

KENTUCKY PUBLIC SERVICE COMMISSION

Electric Distribution Utility Annual Reliability Report

SECTION 1: CONTACT INFORMATION

UTILITY NAME	FLEMING MASON ENERGY
REPORT PREPARED BY	BRANDON HUNT
E-MAIL ADDRESS OF PREPARER	bhunt@fme.coop
PHONE NUMBER OF PREPARER	606-845-2661

SECTION 2: REPORTING YEAR

CALENDAR YEAR OF REPORT	2021
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SECTION 3: MAJOR EVENT DAYS (MED)

T_{MED}	11.36
FIRST DATE USED TO DETERMINE T_{MED}	1/1/2016
LAST DATE USED TO DETERMINE T_{MED}	12/31/2020
NUMBER OF MED IN REPORT YEAR	6

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	25,310	TOTAL CIRCUITS	45
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Excluding MED

	5 YEAR AVERAGE		REPORTING YEAR
SAIDI	153.67	SAIDI	157.33
SAIFI	1.47	SAIFI	1.127

Including MED

	5 YEAR AVERAGE		REPORTING YEAR
SAIDI	287.03	SAIDI	443.86
SAIFI	1.48	SAIFI	1.48

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:

1. SUBSTATION NAME AND NUMBER
SHARKEY
2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)
KY 801, SHARKEY
3. CIRCUIT NAME AND NUMBER
801/FARMERS OCR 224
4. CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA)
KY 801, FARMERS
5. TOTAL CIRCUIT LENGTH (MILES)
46.1
6. CUSTOMER COUNT FOR THIS CIRCUIT
804
- 7.. DATE OF LAST CIRCUIT TRIM (VM)
2018
8. LIST OUTAGE CAUSES FOR CIRCUIT ALONG WITH PERCENTAGE OF TOTAL OUTAGE NUMBERS REPRESENTED BY EACH CAUSE

Equipment Failure	0.17	Tree Failure	0	Animal	0
Installation Fault	0	Tree w/ Ice	9.31	Cust Caused	4.06
Conductor Sag	0	In-house Tree	0	Motor Vehicle	0.636
Overload	0	Tree out of ROW	3.78	Public Cut Tree	0
Decay/Age Equip	0	Lightning	0.68	Public Other	0
Corrosion/Abrasion	0	Wind	0	Other	0
Tree Growth	12.33	Small Animal	0.13	Cause Unknown	0.06

9. CIRCUIT 5 YEAR AVERAGE (SAIDI)
28.64
10. REPORTING YEAR (SAIDI)
31.51
11. CIRCUIT 5 YEAR AVERAGE (SAIFI)
0.773
12. REPORTING YEAR (SAIFI)
0.204
13. CORRECTIVE ACTION PLAN

Tree growth was largest contributing cause. Tree growth will be monitored on next inspections with emphasis on yard trees.

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

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:

1. SUBSTATION NAME AND NUMBER
PLUMMERS LANDING
2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)
KY 32 - PLUMMERS LANDING
3. CIRCUIT NAME AND NUMBER
BLUEBANK OCR114
4. CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA)
KY 32 - PLUMMERS LANDING TO FLEMINGSBURG
5. TOTAL CIRCUIT LENGTH (MILES)
48
6. CUSTOMER COUNT FOR THIS CIRCUIT
508
- 7.. DATE OF LAST CIRCUIT TRIM (VM)
2020
8. LIST OUTAGE CAUSES FOR CIRCUIT ALONG WITH PERCENTAGE OF TOTAL OUTAGE NUMBERS REPRESENTED BY EACH CAUSE

Equipment Failure	0.24	Tree Failure	13.76	Animal	0
Installation Fault	0.04	Tree w/ Ice	1.15	Cust Caused	0
Conductor Sag	0	In-house Tree	0	Motor Vehicle	0.94
Overload	0	Tree out of ROW	5.56	Public Cut Tree	0
Decay/Age Equip	9.4	Lightning	0.24	Public Other	0
Corrosion/Abrasion	0	Wind	6.98	Other	0
Tree Growth	1.79	Small Animal	0.82	Cause Unknown	15.66

9. CIRCUIT 5 YEAR AVERAGE (SAIDI)
36.96
10. REPORTING YEAR (SAIDI)
69.79
11. CIRCUIT 5 YEAR AVERAGE (SAIFI)
0.779
12. REPORTING YEAR (SAIFI)
0.601
13. CORRECTIVE ACTION PLAN

Unknown outages and Tree failure was highest cause. Large outage that the cause was unidentified was the reason for unknown being higher.

