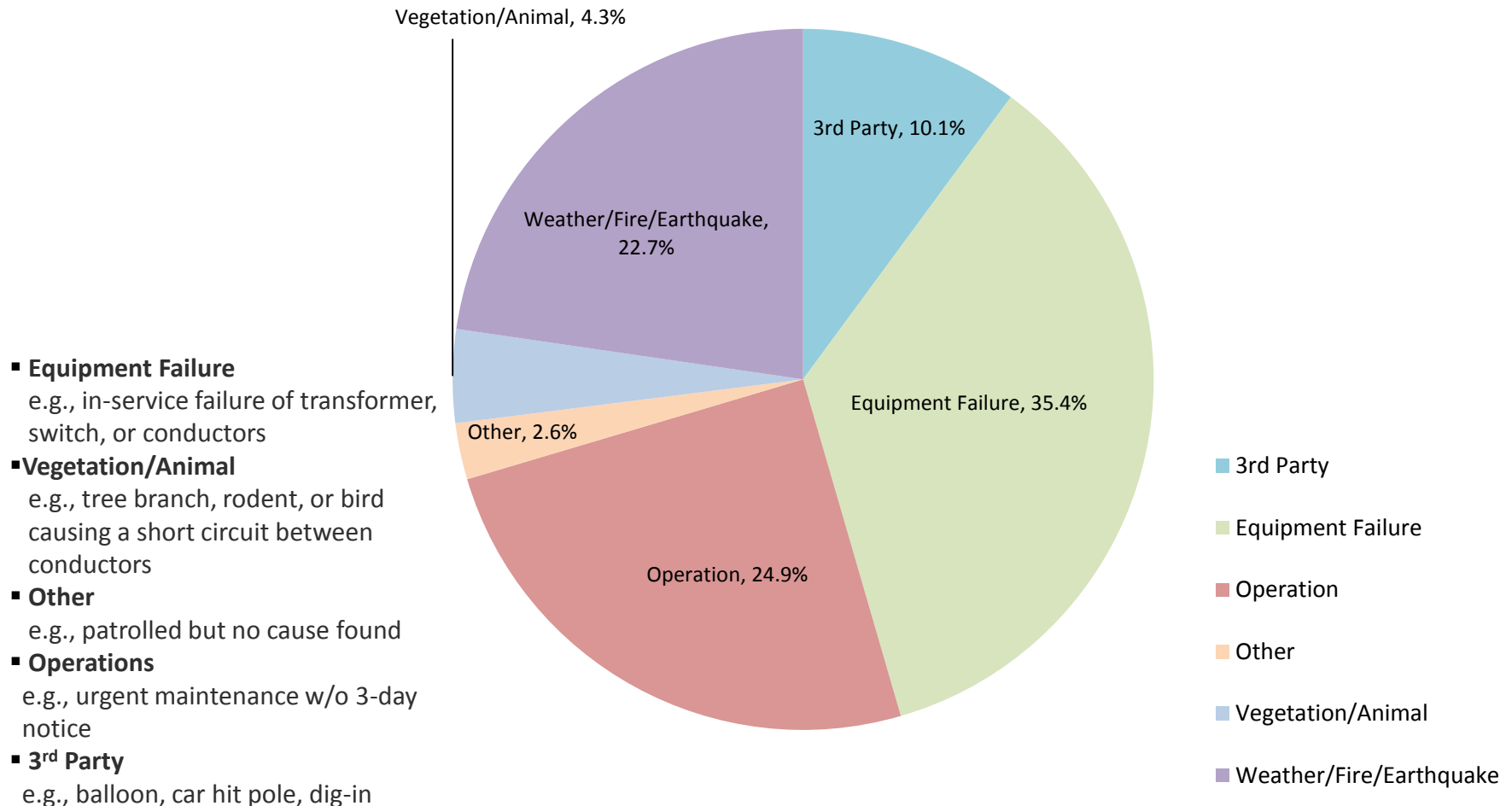
Circuit Type	Sum of Customers	Circuit Type	Sum of Customers	Circuit Type	Sum of Customers	Circuit Type	Sum of Customers
ABIGAIL(12KV)	1,326						
ALLISON(12KV)	888						
BARBARA(12KV)	1,286						
BARBOSSA(12KV)	2,032						
BENDER(12KV)	2,268						
BOSCO(12KV)	532						
CHRISTY(12KV)	564						
CREVOLIN(12KV)	1,279						
DAMERAL(12KV)	1,523						
DEANNA(12KV)	2,214						
DENISE(12KV)	1,659						
EGMONT(12KV)	838						
ELEANOR(12KV)	2,579						
GERTRUDE(12KV)	1,458						
GRAVEL(12KV)	1,626						
HAIG(12KV)	2,004						
IRENE(12KV)	526						
JARVIS(12KV)	858						
JOJO(12KV)	491						
KUMQUAT(12KV)	2,080						
LYNNE(12KV)	2,272						
MAYBELL(12KV)	1,630						
MEDAL(12KV)	1,535						
MICHELLE(12KV)	1,090						
REEDER(12KV)	1,621						
RELISH(12KV)	1,461						
SUNKIST(12KV)	1,343						
TIENDA(12KV)	3,155						
VECINO(12KV)	1,981						
VIAVERDE(12KV)	1,685						
Grand Total	45,804						

