



# Circuit Reliability Review

## **Tulare District 4**

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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://www.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 San Joaquin Region

Armona

City of Tulare

## **County of Tulare**

Delano

Ducor

Earlimart

East Porterville

Exeter

Farmersville

Goshen

Hanford

Ivanhoe

Lemon Cove

Lindsay

Mcfarland

Pixley

Poplar-Cotton Center

Porterville

Richgrove

Springville

Strathmore

Terra Bella

Three Rivers

Tipton

Tulare

Visalia

Woodlake

Woodville

# 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
<b>SCE SystemWide</b>	<b>108.13</b>		<b>0.89</b>		<b>102.61</b>		<b>0.91</b>		<b>112.00</b>		<b>0.96</b>		<b>114.83</b>		<b>0.92</b>		<b>134.48</b>		<b>1.10</b>	

\*\*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.

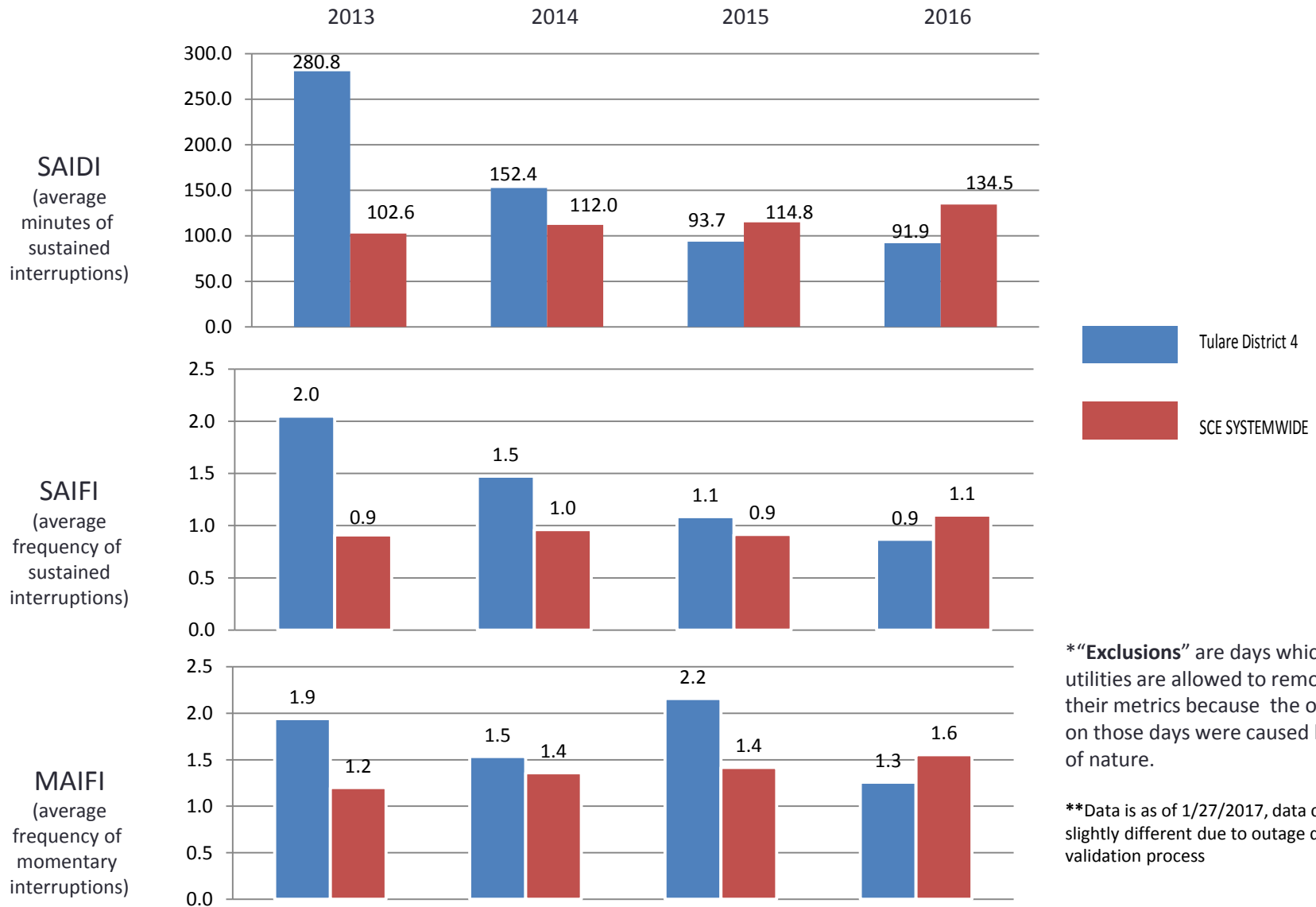
# Overview of Tulare District 4

## There are 24 circuits that serve Tulare District 4

Circuit Type	Sum of Customers	Circuit Type	Sum of Customers	Circuit Type	Sum of Customers	Circuit Type	Sum of Customers
BIGFOOT(4.16KV)	48						
CLANCY(12KV)	154						
CURTIS(12KV)	381						
CUTLER(12KV)	1,553						
GARCIA(12KV)	1,632						
GILA(12KV)	993						
HARRELL(12KV)	629						
HOMER(12KV)	170						
LINNELL(12KV)	1,507						
MERRYMAN(12KV)	449						
MISSISSIPPI(12KV)	1,375						
ORANGE BLOSSOM(12K	1,136						
RASMUSSEN(12KV)	149						
REDBANKS(12KV)	1,955						
SALT CREEK(12KV)	670						
SEQUOIA(12KV)	332						
SEVILLE(12KV)	202						
ST. JOHNS(12KV)	1,501						
TARUSA(12KV)	438						
TERMINUS(12KV)	307						
TWIN BUTTE(12KV)	628						
VIRGIL(12KV)	535						
WEBB(12KV)	846						
WELLS(12KV)	1,565						

