



Meade County RECC

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2/21/19

RECEIVED

FEB 25 2019

PUBLIC SERVICE
COMMISSION

Steve Kingsolver
Kentucky Public Service Commission
211 Sower Blvd
P.O. Box 615
Frankfort, Ky 40602-0615

Steve,

Attached is the annual reliability report for 2018 for Meade County RECC. I have already forwarded you, by email, an electronic copy of the report. If you should have any questions or concerns, you may contact me at (270) 422-2162, ext 3149.

Sincerely,

David R. Poe, P.E.
Vice President of Operations & Engineering

Kentucky Public Service Commission

Electric Distribution Utility Annual Reliability Report

SECTION 1: CONTACT INFORMATION

UTILITY NAME	Meade County RECC
REPORT PREPARED BY	David Poe
E-MAIL ADDRESS OF PREPARER	<u>dpo@mcreecc.com</u>
PHONE NUMBER OF PREPARER	<u>270-422-2162</u>

SECTION 2: REPORTING YEAR

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

T_{MED}	<u>8.12</u>
FIRST DATE USED TO DETERMINE T_{MED}	<u>1/1/2013</u>
LAST DATE USED TO DETERMINE T_{MED}	<u>12/31/2017</u>
NUMBER OF MED IN REPORT YEAR	<u>5</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	<u>29708</u>	TOTAL CIRCUITS	<u>76</u>
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Excluding MED

	5 YEAR AVERAGE		REPORTING YEAR
SAIDI	<u>81.81</u>	SAIDI	<u>118.25</u>
SAIFI	<u>1.14</u>	SAIFI	<u>1.29</u>

Including MED

	5 YEAR AVERAGE		REPORTING YEAR
SAIDI	<u>182.27</u>	SAIDI	<u>500.77</u>
SAIFI	<u>1.77</u>	SAIFI	<u>2.03</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:

1. SUBSTATION NAME AND NUMBER: Andyville
2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)
Approximately 1 mile North of Andyville at intersection of Hwys 144 and 228 in Meade County
3. CIRCUIT NAME AND NUMBER
Feeder 3 (Rhodelia circuit)
4. CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA)
West along Hwy 144 towards Rhodelia
5. TOTAL CIRCUIT LENGTH (MILES)
60 miles
6. CUSTOMER COUNT FOR THIS CIRCUIT
435
7. DATE OF LAST CIRCUIT TRIM (VM)
2014

8

Cause	Count	Percentage	Customer-hours	Customers	SAIDI	SAIFI
Storms	12	41.38	747.77	678.00	103.14	1.56
Trees out of R/W	5	17.24	210.57	80.00	29.04	0.18
Unknown	3	10.34	34.35	41.00	4.74	0.09
Pre-Arranged	7	24.14	25.26	40.00	3.48	0.09
Birds/Animals	1	3.45	12.33	6.00	1.70	0.01
Conductor	1	3.45	3.20	2.00	0.44	0.00

9. CIRCUIT 5 YEAR AVERAGE (SAIDI): 29.78
10. REPORTING YEAR (SAIDI) 142.55
11. CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.26
12. REPORTING YEAR (SAIFI): 1.95

13. LIST OF CORRECTIVE ACTION, IF ANY, TAKEN OR TO BE TAKEN

On 9/8/18, a storm outagd the entire feeder which attributed to >40% of the total SAIDI and >50% of the total SAIFI.

No actions are deemed necessary.

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 #2:

1. SUBSTATION NAME AND NUMBER: Battletown
2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)
 Approximately 1.5 mi. north of Battletown along Hwy 228 in Meade County
3. CIRCUIT NAME AND NUMBER
 Feeder 2 (Brandenburg circuit)
4. CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA)
 South along Hwy 228 towards Brandenburg
5. TOTAL CIRCUIT LENGTH (MILES)
 42 miles
6. CUSTOMER COUNT FOR THIS CIRCUIT
 330
7. DATE OF LAST CIRCUIT TRIM (VM)
 2015

8

Cause	Count	Percentage	Customer-hours	Customers	SAIDI	SAIFI
Line Hardware	1	10.00	169.67	331.00	30.85	1.00
Pre-Arranged	3	30.00	44.28	64.00	8.05	0.19
Birds/Animals	1	10.00	4.75	10.00	0.86	0.03
Unknown	1	10.00	4.39	4.00	0.80	0.01
Storms	1	10.00	73.73	3.00	13.41	0.01
Trees out of R/W	2	20.00	2.33	2.00	0.42	0.01
KVA	1	10.00	1.46	1.00	0.27	0.00

9. CIRCUIT 5 YEAR AVERAGE (SAIDI) 19.33
10. REPORTING YEAR (SAIDI) 54.66
11. CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.32
12. REPORTING YEAR (SAIFI): 1.26

13. LIST OF CORRECTIVE ACTION, IF ANY, TAKEN OR TO BE TAKEN

On 12/31/18, an insulator failed within the substation, outaging the entire substation.

No further action is deemed necessary.