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

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:

1. SUBSTATION NAME AND NUMBER
Snow Hill
2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)
Roberterson County, Piqua
3. CIRCUIT NAME AND NUMBER
Bluelicks OCR 214
4. CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA)
Bluelicks, US 68, Stoney Creek
5. TOTAL CIRCUIT LENGTH (MILES)
104
6. CUSTOMER COUNT FOR THIS CIRCUIT
664
- 7.. DATE OF LAST CIRCUIT TRIM (VM)
2016
8. LIST OUTAGE CAUSES FOR CIRCUIT ALONG WITH PERCENTAGE OF TOTAL OUTAGE NUMBERS REPRESENTED BY EACH CAUSE

Equipment Failure	7.35	Tree Failure	0.065	Animal	0
Installation Fault	0	Tree w/ Ice	0	Cust Caused	0
Conductor Sag	0	In-house Tree	0	Motor Vehicle	32.67
Overload	0	Tree out of ROW	0	Public Cut Tree	0
Decay/Age Equip	0.038	Lightning	55.74	Public Other	0.018
Corrosion/Abrasion	0	Wind	0	Other	0
Tree w/ wind	11.11	Small Animal	1.67	Cause Unknown	105.88

9. CIRCUIT 5 YEAR AVERAGE (SAIDI)
45.78
10. REPORTING YEAR (SAIDI)
214.66
11. CIRCUIT 5 YEAR AVERAGE (SAIFI)
5.66
12. REPORTING YEAR (SAIFI)
1.61
13. CORRECTIVE ACTION PLAN

Cause unknown and motor vehicle largest contributing cause. Both causes had a large outage that effected SAIDI growth.

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

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:

1. SUBSTATION NAME AND NUMBER
Sharkey
2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)
KY 801, Morehead
3. CIRCUIT NAME AND NUMBER
Family Dollar OCR 214
4. CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA)
KY 801, MMRC Park
5. TOTAL CIRCUIT LENGTH (MILES)
1.2
6. CUSTOMER COUNT FOR THIS CIRCUIT
9
- 7.. DATE OF LAST CIRCUIT TRIM (VM)
Underground
8. LIST OUTAGE CAUSES FOR CIRCUIT ALONG WITH PERCENTAGE OF TOTAL OUTAGE NUMBERS REPRESENTED BY EACH CAUSE

Equipment Failure	0.106	Tree Failure	0	Animal	0
Installation Fault	0	Tree w/ Ice	0	Cust Caused	0
Conductor Sag	0	In-house Tree	0	Motor Vehicle	0
Overload	0	Tree out of ROW	0	Public Cut Tree	0
Decay/Age Equip	0.367	Lightning	0	Public Other	0
Corrosion/Abrasion	0	Wind	0	Other	0
Tree W/ wind	0	Small Animal	0	Cause Unknown	0

9. CIRCUIT 5 YEAR AVERAGE (SAIDI)
0.26
10. REPORTING YEAR (SAIDI)
0.47
11. CIRCUIT 5 YEAR AVERAGE (SAIFI)
0.01
12. REPORTING YEAR (SAIFI)
0.0028
13. CORRECTIVE ACTION PLAN

Underground ckt with equipment failure.

