

Farmers Rural Electric Cooperative Corporation

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APR 1 9 2018

PUBLIC SERVICE COMMISSION

Ms. Gwen R. Pinson Executive Director Kentucky Public Service Commission P O Box 615 211 Sower Blvd. Frankfort, KY 40602-0615

Dear Ms. Pinson:

April 10, 2018

Please find an original paper copy and an electronic version of Farmers Rural Electric's 2017 Distribution Reliability Report pursuant to the May 30, 2013 Order and the April 1, 2014 Order pertaining to Administrative Case No. 2011-00450.

If there are any questions or any further information needed Please contact me.

Sincerely,

Wels

Tony Welfs VP Member and Corporate Services 504 S Broadway St Glasgow KY, 42141 Phone 270-651-2191 Ext 8200 Mobile 270-670-5299 Email twells@farmersrecc.com

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KENTUCKY PUBLIC SERVICE COMMISSION APR 1 9 2018

PUBLIC SERVICE COMMISSION

Electric Distribution Utility Annual Reliability Report

SECTION 1: CONTACT INFORMATION

UTILITY NAME REPORT PREPARED BY E-MAIL ADDRESS OF PREPARER PHONE NUMBER OF PREPARER

 Farners Rural Electric Cooperative

 Tony Wells

 twells@farmersrecc.com

 270-651-2191 Ext 8200

SECTION 2: REPORT YEAR

CALENDAR YEAR OF REPORT

2017

SECTION 3: MAJOR EVENT DAYS

 T_{MED} FIRST DATE USED TO DETERMINE T_{MED} LAST DATE USED TO DETERMINE T_{MED} NUMBER OF MED IN REPORT YEAR

14.0 1/1/2012 12/31/2016 1

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

| TOTAL CUS | TOMERS 25163 | System- | wide Informa TO | tion TAL CIRCUITS | 62 |
|----------------|---------------------------------------|---------|--------------------|-----------------------------|----------------------------------|
| SAIDI SAIFI | 5 YEAR AVERA 162.41 1.67 | | cluding MED | SAIDI SAIFI | REPORTING YEAR 117.25 1.21 |
| SAIDI | 5 YEAR AVERA 211.13 | | luding MED | SAIDI | REPORTING YEAR 140.45 |
| SAIFI | 1.99 | | | SAIFI | 1.34 |
| 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_{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 31 E - Goodnight Community
- 3. CIRCUIT NAME AND NUMBER Hiseville (1)
- 4. CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA) Hiseville, Goodnight-Hiseville Rd Hwy 70 and Hwy 740
- 5. TOTAL CIRCUIT MILES (MILES) 75.8
- 6. CUSTOMER COUNT FOR THIS CIRCUIT 487
- 7. DATE OF LAST CIRCUIT TRIM (VM)
- 2014
- 8. LIST OUTAGE FOR CIRCUIT ALONG WITH PERCENTAGE OF TOTAL OUTAGE NUMBERS REPRESENTED BY EACH CAUSE

| Off R/W | 39.12% |
|-------------------|--------|
| Weather | 30.94% |
| On R/W | 26.90% |
| Equipment Failure | 1.69% |
| Other | 0.69% |
| Planned | 0.67% |

- 9. CIRCUIT 5 YEAR AVERAGE (SAIDI)
- 214.88
- 10. REPORTING YEAR (SAIDI)

572.06

11. CIRCUIT 5 YEAR AVERAGE (SAIFI)

2.13

12. REPORTING YEAR (SAIFI)

3.20

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

Circuit will be inspected to determine why R/W is issue on 3 years since trim and will be trimmed if necessary

CIRCUIT #2

- 1. SUBSTATION NAME AND NUMBER Goodnight (1)
- 2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Barren County - Hwy 31 E - Goodnight Community
- 3. CIRCUIT NAME AND NUMBER Lecta (2)
- 4. CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA) Goodnight Hwy 31E towards Glasgow - Tick Ridge Rd
- 5. TOTAL CIRCUIT MILES (MILES) 69.6
- 6. CUSTOMER COUNT FOR THIS CIRCUIT 839
- 7. DATE OF LAST CIRCUIT TRIM (VM)
 - 2011
- 8. LIST OUTAGE FOR CIRCUIT ALONG WITH PERCENTAGE OF TOTAL OUTAGE NUMBERS REPRESENTED BY EACH CAUSE

| Weather | 88.14% |
|-------------------|--------|
| Equipment Failure | 3.92% |
| On R/W | 3.62% |
| Unknown | 2.56% |
| Public | 0.85% |
| Planned | 0.64% |
| Animal | 0.14% |
| Off R/W | 0.12% |
| | |

- CIRCUIT 5 YEAR AVERAGE (SAIDI) 119.66
- 10. REPORTING YEAR (SAIDI)

- 11. CIRCUIT 5 YEAR AVERAGE (SAIFI)
- 0.69
- 12. REPORTING YEAR (SAIFI)

1.43

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

None taken or to be taken. One circuit level outage was 86% of outage time.