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 #3:

1. SUBSTATION NAME AND NUMBER Battletown
2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)
 Approximately 1.5 mi. north of Battletown along Hwy 228 in Meade County
3. CIRCUIT NAME AND NUMBER
 Feeder 3 (Cedar Flats circuit)
4. CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA)
 North along Hwy 228 towards Wolf Creek
5. TOTAL CIRCUIT LENGTH (MILES)
 36.8 miles
6. CUSTOMER COUNT FOR THIS CIRCUIT
 140
7. DATE OF LAST CIRCUIT TRIM (VM)
 2015

8

Cause	Count	Percentage	Customer-hours	Customers	SAIDI	SAIFI
Storms	5	38.46	446.31	199.00	191.28	1.42
Line Hardware	3	23.08	80.94	148.00	34.69	1.06
Pre-Arranged	1	7.69	4.07	35.00	1.74	0.25
Unknown	2	15.38	6.15	6.00	2.64	0.04
Birds/Animals	1	7.69	3.40	5.00	1.46	0.04
Public Cause	1	7.69	0.00	0.00	0.00	0.00

9. CIRCUIT 5 YEAR AVERAGE (SAIDI) 166.49
10. REPORTING YEAR (SAIDI) 237.81
11. CIRCUIT 5 YEAR AVERAGE (SAIFI) 1.12
12. REPORTING YEAR (SAIFI): 2.81
13. LIST OF CORRECTIVE ACTION, IF ANY, TAKEN OR TO BE TAKEN

On 12/31/18, an insulator failed within the substation, outaging the entire substation. Later that evening, a wind storm (mini tornado) fell a large tree onto the circuit, outaging the entire circuit.

At this time, no further actions are deemed necessary.

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 #4:

1. SUBSTATION NAME AND NUMBER Brandenburg
2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)
 In Brandenburg near the intersection of Hwy 313 (Bypass Rd.) and Old Ekron Rd. in Meade County
3. CIRCUIT NAME AND NUMBER
 Feeder 4 (Doe Valley circuit)
4. CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA)
 West to Hwy 710, then south on Hwy 710 to Salem Church
5. TOTAL CIRCUIT LENGTH (MILES)
 38.0 miles
6. CUSTOMER COUNT FOR THIS CIRCUIT
 604
7. DATE OF LAST CIRCUIT TRIM (VM)
 2017

8

Cause	Count	Percentage	Customer-hours	Customers	SAIDI	SAIFI
Power Supplier	1	8.33	192.09	602.00	19.08	1.00
Trees out of R/W	1	8.33	3814.00	602.00	378.87	1.00
Birds/Animals	2	16.67	23.17	37.00	2.30	0.06
Pre-Arranged	1	8.33	11.20	34.00	1.11	0.06
Trees in R/W	2	16.67	15.79	17.00	1.57	0.03
Storms	2	16.67	55.34	15.00	5.50	0.02
Unknown	1	8.33	1.83	3.00	0.18	0.00
Line Hardware	1	8.33	2.80	3.00	0.28	0.00
KVA	1	8.33	2.06	2.00	0.20	0.00

9. CIRCUIT 5 YEAR AVERAGE (SAIDI) 38.74
10. REPORTING YEAR (SAIDI) 409.10
11. CIRCUIT 5 YEAR AVERAGE (SAIFI) 1.14
12. REPORTING YEAR (SAIFI) 2.18
13. LIST OF CORRECTIVE ACTION, IF ANY, TAKEN OR TO BE TAKEN

Power Supplier (Big Rivers) outaged the substation for 20 minutes on 1/10/18
A tree outside of the 40' ROW fell onto the line and broke a pole, stripping the wire from another pole for 6 hours, 20 minutes.
No actions are deemed necessary

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 #5:

1. SUBSTATION NAME AND NUMBER Brandenburg
2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)
 In Brandenburg near the intersection of Hwy 313 (Bypass Rd.) and Old Ekron Rd. in Meade County
3. CIRCUIT NAME AND NUMBER
 Feeder 6 (Fairgrounds and Battletown Roads circuit)
4. CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA)
 West to Hwy 1692, west towards New Highland Church; North to Hwy 228 and then west
5. TOTAL CIRCUIT LENGTH (MILES)
 56.75 miles
6. CUSTOMER COUNT FOR THIS CIRCUIT
 988
7. DATE OF LAST CIRCUIT TRIM (VM)
 2017

8

Cause	Count	Percentage	Customer-hours	Customers	SAIDI	SAIFI
Storms	9	36.00	1258.18	1102.00	76.41	1.12
Power Supplier	1	4.00	319.13	965.00	19.38	0.98
Other	1	4.00	633.83	964.00	38.49	0.98
Trees out of R/W	3	12.00	93.00	163.00	5.65	0.16
Pre-Arranged	6	24.00	50.10	79.00	3.04	0.08
Line Hardware	1	4.00	44.45	48.00	2.70	0.05
Unknown	2	8.00	8.90	32.00	0.54	0.03
Public Cause	1	4.00	1.30	1.00	0.08	0.00
Birds/Animals	1	4.00	0.70	1.00	0.04	0.00

9. CIRCUIT 5 YEAR AVERAGE (SAIDI) 39.11
10. REPORTING YEAR (SAIDI) 146.33
11. CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.63
12. REPORTING YEAR (SAIFI) 3.4

13. LIST OF CORRECTIVE ACTION, IF ANY, TAKEN OR TO BE TAKEN

Power supplier (Big Rivers) outaged the entire substation for 20 minutes on 1/10/18
On 1/1/18, circuit tripped out due to excessive winter loading; reconfigured trip settings.
On 12/28/18, high winds and tree falling onto the line outaged the circuit
A new substation is slated for construction in 2020 to alleviate loading issues on this circuit.

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 #6:

1. SUBSTATION NAME AND NUMBER Cloverport
2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)
 Southern edge of Cloverport city limits, end of M. Basham Lane in Breckinridge County
3. CIRCUIT NAME AND NUMBER
 Feeder 1 (Hardinsburg circuit)
4. CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA):
 East along US-60 towards Hardinsburg
5. TOTAL CIRCUIT LENGTH (MILES)
 15.1 miles
6. CUSTOMER COUNT FOR THIS CIRCUIT
 111
7. DATE OF LAST CIRCUIT TRIM (VM)
 2018
- 8

Birds/Animals	3	50.00	15.50	14.00	8.38	0.13
Trees out of R/W	1	16.67	15.33	9.00	8.29	0.08
Cutouts/OCB	1	16.67	5.20	4.00	2.81	0.04
Line Hardware	1	16.67	4.97	3.00	2.69	0.03

9. CIRCUIT 5 YEAR AVERAGE (SAIDI) 5.53
10. REPORTING YEAR (SAIDI) 22.16
11. CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.11
12. REPORTING YEAR (SAIFI) 0.27
13. LIST OF CORRECTIVE ACTION, IF ANY, TAKEN OR TO BE TAKEN

An extremely reliable circuit

No further actions are deemed necessary.

