### Electric Distribution Utility Annual Reliability Report

#### **SECTION 1: CONTACT INFORMATION**

UTILITY NAME
REPORT PREPARED BY
Chuck Bishop
E-MAIL ADDRESS OF PREPARER
PHONE NUMBER OF PREPARER
270-651-2191 Ext 8150

#### **SECTION 2: REPORT YEAR**

CALENDAR YEAR OF REPORT 2022

#### **SECTION 3: MAJOR EVENT DAYS**

T<sub>MED</sub> 7.59

FIRST DATE USED TO DETERMINE T<sub>MED</sub> 1/1/2017

LAST DATE USED TO DETERMINE T<sub>MED</sub> 12/31/2021

NUMBER OF MED IN REPORT YEAR 8

NOTE: Per IEEE 1366  $T_{\text{MED}}$  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 26452 TOTAL CIRCUITS 67

#### **Excluding MED**

	<b>5 YEAR AVERAGE</b>	<b>3</b>	REPORTING YEAR
SAIDI	102.11	SAIDI	116.02
SAIFI	1.20	SAIFI	1.47

#### Including MED

	<b>5 YEAR AVERAGE</b>	J	REPORTING YEAR
SAIDI	155.53	SAIDI	223.27
SAIFI	1.44	SAIFI	2.14

#### Notes:

- 1) All duration indices (SAIDI, CAIDI) 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, CAIDI, and  $T_{\text{MED}}$

### Electric Distribution Utility Annual Reliability Report

#### **SECTION 5: CIRCUIT REPORTING**

(CIRCUIT WITH SAIDI AND/OR SAIFI EXCEEDING 5 YEAR AVERAGE (CIRCUIT NUMBERS SHOULD BE REPORTED EXCLUDING MED)

#### Circuit #1

1. SUBSTATION NAME AND NUMBER

Goodnight (1)

2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)

Barren County - Hwy 31E (N Jackson Hwy) - Goodnight

3. CIRCUIT NAME AND NUMBER

Country Club (3)

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

Country Club (3)

5. TOTAL CIRCUIT MILES (MILES)

19.3

6. CUSTOMER COUNT FOR THIS CIRCUIT

298

7. DATE OF LAST CIRCUIT TRIM (VM)

2022

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

Animal	7.86%
Equipment Failure	0.40%
Planned	8.12%
R/W Contractor	3.84%
Tree Related On R/W	52.15%
Unknown	17.95%
Weather	9 67%

9. CIRCUIT 5 YEAR AVERAGE (SAIDI)

92.306

10. REPORTING YEAR (SAIDI)

59.21

11. CIRCUIT 5 YEAR AVERAGE (SAIFI)

0.674

12. REPORTING YEAR (SAIFI)

94

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

None taken or to be taken. The trigger on this report was SAIFI only. A large portion of the outages were related to maintenance improvements, storms, or R/W clearing.

### Electric Distribution Utility Annual Reliability Report

#### **SECTION 5: CIRCUIT REPORTING**

(CIRCUIT WITH SAIDI AND/OR SAIFI EXCEEDING 5 YEAR AVERAGE (CIRCUIT NUMBERS SHOULD BE REPORTED EXCLUDING MED)

#### Circuit #2

1. SUBSTATION NAME AND NUMBER

Munfordville (2)

2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)

Hart County - Hwy 31W (Main St) - Munfordville

3. CIRCUIT NAME AND NUMBER

Seymour (1)

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

Seymour (1)

5. TOTAL CIRCUIT MILES (MILES)

6. CUSTOMER COUNT FOR THIS CIRCUIT

41

7. DATE OF LAST CIRCUIT TRIM (VM)

2015

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

 Other
 37.67%

 Planned
 4.52%

 Public
 1.47%

 Weather
 56.33%

9. CIRCUIT 5 YEAR AVERAGE (SAIDI)

16.77

10. REPORTING YEAR (SAIDI)

68

11. CIRCUIT 5 YEAR AVERAGE (SAIFI)

0.232

12. REPORTING YEAR (SAIFI)

0.51

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

None taken or to be taken. Two outages drove the circuit's performance which were due to the same storm event.

### Electric Distribution Utility Annual Reliability Report

#### **SECTION 5: CIRCUIT REPORTING**

(CIRCUIT WITH SAIDI AND/OR SAIFI EXCEEDING 5 YEAR AVERAGE (CIRCUIT NUMBERS SHOULD BE REPORTED EXCLUDING MED)

#### Circuit #3

1. SUBSTATION NAME AND NUMBER

Munfordville (2)

2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)

Hart County - Hwy 31W (Main St) - Munfordville

3. CIRCUIT NAME AND NUMBER

Northtown (2)

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

Northtown (2)

5. TOTAL CIRCUIT MILES (MILES)

79.25

6. CUSTOMER COUNT FOR THIS CIRCUIT

466

7. DATE OF LAST CIRCUIT TRIM (VM)

201

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

Animal	1.62%
Equipment Failure	66.95%
Planned	1.74%
Public	10.34%
Tree Related off R/W	4.50%
Tree Related On R/W	5.27%
Unknown	8.20%
Weather	1.38%
Tree related - Off right of way	4.50%

9. CIRCUIT 5 YEAR AVERAGE (SAIDI)

203.11

10. REPORTING YEAR (SAIDI)

155.6

11. CIRCUIT 5 YEAR AVERAGE (SAIFI)

1 172

12. REPORTING YEAR (SAIFI)

1 66

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

None taken with maintenance scheduled. The trigger on this report was SAIFI only. There was no identifying standout issue, but a mix of causes. Several were out of Farmers' control like customer caused and storm events. Several were R/W related to which this circuit is on the two-year cycle to clear. Several were related to maintenance work as well.