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

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:

1. SUBSTATION NAME AND NUMBER
Maysville
2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)
Mason, AA HWY
3. CIRCUIT NAME AND NUMBER
Federal Mogal OCR 214
4. CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA)
Maysville, AA HWY
5. TOTAL CIRCUIT LENGTH (MILES)
6.2
6. CUSTOMER COUNT FOR THIS CIRCUIT
67
- 7.. DATE OF LAST CIRCUIT TRIM (VM)
2016
8. LIST OUTAGE CAUSES FOR CIRCUIT ALONG WITH PERCENTAGE OF TOTAL OUTAGE NUMBERS REPRESENTED BY EACH CAUSE

Equipment Failure	0	Tree Failure	0	Animal	0
Installation Fault	0	Tree w/ Ice	0	Cust Caused	0
Conductor Sag	0	In-house Tree	0	Motor Vehicle	0
Overload	0	Tree out of ROW	0	Public Cut Tree	0
Decay/Age Equip	0	Lightning	2.69	Public Other	0
Corrosion/Abrasion	0	Wind	0	Other	0
Tree Growth	0	Small Animal	0	Cause Unknown	0

9. CIRCUIT 5 YEAR AVERAGE (SAIDI)
1.64
10. REPORTING YEAR (SAIDI)
2.69
11. CIRCUIT 5 YEAR AVERAGE (SAIFI)
0.054
12. REPORTING YEAR (SAIFI)
0.029
13. CORRECTIVE ACTION PLAN

One lightning outage on this short circuit

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

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:

1. SUBSTATION NAME AND NUMBER
Hillsboro
2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)
Fleming County, KY 111, Hillsboro
3. CIRCUIT NAME AND NUMBER
Grange City 204
4. CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA)
Grange City, KY 111
5. TOTAL CIRCUIT LENGTH (MILES)
85.5
6. CUSTOMER COUNT FOR THIS CIRCUIT
504
- 7.. DATE OF LAST CIRCUIT TRIM (VM)
2019
8. LIST OUTAGE CAUSES FOR CIRCUIT ALONG WITH PERCENTAGE OF TOTAL OUTAGE NUMBERS REPRESENTED BY EACH CAUSE

Equipment Failure	1.57	Tree W/ Wind	6.56	Animal	0
Installation Fault	0	Tree w/ Ice	6.76	Cust Caused	0.066
Conductor Sag	0.26	In-house Tree	0	Motor Vehicle	0
Overload	0	Tree out of ROW	0	Public Cut Tree	0
Decay/Age Equip	0	Lightning	2.44	Public Other	0
Corrosion/Abrasion	0	Wind	0	Other	0.39
Tree Growth	0	Small Animal	0.65	Cause Unknown	6.58

9. CIRCUIT 5 YEAR AVERAGE (SAIDI)
18.36
10. REPORTING YEAR (SAIDI)
25.28
11. CIRCUIT 5 YEAR AVERAGE (SAIFI)
0.565
12. REPORTING YEAR (SAIFI)
0.2
13. CORRECTIVE ACTION PLAN

Trees during storm situations was the largest cause.

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

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:

1. SUBSTATION NAME AND NUMBER
Big Woods
2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)
Rowan County, KY 32
3. CIRCUIT NAME AND NUMBER
Hickory Point OCR 124
4. CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA)
KY 32, Morehead
5. TOTAL CIRCUIT LENGTH (MILES)
41.7
6. CUSTOMER COUNT FOR THIS CIRCUIT
916
- 7.. DATE OF LAST CIRCUIT TRIM (VM)
2018
8. LIST OUTAGE CAUSES FOR CIRCUIT ALONG WITH PERCENTAGE OF TOTAL OUTAGE NUMBERS REPRESENTED BY EACH CAUSE

Equipment Failure	0.07	Tree w/ wind	9.94	Animal	0
Installation Fault	0	Tree w/ Ice	0	Cust Caused	0
Conductor Sag	0	Tree w/ Wind	0	Motor Vehicle	0.53
Overload	0	Tree out of ROW	3.49	Public Cut Tree	0
Decay/Age Equip	0	Lightning	0.13	Public Other	0
Corrosion/Abrasion	0	Wind	2.6	Other	0
Tree Growth	0.517	Small Animal	1.04	Cause Unknown	1.35

9. CIRCUIT 5 YEAR AVERAGE (SAIDI)
21.4
10. REPORTING YEAR (SAIDI)
54.14
11. CIRCUIT 5 YEAR AVERAGE (SAIFI)
0.99
12. REPORTING YEAR (SAIFI)
0.198
13. CORRECTIVE ACTION PLAN

Tree with wind. Will monitor vegetation.

