

KENTUCKY PUBLIC SERVICE COMMISSION

Electric Distribution Utility Annual Reliability Report

SECTION 1: CONTACT INFORMATION

UTILITY NAME	Clark Energy Cooperative
REPORT PREPARED BY	Phillip Blythe
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SECTION 2: REPORTING YEAR

CALENDAR YEAR OF REPORT	<u>2018</u>
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SECTION 3: MAJOR EVENT DAYS (MED)

T_{MED}	<u>9.49</u>
FIRST DATE USED TO DETERMINE T_{MED}	<u>1/1/2018</u>
LAST DATE USED TO DETERMINE T_{MED}	<u>12/31/2018</u>
NUMBER OF MED IN REPORT YEAR	<u>10</u>

NOTE: Per IEEE 1366 T_{MED} should be calculated using the daily SAIDI values for the five prior years. If five years of data are not available, then utilities should use what is available until five years are accumulated.

SECTION 4: SYSTEM RELIABILITY INFORMATION AND RESULTS

System-wide Information

TOTAL CUSTOMERS _____	TOTAL CIRCUITS <u>74</u>
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Excluding MED

	5 YEAR AVERAGE		REPORTING YEAR
SAIDI	<u>147.72</u>	SAIDI	<u>133.142</u>
SAIFI	<u>1.45</u>	SAIFI	<u>1.157</u>

Including MED

	5 YEAR AVERAGE		REPORTING YEAR
SAIDI	<u>327.11</u>	SAIDI	<u>653.173</u>
SAIFI	<u>1.75</u>	SAIFI	<u>2.246</u>

Notes:

- 1) All duration indices (SAIDI) are to be reported in units of minutes.
- 2) Reports are due on the first business day of May of each year
- 3) Reports cover the calendar year ending in the December before the reports are due.
- 4) IEEE 1366 (latest version) is used to define SAIDI, SAIFI, and T_{MED}

KENTUCKY PUBLIC SERVICE COMMISSION

SECTION 5: CIRCUIT REPORTING

(CIRCUITS WITH SAIDI AND/OR SAIFI EXCEEDING 5 YEAR AVERAGE)

(CIRCUIT NUMBERS SHOULD BE REPORTED EXCLUDING MED)

CIRCUIT #1: Becknerville 1

1. SUBSTATION NAME AND NUMBER Becknerville N92
2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Clark Co.-Combs Ferry Road-Winchester
3. CIRCUIT NAME AND NUMBER Becknerville 1
4. CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA) Combs Ferry Road
5. TOTAL CIRCUIT LENGTH (MILES) 7.683
6. CUSTOMER COUNT FOR THIS CIRCUIT 26
7. DATE OF LAST CIRCUIT TRIM (VM) 2014
8. LIST OUTAGE CAUSES FOR CIRCUIT ALONG WITH PERCENTAGE OF TOTAL OUTAGE NUMBERS REPRESENTED BY EACH CAUSE See Attached
9. CIRCUIT 5 YEAR AVERAGE (SAIDI) 6.46
10. REPORTING YEAR (SAIDI) 87.32
11. CIRCUIT 5 YEAR AVERAGE (SAIFI) .09
12. REPORTING YEAR (SAIFI) 1.12
13. CORRECTIVE ACTION PLAN- Feeder outages related to line maintenance

REPEAT INFORMATION FOR EACH CIRCUIT EXCEEDING ITS 5 YEAR AVERAGE FOR SAIDI AND/OR SAIFI

Becknerville1

	Customer	Customer Minutes	%
Maintenance			
1	26	2106	92.86
Animal			
1	2	156	7.143
2	28	2262	100

SECTION 5: CIRCUIT REPORTING

(CIRCUITS WITH SAIDI AND/OR SAIFI EXCEEDING 5 YEAR AVERAGE)

(CIRCUIT NUMBERS SHOULD BE REPORTED EXCLUDING MED)

CIRCUIT #1: Becknerville 2

1. SUBSTATION NAME AND NUMBER Becknerville N92
2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Clark County- Combs Ferry- Winchester
3. CIRCUIT NAME AND NUMBER Becknerville 2- Waterworks
4. CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA) Combs Ferry
5. TOTAL CIRCUIT LENGTH (MILES) 23.908
6. CUSTOMER COUNT FOR THIS CIRCUIT 148
- 7.. DATE OF LAST CIRCUIT TRIM (VM) 2014
8. LIST OUTAGE CAUSES FOR CIRCUIT ALONG WITH PERCENTAGE OF TOTAL OUTAGE NUMBERS
NUMBERS REPRESENTED BY EACH CAUSE See Attached
9. CIRCUIT 5 YEAR AVERAGE (SAIDI) 53.93
10. REPORTING YEAR (SAIDI) 94.26
11. CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.42
12. REPORTING YEAR (SAIFI) 0.64
13. CORRECTIVE ACTION PLAN No Action needed at this time - outages related to weather

Becknerville2

	Customer	Customer Minutes	%
Weather			
5	86	13136	94.51
Animal			
3	4	287	4.396
Unknown			
1	1	85	1.099
9	91	13508	100

SECTION 5: CIRCUIT REPORTING

(CIRCUITS WITH SAIDI AND/OR SAIFI EXCEEDING 5 YEAR AVERAGE)

(CIRCUIT NUMBERS SHOULD BE REPORTED EXCLUDING MED)

CIRCUIT #1: Blevins Valley 2

1. SUBSTATION NAME AND NUMBER Blevins Valley E100
2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Bath County- Blevins Valley Road- Preston KY
3. CIRCUIT NAME AND NUMBER Blevins Valley 2
4. CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA) Owingsville, Old State Road, Sour Springs, H'
5. TOTAL CIRCUIT LENGTH (MILES) 41.074
6. CUSTOMER COUNT FOR THIS CIRCUIT 422
- 7.. DATE OF LAST CIRCUIT TRIM (VM) 2016
8. LIST OUTAGE CAUSES FOR CIRCUIT ALONG WITH PERCENTAGE OF TOTAL OUTAGE NUMBERS
NUMBERS REPRESENTED BY EACH CAUSE See Attached
9. CIRCUIT 5 YEAR AVERAGE (SAIDI) 233.6
10. REPORTING YEAR (SAIDI) 360.23
11. CIRCUIT 5 YEAR AVERAGE (SAIFI) 1.71
12. REPORTING YEAR (SAIFI) 1.35
13. CORRECTIVE ACTION PLAN There were 9 equipment related outages-mainly porcelin cutouts.
We are currently progressively changing out porcelin cutouts
system wide.