### Electric Distribution Utility Annual Reliability Report

#### **SECTION 5: CIRCUIT REPORTING**

(CIRCUIT WITH SAIDI AND/OR SAIFI EXCEEDING 5 YEAR AVERAGE (CIRCUIT NUMBERS SHOULD BE REPORTED EXCLUDING MED)

#### Circuit #4

1. SUBSTATION NAME AND NUMBER

Munfordville (2)

2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)

Hart County - Hwy 31W (Main St) - Munfordville

3. CIRCUIT NAME AND NUMBER

Priceville (3)

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

Priceville (3)

5. TOTAL CIRCUIT MILES (MILES)

95.3

6. CUSTOMER COUNT FOR THIS CIRCUIT

618

7. DATE OF LAST CIRCUIT TRIM (VM)

2015

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

Animal	2.07%
Equipment Failure	1.81%
Planned	12.08%
Public	2.13%
Tree Related off R/W	74.12%
Tree Related On R/W	1.70%
Unknown	1.85%
Weather	4 25%

9. CIRCUIT 5 YEAR AVERAGE (SAIDI)

186.18

10. REPORTING YEAR (SAIDI)

159.08

11. CIRCUIT 5 YEAR AVERAGE (SAIFI)

1.474

12. REPORTING YEAR (SAIFI)

2.66

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

None taken with maintenance scheduled. The trigger on this report was SAIFI only. There was no identifying standout issue, but a mix of causes. Several were out of Farmers' control like customer caused and storm events. Several were R/W related to which this circuit is budgeted to clear this year. And, a large majority of outages were related to maintenance work.

### Electric Distribution Utility Annual Reliability Report

#### **SECTION 5: CIRCUIT REPORTING**

(CIRCUIT WITH SAIDI AND/OR SAIFI EXCEEDING 5 YEAR AVERAGE (CIRCUIT NUMBERS SHOULD BE REPORTED EXCLUDING MED)

#### Circuit #5

1. SUBSTATION NAME AND NUMBER

Munfordville (2)

2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)

Hart County - Hwy 31W (Main St) - Munfordville

3. CIRCUIT NAME AND NUMBER

Jonesville (5)

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

Jonesville (5)

5. TOTAL CIRCUIT MILES (MILES)

10.48

6. CUSTOMER COUNT FOR THIS CIRCUIT

54

7. DATE OF LAST CIRCUIT TRIM (VM)

2014

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

 Planned
 4.15%

 Public
 3.44%

 Unknown
 25.67%

 Weather
 66.74%

9. CIRCUIT 5 YEAR AVERAGE (SAIDI)

63.776

10. REPORTING YEAR (SAIDI)

67.81

11. CIRCUIT 5 YEAR AVERAGE (SAIFI)

0.592

12. REPORTING YEAR (SAIFI)

0.67

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

None taken or to be taken. One outage drove the circuit's performance. It was related to lightning in a storm event.

### Electric Distribution Utility Annual Reliability Report

#### **SECTION 5: CIRCUIT REPORTING**

(CIRCUIT WITH SAIDI AND/OR SAIFI EXCEEDING 5 YEAR AVERAGE (CIRCUIT NUMBERS SHOULD BE REPORTED EXCLUDING MED)

#### Circuit #6

1. SUBSTATION NAME AND NUMBER

Munfordville (2)

2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)

Hart County - Hwy 31W (Main St) - Munfordville

3. CIRCUIT NAME AND NUMBER

Cub Run (6)

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

Cub Run (6)

5. TOTAL CIRCUIT MILES (MILES)

177.72

6. CUSTOMER COUNT FOR THIS CIRCUIT

1835

7. DATE OF LAST CIRCUIT TRIM (VM)

2022/23

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

Animal	0.16%
Equipment Failure	7.85%
Other	22.16%
Planned	5.62%
Public	5.32%
R/W Contractor	6.29%
Tree Related off R/W	10.26%
Tree Related On R/W	4.00%
Unknown	1.21%
Weather	37.13%

9. CIRCUIT 5 YEAR AVERAGE (SAIDI)

183.81

10. REPORTING YEAR (SAIDI)

185.09

11. CIRCUIT 5 YEAR AVERAGE (SAIFI)

1.496

12. REPORTING YEAR (SAIFI)

1 98

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

None taken with ongoing maintenance. R/W clearing started on this circuit last year and will complete this year. A large number of outages were related to a conductor change and other maintenance work. This circuit many miles of line and has a large quantity of services. We are investigating ways to split the line/accounts into multiple circuits.

### Electric Distribution Utility Annual Reliability Report

#### **SECTION 5: CIRCUIT REPORTING**

(CIRCUIT WITH SAIDI AND/OR SAIFI EXCEEDING 5 YEAR AVERAGE (CIRCUIT NUMBERS SHOULD BE REPORTED EXCLUDING MED)

#### Circuit #7

1. SUBSTATION NAME AND NUMBER

Temple Hill (3)

2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)

Barren County, Hwy 63 (Temple Hill Rd) - Temple Hill

3. CIRCUIT NAME AND NUMBER

Summer Shade / Nobob (1)

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

Summer Shade / Nobob (1)

5. TOTAL CIRCUIT MILES (MILES)

129

6. CUSTOMER COUNT FOR THIS CIRCUIT

905

7. DATE OF LAST CIRCUIT TRIM (VM)

2017

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

Animal	0.91%
Equipment Failure	10.94%
Planned	0.65%
Public	27.46%
Tree Related off R/W	14.93%
Tree Related On R/W	31.70%
Unknown	5.63%
Weather	7 78%

9. CIRCUIT 5 YEAR AVERAGE (SAIDI)

98.638

10. REPORTING YEAR (SAIDI)

181.05

11. CIRCUIT 5 YEAR AVERAGE (SAIFI)

1.288

12. REPORTING YEAR (SAIFI)

2.18

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

None taken or to be taken. The SAIDI was driven by two primary outages. One was caused by the public and the other was due to an on R/W tree which was determined to be an isolated case. There were several maintenance related outages and off R/W tree cases with caused SAIFI to rise.