**Grand Total** 19,155

# Reliability History of Circuits Serving Tulare District 4 (No Exclusions)

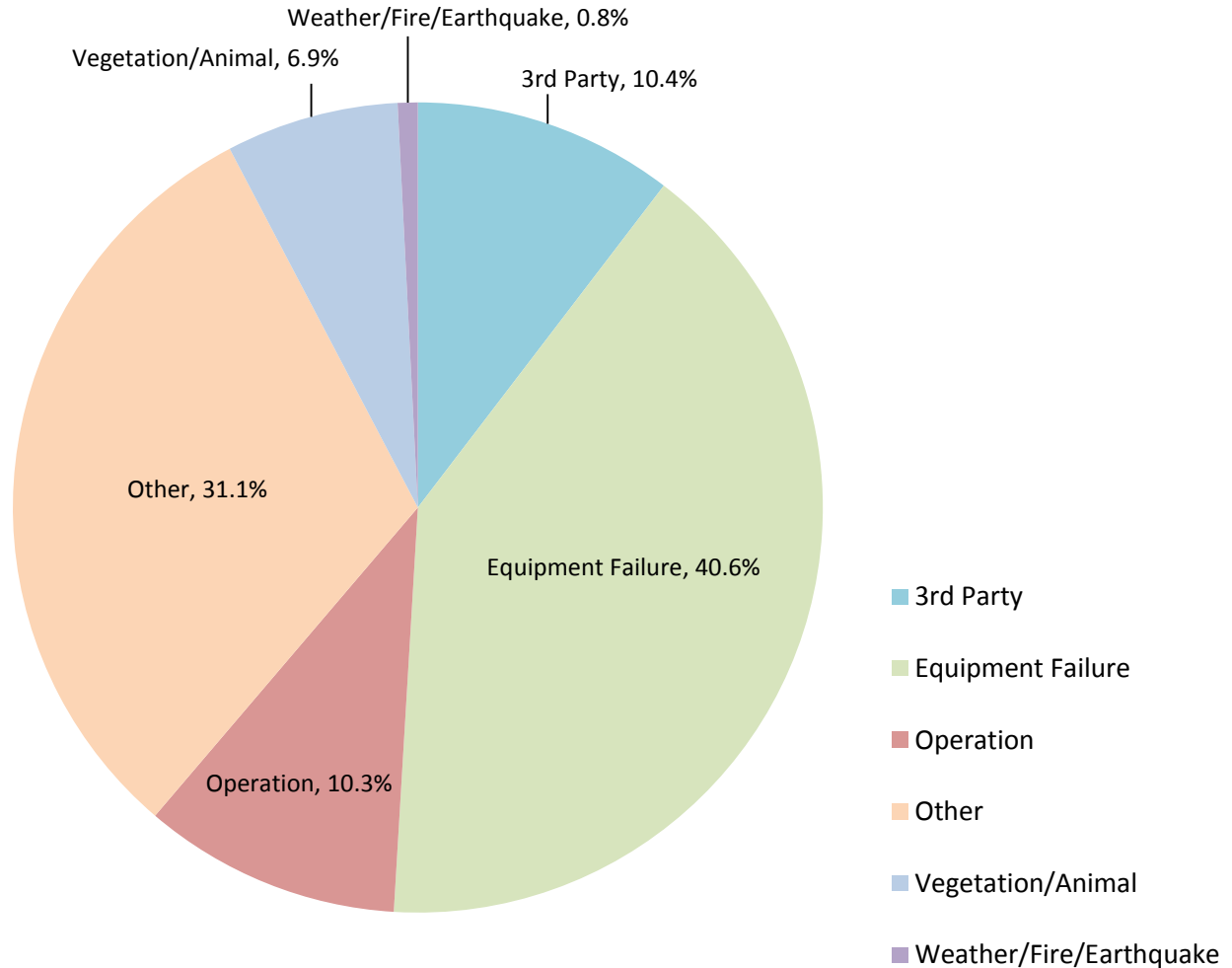




# Causes of Repair Outages in Tulare District 4 Circuits

## 2016 YTD

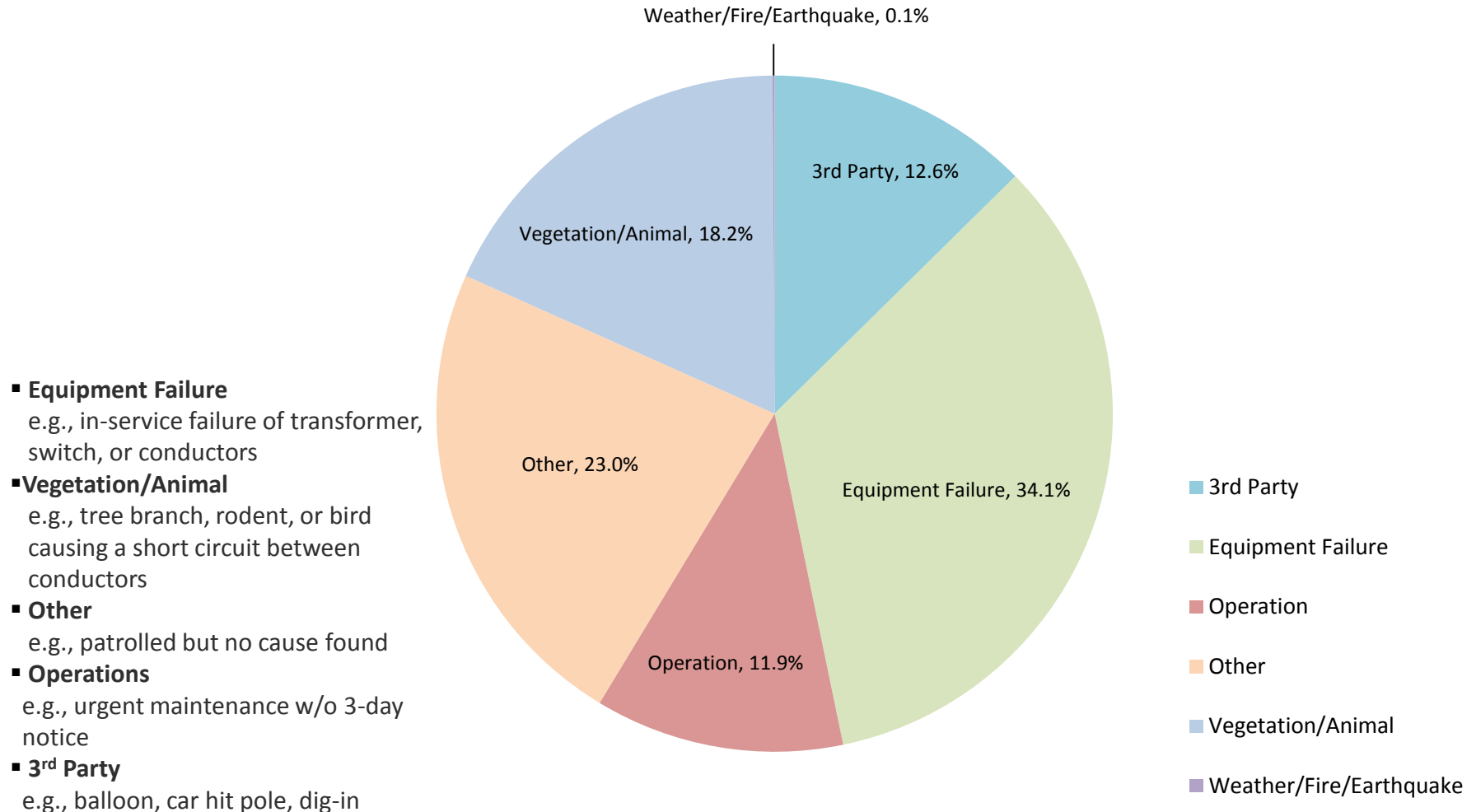
### Contributions to SAIDI by Outage Cause



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

# Causes of Repair Outages in Tulare District 4 Circuits 2016 YTD

## Contributions to SAIFI by Outage Cause



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

# **Tulare County District 4 Unincorporated Areas 2017 All Circuits**

- Unincorporated Community
- Unincorporated County Area
- Supervisory District

## **Distribution Circuit**

- SCFOOT
- CLANCT
- CLINTS
- CUTLER
- GARCIA
- GUA
- HARRILL
- CHICK
- JENSEN
- KESTERMAN
- KISS-ORRIS
- GRANT-ROSCOM
- RASMUSSEN
- REEBBANKS
- SALI-CHICK
- SEQUOIA
- SEVILLE
- ST. JOHNS
- THAMES
- TERN-HUIS
- IVERN-SUTTE
- VIRGL
- VISBE
- WILLS

**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 1.75 3.5 7 Miles

Date: 1/31/2017  
File Name: SUPER\_AC\_DDv8.mxd

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# Back-up Slides

**Reliability Histories of Circuits Serving Tulare District 4**

**Updated through Year-End 2016**

# Average Reliability of 24 Circuits Serving Tulare District 4

	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