^{190.51}

- 1. SUBSTATION NAME AND NUMBER Goodnight (1)
- 2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Barren County - Hwy 31 E - Goodnight Community
- 3. CIRCUIT NAME AND NUMBER Country Club Circuit (3)
- 4. CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA) Old Munfordville Rd and Backside of Country Club
- 5. TOTAL CIRCUIT MILES (MILES) 18.9 miles
- 6. CUSTOMER COUNT FOR THIS CIRCUIT 275
- 7. DATE OF LAST CIRCUIT TRIM (VM)
 - 2014
- 8. LIST OUTAGE FOR CIRCUIT ALONG WITH PERCENTAGE OF TOTAL OUTAGE NUMBERS REPRESENTED BY EACH CAUSE

| On R/W | 50.1% |
|---------|-------|
| Weather | 34.0% |
| Off R/W | 15.7% |
| Public | 0.2% |
| Planned | 0.0% |
| | |

- 9. CIRCUIT 5 YEAR AVERAGE (SAIDI) 192.63
- 10. REPORTING YEAR (SAIDI) 294.06
- 11. CIRCUIT 5 YEAR AVERAGE (SAIFI) 1.67
- 12. REPORTING YEAR (SAIFI)
 - 1.71
- 13. LIST OF CORRECTIVE ACTION, IF ANY, TAKEN OR TO BE TAKEN None taken or to be taken. 90% of outage time occurred on MED.

CIRCUIT #4

- 1. SUBSTATION NAME AND NUMBER Munfordville (2)
- 2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Hart County - North 31-W - Munfordville, KY
- 3. CIRCUIT NAME AND NUMBER Northtown (2)
- 4. CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA) County barn road, along I65 and Northtown
- 5. TOTAL CIRCUIT MILES (MILES)
- 77.5
- 6. CUSTOMER COUNT FOR THIS CIRCUIT 488
- 7. DATE OF LAST CIRCUIT TRIM (VM)
 - 2011
- 8. LIST OUTAGE FOR CIRCUIT ALONG WITH PERCENTAGE OF TOTAL OUTAGE NUMBERS REPRESENTED BY EACH CAUSE

| Weather | 56.6% |
|---------|-------|
| Off R/W | 40.0% |
| On R/W | 2.1% |
| Unknown | 1.1% |
| Public | 0.1% |

- 9. CIRCUIT 5 YEAR AVERAGE (SAIDI) 254.01
- 10. REPORTING YEAR (SAIDI)
 - 279.17
- 11. CIRCUIT 5 YEAR AVERAGE (SAIFI) 2.51
- 12. REPORTING YEAR (SAIFI)

3.26

LIST OF CORRECTIVE ACTION, IF ANY, TAKEN OR TO BE TAKEN None taken or to be taken. 2 outages on consecutive days accounted for 52% of outage time.

- 1. SUBSTATION NAME AND NUMBER Munfordville (2)
- 2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Hart Co., Hwy 357, Munfordville, KY
- 3. CIRCUIT NAME AND NUMBER Priceville (3)
- 4. CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA) Munfordville - Raider Hollow Rd - Northwest of Munfordville
- 5. TOTAL CIRCUIT MILES (MILES)
- 85.3 6. CUSTOMER COUNT FOR TH
- 6. CUSTOMER COUNT FOR THIS CIRCUIT 559
- 7. DATE OF LAST CIRCUIT TRIM (VM) 2015
- 8. LIST OUTAGE FOR CIRCUIT ALONG WITH PERCENTAGE OF TOTAL OUTAGE NUMBERS REPRESENTED BY EACH CAUSE

| Equipment Failure | 40.51% |
|-------------------|--------|
| Tree Related | 26.48% |
| Public | 23.59% |
| Unknown | 5.87% |
| Weather | 3.56% |
| | |

- 9. CIRCUIT 5 YEAR AVERAGE (SAIDI) 96.48
- 10. REPORTING YEAR (SAIDI) 148.04
- 11. CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.88
- 12. REPORTING YEAR (SAIFI)
 - 1.45
- 13. LIST OF CORRECTIVE ACTION, IF ANY, TAKEN OR TO BE TAKEN ??????

