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MAR 28 2019

PUBLIC SERVICE
COMMISSION

March 25, 2019

Gwen Pinson
Executive Director
Public Service Commission
P.O. Box 615
Frankfort, KY 40602-0615

Dear Mr. DeRouen:

Enclosed is Fleming Mason Energy's Reliability Report for the calendar year of 2017 requested by the Public Service Commission's Order dated May 30, 2013 for Case No. 2011-00450.

If you have any questions or comments, please contact the office at, 1-800-464-3144 or by email at bhunt@fme.coop.

Sincerely,



Brandon Hunt, P.E.
Engineering and Operations Manager

MAR 28 2019

PUBLIC SERVICE
COMMISSION**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	2018
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SECTION 3: MAJOR EVENT DAYS (MED)

T_{MED}	9.51
FIRST DATE USED TO DETERMINE T_{MED}	1/1/2013
LAST DATE USED TO DETERMINE T_{MED}	12/31/2017
NUMBER OF MED IN REPORT YEAR	5

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	24,583	TOTAL CIRCUITS	45
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Excluding MED

	5 YEAR AVERAGE		REPORTING YEAR
SAIDI	140.78	SAIDI	125.4
SAIFI	1.09	SAIFI	0.873

Including MED

	5 YEAR AVERAGE		REPORTING YEAR
SAIDI	283.6	SAIDI	158.47
SAIFI	1.5	SAIFI	1.026

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

Snow Hill

2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)

KY 165 / Piqua / Robertson County

3. CIRCUIT NAME AND NUMBER

Bluelicks OCR 114

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

US 68 / Bluelicks / Nicholas County

5. TOTAL CIRCUIT LENGTH (MILES)

141.8

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	0.485	Tree Failure	0.0657	Animal	0
Installation Fault	0	Tree w/ Ice	0	Cust Caused	
Conductor Sag	0	In-house Tree	0	Motor Vehicle	0
Overload	0	Tree out of ROW	0.006	Public Cut Tree	0
Decay/Age Equip	0.0118	Lightning	2.156	Public Other	0
Corrosion/Abrasion	0	Wind	0.0047	Other	1.14
Tree Growth	0	Small Animal	2.73	Cause Unknown	0.214

9. CIRCUIT 5 YEAR AVERAGE (SAIDI)

46.88

10. REPORTING YEAR (SAIDI)

107.4

11. CIRCUIT 5 YEAR AVERAGE (SAIFI)

0.36

12. REPORTING YEAR (SAIFI)

0.849

13. CORRECTIVE ACTION PLAN

Lightning and animal were the two main causes. Will investigate the use of lightning arresters and animal 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
FLEMINGSBURG
2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)
FLEMINGSBURG, ENERGY RD, FLEMING COUNTY
3. CIRCUIT NAME AND NUMBER
COWAN OCR 114
4. CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA)
KY 32, COWAN, FLEMING COUNTY
5. TOTAL CIRCUIT LENGTH (MILES)
141.3
6. CUSTOMER COUNT FOR THIS CIRCUIT
682
- 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	1.926	Tree Failure	0.102	Animal	0
Installation Fault	0	Tree w/ Ice	0	Cust Caused	0.0002
Conductor Sag	0	In-house Tree	0	Motor Vehicle	0
Overload	0	Tree out of ROW	4.31	Public Cut Tree	0
Decay/Age Equip	0	Lightning	0.018	Public Other	0
Corrosion/Abrasion	0	Wind	0.009	Other	0.0122
Tree Growth	0	Small Animal	0.051	Cause Unknown	3.99

9. CIRCUIT 5 YEAR AVERAGE (SAIDI)
42.9
10. REPORTING YEAR (SAIDI)
117.33
11. CIRCUIT 5 YEAR AVERAGE (SAIFI)
0.516
12. REPORTING YEAR (SAIFI)
0.623
13. CORRECTIVE ACTION PLAN