### Electric Distribution Utility Annual Reliability Report

#### **SECTION 5: CIRCUIT REPORTING**

(CIRCUIT WITH SAIDI AND/OR SAIFI EXCEEDING 5 YEAR AVERAGE (CIRCUIT NUMBERS SHOULD BE REPORTED EXCLUDING MED)

#### Circuit #8

1. SUBSTATION NAME AND NUMBER

Temple Hill (3)

2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)

Barren County, Hwy 63 (Temple Hill Rd) - Temple Hill

3. CIRCUIT NAME AND NUMBER

Morrison Park (2)

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

Morrison Park (2)

5. TOTAL CIRCUIT MILES (MILES)

19.96

6. CUSTOMER COUNT FOR THIS CIRCUIT

180

7. DATE OF LAST CIRCUIT TRIM (VM)

2017

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

0.51%
48.34%
8.54%
3.32%
0.49%
38.80%

9. CIRCUIT 5 YEAR AVERAGE (SAIDI)

45.746

10. REPORTING YEAR (SAIDI)

48.9

11. CIRCUIT 5 YEAR AVERAGE (SAIFI)

542

12. REPORTING YEAR (SAIFI)

0.97

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

Two outages drove the circuit performance. One outage was related to a protection coordination which has been resolved. The other was an outage that occurred when a device was in a non-reclose state to downline maintenance work.

### Electric Distribution Utility Annual Reliability Report

#### **SECTION 5: CIRCUIT REPORTING**

(CIRCUIT WITH SAIDI AND/OR SAIFI EXCEEDING 5 YEAR AVERAGE (CIRCUIT NUMBERS SHOULD BE REPORTED EXCLUDING MED)

#### Circuit #9

1. SUBSTATION NAME AND NUMBER

Temple Hill (3)

2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)

Barren County, Hwy 63 (Temple Hill Rd) - Temple Hill

3. CIRCUIT NAME AND NUMBER

Glover Creek / 44 Mkt (3)

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

Glover Creek / 44 Mkt (3)

5. TOTAL CIRCUIT MILES (MILES)

65.41

6. CUSTOMER COUNT FOR THIS CIRCUIT

554

7. DATE OF LAST CIRCUIT TRIM (VM)

2017

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

Animal	12.97%
Equipment Failure	1.51%
Other	0.02%
Planned	0.60%
Public	3.68%
Tree Related off R/W	30.15%
Tree Related On R/W	0.08%
Unknown	19.64%
Weather	31.36%

9. CIRCUIT 5 YEAR AVERAGE (SAIDI)

79.5

10. REPORTING YEAR (SAIDI)

308.56

11. CIRCUIT 5 YEAR AVERAGE (SAIFI)

1 288

12. REPORTING YEAR (SAIFI)

3 43

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

None taken or to be taken. The circuit performance was driven primarily by three outages. One was related to an off R/W tree. The other two were related to lightning and wind during storm events.

### Electric Distribution Utility Annual Reliability Report

#### **SECTION 5: CIRCUIT REPORTING**

(CIRCUIT WITH SAIDI AND/OR SAIFI EXCEEDING 5 YEAR AVERAGE (CIRCUIT NUMBERS SHOULD BE REPORTED EXCLUDING MED)

#### Circuit #10

1. SUBSTATION NAME AND NUMBER

Knob Lick (4)

2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)

Metcalfe County - Hwy 70 (Sulphur Well Knob Lick Rd) - Knob Lick

3. CIRCUIT NAME AND NUMBER

Wisdom (5)

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

Wisdom (5)

5. TOTAL CIRCUIT MILES (MILES)

27.98

6. CUSTOMER COUNT FOR THIS CIRCUIT

141

7. DATE OF LAST CIRCUIT TRIM (VM)

2019

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

 Animal
 0.30%

 Equipment Failure
 0.60%

 Unknown
 0.06%

 Weather
 99.05%

9. CIRCUIT 5 YEAR AVERAGE (SAIDI)

77.148

10. REPORTING YEAR (SAIDI)

139.79

11. CIRCUIT 5 YEAR AVERAGE (SAIFI)

0.57

12. REPORTING YEAR (SAIFI)

1.06

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

None taken or to be taken. A single outage drove the circuit performance. It was related to a storm event with strong winds and lightning.

### Electric Distribution Utility Annual Reliability Report

#### **SECTION 5: CIRCUIT REPORTING**

(CIRCUIT WITH SAIDI AND/OR SAIFI EXCEEDING 5 YEAR AVERAGE (CIRCUIT NUMBERS SHOULD BE REPORTED EXCLUDING MED)

#### Circuit #11

1. SUBSTATION NAME AND NUMBER

Beckton (5)

2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)

Barren County - Hwy 1297 (Old Bowling Green Rd) - Beckton

3. CIRCUIT NAME AND NUMBER

Rocky Hill (2)

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

Rocky Hill (2)

5. TOTAL CIRCUIT MILES (MILES)

108.23

6. CUSTOMER COUNT FOR THIS CIRCUIT

1191

7. DATE OF LAST CIRCUIT TRIM (VM)

2015

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

Animal	38.63%
Equipment Failure	3.24%
Planned	0.41%
Public	2.79%
Tree Related off R/W	15.86%
Tree Related On R/W	20.01%
Unknown	1.53%
Weather	17.53%

9. CIRCUIT 5 YEAR AVERAGE (SAIDI)

172.48

10. REPORTING YEAR (SAIDI)

133.57

11. CIRCUIT 5 YEAR AVERAGE (SAIFI)

1 962

12. REPORTING YEAR (SAIFI)

2.16

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

None taken with maintenance scheduled. The trigger on this report was SAIFI only. Most of the outages were related to storm events. There were a high number of storm related events associated with trees as the secondary cause. Hot spot trimming is done when an issue is found and the circuit is closed to its next cycle clearing.

### Electric Distribution Utility Annual Reliability Report

#### **SECTION 5: CIRCUIT REPORTING**

(CIRCUIT WITH SAIDI AND/OR SAIFI EXCEEDING 5 YEAR AVERAGE (CIRCUIT NUMBERS SHOULD BE REPORTED EXCLUDING MED)

#### Circuit #12

1. SUBSTATION NAME AND NUMBER

Beckton (5)

2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)

Barren County - Hwy 1297 (Old Bowling Green Rd) - Beckton

3. CIRCUIT NAME AND NUMBER

Railton (3)

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

Railton (3)

5. TOTAL CIRCUIT MILES (MILES)

75.64

6. CUSTOMER COUNT FOR THIS CIRCUIT

673

7. DATE OF LAST CIRCUIT TRIM (VM)

2020

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

3.40%
1.14%
0.54%
1.65%
3.79%
89.49%

9. CIRCUIT 5 YEAR AVERAGE (SAIDI)

62.652

10. REPORTING YEAR (SAIDI)

131.66

11. CIRCUIT 5 YEAR AVERAGE (SAIFI)

ი 768

12. REPORTING YEAR (SAIFI)

1.22

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

None taken or to be taken. A single outage drove the circuit performance. It was related to a storm event with strong winds and lightning.