CIRCUIT #6

- 1. SUBSTATION NAME AND NUMBER Temple Hill (3)
- 2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Barren County - Hwy 63 - Temple Hill
- 3. CIRCUIT NAME AND NUMBER Glover Creek (3)
- 4. CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA) Temple Hill - Glover Creek Rd, Hwy 90 and Kino Rd - Temple Hill to Kino
- 5. TOTAL CIRCUIT MILES (MILES)
 - 64.8
- 6. CUSTOMER COUNT FOR THIS CIRCUIT 546
- 7. DATE OF LAST CIRCUIT TRIM (VM)
- Before 2009
- 8. LIST OUTAGE FOR CIRCUIT ALONG WITH PERCENTAGE OF TOTAL OUTAGE NUMBERS REPRESENTED BY EACH CAUSE

| Off R/W | 54.14% |
|-------------------|--------|
| On R/W | 18.23% |
| Public | 13.81% |
| Weather | 9.21% |
| Animal | 2.41% |
| Unknown | 1.65% |
| Equipment Failure | 0.29% |
| Planned | 0.25% |
| | |

- 9. CIRCUIT 5 YEAR AVERAGE (SAIDI) 197.22
- **10. REPORTING YEAR (SAIDI)** 100.67
- 11. CIRCUIT 5 YEAR AVERAGE (SAIFI)
 - 1.25
- 12. REPORTING YEAR (SAIFI)

1.63

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

None taken or to be taken. One circuit level outage was 54% of outage time.

- 1. SUBSTATION NAME AND NUMBER Temple Hill (3)
- 2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Barren Co., Hwy 163, Temple Hill
- 3. CIRCUIT NAME AND NUMBER Roseville (5)
- 4. CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA) Temple Hill - Hwy 63
- 5. TOTAL CIRCUIT MILES (MILES) 42.3
- 6. CUSTOMER COUNT FOR THIS CIRCUIT 262
- 7. DATE OF LAST CIRCUIT TRIM (VM) 2010
- 8. LIST OUTAGE FOR CIRCUIT ALONG WITH PERCENTAGE OF TOTAL OUTAGE NUMBERS REPRESENTED BY EACH CAUSE

| Weather | 38.26% |
|-------------------|--------|
| On R/W | 27.42% |
| Off R/W | 16.16% |
| Planned | 12.09% |
| Equipment Failure | 3.01% |
| Unknown | 2.95% |
| Animal | 0.11% |
| | |

- 9. CIRCUIT 5 YEAR AVERAGE (SAIDI) 203.77
- 10. REPORTING YEAR (SAIDI) 296.74
- 11. CIRCUIT 5 YEAR AVERAGE (SAIFI) 1.90
- 12. REPORTING YEAR (SAIFI)
 - 2.74
- 13. LIST OF CORRECTIVE ACTION, IF ANY, TAKEN OR TO BE TAKEN Circuit will be trimmed in 2018.

CIRCUIT #8

- 1. SUBSTATION NAME AND NUMBER Temple Hill (3)
- 2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Barren Co., Hwy 163, Temple Hill
- 3. CIRCUIT NAME AND NUMBER Temple Hill (6)
- 4. CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA) Temple Hill - Hwy 63
- 5. TOTAL CIRCUIT MILES (MILES) 34.9
- 6. CUSTOMER COUNT FOR THIS CIRCUIT 270
- 7. DATE OF LAST CIRCUIT TRIM (VM) Before 2009
- 8. LIST OUTAGE FOR CIRCUIT ALONG WITH PERCENTAGE OF TOTAL OUTAGE NUMBERS REPRESENTED BY EACH CAUSE

| Weather | 54.55% |
|-------------------|--------|
| Equipment Failure | 29.26% |
| Animal | 11.02% |
| Planned | 3.23% |
| On R/W | 0.59% |
| Off R/W | 0.64% |
| Public | 0.72% |
| | |

- 9. CIRCUIT 5 YEAR AVERAGE (SAIDI) 76.02
- 10. REPORTING YEAR (SAIDI) 61.25
- 11. CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.48
- 12. REPORTING YEAR (SAIFI)

0.58

13. LIST OF CORRECTIVE ACTION, IF ANY, TAKEN OR TO BE TAKEN Circuit will be trimmed in 2018.

- 1. SUBSTATION NAME AND NUMBER Knob Lick (4)
- 2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Metcalfe County - Hwy 70 - Knob Lick
- 3. CIRCUIT NAME AND NUMBER Edmonton (2)
- 4. CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA) Knob Lick to Edmonton, Hwy 1243 and Hwy 80
- 5. TOTAL CIRCUIT MILES (MILES) 49.0
- 6. CUSTOMER COUNT FOR THIS CIRCUIT 311
- 7. DATE OF LAST CIRCUIT TRIM (VM)
 - 2010
- 8. LIST OUTAGE FOR CIRCUIT ALONG WITH PERCENTAGE OF TOTAL OUTAGE NUMBERS REPRESENTED BY EACH CAUSE

| Weather | 50.38% |
|-------------------|--------|
| Unknown | 24.77% |
| Public | 13.12% |
| On R/W | 5.66% |
| Planned | 3.13% |
| Equipment Failure | 2.52% |
| Off R/W | 0.42% |
| | |

- 9. CIRCUIT 5 YEAR AVERAGE (SAIDI) 196.45
- 10. REPORTING YEAR (SAIDI) 164.92
- 11. CIRCUIT 5 YEAR AVERAGE (SAIFI) 1.97
- 12. REPORTING YEAR (SAIFI) 2.24
- **13. LIST OF CORRECTIVE ACTION, IF ANY, TAKEN OR TO BE TAKEN** None taken or to be taken. Two outages were 69% of outage time.