BLEVAL2

	Customer	Customer	Minutes	%
Planned	1	5	260	0.864
Maintenance	12	548	153903	94.65
Equipment	1	9	1071	1.554
Weather	1	5	245	0.864
Animal	1	8	808	1.382
Public	1	4	168	0.691
	17	579	156455	100

SECTION 5: CIRCUIT REPORTING

(CIRCUITS WITH SAIDI AND/OR SAIFI EXCEEDING 5 YEAR AVERAGE)

(CIRCUIT NUMBERS SHOULD BE REPORTED EXCLUDING MED)

CIRCUIT #1: Bowen 1

1. SUBSTATION NAME AND NUMBER Bowen E58
2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Powell County- Campton Road- Stanton KY
3. CIRCUIT NAME AND NUMBER Bowen 1- Natural Bridge
4. CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA) Campton Road
5. TOTAL CIRCUIT LENGTH (MILES) 47.428
6. CUSTOMER COUNT FOR THIS CIRCUIT 418
- 7.. DATE OF LAST CIRCUIT TRIM (VM) 2015
8. LIST OUTAGE CAUSES FOR CIRCUIT ALONG WITH PERCENTAGE OF TOTAL OUTAGE NUMBERS
NUMBERS REPRESENTED BY EACH CAUSE See Attached
9. CIRCUIT 5 YEAR AVERAGE (SAIDI) 264.98
10. REPORTING YEAR (SAIDI) 204.85
11. CIRCUIT 5 YEAR AVERAGE (SAIFI) 1.64
12. REPORTING YEAR (SAIFI) 2.3
13. CORRECTIVE ACTION PLAN No action at this time- outages were related to weather

BOWEN1

	Customer	Customer	Minutes	%
Planned	6	23	1223	2.378
Maintenance	15	619	47073	64.01
Equipment	3	11	1243	1.138
Weather	12	150	28618	15.51
Animal	1	2	68	0.207
Public	2	69	15652	7.135
Unknown	7	93	3950	9.617
	46	967	97827	100

SECTION 5: CIRCUIT REPORTING

(CIRCUITS WITH SAIDI AND/OR SAIFI EXCEEDING 5 YEAR AVERAGE)

(CIRCUIT NUMBERS SHOULD BE REPORTED EXCLUDING MED)

CIRCUIT #1: Cave Run 2

1. SUBSTATION NAME AND NUMBER Cave Run E52
2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Rowan County- HWY 801- Morehead KY
3. CIRCUIT NAME AND NUMBER Cave Run 2- Fish Hatchery/Twin Knobs
4. CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA) Cave Run Lake/HWY 801
5. TOTAL CIRCUIT LENGTH (MILES) 20.392
6. CUSTOMER COUNT FOR THIS CIRCUIT 249
- 7.. DATE OF LAST CIRCUIT TRIM (VM) 2011
8. LIST OUTAGE CAUSES FOR CIRCUIT ALONG WITH PERCENTAGE OF TOTAL OUTAGE NUMBERS
NUMBERS REPRESENTED BY EACH CAUSE See Attached
9. CIRCUIT 5 YEAR AVERAGE (SAIDI) 142.54
10. REPORTING YEAR (SAIDI) 615.71
11. CIRCUIT 5 YEAR AVERAGE (SAIFI) 1.37
12. REPORTING YEAR (SAIFI) 4.08
13. CORRECTIVE ACTION PLAN Planned outage to change 3 phase pole and outage
for Power Supplier to change substation transformer

CAVE RUN 2

	Customer	Customer	Minutes	%
Planned	5	110	7534	11.13
Maintenance	9	348	59631	35.22
Equipment	1	13	949	1.316
Weather	2	14	1146	1.417
Animal	1	1	53	0.101
Public	1	252	48888	25.51
Unknown	1	250	31250	25.3
	20	988	149451	100

SECTION 5: CIRCUIT REPORTING

(CIRCUITS WITH SAIDI AND/OR SAIFI EXCEEDING 5 YEAR AVERAGE)

(CIRCUIT NUMBERS SHOULD BE REPORTED EXCLUDING MED)

CIRCUIT #1: Clay City 1

1. SUBSTATION NAME AND NUMBER Clay City E71
2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Powell County- Shipps Branch- Clay City KY
3. CIRCUIT NAME AND NUMBER Clay City 1- Virden Ridge
4. CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA) Winchester Road- Virden Ridge
5. TOTAL CIRCUIT LENGTH (MILES) 42.447
6. CUSTOMER COUNT FOR THIS CIRCUIT 666
- 7.. DATE OF LAST CIRCUIT TRIM (VM) 2010
8. LIST OUTAGE CAUSES FOR CIRCUIT ALONG WITH PERCENTAGE OF TOTAL OUTAGE NUMBERS
NUMBERS REPRESENTED BY EACH CAUSE See Attached
9. CIRCUIT 5 YEAR AVERAGE (SAIDI) 49.55
10. REPORTING YEAR (SAIDI) 226.58
11. CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.61
12. REPORTING YEAR (SAIFI) 1.76
13. CORRECTIVE ACTION PLAN Insulators failed causing a large outage on this circuit

Clay City 1

	Customer	Customer	Minutes	%
Planned	5	44	3068	3.761
Equipment	6	48	3962	4.103
Weather	6	23	2682	1.966
Animal	3	15	2133	1.282
Public	1	8	776	0.684
Unknown	2	251	11926	21.45
Maintenance	13	781	126119	66.75
	36	1170	150666	100

SECTION 5: CIRCUIT REPORTING

(CIRCUITS WITH SAIDI AND/OR SAIFI EXCEEDING 5 YEAR AVERAGE)

(CIRCUIT NUMBERS SHOULD BE REPORTED EXCLUDING MED)

CIRCUIT #1: Frenchburg 1

1. SUBSTATION NAME AND NUMBER Frenchburg E19
2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Menifee County- HWY 36- Frenchburg KY
3. CIRCUIT NAME AND NUMBER Frenchburg 1- HWY 36/211
4. CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA) Frenchburg- HWY 36 North
5. TOTAL CIRCUIT LENGTH (MILES) 45.261
6. CUSTOMER COUNT FOR THIS CIRCUIT 425
7. DATE OF LAST CIRCUIT TRIM (VM) 2018
8. LIST OUTAGE CAUSES FOR CIRCUIT ALONG WITH PERCENTAGE OF TOTAL OUTAGE NUMBERS
NUMBERS REPRESENTED BY EACH CAUSE See Attached
9. CIRCUIT 5 YEAR AVERAGE (SAIDI) 191.08
10. REPORTING YEAR (SAIDI) 250.17
11. CIRCUIT 5 YEAR AVERAGE (SAIFI) 1.73
12. REPORTING YEAR (SAIFI) 2.51
13. CORRECTIVE ACTION PLAN Planning outages during reconductor of the line as well as excessive rain caused several issues

FRNBURG1

	Customer	Customer Minutes	%
Planned			
23	606	606	42.14
Equipment			
2	3	486	0.209
Weather			
6	323	68691	22.46
Animal			
1	3	255	0.209
Unknown			
4	503	34790	34.98
36	1438	104828	100

SECTION 5: CIRCUIT REPORTING

(CIRCUITS WITH SAIDI AND/OR SAIFI EXCEEDING 5 YEAR AVERAGE)

(CIRCUIT NUMBERS SHOULD BE REPORTED EXCLUDING MED)