Reliability History of Circuits Serving Covina (No Exclusions)



Causes of Repair Outages in Covina Circuits 2016 YTD

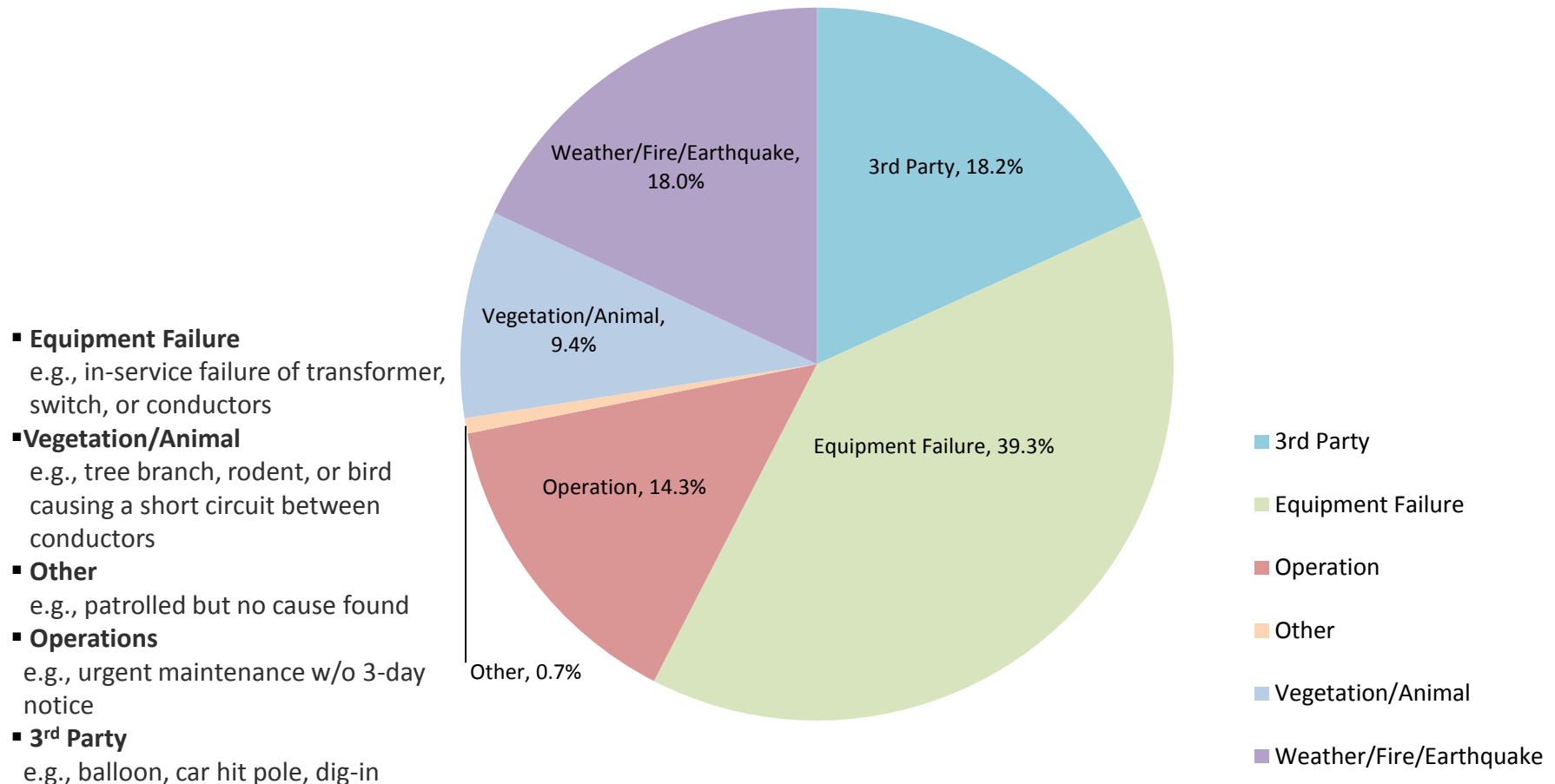