### Electric Distribution Utility Annual Reliability Report

#### **SECTION 5: CIRCUIT REPORTING**

(CIRCUIT WITH SAIDI AND/OR SAIFI EXCEEDING 5 YEAR AVERAGE (CIRCUIT NUMBERS SHOULD BE REPORTED EXCLUDING MED)

#### Circuit #13

1. SUBSTATION NAME AND NUMBER

Beckton (5)

2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)

Barren County - Hwy 1297 (Old Bowling Green Rd) - Beckton

3. CIRCUIT NAME AND NUMBER

Merry Oaks (4)

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

Merry Oaks (4)

5. TOTAL CIRCUIT MILES (MILES)

11.03

6. CUSTOMER COUNT FOR THIS CIRCUIT

101

7. DATE OF LAST CIRCUIT TRIM (VM)

2020

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

Equipment Failure 0.60%
Planned 0.67%
Tree Related off R/W 95.70%
Weather 3.02%

9. CIRCUIT 5 YEAR AVERAGE (SAIDI)

123.21

10. REPORTING YEAR (SAIDI)

154.27

11. CIRCUIT 5 YEAR AVERAGE (SAIFI)

0.622

12. REPORTING YEAR (SAIFI)

0.68

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

None taken or to be taken. A single outage drove the circuit performance. It was related to an off R/W tree.

## Electric Distribution Utility Annual Reliability Report

#### **SECTION 5: CIRCUIT REPORTING**

(CIRCUIT WITH SAIDI AND/OR SAIFI EXCEEDING 5 YEAR AVERAGE (CIRCUIT NUMBERS SHOULD BE REPORTED EXCLUDING MED)

#### Circuit #14

1. SUBSTATION NAME AND NUMBER

Cave City (6)

2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)

Barren County - Hwy 90 (Happy Valley Rd) - Cave City

3. CIRCUIT NAME AND NUMBER

Bearwallow (6)

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

Bearwallow (6)

5. TOTAL CIRCUIT MILES (MILES)

59.7

6. CUSTOMER COUNT FOR THIS CIRCUIT

557

7. DATE OF LAST CIRCUIT TRIM (VM)

2021

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

Animal	5.75%
Equipment Failure	18.01%
Planned	1.18%
Tree Related off R/W	15.61%
Tree Related On R/W	55.57%
Unknown	1.49%
Weather	2.39%

9. CIRCUIT 5 YEAR AVERAGE (SAIDI)

1 17

10. REPORTING YEAR (SAIDI)

33.95

11. CIRCUIT 5 YEAR AVERAGE (SAIFI)

ი ი2

12. REPORTING YEAR (SAIFI)

0.32

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

None taken or to be taken. A majority of the outages were storm related or tree related in storm events.

### Electric Distribution Utility Annual Reliability Report

#### **SECTION 5: CIRCUIT REPORTING**

(CIRCUIT WITH SAIDI AND/OR SAIFI EXCEEDING 5 YEAR AVERAGE (CIRCUIT NUMBERS SHOULD BE REPORTED EXCLUDING MED)

#### Circuit #15

1. SUBSTATION NAME AND NUMBER

Parkway 1 (7)

2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)

Barren County - Aberdeen Dr - Glasgow

3. CIRCUIT NAME AND NUMBER

Roseville (3)

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

Roseville (3)

5. TOTAL CIRCUIT MILES (MILES)

1 48

6. CUSTOMER COUNT FOR THIS CIRCUIT

29

7. DATE OF LAST CIRCUIT TRIM (VM)

2020

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

Planned 100%

9. CIRCUIT 5 YEAR AVERAGE (SAIDI)

n

10. REPORTING YEAR (SAIDI)

1 07

11. CIRCUIT 5 YEAR AVERAGE (SAIFI)

O

12. REPORTING YEAR (SAIFI)

0.04

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

None taken or to be taken. The outage performance was driven by a single planned outage of short duration.

### Electric Distribution Utility Annual Reliability Report

#### **SECTION 5: CIRCUIT REPORTING**

(CIRCUIT WITH SAIDI AND/OR SAIFI EXCEEDING 5 YEAR AVERAGE (CIRCUIT NUMBERS SHOULD BE REPORTED EXCLUDING MED)

#### Circuit #16

1. SUBSTATION NAME AND NUMBER

Parkway 1 (7)

2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)

Barren County - Aberdeen Dr - Glasgow

3. CIRCUIT NAME AND NUMBER

Haywood (4)

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

Haywood (4)

5. TOTAL CIRCUIT MILES (MILES)

47.75

6. CUSTOMER COUNT FOR THIS CIRCUIT

മവ

7. DATE OF LAST CIRCUIT TRIM (VM)

2017

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

Animal	4.25%
Equipment Failure	0.16%
Planned	1.77%
Public	5.50%
Tree Related off R/W	0.54%
Tree Related On R/W	11.53%
Unknown	0.35%
Weather	75.90%

9. CIRCUIT 5 YEAR AVERAGE (SAIDI)

32.33

10. REPORTING YEAR (SAIDI)

175.13

11. CIRCUIT 5 YEAR AVERAGE (SAIFI)

ი 4

12. REPORTING YEAR (SAIFI)

1.79

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

None taken or to be taken. Outages related to storm events drove the circuit performance.

### Electric Distribution Utility Annual Reliability Report

#### **SECTION 5: CIRCUIT REPORTING**

(CIRCUIT WITH SAIDI AND/OR SAIFI EXCEEDING 5 YEAR AVERAGE (CIRCUIT NUMBERS SHOULD BE REPORTED EXCLUDING MED)

#### Circuit #17

1. SUBSTATION NAME AND NUMBER

Galloway (8)

2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)

Metcalfe County - Hwy 68-80 (Glasgow Rd) - Cave Ridge

3. CIRCUIT NAME AND NUMBER

Randolph (2)

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

Randolph (2)

5. TOTAL CIRCUIT MILES (MILES)

111.75

6. CUSTOMER COUNT FOR THIS CIRCUIT

857

7. DATE OF LAST CIRCUIT TRIM (VM)

2019

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

Animal	0.59%
Equipment Failure	12.92%
Other	0.08%
Planned	0.33%
Public	11.42%
Tree Related off R/W	0.04%
Tree Related On R/W	0.07%
Unknown	0.24%
Weather	74.31%

9. CIRCUIT 5 YEAR AVERAGE (SAIDI)

129.13

10. REPORTING YEAR (SAIDI)

210.38

11. CIRCUIT 5 YEAR AVERAGE (SAIFI)

1 484

12. REPORTING YEAR (SAIFI)

2 78

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

None taken or to be taken. Outages related to storm events drove the circuit performance.