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 #7:

1. SUBSTATION NAME AND NUMBER Cloverport
2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)
 Southern edge of Cloverport city limits, end of M. Basham Lane in Breckinridge County
3. CIRCUIT NAME AND NUMBER
 Feeder 2 (Holt's Bottom circuit)
4. CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA)
 East along US-60, then North along Hwy 144 towards Addison
5. TOTAL CIRCUIT LENGTH (MILES)
 26.1 miles
6. CUSTOMER COUNT FOR THIS CIRCUIT
 176
7. DATE OF LAST CIRCUIT TRIM (VM)
 2018
- 8

Storms	4	50.00	381.03	243.00	129.90	1.38
Pre-Arranged	1	12.50	24.84	117.00	8.47	0.66
Trees out of R/W	3	37.50	14.03	7.00	4.78	0.04

9. CIRCUIT 5 YEAR AVERAGE (SAIDI) 61.26
10. REPORTING YEAR (SAIDI) 143.15
11. CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.70
12. REPORTING YEAR (SAIFI) 2.09
13. LIST OF CORRECTIVE ACTION, IF ANY, TAKEN OR TO BE TAKEN

Approx. 117 was outaged on 7/10/18 to safely remove a tree from the ROW
On 5/31/18, a strong storm hit and outaged 117 meters for 2 hrs, 10 min.
A mini tornado outaged 118 meters on 12/31/18 for about 1 hour.
No actions are deemed necessary.

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 #8:

1. SUBSTATION NAME AND NUMBER Cloverport
2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)
Southern edge of Cloverport city limits, end of M. Basham Lane in Breckinridge County
3. CIRCUIT NAME AND NUMBER
Feeder 3 (Hwy 105 circuit)
4. CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA)
West into town, south along Hwy 105, and south along Hwys 144 and 992
5. TOTAL CIRCUIT LENGTH (MILES)
51.4 miles
6. CUSTOMER COUNT FOR THIS CIRCUIT
401
7. DATE OF LAST CIRCUIT TRIM (VM)
2018

8

Trees out of R/W	6	25.00	370.91	197.00	55.50	0.49
Storms	5	20.83	156.17	128.00	23.37	0.32
Pre-Arranged	6	25.00	100.20	99.00	14.99	0.25
Unknown	5	20.83	46.51	40.00	6.96	0.10
Birds/Animals	2	8.33	14.63	12.00	2.19	0.03

9. CIRCUIT 5 YEAR AVERAGE (SAIDI) 34.08
10. REPORTING YEAR (SAIDI) 103.01
11. CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.42
12. REPORTING YEAR (SAIFI) 1.19
13. LIST OF CORRECTIVE ACTION, IF ANY, TAKEN OR TO BE TAKEN

Generally reliable circuit experienced several storms throughout the year

No actions are deemed necessary.

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 #9:

1. SUBSTATION NAME AND NUMBER: Custer
2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)
Approximately 1/4 mi. south of Custer along Hwy 86 in Breckinridge County
3. CIRCUIT NAME AND NUMBER
Feeder 1 (Dyer circuit)
4. CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA)
East along Hwy 86, then South along Hwy 401 towards Hudson
5. TOTAL CIRCUIT LENGTH (MILES)
30.7 miles
6. CUSTOMER COUNT FOR THIS CIRCUIT
288
7. DATE OF LAST CIRCUIT TRIM (VM)
2018

8

Cause	Count	Percentage	Customer-hours	Customers	SAIDI	SAIFI
Trees out of R/W	2	14.29	431.15	321.00	89.82	1.11
Public Cause	4	28.57	306.94	207.00	63.95	0.72
Line Hardware	1	7.14	140.00	84.00	29.17	0.29
Storms	2	14.29	124.84	50.00	26.01	0.17
Pre-Arranged	2	14.29	13.74	7.00	2.86	0.02
Birds/Animals	1	7.14	1.50	2.00	0.31	0.01
Unknown	1	7.14	3.63	2.00	0.76	0.01
KVA	1	7.14	1.52	1.00	0.32	0.00

9. CIRCUIT 5 YEAR AVERAGE (SAIDI) 194.58
10. REPORTING YEAR (SAIDI) 213.19
11. CIRCUIT 5 YEAR AVERAGE (SAIFI) 1.04
12. REPORTING YEAR (SAIFI): 2.34

13. LIST OF CORRECTIVE ACTION, IF ANY, TAKEN OR TO BE TAKEN

On 3/31/18, a car struck a pole and outaged 86 meters.

On 11/25/18, tree outside of ROW fell onto the line, outaging the entire circuit

On 3/4/18, member tore line down with a "sky-track", outaging 90 meters. Temporarily repaired and later outaged again to make permanent repairs, resulting in 2 separate outages.

No further is deemed necessary.