CIRCUIT #1: Frenchburg 3

1. SUBSTATION NAME AND NUMBER Frenchburg E19
2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Menifee County- HWY 36- Frenchburg KY
3. CIRCUIT NAME AND NUMBER Frenchburg 3
4. CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA) Frenchburg / HWY 1274
5. TOTAL CIRCUIT LENGTH (MILES) 24.505
6. CUSTOMER COUNT FOR THIS CIRCUIT 459
- 7.. DATE OF LAST CIRCUIT TRIM (VM) 2017
8. LIST OUTAGE CAUSES FOR CIRCUIT ALONG WITH PERCENTAGE OF TOTAL OUTAGE NUMBERS
NUMBERS REPRESENTED BY EACH CAUSE See Attached
9. CIRCUIT 5 YEAR AVERAGE (SAIDI) 80.02
10. REPORTING YEAR (SAIDI) 248.32
11. CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.77
12. REPORTING YEAR (SAIFI) 1.28
13. CORRECTIVE ACTION PLAN Summer storm broke 5 poles in a congested area-
these poles were approximately 1/2 mile from the sub

FRNBURG3

	Customer	Customer Minutes	%
Planned			
13	596	115828	96.6
Equipment			
3	6	476	0.972
Weather			
2	10	690	1.621
Animal			
2	5	527	0.81
20	617	117521	100

SECTION 5: CIRCUIT REPORTING

(CIRCUITS WITH SAIDI AND/OR SAIFI EXCEEDING 5 YEAR AVERAGE)

(CIRCUIT NUMBERS SHOULD BE REPORTED EXCLUDING MED)

CIRCUIT #1: Hardwicks Creek 2

1. SUBSTATION NAME AND NUMBER Hardwicks Creek E107
2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Powell County- Spouts Springs- Clay City KY
3. CIRCUIT NAME AND NUMBER Hardwicks Creek 2- Hardwicks Creek to Clay City
4. CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA) HWY 1057 North to Clay City
5. TOTAL CIRCUIT LENGTH (MILES) 4.586
6. CUSTOMER COUNT FOR THIS CIRCUIT 39
- 7.. DATE OF LAST CIRCUIT TRIM (VM) 2018
8. LIST OUTAGE CAUSES FOR CIRCUIT ALONG WITH PERCENTAGE OF TOTAL OUTAGE NUMBERS
NUMBERS REPRESENTED BY EACH CAUSE See Attached
9. CIRCUIT 5 YEAR AVERAGE (SAIDI) 31.85
10. REPORTING YEAR (SAIDI) 32.03
11. CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.33
12. REPORTING YEAR (SAIFI) 0.17
13. CORRECTIVE ACTION PLAN No corrective action plan at this time

HARDWICKS2

	Customer	Customer Minutes	%
Planned			
1	7	1288	77.78
Weather			
1	2	26	22.22
2	9	1314	100

SECTION 5: CIRCUIT REPORTING

(CIRCUITS WITH SAIDI AND/OR SAIFI EXCEEDING 5 YEAR AVERAGE)

(CIRCUIT NUMBERS SHOULD BE REPORTED EXCLUDING MED)

CIRCUIT #1: High Rock 1

1. SUBSTATION NAME AND NUMBER High Rock E101
2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Powell County- South Fork- Stanton KY
3. CIRCUIT NAME AND NUMBER High Rock 1- SouthFork
4. CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA) South Fork Road/Pilot Road
5. TOTAL CIRCUIT LENGTH (MILES) 37.152
6. CUSTOMER COUNT FOR THIS CIRCUIT 192
- 7.. DATE OF LAST CIRCUIT TRIM (VM) 2017
8. LIST OUTAGE CAUSES FOR CIRCUIT ALONG WITH PERCENTAGE OF TOTAL OUTAGE NUMBERS
NUMBERS REPRESENTED BY EACH CAUSE See Attached
9. CIRCUIT 5 YEAR AVERAGE (SAIDI) 243.18
10. REPORTING YEAR (SAIDI) 331.97
11. CIRCUIT 5 YEAR AVERAGE (SAIFI) 1.57
12. REPORTING YEAR (SAIFI) 1.34
13. CORRECTIVE ACTION PLAN Summer storm- weather related outages- No corrective
action plan at this time

HIGHROCK1

	Customer	Customer Minutes	%
Planned 13	180	66949	61.22
Weather 8	45	37203	15.31
Animal 1	1	79	0.34
Public 2	56	14300	19.05
Unknown 5	12	711	4.082
29	294	119242	100

SECTION 5: CIRCUIT REPORTING

(CIRCUITS WITH SAIDI AND/OR SAIFI EXCEEDING 5 YEAR AVERAGE)

(CIRCUIT NUMBERS SHOULD BE REPORTED EXCLUDING MED)

CIRCUIT #1: Hinkston 2

1. SUBSTATION NAME AND NUMBER Hinkston E66
2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Montgomery County- Hinkston Pike- Mt. Sterling KY
3. CIRCUIT NAME AND NUMBER Hinkston 2-
4. CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA) Hinkston Pike/ Van Thompson
5. TOTAL CIRCUIT LENGTH (MILES) 30.555
6. CUSTOMER COUNT FOR THIS CIRCUIT 421
- 7.. DATE OF LAST CIRCUIT TRIM (VM) 2017
8. LIST OUTAGE CAUSES FOR CIRCUIT ALONG WITH PERCENTAGE OF TOTAL OUTAGE NUMBERS
NUMBERS REPRESENTED BY EACH CAUSE See Attached
9. CIRCUIT 5 YEAR AVERAGE (SAIDI) 39.98
10. REPORTING YEAR (SAIDI) 234.89
11. CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.32
12. REPORTING YEAR (SAIFI) 2.58
13. CORRECTIVE ACTION PLAN No corrective action plan at this time- weather related outages due to summe storm

Hinkston2

	Customer	Customer Minutes	%
Planned			
5	178	6778	16.92
Equipment			
2	51	1937	4.8479
Maintenance			
3	413	17081	39.259
Weather			
5	9	1891	0.8555
Animal			
2	3	223	0.2852
Public			
1	1	191	0.0951
Unknown			
1	397	67887	37.738
19	1052	95988	100

SECTION 5: CIRCUIT REPORTING

(CIRCUITS WITH SAIDI AND/OR SAIFI EXCEEDING 5 YEAR AVERAGE)

(CIRCUIT NUMBERS SHOULD BE REPORTED EXCLUDING MED)