### Electric Distribution Utility Annual Reliability Report

#### **SECTION 5: CIRCUIT REPORTING**

(CIRCUIT WITH SAIDI AND/OR SAIFI EXCEEDING 5 YEAR AVERAGE (CIRCUIT NUMBERS SHOULD BE REPORTED EXCLUDING MED)

#### Circuit #18

1. SUBSTATION NAME AND NUMBER

Bonnieville (9)

2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)

Hart County - Hwy 31W (N Dixie Hwy) - Bonnieville

3. CIRCUIT NAME AND NUMBER

Priceville (1)

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

Priceville (1)

5. TOTAL CIRCUIT MILES (MILES)

44.45

6. CUSTOMER COUNT FOR THIS CIRCUIT

367

7. DATE OF LAST CIRCUIT TRIM (VM)

2017

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

Equipment Failure	4.55%
Planned	1.21%
Tree Related off R/W	89.91%
Tree Related On R/W	0.38%
Unknown	0.55%
Weather	3.40%

9. CIRCUIT 5 YEAR AVERAGE (SAIDI)

113.77

10. REPORTING YEAR (SAIDI)

246.14

11. CIRCUIT 5 YEAR AVERAGE (SAIFI)

664

12. REPORTING YEAR (SAIFI)

1.34

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

None taken or to be taken. One outage drove the circuit performance which was related to an off R/W tree in a storm event.

### Electric Distribution Utility Annual Reliability Report

#### **SECTION 5: CIRCUIT REPORTING**

(CIRCUIT WITH SAIDI AND/OR SAIFI EXCEEDING 5 YEAR AVERAGE (CIRCUIT NUMBERS SHOULD BE REPORTED EXCLUDING MED)

#### Circuit #19

1. SUBSTATION NAME AND NUMBER

Bonnieville (9)

2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)

Hart County - Hwy 31W (N Dixie Hwy) - Bonnieville

3. CIRCUIT NAME AND NUMBER

Mundfordville (2)

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

Mundfordville (2)

5. TOTAL CIRCUIT MILES (MILES)

51

6. CUSTOMER COUNT FOR THIS CIRCUIT

375

7. DATE OF LAST CIRCUIT TRIM (VM)

2017

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

Animal	1.28%
Equipment Failure	43.50%
Other	1.11%
Planned	0.60%
Tree Related off R/W	24.99%
Tree Related On R/W	24.15%
Unknown	1.38%
Weather	2.99%

9. CIRCUIT 5 YEAR AVERAGE (SAIDI)

170.14

10. REPORTING YEAR (SAIDI)

207.49

11. CIRCUIT 5 YEAR AVERAGE (SAIFI)

1 04

12. REPORTING YEAR (SAIFI)

2.07

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

None taken or to be taken. The circuit performance was driven by equipment failure, storm events, and tree related outages. A string insulator failure accounted for the largest consumer hours and was isolated. Many of the tree related outages were associated with storm event. The circuit is scheduled to be cleared within the next two years.

### Electric Distribution Utility Annual Reliability Report

#### **SECTION 5: CIRCUIT REPORTING**

(CIRCUIT WITH SAIDI AND/OR SAIFI EXCEEDING 5 YEAR AVERAGE (CIRCUIT NUMBERS SHOULD BE REPORTED EXCLUDING MED)

#### Circuit #20

1. SUBSTATION NAME AND NUMBER

Seymour (11)

2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)

Hart County - Hwy 218 (Legrande Hwy) - Legrande

3. CIRCUIT NAME AND NUMBER

Uno (2)

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

Uno (2)

5. TOTAL CIRCUIT MILES (MILES)

116.8

6. CUSTOMER COUNT FOR THIS CIRCUIT

787

7. DATE OF LAST CIRCUIT TRIM (VM)

2012

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

Animal	4.88%
Equipment Failure	35.22%
Planned	2.94%
Public	22.78%
R/W Contractor	0.35%
Tree Related off R/W	0.73%
Tree Related On R/W	10.48%
Unknown	4.32%
Weather	18.30%

9. CIRCUIT 5 YEAR AVERAGE (SAIDI)

154.29

10. REPORTING YEAR (SAIDI)

127.72

11. CIRCUIT 5 YEAR AVERAGE (SAIFI)

1 424

12. REPORTING YEAR (SAIFI)

1 79

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

None taken with maintenance scheduled. The trigger on this report was SAIFI only. There was no identifying standout issue, but a mix of causes. Several were out of Farmers' control like customer caused and storm events. Several were R/W related to which this circuit is on the two-year cycle to clear. Several were related to maintenance work as well.

### Electric Distribution Utility Annual Reliability Report

#### **SECTION 5: CIRCUIT REPORTING**

(CIRCUIT WITH SAIDI AND/OR SAIFI EXCEEDING 5 YEAR AVERAGE (CIRCUIT NUMBERS SHOULD BE REPORTED EXCLUDING MED)

#### Circuit #21

1. SUBSTATION NAME AND NUMBER

Seymour (11)

2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)

Hart County - Hwy 218 (Legrande Hwy) - Legrande

3. CIRCUIT NAME AND NUMBER

Monroe (4)

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

Monroe (4)

5. TOTAL CIRCUIT MILES (MILES)

55.98

6. CUSTOMER COUNT FOR THIS CIRCUIT

433

7. DATE OF LAST CIRCUIT TRIM (VM)

2012

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

Equipment Failure	14.84%
Planned	7.70%
Public	0.09%
Tree Related off R/W	9.17%
Tree Related On R/W	36.08%
Unknown	0.33%
Weather	31 80%

9. CIRCUIT 5 YEAR AVERAGE (SAIDI)

43.69

10. REPORTING YEAR (SAIDI)

68.14

11. CIRCUIT 5 YEAR AVERAGE (SAIFI)

0.546

12. REPORTING YEAR (SAIFI)

0.75

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

None taken or to be taken. The circuit performance was driven by storm events, tree related outages, and maintenance. The circuit is scheduled to be cleared within the next two years.