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

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SECTION 5: CIRCUIT REPORTING

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

(CIRCUIT NUMBERS SHOULD BE REPORTED EXCLUDING MED)

CIRCUIT #1:

1. SUBSTATION NAME AND NUMBER

Charters

2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)

Lewis County, AA HWY, Vanceburg

3. CIRCUIT NAME AND NUMBER

Holly OCR 234

4. CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA)

Lewis County, KY 59, Camp Dix

5. TOTAL CIRCUIT LENGTH (MILES)

148.1

6. CUSTOMER COUNT FOR THIS CIRCUIT

832

7.. DATE OF LAST CIRCUIT TRIM (VM)

2017

8. LIST OUTAGE CAUSES FOR CIRCUIT ALONG WITH PERCENTAGE OF TOTAL OUTAGE NUMBERS REPRESENTED BY EACH CAUSE

Equipment Failure	0.08	Tree Failure	11.44	Weather	1.93
Installation Fault	0	Tree w/ Ice	23.68	Cust Caused	0
Conductor Sag	0	Tree OOR	240.08	Motor Vehicle	0.312
Overload	0	Tree w/ wind	2.06	Public Cut Tree	0
Decay/Age Equip	0.26	Lightning	21.13	Public Other	0.095
Corrosion/Abrasion	0	Wind	0	Other	0.28
Tree Growth	0	Small Animal	0	Cause Unknown	2.85

9. CIRCUIT 5 YEAR AVERAGE (SAIDI)

85.2

10. REPORTING YEAR (SAIDI)

304.29

11. CIRCUIT 5 YEAR AVERAGE (SAIFI)

3.45

12. REPORTING YEAR (SAIFI)

1.95

13. CORRECTIVE ACTION PLAN

Tree out of right of way was largest cause. Several more danger trees have already been removed.

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

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:

1. SUBSTATION NAME AND NUMBER
Hilda
2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)
KY 32, ROWAN COUNTY
3. CIRCUIT NAME AND NUMBER
Interchange OCR 114
4. CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA)
KY 32, ROWAN COUNTY
5. TOTAL CIRCUIT LENGTH (MILES)
20
6. CUSTOMER COUNT FOR THIS CIRCUIT
596
- 7.. DATE OF LAST CIRCUIT TRIM (VM)
2018
8. LIST OUTAGE CAUSES FOR CIRCUIT ALONG WITH PERCENTAGE OF TOTAL OUTAGE NUMBERS REPRESENTED BY EACH CAUSE

Equipment Failure	0	Tree Failure	9.05	Animal	0
Installation Fault	36.65	Tree w/ Ice	33.2	Cust Caused	0
Conductor Sag	0	In-house Tree	0	Motor Vehicle	48
Overload	0	Tree out of ROW	1.55	Public Cut Tree	0
Decay/Age Equip	0	Lightning	0.21	Public Other	0
Corrosion/Abrasion	0	Wind	0	Other	0
Tree w/ Wind	0	Small Animal	1.24	Cause Unknown	1.56

9. CIRCUIT 5 YEAR AVERAGE (SAIDI)
39.43
10. REPORTING YEAR (SAIDI)
131.35
11. CIRCUIT 5 YEAR AVERAGE (SAIFI)
3.64
12. REPORTING YEAR (SAIFI)
1.117
13. CORRECTIVE ACTION PLAN

Installation fault, Motor vehicle, and ice were all contributing to larger outage numbers.