Contributions to SAIDI by Outage Cause



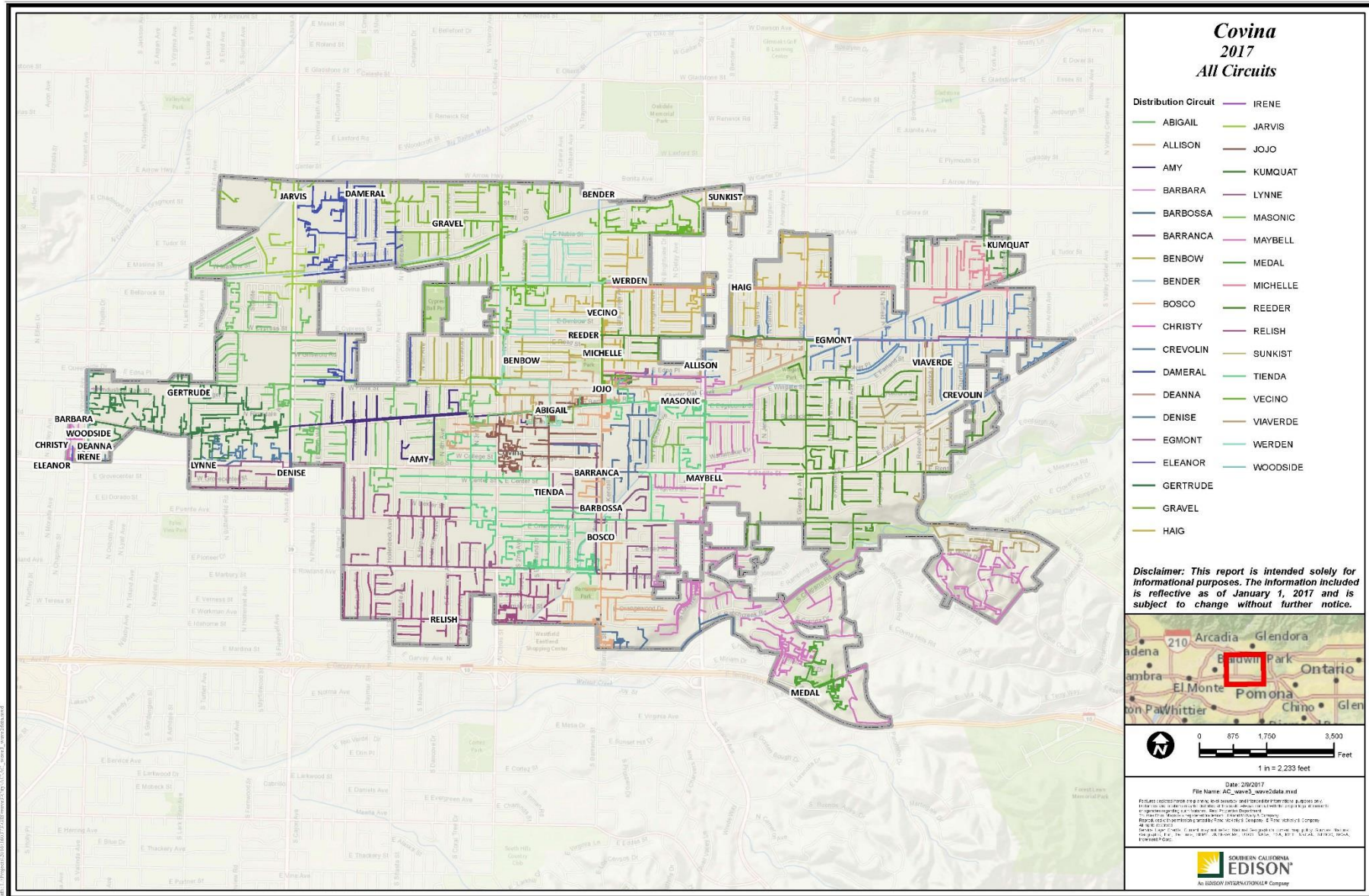
SAIDI = the cumulative amount of time the average customer is interrupted by “sustained” outages each year.