### Electric Distribution Utility Annual Reliability Report

#### **SECTION 5: CIRCUIT REPORTING**

(CIRCUIT WITH SAIDI AND/OR SAIFI EXCEEDING 5 YEAR AVERAGE (CIRCUIT NUMBERS SHOULD BE REPORTED EXCLUDING MED)

#### Circuit #22

1. SUBSTATION NAME AND NUMBER

Fox Hollow (12)

2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)

Barren County - Hwy 63 (Temple Hill Rd) - Glasgow

3. CIRCUIT NAME AND NUMBER

Roseville Rd (1)

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

Roseville Rd (1)

5. TOTAL CIRCUIT MILES (MILES)

38.29

6. CUSTOMER COUNT FOR THIS CIRCUIT

491

7. DATE OF LAST CIRCUIT TRIM (VM)

2020

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

0.96%
30.09%
2.57%
64.66%
0.31%
1.41%

9. CIRCUIT 5 YEAR AVERAGE (SAIDI)

61.102

10. REPORTING YEAR (SAIDI)

73.86

11. CIRCUIT 5 YEAR AVERAGE (SAIFI)

1 098

12. REPORTING YEAR (SAIFI)

0.73

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

None taken or to be taken. The circuit performance was driven by equipment failures and off R/W trees. And, the equipment failures were isolated and did not indicate a systemic issue.

### Electric Distribution Utility Annual Reliability Report

#### **SECTION 5: CIRCUIT REPORTING**

(CIRCUIT WITH SAIDI AND/OR SAIFI EXCEEDING 5 YEAR AVERAGE (CIRCUIT NUMBERS SHOULD BE REPORTED EXCLUDING MED)

#### Circuit #23

1. SUBSTATION NAME AND NUMBER

Fox Hollow (12)

2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)

Barren County - Hwy 63 (Temple Hill Rd) - Glasgow

3. CIRCUIT NAME AND NUMBER

Lecta (3)

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

Lecta (3)

5. TOTAL CIRCUIT MILES (MILES)

77.1

6. CUSTOMER COUNT FOR THIS CIRCUIT

1052

7. DATE OF LAST CIRCUIT TRIM (VM)

2020

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

Animal	2.21%
Equipment Failure	0.17%
Planned	2.72%
Public	84.52%
Tree Related off R/W	7.73%
Unknown	1.91%
Weather	0.74%

9. CIRCUIT 5 YEAR AVERAGE (SAIDI)

77.048

10. REPORTING YEAR (SAIDI)

94.27

11. CIRCUIT 5 YEAR AVERAGE (SAIFI)

0.762

12. REPORTING YEAR (SAIFI)

1.34

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

None taken or to be taken. The circuit performance was driven by public caused outeages and off R/W trees.

### Electric Distribution Utility Annual Reliability Report

#### **SECTION 5: CIRCUIT REPORTING**

(CIRCUIT WITH SAIDI AND/OR SAIFI EXCEEDING 5 YEAR AVERAGE (CIRCUIT NUMBERS SHOULD BE REPORTED EXCLUDING MED)

#### Circuit #24

1. SUBSTATION NAME AND NUMBER

Fox Hollow (12)

2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)

Barren County - Hwy 63 (Temple Hill Rd) - Glasgow

3. CIRCUIT NAME AND NUMBER

Green Valley (4)

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

Green Valley (4)

5. TOTAL CIRCUIT MILES (MILES)

25.67

6. CUSTOMER COUNT FOR THIS CIRCUIT

414

7. DATE OF LAST CIRCUIT TRIM (VM)

2020

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

Animal	44.28%
Planned	2.43%
Public	8.87%
Tree Related off R/W	4.02%
Unknown	40.11%
Weather	0.29%

9. CIRCUIT 5 YEAR AVERAGE (SAIDI)

52.128

10. REPORTING YEAR (SAIDI)

71.97

11. CIRCUIT 5 YEAR AVERAGE (SAIFI)

1 698

12. REPORTING YEAR (SAIFI)

0.91

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

None taken or to be taken. The circuit performance was driven by public caused outages, an isolated animal incident, off R/W trees, and an unknown outage. The unknown outage was investigated with no cause determined. However, it stopped being an issue and was deemed an isolated incident and did not indicate a systemic issue.

### Electric Distribution Utility Annual Reliability Report

#### **SECTION 5: CIRCUIT REPORTING**

(CIRCUIT WITH SAIDI AND/OR SAIFI EXCEEDING 5 YEAR AVERAGE (CIRCUIT NUMBERS SHOULD BE REPORTED EXCLUDING MED)

#### Circuit #25

1. SUBSTATION NAME AND NUMBER

Bon Ayr (16)

2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)

Barren County - Hwy 68-80 (Bowling Green Rd) - Bon Ayr

3. CIRCUIT NAME AND NUMBER

Dripping Springs Rd (1)

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

Dripping Springs Rd (1)

5. TOTAL CIRCUIT MILES (MILES)

22.47

6. CUSTOMER COUNT FOR THIS CIRCUIT

333

7. DATE OF LAST CIRCUIT TRIM (VM)

202

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

45.18%
0.74%
0.16%
0.63%
0.11%
53.18%

9. CIRCUIT 5 YEAR AVERAGE (SAIDI)

37.488

10. REPORTING YEAR (SAIDI)

118.04

11. CIRCUIT 5 YEAR AVERAGE (SAIFI)

ი 37

12. REPORTING YEAR (SAIFI)

1.9

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

None taken or to be taken. The circuit performance was driven by an isolated animal caused outage and a storm event.