CIRCUIT #1: Hope 2

1. SUBSTATION NAME AND NUMBER Hope E2
2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Bath/Montgomery County- Hope Means Road- Mt. Sterlin
3. CIRCUIT NAME AND NUMBER Hope 2- Hope Means Road
4. CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA) Hope Means Road
5. TOTAL CIRCUIT LENGTH (MILES) 31.103
6. CUSTOMER COUNT FOR THIS CIRCUIT 364
- 7.. DATE OF LAST CIRCUIT TRIM (VM) 2016
8. LIST OUTAGE CAUSES FOR CIRCUIT ALONG WITH PERCENTAGE OF TOTAL OUTAGE NUMBERS
NUMBERS REPRESENTED BY EACH CAUSE See Attached
9. CIRCUIT 5 YEAR AVERAGE (SAIDI) 82.29
10. REPORTING YEAR (SAIDI) 83.7
11. CIRCUIT 5 YEAR AVERAGE (SAIFI) 1.14
12. REPORTING YEAR (SAIFI) 0.51
13. CORRECTIVE ACTION PLAN No Corrective action plan needed at this time- flooding caused a large outage that made it difficult to remove tree that had fallen

HOPE2	Customer	Customer Minutes	%
Planned 5	480	61886	88.89
Equipment 1	7	490	1.296
Weather 2	3	750	0.556
Animal 3	10	1155	1.852
Public 1	31	7378	5.741
Unknown 4	9	576	1.667
	16	540	72235
			100

SECTION 5: CIRCUIT REPORTING

(CIRCUITS WITH SAIDI AND/OR SAIFI EXCEEDING 5 YEAR AVERAGE)

(CIRCUIT NUMBERS SHOULD BE REPORTED EXCLUDING MED)

CIRCUIT #1: Hunt 2

1. SUBSTATION NAME AND NUMBER Hunt N1
2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Clark County- Jackson Ferry Road- Winchester KY
3. CIRCUIT NAME AND NUMBER Hunt 2- Red River
4. CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA) Winchester - Red River
5. TOTAL CIRCUIT LENGTH (MILES) 27.276
6. CUSTOMER COUNT FOR THIS CIRCUIT 137
- 7.. DATE OF LAST CIRCUIT TRIM (VM) 2016
8. LIST OUTAGE CAUSES FOR CIRCUIT ALONG WITH PERCENTAGE OF TOTAL OUTAGE NUMBERS
NUMBERS REPRESENTED BY EACH CAUSE See Attached
9. CIRCUIT 5 YEAR AVERAGE (SAIDI) 106.23
10. REPORTING YEAR (SAIDI) 263.87
11. CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.64
12. REPORTING YEAR (SAIFI) 1.46
13. CORRECTIVE ACTION PLAN No Corrective action plan at this time- 1 significant power supply outage and several weather related outages

HUNT2	Customer	Customer Minutes	%
Planned			
2	116	19457	59.49
Equipment			
2	66	13202	33.85
Weather			
4	10	2219	5.128
Animal			
1	2	180	1.026
Unknown			
1	1	172	0.513
10	195	35230	100

SECTION 5: CIRCUIT REPORTING

(CIRCUITS WITH SAIDI AND/OR SAIFI EXCEEDING 5 YEAR AVERAGE)

(CIRCUIT NUMBERS SHOULD BE REPORTED EXCLUDING MED)

CIRCUIT #1: Jeffersonville 1

1. SUBSTATION NAME AND NUMBER Jeffersonville E87
2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Montgomery County- HWY 1050- Mt. Sterling
3. CIRCUIT NAME AND NUMBER Jeffersonville 1- HWY 599
4. CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA) Jeffersonville- Willoughbytown/HWY 599
5. TOTAL CIRCUIT LENGTH (MILES) 65.738
6. CUSTOMER COUNT FOR THIS CIRCUIT 930
- 7.. DATE OF LAST CIRCUIT TRIM (VM) 2016
8. LIST OUTAGE CAUSES FOR CIRCUIT ALONG WITH PERCENTAGE OF TOTAL OUTAGE NUMBERS
NUMBERS REPRESENTED BY EACH CAUSE See Attached
9. CIRCUIT 5 YEAR AVERAGE (SAIDI) 114.65
10. REPORTING YEAR (SAIDI) 298.03
11. CIRCUIT 5 YEAR AVERAGE (SAIFI) 1.36
12. REPORTING YEAR (SAIFI) 1.72
13. CORRECTIVE ACTION PLAN No corrective action plan- weather caused arc over - VWVE failed

JVILLE1

	Customer	Customer Minutes	%
Planned			
16	342	43601	21.63
Equipment			
6	1049	215502	66.35
Weather			
13	120	8799	7.59
Animal			
4	21	1298	1.328
Public			
3	40	3053	2.53
Unknown			
4	9	906	0.569
46	1581	273159	100

SECTION 5: CIRCUIT REPORTING

(CIRCUITS WITH SAIDI AND/OR SAIFI EXCEEDING 5 YEAR AVERAGE)

(CIRCUIT NUMBERS SHOULD BE REPORTED EXCLUDING MED)

CIRCUIT #1: Mariba 1

1. SUBSTATION NAME AND NUMBER Mariba E85
2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Menifee County- Kendrick Ridge-Frenchburg
3. CIRCUIT NAME AND NUMBER Mariba 1-
4. CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA) Frenchburg- HWY 460/ McCausey Ridge
5. TOTAL CIRCUIT LENGTH (MILES) 9.008
6. CUSTOMER COUNT FOR THIS CIRCUIT 117
- 7.. DATE OF LAST CIRCUIT TRIM (VM) 2013
8. LIST OUTAGE CAUSES FOR CIRCUIT ALONG WITH PERCENTAGE OF TOTAL OUTAGE NUMBERS
NUMBERS REPRESENTED BY EACH CAUSE See Attached
9. CIRCUIT 5 YEAR AVERAGE (SAIDI) 19.88
10. REPORTING YEAR (SAIDI) 39.97
11. CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.33
12. REPORTING YEAR (SAIFI) 0.54
13. CORRECTIVE ACTION PLAN no corrective action plan- outages were related to weather and trees due to storms

MARIBA1

	Customer	Customer	Minutes	%
Planned				
2	44	2664	68.75	
Equipment				
1	7	518	10.94	
Weather				
2	10	1219	15.63	
Animal				
1	3	330	4.688	
6	64	4731	100	

SECTION 5: CIRCUIT REPORTING

(CIRCUITS WITH SAIDI AND/OR SAIFI EXCEEDING 5 YEAR AVERAGE)

(CIRCUIT NUMBERS SHOULD BE REPORTED EXCLUDING MED)

CIRCUIT #1: Mt. Sterling 1

1. SUBSTATION NAME AND NUMBER Mt. Sterling N32
2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Montgomery County- HWY 11- Mt. Sterling
3. CIRCUIT NAME AND NUMBER Mt. Sterling 1-
4. CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA) HWY 11/Fogg Pike
5. TOTAL CIRCUIT LENGTH (MILES) 18.507
6. CUSTOMER COUNT FOR THIS CIRCUIT 333
- 7.. DATE OF LAST CIRCUIT TRIM (VM) 2014
8. LIST OUTAGE CAUSES FOR CIRCUIT ALONG WITH PERCENTAGE OF TOTAL OUTAGE NUMBERS
NUMBERS REPRESENTED BY EACH CAUSE See Attached
9. CIRCUIT 5 YEAR AVERAGE (SAIDI) 60.83
10. REPORTING YEAR (SAIDI) 89.5
11. CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.98
12. REPORTING YEAR (SAIFI) 0.42
13. CORRECTIVE ACTION PLAN No Corrective action plan- several large weather related issues