<b>Tulare District 4</b>	<b>280.8</b>	<b>2.0</b>	<b>1.9</b>	<b>152.4</b>	<b>1.5</b>	<b>1.5</b>	<b>93.7</b>	<b>1.1</b>	<b>2.2</b>	<b>32.6</b>	<b>0.3</b>	<b>0.1</b>	<b>8.3</b>	<b>0.2</b>	<b>0.4</b>	<b>36.2</b>	<b>0.3</b>	<b>0.6</b>	<b>14.9</b>	<b>0.1</b>	<b>0.2</b>	<b>91.9</b>	<b>0.9</b>	<b>1.3</b>
3rd Party	10%	17%	12%	13%	14%	13%	29%	36%	13%	1%	9%	25%	3%	1%	3%	12%	8%	17%	32%	49%	67%	10%	13%	21%
Equipment Failure	13%	17%	24%	33%	44%	29%	29%	32%	12%	13%	3%	0%	39%	51%	6%	75%	66%	14%	17%	5%	0%	41%	34%	8%
Operation	2%	5%	1%	8%	10%	4%	6%	8%	13%	1%	14%	0%	6%	1%	1%	5%	3%	0%	44%	42%	5%	10%	12%	1%
Other	60%	41%	32%	22%	17%	19%	19%	11%	42%	84%	74%	75%	7%	2%	36%	0%	0%	51%	3%	3%	15%	31%	23%	43%
Vegetation/Animal	2%	3%	3%	1%	4%	13%	9%	12%	12%	0%	0%	0%	43%	44%	54%	8%	24%	18%	0%	0%	0%	7%	18%	25%
Weather/Fire/Earthquake	12%	17%	29%	23%	11%	23%	7%	1%	9%	0%	0%	0%	2%	0%	0%	0%	0%	0%	4%	1%	12%	1%	0%	2%
<b>SCE Systemwide</b>	<b>102.6</b>	<b>0.9</b>	<b>1.2</b>	<b>112.0</b>	<b>1.0</b>	<b>1.4</b>	<b>114.8</b>	<b>0.9</b>	<b>1.4</b>	<b>40.5</b>	<b>0.3</b>	<b>0.4</b>	<b>34.8</b>	<b>0.3</b>	<b>0.4</b>	<b>29.4</b>	<b>0.2</b>	<b>0.3</b>	<b>29.8</b>	<b>0.3</b>	<b>0.4</b>	<b>134.5</b>	<b>1.1</b>	<b>1.6</b>

## 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

3<sup>rd</sup> 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 Tulare District 4