### Electric Distribution Utility Annual Reliability Report

#### **SECTION 5: CIRCUIT REPORTING**

(CIRCUIT WITH SAIDI AND/OR SAIFI EXCEEDING 5 YEAR AVERAGE (CIRCUIT NUMBERS SHOULD BE REPORTED EXCLUDING MED)

#### Circuit #26

1. SUBSTATION NAME AND NUMBER

Bon Ayr (16)

2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)

Barren County - Hwy 68-80 (Bowling Green Rd) - Bon Ayr

3. CIRCUIT NAME AND NUMBER

Beckton (2)

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

Beckton (2)

5. TOTAL CIRCUIT MILES (MILES)

8.77

6. CUSTOMER COUNT FOR THIS CIRCUIT

105

7. DATE OF LAST CIRCUIT TRIM (VM)

202

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

Animal 59.34% Public 40.66%

9. CIRCUIT 5 YEAR AVERAGE (SAIDI)

79.478

10. REPORTING YEAR (SAIDI)

103.8

11. CIRCUIT 5 YEAR AVERAGE (SAIFI)

0.854

12. REPORTING YEAR (SAIFI)

1.58

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

None taken or to be taken. The circuit performance was driven by an isolated animal caused outage and a public caused.

### Electric Distribution Utility Annual Reliability Report

#### **SECTION 5: CIRCUIT REPORTING**

(CIRCUIT WITH SAIDI AND/OR SAIFI EXCEEDING 5 YEAR AVERAGE (CIRCUIT NUMBERS SHOULD BE REPORTED EXCLUDING MED)

#### Circuit #27

1. SUBSTATION NAME AND NUMBER

Bon Ayr (16)

2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)

Barren County - Hwy 68-80 (Bowling Green Rd) - Bon Ayr

3. CIRCUIT NAME AND NUMBER

Park City (3)

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

Park City (3)

5. TOTAL CIRCUIT MILES (MILES)

51.91

6. CUSTOMER COUNT FOR THIS CIRCUIT

415

7. DATE OF LAST CIRCUIT TRIM (VM)

2021

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

Animal	65.81%
Equipment Failure	0.38%
Planned	4.78%
Public	5.15%
Tree Related On R/W	18.20%
Unknown	4.29%
Weather	1 39%

9. CIRCUIT 5 YEAR AVERAGE (SAIDI)

124.49

10. REPORTING YEAR (SAIDI)

96.45

11. CIRCUIT 5 YEAR AVERAGE (SAIFI)

1.036

12. REPORTING YEAR (SAIFI)

1 53

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

None taken or to be taken. The trigger on this report was SAIFI only. A large portion of the outages were related to maintenance improvements, storms, or public caused.

### Electric Distribution Utility Annual Reliability Report

#### **SECTION 5: CIRCUIT REPORTING**

(CIRCUIT WITH SAIDI AND/OR SAIFI EXCEEDING 5 YEAR AVERAGE (CIRCUIT NUMBERS SHOULD BE REPORTED EXCLUDING MED)

#### Circuit #28

1. SUBSTATION NAME AND NUMBER

Bon Ayr (16)

2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)

Barren County - Hwy 68-80 (Bowling Green Rd) - Bon Ayr

3. CIRCUIT NAME AND NUMBER

Merry Oaks (4)

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

Merry Oaks (4)

5. TOTAL CIRCUIT MILES (MILES)

24.74

6. CUSTOMER COUNT FOR THIS CIRCUIT

300

7. DATE OF LAST CIRCUIT TRIM (VM)

2021

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

60.17%
0.36%
2.98%
5.31%
22.87%
8.32%

9. CIRCUIT 5 YEAR AVERAGE (SAIDI)

41.754

10. REPORTING YEAR (SAIDI)

95.54

11. CIRCUIT 5 YEAR AVERAGE (SAIFI)

0 466

12. REPORTING YEAR (SAIFI)

1.7

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

None taken or to be taken. The circuit performance was driven by an isolated animal caused outage.

### Electric Distribution Utility Annual Reliability Report

#### **SECTION 5: CIRCUIT REPORTING**

(CIRCUIT WITH SAIDI AND/OR SAIFI EXCEEDING 5 YEAR AVERAGE (CIRCUIT NUMBERS SHOULD BE REPORTED EXCLUDING MED)

#### Circuit #29

1. SUBSTATION NAME AND NUMBER

Jonesville (17)

2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)

Hart County - Hwy 357 (Hammonsville Rd) - Munfordville

3. CIRCUIT NAME AND NUMBER

Jonesville (2)

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

Jonesville (2)

5. TOTAL CIRCUIT MILES (MILES)

95.98

6. CUSTOMER COUNT FOR THIS CIRCUIT

650

7. DATE OF LAST CIRCUIT TRIM (VM)

2014

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

Animal	2.00%
Equipment Failure	30.06%
Planned	0.58%
Tree Related off R/W	34.41%
Tree Related On R/W	17.44%
Unknown	1.06%
Weather	14.45%

9. CIRCUIT 5 YEAR AVERAGE (SAIDI)

187.6

10. REPORTING YEAR (SAIDI)

269

11. CIRCUIT 5 YEAR AVERAGE (SAIFI)

1.348

12. REPORTING YEAR (SAIFI)

2.83

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

None taken or to be taken. The circuit performance was driven by tree related outages and storm events. Of the tree related outages, the largest SAIDI was attributed to an off R/W tree. The circuit is scheduled to be cleared within the next two years.

### Electric Distribution Utility Annual Reliability Report

#### **SECTION 5: CIRCUIT REPORTING**

(CIRCUIT WITH SAIDI AND/OR SAIFI EXCEEDING 5 YEAR AVERAGE (CIRCUIT NUMBERS SHOULD BE REPORTED EXCLUDING MED)

#### Circuit #30

1. SUBSTATION NAME AND NUMBER

Jonesville (17)

2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)

Hart County - Hwy 357 (Hammonsville Rd) - Munfordville

3. CIRCUIT NAME AND NUMBER

Seymour (3)

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

Seymour (3)

5. TOTAL CIRCUIT MILES (MILES)

118.81

6. CUSTOMER COUNT FOR THIS CIRCUIT

692

7. DATE OF LAST CIRCUIT TRIM (VM)

2015

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

Animal	0.11%
Equipment Failure	65.05%
Planned	4.36%
Public	1.85%
Tree Related off R/W	13.03%
Tree Related On R/W	3.49%
Unknown	9.48%
Weather	2 63%

9. CIRCUIT 5 YEAR AVERAGE (SAIDI)

219.33

10. REPORTING YEAR (SAIDI)

246.94

11. CIRCUIT 5 YEAR AVERAGE (SAIFI)

1 15

12. REPORTING YEAR (SAIFI)

2.84

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

None taken or to be taken. The circuit performance was driven by a damaged insulator and tree related outages. On review, the insulator was determined to be an isolated occurence. The circuit is scheduled to be cleared within the next two years.