TREE OUT OF ROW WAS THE MAIN CAUSE FOR THE ELEVATED 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
SNOW HILL
2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)
KY 165, PIQUA, ROBERTSON COUNTY
3. CIRCUIT NAME AND NUMBER
DOYLE PIKE OCR 144
4. CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA)
DOYLE PIKE ROBERTSON/MASON COUNTY
5. TOTAL CIRCUIT LENGTH (MILES)
66.5
6. CUSTOMER COUNT FOR THIS CIRCUIT
279
- 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	0.092	Tree Failure	0.022	Animal	0.22
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	0.234	Public Cut Tree	0
Decay/Age Equip	0	Lightning	0.093	Public Other	0
Corrosion/Abrasion	0	Wind	0.378	Other	0
Tree Growth	0	Small Animal	0.0224	Cause Unknown	0
9. CIRCUIT 5 YEAR AVERAGE (SAIDI)
8.29
10. REPORTING YEAR (SAIDI)
16.7
11. CIRCUIT 5 YEAR AVERAGE (SAIFI)
0.084
12. REPORTING YEAR (SAIFI)
0.124
13. CORRECTIVE ACTION PLAN

SOME STORM ELEVATED OUTAGE NUMBERS ON THIS 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

SHARKEY

2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)

KY 801, MMRC PARK, ROWAN COUNTY

3. CIRCUIT NAME AND NUMBER

FAMILY DOLLAR OCR 104

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

MMRC PARK, ROWAN COUNTY

5. TOTAL CIRCUIT LENGTH (MILES)

3

6. CUSTOMER COUNT FOR THIS CIRCUIT

9

7.. DATE OF LAST CIRCUIT TRIM (VM)

NA

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	Public Other	0
Corrosion/Abrasion	0	Wind	0	Other	0
Tree Growth	0	Small Animal	0	Cause Unknown	0.0122

9. CIRCUIT 5 YEAR AVERAGE (SAIDI)

0.27

10. REPORTING YEAR (SAIDI)

0.22

11. CIRCUIT 5 YEAR AVERAGE (SAIFI)

0.0005

12. REPORTING YEAR (SAIFI)

0.002

13. CORRECTIVE ACTION PLAN

SMALL UNDERGROUND CIRCUIT WITH ONE OUTAGE.

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, MOREHEAD, ROWAN COUNTY

3. CIRCUIT NAME AND NUMBER

INTERCHANGE OCR 114

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

KY 32, MOREHEAD, ROWAN COUNTY

5. TOTAL CIRCUIT LENGTH (MILES)

36.8

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	0.014	Animal	0
Installation Fault	0	Tree w/ Ice	0	Cust Caused	0.0113
Conductor Sag	0	In-house Tree	0	Motor Vehicle	0.0138
Overload	0	Tree out of ROW	0.042	Public Cut Tree	0
Decay/Age Equip	0	Lightning	2.258	Public Other	0
Corrosion/Abrasion	0	Wind	0	Other	0.053
Tree Growth	0	Small Animal	2.62	Cause Unknown	0.045

9. CIRCUIT 5 YEAR AVERAGE (SAIDI)

7.2

10. REPORTING YEAR (SAIDI)

68.44

11. CIRCUIT 5 YEAR AVERAGE (SAIFI)

0.091

12. REPORTING YEAR (SAIFI)

0.7

13. CORRECTIVE ACTION PLAN

TYPICALLY A LOW OUTAGE CKT. LIGHTNING AND SMALL ANIMAL WERE THE LARGEST CAUSE. WILL INVESTIGATE ARRESTERS AND ANIMAL 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
MAYSVILLE
2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)
AA HWY, MAYSVILLE, MASON COUNTY
3. CIRCUIT NAME AND NUMBER
MORANSBURG OCR 134
4. CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA)
MORANSBURG/DOVER, MASON COUNTY
5. TOTAL CIRCUIT LENGTH (MILES)
120.6
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	0.0488	Tree Failure	2.24	Animal	0.0118
Installation Fault	0	Tree w/ Ice	0	Cust Caused	0
Conductor Sag	0	In-house Tree	0	Motor Vehicle	0.0374
Overload	0.039	Tree out of ROW	0.13	Public Cut Tree	0
Decay/Age Equip	0	Lightning	0.26	Public Other	0
Corrosion/Abrasion	0	Wind	0	Other	2.446
Tree Growth	0	Small Animal	0.0027	Cause Unknown	4.33