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 #10:

1. SUBSTATION NAME AND NUMBER: Custer
2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)
Approximately 1/4 mi. south of Custer along Hwy 86 in Breckinridge County
3. CIRCUIT NAME AND NUMBER
Feeder 3 (Hensley circuit)
4. CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA)
West and north along Hwy 86 to US-60
5. TOTAL CIRCUIT LENGTH (MILES)
71.6 miles
6. CUSTOMER COUNT FOR THIS CIRCUIT
565
7. DATE OF LAST CIRCUIT TRIM (VM)
2018
- 8

Public Cause	4	12.90	2398.67	607.00	254.73	1.07
Unknown	10	32.26	159.61	134.00	16.95	0.24
Storms	10	32.26	140.96	94.00	14.97	0.17
Birds/Animals	3	9.68	11.57	12.00	1.23	0.02
Trees out of RW	2	6.45	14.27	8.00	1.52	0.01
KVA	2	6.45	3.82	2.00	0.41	0.00

9. CIRCUIT 5 YEAR AVERAGE (SAIDI) 58.57
10. REPORTING YEAR (SAIDI) 289.79
11. CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.74
12. REPORTING YEAR (SAIFI) 1.52
13. LIST OF CORRECTIVE ACTION, IF ANY, TAKEN OR TO BE TAKEN

On 12/30/18, a car struck and broke a 3-phase pole, outaging the entire circuit for over 4 hours

No actions are deemed necessary

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 #11:

1. SUBSTATION NAME AND NUMBER Doe Valley
2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)
 Along Hwy 1638 approx. 3 miles east of Brandenburg Station in Meade County
3. CIRCUIT NAME AND NUMBER
 Feeder 1 (Rock Ridge circuit)
4. CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA)
 North of substation along Hwy 933 towards the North entrance of Doe Valey Resort
5. TOTAL CIRCUIT LENGTH (MILES)
 13.9 miles
6. CUSTOMER COUNT FOR THIS CIRCUIT
 312
7. DATE OF LAST CIRCUIT TRIM (VM)
 2017

8						
	Cause	Count	Percentage	Customer-hours	Customers	SAIDI SAIFI
	Storms	3	33.33	440.82	393.00	84.77 1.26
	Trees out of R/W	1	11.11	851.91	309.00	163.83 0.99
	Trees in R/W	1	11.11	218.27	309.00	41.98 0.99
	Birds/Animals	2	22.22	29.73	41.00	5.72 0.13
	Public Cause	1	11.11	6.70	2.00	1.29 0.01
	KVA	1	11.11	1.27	1.00	0.24 0.00

9. CIRCUIT 5 YEAR AVERAGE (SAIDI) 58.50
10. REPORTING YEAR (SAIDI) 297.83
11. CIRCUIT 5 YEAR AVERAGE (SAIFI) 1.62
12. REPORTING YEAR (SAIFI) 3.38

13. LIST OF CORRECTIVE ACTION, IF ANY, TAKEN OR TO BE TAKEN

On 5/31/18, a tree inside the ROW outaged the entire ROW for 40 min. ROW trimming cleanup was being completed during this time period.
 On 11/26/18, a tree outside of the ROW fell onto the line, outaging the entire circuit for 2 hr, 45 min.
 On 12/27/18, a storm outaged the entire circuit.
 No actions deemed necessary.

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 #12:

1. SUBSTATION NAME AND NUMBER Falls of Rough
2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)
Approximately 1/3 miles west of intersection of Hwys 79 and 110 in Grayson County
3. CIRCUIT NAME AND NUMBER
Feeder 1 (Lodge circuit)
4. CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA)
Along south Hwy 79 past the state park north into Breckinridge County
5. TOTAL CIRCUIT LENGTH (MILES)
37.9 miles
6. CUSTOMER COUNT FOR THIS CIRCUIT
575
7. DATE OF LAST CIRCUIT TRIM (VM)
2018

8

Cause	Count	Percentage	Customer-hours	Customers	SAIDI	SAIFI
Storms	1	5.26	1556.65	573.00	162.43	1.00
Public Cause	1	5.26	294.44	101.00	30.72	0.18
Trees out of R/W	1	5.26	103.87	71.00	10.84	0.12
Pre-Arranged	5	26.32	53.70	58.00	5.60	0.10
Unknown	4	21.05	50.53	39.00	5.27	0.07
Birds/Animals	5	26.32	17.18	20.00	1.79	0.03
KVA	2	10.53	5.72	4.00	0.60	0.01

9. CIRCUIT 5 YEAR AVERAGE (SAIDI) 63.35
10. REPORTING YEAR (SAIDI) 217.26
11. CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.87
12. REPORTING YEAR (SAIFI) 1.51
13. LIST OF CORRECTIVE ACTION, IF ANY, TAKEN OR TO BE TAKEN

On 8/15/18, heavy lightning in the area outaged the entire feeder

No further actions are deemed necessary.

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 #13:

1. SUBSTATION NAME AND NUMBER Falls of Rough
2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)
Approximately 1/3 miles west of intersection of Hwys 79 and 110 in Grayson County
3. CIRCUIT NAME AND NUMBER
Feeder 3 (Autumn Ridge circuit)
4. CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA): East along Hwy 110, crosses Rough River Reservoir, then towards Duff along along Beauchamp Cemetary Road
5. TOTAL CIRCUIT LENGTH (MILES)
65.6 miles
6. CUSTOMER COUNT FOR THIS CIRCUIT
1354
7. DATE OF LAST CIRCUIT TRIM (VM)
2018
8.