CIRCUIT #10

- 1. SUBSTATION NAME AND NUMBER Knob Lick (4)
- 2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Metcalfe County - Hwy 70 - Knob Lick
- 3. CIRCUIT NAME AND NUMBER Center (4)
- 4. CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA) Knob Lick to Center - Hwy 1243
- 5. TOTAL CIRCUIT MILES (MILES) 115.0
- 6. CUSTOMER COUNT FOR THIS CIRCUIT 686
- 7. DATE OF LAST CIRCUIT TRIM (VM)
 - 2013
- 8. LIST OUTAGE FOR CIRCUIT ALONG WITH PERCENTAGE OF TOTAL OUTAGE NUMBERS REPRESENTED BY EACH CAUSE

| Weather | 68.46% |
|-------------------|-----------------------|
| On R/W | 25.35% |
| Unknown | 3.36% |
| Public | 1.40% |
| Planned | 0.78% |
| Off R/W | 0.49% |
| Equipment Failure | 0.11% |
| Animal | 0.05% |
| | and the second second |

- 9. CIRCUIT 5 YEAR AVERAGE (SAIDI) 273.89
- 10. REPORTING YEAR (SAIDI) 301.21
- 11. CIRCUIT 5 YEAR AVERAGE (SAIFI)
 - 2.15
- 12. REPORTING YEAR (SAIFI)

1.62

13. LIST OF CORRECTIVE ACTION, IF ANY, TAKEN OR TO BE TAKEN None taken or to be taken. 61% of outage time occurred on a MED.

CIRCUIT #11

- 1. SUBSTATION NAME AND NUMBER Beckton (5)
- 2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Barren County - Hwy 1297 - Beckton
- 3. CIRCUIT NAME AND NUMBER Rocky Hill - Barren River State Park (2)
- CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA) Beckton, Rocky Hill, Finney - Hwy 252, Beckton-Rocky Hill Rd - Barren River State Pk
- 5. TOTAL CIRCUIT MILES (MILES) 105.4
- 6. CUSTOMER COUNT FOR THIS CIRCUIT
- 7. DATE OF LAST CIRCUIT TRIM (VM)
 - 2016
- 8. LIST OUTAGE FOR CIRCUIT ALONG WITH PERCENTAGE OF TOTAL OUTAGE NUMBERS REPRESENTED BY EACH CAUSE

| Weather | 82.24% |
|-------------------|--------|
| Unknown | 10.71% |
| Equipment Failure | 4.34% |
| Planned | 1.12% |
| Off R/W | 0.56% |
| Animal | 0.46% |
| On R/W | 0.35% |
| Public | 0.23% |
| | |

- 9. CIRCUIT 5 YEAR AVERAGE (SAIDI)
 - 145.40
- 10. REPORTING YEAR (SAIDI)

234.06

- 11. CIRCUIT 5 YEAR AVERAGE (SAIFI) 1.95
- 12. REPORTING YEAR (SAIFI)

2.51

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

None taken or to be taken. 79% of outage time occurred in 2 outages on same day.

CIRCUIT #12

- 1. SUBSTATION NAME AND NUMBER Cave City (6)
- 2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Barren County - Hwy 90 - Cave City
- 3. CIRCUIT NAME AND NUMBER Cave City (2)
- 4. CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA) Cave City - 165 interchange
- 5. TOTAL CIRCUIT MILES (MILES) 3.61
- 6. CUSTOMER COUNT FOR THIS CIRCUIT 45
- 7. DATE OF LAST CIRCUIT TRIM (VM)
 - 2011
- 8. LIST OUTAGE FOR CIRCUIT ALONG WITH PERCENTAGE OF TOTAL OUTAGE NUMBERS REPRESENTED BY EACH CAUSE

| Equipment Failure | 78.5% |
|-------------------|-------|
| Planned | 21.5% |

- 9. CIRCUIT 5 YEAR AVERAGE (SAIDI)
 - 5.6
- 10. REPORTING YEAR (SAIDI)

20.60

- 11. CIRCUIT 5 YEAR AVERAGE (SAIFI)
- 0.05
- 12. REPORTING YEAR (SAIFI)

0.07

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

None taken or to be taken. Only 2 outages occurred on circuit.