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

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:

1. SUBSTATION NAME AND NUMBER
Big Woods
2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)
KY 32, ROWAN COUNTY
3. CIRCUIT NAME AND NUMBER
KY 158 OCR 134
4. CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA)
KY 158, ROWAN COUNTY
5. TOTAL CIRCUIT LENGTH (MILES)
21.5
6. CUSTOMER COUNT FOR THIS CIRCUIT
340
- 7.. DATE OF LAST CIRCUIT TRIM (VM)
2018
8. LIST OUTAGE CAUSES FOR CIRCUIT ALONG WITH PERCENTAGE OF TOTAL OUTAGE NUMBERS REPRESENTED BY EACH CAUSE

Equipment Failure	0	Tree Growth	0.486	Animal	0
Installation Fault	0	Tree Failure	4.45	Cust Caused	0
Conductor Sag	0	In-house Tree	0	Motor Vehicle	0
Overload	0	Tree out of ROW	1.1	Public Cut Tree	0
Decay/Age Equip	0.079	Lightning	3.38	Public Other	0
Corrosion/Abrasion	0	Wind	1.2	Other	0
Tree w/ wind	0	Small Animal	0	Cause Unknown	0.325

9. CIRCUIT 5 YEAR AVERAGE (SAIDI)
3.69
10. REPORTING YEAR (SAIDI)
11.01
11. CIRCUIT 5 YEAR AVERAGE (SAIFI)
0.0561
12. REPORTING YEAR (SAIFI)
0.097
13. CORRECTIVE ACTION PLAN

Small amount of outages on circuit. Low 5 year average.

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

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:

1. SUBSTATION NAME AND NUMBER
MAYSVILLE
2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)
AA HWY / CLYDE BARBER PKWY, MASON COUNTY
3. CIRCUIT NAME AND NUMBER
MORANSBURG
4. CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA)
DOVER, MASON COUNTY
5. TOTAL CIRCUIT LENGTH (MILES)
90.7
6. CUSTOMER COUNT FOR THIS CIRCUIT
626
- 7.. DATE OF LAST CIRCUIT TRIM (VM)
2016
8. LIST OUTAGE CAUSES FOR CIRCUIT ALONG WITH PERCENTAGE OF TOTAL OUTAGE NUMBERS REPRESENTED BY EACH CAUSE

Equipment Failure	0	Tree Failure	1	Animal	0
Installation Fault	0	Tree w/ Ice	0.37	Cust Caused	0
Conductor Sag	0	In-house Tree	0	Motor Vehicle	0
Overload	0	Tree out of ROW	46.87	Public Cut Tree	0
Decay/Age Equip	0.117	Lightning	42.76	Public Other	0.94
Tree Growth	0.979	Wind	2.7	Other	0
Tree w/ wind	82.405	Small Animal	1.95	Cause Unknown	12.65

9. CIRCUIT 5 YEAR AVERAGE (SAIDI)
47.29
10. REPORTING YEAR (SAIDI)
144.51
11. CIRCUIT 5 YEAR AVERAGE (SAIFI)
4.91
12. REPORTING YEAR (SAIFI)
1.67
13. CORRECTIVE ACTION PLAN

Trees with wind is largest cause. Circuit due to be trimmed this year.

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

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:

1. SUBSTATION NAME AND NUMBER
Peasticks
2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)
Bath County, Peasticks, Peasticks Rd
3. CIRCUIT NAME AND NUMBER
Owingsville-Sharpsburg OCR 234
4. CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA)
Sharpsburg, KY 36
5. TOTAL CIRCUIT LENGTH (MILES)
149.3
6. CUSTOMER COUNT FOR THIS CIRCUIT
948
- 7.. DATE OF LAST CIRCUIT TRIM (VM)
2020
8. LIST OUTAGE CAUSES FOR CIRCUIT ALONG WITH PERCENTAGE OF TOTAL OUTAGE NUMBERS REPRESENTED BY EACH CAUSE

Equipment Failure	1.6	Tree Failure	0.15	Animal	0
Installation Fault	0.057	Tree w/ wind	32.84	Cust Caused	0
Conductor Sag	1.99	In-house Tree	0	Motor Vehicle	1.86
Overload	0	Tree out of ROW	0	Public Cut Tree	0
Decay/Age Equip	0	Lightning	2.87	Public Other	0.46
Corrosion/Abrasion	0	Wind	0	Other	0.006
Tree Growth	0	Small Animal	3.72	Cause Unknown	4.2

9. CIRCUIT 5 YEAR AVERAGE (SAIDI)
26.3
10. REPORTING YEAR (SAIDI)
59.27
11. CIRCUIT 5 YEAR AVERAGE (SAIFI)
1.85
12. REPORTING YEAR (SAIFI)
0.383
13. CORRECTIVE ACTION PLAN

TREES WITH WIND. Monitor trees.