MTSTRLG1

	Customer	Customer Minutes	%
Planned			
10	38	5122	27.74
Equipment			
1	6	366	4.38
Weather			
3	63	20053	45.99
Animal			
4	22	2394	16.06
Unknown			
2	8	1276	5.839
20	137	29211	100

SECTION 5: CIRCUIT REPORTING

(CIRCUITS WITH SAIDI AND/OR SAIFI EXCEEDING 5 YEAR AVERAGE)

(CIRCUIT NUMBERS SHOULD BE REPORTED EXCLUDING MED)

CIRCUIT #1: Mt. Sterling 2

1. SUBSTATION NAME AND NUMBER Mt. Sterling N32
2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Montgomery- HWY 11- Mt. Sterling
3. CIRCUIT NAME AND NUMBER Mt. Sterling 2-
4. CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA) HWY 11/ Levee Road
5. TOTAL CIRCUIT LENGTH (MILES) 59.292
6. CUSTOMER COUNT FOR THIS CIRCUIT 667
- 7.. DATE OF LAST CIRCUIT TRIM (VM) 2014
8. LIST OUTAGE CAUSES FOR CIRCUIT ALONG WITH PERCENTAGE OF TOTAL OUTAGE NUMBERS
NUMBERS REPRESENTED BY EACH CAUSE See Attached
9. CIRCUIT 5 YEAR AVERAGE (SAIDI) 77.61
10. REPORTING YEAR (SAIDI) 330.98
11. CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.89
12. REPORTING YEAR (SAIFI) 1.91
13. CORRECTIVE ACTION PLAN Pole top broken- circuit had to be de-energized to
change pole out safely

MTSTRLG2

	Customer	Customer Minutes	%
Planned			
24	997	188873	79.82
Equipment			
4	6	1176	0.48
Weather			
12	130	27957	10.41
Animal			
3	4	362	0.32
Unknown			
2	112	9192	8.967
45	1249	227560	100

SECTION 5: CIRCUIT REPORTING

(CIRCUITS WITH SAIDI AND/OR SAIFI EXCEEDING 5 YEAR AVERAGE)

(CIRCUIT NUMBERS SHOULD BE REPORTED EXCLUDING MED)

CIRCUIT #1: Reid Village 2

1. SUBSTATION NAME AND NUMBER Reid Village N64
2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Montgomery County- HWY 60- Mt. Sterling
3. CIRCUIT NAME AND NUMBER Reid Village 2
4. CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA) Prewitt Pike/Fogg Pike
5. TOTAL CIRCUIT LENGTH (MILES) 13.471
6. CUSTOMER COUNT FOR THIS CIRCUIT 393
- 7.. DATE OF LAST CIRCUIT TRIM (VM) 2015
8. LIST OUTAGE CAUSES FOR CIRCUIT ALONG WITH PERCENTAGE OF TOTAL OUTAGE NUMBERS
NUMBERS REPRESENTED BY EACH CAUSE See Attached
9. CIRCUIT 5 YEAR AVERAGE (SAIDI) 38.57
10. REPORTING YEAR (SAIDI) 29.21
11. CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.28
12. REPORTING YEAR (SAIFI) 0.3
13. CORRECTIVE ACTION PLAN No Corrective action- Summer storm broke to poles on
3 phase circuit

RDVILLAGE2

	Customer	Customer Minutes	%
Planned			
11	63	5499	51.64
Equipment			
2	12	2770	9.836
Weather			
2	6	291	4.918
Animal			
2	35	3299	28.69
Public			
1	6	1614	4.918
18	122	13473	100

SECTION 5: CIRCUIT REPORTING

(CIRCUITS WITH SAIDI AND/OR SAIFI EXCEEDING 5 YEAR AVERAGE)

(CIRCUIT NUMBERS SHOULD BE REPORTED EXCLUDING MED)

CIRCUIT #1: Sideview 1

1. SUBSTATION NAME AND NUMBER Sideview N2
2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Clark County- Chiles HWY- Winchester
3. CIRCUIT NAME AND NUMBER Sideview 1-
4. CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA) Paris Pike/Plum Lick
5. TOTAL CIRCUIT LENGTH (MILES) 60.766
6. CUSTOMER COUNT FOR THIS CIRCUIT 353
- 7.. DATE OF LAST CIRCUIT TRIM (VM) 2013
8. LIST OUTAGE CAUSES FOR CIRCUIT ALONG WITH PERCENTAGE OF TOTAL OUTAGE NUMBERS
NUMBERS REPRESENTED BY EACH CAUSE See Attached
9. CIRCUIT 5 YEAR AVERAGE (SAIDI) 284.94
10. REPORTING YEAR (SAIDI) 204
11. CIRCUIT 5 YEAR AVERAGE (SAIFI) 1.66
12. REPORTING YEAR (SAIFI) 1.77
13. CORRECTIVE ACTION PLAN No corrective action plan- summer storms

SIDEVIEW1

	Customer	Customer Minutes	%
Planned			
19	812	86556	93.23
Equipment			
2	2	311	0.23
Weather			
5	14	4430	1.607
Animal			
4	10	896	1.148
Unknown			
3	33	3783	3.789
33	871	95976	100

SECTION 5: CIRCUIT REPORTING

(CIRCUITS WITH SAIDI AND/OR SAIFI EXCEEDING 5 YEAR AVERAGE)

(CIRCUIT NUMBERS SHOULD BE REPORTED EXCLUDING MED)

CIRCUIT #1: Sideview 4

1. SUBSTATION NAME AND NUMBER Sideview N2
2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Clark County- Chiles HWY - Winchester
3. CIRCUIT NAME AND NUMBER Sideview 4
4. CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA) Big Stoner Road
5. TOTAL CIRCUIT LENGTH (MILES) 82.791
6. CUSTOMER COUNT FOR THIS CIRCUIT 487
- 7.. DATE OF LAST CIRCUIT TRIM (VM) 2013
8. LIST OUTAGE CAUSES FOR CIRCUIT ALONG WITH PERCENTAGE OF TOTAL OUTAGE NUMBERS
NUMBERS REPRESENTED BY EACH CAUSE See Attached
9. CIRCUIT 5 YEAR AVERAGE (SAIDI) 92.65
10. REPORTING YEAR (SAIDI) 165.02
11. CIRCUIT 5 YEAR AVERAGE (SAIFI) 1.08
12. REPORTING YEAR (SAIFI) 1.12
13. CORRECTIVE ACTION PLAN No corrective action plan- summer storms

SIDEVIEW4

	Customer	Customer Minutes	%
Planned			
22	283	99717	45.06
Equipment			
3	164	18610	26.11
Weather			
10	58	8658	9.236
Animal			
3	56	23236	8.917
Public			
1	1	201	0.159
Unknown			
9	66	6443	10.51
48	628	156865	100