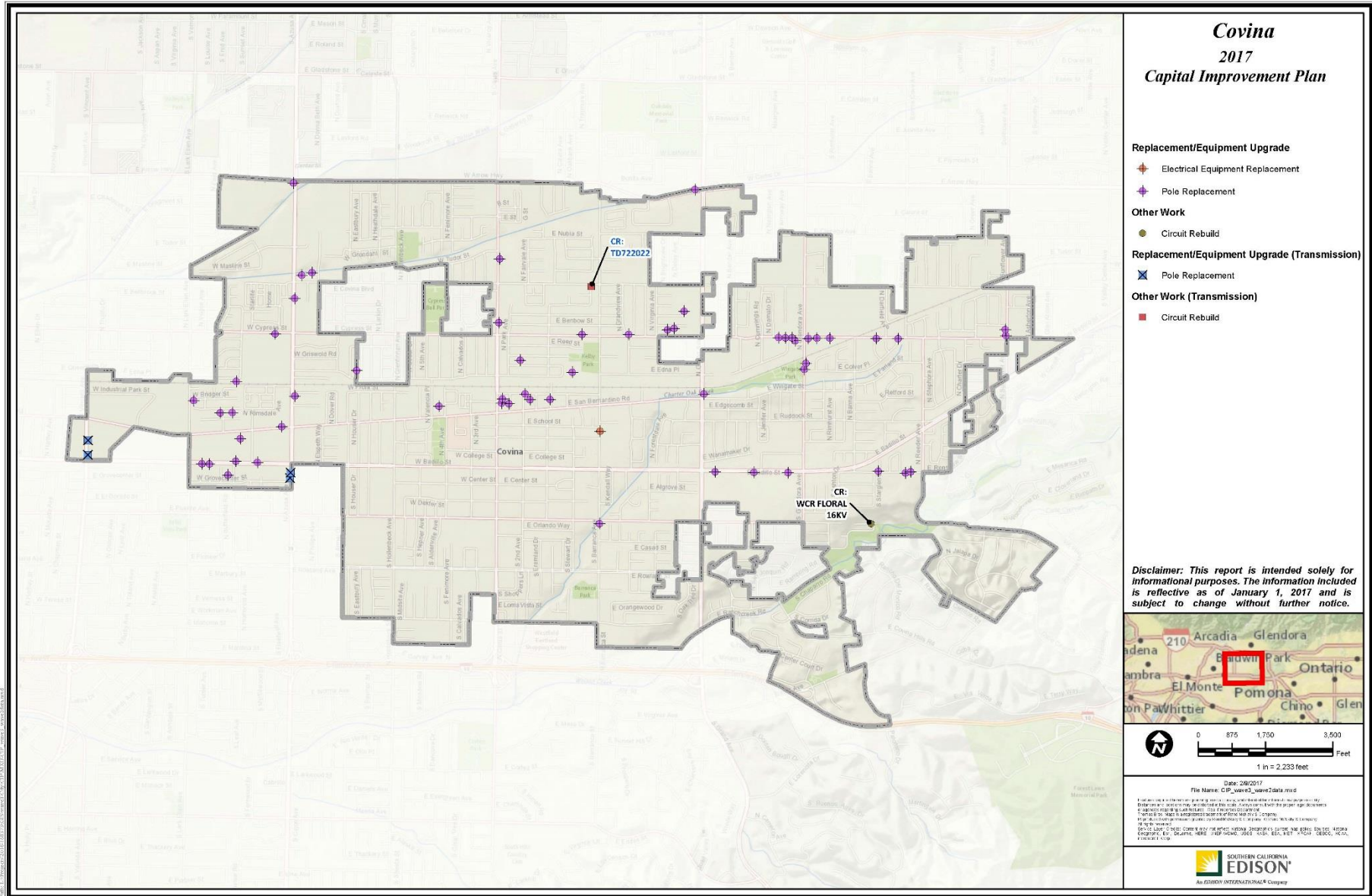
Causes of Repair Outages in Covina Circuits 2016 YTD

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 Covina

Updated through Year-End 2016

Average Reliability of 30 Circuits Serving Covina

	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
Covina	65.9	0.6	0.7	87.8	0.7	1.6	129.0	0.8	1.5	22.6	0.2	0.5	54.1	0.3	0.1	11.3	0.1	0.1	15.7	0.1	0.3	103.7	0.8	1.0
3rd Party	3%	4%	35%	39%	34%	19%	19%	22%	23%	0%	0%	53%	14%	28%	12%	27%	53%	0%	0%	0%	23%	10%	18%	36%
Equipment Failure	76%	53%	8%	35%	32%	27%	26%	32%	10%	18%	31%	4%	28%	32%	2%	54%	14%	5%	72%	88%	22%	35%	39%	10%
Operation	7%	17%	0%	4%	5%	1%	29%	15%	5%	2%	1%	14%	44%	30%	0%	3%	2%	0%	8%	6%	0%	25%	14%	7%
Other	3%	1%	23%	4%	1%	28%	8%	25%	52%	0%	0%	7%	2%	0%	25%	1%	1%	0%	10%	2%	19%	3%	1%	11%
Vegetation/Animal	11%	25%	34%	10%	19%	20%	2%	2%	8%	12%	19%	5%	0%	0%	60%	11%	30%	29%	3%	2%	15%	4%	9%	14%
Weather/Fire/Earthquake	0%	0%	0%	8%	8%	5%	16%	5%	2%	67%	48%	17%	13%	9%	0%	4%	1%	65%	6%	1%	21%	23%	18%	22%
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 Covina