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

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SECTION 5: CIRCUIT REPORTING

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

(CIRCUIT NUMBERS SHOULD BE REPORTED EXCLUDING MED)

CIRCUIT #1:

1. SUBSTATION NAME AND NUMBER
Snow Hill
2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)
Robertson County, KY 165
3. CIRCUIT NAME AND NUMBER
Piqua OCR 234
4. CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA)
KY 165, Piqua
5. TOTAL CIRCUIT LENGTH (MILES)
32.3
6. CUSTOMER COUNT FOR THIS CIRCUIT
176
- 7.. DATE OF LAST CIRCUIT TRIM (VM)
2016
8. LIST OUTAGE CAUSES FOR CIRCUIT ALONG WITH PERCENTAGE OF TOTAL OUTAGE NUMBERS REPRESENTED BY EACH CAUSE

Equipment Failure	0	Tree Failure	0	Animal	0
Installation Fault	0	Tree w/ wind	0	Cust Caused	0.035
Conductor Sag	0	In-house Tree	0	Motor Vehicle	0
Overload	0	Tree out of ROW	11.63	Public Cut Tree	0
Decay/Age Equip	0	Lightning	2.06	Public Other	0
Corrosion/Abrasion	0	Ice	23.3	Other	0
Tree Growth	0	Small Animal	0.193	Cause Unknown	3.86

9. CIRCUIT 5 YEAR AVERAGE (SAIDI)
8.35
10. REPORTING YEAR (SAIDI)
41.11
11. CIRCUIT 5 YEAR AVERAGE (SAIFI)
0.2941
12. REPORTING YEAR (SAIFI)
0.577
13. CORRECTIVE ACTION PLAN

Snow and ice was the largest cause.

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

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

(CIRCUIT NUMBERS SHOULD BE REPORTED EXCLUDING MED)

CIRCUIT #1:

1. SUBSTATION NAME AND NUMBER

RECTORVILLE

2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)

OWL HOLLOW RD, MASON COUNTY

3. CIRCUIT NAME AND NUMBER

Plumville OCR 234

4. CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA)

Plumville, KY 10, Plumville

5. TOTAL CIRCUIT LENGTH (MILES)

76

6. CUSTOMER COUNT FOR THIS CIRCUIT

911

7.. DATE OF LAST CIRCUIT TRIM (VM)

2017

8. LIST OUTAGE CAUSES FOR CIRCUIT ALONG WITH PERCENTAGE OF TOTAL OUTAGE NUMBERS REPRESENTED BY EACH CAUSE

Equipment Failure	0.87	Tree Failure	1.28	Animal	0.0316
Installation Fault	0.69	Tree w/ wind	0.43	Cust Caused	0.309
Conductor Sag	0	In-house Tree	0	Motor Vehicle	0
Overload	0	Tree out of ROW	1.94	Public Cut Tree	0
Decay/Age Equip	0.032	Lightning	2.518	Public Other	28.29
Corrosion/Abrasion	0	Wind	0	Other	0.72
Tree Growth	1.196	Small Animal	0.55	Cause Unknown	4.25

9. CIRCUIT 5 YEAR AVERAGE (SAIDI)

37.64

10. REPORTING YEAR (SAIDI)

51.79

11. CIRCUIT 5 YEAR AVERAGE (SAIFI)

1.47

12. REPORTING YEAR (SAIFI)

0.47

13. CORRECTIVE ACTION PLAN

Public was the largest outage cause.