- 1. SUBSTATION NAME AND NUMBER Cave City (6)
- 2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Barren County - Hwy 90 - Cave City
- 3. CIRCUIT NAME AND NUMBER Bear Wallow (3)
- 4. CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA) Cave City, Bear Wallow, Horse Cave - Hwy 70, Old Lexington Rd
- 5. TOTAL CIRCUIT MILES (MILES)
- 60.73 6. CUSTOMER COUNT FOR THIS CIRCUIT 632
- 7. DATE OF LAST CIRCUIT TRIM (VM)
 - 2014
- 8. LIST OUTAGE FOR CIRCUIT ALONG WITH PERCENTAGE OF TOTAL OUTAGE NUMBERS REPRESENTED BY EACH CAUSE

| Off R/W | 80.1% |
|-------------------|-------|
| Weather | 11.5% |
| Equipment Failure | 5.2% |
| On R/W | 3.0% |
| Planned | 0.1% |
| Unknown | 0.1% |
| | |

- 9. CIRCUIT 5 YEAR AVERAGE (SAIDI) 66.51
- 10. REPORTING YEAR (SAIDI)
- 199.50 11. CIRCUIT 5 YEAR AVERAGE (SAIFI)
 - 0.80
- 12. REPORTING YEAR (SAIFI)
 - 1.11
- 13. LIST OF CORRECTIVE ACTION, IF ANY, TAKEN OR TO BE TAKEN None taken or to be taken. 1 outage accounted for 56% of time.

- 1. SUBSTATION NAME AND NUMBER Cave City (6)
- 2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Barren County - Hwy 90 - Cave City
- CIRCUIT NAME AND NUMBER Park City (5)
- 4. CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA) Cave City, Hwy 31-W, Cave City - Park City
- 5. TOTAL CIRCUIT MILES (MILES) 22.6
- 6. CUSTOMER COUNT FOR THIS CIRCUIT 426
- 7. DATE OF LAST CIRCUIT TRIM (VM) 2014
- 8. LIST OUTAGE FOR CIRCUIT ALONG WITH PERCENTAGE OF TOTAL OUTAGE NUMBERS REPRESENTED BY EACH CAUSE

| Weather | 94.74% |
|-------------------|--------|
| Planned | 3.92% |
| Equipment Failure | 1.33% |

- 9. CIRCUIT 5 YEAR AVERAGE (SAIDI) 19.33
- 10. REPORTING YEAR (SAIDI) 28.86
- 11. CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.24
- 12. REPORTING YEAR (SAIFI)
 - 0.29
- 13. LIST OF CORRECTIVE ACTION, IF ANY, TAKEN OR TO BE TAKEN None taken or to be taken. 2 outages accounted for 81% of outage time.

CIRCUIT #15

- 1. SUBSTATION NAME AND NUMBER Parkway (7)
- 2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Barren County - Hwy 31E - Glasgow, KY
- 3. CIRCUIT NAME AND NUMBER Pritchardsville (2)
- 4. CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA) Glasgow, KY -Pritchardsville, South Fork Rd - South of Glasgow, KY
- 5. TOTAL CIRCUIT MILES (MILES)
- 19.8 6. CUSTOMER COUNT FOR THIS CIRCUIT
 - 406
- 7. DATE OF LAST CIRCUIT TRIM (VM)
- Before 2009
- 8. LIST OUTAGE FOR CIRCUIT ALONG WITH PERCENTAGE OF TOTAL OUTAGE NUMBERS REPRESENTED BY EACH CAUSE

| On R/W | 93.75% |
|---------|--------|
| Public | 4.56% |
| Animal | 0.88% |
| Weather | 0.35% |
| Unknown | 0.34% |
| Off R/W | 0.11% |

- 9. CIRCUIT 5 YEAR AVERAGE (SAIDI) 49.29
- 10. REPORTING YEAR (SAIDI) 218.12
- 11. CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.66
- 12. REPORTING YEAR (SAIFI)
 - 0.29

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

None taken or to be taken. One outage accounted for 89% of outage time.

CIRCUIT #16

- 1. SUBSTATION NAME AND NUMBER Galloway (8)
- 2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Metcalfe County, Hwy 68-80, Edmonton
- 3. CIRCUIT NAME AND NUMBER Edmonton (1)
- 4. CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA) Edmonton, Hwy 68-80, Serves the city of Edmonton and surronding area
- 5. TOTAL CIRCUIT MILES (MILES) 175.6
- 6. CUSTOMER COUNT FOR THIS CIRCUIT
- 7. DATE OF LAST CIRCUIT TRIM (VM)
 - 2015
- 8. LIST OUTAGE FOR CIRCUIT ALONG WITH PERCENTAGE OF TOTAL OUTAGE NUMBERS REPRESENTED BY EACH CAUSE

| 0- 044/ | 20 150/ |
|-------------------|---------|
| On R/W | 38.15% |
| Equipment Failure | 32.36% |
| Planned | 27.02% |
| Weather | 2.32% |
| Public | 0.12% |
| Animal | 0.03% |

- 9. CIRCUIT 5 YEAR AVERAGE (SAIDI)
 - 87.19
- 10. REPORTING YEAR (SAIDI) 145.64
- 11. CIRCUIT 5 YEAR AVERAGE (SAIFI) 1.05
- 12. REPORTING YEAR (SAIFI)
 - 2.09
- 13. LIST OF CORRECTIVE ACTION, IF ANY, TAKEN OR TO BE TAKEN

This circuit is on the plan to be trimmed out this year (2018).