	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
<b>BIGFOOT(4.16KV) - Customers: 48</b>	<b>6.9</b>	<b>1.0</b>	<b>4.0</b>	<b>746.0</b>	<b>8.0</b>	<b>4.0</b>	<b>0.0</b>	<b>0.0</b>	<b>6.0</b>	<b>1959.3</b>	<b>4.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>2.0</b>	<b>365.6</b>	<b>0.6</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>2324.9</b>	<b>4.6</b>	<b>2.0</b>
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%	31%	50%	25%	0%	0%	0%	74%	25%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	63%	22%	0%
Operation	0%	0%	0%	20%	13%	0%	0%	0%	17%	0%	0%	0%	0%	0%	0%	100%	100%	0%	0%	0%	0%	16%	14%	0%
Other	0%	0%	100%	49%	38%	25%	0%	0%	67%	26%	75%	0%	0%	0%	49%	0%	0%	0%	0%	0%	0%	22%	65%	49%
Vegetation/Animal	0%	0%	0%	0%	0%	0%	0%	0%	17%	0%	0%	0%	0%	0%	51%	0%	0%	0%	0%	0%	0%	0%	0%	51%
Weather/Fire/Earthquake	0%	0%	0%	0%	0%	50%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
<b>CLANCY(12KV) - Customers: 154</b>	<b>320.8</b>	<b>1.9</b>	<b>4.1</b>	<b>221.4</b>	<b>1.5</b>	<b>4.0</b>	<b>146.3</b>	<b>1.9</b>	<b>3.6</b>	<b>18.8</b>	<b>0.3</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>7.0</b>	<b>0.3</b>	<b>0.3</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>25.8</b>	<b>0.6</b>	<b>0.3</b>
3rd Party	0%	0%	0%	0%	0%	0%	24%	54%	27%	0%	0%	0%	0%	0%	0%	100%	100%	100%	0%	0%	0%	27%	51%	100%
Equipment Failure	35%	49%	0%	93%	33%	25%	37%	16%	8%	6%	5%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	5%	2%	0%
Operation	0%	0%	0%	7%	67%	0%	14%	14%	0%	94%	95%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	68%	47%	0%
Other	65%	51%	28%	0%	0%	0%	0%	0%	9%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Vegetation/Animal	0%	0%	72%	0%	0%	50%	0%	0%	56%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Weather/Fire/Earthquake	0%	0%	0%	0%	0%	25%	25%	16%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
<b>CURTIS(12KV) - Customers: 381</b>	<b>138.4</b>	<b>1.0</b>	<b>3.7</b>	<b>5.4</b>	<b>0.1</b>	<b>0.1</b>	<b>96.7</b>	<b>0.2</b>	<b>2.1</b>	<b>0.2</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>33.7</b>	<b>0.4</b>	<b>0.0</b>	<b>58.3</b>	<b>0.3</b>	<b>0.2</b>	<b>92.2</b>	<b>0.7</b>	<b>0.2</b>
3rd Party	20%	14%	27%	0%	0%	0%	54%	44%	0%	0%	0%	0%	0%	0%	0%	99%	99%	0%	21%	29%	0%	49%	73%	0%
Equipment Failure	32%	28%	8%	75%	21%	0%	35%	37%	0%	100%	100%	0%	0%	0%	0%	1%	1%	0%	0%	0%	0%	0%	1%	0%
Operation	8%	54%	0%	25%	79%	0%	0%	5%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Other	5%	1%	65%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	25%	54%	43%	16%	20%	43%
Vegetation/Animal	0%	0%	0%	0%	0%	0%	0%	0%	53%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Weather/Fire/Earthquake	35%	3%	0%	0%	0%	0%	11%	14%	47%	0%	0%	0%	0%	0%	0%	0%	0%	0%	54%	18%	57%	34%	7%	57%
<b>CUTLER(12KV) - Customers: 1,553</b>	<b>472.0</b>	<b>3.2</b>	<b>1.2</b>	<b>51.4</b>	<b>1.0</b>	<b>1.0</b>	<b>9.7</b>	<b>0.1</b>	<b>2.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>2.4</b>	<b>0.0</b>	<b>0.0</b>	<b>34.9</b>	<b>0.1</b>	<b>1.0</b>	<b>0.9</b>	<b>0.0</b>	<b>0.0</b>	<b>38.2</b>	<b>0.1</b>	<b>1.0</b>
3rd Party	14%	37%	6%	0%	0%	0%	16%	15%	52%	0%	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	0%	0%	0%	100%
Equipment Failure	31%	29%	91%	92%	98%	0%	4%	3%	0%	0%	0%	0%	0%	0%	0%	75%	43%	0%	0%	0%	0%	69%	30%	0%
Operation	1%	3%	3%	1%	1%	0%	80%	82%	48%	0%	0%	0%	0%	0%	0%	25%	57%	0%	100%	100%	0%	25%	60%	0%
Other	54%	31%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%	100%	0%	0%	0%	0%	0%	0%	0%	6%	11%	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%	8%	1%	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 Tulare District 4