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

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:

1. SUBSTATION NAME AND NUMBER

Hillsboro

2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)

Fleming County, KY 111, Hillsboro

3. CIRCUIT NAME AND NUMBER

Poplar Plain OCR 224

4. CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA)

KY 111, Poplar Plains

5. TOTAL CIRCUIT LENGTH (MILES)

71.3

6. CUSTOMER COUNT FOR THIS CIRCUIT

430

7.. DATE OF LAST CIRCUIT TRIM (VM)

2019

8. LIST OUTAGE CAUSES FOR CIRCUIT ALONG WITH PERCENTAGE OF TOTAL OUTAGE NUMBERS REPRESENTED BY EACH CAUSE

Equipment Failure	0.046	Tree Failure	0	Animal	0
Installation Fault	0	Tree w/ wind	0	Cust Caused	3.96
Conductor Sag	0	In-house Tree	0	Motor Vehicle	0
Overload	0	Tree out of ROW	0	Public Cut Tree	0
Decay/Age Equip	0.072	Lightning	42.04	Public Other	0
Corrosion/Abrasion	0	Ice	6.01	Other	0.118
Tree w/ wind	0.031	Small Animal	2.07	Cause Unknown	8.86

9. CIRCUIT 5 YEAR AVERAGE (SAIDI)

15.26

10. REPORTING YEAR (SAIDI)

63.22

11. CIRCUIT 5 YEAR AVERAGE (SAIFI)

0.697

12. REPORTING YEAR (SAIFI)

0.008

13. CORRECTIVE ACTION PLAN

Lightning. Will investigate lightning protection.

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

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:

1. SUBSTATION NAME AND NUMBER
Hillsboro
2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)
Fleming County, KY 11, Hillsboro
3. CIRCUIT NAME AND NUMBER
Sherburne OCR 214
4. CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA)
Sherburne, Fleming/Bath County
5. TOTAL CIRCUIT LENGTH (MILES)
123.4
6. CUSTOMER COUNT FOR THIS CIRCUIT
573
- 7.. DATE OF LAST CIRCUIT TRIM (VM)
2018
8. LIST OUTAGE CAUSES FOR CIRCUIT ALONG WITH PERCENTAGE OF TOTAL OUTAGE NUMBERS REPRESENTED BY EACH CAUSE

Equipment Failure	6.91	Tree Failure	0	Animal	0
Installation Fault	0.0405	Tree w/ wind	0	Cust Caused	0
Conductor Sag	0.063	In-house Tree	0	Motor Vehicle	0.085
Overload	0	Tree out of ROW	0	Public Cut Tree	0
Decay/Age Equip	0	Lightning	0	Public Other	0
Corrosion/Abrasion	0	Ice	45.12	Other	0.6366
Tree Growth	0	Small Animal	0.036	Cause Unknown	3.54

9. CIRCUIT 5 YEAR AVERAGE (SAIDI)
39.23
10. REPORTING YEAR (SAIDI)
59.59
11. CIRCUIT 5 YEAR AVERAGE (SAIFI)
1.28
12. REPORTING YEAR (SAIFI)
0.311
13. CORRECTIVE ACTION PLAN

Ice was largest cause.

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

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:

1. SUBSTATION NAME AND NUMBER
Murphysville
2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)
Mason County, Murphysville Rd
3. CIRCUIT NAME AND NUMBER
Strodes Run OCR 244
4. CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA)
Mason County, Strodes Run
5. TOTAL CIRCUIT LENGTH (MILES)
29.4
6. CUSTOMER COUNT FOR THIS CIRCUIT
104
- 7.. DATE OF LAST CIRCUIT TRIM (VM)
2016
8. LIST OUTAGE CAUSES FOR CIRCUIT ALONG WITH PERCENTAGE OF TOTAL OUTAGE NUMBERS REPRESENTED BY EACH CAUSE