CIRCUIT #17

- 1. SUBSTATION NAME AND NUMBER Galloway (8)
- 2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Metcalfe County, Hwy 68-80, Edmonton
- 3. CIRCUIT NAME AND NUMBER Edmonton (2)
- 4. CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA) Edmonton, Hwy 68-80 - Hwy 640, Wisdom and Randolph
- 5. TOTAL CIRCUIT MILES (MILES)
- 95.2 6. CUSTOMER COUNT FOR THIS CIRCUIT
- 817
- 7. DATE OF LAST CIRCUIT TRIM (VM)
 - 2011
- 8. LIST OUTAGE FOR CIRCUIT ALONG WITH PERCENTAGE OF TOTAL OUTAGE NUMBERS REPRESENTED BY EACH CAUSE

| Equipment Failure | 35.35% |
|-------------------|--------|
| On R/W | 21.55% |
| Off R/W | 17.08% |
| Weather | 11.27% |
| Unknown | 8.72% |
| Planned | 4.46% |
| Animal | 1.57% |
| | |

- 9. CIRCUIT 5 YEAR AVERAGE (SAIDI) 115.58
- 10. REPORTING YEAR (SAIDI) 118.04
- 11. CIRCUIT 5 YEAR AVERAGE (SAIFI) 1.20
- 12. REPORTING YEAR (SAIFI) 1.63

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

The right of way is scheduled to be trimmed out in 2019. With only a 2% increase over the five year average, The current schedule will be followed

CIRCUIT #18

- 1. SUBSTATION NAME AND NUMBER Fox Hollow (12)
- 2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Barren County - Hwy 63 - Glasgow, KY
- 3. CIRCUIT NAME AND NUMBER Hollow Rd - Lecta (3)
- 4. CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA) Glasgow, KY - Hy 90, Hwy 68-80, Lecta
- 5. TOTAL CIRCUIT MILES (MILES) 91.0
- 6. CUSTOMER COUNT FOR THIS CIRCUIT 1112
- 7. DATE OF LAST CIRCUIT TRIM (VM)
 - 2013
- 8. LIST OUTAGE FOR CIRCUIT ALONG WITH PERCENTAGE OF TOTAL OUTAGE NUMBERS REPRESENTED BY EACH CAUSE

| On R/W | 87.01% |
|---------------------|--------|
| Off R/W | 3.45% |
| Weather | 2.96% |
| Unknown | 2.48% |
| Planned | 1.88% |
| Equipment Failure | 1.14% |
| Animal | 0.90% |
| Public | 0.18% |
| T - VEAD AVEDAGE (O | |

- 9. CIRCUIT 5 YEAR AVERAGE (SAIDI) 118.66
- 10. REPORTING YEAR (SAIDI)
 - 147.62
- 11. CIRCUIT 5 YEAR AVERAGE (SAIFI)
- 1.51
- 12. REPORTING YEAR (SAIFI)

1.52

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

None taken or to be taken. 1 circuit level outage caused 42% of outage time.

- 1. SUBSTATION NAME AND NUMBER Fox Hollow (12)
- 2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Barren County - Hwy 63 - Glasgow, KY
- 3. CIRCUIT NAME AND NUMBER Green Valley (4)
- 4. CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA) Glasgow, KY - Hy 90 - Green Valley
- 5. TOTAL CIRCUIT MILES (MILES) 25.1
- 6. CUSTOMER COUNT FOR THIS CIRCUIT 429
- 7. DATE OF LAST CIRCUIT TRIM (VM)
 - 2013
- 8. LIST OUTAGE FOR CIRCUIT ALONG WITH PERCENTAGE OF TOTAL OUTAGE NUMBERS REPRESENTED BY EACH CAUSE

| Animal | 98.76% |
|-------------------|--------|
| Equipment Failure | 1.04% |
| Other | 0.20% |

- 9. CIRCUIT 5 YEAR AVERAGE (SAIDI)
- 0.00
- 10. REPORTING YEAR (SAIDI)
- 71.81 11. CIRCUIT 5 YEAR AVERAGE (SAIFI)
- 0.00
- 12. REPORTING YEAR (SAIFI) 1.02
- 13. LIST OF CORRECTIVE ACTION, IF ANY, TAKEN OR TO BE TAKEN None taken or to be taken. New circuit, establishing 5 yr average.