	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
<b>GARCIA(12KV) - Customers: 1,632</b>	<b>289.1</b>	<b>1.1</b>	<b>1.0</b>	<b>122.5</b>	<b>1.1</b>	<b>0.0</b>	<b>8.7</b>	<b>0.1</b>	<b>1.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>23.2</b>	<b>1.0</b>	<b>0.3</b>	<b>34.6</b>	<b>0.7</b>	<b>1.3</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>57.8</b>	<b>1.7</b>	<b>1.5</b>
3rd Party	18%	10%	100%	0%	0%	0%	52%	11%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Equipment Failure	3%	2%	0%	96%	98%	0%	0%	0%	0%	0%	0%	0%	100%	100%	100%	7%	1%	0%	0%	0%	0%	44%	58%	17%
Operation	0%	0%	0%	4%	2%	0%	48%	89%	100%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Other	79%	88%	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%	93%	99%	100%	0%	0%	0%	56%	42%	83%
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%
<b>GILA(12KV) - Customers: 993</b>	<b>201.7</b>	<b>0.9</b>	<b>1.8</b>	<b>2.3</b>	<b>0.1</b>	<b>0.0</b>	<b>30.7</b>	<b>0.1</b>	<b>1.9</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>1.5</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>1.5</b>	<b>0.0</b>	<b>0.0</b>
3rd Party	0%	0%	50%	0%	0%	0%	11%	14%	53%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Equipment Failure	0%	0%	0%	57%	1%	0%	41%	16%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Operation	0%	0%	0%	43%	99%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Other	98%	99%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%	100%	0%	0%	0%	0%	0%	0%	0%	100%	100%	0%
Vegetation/Animal	0%	0%	0%	0%	0%	0%	44%	68%	47%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Weather/Fire/Earthquake	2%	0%	50%	0%	0%	0%	4%	1%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
<b>HARRELL(12KV) - Customers: 629</b>	<b>114.5</b>	<b>1.0</b>	<b>1.5</b>	<b>78.3</b>	<b>1.6</b>	<b>3.4</b>	<b>111.2</b>	<b>0.7</b>	<b>4.4</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.2</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.9</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.2</b>	<b>0.0</b>	<b>0.9</b>
3rd Party	0%	0%	0%	92%	63%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Equipment Failure	0%	0%	0%	1%	0%	0%	72%	83%	10%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Operation	0%	0%	0%	8%	37%	12%	1%	1%	0%	0%	0%	0%	100%	100%	0%	0%	0%	0%	0%	0%	0%	100%	100%	0%
Other	37%	54%	100%	0%	0%	88%	5%	11%	44%	0%	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	0%	0%	0%	100%
Vegetation/Animal	0%	0%	0%	0%	0%	0%	0%	0%	23%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Weather/Fire/Earthquake	63%	46%	0%	0%	0%	0%	22%	6%	23%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
<b>HOMER(12KV) - Customers: 170</b>	<b>736.9</b>	<b>1.5</b>	<b>6.3</b>	<b>58.1</b>	<b>1.5</b>	<b>5.5</b>	<b>9.1</b>	<b>0.5</b>	<b>5.5</b>	<b>0.0</b>	<b>0.0</b>	<b>1.0</b>	<b>31.9</b>	<b>1.0</b>	<b>1.5</b>	<b>1.7</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>33.6</b>	<b>1.0</b>	<b>2.5</b>
3rd Party	0%	0%	0%	63%	33%	9%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Equipment Failure	0%	0%	16%	37%	67%	0%	0%	0%	0%	0%	0%	0%	93%	97%	0%	0%	0%	0%	0%	0%	0%	89%	95%	0%
Operation	0%	0%	0%	0%	0%	0%	100%	100%	9%	0%	0%	0%	7%	3%	33%	100%	100%	0%	0%	0%	0%	11%	5%	19%
Other	100%	100%	84%	0%	0%	36%	0%	0%	72%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	41%
Vegetation/Animal	0%	0%	0%	0%	0%	18%	0%	0%	18%	0%	0%	0%	0%	0%	67%	0%	0%	0%	0%	0%	0%	0%	0%	40%
Weather/Fire/Earthquake	0%	0%	0%	0%	0%	37%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%