9. CIRCUIT 5 YEAR AVERAGE (SAIDI)
238.8
10. REPORTING YEAR (SAIDI)
360.48
11. CIRCUIT 5 YEAR AVERAGE (SAIFI)
1.67
12. REPORTING YEAR (SAIFI)
2.365
13. CORRECTIVE ACTION PLAN

UNKNOWN OUTAGE WERE THE LARGEST CAUSE. WILL INVESTIGATE FOR MORE DETAIL.

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

CHARTERS

2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)

AA HWY, CHARTERS, LEWIS COUNTY

3. CIRCUIT NAME AND NUMBER

SALT LICK OCR 114

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

SALT LICK RD, CHARTERS, LEWIS COUNTY

5. TOTAL CIRCUIT LENGTH (MILES)

20

6. CUSTOMER COUNT FOR THIS CIRCUIT

89

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	Tree Failure	0	Animal	0
Installation Fault	0	Tree w/ Ice	0	Cust Caused	0
Conductor Sag	0	In-house Tree	0	Motor Vehicle	0.064
Overload	0	Tree out of ROW	0	Public Cut Tree	0
Decay/Age Equip	0	Lightning	0.034	Public Other	0
Corrosion/Abrasion	0	Wind	0.004	Other	0
Tree Growth	0	Small Animal	0	Cause Unknown	0.0065

9. CIRCUIT 5 YEAR AVERAGE (SAIDI)

0.35

10. REPORTING YEAR (SAIDI)

0.827

11. CIRCUIT 5 YEAR AVERAGE (SAIFI)

0.0026

12. REPORTING YEAR (SAIFI)

0.0044

13. CORRECTIVE ACTION PLAN

SMALL OUTAGE CIRCUIT. MOTOR VEHICLE 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
MURPHYSVILLE
2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)
MURPHYSVILLE, MASON COUNTY
3. CIRCUIT NAME AND NUMBER
STONE WALL OCR 124
4. CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA)
BRIDGEVILLE, BRACKEN, MASON, ROBERTSON COUNTY
5. TOTAL CIRCUIT LENGTH (MILES)
277.3
6. CUSTOMER COUNT FOR THIS CIRCUIT
1463
- 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	3.78	Tree Failure	4.46	Animal	0.936
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	0.3009	Public Cut Tree	0
Decay/Age Equip	0.0089	Lightning	0.0297	Public Other	0
Corrosion/Abrasion	0.0045	Wind	0.115	Other	0.0101
Tree Growth	0.003	Small Animal	0.0847	Cause Unknown	0.176
9. CIRCUIT 5 YEAR AVERAGE (SAIDI)
83.06
10. REPORTING YEAR (SAIDI)
114.57
11. CIRCUIT 5 YEAR AVERAGE (SAIFI)
0.629
12. REPORTING YEAR (SAIFI)
0.908
13. CORRECTIVE ACTION PLAN

TREE FAILURE WAS THE LARGEST CAUSE. DEAD ASH TREE FAILURES

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

KENTUCKY PUBLIC SERVICE COMMISSION

INCLUDE CURRENT VEGETATION MANAGEMENT PLAN

Additional page may be attached as needed.

2019 - HILDA (CRANSTON), HILLSBORO, PLUMMERS LANDING (MUSES MILL, HILLSBORO)

Trimming Cycle - 6 years

Spaying Cycle - 3 years

SECTION 7: UTILITY COMMENTS