Equipment Failure	0.331	Tree Failure	0	Animal	0
Installation Fault	0	Tree w/ Ice	0	Cust Caused	0
Conductor Sag	0	In-house Tree	0	Motor Vehicle	0
Overload	0	Tree out of ROW	9.93	Public Cut Tree	0
Decay/Age Equip	0	Lightning	0	Public Other	0.03
Tree Growth	0	Wind	0	Other	0
Tree w/ wind	0	Small Animal	0	Cause Unknown	0.28

9. CIRCUIT 5 YEAR AVERAGE (SAIDI)
3.09
10. REPORTING YEAR (SAIDI)
10.57
11. CIRCUIT 5 YEAR AVERAGE (SAIFI)
0.114
12. REPORTING YEAR (SAIFI)
0.049
13. CORRECTIVE ACTION PLAN

Tree out of right of way is the largest cause. Will monitor danger trees.

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

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:

1. SUBSTATION NAME AND NUMBER
Flemingsburg
2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)
Fleming County, Energy Rd
3. CIRCUIT NAME AND NUMBER
Toyoseat OCR 224
4. CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA)
KY 32, Flemingsburg
5. TOTAL CIRCUIT LENGTH (MILES)
10.4
6. CUSTOMER COUNT FOR THIS CIRCUIT
88
- 7.. DATE OF LAST CIRCUIT TRIM (VM)
2020
8. LIST OUTAGE CAUSES FOR CIRCUIT ALONG WITH PERCENTAGE OF TOTAL OUTAGE NUMBERS REPRESENTED BY EACH CAUSE

Equipment Failure	0	Tree Failure	0	Animal	0
Installation Fault	0	Tree w/ Ice	0	Cust Caused	0
Conductor Sag	0	In-house Tree	0	Motor Vehicle	0
Overload	0	Tree out of ROW	0	Public Cut Tree	0
Decay/Age Equip	0	Lightning	0.256	Public Other	0
Corrosion/Abrasion	0	Wind	0.13	Other	0
Tree w/ wind	0	Small Animal	0.19	Cause Unknown	0.037

9. CIRCUIT 5 YEAR AVERAGE (SAIDI)
0.46
10. REPORTING YEAR (SAIDI)
0.48
11. CIRCUIT 5 YEAR AVERAGE (SAIFI)
0.29
12. REPORTING YEAR (SAIFI)
0.006
13. CORRECTIVE ACTION PLAN

Small number of outage of circuit. Will monitor for lightning protection.

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

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:

1. SUBSTATION NAME AND NUMBER
MURPHYSVILLE
2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)
MASON, MURPHYSVILLE
3. CIRCUIT NAME AND NUMBER
WEAVER RD OCR 214
4. CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA)
MAYSLICK, US 68
5. TOTAL CIRCUIT LENGTH (MILES)
83.7
6. CUSTOMER COUNT FOR THIS CIRCUIT
73
- 7.. DATE OF LAST CIRCUIT TRIM (VM)
2015
8. LIST OUTAGE CAUSES FOR CIRCUIT ALONG WITH PERCENTAGE OF TOTAL OUTAGE NUMBERS REPRESENTED BY EACH CAUSE

Equipment Failure	43.15	Tree Failure	0.762	Animal	0.051
Installation Fault	0	Tree w/ Ice	0	Cust Caused	0
Conductor Sag	0.23	In-house Tree	0	Motor Vehicle	1.28
Overload	0	Tree out of ROW	0	Public Cut Tree	0
Decay/Age Equip	0	Lightning	2.56	Public Other	0
Corrosion/Abrasion	0	Ice	1.95	Other	0
Tree Growth	0	Small Animal	1.26	Cause Unknown	2.22

9. CIRCUIT 5 YEAR AVERAGE (SAIDI)
18.67
10. REPORTING YEAR (SAIDI)
53.48
11. CIRCUIT 5 YEAR AVERAGE (SAIFI)
1.007
12. REPORTING YEAR (SAIFI)
0.319
13. CORRECTIVE ACTION PLAN

Equipment failure was the largest cause. Failed insulators.

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

KENTUCKY PUBLIC SERVICE COMMISSION

Trimming Cycle - 8 years
Spaying Cycle - 2 years

KENTUCKY PUBLIC SERVICE COMMISSION