# Reliability Histories for Individual Circuits Serving Tulare District 4

	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
<b>LINNELL(12KV) - Customers: 1,507</b>	<b>221.7</b>	<b>1.6</b>	<b>0.7</b>	<b>34.4</b>	<b>0.3</b>	<b>1.0</b>	<b>162.2</b>	<b>2.1</b>	<b>4.0</b>	<b>4.3</b>	<b>0.3</b>	<b>0.3</b>	<b>43.2</b>	<b>1.0</b>	<b>0.0</b>	<b>4.9</b>	<b>0.1</b>	<b>0.0</b>	<b>1.1</b>	<b>0.0</b>	<b>0.3</b>	<b>53.5</b>	<b>1.4</b>	<b>0.6</b>
3rd Party	1%	1%	0%	55%	88%	0%	49%	48%	25%	100%	100%	100%	0%	0%	0%	95%	85%	0%	0%	0%	0%	17%	24%	50%
Equipment Failure	3%	1%	100%	20%	3%	0%	1%	0%	25%	0%	0%	0%	0%	0%	0%	5%	15%	0%	0%	0%	0%	0%	1%	0%
Operation	0%	0%	0%	0%	0%	0%	11%	4%	25%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%	100%	0%	2%	0%	0%
Other	82%	97%	0%	0%	0%	100%	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%	35%	48%	0%	0%	0%	0%	100%	100%	0%	0%	0%	0%	0%	0%	0%	81%	75%	0%
Weather/Fire/Earthquake	14%	2%	0%	25%	9%	0%	4%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	50%
<b>MERRYMAN(12KV) - Customers: 449</b>	<b>668.3</b>	<b>5.5</b>	<b>7.5</b>	<b>33.0</b>	<b>1.0</b>	<b>0.0</b>	<b>9.4</b>	<b>0.0</b>	<b>0.0</b>	<b>0.8</b>	<b>0.0</b>	<b>0.0</b>	<b>9.8</b>	<b>0.7</b>	<b>0.3</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.7</b>	<b>0.0</b>	<b>0.0</b>	<b>11.3</b>	<b>0.7</b>	<b>0.3</b>
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	1%	0%	0%	27%	2%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%	100%	0%	6%	1%	0%
Operation	0%	0%	0%	73%	98%	0%	0%	0%	0%	19%	20%	0%	30%	3%	0%	0%	0%	0%	0%	0%	0%	27%	3%	0%
Other	61%	35%	22%	0%	0%	0%	100%	100%	0%	81%	80%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	6%	1%	0%
Vegetation/Animal	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	70%	97%	100%	0%	0%	0%	0%	0%	0%	60%	95%	100%
Weather/Fire/Earthquake	39%	65%	78%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
<b>MISSISSIPPI(12KV) - Customers: 1,375</b>	<b>297.9</b>	<b>1.2</b>	<b>1.2</b>	<b>365.1</b>	<b>3.0</b>	<b>1.0</b>	<b>2.0</b>	<b>0.1</b>	<b>0.0</b>	<b>3.4</b>	<b>0.0</b>	<b>0.0</b>	<b>3.2</b>	<b>0.0</b>	<b>0.9</b>	<b>0.3</b>	<b>0.0</b>	<b>0.0</b>	<b>1.1</b>	<b>0.0</b>	<b>0.0</b>	<b>8.1</b>	<b>0.0</b>	<b>0.9</b>
3rd Party	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	40%	76%	0%	0%	0%	0%	0%	0%	0%	16%	40%	0%
Equipment Failure	0%	0%	0%	15%	55%	33%	0%	0%	0%	100%	100%	0%	0%	0%	0%	0%	0%	0%	17%	9%	0%	45%	20%	0%
Operation	2%	0%	0%	0%	0%	0%	100%	100%	0%	0%	0%	0%	0%	0%	0%	100%	100%	0%	0%	0%	0%	3%	3%	0%
Other	92%	84%	9%	1%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	0%	83%	91%	0%	12%	25%	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	5%	15%	91%	85%	44%	67%	0%	0%	0%	0%	0%	0%	60%	24%	0%	0%	0%	0%	0%	0%	0%	24%	13%	0%
<b>ORANGE BLOSSOM(12KV) - Customers: 1</b>	<b>12.6</b>	<b>0.1</b>	<b>1.0</b>	<b>125.7</b>	<b>1.4</b>	<b>0.0</b>	<b>82.0</b>	<b>0.6</b>	<b>0.6</b>	<b>0.9</b>	<b>0.0</b>	<b>0.0</b>	<b>4.4</b>	<b>0.0</b>	<b>1.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>26.2</b>	<b>1.1</b>	<b>0.2</b>	<b>31.5</b>	<b>1.1</b>	<b>1.2</b>
3rd Party	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%	100%	100%	83%	97%	20%
Equipment Failure	13%	4%	0%	0%	0%	0%	88%	99%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Operation	87%	96%	0%	57%	37%	0%	0%	0%	0%	0%	0%	0%	100%	100%	0%	100%	100%	0%	0%	0%	0%	14%	3%	0%
Other	0%	0%	100%	0%	0%	0%	0%	0%	100%	100%	100%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	3%	0%	0%
Vegetation/Animal	0%	0%	0%	24%	59%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	0%	80%
Weather/Fire/Earthquake	0%	0%	0%	18%	3%	0%	12%	1%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

# Reliability Histories for Individual Circuits Serving Tulare District 4

	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
<b>RASMUSSEN(12KV) - Customers: 149</b>	<b>862.1</b>	<b>3.4</b>	<b>4.8</b>	<b>270.3</b>	<b>2.3</b>	<b>2.8</b>	<b>0.0</b>	<b>0.0</b>	<b>2.0</b>	<b>3.2</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>291.9</b>	<b>0.5</b>	<b>1.4</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>295.1</b>	<b>0.5</b>	<b>1.4</b>
3rd Party	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	97%	97%	100%	0%	0%	0%	96%	95%	100%
Equipment Failure	15%	34%	17%	100%	100%	29%	0%	0%	0%	100%	100%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	1%	2%	0%
Operation	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	3%	3%	0%	0%	0%	0%	3%	3%	0%
Other	67%	59%	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%	63%	0%	0%	71%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Weather/Fire/Earthquake	18%	8%	21%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
<b>REDBANKS(12KV) - Customers: 1,955</b>	<b>214.8</b>	<b>2.0</b>	<b>1.1</b>	<b>215.1</b>	<b>1.5</b>	<b>2.3</b>	<b>317.2</b>	<b>3.8</b>	<b>2.4</b>	<b>81.4</b>	<b>0.7</b>	<b>0.0</b>	<b>1.3</b>	<b>0.0</b>	<b>0.5</b>	<b>51.0</b>	<b>0.4</b>	<b>2.6</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>133.7</b>	<b>1.1</b>	<b>3.1</b>
3rd Party	0%	0%	0%	19%	38%	0%	20%	27%	0%	0%	0%	0%	9%	8%	20%	0%	0%	0%	0%	0%	0%	0%	0%	3%
Equipment Failure	15%	22%	61%	80%	61%	83%	32%	43%	8%	0%	0%	0%	28%	17%	0%	100%	99%	0%	0%	0%	0%	38%	33%	0%
Operation	6%	1%	1%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	1%	0%	0%	0%	0%	0%	0%	0%
Other	46%	51%	13%	1%	0%	17%	47%	29%	88%	100%	100%	0%	63%	75%	80%	0%	0%	100%	0%	0%	0%	61%	66%	97%
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	33%	26%	26%	0%	0%	0%	1%	0%	4%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
<b>SALT CREEK(12KV) - Customers: 670</b>	<b>218.7</b>	<b>1.8</b>	<b>6.0</b>	<b>440.2</b>	<b>7.6</b>	<b>3.3</b>	<b>49.3</b>	<b>0.0</b>	<b>8.0</b>	<b>506.4</b>	<b>3.1</b>	<b>0.0</b>	<b>1.3</b>	<b>0.0</b>	<b>1.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>507.7</b>	<b>3.1</b>	<b>1.0</b>
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	78%	63%	21%	27%	47%	6%	2%	9%	25%	0%	3%	0%	100%	100%	0%	0%	0%	0%	0%	0%	0%	1%	3%	0%
Operation	0%	0%	0%	29%	14%	0%	0%	0%	13%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Other	22%	37%	79%	44%	39%	4%	0%	0%	50%	100%	97%	0%	0%	0%	5%	0%	0%	0%	0%	0%	0%	99%	97%	5%
Vegetation/Animal	0%	0%	0%	0%	0%	30%	0%	0%	13%	0%	0%	0%	0%	0%	95%	0%	0%	0%	0%	0%	0%	0%	0%	95%
Weather/Fire/Earthquake	0%	0%	0%	0%	0%	60%	98%	91%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
<b>SEQUOIA(12KV) - Customers: 332</b>	<b>503.8</b>	<b>3.7</b>	<b>2.0</b>	<b>6.9</b>	<b>0.1</b>	<b>1.4</b>	<b>103.8</b>	<b>1.1</b>	<b>0.6</b>	<b>3.1</b>	<b>0.0</b>	<b>0.0</b>	<b>0.2</b>	<b>0.0</b>	<b>0.0</b>	<b>45.1</b>	<b>1.0</b>	<b>0.0</b>	<b>282.5</b>	<b>0.5</b>	<b>0.3</b>	<b>330.9</b>	<b>1.6</b>	<b>0.3</b>
3rd Party	33%	24%	20%	0%	0%	0%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	0%	0%	57%	35%	0%	48%	11%	0%
Equipment Failure	29%	35%	0%	91%	94%	29%	4%	1%	0%	0%	0%	0%	100%	100%	0%	100%	100%	0%	43%	51%	0%	50%	82%	0%
Operation	4%	11%	30%	9%	6%	0%	22%	7%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	1%	14%	0%	1%	5%	0%
Other	30%	29%	0%	0%	0%	0%	0%	0%	0%	100%	100%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%	1%	2%	100%
Vegetation/Animal	0%	0%	0%	0%	0%	71%	74%	92%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Weather/Fire/Earthquake	4%	0%	49%	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 Tulare District 4