### Electric Distribution Utility Annual Reliability Report

#### **SECTION 5: CIRCUIT REPORTING**

(CIRCUIT WITH SAIDI AND/OR SAIFI EXCEEDING 5 YEAR AVERAGE (CIRCUIT NUMBERS SHOULD BE REPORTED EXCLUDING MED)

#### Circuit #31

1. SUBSTATION NAME AND NUMBER

Roseville (18)

2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)

Barren County - Roseville Rd - Roseville

3. CIRCUIT NAME AND NUMBER

Etoile (1)

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

Etoile (1)

5. TOTAL CIRCUIT MILES (MILES)

111.83

6. CUSTOMER COUNT FOR THIS CIRCUIT

610

7. DATE OF LAST CIRCUIT TRIM (VM)

2018

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

Animal	3.61%
Equipment Failure	20.11%
Planned	6.69%
Public	36.49%
Tree Related off R/W	0.32%
Tree Related On R/W	19.36%
Unknown	11.55%
Weather	1 88%

9. CIRCUIT 5 YEAR AVERAGE (SAIDI)

90.662

10. REPORTING YEAR (SAIDI)

61.21

11. CIRCUIT 5 YEAR AVERAGE (SAIFI)

0.7466

12. REPORTING YEAR (SAIFI)

1.06

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

None taken or to be taken. The trigger on this report was SAIFI only. There was no identifying standout issue, but a mix of causes. Several were maintenance related with several being out of Farmers' control like storm events.

Circuit #31

### Electric Distribution Utility Annual Reliability Report

#### **SECTION 5: CIRCUIT REPORTING**

(CIRCUIT WITH SAIDI AND/OR SAIFI EXCEEDING 5 YEAR AVERAGE (CIRCUIT NUMBERS SHOULD BE REPORTED EXCLUDING MED)

#### Circuit #32

1. SUBSTATION NAME AND NUMBER

Roseville (18)

2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)

Barren County - Roseville Rd - Roseville

3. CIRCUIT NAME AND NUMBER

Bristletown (3)

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

Bristletown (3)

5. TOTAL CIRCUIT MILES (MILES)

1.71

6. CUSTOMER COUNT FOR THIS CIRCUIT

11

7. DATE OF LAST CIRCUIT TRIM (VM)

2018

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

Planned 55.56% Weather 44.44%

9. CIRCUIT 5 YEAR AVERAGE (SAIDI)

40.733

10. REPORTING YEAR (SAIDI)

117 30

11. CIRCUIT 5 YEAR AVERAGE (SAIFI)

0.465

12. REPORTING YEAR (SAIFI)

1.3

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

None taken or to be taken. The circuit performance was driven by two events. One was a planned event and the other due to lightning in a storm event.

### Electric Distribution Utility Annual Reliability Report

#### **SECTION 5: CIRCUIT REPORTING**

(CIRCUIT WITH SAIDI AND/OR SAIFI EXCEEDING 5 YEAR AVERAGE (CIRCUIT NUMBERS SHOULD BE REPORTED EXCLUDING MED)

#### Circuit #33

1. SUBSTATION NAME AND NUMBER

Roseville (18)

2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN)

Barren County - Roseville Rd - Roseville

3. CIRCUIT NAME AND NUMBER

Temple Hill (4)

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

Temple Hill (4)

5. TOTAL CIRCUIT MILES (MILES)

34.05

6. CUSTOMER COUNT FOR THIS CIRCUIT

228

7. DATE OF LAST CIRCUIT TRIM (VM)

2018

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

Animal	0.83%
Equipment Failure	15.40%
Planned	20.38%
Tree Related off R/W	2.27%
Tree Related On R/W	54.91%
Unknown	6.21%

9. CIRCUIT 5 YEAR AVERAGE (SAIDI)

37.404

10. REPORTING YEAR (SAIDI)

28.67

11. CIRCUIT 5 YEAR AVERAGE (SAIFI)

366

12. REPORTING YEAR (SAIFI)

0.54

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

None taken or to be taken. The trigger on this report was SAIFI only. There was no identifying standout issue, but a mix of causes. Several were maintenance related and tree related. The tree related appeared to be isolated occurences.

### Electric Distribution Utility Annual Reliability Report

#### **SECTION 6: VEGETATION MANAGEMENT PLAN REVIEW**

In 2023, Farmers RECC will work to clear the circuits listed below. We have contracts with Townsend Tree Service and TreeKO to perform all work.

Right-of-way clearing planned (292 miles) Goodnight (1) - Lecta (2) Munfordville (2) - Priceville (3)

Cave City (6) - Mammoth Cave (1)

Cave City (6) - Northtown (3) Cave City (6) - Bearwallow (6)

---- (c)

In 2023, Farmers RECC will work to spray with herbicide the following circuits.

Right-of-way herbicide spraying (609 miles)

Goodnight (1) - Hiseville (1)

Goodnight (1) - Country Club (3)

Goodnight (1) - Cave City (5)

Munfordville (2) - Cub Run (6)

Temple Hill (3) - Summer Shade (1)

Knob Lick (4) - Sulphur Well (1)

Knob Lick (4) - Edmonton (2)

Knob Lick (4) - Hiseville (3)

Knob Lick (4) - Center (4)

Beckton (5) - Rocky Hill (2)

Galloway (8) - Randolph (2)

Calloway (0) - Natidolphi (2)

Galloway (8) - Old Hwy 68-80 (3)

Fox Hollow (12) - Lecta (3)

In 2023, Farmers RECC will continue to perform hot spot clearing, trimming yard trees, and clearing for new work orders with the contractors listed above.

# Electric Distribution Utility Annual Reliability Report

**SECTION 7: UTILITY COMMENTS**