SECTION 5: CIRCUIT REPORTING

(CIRCUITS WITH SAIDI AND/OR SAIFI EXCEEDING 5 YEAR AVERAGE)

(CIRCUIT NUMBERS SHOULD BE REPORTED EXCLUDING MED)

CIRCUIT #1: Stanton 1

1. SUBSTATION NAME AND NUMBER Stanton E1
2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Powell County-Halls Road- Stanton KY
3. CIRCUIT NAME AND NUMBER Stanton 1-
4. CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA) Downtown Stanton
5. TOTAL CIRCUIT LENGTH (MILES) 7.142
6. CUSTOMER COUNT FOR THIS CIRCUIT 504
- 7.. DATE OF LAST CIRCUIT TRIM (VM) 2012
8. LIST OUTAGE CAUSES FOR CIRCUIT ALONG WITH PERCENTAGE OF TOTAL OUTAGE NUMBERS
NUMBERS REPRESENTED BY EACH CAUSE See Attached
9. CIRCUIT 5 YEAR AVERAGE (SAIDI) 28.79
10. REPORTING YEAR (SAIDI) 52.85
11. CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.37
12. REPORTING YEAR (SAIFI) 0.67
13. CORRECTIVE ACTION PLAN

STANTON1

	Customer	Customer Minutes	%
Planned			
8	84	14181	25.07
Equipment			
1	27	3888	8.06
Animal			
1	224	8339	66.87
10	335	26408	100

SECTION 5: CIRCUIT REPORTING

(CIRCUITS WITH SAIDI AND/OR SAIFI EXCEEDING 5 YEAR AVERAGE)

(CIRCUIT NUMBERS SHOULD BE REPORTED EXCLUDING MED)

CIRCUIT #1: Stanton 2

1. SUBSTATION NAME AND NUMBER Stanton E1
2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Powell County- Halls Road- Stanton KY
3. CIRCUIT NAME AND NUMBER Stanton 2-
4. CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA) East College Avenue/Roslyn
5. TOTAL CIRCUIT LENGTH (MILES) 26.075
6. CUSTOMER COUNT FOR THIS CIRCUIT 602
- 7.. DATE OF LAST CIRCUIT TRIM (VM) 2012
8. LIST OUTAGE CAUSES FOR CIRCUIT ALONG WITH PERCENTAGE OF TOTAL OUTAGE NUMBERS
NUMBERS REPRESENTED BY EACH CAUSE See Attached
9. CIRCUIT 5 YEAR AVERAGE (SAIDI) 39.99
10. REPORTING YEAR (SAIDI) 78.92
11. CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.73
12. REPORTING YEAR (SAIFI) 1.03
13. CORRECTIVE ACTION PLAN Equipment failure due to animals- equipment replaced-
no further action needed

STANTON2

	Customer	Customer Minutes	%
Planned			
18	168	17631	26.09
Equipment			
4	50	5486	7.764
Weather			
4	15	2144	2.329
Animal			
9	361	23542	56.06
Public			
1	26	1508	4.037
Unknown			
2	24	1266	3.727
38	644	51577	100

SECTION 5: CIRCUIT REPORTING

(CIRCUITS WITH SAIDI AND/OR SAIFI EXCEEDING 5 YEAR AVERAGE)

(CIRCUIT NUMBERS SHOULD BE REPORTED EXCLUDING MED)

CIRCUIT #1: Stanton 3

1. SUBSTATION NAME AND NUMBER Stanton E1
2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Powell County- Halls Road- Stanton KY
3. CIRCUIT NAME AND NUMBER Stanton 3
4. CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA) Hatton Creek/Furnace Mtn.
5. TOTAL CIRCUIT LENGTH (MILES) 43.427
6. CUSTOMER COUNT FOR THIS CIRCUIT 602
- 7.. DATE OF LAST CIRCUIT TRIM (VM) 2012
8. LIST OUTAGE CAUSES FOR CIRCUIT ALONG WITH PERCENTAGE OF TOTAL OUTAGE NUMBERS
NUMBERS REPRESENTED BY EACH CAUSE See Attached
9. CIRCUIT 5 YEAR AVERAGE (SAIDI) 41.68
10. REPORTING YEAR (SAIDI) 184.1
11. CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.55
12. REPORTING YEAR (SAIFI) 1.07
13. CORRECTIVE ACTION PLAN Pole washed out in remote area- no ability to backfeed-
pole changed out- no further action needed

STANTON3

	Customer	Customer Minutes	%
Planned 23	1089	127922	60.74
Equipment 6	136	14673	7.585
Weather 12	514	74333	28.67
Animal 1	3	105	0.167
Public 1	1	43	0.056
Unknown 8	50	5729	2.789
51	1793	222805	100

SECTION 5: CIRCUIT REPORTING

(CIRCUITS WITH SAIDI AND/OR SAIFI EXCEEDING 5 YEAR AVERAGE)

(CIRCUIT NUMBERS SHOULD BE REPORTED EXCLUDING MED)

CIRCUIT #1: Stanton 4

1. SUBSTATION NAME AND NUMBER Stanton E1
2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Powell County- Halls Road- Stanton KY
3. CIRCUIT NAME AND NUMBER Stanton 4
4. CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA) Maple Street
5. TOTAL CIRCUIT LENGTH (MILES) 8.019
6. CUSTOMER COUNT FOR THIS CIRCUIT 422
- 7.. DATE OF LAST CIRCUIT TRIM (VM) 2012
8. LIST OUTAGE CAUSES FOR CIRCUIT ALONG WITH PERCENTAGE OF TOTAL OUTAGE NUMBERS
NUMBERS REPRESENTED BY EACH CAUSE See Attached
9. CIRCUIT 5 YEAR AVERAGE (SAIDI) 22.01
10. REPORTING YEAR (SAIDI) 226.41
11. CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.47
12. REPORTING YEAR (SAIFI) 1.34
13. CORRECTIVE ACTION PLAN Several poles broken due to wind and trees-
one pole damaged by lightning

STANTON4

	Customer	Customer Minutes	%
Equipment			
1	52	16692	9.336
Planned			
3	79	5413	14.18
Weather			
1	414	71208	74.33
Unknown			
1	12	1044	2.154
6	557	94357	100

SECTION 5: CIRCUIT REPORTING

(CIRCUITS WITH SAIDI AND/OR SAIFI EXCEEDING 5 YEAR AVERAGE)

(CIRCUIT NUMBERS SHOULD BE REPORTED EXCLUDING MED)