	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
<b>SEVILLE(12KV) - Customers: 202</b>	<b>420.8</b>	<b>2.8</b>	<b>0.0</b>	<b>209.0</b>	<b>1.2</b>	<b>0.6</b>	<b>0.0</b>	<b>0.0</b>	<b>1.0</b>	<b>0.8</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>6.4</b>	<b>0.0</b>	<b>0.0</b>	<b>17.3</b>	<b>0.0</b>	<b>1.0</b>	<b>24.5</b>	<b>0.0</b>	<b>1.0</b>
3rd Party	0%	0%	0%	100%	100%	100%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Equipment Failure	2%	0%	0%	0%	0%	0%	0%	0%	0%	100%	100%	0%	0%	0%	0%	100%	100%	0%	100%	100%	0%	100%	100%	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	98%	100%	0%	0%	0%	0%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	100%
Vegetation/Animal	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Weather/Fire/Earthquake	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
<b>ST. JOHNS(12KV) - Customers: 1,501</b>	<b>682.7</b>	<b>6.0</b>	<b>3.0</b>	<b>308.4</b>	<b>2.4</b>	<b>2.8</b>	<b>1.7</b>	<b>0.0</b>	<b>1.0</b>	<b>0.1</b>	<b>0.0</b>	<b>0.0</b>	<b>0.3</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>3.0</b>	<b>0.1</b>	<b>1.0</b>	<b>3.3</b>	<b>0.1</b>	<b>1.0</b>
3rd Party	11%	33%	0%	45%	47%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	100%
Equipment Failure	22%	30%	67%	1%	1%	36%	0%	0%	0%	0%	0%	0%	41%	33%	0%	0%	0%	0%	0%	0%	0%	3%	1%	0%
Operation	0%	0%	0%	2%	0%	36%	100%	100%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%	100%	0%	89%	95%	0%
Other	61%	27%	0%	0%	0%	0%	0%	0%	100%	100%	100%	0%	59%	67%	0%	0%	0%	0%	0%	0%	0%	8%	4%	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	5%	11%	33%	52%	52%	28%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
<b>TARUSA(12KV) - Customers: 438</b>	<b>302.8</b>	<b>2.5</b>	<b>2.1</b>	<b>0.6</b>	<b>0.0</b>	<b>0.5</b>	<b>139.8</b>	<b>1.9</b>	<b>3.1</b>	<b>2.5</b>	<b>0.0</b>	<b>0.0</b>	<b>9.4</b>	<b>0.1</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>11.9</b>	<b>0.1</b>	<b>0.0</b>
3rd Party	39%	40%	52%	0%	0%	0%	0%	0%	0%	0%	0%	0%	16%	3%	0%	0%	0%	0%	0%	0%	0%	13%	3%	0%
Equipment Failure	1%	0%	0%	100%	100%	100%	100%	100%	38%	100%	100%	0%	11%	13%	0%	0%	0%	0%	0%	0%	0%	30%	33%	0%
Operation	2%	20%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Other	42%	20%	0%	0%	0%	0%	0%	0%	62%	0%	0%	0%	73%	83%	0%	0%	0%	0%	0%	0%	0%	57%	64%	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%	20%	48%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
<b>TERMINUS(12KV) - Customers: 307</b>	<b>344.7</b>	<b>0.6</b>	<b>5.4</b>	<b>205.0</b>	<b>2.7</b>	<b>7.4</b>	<b>221.2</b>	<b>2.3</b>	<b>9.1</b>	<b>0.0</b>	<b>0.0</b>	<b>1.0</b>	<b>26.8</b>	<b>1.0</b>	<b>2.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>26.8</b>	<b>1.0</b>	<b>3.0</b>
3rd Party	0%	0%	0%	0%	0%	13%	17%	43%	5%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Equipment Failure	1%	1%	37%	100%	100%	33%	78%	30%	3%	0%	0%	0%	100%	100%	0%	0%	0%	0%	0%	0%	0%	100%	100%	0%
Operation	0%	0%	0%	0%	0%	0%	5%	27%	5%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Other	99%	99%	63%	0%	0%	13%	0%	0%	55%	0%	0%	100%	0%	0%	50%	0%	0%	0%	0%	0%	0%	0%	0%	67%
Vegetation/Animal	0%	0%	0%	0%	0%	13%	0%	0%	11%	0%	0%	0%	0%	0%	50%	0%	0%	0%	0%	0%	0%	0%	0%	33%
Weather/Fire/Earthquake	0%	0%	0%	0%	0%	27%	0%	0%	22%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