Storms	4	12.90	5483.58	2788.00	242.99	2.06
Line Hardware	2	6.45	2696.11	1456.00	119.47	1.08
Birds/Animals	4	12.90	1907.26	1445.00	84.52	1.07
Pre-Arranged	9	29.03	175.41	255.00	7.77	0.19
Trees out of R/W	3	9.68	170.14	104.00	7.54	0.08
Public Cause	1	3.23	100.84	90.00	4.47	0.07
Other	1	3.23	43.32	43.00	1.92	0.03
KVA	4	12.90	10.98	6.00	0.49	0.00
Unknown	2	6.45	6.58	5.00	0.29	0.00
Trees in R/W	1	3.23	2.01	1.00	0.09	0.00
9. CIRCUIT 5 YEAR AVERAGE (SAIDI) 64.41
10. REPORTING YEAR (SAIDI) 469.55
11. CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.69
12. REPORTING YEAR (SAIFI) 4.57
13. LIST OF CORRECTIVE ACTION, IF ANY, TAKEN OR TO BE TAKEN
 - On 12/9/18, a squirrel on a transformer outaged the entire circuit for 1.25 hours
 - On 10/25/18, an insulator failed and outaged the entire circuit for about 2 hours
 - On 8/31/18, a thunderstorm with high winds outaged the entire circuit for approx. 1.5 hours
 - On 11/17/18, falling ice and trees during the conclusion of an ice storm restoration outaged the entire circuit. No further actions are deemed necessary

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 #14:

1. SUBSTATION NAME AND NUMBER Falls of Rough
2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)
Approximately 1/3 miles west of intersection of Hwys 79 and 110 in Grayson County
3. CIRCUIT NAME AND NUMBER
Feeder 4 (Pattyville circuit)
4. CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA)
West along Hwy 110 towards Fordsville
5. TOTAL CIRCUIT LENGTH (MILES)
37.3 miles
6. CUSTOMER COUNT FOR THIS CIRCUIT
176
7. DATE OF LAST CIRCUIT TRIM (VM)
2018

8

Cause	Count	Percentage	Customer-hours	Customers	SAIDI	SAIFI
Storms	3	50.00	13.84	11.00	4.72	0.06
Unknown	1	16.67	20.42	9.00	6.96	0.05
Trees out of RW	1	16.67	9.10	6.00	3.10	0.03
Conductor	1	16.67	1.52	1.00	0.52	0.01

9. CIRCUIT 5 YEAR AVERAGE (SAIDI) 13.98
10. REPORTING YEAR (SAIDI) 15.30
11. CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.15
12. REPORTING YEAR (SAIFI) 0.15
13. LIST OF CORRECTIVE ACTION, IF ANY, TAKEN OR TO BE TAKEN

An extremely reliable circuit

No actions are deemed necessary

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 #15:

1. SUBSTATION NAME AND NUMBER Flaherty
2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)
 At north edge of Flaherty along Hwy 144 in Meade County
3. CIRCUIT NAME AND NUMBER
 Feeder 4 (Rabbit Run circuit)
4. CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA)
 South into town, east along Hwy 1816, then north on Hwy 1886
5. TOTAL CIRCUIT LENGTH (MILES)
 32.4 miles
6. CUSTOMER COUNT FOR THIS CIRCUIT
 539
7. DATE OF LAST CIRCUIT TRIM (VM)
 2015

8

Cause	Count	Percentage	Customer-hours	Customers	SAIDI	SAIFI
Line Hardware	1	10.00	61.85	52.00	6.88	0.10
Storms	5	50.00	80.50	41.00	8.96	0.08
Trees out of R/W	1	10.00	46.00	30.00	5.12	0.06
KVA	2	20.00	26.57	20.00	2.96	0.04
Pre-Arranged	1	10.00	1.36	2.00	0.15	0.00

9. CIRCUIT 5 YEAR AVERAGE (SAIDI) 16.50
10. REPORTING YEAR (SAIDI) 24.08
11. CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.64
12. REPORTING YEAR (SAIFI) 0.27
13. LIST OF CORRECTIVE ACTION, IF ANY, TAKEN OR TO BE TAKEN

A very reliable circuit

No actions deemed necessary.

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 #16:

1. SUBSTATION NAME AND NUMBER Fordsville
2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)
Approximately 1 mi. east of Fordsville along Hwy 54 in Ohio County
3. CIRCUIT NAME AND NUMBER
Feeder 1 (Dunaway circuit)
4. CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA)
West on Hwy 54, north of town to and along Hwy 1700 and northwest along Hwy 69
5. TOTAL CIRCUIT LENGTH (MILES)
49 miles
6. CUSTOMER COUNT FOR THIS CIRCUIT
583
7. DATE OF LAST CIRCUIT TRIM (VM)
2014

8

Trees out of R/W	5	33.33	1011.08	612.00	104.06	1.05
Cutouts/OCB	1	6.67	140.00	70.59	14.41	0.12
Unknown	3	20.00	48.42	39.00	4.98	0.07
Storms	3	20.00	16.09	13.00	1.66	0.02
Pre-Arranged	1	6.67	0.59	6.00	0.06	0.01
KVA	2	13.33	6.78	4.00	0.70	0.01

9. CIRCUIT 5 YEAR AVERAGE (SAIDI) 42.09
10. REPORTING YEAR (SAIDI) 125.86
11. CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.18
12. REPORTING YEAR (SAIFI) 1.28
13. LIST OF CORRECTIVE ACTION, IF ANY, TAKEN OR TO BE TAKEN

On 2/9/18, a tree outside of the ROW fell onto the line, outaging the entire circuit for approx. 2 hrs and about 1/3 of the circuit for an extra 1.5 hours.

No actions are deemed necessary.