	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
ABIGAIL(12KV) - Customers: 1,326	331.0	2.0	1.0	2.3	0.0	0.0	66.8	0.9	0.1	0.0	0.0	0.0	0.3	0.0	0.0	46.3	1.1	1.0	12.0	0.0	0.0	58.6	1.1	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	90%	50%	0%	0%	0%	0%	76%	91%	0%	0%	0%	0%	100%	100%	0%	0%	0%	0%	0%	0%	0%	1%	0%	0%
Operation	1%	0%	0%	0%	0%	0%	16%	6%	0%	0%	0%	0%	0%	0%	0%	1%	1%	0%	0%	0%	0%	1%	1%	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	9%	50%	100%	100%	100%	0%	9%	4%	0%	0%	0%	0%	0%	0%	0%	99%	99%	100%	0%	0%	0%	78%	96%	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%	21%	3%	0%
ALLISON(12KV) - Customers: 888	0.0	0.0	0.0	0.0	0.0	0.0	142.8	2.7	4.6	0.0	0.0	0.6	0.0	0.0	0.0	0.0	0.0	0.0	5.9	0.0	0.0	5.9	0.0	0.6
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%	56%	79%	79%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%
Operation	0%	0%	0%	0%	0%	0%	43%	16%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%	100%	0%	100%	100%	0%
Other	0%	0%	0%	0%	0%	0%	1%	5%	21%	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%
BARBARA(12KV) - Customers: 1,286	0.0	0.0	0.6	0.0	0.0	0.0	0.0	0.0	1.3	0.0	0.0	0.9	5.0	0.0	0.0	13.8	0.0	0.0	6.8	0.0	0.0	25.6	0.1	0.9
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%	0%	0%	0%	0%	0%	0%	0%	0%	0%	92%	85%	0%	100%	100%	0%	100%	100%	0%	98%	97%	0%
Operation	0%	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	100%	8%	15%	0%	0%	0%	0%	0%	0%	0%	2%	3%	100%
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%
BARBOSSA(12KV) - Customers: 2,032	0.0	0.0	0.0	0.0	0.0	1.0	0.5	0.0	2.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	1.0	0.2	0.0	2.0
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%	50%
Equipment Failure	0%	0%	0%	0%	0%	0%	100%	100%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%	100%	100%	100%	100%	50%
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%	100%	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%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Reliability Histories for Individual Circuits Serving Covina

	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
BENDER(12KV) - Customers: 2,268	310.8	3.0	0.0	134.2	0.5	1.1	292.1	1.0	2.0	0.0	0.0	0.0	26.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	26.7	0.0	0.0
3rd Party	1%	0%	0%	100%	96%	100%	0%	0%	0%	0%	0%	0%	8%	44%	0%	0%	0%	0%	0%	0%	0%	8%	44%	0%
Equipment Failure	99%	100%	0%	0%	0%	0%	2%	2%	0%	0%	0%	0%	92%	56%	0%	0%	0%	0%	0%	0%	0%	92%	56%	0%
Operation	0%	0%	0%	0%	4%	0%	98%	98%	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%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
BOSCO(12KV) - Customers: 532	0.0	0.0	0.0	0.0	0.0	1.0	0.0	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%	0%	0%	0%	0%	0%	0%	49%	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%	100%	0%	0%	51%	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%
CHRISTY(12KV) - Customers: 564	0.0	0.0	0.0	50.4	1.0	0.0	18.4	0.0	1.0	0.0	0.0	1.0	0.0	0.0	0.0	27.4	0.2	0.0	0.0	0.0	0.0	27.4	0.2	1.0
3rd Party	0%	0%	0%	15%	1%	0%	0%	0%	0%	0%	0%	100%	0%	0%	0%	100%	100%	0%	0%	0%	0%	100%	100%	100%
Equipment Failure	0%	0%	0%	85%	99%	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%	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%	100%	100%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
CREVOLIN(12KV) - Customers: 1,279	16.6	0.2	1.0	3.8	0.1	1.0	69.8	0.2	2.0	0.0	0.0	0.0	0.0	0.0	0.0	10.7	0.0	0.0	0.0	0.0	0.0	10.7	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%	38%	12%	0%	0%	0%	0%	0%	0%	0%	100%	100%	0%	0%	0%	0%	100%	100%	0%
Operation	94%	93%	0%	100%	100%	0%	62%	88%	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	6%	7%	100%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Weather/Fire/Earthquake	0%	0%	0%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Reliability Histories for Individual Circuits Serving Covina