## Reliability Histories for Individual Circuits Serving Tulare District 4

	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
<b>TWIN BUTTE(12KV) - Customers: 628</b>	<b>273.0</b>	<b>1.7</b>	<b>0.7</b>	<b>227.0</b>	<b>1.0</b>	<b>2.7</b>	<b>26.4</b>	<b>1.0</b>	<b>3.0</b>	<b>6.9</b>	<b>1.0</b>	<b>0.4</b>	<b>1.2</b>	<b>0.0</b>	<b>0.4</b>	<b>9.6</b>	<b>0.0</b>	<b>0.0</b>	<b>7.8</b>	<b>0.1</b>	<b>0.4</b>	<b>25.5</b>	<b>1.1</b>	<b>1.1</b>
3rd Party	7%	20%	0%	11%	6%	11%	96%	99%	0%	0%	0%	0%	0%	0%	0%	34%	46%	0%	0%	0%	0%	13%	2%	0%
Equipment Failure	6%	21%	50%	13%	35%	51%	2%	0%	0%	0%	0%	0%	100%	100%	0%	24%	21%	0%	94%	94%	0%	43%	5%	0%
Operation	0%	0%	0%	0%	0%	0%	1%	1%	0%	91%	99%	0%	0%	0%	0%	12%	21%	0%	6%	6%	0%	31%	92%	0%
Other	80%	58%	50%	0%	0%	38%	0%	0%	100%	9%	1%	100%	0%	0%	100%	30%	13%	0%	0%	0%	100%	14%	1%	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	7%	1%	0%	76%	59%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
<b>VIRGIL(12KV) - Customers: 535</b>	<b>443.1</b>	<b>4.2</b>	<b>1.0</b>	<b>79.7</b>	<b>0.8</b>	<b>1.4</b>	<b>182.1</b>	<b>3.0</b>	<b>2.6</b>	<b>2.4</b>	<b>0.0</b>	<b>1.1</b>	<b>2.2</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.4</b>	<b>0.0</b>	<b>0.0</b>	<b>5.0</b>	<b>0.1</b>	<b>1.1</b>
3rd Party	9%	3%	0%	94%	99%	31%	38%	59%	17%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Equipment Failure	1%	0%	0%	2%	0%	0%	3%	5%	38%	100%	100%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	48%	55%	0%
Operation	2%	24%	0%	3%	1%	0%	1%	1%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%	100%	0%	8%	3%	0%
Other	63%	24%	100%	1%	0%	0%	22%	3%	7%	0%	0%	100%	100%	100%	0%	0%	0%	0%	0%	0%	0%	43%	42%	100%
Vegetation/Animal	0%	0%	0%	0%	0%	69%	31%	33%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Weather/Fire/Earthquake	25%	48%	0%	0%	0%	0%	5%	0%	38%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
<b>WEBB(12KV) - Customers: 846</b>	<b>18.7</b>	<b>0.1</b>	<b>0.3</b>	<b>6.3</b>	<b>0.0</b>	<b>1.3</b>	<b>55.3</b>	<b>1.0</b>	<b>1.0</b>	<b>0.8</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>3.3</b>	<b>0.0</b>	<b>0.0</b>	<b>10.8</b>	<b>0.1</b>	<b>1.0</b>	<b>14.9</b>	<b>0.1</b>	<b>1.0</b>
3rd Party	0%	0%	0%	21%	31%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	81%	63%	100%	59%	47%	100%
Equipment Failure	0%	0%	0%	49%	64%	80%	23%	2%	0%	100%	100%	0%	0%	0%	0%	100%	100%	0%	12%	19%	0%	36%	40%	0%
Operation	0%	0%	0%	0%	0%	0%	75%	98%	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%	7%	19%	0%	5%	14%	0%
Vegetation/Animal	0%	0%	100%	0%	0%	13%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Weather/Fire/Earthquake	0%	0%	0%	30%	6%	6%	1%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
<b>WELLS(12KV) - Customers: 1,565</b>	<b>232.5</b>	<b>3.3</b>	<b>3.5</b>	<b>333.0</b>	<b>2.7</b>	<b>3.2</b>	<b>169.3</b>	<b>1.8</b>	<b>1.1</b>	<b>2.3</b>	<b>0.0</b>	<b>0.0</b>	<b>8.9</b>	<b>0.0</b>	<b>1.0</b>	<b>235.4</b>	<b>1.4</b>	<b>1.0</b>	<b>77.9</b>	<b>0.6</b>	<b>0.1</b>	<b>324.5</b>	<b>2.1</b>	<b>2.1</b>
3rd Party	28%	29%	0%	0%	0%	54%	69%	58%	6%	0%	0%	0%	18%	33%	0%	0%	0%	0%	0%	0%	0%	0%	1%	0%
Equipment Failure	9%	23%	22%	6%	30%	0%	10%	39%	0%	58%	26%	0%	61%	33%	0%	99%	98%	100%	1%	0%	0%	74%	67%	48%
Operation	9%	2%	0%	1%	3%	0%	2%	0%	0%	42%	74%	0%	22%	33%	0%	1%	2%	0%	99%	100%	100%	25%	32%	6%
Other	0%	0%	28%	93%	67%	0%	0%	0%	6%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Vegetation/Animal	31%	22%	0%	0%	0%	21%	3%	2%	0%	0%	0%	0%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	0%	46%
Weather/Fire/Earthquake	23%	24%	51%	0%	0%	25%	15%	1%	88%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%