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 #17:

1. SUBSTATION NAME AND NUMBER Fordsville
2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)
 Approximately 1 mi. east of Fordsville along Hwy 54 in Ohio County
3. CIRCUIT NAME AND NUMBER
 Feeder 2 (Hwy 261 circuit)
4. CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA)
 West on Hwy 54 and north along Hwy 261 into Breckinridge County
5. TOTAL CIRCUIT LENGTH (MILES)
 70.4 miles
6. CUSTOMER COUNT FOR THIS CIRCUIT
 360
7. DATE OF LAST CIRCUIT TRIM (VM)
 2014

8

Cause	Count	Percentage	Customer-hours	Customers	SAIDI	SAIFI
Line Hardware	1	4.35	370.76	363.00	61.79	1.01
Storms	9	39.13	399.84	228.00	66.64	0.63
Unknown	2	8.70	121.68	85.00	20.28	0.24
Pre-Arranged	7	30.43	61.05	56.00	10.17	0.16
Trees out of R/W	2	8.70	17.58	10.00	2.93	0.03
Birds/Animals	1	4.35	2.79	3.00	0.46	0.01
KVA	1	4.35	0.13	1.00	0.02	0.00

9. CIRCUIT 5 YEAR AVERAGE (SAIDI) 127.68
10. REPORTING YEAR (SAIDI) 162.31
11. CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.99
12. REPORTING YEAR (SAIFI) 2.07
13. LIST OF CORRECTIVE ACTION, IF ANY, TAKEN OR TO BE TAKEN

On 2/24/18, a cross-arm and pole caught afire due to faulty insulator, outaging the entire circuit for approx. 1 hour.

No actions are deemed necessary.

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 #18:

1. SUBSTATION NAME AND NUMBER Fordsville
2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)
 Approximately 1 mi. east of Fordsville along Hwy 54 in Ohio County
3. CIRCUIT NAME AND NUMBER
 Feeder 3 (Pattyville circuit)
4. CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA)
 East on Hwy 54 and northeast on Hwy 110
5. TOTAL CIRCUIT LENGTH (MILES)
 42.7 miles
6. CUSTOMER COUNT FOR THIS CIRCUIT
 220
7. DATE OF LAST CIRCUIT TRIM (VM)
 2014

8

Cause	Count	Percentage	Customer-hours	Customers	SAIDI	SAIFI
Storms	4	40.00	207.58	105.00	56.61	0.48
Cutouts/OCB	1	10.00	6.17	10.00	1.68	0.05
Unknown	1	10.00	9.57	9.00	2.61	0.04
Pre-Arranged	1	10.00	9.24	6.00	2.52	0.03
KVA	2	20.00	4.68	2.00	1.28	0.01
Trees out of R/W	1	10.00	1.28	1.00	0.35	0.00

9. CIRCUIT 5 YEAR AVERAGE (SAIDI) 22.80
10. REPORTING YEAR (SAIDI) 65.05
11. CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.34
12. REPORTING YEAR (SAIFI) 0.60
13. LIST OF CORRECTIVE ACTION, IF ANY, TAKEN OR TO BE TAKEN

Multiple storms outaged various meters for an average of 2 hours each on a very reliable circuit.

No actions are deemed necessary.

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 #19:

1. SUBSTATION NAME AND NUMBER Hardinsburg 1
2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)
 Immediately behind the Hardinsburg branch office in Hardinsburg in Breckinridge County
3. CIRCUIT NAME AND NUMBER
 Feeder 8 (Codyville circuit)
4. CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA)
 East along old US-60 in Hardinsburg towards the high school
5. TOTAL CIRCUIT LENGTH (MILES)
 17.3 miles
6. CUSTOMER COUNT FOR THIS CIRCUIT
 537
7. DATE OF LAST CIRCUIT TRIM (VM)
 2015

8

Cause	Count	Percentage	Customer-hours	Customers	SAIDI	SAIFI
Birds/Animals	7	70.00	94.80	127.00	10.59	0.24
Pre-Arranged	2	20.00	27.03	15.00	3.02	0.03
Unknown	1	10.00	3.47	4.00	0.39	0.01

9. CIRCUIT 5 YEAR AVERAGE (SAIDI) 3.49
10. REPORTING YEAR (SAIDI) 14.00
11. CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.09
12. REPORTING YEAR (SAIFI) 0.27
13. LIST OF CORRECTIVE ACTION, IF ANY, TAKEN OR TO BE TAKEN

A very reliable circuit

No actions are deemed necessary

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 #20:

1. SUBSTATION NAME AND NUMBER Hardinsburg 2
 2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)
Northeast corner of US-60 and Old US-60 intersection in west Hardinsburg in Breckinridge
 3. CIRCUIT NAME AND NUMBER County
Feeder 2 (Hwy 992 circuit)
 4. CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA)
West along Hwy 992
 5. TOTAL CIRCUIT LENGTH (MILES)
27.1 miles
 6. CUSTOMER COUNT FOR THIS CIRCUIT
188
 7. DATE OF LAST CIRCUIT TRIM (VM)
2016
- 8

Cause	Count	Percentage	Customer-hours	Customers	SAIDI	SAIFI
Other	1	33.33	227.83	187.00	72.71	0.99
Storms	2	66.67	11.43	9.00	3.65	0.05

9. CIRCUIT 5 YEAR AVERAGE (SAIDI) 18.80
10. REPORTING YEAR (SAIDI) 76.36
11. CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.22
12. REPORTING YEAR (SAIFI) 1.04
13. LIST OF CORRECTIVE ACTION, IF ANY, TAKEN OR TO BE TAKEN

On 4/2/18, a voltage regulator failed inside the substation, blowing the high-side fuses and outaging the entire substation for approx. 1.25 hours. Generally, a very reliable circuit.