	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
DAMERAL(12KV) - Customers: 1,523	1.0	0.0	0.0	276.0	1.8	1.4	228.9	1.7	3.5	0.0	0.0	0.0	79.0	0.7	0.3	0.0	0.0	0.0	0.0	0.0	0.0	79.0	0.7	0.3
3rd Party	0%	0%	0%	38%	39%	19%	0%	0%	0%	0%	0%	0%	100%	100%	100%	0%	0%	0%	0%	0%	0%	100%	100%	100%
Equipment Failure	100%	100%	0%	62%	61%	81%	86%	41%	45%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Operation	0%	0%	0%	0%	0%	0%	4%	5%	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%	29%	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%	10%	54%	26%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
DEANNA(12KV) - Customers: 2,214	0.6	0.0	1.0	99.4	2.3	3.1	89.4	1.0	1.0	51.7	1.0	1.0	0.0	0.0	0.0	68.2	1.1	0.0	26.1	0.1	0.0	146.0	2.1	1.0
3rd Party	0%	0%	100%	66%	61%	42%	75%	96%	0%	0%	0%	100%	0%	0%	0%	77%	95%	0%	0%	0%	0%	36%	47%	100%
Equipment Failure	0%	0%	0%	1%	0%	0%	8%	1%	0%	100%	100%	0%	0%	0%	0%	23%	5%	0%	0%	0%	0%	46%	49%	0%
Operation	0%	0%	0%	1%	0%	0%	17%	3%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Other	0%	0%	0%	0%	0%	29%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	62%	36%	0%	11%	2%	0%
Vegetation/Animal	100%	100%	0%	32%	39%	29%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	0%	0%	38%	64%	0%	7%	3%	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%
DENISE(12KV) - Customers: 1,659	0.0	0.0	0.0	0.0	0.0	0.0	14.1	0.0	0.0	191.2	1.7	1.7	47.9	1.7	0.0	3.7	0.1	0.0	42.9	0.2	0.0	285.7	3.8	1.7
3rd Party	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%	100%	0%	0%	0%	0%	1%	2%	0%
Equipment Failure	0%	0%	0%	0%	0%	0%	100%	100%	0%	0%	0%	0%	100%	100%	0%	0%	0%	0%	0%	0%	0%	17%	46%	0%
Operation	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	82%	96%	0%	12%	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%	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%	18%	4%	0%	70%	46%	100%
EGMONT(12KV) - Customers: 838	14.8	0.7	1.0	0.0	0.0	1.0	172.8	0.3	1.0	0.0	0.0	0.0	194.9	1.0	1.0	0.0	0.0	0.0	1.5	0.0	0.0	196.4	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%	0%	0%	0%	100%	100%	0%	0%	0%	0%	100%	100%	0%	100%	100%	0%
Operation	0%	0%	0%	0%	0%	0%	100%	99%	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%	100%	0%	0%	0%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	0%	100%
Vegetation/Animal	100%	100%	100%	0%	0%	0%	0%	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%

Reliability Histories for Individual Circuits Serving Covina

	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
ELEANOR(12KV) - Customers: 2,579	3.5	0.0	2.0	14.5	0.0	0.0	217.7	0.3	0.9	0.9	0.0	0.9	0.0	0.0	0.0	6.3	0.0	0.0	5.0	0.0	1.1	12.1	0.0	1.9
3rd Party	0%	0%	100%	0%	0%	0%	69%	50%	0%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	45%
Equipment Failure	100%	100%	0%	77%	30%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Operation	0%	0%	0%	23%	70%	0%	0%	0%	100%	100%	100%	0%	100%	100%	0%	100%	100%	0%	2%	13%	0%	60%	77%	0%
Other	0%	0%	0%	0%	0%	0%	31%	50%	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%	98%	87%	100%	40%	23%	55%
GERTRUDE(12KV) - Customers: 1,458	0.0	0.0	0.0	118.4	1.0	1.0	56.3	0.9	0.1	0.0	0.0	0.9	249.7	1.0	0.1	0.0	0.0	0.0	28.3	0.1	0.0	278.0	1.0	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%	94%
Equipment Failure	0%	0%	0%	100%	100%	100%	100%	100%	100%	0%	0%	0%	99%	89%	100%	0%	0%	0%	0%	0%	0%	89%	83%	6%
Operation	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	1%	11%	0%	0%	0%	0%	0%	0%	0%	1%	10%	0%
Other	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%	100%	0%	10%	6%	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%
GRAVEL(12KV) - Customers: 1,626	0.0	0.0	0.0	18.3	0.1	2.0	89.1	1.1	0.0	2.7	0.0	1.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	2.9	0.0	1.0
3rd Party	0%	0%	0%	44%	21%	100%	1%	7%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Equipment Failure	0%	0%	0%	42%	44%	0%	99%	93%	0%	0%	0%	0%	0%	0%	0%	100%	100%	0%	0%	0%	0%	7%	24%	0%
Operation	0%	0%	0%	13%	36%	0%	0%	0%	0%	100%	100%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	93%	76%	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%	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%
HAIG(12KV) - Customers: 2,004	0.8	0.0	1.0	18.0	1.0	1.0	295.6	3.8	2.3	0.0	0.0	0.0	103.0	1.0	0.0	0.0	0.0	0.0	83.2	1.6	0.0	186.2	2.6	0.0
3rd Party	0%	0%	0%	0%	0%	0%	80%	29%	57%	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%	45%	62%	0%
Operation	100%	100%	0%	0%	0%	0%	1%	0%	0%	0%	0%	0%	12%	95%	0%	0%	0%	0%	0%	0%	0%	7%	36%	0%
Other	0%	0%	0%	0%	0%	0%	19%	70%	43%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Vegetation/Animal	0%	0%	100%	100%	100%	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%	88%	5%	0%	0%	0%	0%	0%	0%	0%	49%	2%	0%