CIRCUIT #20

- 1. SUBSTATION NAME AND NUMBER Edmonton Industrial (13)
- 2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Metcalfe County - Industrial Dr - Edmonton, KY
- 3. CIRCUIT NAME AND NUMBER Edmonton Industrial Park (2)
- 4. CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA) Edmonton, KY - Industrial Drive - Edmonton Industrial Park - Carhartt
- 5. TOTAL CIRCUIT MILES (MILES) 0.7
- 6. CUSTOMER COUNT FOR THIS CIRCUIT 9
- 7. DATE OF LAST CIRCUIT TRIM (VM) Before 2009
- 8. LIST OUTAGE FOR CIRCUIT ALONG WITH PERCENTAGE OF TOTAL OUTAGE NUMBERS REPRESENTED BY EACH CAUSE 100.0%
 - Animal
- 9. CIRCUIT 5 YEAR AVERAGE (SAIDI) 4.38
- 10. REPORTING YEAR (SAIDI)
 - 21.33
- 11. CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.03
- 12. REPORTING YEAR (SAIFI)

0.33

13. LIST OF CORRECTIVE ACTION, IF ANY, TAKEN OR TO BE TAKEN None taken or to be taken. Industrial circuit, only 1 outage.

CIRCUIT #21

- 1. SUBSTATION NAME AND NUMBER Bon Ayr (16)
- 2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Barren County - Hwy 68-80 - Glasgow, KY
- 3. CIRCUIT NAME AND NUMBER Dripping Springs (1)
- 4. CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA) Glasgow - Hwy 68-80, Dripping Springs Rd, Carden Rd - Dripping Springs
- 5. TOTAL CIRCUIT MILES (MILES) 24.4
- 6. CUSTOMER COUNT FOR THIS CIRCUIT 355
- 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 | 87.01% |
|---------|--------|
| Weather | 12.76% |
| On R/W | 0.13% |
| Animal | 0.09% |

- 9. CIRCUIT 5 YEAR AVERAGE (SAIDI)
 - 76.32
- 10. REPORTING YEAR (SAIDI) 96.56
- 11. CIRCUIT 5 YEAR AVERAGE (SAIFI)
 - 0.78
- 12. REPORTING YEAR (SAIFI)
 - 1.19
- 13. LIST OF CORRECTIVE ACTION, IF ANY, TAKEN OR TO BE TAKEN

None taken or to be taken. New substation brought online in 2013 still establishing 5yr average.

CIRCUIT #22

- 1. SUBSTATION NAME AND NUMBER Bon Ayr
- 2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Barren County - Hwy 68-80 - Glasgow, KY
- 3. CIRCUIT NAME AND NUMBER Park City (3)
- 4. CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA) Park City, KY - Bon Ayr - Park City Rd - Park City
- 5. TOTAL CIRCUIT MILES (MILES) 51.7
- 6. CUSTOMER COUNT FOR THIS CIRCUIT 405
- 7. DATE OF LAST CIRCUIT TRIM (VM)
 - 2014
- 8. LIST OUTAGE FOR CIRCUIT ALONG WITH PERCENTAGE OF TOTAL OUTAGE NUMBERS REPRESENTED BY EACH CAUSE

| On R/W | 51.65% | |
|-------------------|--------|--|
| Equipment Failure | 42.17% | |
| Animal | 1.93% | |
| Public | 1.46% | |
| Weather | 1.39% | |
| Other | 1.26% | |
| Planned | 0.15% | |
| | | |

- 9. CIRCUIT 5 YEAR AVERAGE (SAIDI) 23.26
- 10. REPORTING YEAR (SAIDI) 85.97
- 11. CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.22
- 12. REPORTING YEAR (SAIFI)

0.75

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

None taken or to be taken. New substation brought online in 2013 still establishing 5yr average.

CIRCUIT #23

- 1. SUBSTATION NAME AND NUMBER Jonesville
- 2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Hart County - Hwy 357 - Munfordville, KY
- 3. CIRCUIT NAME AND NUMBER Hammondsville (1)
- 4. CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA) Munfordville, KY - Hwy 357 - Hammondsville
- 5. TOTAL CIRCUIT MILES (MILES)
- 55.6
- 6. CUSTOMER COUNT FOR THIS CIRCUIT 338
- 7. DATE OF LAST CIRCUIT TRIM (VM)
 - 2014
- 8. LIST OUTAGE FOR CIRCUIT ALONG WITH PERCENTAGE OF TOTAL OUTAGE NUMBERS REPRESENTED BY EACH CAUSE

| Public | 47.73% |
|-------------------|--------|
| Off R/W | 39.51% |
| Weather | 7.13% |
| Unknown | 2.70% |
| Planned | 2.47% |
| Animal | 0.28% |
| Equipment Failure | 0.18% |
| | |

- 9. CIRCUIT 5 YEAR AVERAGE (SAIDI) 210.65
- 10. REPORTING YEAR (SAIDI) 166.81
- 11. CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.98
- 12. REPORTING YEAR (SAIFI)

1.53

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

None taken or to be taken. New substation brought online in 2014 still establishing 5yr average.