No actions are deemed necessary

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 #21:

1. SUBSTATION NAME AND NUMBER Harned
2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)
North onto Hwy 1616 in Harned approx. 0.1 mile, substation is on right behind green house
3. CIRCUIT NAME AND NUMBER in Breckinridge County
Feeder 2 (Garfield circuit)
4. CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA)
Top circuit, east along US-60 to Garfield and southeast along Hwy 1401
5. TOTAL CIRCUIT LENGTH (MILES)
80.6 miles
6. CUSTOMER COUNT FOR THIS CIRCUIT
689
7. DATE OF LAST CIRCUIT TRIM (VM)
2014

8

Cause	Count	Percentage	Customer-hours	Customers	SAIDI	SAIFI
Storms	8	29.63	408.32	198.00	35.56	0.29
Pre-Arranged	5	18.52	81.35	78.00	7.08	0.11
Unknown	5	18.52	58.72	75.00	5.11	0.11
Birds/Animals	4	14.81	33.90	29.00	2.95	0.04
Trees out of R/W	3	11.11	49.20	26.00	4.28	0.04
Cutouts/OCB	1	3.70	5.68	8.00	0.49	0.01
Conductor	1	3.70	1.37	1.00	0.12	0.00

9. CIRCUIT 5 YEAR AVERAGE (SAIDI) 18.96
10. REPORTING YEAR (SAIDI) 55.61
11. CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.40
12. REPORTING YEAR (SAIFI) 0.60
13. LIST OF CORRECTIVE ACTION, IF ANY, TAKEN OR TO BE TAKEN

Multiple storms during the year yielded a moderate total of outages and customer-hours

No actions are deemed necessary

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 #22:

1. SUBSTATION NAME AND NUMBER Irvington
2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)
From Hwy 79, west onto Kentucky street and sub is at the very end; in Breckinridge County
3. CIRCUIT NAME AND NUMBER
Feeder 1 (Guston circuit)
4. CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA)
North along Hwy 79 to Hwy 428, east to Guston in Meade County
5. TOTAL CIRCUIT LENGTH (MILES)
20.1 miles
6. CUSTOMER COUNT FOR THIS CIRCUIT
230
7. DATE OF LAST CIRCUIT TRIM (VM)
2016

8

Cause	Count	Percentage	Customer-hours	Customers	SAIDI	SAIFI
Public Cause	2	20.00	308.05	231.00	80.36	1.00
Trees out of R/W	1	10.00	31.47	49.00	8.21	0.21
Storms	1	10.00	81.38	14.00	21.23	0.06
Birds/Animals	3	30.00	3.40	6.00	0.89	0.03
Pre-Arranged	1	10.00	8.49	2.00	2.21	0.01
Unknown	1	10.00	2.08	2.00	0.54	0.01
KVA	1	10.00	2.37	2.00	0.62	0.01

9. CIRCUIT 5 YEAR AVERAGE (SAIDI) 30.29
10. REPORTING YEAR (SAIDI) 114.07
11. CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.63
12. REPORTING YEAR (SAIFI) 1.33
13. LIST OF CORRECTIVE ACTION, IF ANY, TAKEN OR TO BE TAKEN

On 11/12/18, a car struck and broke a double-circuit pole, outaging the entire circuit 1.5 hours.
Two meters were outaged the following day for permanent repair.

No actions are deemed necessary

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 #23:

1. SUBSTATION NAME AND NUMBER Irvington
2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)
From Hwy 79, west onto Kentucky street and sub is at the very end; in Breckinridge County
3. CIRCUIT NAME AND NUMBER
Feeder 2 (Midway circuit)
4. CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA)
North along Hwy 79 to Midway (Hwy 144) in Meade County
5. TOTAL CIRCUIT LENGTH (MILES)
42.5 miles
6. CUSTOMER COUNT FOR THIS CIRCUIT
499
7. DATE OF LAST CIRCUIT TRIM (VM)
2016

8

Cause	Count	Percentage	Customer-hours	Customers	SAIDI	SAIFI
Public Cause	4	30.77	877.14	723.00	105.47	1.45
Cutouts/OCB	1	7.69	559.87	494.00	67.32	0.99
Conductor	1	7.69	82.79	44.00	9.96	0.09
Unknown	1	7.69	2.78	4.00	0.33	0.01
Storms	2	15.38	8.25	4.00	0.99	0.01
Line Hardware	1	7.69	2.73	3.00	0.33	0.01
KVA	2	15.38	2.57	2.00	0.31	0.00
Pre-Arranged	1	7.69	7.81	1.00	0.94	0.00

9. CIRCUIT 5 YEAR AVERAGE (SAIDI) 50.78
10. REPORTING YEAR (SAIDI) 185.64
11. CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.97
12. REPORTING YEAR (SAIFI) 2.56

13. LIST OF CORRECTIVE ACTION, IF ANY, TAKEN OR TO BE TAKEN

On 11/12/18, a car struck and broke a double-circuit pole, outaging the entire circuit 1.5 hours. 185 meters were outaged the following day for permanent repair.

On 3/18/18, circuit recloser at the sub tripped and would not reclose; it was bypassed after 1 hour outage and restored power. Recloser was later reset and placed back into service.

No actions are deemed necessary

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 #24:

1. SUBSTATION NAME AND NUMBER Irvington
2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)
From Hwy 79, west onto Kentucky street and sub is at the very end; in Breckinridge County
3. CIRCUIT NAME AND NUMBER
Feeder 6 (Webster circuit)
4. CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA)
West along Hwy 477 and Hwy 261 West and East
5. TOTAL CIRCUIT LENGTH (MILES)
68 miles
6. CUSTOMER COUNT FOR THIS CIRCUIT
527
7. DATE OF LAST CIRCUIT TRIM (VM)
2016

8

Cause	Count	Percentage	Customer-hours	Customers	SAIDI	SAIFI
Storms	4	40.00	953.10	266.00	108.51	0.50
Pre-Arranged	2	20.00	17.31	15.00	1.97	0.03
Unknown	2	20.00	7.08	9.00	0.81	0.02
Cutouts/OCB	1	10.00	1.47	2.00	0.17	0.00
Trees out of R/W	1	10.00	2.85	2.00	0.32	0.00

9. CIRCUIT 5 YEAR AVERAGE (SAIDI) 59.65
10. REPORTING YEAR (SAIDI) 111.78
11. CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.79
12. REPORTING YEAR (SAIFI) 0.56
13. LIST OF CORRECTIVE ACTION, IF ANY, TAKEN OR TO BE TAKEN

Multiple storms, but one on 8/20/18 caused a large tree outside of the ROW to fall on the line, outaging about 1/2 of the circuit's meters for approx. 3.5 hours.