Reliability Histories for Individual Circuits Serving Covina

	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
IRENE(12KV) - Customers: 526	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	283.0	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2	283.0	0.8	1.2
3rd Party	0%	0%	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%	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%	0%	0%	0%	0%	100%	100%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%	100%	100%	100%
JARVIS(12KV) - Customers: 858	43.7	0.1	4.1	254.5	0.7	0.1	2012.3	1.7	1.4	2.5	0.0	0.0	1212.9	0.1	0.0	186.7	0.1	0.0	0.0	0.0	0.1	1402.1	0.2	0.1
3rd Party	0%	0%	24%	16%	41%	0%	3%	20%	71%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Equipment Failure	13%	13%	49%	0%	0%	0%	3%	5%	0%	100%	100%	0%	0%	0%	0%	100%	100%	0%	0%	0%	0%	13%	46%	0%
Operation	0%	0%	0%	9%	18%	0%	35%	69%	13%	0%	0%	0%	100%	100%	0%	0%	0%	0%	0%	0%	0%	87%	54%	0%
Other	87%	87%	27%	55%	25%	100%	3%	4%	15%	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%	20%	16%	0%	55%	3%	2%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
JOJO(12KV) - Customers: 491	0.0	0.0	0.0	212.7	2.3	1.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd Party	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Equipment Failure	0%	0%	0%	100%	100%	100%	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%	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%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
KUMQUAT(12KV) - Customers: 2,080	0.8	0.0	1.0	189.6	1.3	3.9	14.5	0.1	0.0	0.0	0.0	1.0	5.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	5.9	0.0	2.0
3rd Party	0%	0%	0%	41%	77%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Equipment Failure	0%	0%	0%	55%	15%	26%	32%	43%	0%	0%	0%	0%	62%	68%	0%	0%	0%	0%	0%	0%	0%	62%	68%	0%
Operation	13%	10%	0%	0%	0%	0%	68%	57%	0%	0%	0%	100%	38%	32%	0%	0%	0%	0%	0%	0%	0%	38%	32%	50%
Other	0%	0%	100%	4%	8%	49%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Vegetation/Animal	87%	90%	0%	0%	0%	26%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%	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%

Reliability Histories for Individual Circuits Serving Covina

	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
LYNNE(12KV) - Customers: 2,272	5.9	0.0	0.9	293.8	0.8	0.3	0.1	0.0	1.0	122.2	0.9	1.6	6.5	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	128.8	1.0	1.6
3rd Party	0%	0%	0%	90%	81%	100%	0%	0%	0%	0%	0%	60%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	60%
Equipment Failure	100%	100%	0%	10%	19%	0%	0%	0%	0%	0%	0%	0%	86%	58%	0%	100%	100%	0%	0%	0%	0%	4%	1%	0%
Operation	0%	0%	0%	0%	0%	0%	100%	100%	0%	0%	0%	0%	14%	42%	0%	0%	0%	0%	0%	0%	0%	1%	1%	0%
Other	0%	0%	100%	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%	40%	0%	0%	0%	0%	0%	0%	0%	0%	0%	95%	98%	40%
MAYBELL(12KV) - Customers: 1,630	34.7	0.2	0.0	38.2	0.2	3.0	139.1	1.7	3.2	7.6	0.0	0.0	16.4	0.0	0.0	29.9	0.1	0.0	0.0	0.0	1.0	53.8	0.1	1.0
3rd Party	0%	0%	0%	0%	0%	33%	28%	37%	74%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	100%
Equipment Failure	0%	0%	0%	44%	13%	0%	33%	49%	0%	0%	0%	0%	100%	100%	0%	91%	73%	0%	0%	0%	0%	81%	73%	0%
Operation	12%	40%	0%	7%	68%	0%	5%	2%	0%	100%	100%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	14%	11%	0%
Other	88%	60%	0%	0%	0%	33%	20%	4%	26%	0%	0%	0%	0%	0%	0%	9%	27%	0%	0%	0%	0%	5%	15%	0%
Vegetation/Animal	0%	0%	0%	0%	0%	33%	13%	7%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Weather/Fire/Earthquake	0%	0%	0%	49%	18%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
MEDAL(12KV) - Customers: 1,535	56.3	2.7	2.0	129.0	1.7	2.0	138.7	0.8	5.0	46.7	0.7	0.4	0.5	0.0	0.0	10.8	0.2	0.1	0.0	0.0	1.0	58.0	0.9	1.5
3rd Party	63%	25%	50%	44%	51%	43%	2%	42%	40%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Equipment Failure	0%	0%	0%	2%	1%	0%	82%	29%	20%	100%	100%	100%	0%	0%	0%	58%	95%	100%	0%	0%	0%	91%	99%	34%
Operation	24%	38%	0%	7%	25%	0%	16%	29%	0%	0%	0%	0%	0%	0%	0%	1%	2%	0%	0%	0%	0%	0%	0%	0%
Other	0%	0%	0%	0%	0%	0%	0%	0%	20%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	66%
Vegetation/Animal	12%	37%	50%	1%	1%	57%	0%	0%	20%	0%	0%	0%	100%	100%	0%	0%	0%	0%	0%	0%	0%	1%	0%	0%
Weather/Fire/Earthquake	0%	0%	0%	45%	22%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	41%	3%	0%	0%	0%	0%	8%	1%	0%
MICHELLE(12KV) - Customers: 1,090	241.7	1.0	1.0	0.0	0.0	0.0	164.3	2.0	3.0	0.0	0.0	0.0	79.7	1.1	0.0	0.0	0.0	0.0	10.7	1.0	2.0	90.4	2.1	2.0
3rd Party	0%	0%	100%	0%	0%	0%	10%	51%	33%	0%	0%	0%	23%	3%	0%	0%	0%	0%	0%	0%	0%	20%	2%	0%
Equipment Failure	100%	100%	0%	0%	0%	0%	67%	4%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	65%	99%	50%	8%	48%	50%
Operation	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	29%	90%	0%	0%	0%	0%	0%	0%	0%	25%	46%	0%
Other	0%	0%	0%	0%	0%	0%	15%	41%	67%	0%	0%	0%	49%	6%	0%	0%	0%	0%	0%	0%	50%	43%	3%	50%
Vegetation/Animal	0%	0%	0%	0%	0%	0%	8%	5%	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%	35%	1%	0%	4%	1%	0%