CIRCUIT #1: Stanton 5

1. SUBSTATION NAME AND NUMBER Stanton E1
2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Powell County- Halls Road- Stanton KY
3. CIRCUIT NAME AND NUMBER Stanton 5- Morris Creek
4. CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA) Morris Creek
5. TOTAL CIRCUIT LENGTH (MILES) 39.65
6. CUSTOMER COUNT FOR THIS CIRCUIT 709
- 7.. DATE OF LAST CIRCUIT TRIM (VM) 2012
8. LIST OUTAGE CAUSES FOR CIRCUIT ALONG WITH PERCENTAGE OF TOTAL OUTAGE NUMBERS
NUMBERS REPRESENTED BY EACH CAUSE See Attached
9. CIRCUIT 5 YEAR AVERAGE (SAIDI) 71.06
10. REPORTING YEAR (SAIDI) 181.22
11. CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.73
12. REPORTING YEAR (SAIFI) 1.26
13. CORRECTIVE ACTION PLAN Insulators failed- time consuming repairs due to access to pole-
no further action needed

STANTON5

	Customer	Customer Minutes	%
Planned			
31	446	72952	43.98
Equipment			
2	541	76106	53.35
Weather			
5	7	956	0.69
Animal			
3	8	605	0.789
Public			
1	6	204	0.592
Unknown			
4	6	553	0.592
46	1014	151376	100

SECTION 5: CIRCUIT REPORTING

(CIRCUITS WITH SAIDI AND/OR SAIFI EXCEEDING 5 YEAR AVERAGE)

(CIRCUIT NUMBERS SHOULD BE REPORTED EXCLUDING MED)

CIRCUIT #1: Three forks 2

1. SUBSTATION NAME AND NUMBER Three Forks S61
2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Madison County- Three Forks Road- Richmond KY
3. CIRCUIT NAME AND NUMBER Three Forks 2- Madison Village
4. CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA) Madison Village
5. TOTAL CIRCUIT LENGTH (MILES) 12.431
6. CUSTOMER COUNT FOR THIS CIRCUIT 456
7. DATE OF LAST CIRCUIT TRIM (VM) 2011
8. LIST OUTAGE CAUSES FOR CIRCUIT ALONG WITH PERCENTAGE OF TOTAL OUTAGE NUMBERS
NUMBERS REPRESENTED BY EACH CAUSE See Attached
9. CIRCUIT 5 YEAR AVERAGE (SAIDI) 107.81
10. REPORTING YEAR (SAIDI) 224.42
11. CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.86
12. REPORTING YEAR (SAIFI) 2.27
13. CORRECTIVE ACTION PLAN several tree related outages- several weather related outages-
right of way has been cut- no further corrective action needed

THRFRKS2

	Customer	Customer Minutes	%
Planned			
9	945	89726	91.3
Equipment			
2	30	3404	2.899
Weather			
1	3	249	0.29
Animal			
1	57	9120	5.507
13	1035	102499	100

SECTION 5: CIRCUIT REPORTING

(CIRCUITS WITH SAIDI AND/OR SAIFI EXCEEDING 5 YEAR AVERAGE)

(CIRCUIT NUMBERS SHOULD BE REPORTED EXCLUDING MED)

CIRCUIT #1: Trapp 1

1. SUBSTATION NAME AND NUMBER Trapp E90
2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Clark County- Trapp Goffs Corner Road- Trapp
3. CIRCUIT NAME AND NUMBER Trapp 1
4. CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA) Trapp Goffs Corner Road
5. TOTAL CIRCUIT LENGTH (MILES) 23.943
6. CUSTOMER COUNT FOR THIS CIRCUIT 207
- 7.. DATE OF LAST CIRCUIT TRIM (VM) 2011
8. LIST OUTAGE CAUSES FOR CIRCUIT ALONG WITH PERCENTAGE OF TOTAL OUTAGE NUMBERS
NUMBERS REPRESENTED BY EACH CAUSE See Attached
9. CIRCUIT 5 YEAR AVERAGE (SAIDI) 97.09
10. REPORTING YEAR (SAIDI) 130.33
11. CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.84
12. REPORTING YEAR (SAIFI) 0.92
13. CORRECTIVE ACTION PLAN Weather related outages were the largest contributing factor-
Some tree related growth that has been addressed

TRAPP1	Customer	Customer Minutes	%
Planned			
5	43	2101	22.51
Equipment			
2	72	15300	37.7
Weather			
1	1	67	0.524
Animal			
1	2	138	1.047
Unknown			
2	73	9309	38.22
11	191	26915	100

SECTION 5: CIRCUIT REPORTING

(CIRCUITS WITH SAIDI AND/OR SAIFI EXCEEDING 5 YEAR AVERAGE)

(CIRCUIT NUMBERS SHOULD BE REPORTED EXCLUDING MED)

CIRCUIT #1: Trapp 2

1. SUBSTATION NAME AND NUMBER Trapp E90
2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Clark County- Trapp Goffs Corner Road- Trapp
3. CIRCUIT NAME AND NUMBER Trapp 2
4. CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA) Trapp/Log Lick Road
5. TOTAL CIRCUIT LENGTH (MILES) 36.89
6. CUSTOMER COUNT FOR THIS CIRCUIT 330
- 7.. DATE OF LAST CIRCUIT TRIM (VM) 2011
8. LIST OUTAGE CAUSES FOR CIRCUIT ALONG WITH PERCENTAGE OF TOTAL OUTAGE NUMBERS
NUMBERS REPRESENTED BY EACH CAUSE See Attached
9. CIRCUIT 5 YEAR AVERAGE (SAIDI) 96.97
10. REPORTING YEAR (SAIDI) 133.07
11. CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.47
12. REPORTING YEAR (SAIFI) 0.6
13. CORRECTIVE ACTION PLAN Weather related outages- no corrective action plan needed

TRAPP2

	Customer	Customer Minutes	%
Planned			
11	149	37182	60.32
Weather			
3	32	17148	12.96
Animal			
2	4	279	1.619
Public			
1	23	4945	9.312
Unknown			
6	39	3946	15.79
23	247	63500	100

SECTION 5: CIRCUIT REPORTING

(CIRCUITS WITH SAIDI AND/OR SAIFI EXCEEDING 5 YEAR AVERAGE)

(CIRCUIT NUMBERS SHOULD BE REPORTED EXCLUDING MED)

CIRCUIT #1: Trapp 3

1. SUBSTATION NAME AND NUMBER Trapp E90
2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Clark County- Trapp Goffs Corner Road- Tra
3. CIRCUIT NAME AND NUMBER Trapp 3
4. CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA) Hwy 89/Red River
5. TOTAL CIRCUIT LENGTH (MILES) 34.582
6. CUSTOMER COUNT FOR THIS CIRCUIT 239
- 7.. DATE OF LAST CIRCUIT TRIM (VM) 2011
8. LIST OUTAGE CAUSES FOR CIRCUIT ALONG WITH PERCENTAGE OF TOTAL OUTAGE NUMBERS
NUMBERS REPRESENTED BY EACH CAUSE See Attached
9. CIRCUIT 5 YEAR AVERAGE (SAIDI) 54.57
10. REPORTING YEAR (SAIDI) 430.1
11. CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.42
12. REPORTING YEAR (SAIFI) 2.94
13. CORRECTIVE ACTION PLAN Weather related outages- no corrective action plan needed