No actions are deemed necessary

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 #25:

1. SUBSTATION NAME AND NUMBER McDaniels
2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)
 0.8 mile northwest of McDaniels along Hwy 259
3. CIRCUIT NAME AND NUMBER
 Feeder 2 (Westview circuit)
4. CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA): North through the Holliday Beach subdivision, then onwards north along Hwy 79 to Westview, then east along Hwy 690
5. TOTAL CIRCUIT LENGTH (MILES)
 55.3 miles
6. CUSTOMER COUNT FOR THIS CIRCUIT
 857
7. DATE OF LAST CIRCUIT TRIM (VM)
 2017
8. Cause Count Percentage Customer-hours Customers SAIDI SAIFI

Cause	Count	Percentage	Customer-hours	Customers	SAIDI	SAIFI
Public Cause	2	6.25	1238.05	934.00	86.68	1.09
Pre-Arranged	14	43.75	298.23	372.00	20.88	0.43
Storms	3	9.38	363.66	66.00	25.46	0.08
Trees out of R/W	1	3.12	33.06	35.00	2.31	0.04
Conductor	3	9.38	17.77	15.00	1.24	0.02
KVA	5	15.62	20.85	13.00	1.46	0.02
Birds/Animals	1	3.12	9.64	9.00	0.68	0.01
Unknown	2	6.25	7.18	8.00	0.50	0.01
Line Hardware	1	3.12	1.40	2.00	0.10	0.00
9. CIRCUIT 5 YEAR AVERAGE (SAIDI) 81.64
10. REPORTING YEAR (SAIDI) 139.31
11. CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.88
12. REPORTING YEAR (SAIFI) 1.70
13. LIST OF CORRECTIVE ACTION, IF ANY, TAKEN OR TO BE TAKEN
 On 8/18/18, a car struck and broke a pole, outaging the entire circuit for approx. 1.5 hours
 On 2/25/18, a car struck, broke, and flipped a guy wire into the primary, outaging 61 meters for 1.5 hours
 Considerable maintenance was performed in this area in 2018, including pole changes, sectionalizing, and system upgrades; thus increasing the pre-arranged outage count.
 No actions are deemed necessary

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 #26:

1. SUBSTATION NAME AND NUMBER Union Star
2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)
From Union Star, less than 0.1 mile west on Hwy 144, north of the road
3. CIRCUIT NAME AND NUMBER
Feeder 1 (Addison circuit)
4. CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA)
West along Hwy 144 to Addison and south along Hwys 259 and 2779
5. TOTAL CIRCUIT LENGTH (MILES)
63 miles
6. CUSTOMER COUNT FOR THIS CIRCUIT
481
7. DATE OF LAST CIRCUIT TRIM (VM)
2016

Cause	Count	Percentage	Customer-hours	Customers	SAIDI	SAIFI
Storms	8	40.00	705.86	328.00	88.05	0.68
Pre-Arranged	4	20.00	33.05	45.00	4.12	0.09
Birds/Animals	3	15.00	33.99	27.00	4.24	0.06
Trees out of R/W	1	5.00	23.40	20.00	2.92	0.04
Unknown	3	15.00	8.79	9.00	1.10	0.02
Trees in R/W	1	5.00	2.79	2.00	0.35	0.00

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9. CIRCUIT 5 YEAR AVERAGE (SAIDI) 18.46
10. REPORTING YEAR (SAIDI) 100.77
11. CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.12
12. REPORTING YEAR (SAIFI) 0.90
13. LIST OF CORRECTIVE ACTION, IF ANY, TAKEN OR TO BE TAKEN

A storm on 5/30/18 and another on 7/20/18 had significant impacts upon the reliability of this historically reliable circuit

No actions are deemed necessary

Kentucky Public Service Commission

SECTION 6: VEGETATION MANAGEMENT PLAN REVIEW

INCLUDE CURRENT VEGETATION MANAGEMENT PLAN

Additional page may be attached as needed.

Acquiring acceptable labor is a real and legitimate issue for vegetation management contractors and this has stressed the existing workforce, causing a delay in trimming ROW. Townsend is about one substation behind but has vowed to catch up and they have made definite progress in the last 6 months. However, MCRECC has not experienced any significant set-backs with reliability because of it. The ROW was previously in good enough condition to overcome these delays.

Overall, there are no alarming issues or trends that would change the current approach to vegetation management; therefore, MCRECC will continue with the current plan.

SECTION 7: UTILITY COMMENTS

Meade's power supplier (Big Rivers Electric (BREC)) experienced a decrease in reliability in the MCRECC service area. During a November ice storm, several of the easternmost substations of the service area experienced multiple hours of outage time due to icing and de-icing of the transmission lines. BREC has installed more radio controlled switches and has implemented an active restoration system that will sense, analyze, and intuitively attempt to restore power to the outaged areas.

Meade experienced a 4-day outage restoration due to an ice storm in November. About 1/3 of our meters experienced an outage during those 4 days. Three of the 4 days were considered Major Event Days.

Probably the largest and increasing concern of outage causes today is "public caused". Distracted driving is likely the big culprit. We average about 1 broken pole every couple of weeks due to it whereas it was more like 1 every 2-3 months 10-20 years ago and, unfortunately, an increasing number of them are by non-insured drivers.