CIRCUIT #24

- 1. SUBSTATION NAME AND NUMBER Jonesville (17)
- 2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Hart County - Hwy 357 - Munfordville, KY
- 3. CIRCUIT NAME AND NUMBER Seymour (3)
- 4. CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA) Munfordville to Canmer - Hwy 357, Hwy 31-E - Hwy 357 to east of Canmer
- 5. TOTAL CIRCUIT MILES (MILES) 117.4
- 6. CUSTOMER COUNT FOR THIS CIRCUIT 642
- 7. DATE OF LAST CIRCUIT TRIM (VM)
 - 2015
- 8. LIST OUTAGE FOR CIRCUIT ALONG WITH PERCENTAGE OF TOTAL OUTAGE NUMBERS REPRESENTED BY EACH CAUSE

| Equipment Failure | 83.70% |
|-------------------|--------|
| Weather | 10.42% |
| Animal | 2.98% |
| On R/W | 1.58% |
| Unknown | 0.98% |
| Public | 0.19% |
| Planned | 0.10% |
| Off R/W | 0.0% |
| | |

- 9. CIRCUIT 5 YEAR AVERAGE (SAIDI) 196.10
- 10. REPORTING YEAR (SAIDI) 252.92
- 11. CIRCUIT 5 YEAR AVERAGE (SAIFI)
- 0.53
- 12. REPORTING YEAR (SAIFI)

1.44

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

None taken or to be taken. New substation brought online in 2014 still establishing 5yr average.

CIRCUIT #25

- 1. SUBSTATION NAME AND NUMBER Roseville (18)
- 2. SUBSTATION LOCATION (COUNTY-ROAD-TOWN) Barren County - Roseville Rd - Glasgow, KY
- 3. CIRCUIT NAME AND NUMBER Etoile (1)
- 4. CIRCUIT LOCATION (TOWN-ROAD-GENERAL AREA) Etoile to Barren River State Park - Tobacco Rd, Hwy 31-E
- 5. TOTAL CIRCUIT MILES (MILES) 119.0
- 6. CUSTOMER COUNT FOR THIS CIRCUIT 739
- 7. DATE OF LAST CIRCUIT TRIM (VM)
 - 2010
- 8. LIST OUTAGE FOR CIRCUIT ALONG WITH PERCENTAGE OF TOTAL OUTAGE NUMBERS REPRESENTED BY EACH CAUSE

| Unknown | 99.19% |
|---------|--------|
| Planned | 0.81% |

- 9. CIRCUIT 5 YEAR AVERAGE (SAIDI) 0.00
- 10. REPORTING YEAR (SAIDI)
 - 12.42
- 11. CIRCUIT 5 YEAR AVERAGE (SAIFI) 0.00
- 12. REPORTING YEAR (SAIFI)

0.01

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

None taken or to be taken. New substation brought online in 2017 still establishing 5yr average.

Electric Distribution Utility Annual Reliability Report

Additional pages may be attached as necessary SECTION 7: VEGETATION MANAGEMENT PLAN REVIEW

KENTUCKY PUBLIC SERVICE COMMISSION

Electric Distribution Utility Annual Reliability Report Additional pages may be attached as necessary

SECTION 7: VEGETATION MANAGEMENT PLAN REVIEW

Farmers RECC Vegetation Management Plan for 2018

Farmers RECC will be committed to its members by providing safe reliable electricity For 2018 we have contracted with Environmental Consultants Inc. (ECI) to help oversee and manage our Right-Of-Way program.

In 2018 we will work on three circuits. We have contracted with A&G Tree Service and to clear the following circuits.

- Temple Hill Etoile has 54 miles of line
- Temple Hill Roseville has 160 miles of line
- Galloway Edmonton has 156 miles of line Total Miles = 387 miles of line

We also have one A&G crew working hot spots & yard tress. They are cutting Right – Of - Way for new work orders.

We have contracted with Sage for Herbicide spraying on the following 6 circuits.

- Parkway Haywood has 47 miles of line
- Bonnieville Priceville has 43 miles of line
- Temple Hill Summershade has 126 miles of line
- Temple Hill Green Valley has 19 miles of line
- Temple Hill Clover Creek has 64 miles of line
- Temple Hill Temple Hill has 34 miles of line

Total Miles = 333 miles of line

By implementing this work plan we can keep our commitment to our members and provide a safe reliable service.

SECTION 8: UTILITY COMMENTS