TRAPP3

	Customer	Customer	Minutes	%
Planned	8	314	47708	45.38
Weather	9	32	6779	4.624
Animal	6	16	1312	2.312
Unknown	10	330	49214	47.69
	33	692	105013	100

SECTION 5: CIRCUIT REPORTING

(CIRCUITS WITH SAIDI AND/OR SAIFI EXCEEDING 5 YEAR AVERAGE)

(CIRCUIT NUMBERS SHOULD BE REPORTED EXCLUDING MED)

CIRCUIT #1: Treehaven 3

1. SUBSTATION NAME AND NUMBER Treehaven N66
2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Clark County- Rockwell Road- Winchester
3. CIRCUIT NAME AND NUMBER Treehaven 3
4. CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA) Rockwell Road
5. TOTAL CIRCUIT LENGTH (MILES) 1.763
6. CUSTOMER COUNT FOR THIS CIRCUIT 141
- 7.. DATE OF LAST CIRCUIT TRIM (VM) 2015
8. LIST OUTAGE CAUSES FOR CIRCUIT ALONG WITH PERCENTAGE OF TOTAL OUTAGE NUMBERS
NUMBERS REPRESENTED BY EACH CAUSE See Attached
9. CIRCUIT 5 YEAR AVERAGE (SAIDI) 6.47
10. REPORTING YEAR (SAIDI) 50.98
11. CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.04
12. REPORTING YEAR (SAIFI) 0.45
13. CORRECTIVE ACTION PLAN Power Supply related outages

TREEHAVEN3

	Customer	Customer Minutes	%
Planned			
1	4	52	6.25
Equipment			
1	56	11536	87.5
Animal			
1	4	172	6.25
3	64	11760	100

SECTION 5: CIRCUIT REPORTING

(CIRCUITS WITH SAIDI AND/OR SAIFI EXCEEDING 5 YEAR AVERAGE)

(CIRCUIT NUMBERS SHOULD BE REPORTED EXCLUDING MED)

CIRCUIT #1: Treehaven 4

1. SUBSTATION NAME AND NUMBER Treehaven N66
2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Clark County- Rockwell Road- Winchester
3. CIRCUIT NAME AND NUMBER Treehaven 4
4. CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA) Treehaven Mobile Home Park
5. TOTAL CIRCUIT LENGTH (MILES) 1.096
6. CUSTOMER COUNT FOR THIS CIRCUIT 89
2015
- 7.. DATE OF LAST CIRCUIT TRIM (VM)
8. LIST OUTAGE CAUSES FOR CIRCUIT ALONG WITH PERCENTAGE OF TOTAL OUTAGE NUMBERS
NUMBERS REPRESENTED BY EACH CAUSE See Attached
9. CIRCUIT 5 YEAR AVERAGE (SAIDI) 20.33
10. REPORTING YEAR (SAIDI) 47.58
11. CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.22
12. REPORTING YEAR (SAIFI) 0.41
13. CORRECTIVE ACTION PLAN Power Supply related outages

TREEHAVEN4

	Customer	Customer Minutes	%
Planned			
1	2	234	5.405
Animal			
2	35	4072	94.59
3	37	4306	100

SECTION 5: CIRCUIT REPORTING

(CIRCUITS WITH SAIDI AND/OR SAIFI EXCEEDING 5 YEAR AVERAGE)

(CIRCUIT NUMBERS SHOULD BE REPORTED EXCLUDING MED)

CIRCUIT #1: Union City 3

1. SUBSTATION NAME AND NUMBER Union City S90
2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Madison County- Union City Road- Richmond KY
3. CIRCUIT NAME AND NUMBER Union City 3
4. CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA) Doylesville
5. TOTAL CIRCUIT LENGTH (MILES) 16.693
6. CUSTOMER COUNT FOR THIS CIRCUIT 297
- 7.. DATE OF LAST CIRCUIT TRIM (VM) 2018
8. LIST OUTAGE CAUSES FOR CIRCUIT ALONG WITH PERCENTAGE OF TOTAL OUTAGE NUMBERS
NUMBERS REPRESENTED BY EACH CAUSE See Attached
9. CIRCUIT 5 YEAR AVERAGE (SAIDI) 91.53
10. REPORTING YEAR (SAIDI) 146.55
11. CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.53
12. REPORTING YEAR (SAIFI) 2.03
13. CORRECTIVE ACTION PLAN Car accident with pole broken- pole changed out- no further

UNIONCITY3

	Customer	Customer Minutes	%
Planned			
14	450	39326	72
Equipment			
4	92	13673	14.72
Weather			
2	71	18773	11.36
Animal			
1	4	520	0.64
Unknown			
4	8	1176	1.28
25	625	73468	100

SECTION 5: CIRCUIT REPORTING

(CIRCUITS WITH SAIDI AND/OR SAIFI EXCEEDING 5 YEAR AVERAGE)

(CIRCUIT NUMBERS SHOULD BE REPORTED EXCLUDING MED)

CIRCUIT #1: VAnMeter 2

1. SUBSTATION NAME AND NUMBER VanMeter N36
2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Clark County- VanMeter- Winchester
3. CIRCUIT NAME AND NUMBER VanMeter 2
4. CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA) Clintonville
5. TOTAL CIRCUIT LENGTH (MILES) 6.69
6. CUSTOMER COUNT FOR THIS CIRCUIT 61
7. DATE OF LAST CIRCUIT TRIM (VM) 2015
8. LIST OUTAGE CAUSES FOR CIRCUIT ALONG WITH PERCENTAGE OF TOTAL OUTAGE NUMBERS
NUMBERS REPRESENTED BY EACH CAUSE See Attached
9. CIRCUIT 5 YEAR AVERAGE (SAIDI) 23.75
10. REPORTING YEAR (SAIDI) 57.2
11. CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.27
12. REPORTING YEAR (SAIFI) 0.54
13. CORRECTIVE ACTION PLAN

VANMTR2

	Customers	Customer Minutes	%
Planned			
2	2	1521	5.882
Animal			
2	31	1975	91.18
Unknown			
1	1	87	2.941
5	34	3583	100

KENTUCKY PUBLIC SERVICE COMMISSION

SECTION 6: VEGETATION MANAGEMENT PLAN REVIEW

INCLUDE CURRENT VEGETATION MANAGEMENT PLAN

Additional page may be attached as needed.

In 2019 Clark Energy will be tracking the progress of rights-of-way cutting by utilizing our mapping system. The Right of Way Coordinator will be marking the map according to what has been cut. Clark Energy will be using 7 crews to cut circuits on our system and also to cut problem areas that have caused outages. There will be a spray crew that will be spraying approximately 250 mile of line in 2019.

SECTION 7: UTILITY COMMENTS

Clark Energy experienced two substantial storms in 2018 contributing to higher SAIDI and SAIFI numbers on several of the 74 circuits that we have. Clark Energy also experienced high volumes of rain during the year causing Rights-of- Way more difficult to manage. Information that has been gathered is being utilized to improve reliability in several of the effected circuits.