Reliability Histories for Individual Circuits Serving Covina

	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
REEDER(12KV) - Customers: 1,621	40.0	0.1	0.0	88.3	1.1	0.0	37.7	0.1	1.0	0.0	0.0	0.0	3.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.6	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	90%	52%	0%	6%	4%	0%	17%	11%	0%	0%	0%	0%	86%	45%	0%	0%	0%	0%	0%	0%	0%	86%	45%	0%
Operation	10%	48%	0%	1%	1%	0%	8%	6%	0%	0%	0%	0%	14%	55%	0%	0%	0%	0%	0%	0%	0%	14%	55%	0%
Other	0%	0%	0%	0%	0%	0%	75%	83%	100%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Vegetation/Animal	0%	0%	0%	0%	1%	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%	92%	95%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
RELISH(12KV) - Customers: 1,461	7.0	0.1	0.0	67.0	0.3	1.0	16.7	0.1	0.0	0.0	0.0	0.0	19.0	0.9	0.0	8.6	0.0	1.8	207.7	0.9	0.0	235.4	1.8	1.8
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%	84%	89%	100%	25%	4%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%	100%	0%	88%	48%	0%
Operation	10%	9%	0%	16%	11%	0%	75%	96%	0%	0%	0%	0%	100%	100%	0%	0%	0%	0%	0%	0%	0%	8%	51%	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	90%	91%	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%	100%	100%	100%	0%	0%	0%	4%	1%	100%
SUNKIST(12KV) - Customers: 1,343	4.0	0.0	0.0	6.0	0.0	1.7	36.6	0.1	0.9	92.1	1.5	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	92.1	1.5	0.8
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%	4%	2%	59%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Operation	100%	100%	0%	96%	98%	41%	14%	5%	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%	86%	95%	100%	100%	100%	100%	0%	0%	0%	0%	0%	0%	0%	0%	0%	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%
TIENDA(12KV) - Customers: 3,155	7.2	0.0	0.0	66.8	0.4	3.0	24.2	0.1	1.1	0.0	0.0	0.0	62.1	1.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	63.1	1.1	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%	98%	99%	0%
Equipment Failure	100%	100%	100%	93%	94%	67%	100%	100%	0%	0%	0%	0%	0%	0%	0%	100%	100%	0%	0%	0%	0%	2%	1%	0%
Operation	0%	0%	0%	7%	6%	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%	33%	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%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Reliability Histories for Individual Circuits Serving Covina

	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
VECINO(12KV) - Customers: 1,981	128.4	1.0	1.0	185.7	1.1	1.0	7.7	0.0	2.0	1.5	0.0	1.0	67.5	0.7	1.0	0.0	0.0	0.0	0.2	0.0	0.0	69.2	0.7	2.0
3rd Party	8%	1%	100%	0%	0%	0%	100%	100%	50%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	49%
Equipment Failure	0%	0%	0%	1%	1%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Operation	0%	0%	0%	9%	8%	0%	0%	0%	0%	100%	100%	0%	0%	0%	0%	0%	0%	0%	100%	100%	0%	3%	3%	0%
Other	0%	0%	0%	0%	0%	100%	0%	0%	50%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Vegetation/Animal	92%	99%	0%	90%	92%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	0%	51%
Weather/Fire/Earthquake	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%	100%	0%	0%	0%	0%	0%	0%	0%	97%	97%	0%
VIAVERDE(12KV) - Customers: 1,685	257.7	2.1	2.6	80.6	1.3	7.3	129.0	2.3	1.0	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	1.2	0.0	0.9
3rd Party	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	100%
Equipment Failure	76%	49%	9%	91%	96%	32%	67%	53%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Operation	24%	51%	0%	6%	3%	0%	17%	3%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Other	0%	0%	38%	0%	0%	27%	16%	44%	100%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Vegetation/Animal	0%	0%	52%	0%	0%	27%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Weather/Fire/Earthquake	0%	0%	0%	3%	1%	14%	0%	0%	0%	100%	100%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%	100%	0%